

Goods Movement Collaborative Goods Movement Plan

Overview of Freight Transportation Impacts in Communities



Community Collaboration for Sustainable Goods Movement

November 15, 2014

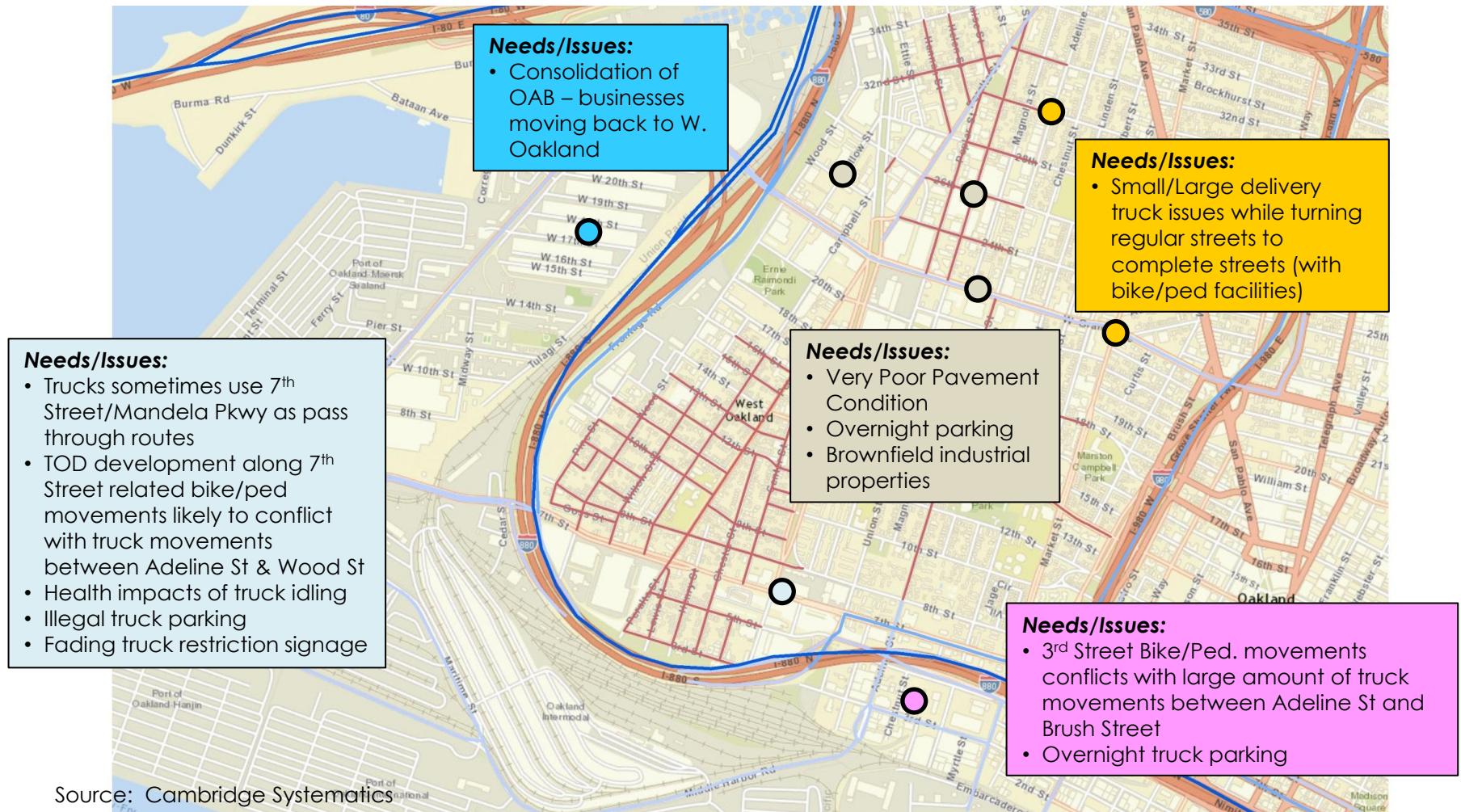
Freight and Communities

- Freight transportation supports a wide range of economic activities in the Bay Area
- Freight transportation has impacts on communities
 - *Benefits are widely spread out but some of the impacts are concentrated in a small number of communities*
- There are solutions
 - *Solutions require long-term commitments*
 - *Solutions require partnerships*
 - *Solutions require funding*

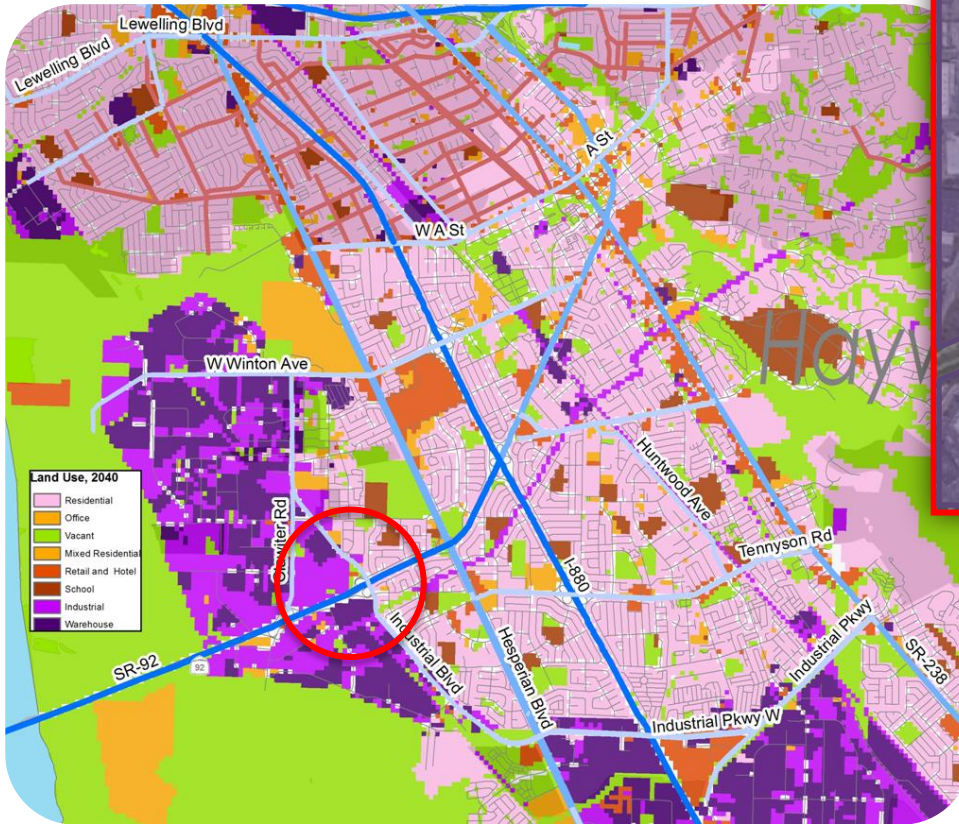
Overview of Issues

- Health impacts of diesel pollution
- Industrial centers, freight hubs and truck impacts on nearby neighborhoods
 - *Truck parking and truck routes*
 - *Roadway damage*
- Railroads and communities
- “Everyone wants to use this road” – trucks, buses, autos, bikes, and pedestrians
- E-commerce – a growing source of truck traffic in downtowns and neighborhoods

Needs Assessment Analysis Highlight: W. Oakland Case Study Selected Issues

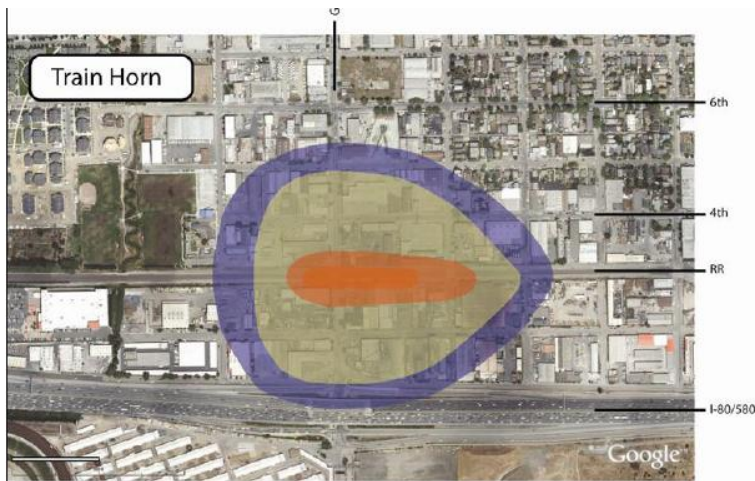


Needs Assessment Analysis Highlight: Land Use Conflicts



Source: MTC Land Use Data; Cambridge Systematics

Railroad Crossings – Noise and Delay



E-Commerce and Neighborhoods

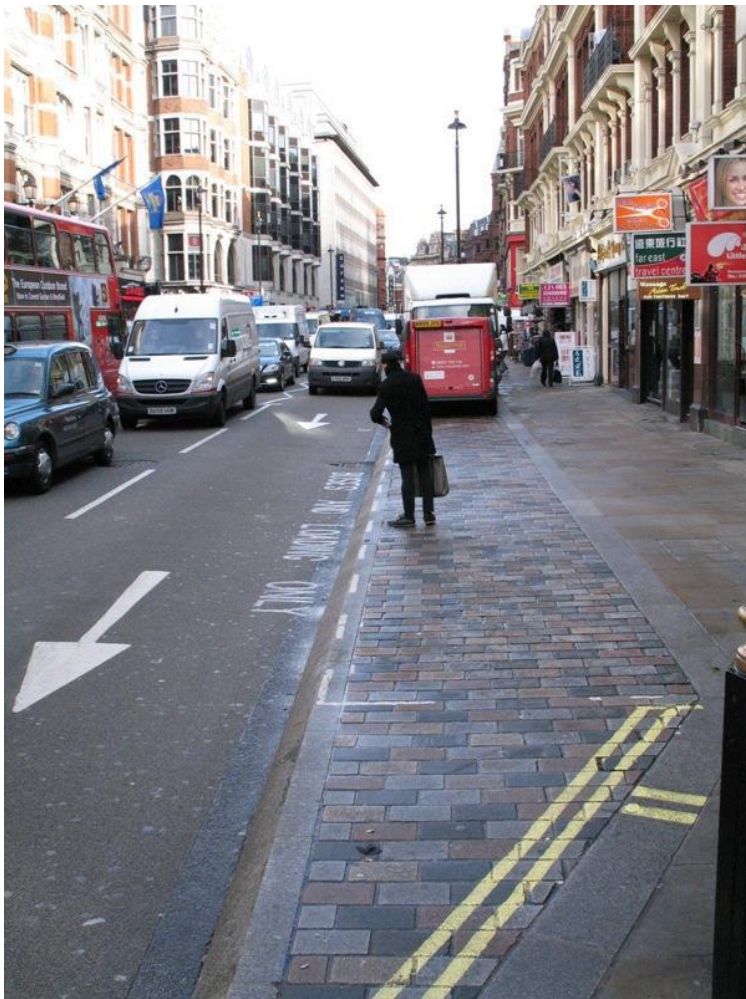


Increasing Truck Deliveries in Neighborhoods



- European model for parcel pick-up and delivery stations
- Reduces truck impacts in neighborhoods of increased e-commerce

Managing Truck Access



- Create shared spaces for truck loading and bus stops
- Surfaces and curbs make this usable by pedestrians
- Regulate use by time of day
- London and NYC

Off-Peak Deliveries in Downtowns

- NYC is experimenting with off-hours deliveries and opening loading zones in neighborhood retail centers earlier in the morning



Making a day-time delivery on 3rd Avenue at 39th Street in Manhattan.



Making an off-hour delivery at the same location on 3rd Avenue and 39th Street.

West Oakland Environmental Indicators Project

Neighborhood Impacts of
Goods Movement

Parking and Maintenance on Residential Streets







Inadequate Enforcement



Hindering Local Commercial Activity



Damaging Public Infrastructure



Putting Pedestrians and Private Vehicles at risk



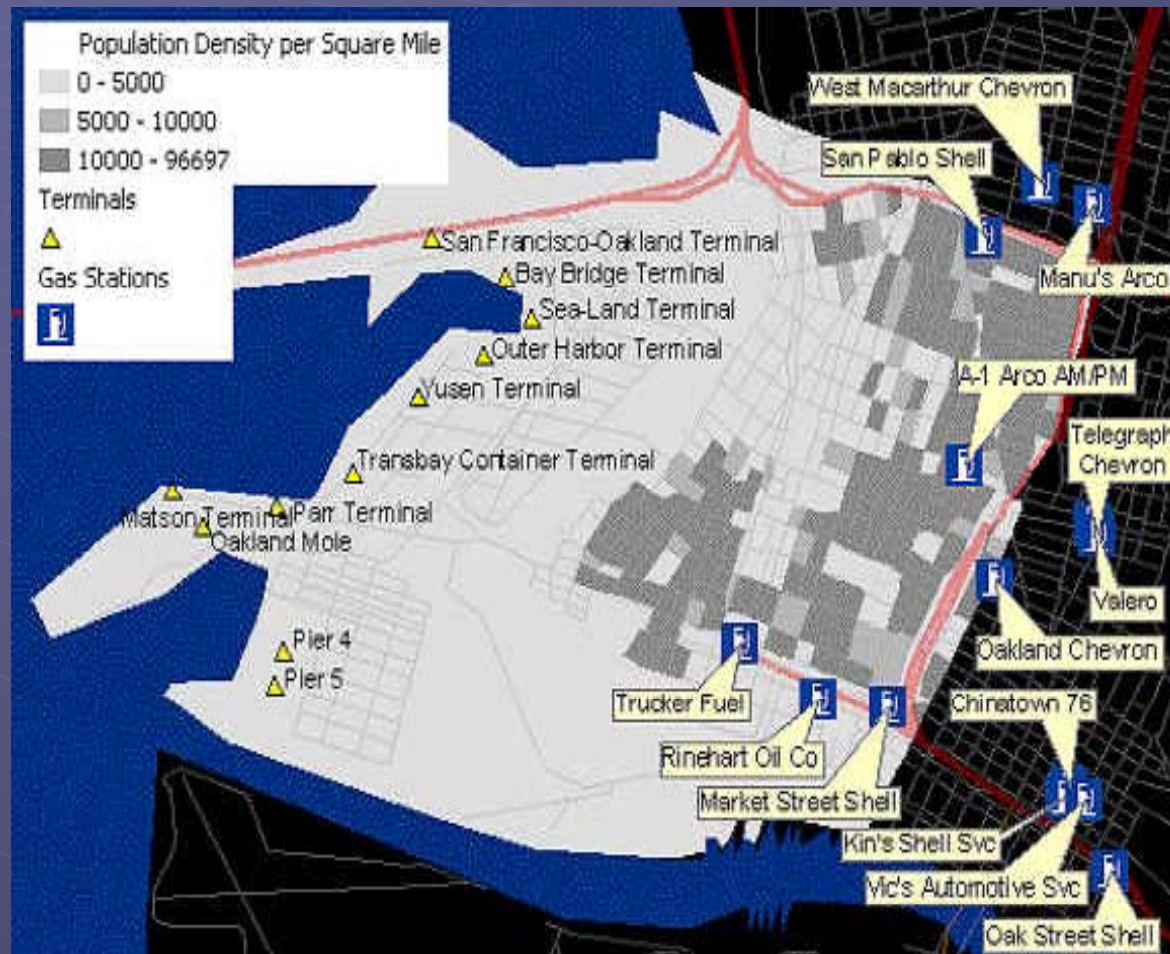
Creating Litter and Environmental Hazards







A Poorly Planned System





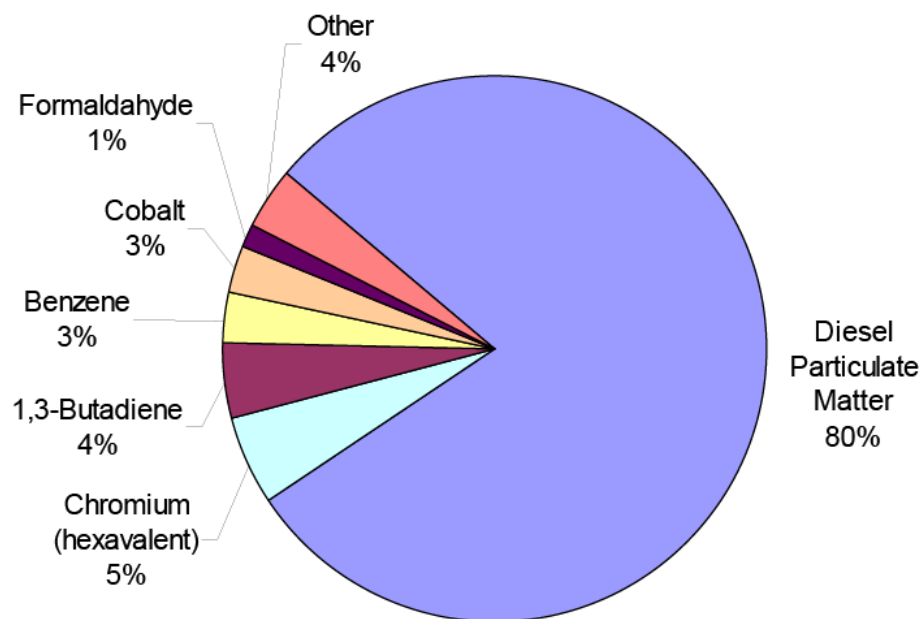
Air Quality Studies in West Oakland

Panel #1: Goods Movement Roundtable
November 15, 2014

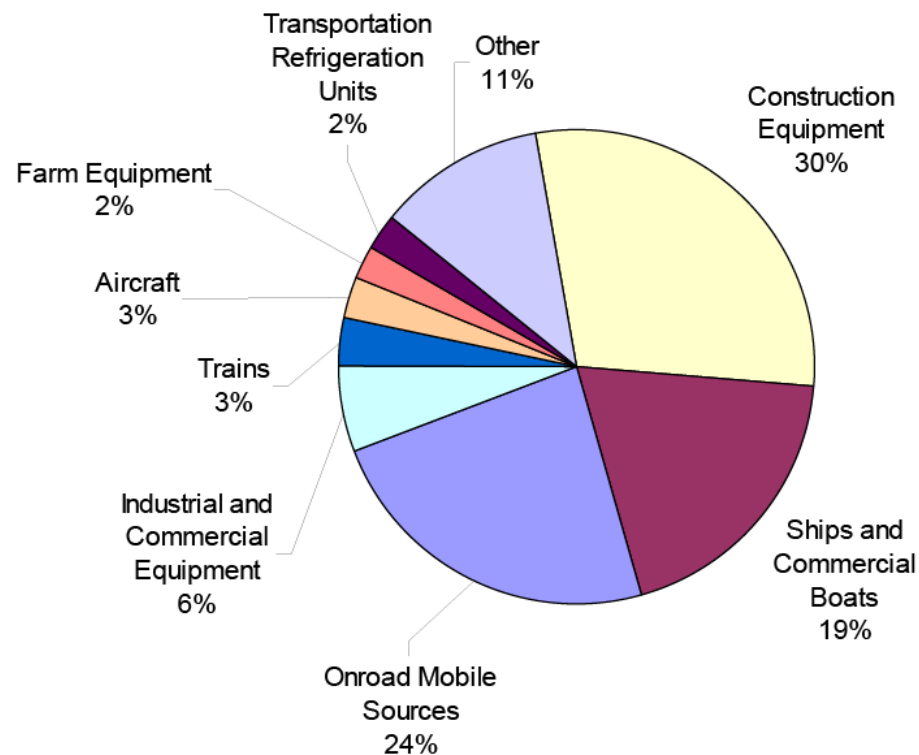
Virginia Lau
Bay Area Air Quality Management District

Cancer Toxicity-Weighted Emissions: Bay Area (2015)

By Pollutant

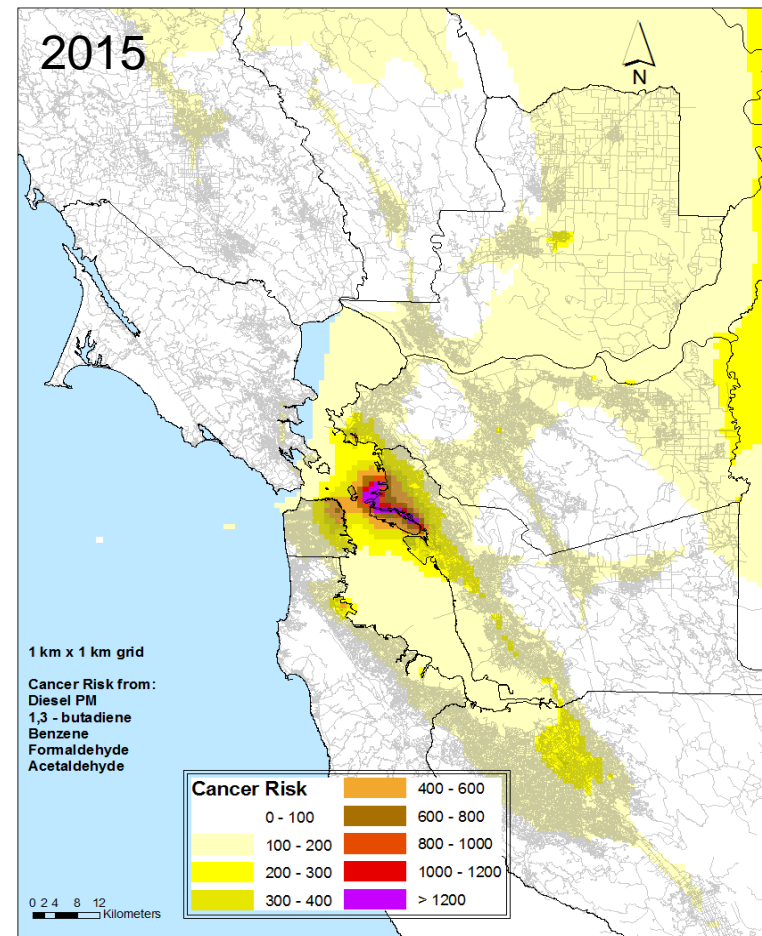
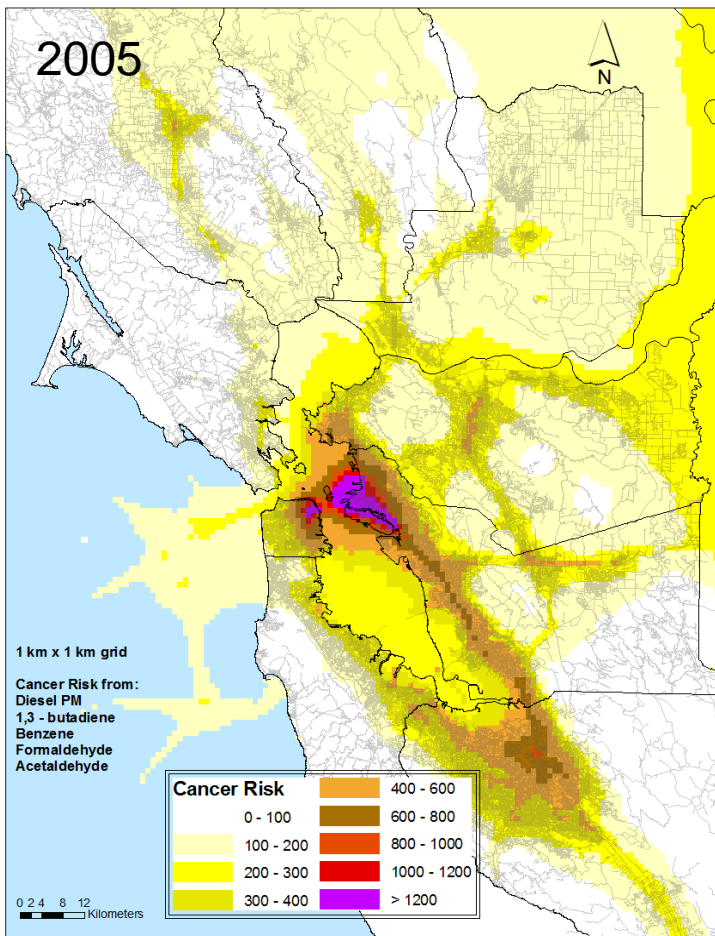


By Source Category



Regional Scale Studies

Developed regional toxics modeling:
emissions, concentrations, risk





West Oakland Studies

- West Oakland Health Risk Assessment (2008)
 - Modeled potential cancer risk from diesel sources
- West Oakland Truck Survey (2009)
 - Community members and Air District staff counted trucks
- West Oakland Monitoring Study (2010)
 - Collected PM and gaseous measurements using stationary and mobile samplers
- Drayage Truck Plume Study (2009 – 2010)
 - Sampled truck plumes to estimate emission factors



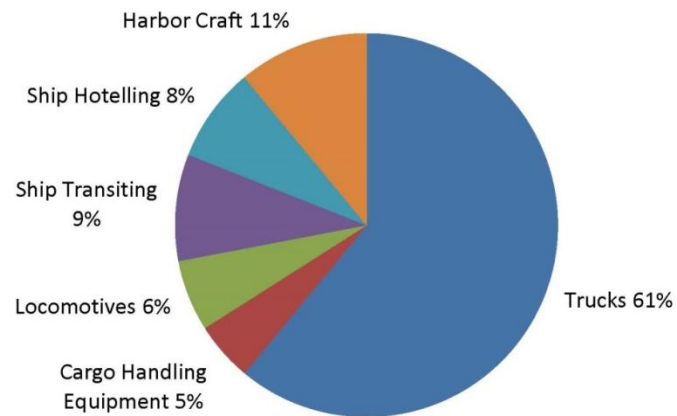


West Oakland Studies Results

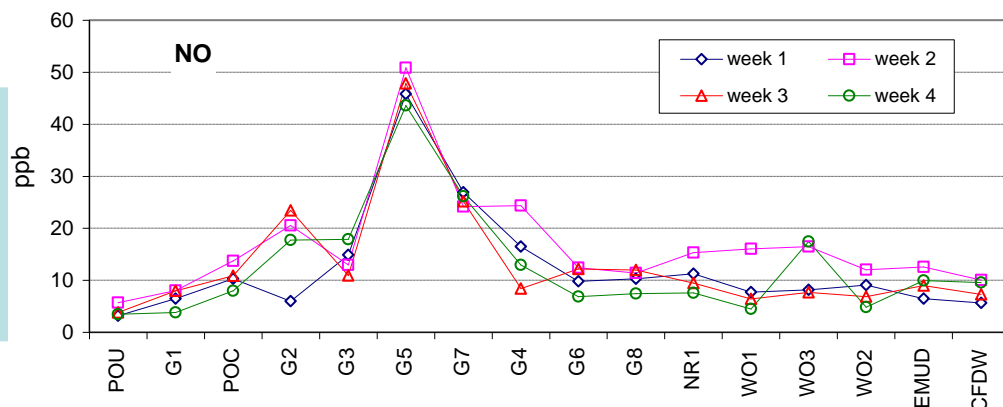
- Cancer risk in West Oakland was three times higher than Bay Area average in 2005
- Truck survey showed fewer trucks on surface street, but a higher percentage of Port trucks that contribute to risk
- Central monitoring location show similar concentrations to other urban areas, but concentrations are higher near major roads and at the Port
- Drayage truck rule in combination with enforcement efforts and grants reduced risks from Port trucks by about 50%

Looking Forward:
Future goods movement plan needs to continue emission reduction efforts and improved air quality

Source contribution to Cancer Risk in West Oakland

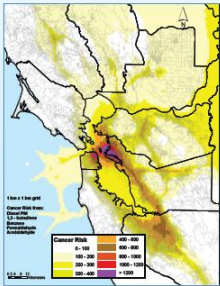


7-day average NO concentrations from West to East field locations



Additional Information

IMPROVING AIR QUALITY & HEALTH IN BAY AREA COMMUNITIES



Community Air Risk
Evaluation Program
Retrospective &
Path Forward
(2004 - 2013)

April 2014

HEALTHY NEIGHBORHOODS | EXPOSURE ASSESSMENTS | SCIENTIFIC STUDIES



Collaborations with the Public, Researchers, and Health & Planning Departments



BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Contact: vlau@baaqmd.gov

Visit:

www.baaqmd.gov/CARE

to download a copy of
CARE Summary Document