

BNSF Commerce Yard Emissions

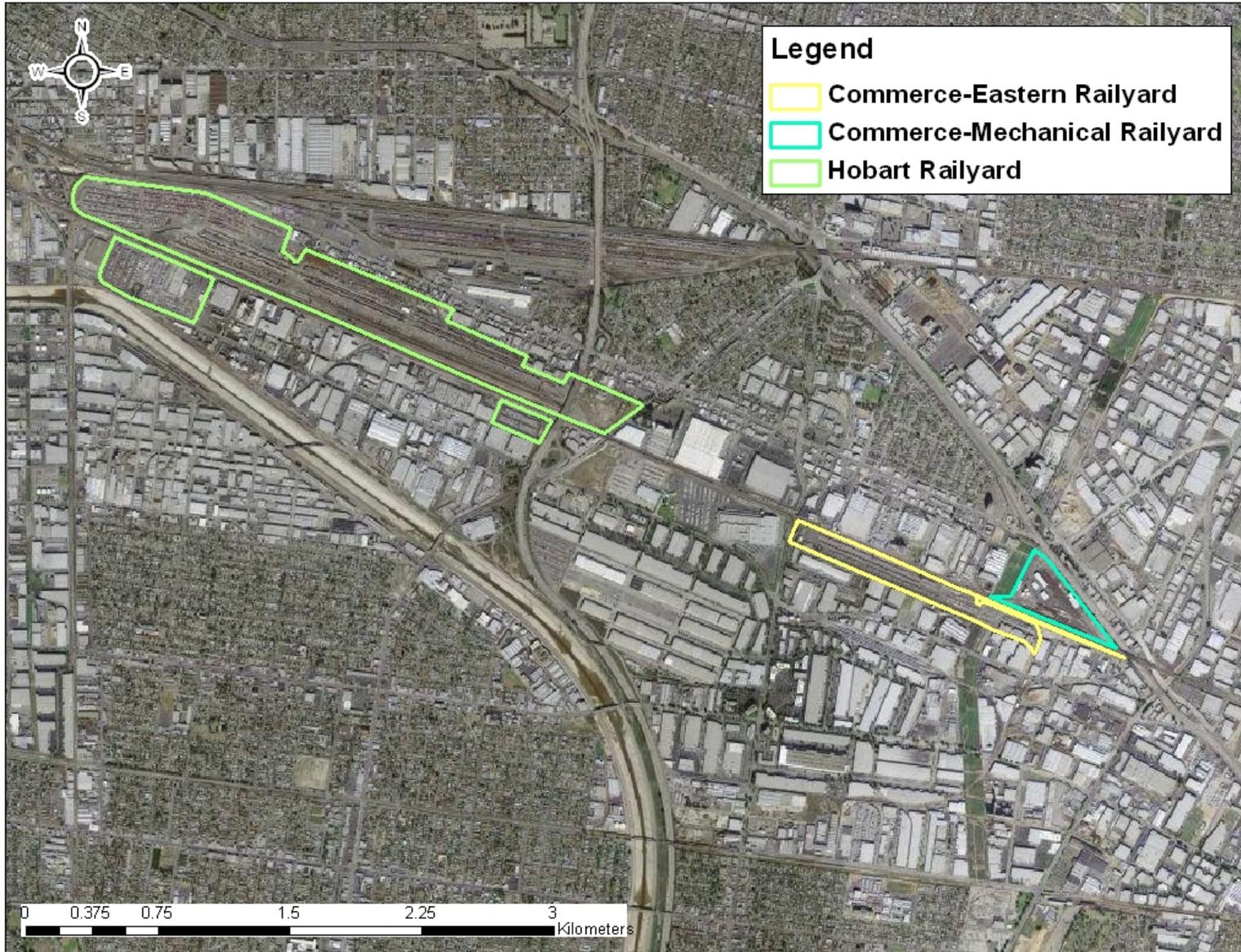
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Commerce, California
May 23, 2007

Risk Assessment, OEHHA

A Guide To Risk Management

Risk managers are responsible for protecting human health, but they must also consider public acceptance as well as technological, economic, social and political factors when arriving at their decisions.

BNSF Commerce Area Railyards



Commerce Sites

Hobart

1.4 million lifts

215 acres

145 yard tractors

22 cranes

25 trains that either arrive or depart daily

Commerce Mechanical

33 acres

40 locomotives serviced daily

1 locomotive daily for annual inspection and load test

Commerce Eastern

2 trains depart each day

Sources of Emissions

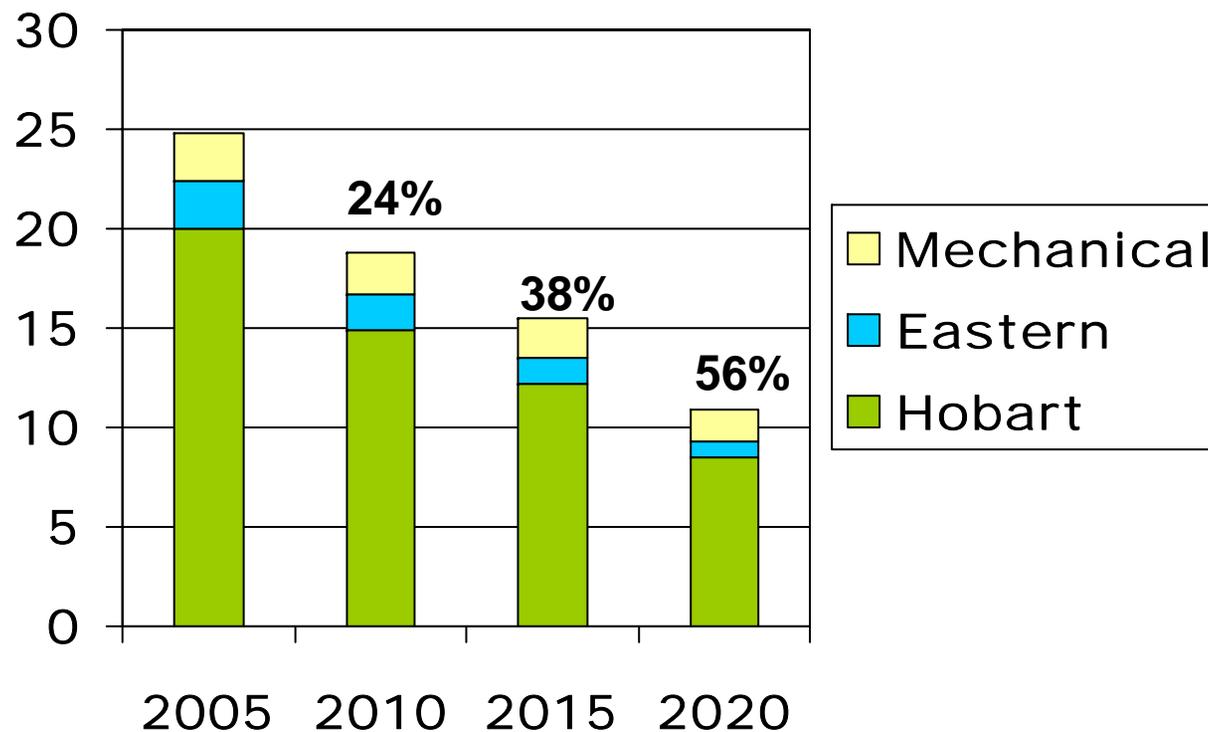
- **Drayage trucks** **40%**
- **Cargo handling equipment** **20%**
 - **Cranes**
 - **Yard Tractors**
- **Linehaul locomotives** (Arriving & Departing trains) **10%**
- **Transportation Refrigeration Units** **10%**
- **Switch Engines** **10%**
- **Adjacent Mainline Freight** **5%**
- **Adjacent Commuter Rail** **3%**
- **Other** **2%**

Emission Reductions

- **Normal drayage fleet turnover**
- **Compliance with CARB cargo handling equipment rules**
- **Use of 15 ppm sulfur fuel for purchases in California**
- **Compliance with the 1998 MOU for nitrogen oxides**
- **30% reduction in switch engine idling due to 2005 MOU**
- **Reduced idling from current locomotives with idle control devices**
- **Compliance with CARB rules for refrigerated units**
- **Compliance with CARB rules for off-road equipment**
- **Compliance with USEPA proposed rules for locomotive emissions**

BNSF Commerce Yards, emission reductions

Diesel Particulate Matter in metric tons per year



**Predicted reductions with 4% annual growth in activity
Typical drayage truck fleet turnover assumed (not CAAP)**

Summary

- **The railroads recognize there are serious air quality concerns, both for ozone and for particulate matter in Southern California.**
- **People living adjacent to rail yards are exposed to similar risks as those faced by persons living adjacent to freeways and other major transportation facilities.**
- **Diesel emissions from rail yards are going down, greater than 50% reductions are projected from 2005 to 2020 even after a 4% annual activity growth rate.**
- **Locomotives account for only one-third of the diesel particulate emissions from rail yards.**
- **On-road drayage trucks account for one-third of the diesel particulate emissions from rail yards.**