

# Multi-County Goods Movement Action Plan

Metro Contract No. PS-4310-1268-01-17-1

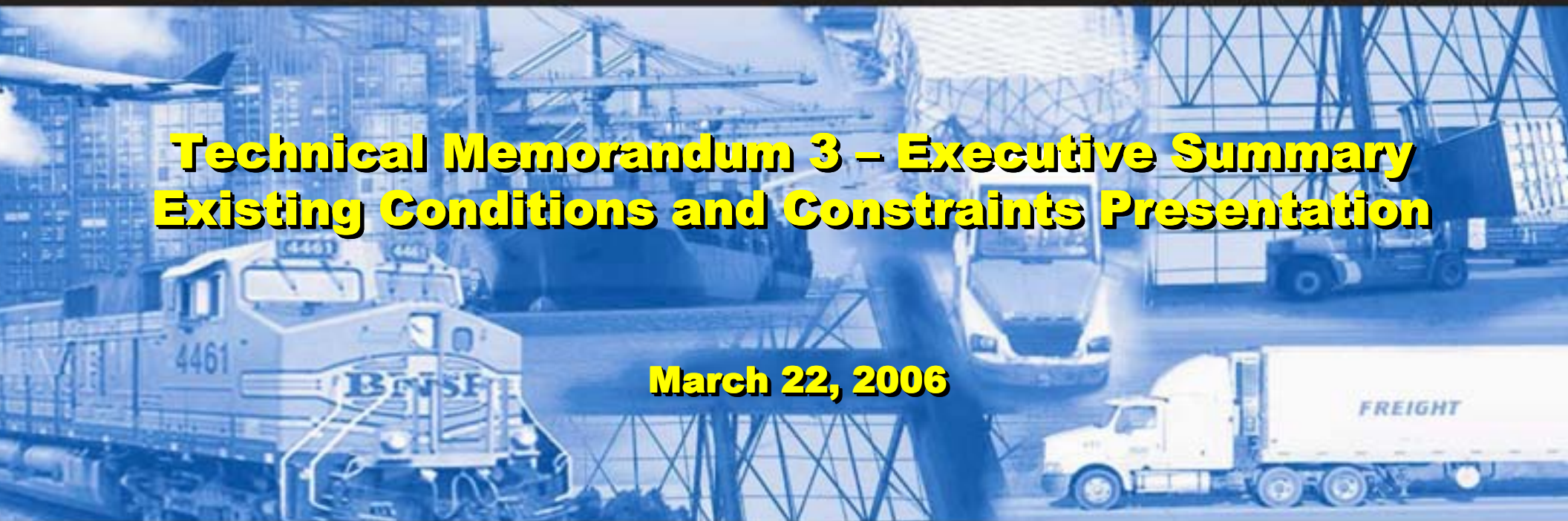


**Metro**

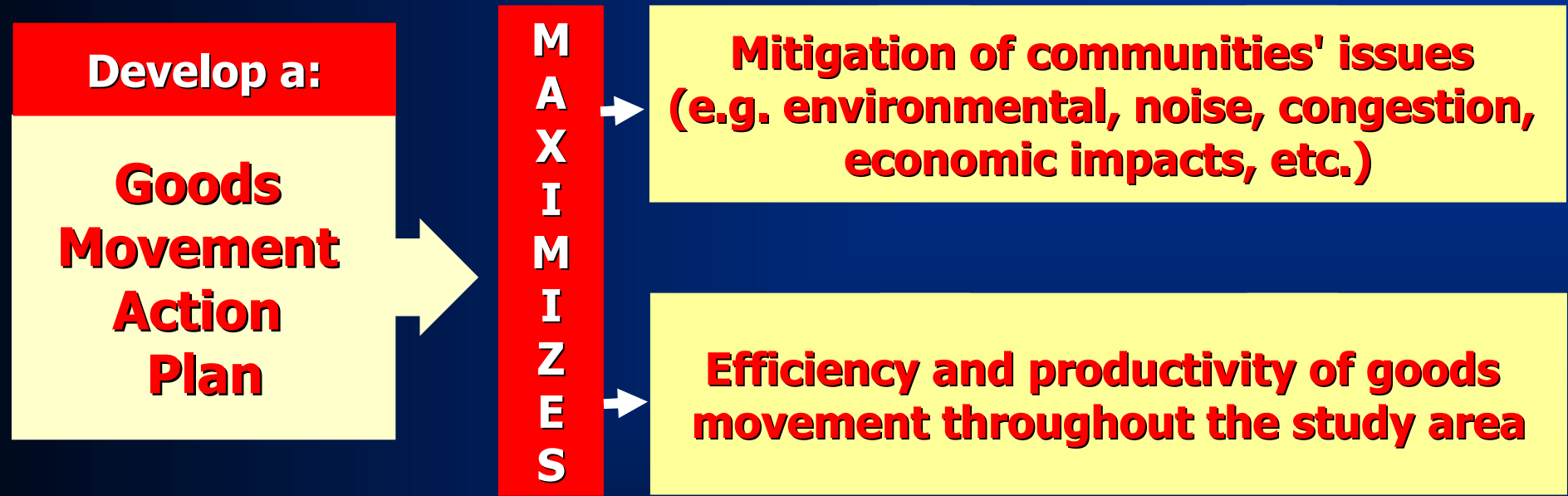


## **Technical Memorandum 3 – Executive Summary Existing Conditions and Constraints Presentation**

**March 22, 2006**



# MCGMAP Overview



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**Solutions will address all modes**

**Will include capital and non-capital options**

# MCGMAP Study Area



## **Task #**

## **Task Description**

**1**

**Project Management / Administration**

**2**

**Outreach Assistance**

**3**

**Compile and Collect Goods Movement Data**

**4**

**Assess Growth in Freight Demand**

**5**

**Community, Environmental, & Economic Impacts**

**6**

**Strategies for Improving Goods Movement**

**7**

**Mitigating the Effect of Goods Movement**

**8**

**Multi County Goods Movement Action Plan**

# Today's Focus

**1**

**Project Management / Administration**

**2**

**Outreach Assistance**

**3**

**Compile and Collect Goods Movement Data**

**4**

- **Focus on existing goods movement system**
- **Summarizes the extent of each mode**
- **Identifies issues and constraints**

**5**

**6**

**Strategies for Improving Goods Movement**

**7**

**Mitigating the Effect of Goods Movement**

**8**

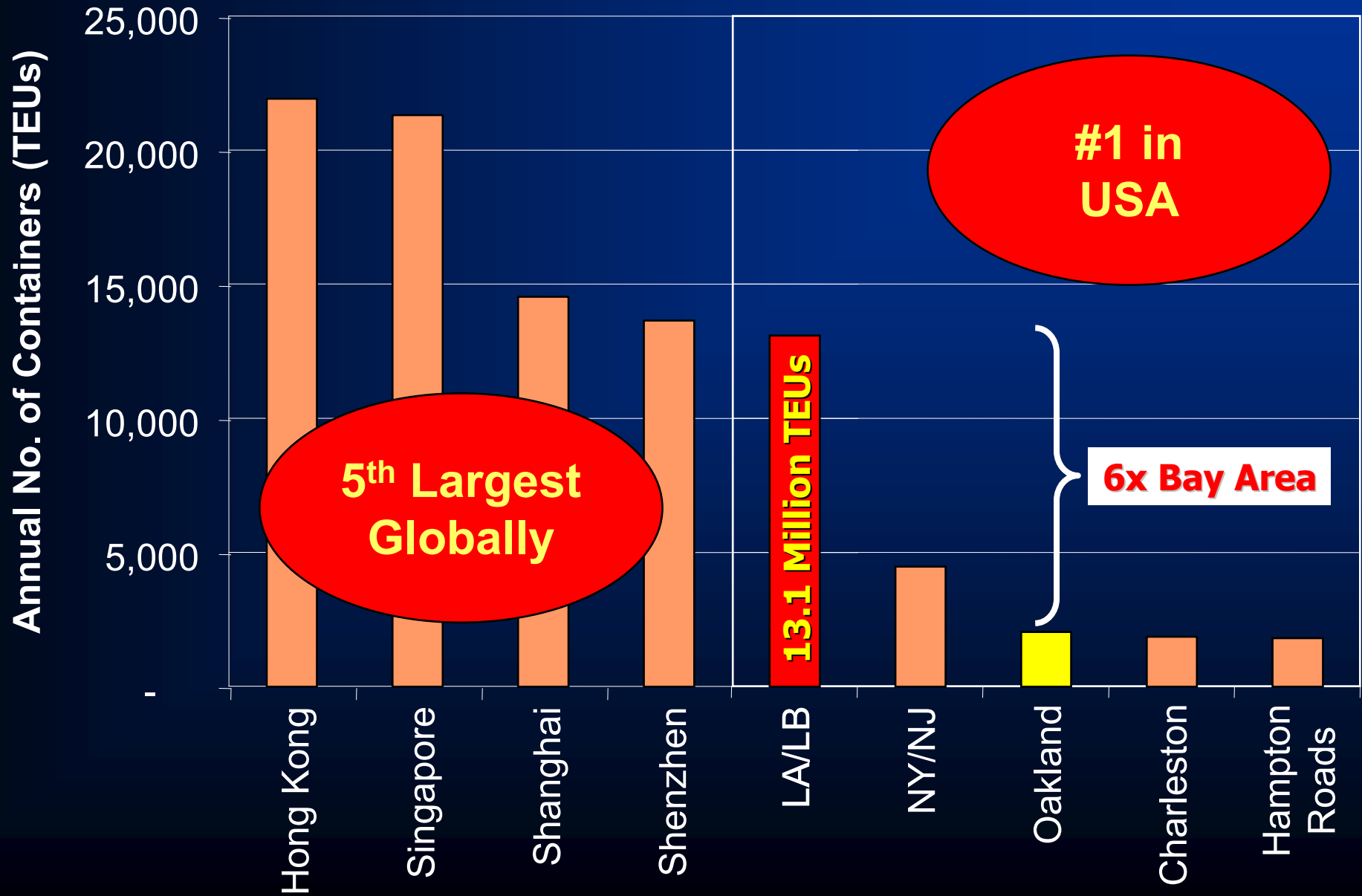
**Multi County Goods Movement Action Plan**

**Summary of  
Findings**

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graph TD; A[Summary of Findings] --> B(Existing System);
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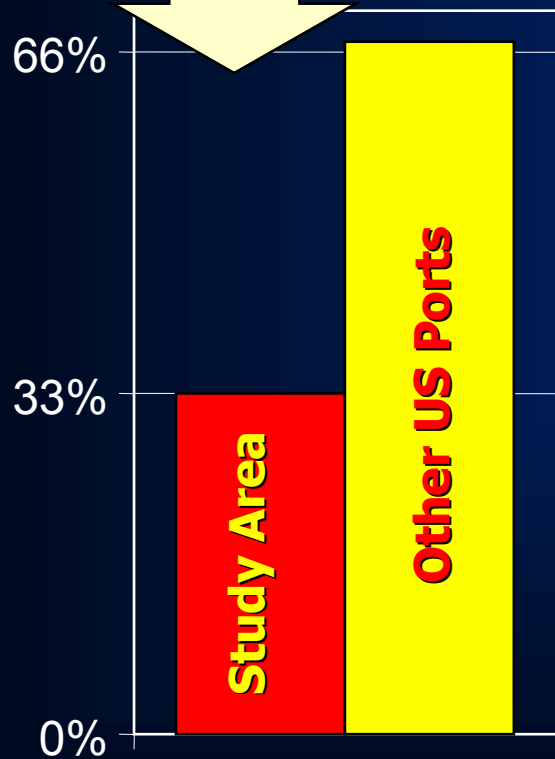
**Existing  
System**

# Major Container Port Gateway (2004)

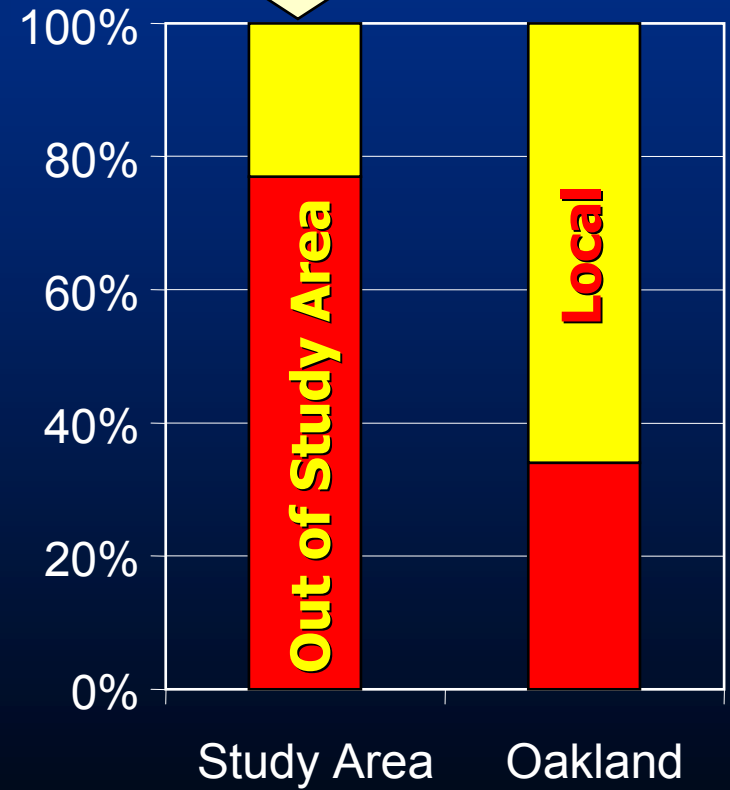


# Major Container Port Gateway

**1/3 of US Int'l  
Containerized Cargo**



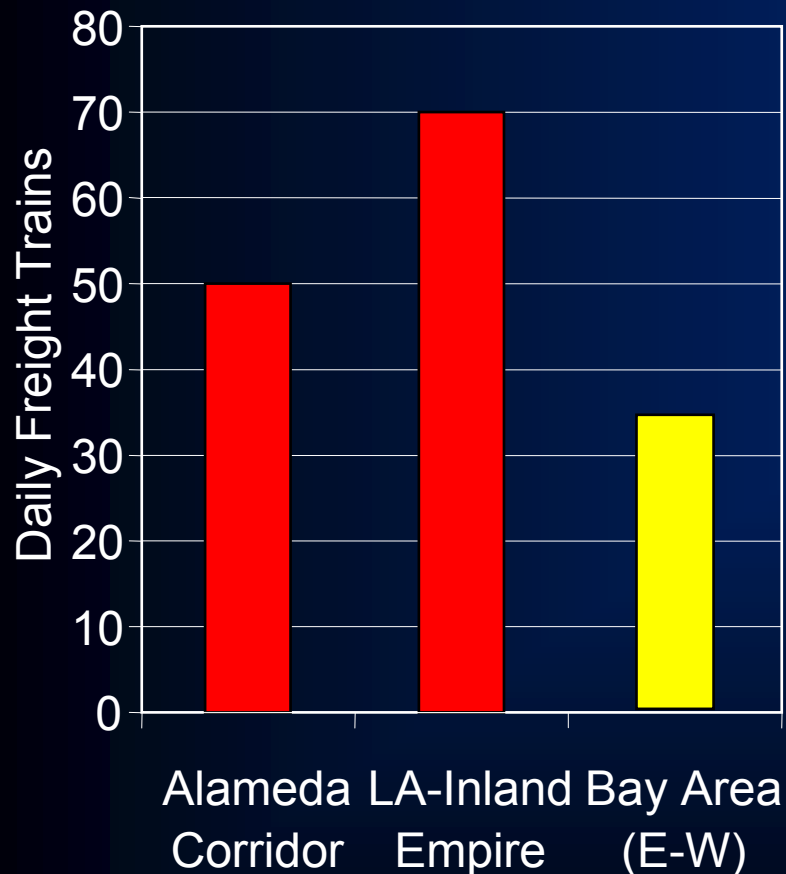
**77% is Through Traffic**





# Freight Rail

## Daily Train Volumes (2004)



- Extensive system -- BNSF and UP
  - 5 million intermodal lifts annually
  - 64% are international containers
  - Largest single intermodal op. in US
- Strategic role – int'l container cargo
  - 52% of international container trade (40% direct and 12% transloaded)
- Key role in reducing truck traffic
  - 20% transferred on-dock
  - Congestion, emissions, safety
- System also transports commuters

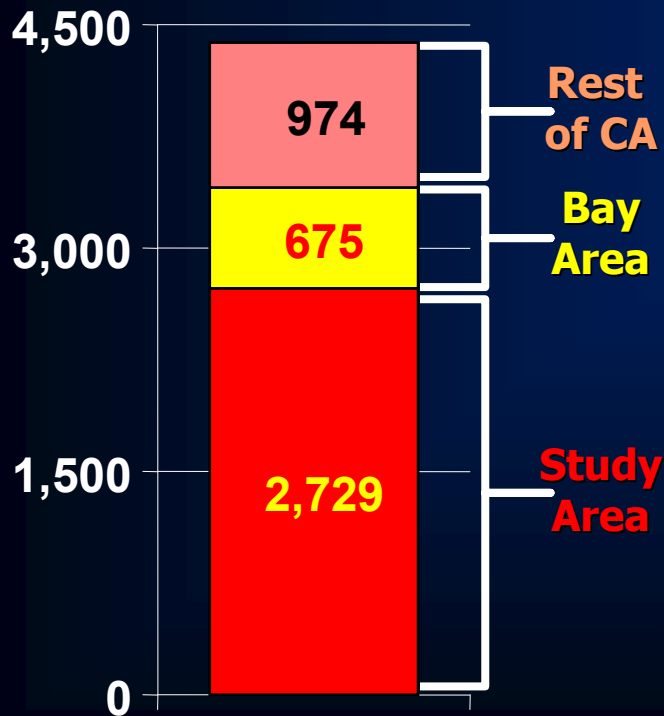
**BNSF - Burlington Northern Santa Fe Railway**  
**UP - Union Pacific Railroad**

# Highways (Trucking)

**Study Area's  
Highways**

**Ranked #1  
Congested  
Nationally**

**Lane-Miles >10k  
Trucks/Day**



**Over 9,000 lane miles of freeways**

- **25% carry >10,000 trucks per day**

**As much as 40,000 trucks daily**

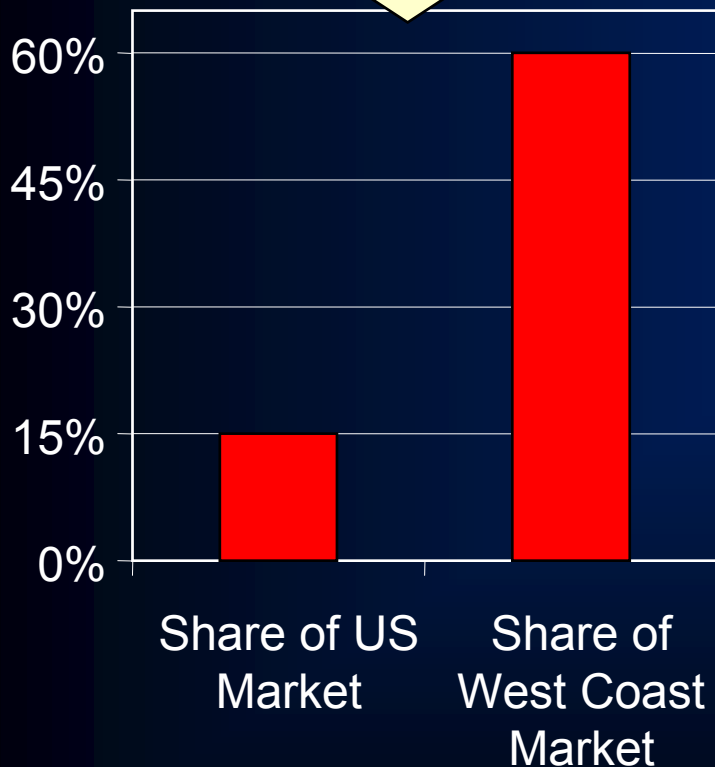
- **I-710, I-605 and SR 91**

**Trucking Bottlenecks**

- **6 of the most congested in nation**

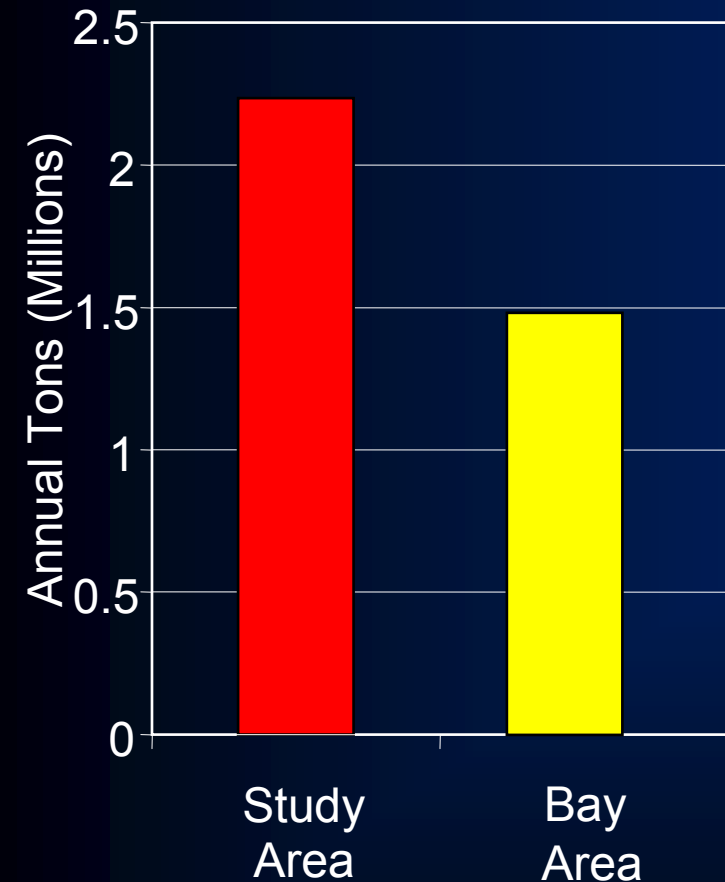
# Staging (Warehousing and Distribution)

**Supports Int'l Trade**



- Most goods are staged at a warehouse, distribution, cross-dock or transload center
- 1.5 Billion Square Feet in study area
  - (60% in LA County)
- 32 Million Square Feet under construction
  - 75% in Riverside and San Bernardino Counties

# Air Cargo



- High value goods and perishables
- Important international gateway
- 2.2 million tons in 2003
  - LAX and ONT handled 95%
- Development of cargo-only airports
  - San Bernardino and Riverside Counties

**Summary of  
Findings**

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graph TD; A[Summary of Findings] --> B([Issues and Constraints]);
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**Issues and  
Constraints**

**National  
Reliance on  
Imports**

**National Trade Policy  
Reduced trade barriers &  
export of US industrial jobs**

- **U.S. manufacturing employment in 2004 reached its lowest level since 1950 -- 14.3 million jobs**
- **Dropping 3 million from 2000**

**Local  
Economy**

**3<sup>rd</sup> Largest Manufacturing Center  
Behind CA and TX**

**Strategic  
Location**

**West Coast Trade Gateway  
Asian Trade Boom**

# Overwhelming Trade Impact

**Proportion**

**Disproportionate Share  
of International Trade**

**Unfunded Trade Mandate**

**Scale**

**More Than Any  
Other Region**

**In California and Nationally**

# Community Concerns (Air Quality & Congestion)

**Challenge to**

**Goods  
Movement  
(GM)**

**Environmental impacts**

**Air, noise, water, etc.**

**Emphasis: Health impacts**

**USC Keck Sch. of Med. Study**

**Slowdown GM projects**

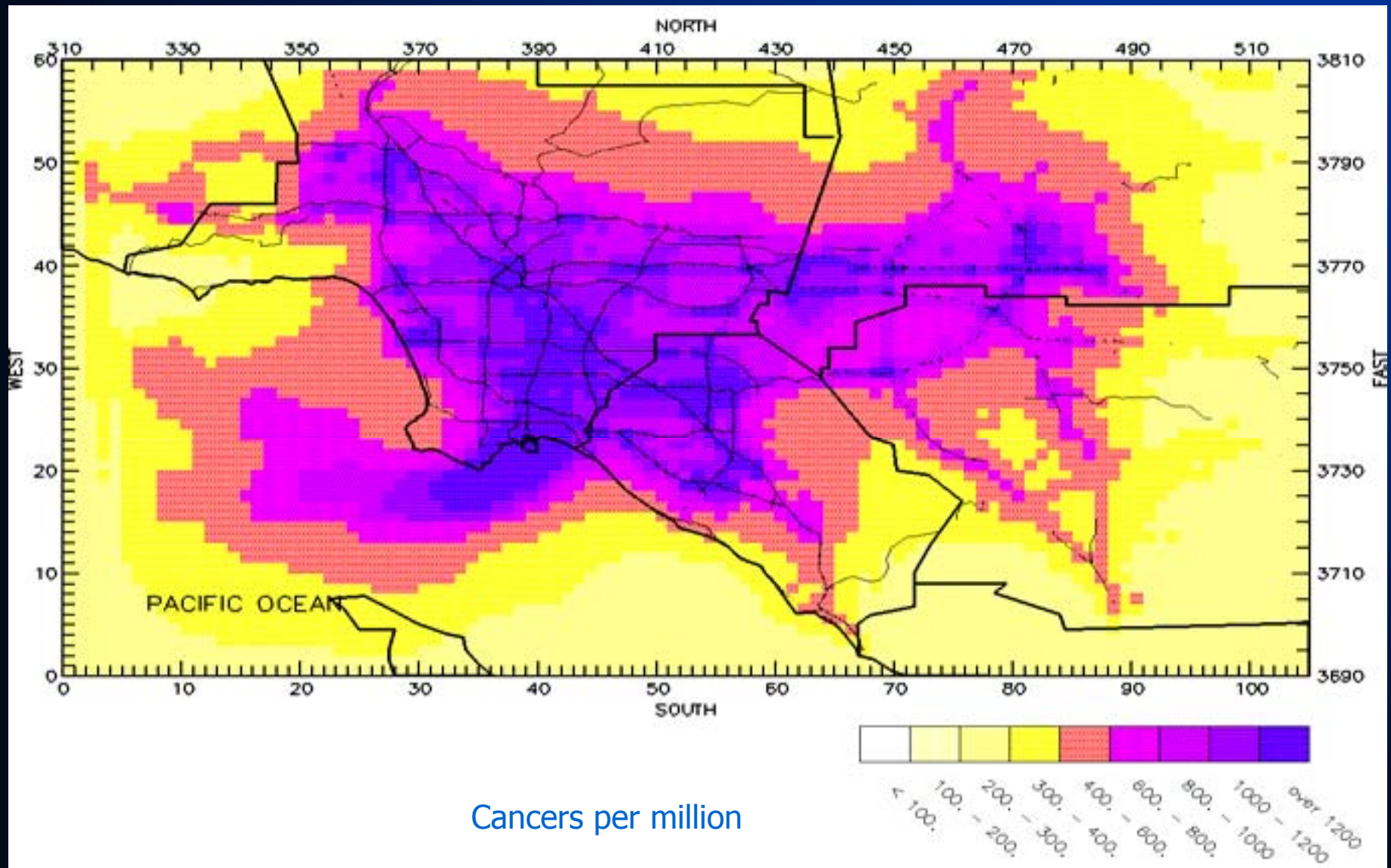
- **Pier J**
- **China Shipping Terminal**
- **I-710**

**Spill-over on alt. modes**

**On-dock and near-dock intermodal**



# Estimated Risk of Cancer from Air Toxics: All Emission Sources



Source: SCAQMD, Multiple Air Toxics Exposure Study II, March 2000

# Port and Airport Capacity and Throughput

## Marine terminal capacity affected by:

- Berth space, acreage, cranes
- Container stacking, storage, dwell, service hours, labor

Constrained by management & operational practices

## Throughput: Annual TEU's per acre

- Currently at 4,700 TEUs
- Could be 11,000 TEUs

## Other Issues

### Competition for terminal space

- Marine - Containers, petroleum, rail, recreation, tourism, etc
- Air – Passenger vs cargo

### Market forces dictate facility choice

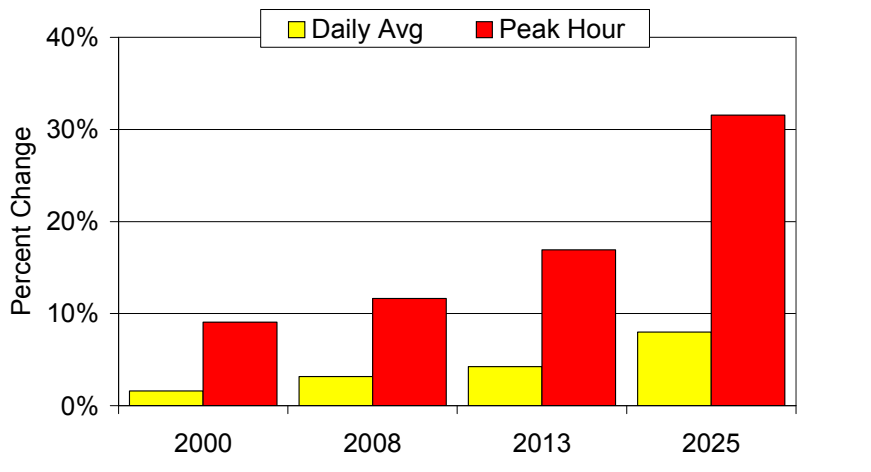
- Marine – Large local market are 1st call for ships
- Air - Cargo favors int'l passenger gateways

# Highway Congestion and Delay

- **Significant impact on goods movement**
  - 18% of trucks are delayed on average weekday
  - Increases cost of transporting goods 50% to 250%
- **Connects GM facilities with businesses**
  - Typically open during daytime
- **Bulk of truck traffic is off-peak**
  - Two thirds does not occur during AM and PM peak
  - AM and PM peak truck traffic almost as much as night

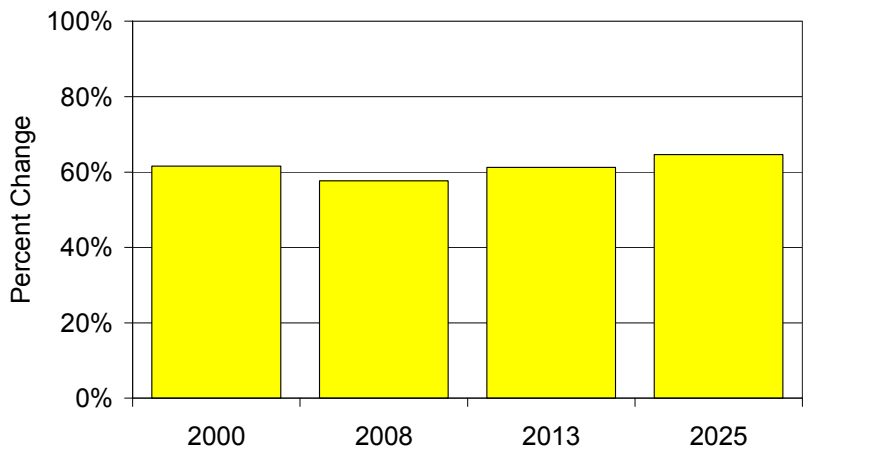
**National I-10 Freight  
Corridor Study  
Scenario – W/O Freight**

# Impact of Freight on Highway Capacity & Operations (Including Commuter Traffic)



**Car Speed - Improved**

- Up to 30% increase (Peak hr.)

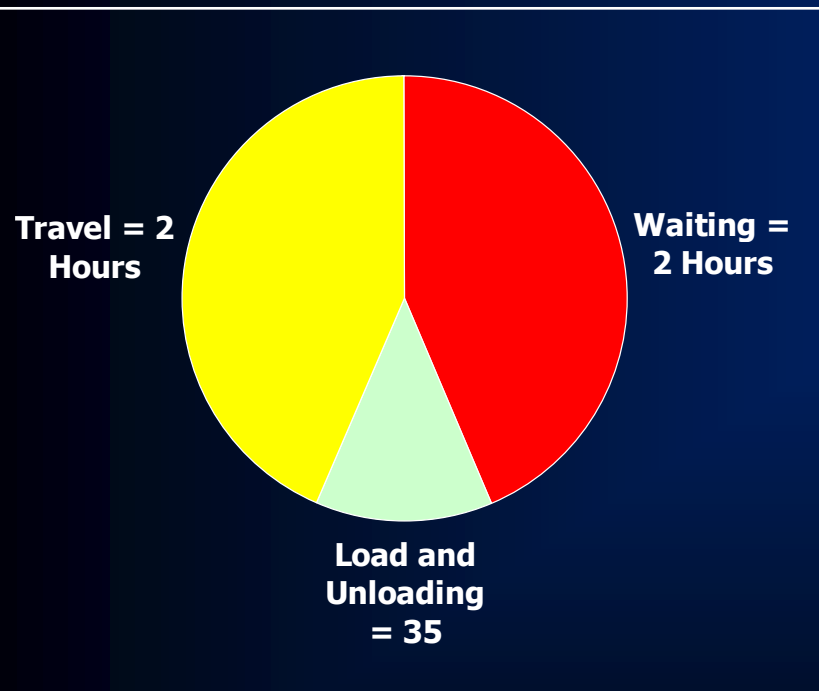


**Deficient Mileage - Reduced**

- 60% Reduction

# Truck Access and Turnaround Times at Goods Movement Facilities


Typical Time for a Local  
Container Dray by Truck  
4.6 hours round trip



- Turnaround times cause delay
  - Half of truck trip is spent at port terminal
  - Waiting for cargo to be loaded/unloaded
- Terminals fined if truck waits >30 min.
  - AB 2650
  - Avoid fines with appointment system or extended gate hours

# Mainline Rail Capacity Issues

**Average  
train trip**



**Delayed by  
over 30 minutes  
east of LA**

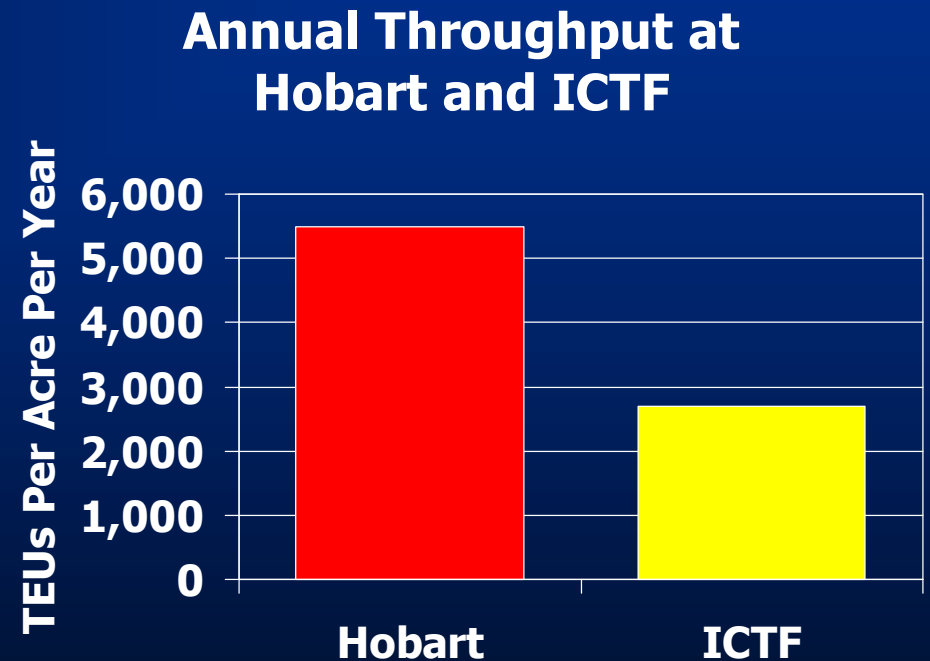


- **Mainline capacity east of Los Angeles is constrained**
  - **Historical growth in eastbound container traffic**
- **Capacity constraints create ripple effect**
  - **System train speeds deteriorate**
  - **Cause backups at ports and intermodal yards**
  - **Disrupt commuter service**

# Rail Intermodal Capacity Constraints

## Management practices impact intermodal throughput

- Management practices at Hobart include stacking, allocating containers, fees on dwell times longer than 24 hours
- ICTF uses a “wheeled” operation which is cheaper (every container is on a trailer chassis)



**Higher throughput = more containers with less land**

# Rail Intermodal Capacity Constraints

- **On-dock intermodal facilities cut truck traffic**
  - (Reduce emissions, congestion, enhance safety)
- **But constrained due to:**
  - **Competition for marine terminal space**
  - **Restrictions on when trains can be moved**  
(Due to safety concerns for marine terminal workers)



# Availability of Funding

- **Funding for goods movement is falling behind**
- **No program for goods movement**
  - **Limited to environmental related programs and earmarks**
- **Federal transport bill (SAFETEA-LU) earmarks fell short**
  - **23% of requested for goods movement funded**
- **Need mechanism to translate value of local GM system into revenue stream**

## Other Issues

### Truck safety concerns

- **84% of fatalities involving trucks are occupants of car**
- **Truck accidents up 17% between '00 and '03**

### At-grade crossings

- **Impacts include noise, safety, emissions, congestion**
- **Projects are planned, shortfall in funding is prohibitive**

### Security

- **Seaports and airports fund many security projects**
- **Congress evaluating effectiveness of security procedure**

## Other Issues

### Modal Shifts and Trends

- **E.g. -- trend in transload traffic**
- **Market response to reduce costs**
- **Public investments/policies lag market**

### Land Use Trends

- **Warehouse develop. shifting east**
- **So are impacts on communities (noise, congestion, safety, emissions, etc)**

### System-wide GM data

- **Flow patterns not fully reflected by travel demand data**
- **Lack of system-wide performance data and measures**

# Disparate GM System & Community

**While goods move from  
mode-to-mode.....**

**Organizations  
involved in  
GM function  
independently**

**Carriers, terminals, ports,  
warehouse centers, shippers,  
transport agencies,  
commissions, etc**

**Issues identified earlier  
need system-wide approach**

**Private entities operate in  
competitive environment**

**Lack institutional approach  
to garner broad based support**

# Conclusion

- > **Significant goods movement system**
- > **Creates economic and job opportunities**
- > **Impacts community health and safety**
- > **Potentially undermine future viability of the system**

# Next Steps

- **Forecasts for Future Conditions**
- **Community, Environmental, and Economic Impacts**
- **Strategies for Improvements**
- **Mitigation Strategies**
- **Workshops**
- **Action Plan**

# Questions & Answers