

**DRAFT – For Discussion Only**  
**Existing and Preliminary Recommended Strategies to Reduce Emissions and Protect Community Health in West Oakland**  
**Ideas from Steering Committee Jan 9, 2019 Exercise in Blue**

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## Section 1: Land Use Strategies

### Nonconforming Uses

Nonconforming auto repair and trucking facilities can remain in the West Oakland Community indefinitely under certain circumstances per the City of Oakland Planning Code. Setting limits on how long they can remain in the community will reduce community members direct exposure to toxic air contaminants and fine particulate matter.

#### **Benefits/Outcomes:**

Reduce exposure to diesel PM and other toxic air contaminants.

#### **Existing Authorities:**

*Ordinances:*

City of Oakland Planning Code

*Enforcement:*

City of Oakland Code Enforcement

#### **Existing Strategies/Policies:**

##### West Oakland Specific Plan:

- City of Oakland's S-19 Health and Safety Protection Combining Zone Regulations
- Relocate operations of California Waste Solutions & CASS, Inc. to the Oakland Army Base
- Identify new locations for industrial uses outside of West Oakland

#### **Recommended Strategies for the West Oakland Action Plan:**

##### Ordinances:

1. Amend existing City of Oakland Ordinances and policies to accelerate the relocation out of West Oakland of nonconforming auto and truck-related activities that create conflicts in neighborhood.
2. New Ordinance to address need for building design to address filtration.

##### Funding:

3. Provide loans and subsidies to move freight services and non-conforming businesses out of West Oakland.

## Conditional Use Permits

Prohibit freight and trucking uses within West Oakland by amending the land development codes and zoning ordinance to prohibit all related activities.

### **Benefits/Outcomes:**

Reduce exposure to diesel PM and other toxic air contaminants.

### **Existing Authorities:**

*Ordinances:* City of Oakland Land Development and Zoning Ordinances

*Enforcement:* City of Oakland

### **Existing Strategies/Policies:**

- City of Oakland Land Development and Zoning Ordinances

### **Recommended Strategies for the West Oakland Action Plan:**

#### Ordinances:

1. Amend the Building Codes and/or Zoning Ordinance to list freight and trucking related businesses as prohibited uses within West Oakland.

## Green Infrastructure (Tree planting, safer streets for bike/ped)

Tree planting and other types of greening infrastructure can minimize exposure to pollutants by filtering particulate matter from the air and reducing the public's exposure to air pollution.

### **Benefits/Outcomes:**

Reduce exposure to diesel PM and other toxic air contaminants.

### **Existing Authorities:**

*Local Ordinances/Policies:* City of Oakland

*Enforcement:* City of Oakland

### **Existing Strategies/Policies:**

#### West Oakland Specific Plan:

- Establish bike routes and lanes, install wayfinding signs, safe routes to schools, update citywide bike plan.

### **Recommended Strategies for the West Oakland Action Plan:**

#### Permitting:

1. Require on-site renewable energy generation of at least 5% of a project's energy use.
2. Require the implementation of as many transportation demand management (TDM) strategies as feasible by developers of new buildings.
3. [Advocate for the City to require City projects to include green infrastructure.](#)

#### Funding:

4. Incentives for local businesses and homeowners to install solar power coupled with energy storage systems (e.g. batteries).
5. Incentives to improve residential energy efficiency.
6. Incentives for discounts on pedal and electric bicycle and cargo bicycle rental and purchase.
7. Incentives to improve residential energy efficiency.

#### Collaboration:

8. [Work with local business support agencies and community members to develop a Plan to attract innovative green companies.](#)

9. Create Green West Oakland Guidelines.

Other:

10. Set aside land for green infrastructure, transit and truck charging stations.
11. Implement a program for temporarily closing streets next to schools to keep cars and trucks away from arriving and departing students.
12. Expand Safe Routes to Schools program.
13. Advocacy for West Oakland Specific Plan (adopted) and West Oakland Truck Management Plan (proposed) measures.
14. Create an area-wide urban canopy/forest plan; advocate for City to make commit to maintaining street trees.
15. Construct vegetative biofilters between pollution sources and land uses that serve people.
16. Support request for a neighborhood lobbyist to advocate for West Oakland's fair share of resources.
17. Remove barriers to adoption of zero-emission trucks, such as cost, land, and issues around ownership of charging equipment.
18. Advocate for the City to address gentrification and the pricing out of long-term residents.

## Inter-Agency Collaboration

The County of Alameda, the City of Oakland, the Port of Oakland, BAAQMD and CARB can work together to share resources, information, and enforcement duties to reduce both emissions and exposure to emissions in West Oakland.

### **Benefits/Outcomes:**

Reduce exposure to diesel PM and other toxic air contaminants.

### **Existing Authorities:**

*Local Ordinances/Policies:* City of Oakland

*Existing Enforcement:* City of Oakland

### **Existing Strategies/Policies:**

### **Recommended Strategies for the West Oakland Action Plan:**

1. Create a Sustainable Freight Advisory Committee within the City of Oakland Mayor's office that includes representatives from each of these agencies to provide recommendations to each agency's governing board or council.
2. Undertake participatory budgeting with West Oakland community members to allocate local health improvement grants.
3. Coordinate with DMV, Caltrans and PG&E regarding discussions about air quality in West Oakland.
4. Include truckers (including owner-operators) in discussions about air quality in West Oakland, specifically about how to improve the Port appointment system, develop charging infrastructure and suitable rates, and develop land-use restrictions in industrial areas.
5. Support better communication between Oakland Police Department, Oakland Parking Department, Bay Area Air Quality Management District (BAAQMD) and California Air Resources Board (CARB) regarding enforcement.

## Section 2: Truck Strategies (On-road)

### Truck, equipment and Bus Idling

Minimize or eliminate idling of diesel trucks, buses and equipment, particularly in and around residential neighborhoods to reduce community members direct exposure to toxic air contaminants and fine particulate matter.

#### **Benefits/Outcomes:**

Reduce emissions and exposure to diesel PM and other toxic air contaminants.

#### **Existing Authorities:**

*Statewide Regulations:* California Air Resources Board (CARB) adopts regulations for all vehicle and truck emissions

*Enforcement:* California Air Resources Board  
Air District

#### **Existing Regulations/Strategies:**

##### Regulations:

- CARB adopted a statewide regulation for truck idling. CARB's Truck Idling Rule prohibits large trucks and buses that are not Clean Idle certified from idling more than 5 minutes. School buses must be shut down immediately upon arriving at a school and must depart within 30 seconds of re-starting of the engine.

##### Enforcement:

- California Air Resources Board enforces idling rules.
- Air District enforces idling rules through a Memorandum of Understanding with CARB.
- Local Police and Sherriff Departments, the California Highway Patrol and other designated Peace Officer may also enforce the idling regulations.

#### **Recommended Strategies for the West Oakland Action Plan:**

##### Statewide Regulations:

1. Advocate and support CARB rule-making activities.
2. Encourage CARB to amend the existing truck idling regulation to be consistent with the current school bus idling restrictions.

3. Ban trucks that are not complying with CARB regulations.

Enforcement:

4. Develop a joint task force with City and Port of Oakland, Air District, and CARB to enhance/increase enforcement activity of existing and future idling regulations.
5. In partnership with CARB, develop a program to “find and fix” trucks that can idle and run cleaner with equipment fixes.
6. Work towards more coordination and education, including for the Oakland Police Department (OPD). For example, to address roles and expectations for CROs (Community Resource Officers) on duty/patrol vs. on call.
7. Connect idling violations with enforcement of the Urban Blight/Nuisance Ordinance.
8. Work towards idling enforcement spot inspections weekly or more frequently.
9. Require “Clean Idle” trucks to meet the 5-minute idling regulation when within the Port area and within an AB617 designated community.

Ordinance:

10. Encourage the City of Oakland to require by ordinance or via conditions of approval for building permits the installation of infrastructure to allow trucks to run transportation refrigeration units with electricity.
11. Require the electrification of all loading docks to facilitate plug-in capability and require trucks to utilize grid power to deliver goods.
12. Consider using GPS to identify where trucks idle.

Research:

13. Determine if trucks in West Oakland are registered in California, have the required emissions equipment, and consider if low-NOx CNG trucks a better technology fit for businesses in West Oakland and drayage operators.



## Truck Parking

Prohibiting the parking of heavy-duty trucks on residential streets can reduce land use conflicts, reduce blight, and improve conditions for safe walking and cycling.

### **Benefits/Outcomes:**

Reduced emissions and exposure of diesel PM and other toxic air contaminants.

### **Existing Authorities:**

Ordinances: City of Oakland  
Enforcement: City of Oakland

### **Existing Ordinances/Policies:**

#### West Oakland Specific Plan:

- Control parking on targeted streets.

#### West Oakland Truck Management Plan (proposed):

- Improve signage, update routing, apply parking restrictions to more streets, increase parking fines; City will provide targeted enforcement at specific times and locations.

#### City of Oakland Ordinances:

- City of Oakland Parking, Street and Road Ordinances

### **Recommended Strategies for the West Oakland Action Plan:**

#### Implement Existing Ordinances/Plans:

1. Advocacy for expedited implementation of existing parking ordinances and parking policies in the West Oakland Specific Plan.

#### Strengthen Proposed Plans:

2. Work with City of Oakland on strengthening the parking related measures in the proposed draft West Oakland Truck Management Plan.
3. Encourage a program of continuous improvement of parking control strategies in cooperation with trucking firms and owner-operators, beneficial cargo owners, and residents.
4. Work with the Port of Oakland to strengthen the parking related measures in the proposed draft 2020 and Beyond Air Quality Plan.

Enforcement:

1. Enforcement should include 7<sup>th</sup> Street and spots off main streets (such as Maritime) where trucks lay-over between container moves.

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## Truck Routes

Designate Truck Routes in West Oakland that do not include local residential streets.

### **Benefits/Outcomes:**

Reduce exposure to diesel PM and other toxic air contaminants.

### **Existing Authorities:**

*Ordinance:* City of Oakland.

*State Law:* Streets and Highways Code.

### **Existing Regulations/Strategies:**

#### West Oakland Specific Plan:

- Control parking

#### West Oakland Truck Management Plan (proposed):

- Overview of strategies: Improve signage, update routing, apply parking restrictions to more streets, increase parking fines, City will provide targeted enforcement at specific times & locations.

#### City of Oakland:

- Parking Ordinances, Street and Road Ordinances

### **Recommended Strategies for the West Oakland Action Plan:**

#### Collaboration:

1. Create Mayor's Sustainable Freight Advisory Committee to provide oversight and input on Port and City Planning efforts.

#### Implement Existing Ordinances/Plans:

2. Advocacy for expedited implementation of existing ordinances and policies related to truck routes.

#### Strengthen Proposed Plans:

3. Work with City of Oakland on revising the truck routes and enforcement measures in the proposed draft West Oakland Truck Management Plan.
4. Work with the Port of Oakland to revise the measures in the proposed draft Beyond 2020 Air Quality plan to support the City's Truck Management Plan.

Research:

1. Determine if the Grand Avenue Bus Rapid Transit project will create more emissions due to more truck and car idling/congestion and mitigate with policies if needed.
2. Determine if I-580 should allow truck traffic, if I-880 should include a designated truck lane. Advocate for these changes if determined to reduce emissions and exposure to air pollution in West Oakland.

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## Zero and Lower Emission Trucks

Require zero emission trucks at the Port of Oakland and within West Oakland to decrease the community's exposure to diesel PM and regional air pollutants.

### **Benefits/Outcomes:**

Reduce emissions of diesel PM, other toxic air contaminants and regional air pollutants.

### **Existing Authorities:**

*Regulations:* California Air Resources Board adopts vehicle and truck emission standards and drayage truck regulations.

*Enforcement:* California Air Resources Board  
Air District

### **Existing Regulations/Strategies:**

#### Port Truck Rule:

- All trucks entering the Port must have 2010 model year engines that include diesel particulate filters

#### TRU/Reefer Rule:

- Must meet existing in-use performance standards

#### DMV Compliance Verification:

- Starting January 1, 2020, the Department of Motor Vehicles will no longer register trucks that are not compliant with CARB's Truck and Bus Regulation

#### Funding:

- Carl Moyer Program offers incentives to fleet owners to replace old, dirty engines

### **Recommended Strategies for the West Oakland Action Plan:**

#### Advocacy to Revise/Amend Existing Regulations/Policies:

1. Advocate for an amendment to CARB regulations or for new legislation to require zero emission drayage trucks by 2030.
2. Advocate for AC Transit to convert its fleet to zero emissions busses.
3. Advocate for the City to revise its draft Truck Management Plan and the Port to revise its draft 2020 and Beyond Air Quality Plan to aggressively phase in zero emission trucks and infrastructure.
4. Promote use of Class 5-7 zero-emission trucks.

5. Advocate for PG&E and other utilities to rationalize electric rates.
6. Support development of fast-charging facilities, better land use support for electric trucks, and an infrastructure plan to address implementation of charging facilities.

Funding:

7. **Funding for electric buses is needed.** Advocate for AC Transit to apply for all available funding to convert its fleet to zero emissions busses.
8. Streamline the State and Air District's process for small fleet owners to obtain funding to buy new trucks. **Prioritize, streamline, and assist small businesses with applications.**
9. Seek other funding sources in coordination with the Port of Oakland, the City of Oakland, Alameda County Transportation Commission, the Metropolitan Transportation Commission, and the State of California.
10. **Funding for electric vehicles is needed.** Support the continuation of the West Oakland Zero-Emission Grant Program by BAAQMD.
11. The BAAQMD and California Air Resources Board will increase Incentives low-emission and electric Transportation Refrigeration Units.
12. **Support the development of incentives for zero-emission drayage trucks before the drayage rule is implemented between 2026 and 2028; this could include intermediate measures instead of full zero-emission trucks.**

## Charging Stations and Infrastructure

Substantially increase the number of charging stations for zero emissions vehicles in West Oakland.

### **Benefits/Outcomes:**

Reduce emissions of diesel PM, other toxic air contaminants, greenhouse gases and regional air pollutants.

### **Existing Authorities:**

*Ordinances:* City of Oakland

*Enforcement:* City of Oakland

### **Existing Ordinances/Strategies:**

*Ordinance:* City of Oakland Development Codes/Ordinances

### **Recommended Strategies for the West Oakland Action Plan:**

#### Amend Existing Development Codes/Ordinances:

1. Advocate for the City of Oakland to amend its development codes/ordinances to require electric truck charging stations at the Port and where trucks are allowed in West Oakland.

#### Amend the proposed draft 2020 and Beyond Air Quality Plan:

2. Work with the Port of Oakland to revise their draft 2020 and Beyond Air Quality Plan to require all tenants to install truck charging stations.

#### Funding:

3. BAAQMD Charge! Program
4. Pacific Gas & Electric
5. California Energy Commission
6. CARB VW Penalty funds
7. CPUC and ERG Penalty funds
8. BAAQMD West Oakland Zero-Emission Grant Program

#### Infrastructure:

9. Support trucker services and parking to keep trucks off West Oakland streets.
10. Address the effects of increasing visits from larger container ships at the Port, which can change truck flow, points of congestion, require more truck

movements in a short period of time, and increase the need for space for trucks to dwell.

11. Support additional parking for trucks at Jack London Square.
12. Consider new technology, such as GPS data collection, that may help mitigate truck parking impacts.
13. Consider a shuttle load alternate (an offsite location where trucks can unload instead of at the Port, followed by a separate shuttle truck transfer of the load to the Port).
14. Collaborate with owner-operators on electric infrastructure design.

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## Roadways

Implement a series of design changes to local streets so that they are designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities.

### **Benefits/Outcomes:**

Reduce diesel PM and other air toxics, NOx, GHGs

### **Existing Authorities:**

Ordinances: City of Oakland

Enforcement: City of Oakland  
California Highway Patrol

### **Existing Policies/Laws:**

#### West Oakland Specific Plan:

- Control parking, GoPort 7<sup>th</sup> St Grade Separation, improve truck routes, implement a traffic calming program on residential streets.

### **Recommended Strategies for the West Oakland Action Plan:**

#### Implementation of proposed and existing plans:

1. Advocacy for West Oakland Specific Plan (adopted) and West Oakland Truck Management Plan (proposed) measures.
2. The West Oakland Walk (W.O.W.) is a “found” design that is intended to help transform the way people see and use Oakland by capitalizing on the unification of substantial in-place public and private infrastructure with a single large-scale geometric stroke.
3. The City of Oakland's Pedestrian Plan recommends eight (8) measures or treatments of intersections with signals: 1) Add Exclusive Pedestrian Phasing; 2) Restrict Right turns on red; 3) Protected right turn phase; 4) Modify Signal Timing; 5) Protected/Permissive Phasing; 6) Install Pedestrian Countdown Timers; 7) Implement Leading Pedestrian Interval; 8) Implement Flashing Yellow Arrow.
4. The City of Oakland's Pedestrian Plan recommends seven (7) measures or treatments of intersections with Stop Signs: 1) Install Raised intersections or Pedestrian Crossings; 2) Install raised pedestrian refuge islands; 3) Install "Yield

- for Pedestrians" signs; 4) Stripe advance yield lines; 5) Restrict parking at intersection approaches; 6) Provide better lighting; 7) Reduce Corner Radii.
5. The City of Oakland's Pedestrian Plan recommends eight (8) measures or treatments for mid-block crossing: 1) Install a pedestrian signal; 2) Install a pedestrian hybrid beacon; 3) Install rectangular rapid flashing beacon; 4) Install a crossing island; 5) install curb extensions; 6) Install a raised pedestrian crossing; 7) Install high visibility crosswalk markings; 8) Implement a "road diet" by reducing the number of vehicular lanes.
  6. Improve Safety at Street Intersections Near the Port, including Union St at 5th and 7th Sts and Adeline St. at 3rd, 5th, and 7th Sts. for pedestrians and cyclists. Possible improvements include high-visibility crosswalks and bike crossings, ped/bike signals, improved signage, and ped refuges/islands.
  7. Change allowable weight limits on local streets in City and Port ordinances to allow single-axle trucks to move containers on Maritime and other public streets within the Port.
  8. Consider creating incentives for "truck turns," the practice of hauling loaded containers on each leg of a Port roundtrip.
  9. Address deferred maintenance issues, such as pot holes.

## Section 3: Other Mobile Sources

### Transit

Access to transit services will help West Oakland community members reach jobs, education, recreation, and health services.

#### **Benefits/Outcomes:**

Reduce diesel PM and other air toxics, NOx, GHGs, improve community access to jobs, resources and health care

#### **Authorities:**

##### Rules:

#### **Existing Regulations/Strategies:**

##### West Oakland Specific Plan:

- Enhance transit service, BART station improvements, expand shuttle/transit service, connect West Oakland to nearby jobs destinations and transit.

##### Funding:

- Transportation Fund for Clean Air
- Regional Measure 3
- Alameda County 1/2 cent sales tax revenues (Measure B and BB)

#### **Recommended Strategies for the West Oakland Action Plan:**

1. [Funding for electric buses is needed.](#) Advocate for AC Transit to apply for all available funding to convert its fleet to zero emissions busses
2. [Determine if the Grand Avenue Bus Rapid Transit project will create more emissions due to more truck and car idling/congestion and mitigate with policies if needed](#)
3. Set aside land for green infrastructure, transit and truck charging stations.
4. Advocate and support CARB rule-making activities.

## Ships

Work towards deployment of zero-emissions technology in harbor craft and ocean-going vessels to reduce both emissions and exposure to emissions.

### **Benefits/Outcomes:**

Reduce diesel PM, other toxic air contaminants, regional pollutants and greenhouse gases.

### **Existing Authorities:**

*Regulations:* CARB, U.S. EPA

*Enforcement:* CARB/U.S. EPA

### **Existing Regulations/Strategies:**

#### Regulations:

- At-Berth Regulation (CARB)
- In-Use Regulation for Harbor Craft (CARB)
- Emissions Standards for New Vessels (U.S. EPA/IMO)

#### Funding:

- Proposition 1b Grants for Shore-Power
- Grants for Tier 3 or 4 engines in tugboats

### **Recommended Strategies for the West Oakland Action Plan:**

#### Advocate for Changes to Existing Regulations:

1. Advocate for amendments to the CARB At-Berth Regulation to require the control of emissions from 100% of container ship visits by 2021.

## Rail

Work towards deployment of zero-emissions technology in long-haul and yard locomotive engines to reduce both emissions and exposure to emissions.

### **Benefits/Outcomes:**

Reduce diesel PM, other toxic air contaminants, regional pollutants and greenhouse gases

### **Existing Authorities:**

*Regulations:* US EPA

### **Existing Regulations/Strategies:**

#### Regulations:

- Tier 4 Engine Emission Standards

#### Enforcement:

- U.S. EPA

#### Funding:

- Grants for Switcher Locomotives (BAAQMD)

### **Recommended Strategies for the West Oakland Action Plan:**

#### Advocate for New/Revised Regulations:

1. Work with U.S. EPA to adopt requirements for railways to phase in higher tier long-haul and switcher locomotives.

#### Revise Proposed Plans:

2. Work with the Port of Oakland to strengthen measures in the proposed draft Beyond 2020 Air Quality plan.

#### Other Strategies:

3. [Conduct research to determine the state of clean rail technology.](#)
4. Develop a memorandum of understanding with Union Pacific and BNSF railways to progressively reduce fleet average locomotive emissions to Tier 3 levels by 2023 and Tier 4 levels by 2028.
5. Install sensors above rail track in West Oakland to monitor decreases emissions from locomotive operations.

#### Funding:

6. West Oakland Zero-Emission Grant Program

7. Port of Oakland revenues
8. Proposition 1b
9. Regional Measure 3
10. Alameda County Transportation Commission
11. Advocate for adoption of Tier 5 Engine Emission standards by US EPA
12. Funding for electrification of railyard switcher operations.

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## Cargo Handling Equipment

Work towards deployment of zero-emissions technology in all Port cargo handling equipment to reduce both emissions and exposure to emissions.

### **Benefits/Outcomes:**

Reduce diesel PM, other toxic air contaminants, regional pollutants and greenhouse gases.

### **Existing Authorities:**

*Regulations:* CARB

### **Existing Regulations/Strategies:**

#### Regulations:

- State Off-Road Equipment Regulation

#### Funding:

- Proposition 1b Grants
- Carl Moyer Program

### **Recommended Strategies for the West Oakland Action Plan:**

#### Revise Proposed Plan:

1. Work with the Port of Oakland to strengthen measures in the proposed draft Beyond 2020 Air Quality plan.
2. Advocate and support CARB rule-making activities.

#### Funding:

3. West Oakland Zero-Emission Grant Program
4. Incentives for zero emissions top/side pick cranes
5. Incentives to build capacity for electric infrastructure and power storage

## Construction Equipment

Work towards deployment of zero-emissions technology in all construction equipment to reduce both emissions and exposure to emissions.

### **Benefits/Outcomes:**

Reduce diesel PM, other toxic air contaminants, regional pollutants and greenhouse gases

### **Existing Authorities:**

*Ordinance:* City of Oakland

*Regulations:* CARB

*Enforcement:* City of Oakland Code Enforcement  
CARB  
Air District

### **Existing Regulations/Strategies:**

#### Ordinance:

- City of Oakland Land Development Codes

#### Regulation:

- CARB Off-Road Equipment

### **Recommended Strategies for the West Oakland Action Plan:**

#### Revise Proposed Plans:

1. Work with the Port of Oakland to strengthen measures in the proposed draft Beyond 2020 Air Quality plan.

#### Revise Land Development Codes/Ordinances:

2. Work with the City of Oakland to require all construction used in West Oakland be zero emission equipment if available.

#### Funding:

3. Provide incentives for zero-emissions construction equipment.



## Section 4: Fixed and Stationary Source Strategies

### Air District Permitted Stationary Sources

Revisions to permitting rules and regulations would result in fewer emissions and therefore exposure from sources that require permits from the Air District.

#### **Benefits/Outcomes:**

Reduce diesel PM, other toxic air contaminants, regional pollutants and greenhouse gases.

#### **Existing Authorities:**

*Regulations:* Air District

*Enforcement:* Air District

#### **Existing Regulations/Strategies:**

Regulations:

#### **Recommended Strategies for the West Oakland Action Plan:**

New Regulations:

1. Seek legislative authority to regulate and develop a regulation to set a cap on emissions from the Port of Oakland, including the Oakland Army Base.
2. Develop a rule to reduce emissions of ROG and other toxic compounds from liquid storage tanks.
3. Develop a rule to reduce emissions of CO<sub>2</sub>, Methane, ROG & NO<sub>x</sub> from waste water treatment plants and anaerobic digestion facilities.

Funding:

4. West Oakland Zero-Emission Grant Program
5. Incentives to replace older generators with new, EPA/CARB Tier 4 engines.
6. Incentives to reduce emissions at waste water treatment plans via systems to improve efficiency.

Other Strategies:

7. Investigate amending existing metal recycling and material handling regulations.
8. Require an Electrical Infrastructure Plan for the maritime waterfront areas of Oakland.

9. Undertake an engineering study of exhaust stack/vent locations.

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## Fixed Source Nuisances

Reduce nuisances caused by odors, open burning and other fixed sources.

**Benefits/Outcomes:** Reduce diesel PM, NOx, GHGs, Odors

**Existing Authorities:**

*Regulations:* CARB/Air District

*Ordinance:* City of Oakland

**Existing Regulations/Strategies:**

Regulations:

- Health and Safety Code/Air District open burning prohibitions

Ordinance:

- City of Oakland Land Development Codes

**Recommended Strategies for the West Oakland Action Plan:**

Funding:

1. West Oakland Zero-Emission Grant Program
2. Incentives to remove existing wood-burning stoves

Collaboration:

3. BAAQMD will work with the City of Oakland, the Port of Oakland and other public agencies to improve referral and follow-up on nuisance and odor complaints.
4. BAAQMD will work with the City of Oakland on joint enforcement of open burning regulations and use of firepits.

Other:

5. Research ROG reductions from vanishing oils and rust inhibitors used by local auto body repair shops, metal workers and other manufacturing facilities.
6. Install more air monitoring sensors to assess additional controls on stationary or "fixed" sources.

## Section 5: Health Programs

### Exposure Reduction

Tree planting, building design, HVAC systems, and other infrastructure can minimize exposure to pollutants by acting as a buffer or filter of air pollutants between the sources of pollution and the public.

#### **Benefits/Outcomes:**

Reduce exposure to and emissions of diesel PM, other toxic air contaminants, and regional pollutants.

#### **Existing Authorities:**

*Ordinances:* City of Oakland

*Enforcement:* City of Oakland

#### **Existing Ordinances:**

*City of Oakland:*

- Standard Conditions of Approval

#### **Existing Strategies/Policies:**

*California Energy Commission:*

- 2019 Title 24, Part 6, Building Energy Efficiency Standards Rulemaking: Effective Jan 1, 2019, newly construction buildings with four or more stories will be required to include MERV 13 filters.
- *West Oakland Specific Plan:*
- Protect human health at future development sites through remediation and or limiting uses at site to commercial and/or industrial development
- Enforce City of Oakland's S-19 Health and Safety Protection Combining Zone Regs

#### **Recommended Strategies for the West Oakland Action Plan:**

*Ordinances:*

1. Require the electrification of all loading docks to facilitate plug-in capability and encourage or require trucks to utilize grid power to deliver goods.

Funding:

2. Incentives for car share programs and expansion of light-duty vehicle retirement program.
3. Incentives to install high-efficiency air filtration systems at schools, day care facilities, hospitals, and residences in West Oakland.

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## Health in All Policies

The potential health impacts and benefits should be identified for any new or revised land use plan, policy, ordinance or regulation.

### **Benefits/Outcomes:**

Reduce exposure to and emissions of diesel PM, other toxic air contaminants, and regional pollutants.

### **Existing Authorities:**

*Ordinances/Plans:*

City of Oakland

*Health Programs:*

Alameda County Public Health Department

### **Existing Strategies/Policies:**

#### West Oakland Specific Plan:

- Improve access to medical services: Pilot taxi voucher program
- Expand the existing West Oakland Senior Shuttle program to include seniors in single family homes and smaller multi-family homes.

#### Alameda County Public Health:

- Asthma Management at Schools, Access to Medicine/Medical Services, Healthy Heart/Diabetes Program.

### **Recommended Strategies for the West Oakland Action Plan:**

#### Enhancement of Existing Programs:

1. Asthma Management at Schools
2. Access to Medicine/Medical Services (measures to address child health and health equity)
3. Healthy Heart/Diabetes Program (hypertension and diabetes support and classes)

#### Advocacy:

4. Improve access to medical services: Pilot taxi voucher program
5. Expand the existing West Oakland Senior Shuttle program to include seniors in single family homes and smaller multi-family homes.

## Healthy Development Guidelines

The City of Oakland Healthy Development Guidelines would help reduce exposure of residents to air pollution.

### **Benefits/Outcomes:**

Reduce exposure to and emissions of diesel PM, other toxic air contaminants, and regional pollutants.

### **Existing Authorities:**

*Adopting local ordinances:* City of Oakland

*Enforcement:* City of Oakland

### **Existing Ordinances:**

*City of Oakland:* Standard Conditions of Approval

*Enforcement:* City of Oakland

### **Recommended Strategies for the West Oakland Action Plan:**

#### Permitting:

- New development project-wide smoking ban
- Build residential units and/or sensitive land uses that are closest to emissions sources at the latest date in the future
- Locate sensitive land uses as far away from emission sources (including loading docks, busy roads, etc.) as is feasible
- Consider incorporating solid barriers into site design, like a sound wall, between buildings and sources of air pollution (for example, a freeway)
- Plant dense rows of trees and other vegetation between sensitive land uses and emission source(s); protect existing trees
- Avoid locating residences, schools, medical facilities on the ground floor of buildings near sources of pollution
- Expand HDG to include existing buildings, such as requiring HEPA filters.
- Align West Oakland zoning with HDG.
- Work with various agencies to better track health impacts so data are centralized and consistently reported.