

San Pedro Bay Ports Clean Truck Program



Final Report

Process: Interviews

- 403 Drivers in line at Gates
- Over 50 LMCs most One-on-One
- 136 LMC by Telephone
- Other:
 - National Truckers with IOOs & Employees
 - Beneficial Cargo Owners
 - ILWU
 - Teamsters
 - Non-Port LMCs
 - Terminal Operator
 - So. California AQMD

Process

- **Research – Literature & Statistics**

- *Financials*
- *Regulation*
- *Security*
- *Pay*
- *Benefits*
- *CARB*
- *Technology*
- *Industrial Real Estate*
- *Truck Prices*
- *Tax Codes*
- *Economic Reports*

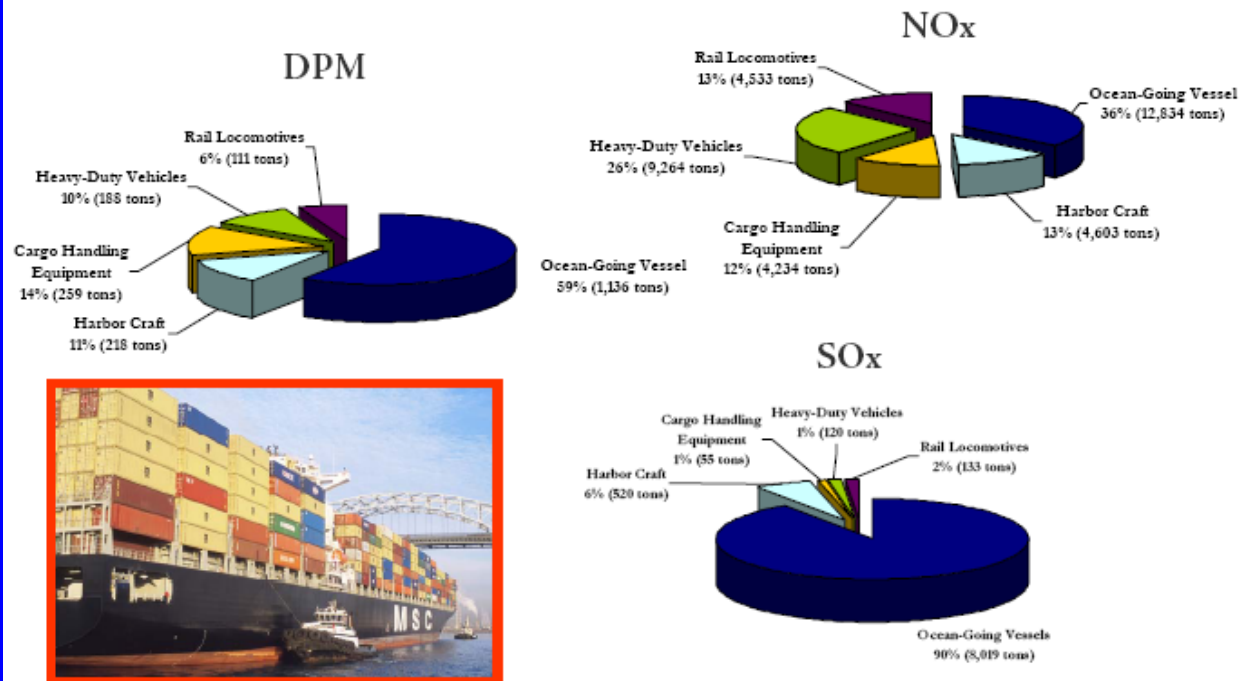
Process

- **Conduct Analysis**
 - *Structure of Current Industry*
 - *Impact of TWIC*
 - *Clean Truck Program: LMC-100 Model*
 - *Clean Truck Program: Owned Trucks/Employee Drivers*
 - *Possible Market Changes*
- **Analyze Economic Impacts of Program**
- **Analyze Unintended Consequences**
- **Oversight - Effectively None**

Clean Environment
Growing Economy

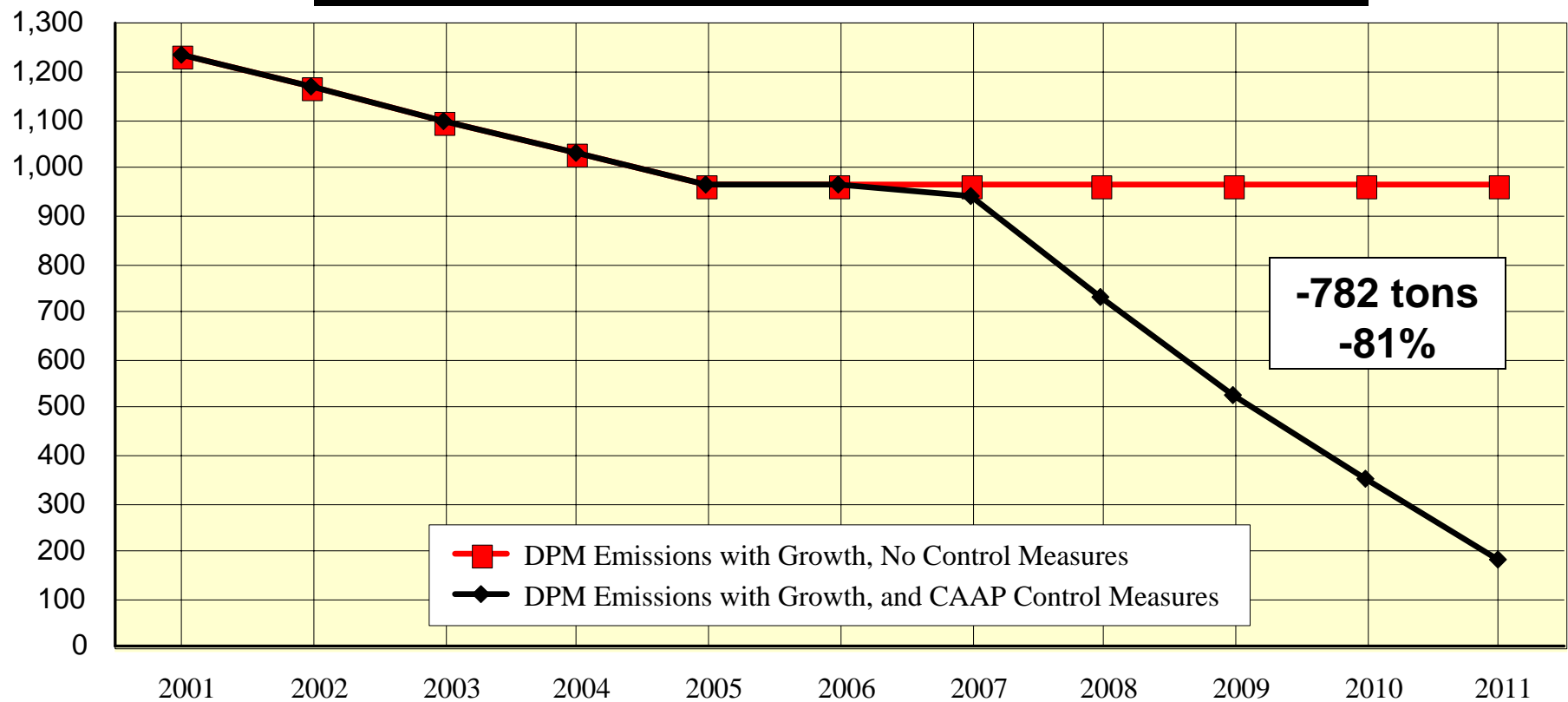
Truck Share of DPM (10%) & NOx (26%)

Pollutant Contribution by Source



DPM Reduction

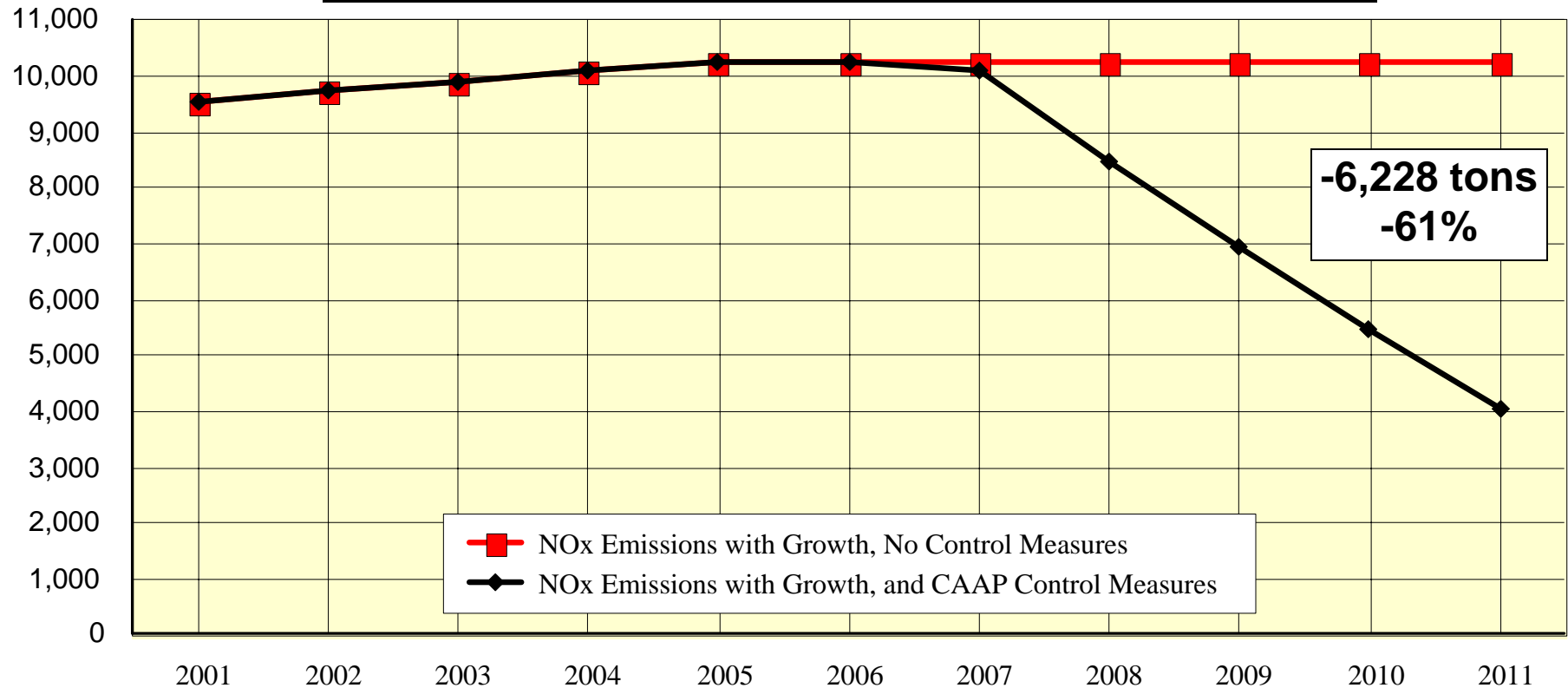
Exhibit 3.-Reduction of Diesel Particulate Matter Emissions With & Without CAAP Control Measures, 2001-2011



Source: San Pedro Bay Ports CAAP Technical Report, Table 6-1

NOx Reduction

**Exhibit 4.-Reduction of Oxides of Nitrogen Emissions
Emissions With & Without CAAP Control Measures, 2001-2011**



Source: San Pedro Bay Ports CAAP Technical Report, Table 6-2

AQMD Economic Calculation

Cumulative Health Effects

Clean Air Benefit: 2008-2025

CARB Off-Road Rule Methodology: Median at \$5.9 billion

CARB Off-Road Rule Methodology: Median at \$4.7 billion

AQMP Methodology Median at \$5.4 billion

230-1,450 Premature Deaths Avoided: 95% of Economic Impact

Economic Reports

- Long Beach 2001: 315,611 Direct & Indirect Jobs
- PPIC 2004: \$240.4 Billion; 24.4% U.S. Two-Way Port Trade
- ACTA 2005: 1,114,660 Jobs in CA, NV, AZ, NM, CO, UT
- LAEDC 2005: All Trade = 450,100 Direct Jobs; 6.4% 5 Co.
- McGMAP 2005: Port Trade = 740,103 Total Jobs; 8.8% 7-Co.
- McGMAP 2030: Port Trade = 1.6 million if 42.5 million TEU

What Happens If CAAP Fails & The Ports Are Not Allowed To Build Planned Infrastructure?

**Port growth restrained to 2/3 of 42.5 million TEU capacity ...
300,000 jobs not created**

**Port growth restrained to 1/3 of 42.5 million TEU capacity ...
600,000 jobs not created**

3. Structure of Port Drayage Industry



Where Is Port Drayage Capacity?

800 - 1,200 Licensed Motor Carriers

LMC Size Based on Number of Drivers	Estimated Percent of Industry	
1 to 10	5%	83.1%
11 to 25	25%	79.4%
26 to 75	41%	76.2%
75 to 250	19%	40.6%
251 and up	9%	25.2%
Totals	100%	

Form "M" \$3 - \$5 Million Revenue Upper Limit

Little Borrowing Power

95% of Revenue To Costs

Average Total Operating Revenues	\$4,109,000
Operating Ratio	95.00%
Average Net Operating Income (pretax)	\$24,245
Return on Capital	2.19%
Return on Owners Equity	5.29%
Total Assets	\$1,347,000
Accounts Receivable included in Total Assets	\$413,000
Total Owners Equity or Capital	\$362,200
Average number of drivers and support employees	36

\$934,000 In Physical Assets

Nature of LMCs

Firms Arranging for Cargo Moves

Most Are Not Asset Based Trucking Firms

Relatively Thin Financial Strength

Little Pricing Power

**Highly Competitive, Small Companies,
No Barriers To New Firms Entering Business**

Vs.

**Limited Number of Large Ocean Shipping Lines
Very Powerful Beneficial Cargo Owners**

IOO's – Own & Maintain Trucks Move Containers

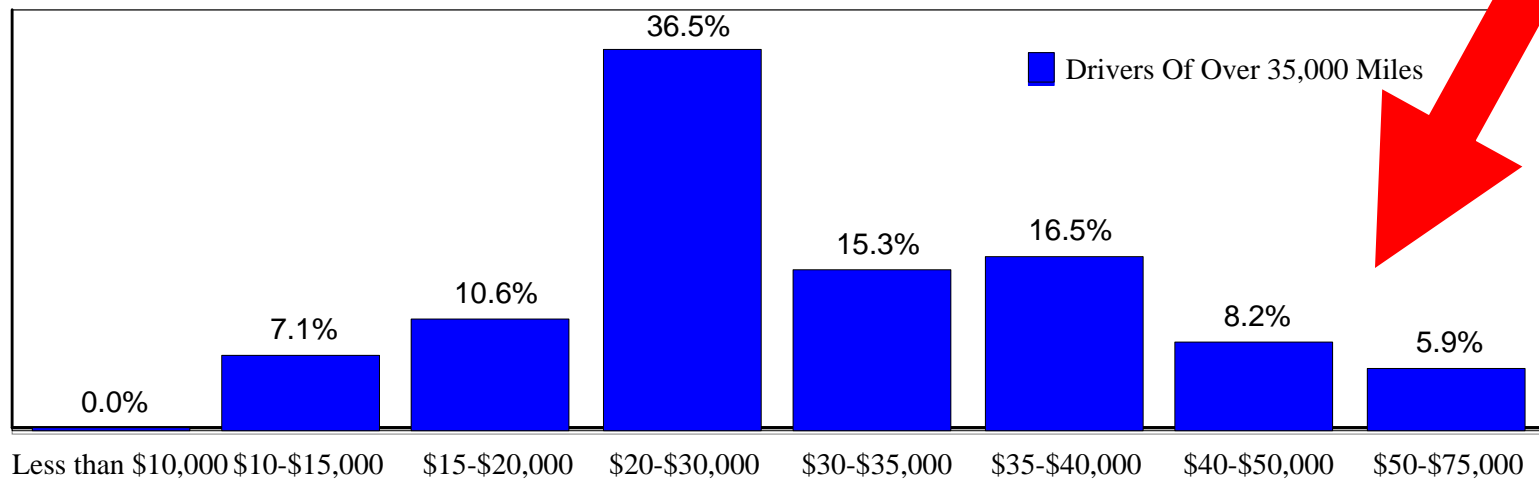


**Who Enters Gate: 85% Are IOOs
15% Are Employees Mostly Private of Fleets**

Employee? 20% Yes, 48% Maybe, 32% No

IOO Net Income

**Exhibit 10.- IOO Reported Annual Net Income
San Pedro Bay Ports, Drivers Exceeding 35,000 Miles, 2006**



Source: A Survey Of Drayage Drivers Serving The San Pedro Bay Ports, CGR Management Consultants, LLC

Median Hourly Net Income

\$12.37 per Hour (Dr. Monaco)

\$11.60 per Hour (Gateway Study)

Oversight

90-Day Vehicle Safety & Maintenance Check (CV 34505.5)

Drivers Logs

Insurance (*often through LMC*)

Records Must Be Kept



Records Maintained By IOOs & LMCs



CHP Bi-Annual Inspection Program (CV 34501.12) – 90-Day Records Check

CHP has Budget to do about 50% of Required Audits

4. TWIC



IOOs: 22% Definitely Won't Apply For TWIC

21% May Not

LMC: Loss of 0% to 20%

Assumed Range: 15% to 22%

- **May Change Mind**
- **IOO Survey**
- **Homeland Security**
- **Hazmat**
- **Criminal Records**

Loss of 2,500 to 3,700

Challenges



Find 2,500-3,700 Other Trucks To Clean-Up



Finding 2,500-3,700 Drivers

Driver Pay In Southern California



- IOOs not in Port Drayage: Inland Empire (**\$18.09**) **\$20.08**
- LA Employee-Drivers (*Bottom 33%: \$16.45*) **\$21.72**
- IE Employee Drivers (*Bottom 33%: \$17.65*) **\$22.67**
- Construction Workers (*Bottom 33%: \$17.33*) **\$21.94**

Assumed Need to Pay \$20 per Hour To Replace TWIC

Remember: Aging Work Force & Turnover Also Affecting Pay

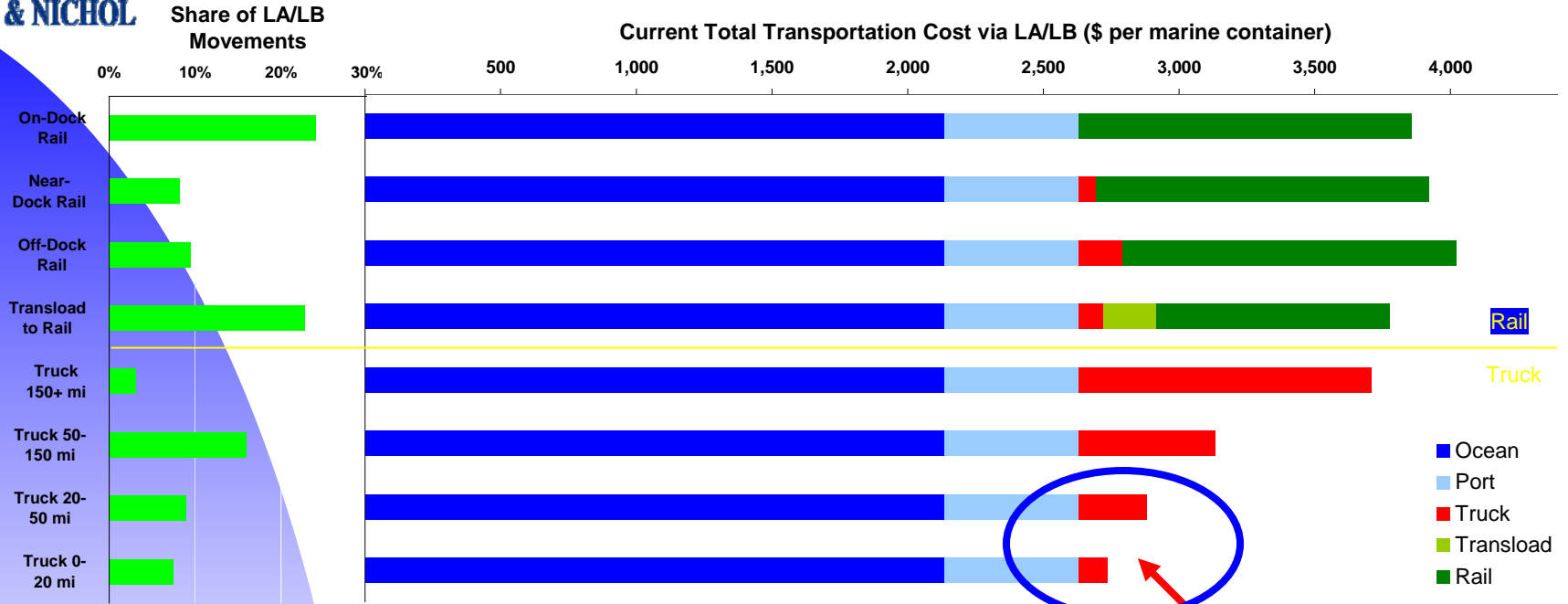
• LMC Must Pay IOO	70%	\$75,000
• LMC has Non-Driver Costs	25%	\$26,800
• LMC Net:	<u>5%</u>	<u>\$ 5,400</u>
• Required Revenue:		<u>\$107,100</u>
• \$75,000 gross - <u>\$46,000</u> Cost = Net:		\$29,000
• <u>\$20 per hour</u> , 50 weeks, 50 hours = Net:		\$50,000
• Holding Other Expenses at:		<u>\$46,000</u>

24.3% Increase In Prices

• LMC Must Pay IOO Gross of:		\$96,000
• LMC has Non-Driver Costs		\$26,800
• LMC Wants to increase net <u>5.0% to 7.8%</u>		<u>\$10,700</u>
• Required Revenue:		<u>\$137,100</u>



Import Transportation Cost



For most movements, trucking cost is small

\$150 to \$187 or \$300 to \$373 vs. \$2,575

On \$70,000 per container (0.05% or 0.1%)

1. US customs declared value

Two Paths



Crisis Path



***Down Field
Vision***

5. Clean Truck Program: LMC & IOO



Driver Need TWIC & Port Growth 2% Per Year Efficiency Increase

Year	By Truck	80% High Frequency	High Frequency Truck Ratio ⁽¹⁾	Clean Trucks Needed
2006	6,466,000	5,172,758	308	16,800
2010	7,984,000	6,387,243	333	19,165
2012	8,772,000	7,017,948	347	20,239

13,100 + 3,700 TWIC + 3,400 Growth = 20,200 54.5%

14,300 + 2,500 TWIC + 3,400 Growth = 20,200 41.5%

TIF

LMC Has An IOO with a truck not up to Clean Air Standards

TIF estimate \$34 to \$54. Assume \$50.

Average Trips 308 x \$50 = \$15,400

Exhibit 26.-Impact of TIF On Pre-Tax LMC Profit

	Revenue & Current LMCNet
Total Revenue	\$107,100
Pre-Tax Profit	\$5,400
TIF @ \$50	\$15,400
Post-TIF Profit (Loss)	(\$10,000)

Pressure on IOO

To Clean Up Truck Immediately

100 Clean Truck Options

•Retrofit (36.8%) \$20,000 From Grant Fund \$212,000,000

100 Borrow

•Purchase (63.2%) \$80,000 From Grant Fund \$850,000,000

• No Tax on Grant \$0

• Borrow \$28,500 Very Hard

• Port Lien Truck for 80%. Lender in 2nd Position for 20%

• Marginal Personal FICO Credit Score

• Need Loan Guarantee Program

LMC's Customers Pay

63.2% of \$28,500 = \$18,000 Per Truck Per Year

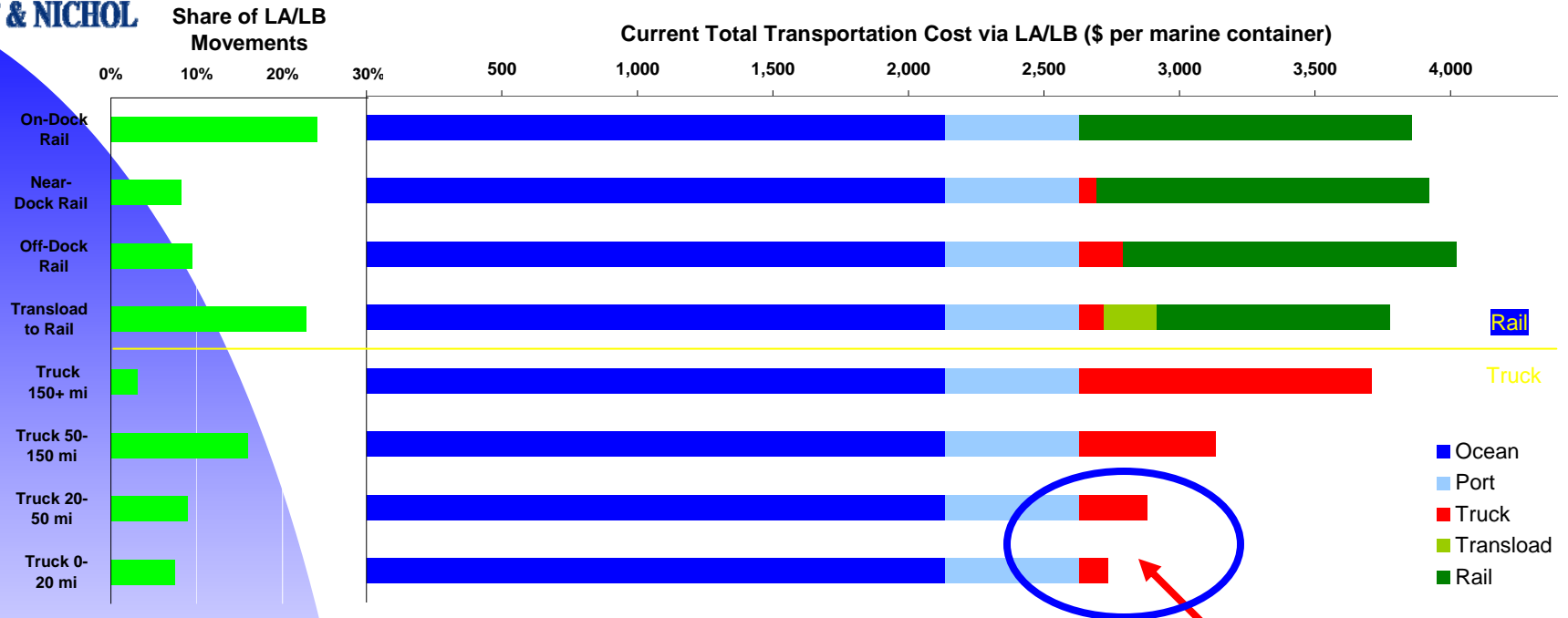
• LMC Must Pay IOO Gross of	70%	\$75,000
• LMC has Non-Driver Costs	25%	\$26,800
• LMC Net:	5%	<u>\$10,700</u>
• Required Revenue:		\$107,100
• <u>\$20 per hour, 50 weeks, 50 hours = Net:</u>		\$50,000
• <u>Holding Other Expenses at:</u>		\$46,000

48.6% Increase In Prices

• LMC Must Pay IOO Gross of:		\$96,000
• LMC has Non-Driver Costs Due to Move Volume:		\$34,400
• Assist IOO With Truck (\$28,500) 63.2% Replaced		\$18,000
• LMC Wants to increase net	<u>5.0% to 6.7%</u>	<u>\$10,700</u>
• Required Revenue:		\$159,200



Import Transportation Cost



\$150 to \$223 or \$300 to \$446 vs. \$2,575

On \$70,000 per container (0.1% or 0.2%)

1. US customs declared value

Fleet Modernization Grant Fund

	TIF Paid	Self Retrofit	Net	Vehicles	
Year 1	\$15,400	\$16,800	(\$1,400)		
Year 2	\$30,800	\$16,800	\$14,000	3,118	\$96,034,000
Year 3	\$46,200	\$16,800	\$29,400	2,274	\$105,060,000
					\$201,094,000
					80%
					\$ 160,875,200

Incentive To Self Retrofit

Fund Difficulties: 8.9% Self Retrofit

Prop 1B

Immediate need of clean up to avoid TIF

Two Paths



Crisis Path



***Down Field
Vision***

Clean Truck Program Truck Ownership Employee-Drivers



Three Parts to Clean Air Program

- 1. Clean-up Trucks**
- 2. Employee Drivers**
- 3. Yard for Parking, Maintenance, Inspection**

TIF

LMC Has An IOO with a truck not up to Clean Air Standards

TIF estimate \$34 to \$54. Assume \$50.

Average Trips 308 x \$50 = \$15,400

Exhibit 26.-Impact of TIF On Pre-Tax LMC Profit

	Revenue & Current LMCNet
Total Revenue	\$107,100
Pre-Tax Profit	\$5,400
TIF @ \$50	\$15,400
Post-TIF Profit (Loss)	(\$10,000)

Pressure on LMCs

To Clean Up Truck Immediately

LMC Cash Flow Need to Retrofit: Year 1

Cost of Acquiring a Used Tractor		\$32,200
Sales Taxes in Los Angeles County @ 8.5%		\$2,737
Purchase Cost		\$34,937
Retrofit Cost		\$20,000
Fleet Modernization Grant	\$20,000	(\$20,000)
Value of depreciation deduction @ 20% of .80 of price	(\$5,590)	
Taxable Income	\$14,410	
<u>Income Tax @ 32%</u>	\$4,611	\$4,611
Total Cash Required in Acquisition Year		\$39,548

LMC Cash Flow Need to Purchase: Year 1

Cost of Acquiring a Used Tractor to Scrap		\$11,500
Cost of New Tractor		\$20,000
Sales Taxes @ 8.5%		\$8,500
Purchase Cost		\$40,000
Fleet Modernization Grant	\$80,000	
Value of depreciation deduction @ 20%	(\$17,700)	
Scrap Value of Used Tractor	(\$11,500)	
Net Taxable Income	\$50,800	
Income tax at @ 32%	\$16,256	16,256
Total Cost		\$56,256

Cash Required By LMCs of Various Sizes

50% Retrofit, 50% Replace

Average Cash Per Truck: \$47,902

Total Fleet Size	Avg. Trucks	Cash Required
1-10	6	\$287,413
11-25	18	\$862,238
26-75	47	\$2,243,045

Lender in Second Position on New Trucks

Weak Balance Sheets

\$362,200 Net Worth

5.29% Return on Equity 2.19% Return on Capital

Employee-Driver Costs

2,000 hours x \$20.00 = \$40,000
225 hours x \$30.00 = \$ 6,750
\$46,750

State Disability Insurance	\$	1,683	0.60%	
Unemployment Insurance and WIB rate	\$	252	3.60%	\$ 7,000
Workman's Compensation Insurance	\$	4,035	\$8.63	100
Insurances: med, dental, life, disab, LTC	\$	4,014	\$4,505	\$ 491
Social Security Tax	\$	3,576	7.65%	
	\$	<u>13,560</u>		

\$60,310

\$29,000

Workers Have Less Time, Need More For Same Work

Make ready, pretrip insp., fuel	30
Cleanup, complete logs, finish	30
Maintenance waiting time	30
Meal break	0
Two 10 min breaks per shift	<u>20</u>
Lost Time	110
9 Hour Day	540
<u>Available to 100</u>	<u>600</u>
	60
Less Time Available to Employee	170

$$\$60,310 \times 1.283 = \$77,398$$

\$29,000

28.3%

Other Costs & Cost Offsets

Non-Driver Operating Costs

Slip-Seating

Technology

Yard Capital Cost Per Truck: Year 1

	Per Truck	\$17,346	\$23,872	\$26,385	\$21,237
LMC Size Category	Avg. Trucks	Fontana (50%)	Mid-Cites/S. Gabriel (25%)	South Bay (25%)	Weighted Avg.
0-10	6	\$104,074	\$143,232	\$158,309	\$127,422
11-25	18	\$312,221	\$429,696	\$474,927	\$382,266
26-75	47	\$815,243	\$1,121,985	\$1,240,088	\$1,059,105

Combined Cost Replace 100

Truck Cost Per Vehicle (50% Retro-50% New)	\$47,902
Employee Replace 100 + 28.3% More Staff	\$77,398
Yard	<u>\$21,237</u>
Total	\$146,537

- LMC Must Pay IOO Gross of 70% \$75,000
- LMC has Non-Driver Costs 25% \$26,800
- LMC Net: 5% \$10,700
- Required Revenue: \$107,100

• \$20 per hour, 50 weeks, 50 hours = Net: \$50,000

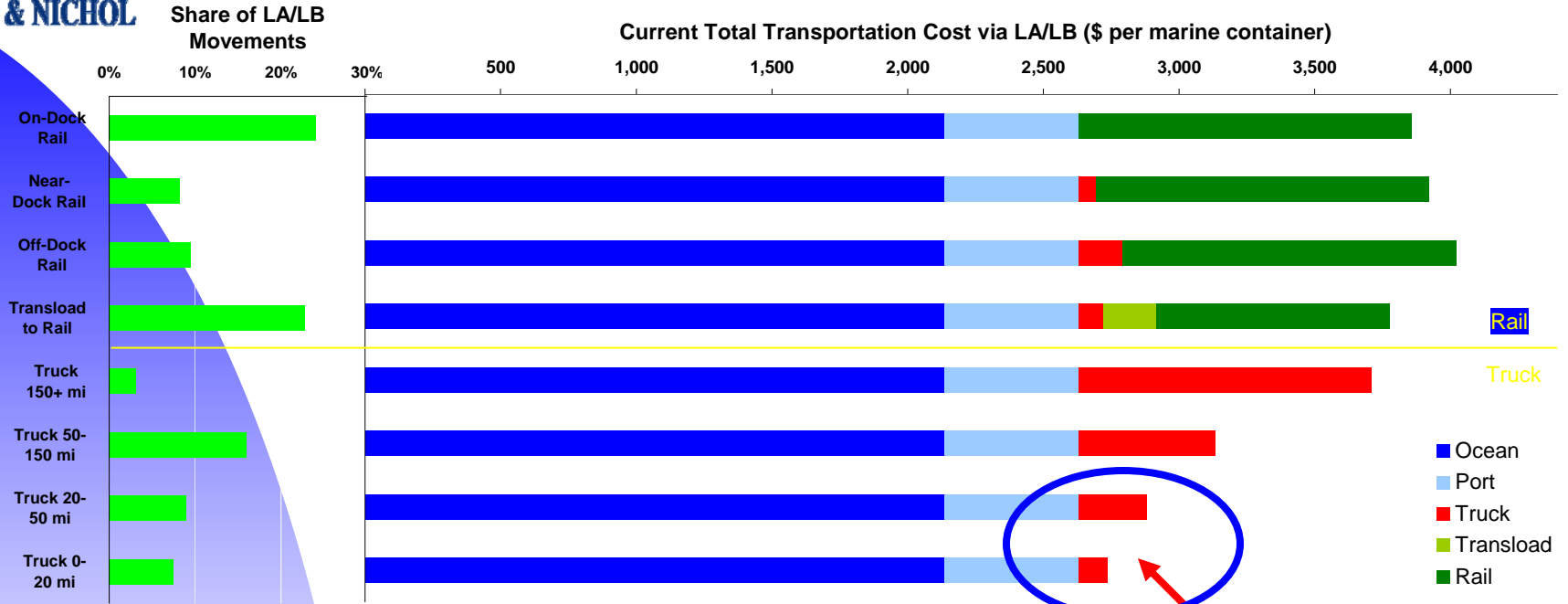
• Holding Other Expenses at: \$46,000

80% Increase In Prices

- LMC Must Pay IOO Gross of: **\$146,500**
- LMC has Non-Driver Costs Due to Move Volume: \$34,400
- Assist IOO With Truck (\$28,500) 63.2% Replaced \$ 0
- LMC Wants to increase net 5.0% to 5.6% \$10,700
- Required Revenue: \$191,700



Import Transportation Cost



\$150 to \$270 or \$300 to \$540 vs. \$2,575
On \$70,000 per container (0.17% or 0.34%)

1. US customs declared value

Two Paths



Crisis Path



***Down Field
Vision***

Beneficial Cargo Owner Executive's Likely View of Price Increase

200 Containers a Week

10,400 per Year

\$300 to Move

\$3,100,000

\$540 to Move (80%)

\$5,600,000

\$2,500,000 Increase



Optimistic Transition

50% of Ocean Shipping Lines & Beneficial Cargo Owners Accept Higher Price

8.3% a month for Six Months Also Accept Price

Six Months: LMC is Recovering its Costs & Has Same Profit

Metric	Firm Revenue Base \$3 mi to \$5 million	Firm Revenue Base \$14 million
Owner's equity pre-transition	\$362,200	\$1,768,600
Accumulated loss at breakeven	(\$410,000)	(\$1,460,000)
Owner's equity at the end of the transition loss period	(\$47,800)	\$308,600

Difficulties


Program Forced To Rely On Weakest Players To Try To Get Strongest to Pay For Externalities

LMCs – No Barriers to Entry – Wild Competition

Three Sources of Clean Up Funds:

- Increased Prices
- Grants
- Loans or Equity Investments

Each Has Difficulties:

- Weak Price Negotiating Power 
- Grants Insufficient
- Weak Financials for Loans & Equity Investment

Possible Changes In Market Structure May Provide Relief



Today's Market

No Barriers To Entry:

Cut Throat Competition, No Control Over Prices

Barriers To Entry?

Application Fee:	\$5,000
Renewal Fee:	\$150 per Truck
TIF	\$15,400
Driver Pay	\$20 per Hour

Creates Barriers To New Entrants

Some Firms Forced Out

Surviving LMCs Have More Negotiating Power

Care To Ensure Some Survivors!

Port Drayage A Rare Growth Industry

U.S. Chinese Trade

Up 16.1-times 1990-2005 Up 2.5-times 2000-2005

San Pedro Bay Ports Standout

LA-LB 37.8% of U.S. Two Way Trade TEUs

3 times New York

More than bottom 114 Ports starting with Oakland (#7)

Pay Scales (45 Hour Week)

Estimate Used Here: \$46,750

Opens Up New Potential Competitors:

Schneider National \$54,500

Yellow Transportation \$54,426

UPS \$67,010

JB Hunt \$50,000

Fedex Ground \$50,000-\$55,000

Wall Street

- **Wall Street Looking For Sectors Where M & A Can Lead to Increase Efficiency, Better Management, Great Value**
- **Port drayage may be about to become one**
- **Partner with firms with strong management**
- **Put up money for M & A for 50% of deal**
- **If successful combined operation more efficient**
- **Stock goes up, Wall Street cashes out.**

LA-LB - Possible Test Case

- **Rapidly Growing Sector**
- **Disorganized and relatively inefficient**
- **Biggest complex**
- **Test case for U.S. port drayage**
- **Start with a few firms to gain contracts, staff knowledge, fold them into the corporation**
- **Won't start until feel there is potential for pricing power**
- **That will require barriers to entry**

Impacts: Barriers

Stronger Remaining Local LMCs

Bigger Firms Begin To Join Market

Both Able To Set Prices That Reflect Their Costs

Externalities included in Prices

Greater Ability To Use Technology

Trucks Keep Up With Clean Air Technology

Most Players Big Enough For CHP Oversight

Stronger Port Security

Healthy Community

Some Cargo Will Be Diverted

Price An Issue Until Other Ports Catch Up

Impact: Barriers

Weaker LMCs Will Have Difficulty

New LMCs Can't Start

**IOOs With Clean Trucks, Some Remain As Is, Some Employees,
Some Leave Port Drayage**

**IOOs With Older Trucks, Some Employees, Some Leave Port
Drayage**

**Non-Driving Staff of LMCs That Leave, Some Hired by growing
firms, Others lose Work**

Support Firms – Some Lose Customers, Some Go Out of Business

Worst Case Scenario

	LMCs	Owners Lost	Back Office per Firm	Back Office	Back Office Staff Lost	Support Loss			
0-10	246	50%	123	3.5	861	25%	215	123	461
11-25	403	45%	181	4.0	1,612	23%	363	181	725
26-75	258	25%	64	4.6	1,184	13%	148	64	277
76-250	77	10%	8	6.6	510	5%	26	8	41
251 & Up	16	0%	-	6.6	105	0%	-	-	-
	1,000		376		4,273		751	376	1,504

AQMD Economic Calculation

Cumulative Health Effects

Clean Air Benefit: 2008-2025

CARB Off-Road Rule Methodology: Median at \$5.9 billion

CARB Off-Road Rule Methodology: Median at \$4.7 billion

AQMP Methodology Median at \$5.4 billion

230-1,450 Premature Deaths Avoided: 95% of Economic Impact

What Happens If CAAP Fails & The Ports Are Not Allowed To Build Planned Infrastructure?

**Port growth restrained to 2/3 of 42.5 million TEU capacity ...
300,000 jobs not created**

**Port growth restrained to 1/3 of 42.5 million TEU capacity ...
600,000 jobs not created**

Economics & Politics, Inc.

**CGR Management
Consultants, LLC**