Community Collaboration for Sustainable Goods Movement

November 15, 2014

Overview of Freight Transportation Impacts in Communities
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/Issues:**
- Consolidation of OAB – businesses moving back to W. Oakland

Needs/Issues:
- 3rd Street Bike/Ped. movements conflicts with large amount of truck movements between Adeline St and Brush Street
- Overnight truck parking

Needs/Issues:
- Small/Large delivery truck issues while turning regular streets to complete streets (with bike/ped facilities)

Needs/Issues:
- Very Poor Pavement Condition
- Overnight parking
- Brownfield industrial properties

Needs/Issues:
- Trucks sometimes use 7th Street/Mandela Pkwy as pass through routes
- TOD development along 7th Street related bike/ped movements likely to conflict with truck movements between Adeline St & Wood St
- Health impacts of truck idling
- Illegal truck parking
- Fading truck restriction signage

Source: Cambridge Systematics
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.
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

- Diesel Particulate Matter: 80%
- Other: 4%
- Formalddehyde: 1%
- Cobalt: 3%
- Benzene: 3%
- 1,3-Butadiene: 4%
- Chromium (hexavalent): 5%

By Source Category

- Construction Equipment: 30%
- Ships and Commercial Boats: 19%
- Transportation Refrigeration Units: 2%
- Farm Equipment: 2%
- Aircraft: 3%
- Trains: 3%
- Industrial and Commercial Equipment: 6%
- Onroad Mobile Sources: 24%
- Other: 11%
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
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Visit: www.baaqmd.gov/CARE
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