

Quality of Life and Port Operations: *Challenges, Successes and the Future*



Sixth Annual CITT State of the Trade and Transportation Industry
Town Hall Meeting

A White Paper

August 30, 2004

By
Thomas O'Brien



DISCLAIMER

The opinions and conclusions expressed or implied in the report are those of the author. They are not necessarily those of the METRANS Transportation Center, the Center for International Trade and Transportation, the U.S. Department of Transportation nor the California Department of Transportation.

Contact Information:

Center for International Trade and Transportation
University College and Extension Services
1000 Studebaker Road, Suite 3
Long Beach, California 90815
(562) 296-1170 Fax: (562) 296-1171
email: citt@uces.csulb.edu
www.uces.csulb.edu/citt

Table of Contents

Executive Summary	2
1.0 Issue Statement: Balancing Effective Port Operations and Quality of Life	5
1.1 Challenges and Successes: Trends in International and Domestic Trade.....	6
1.1.1 Terminal Operations at the Ports of Los Angeles and Long Beach.....	7
1.1.2 Goods Moved Through the Ports of Los Angeles and Long Beach	7
1.1.3 Population and Employment.....	10
1.1.4 Roles of Truck and Rail	10
1.2 Challenges and Successes: Trends in Environmental Consciousness and Quality	11
1.2.1 Air Quality	11
1.2.2 Congestion	13
1.2.3 Water Quality.....	13
1.2.4 Noise and Aesthetics.....	14
1.3 The Future: Balancing Trade and the Environment.....	14
1.3.1 Regulatory Responses: Objectives, Summaries, and Status	14
1.3.1.1 Federal Response	15
1.3.1.1.1 Federal Clean Air and Water Acts	15
1.3.1.1.2 Federal Trucking and Fuels Legislation.....	15
1.3.1.1.3 Security Legislation.....	16
1.3.1.2 State and Local Responses.....	16
1.3.1.2.1 Trucks, Yard Equipment, and Gate Hours	17
1.3.1.2.2 Fuel Standards	18
1.3.2 Changes in Port Operations	18
1.3.2.1 Use of Rail and the Alameda Corridor	18
1.3.2.2 Use of Extended Gate Hours.....	18
1.3.2.3 Vehicle, Engine and Fuel Standards at the Ports	19
1.3.3 Enhanced Technologies and New Technology Development	19
1.3.3.1 Security-Related Technology	19
1.3.3.2 Cold Ironing.....	20
2.0 Sixth Annual CITT State of the Trade and Transportation Industry Town Hall Meeting ..	20
2.1 Setting the Stage: Why Quality of Life and Port Operations?.....	21
2.1.1 Summary of Introductory Comments	21
2.2 Panel Discussion	22
2.2.1 Summary of Panel Comments.....	22
2.2.2 Summary of Question and Answer Session.....	24
2.2.3 Conclusions: Building a Consensus?	27
2.3 Next Steps: Role of CITT	28
References	30
Acknowledgements.....	33

Figures:

Figure 1-Combined Los Angeles and Long Beach Container Volume 99-03.....	8
Figure 2-Port of Los Angeles Cargo Volume 01-04.....	9
Figure 3-Port of Long Beach Cargo Volume 01-04	9

Executive Summary

The 6th Annual State of the Trade and Transportation Industry Town Hall Meeting was held on Wednesday March 24, 2004, in Long Beach, California. Sponsored by the Center for International Trade and Transportation (CITT) at California State University, Long Beach (CSULB), and the CSULB/University of Southern California (USC) METRANS Transportation Center. This year's event focused on "Quality of Life and Port Operations: Challenges, Successes and the Future."

The overall goal of the meeting was to present in a town hall setting the challenges facing the seaport and intermodal industries. The focus was on solving environmental problems while growing to meet the needs of increasing international trade through the Ports of Los Angeles and Long Beach. This White Paper provides a context for the discussion and sets the stage for future steps to be taken by CITT to ensure that talk leads to consensus and then to action.

The Ports of Los Angeles and Long Beach play a vital role in supplying the entire nation with the goods it desires. The 10,000-acre San Pedro complex moves a combined 160 million tons and \$200 billion worth of cargo each year, more than 80% via container. This total is greater than any other maritime port in the nation, including New York/New Jersey, Charleston, Houston and Seattle/Tacoma. Between 50% and 60% of all imports that move through the San Pedro Port Complex are destined for delivery outside of Southern California.

The cost of providing trade service to the rest of the nation is not fully compensated by the marketplace nor captured by transfers from the federal government. This makes Southern California (in fact all of California) a donor region when it comes to trade; and it is increasingly difficult to find the funds needed to both maintain and expand the infrastructure that allows for the efficient and effective movement of goods. With Asian imports making up some 40% of all U.S. trade, and over 70% of the Asian goods entering the country through California, both the benefits and costs of port-related operations will remain critical issues.

Growth at the ports has brought an awareness of the impacts of goods movement on the environment. Widening and deepening channels may make harbor transport safer but could harm marine life. Those who live and work in and near the ports are concerned about air quality, water quality, congestion and noise. While great strides have been made recently in combating the effects of diesel exhaust and other harmful pollutants, there are still concerns that the ports have a negative impact on the quality of life for their neighbors.

The Ports of L.A. and Long Beach represent the single largest source of air pollution in Southern California. More than 90% of emissions of harmful particulate matter at the ports comes from ships, container handling equipment, trains and trucks. There is good news to report, however. Modernized ships are not only increasingly larger but also cleaner; and port, state and Air Quality Management District funds have been used to improve conditions at the terminals and in the surrounding communities.

Recognizing the importance of trade and quality of life does not ensure agreement on the best solutions to achieve both. Some favor regulatory approaches, others voluntary operational changes and still others, new technology. In reality, it will likely take a combination of all three

to guarantee that the ports will prosper in a way that allows for clean air and water and does not increase congestion.

The purpose of regulatory action is to make sure that the negative impacts of port operations, if not controlled through the market, are addressed through legislation. Many attempts to address quality of life issues have come through federal legislation. The federal government has long been involved in developing guidelines for truck safety via the Interstate Commerce Commission, the U.S. Department of Transportation and the National Surface Transportation Board. In 1997 the federal government through the Environmental Protection Agency adopted new emission standards for model year 2004-and-later diesel trucks. Newer standards will take effect in 2007 to regulate the emission of particulate matter.

The federal government has also attempted to use “carrots” along with “sticks.” The U.S. E.P.A.’s SmartWay program is a voluntary partnership between the federal government and the freight industry. Designed to increase energy efficiency and reduce emissions, SmartWay asks shippers and truckers to integrate cost-saving strategies into their operations.

Given the sheer volume of containerized goods moved through the Ports of Los Angeles and Long Beach, their importance to the national economy and the ever increasing attention being paid to the impacts of international trade, it is not surprising that state and local legislators have also attempted to respond to the concerns of their constituencies and move beyond federal regulations. Their goal is to ensure that the benefits of the ports are not outweighed by environmental impacts.

The most widely discussed legislative response to the problem of diesel emissions, particularly as a result of truck idling, has been California Assembly Bill (AB) 2650. Also known as the Lowenthal Bill, the legislation attempts to limit truck idling by fining terminal operators who require trucks with appointments to wait more than 30 minutes outside the gates. The legislation impacts the Ports of Los Angeles, Long Beach and Oakland. A companion piece of pending legislation (AB 1971) would ensure that the intent of AB 2650 is not circumvented by moving trucks with appointments inside the terminal gates to wait. AB 2650 set in motion a number of responses from the terminals, including appointment systems and extended gate hours, meant to comply with the law.

Both the State, through the California E.P.A.’s Air Resources Board (A.R.B.), and the South Coast Air Quality Management District have also attempted to control diesel emissions by regulating yard equipment. The A.Q.M.D. has issued regulations for tractors; and in October 2000, the A.R.B. approved a risk reduction plan to reduce particulate matter emissions from diesel-fueled engines and vehicles.

While legislators pursue regulatory responses, terminal operators and other goods movement stakeholders have proposed additional means of improving quality of life around the ports through operational changes. Not surprisingly, many of these address gate operations since these are most directly under the control of the terminals themselves. Major changes include extended use of rail, extended gate hours and voluntary retrofits of port equipment.

Recently, the marine terminal operators and shipping lines, in an effort supported by the Waterfront Coalition--made up of many large retailers and importers--have proposed to extend gate hours. Terminal operators would sign a Cargo Commitment Form to allow the pick-up of import containers and the drop-off of empties during night shifts at all terminals at the two ports. A traffic mitigation fee would be assessed but rebated for cargo moved during off-peak hours or via rail.

The terminals have also been actively involved in modifying the equipment used at the ports so that they are more environmentally friendly. The Port of Long Beach, using matching funds from the California Air Resources Board, has retrofitted over 600 pieces of port-related equipment with a diesel oxidation catalyst and using emulsified diesel.

For both the legislators and industry, new technologies hold the key to many of the desired impacts with regard to quality of life. In a capacity-constrained environment, increasing throughput without increasing emissions or congestion depends upon innovation. Some of these will come about via new security measures. Others will result from negotiations among the various stakeholders.

The next step in moving beyond the Town Hall and this White Paper is to work with researchers and stakeholders to discuss agreed-upon problems, possible researchable questions that address those problems, and determine how best to implement a research program.

A short-term and a long-term approach will be pursued involving both the development of a policy paper that addresses one of the themes of the Town Hall and a research agenda which will guide us as we pursue topics of interest to industry and community alike. In independently collecting and updating data, the research community can lay the groundwork for a civil and thoughtful discourse.

#####

1.0 Issue Statement: Balancing Effective Port Operations and Quality of Life

The 6th Annual State of the Trade and Transportation Industry Town Hall Meeting was held on Wednesday March 24, 2004, in Long Beach, California. Sponsored by the Center for International Trade and Transportation (CITT) at California State University, Long Beach (CSULB), and the CSULB/University of Southern California (USC) METRANS Transportation Center, this year's event focused on "Quality of Life and Port Operations: Challenges, Successes and the Future."

The overall goal of the meeting was to present in a town hall setting the challenges facing the seaport and intermodal industries. The focus was on solving environmental problems while growing to meet the needs of increasing international trade through the Ports of Los Angeles and Long Beach. The Town Hall is unique in targeting representatives from all of the stakeholders in the goods movement chain. This list includes:

- shipping lines that deliver the goods to the ports
- ports
- terminal operators
- dockworkers who unload the cargo and ready it for transport by truck and rail
- trucking companies and railroads that deliver the goods to intermodal transfer centers
- warehouses and retailers
- customers who receive the goods
- policy makers and governmental agencies responsible for establishing the rules by which the ports operate
- communities in the vicinity of both the port and the roads along which the goods travel.

More specifically, the 2004 Town Hall sought to:

- Raise awareness within the community, including port workers who reside near the port, about the role played by the ports in the local/regional economy and the steps being taken by key stakeholders to improve the relationship between the ports and their neighbors
- Explore opportunities and policy options to further common goals
- Discuss the role of labor, both dockworkers and truckers, in acting as a conduit between the ports and the community
- Establish a means for on-going communication among stakeholders to ensure that dialogue is proactive and not reactive.

This White Paper does not merely summarize the Town Hall discussion. It provides a context for the discussion and sets the stage for future steps to be taken by CITT to ensure that talk leads to consensus and then to action. The final recommendations include both a short-term policy paper and the development of a research agenda over the long-term. These products will contribute to a knowledge base upon which all stakeholders can build in deciding how to approach the growth of the ports.

There are two main areas of discussion. First, the White Paper broadly outlines the issues surrounding the debate on quality of life and the ports. These include an understanding of the trends in international and domestic trade that encourage port growth. They also include a parallel growth in environmental consciousness that demands a healthy environment along with a healthy economy. As a result, the White Paper considers three main options for balancing the environment and economic growth and prosperity: regulatory responses, changes in port operations, and the use of new technologies.

Revisiting the 2004 Town Hall meeting, the second half of the White Paper looks at the panel discussion and question and answer period in light of the issues already presented. The report then considers the critical role research plays in an improved quality of life AND a vibrant port complex.

As a neutral forum where all parties in the logistics industry and the community can come together, CITT is uniquely positioned to help identify points of convergence in an industry where consensus is not always the norm. Furthermore, as members of the greater San Pedro/Wilmington/Long Beach community, attendees are representative of the many people who live in the vicinity of the ports, depend upon them for their livelihood and have a stake in finding the right balance between quality of life, prosperity and growth.

1.1 Challenges and Successes: Trends in International and Domestic Trade

The relationships among goods movement, employment and the environment are complex. The Ports of Los Angeles and Long Beach play a vital role in supplying the entire nation with the goods it desires. Between 50% and 60% of all imports that move through the San Pedro Port Complex are destined for delivery outside of Southern California (Haveman and Hummels, 2004). This activity brings economic vibrancy to the region; but while the rest of the nation realizes the benefits of the region's efficiency, most of the impacts remain localized. This is particularly the case with regard to congestion on local freeways. The 35,000 trucks that move in and out of San Pedro on a daily basis may increase to over 90,000 by 2020 because of demand both here and elsewhere (Agarwal and Agarwal, 2002). Similarly, the Southern California Association of Governments estimates that a tripling of international trade by 2025 will increase daily truck trips along nine major truck routes by 70% and daily rail trips by 150% (Southern California Association of Governments, 2003).

The cost of providing trade service to the rest of the nation is not fully compensated by the marketplace nor captured by transfers from the federal government. This makes Southern California (in fact all of California) a donor region when it comes to trade; and it is increasingly difficult to find the funds needed to both maintain and expand the infrastructure that allows for the efficient and effective movement of goods. With Asian imports making up some 40% of all U.S. trade, and over 70% of the Asian goods entering the country through California, both the benefits and costs of port-related operations will remain critical issues (Haveman and Hummels, 2004).

This section looks at the trends in international and domestic trade. These trends offer great hope for sustained economic growth, but also pose challenges because of the impacts of that growth.

They involve port and rail operations, goods moved through Los Angeles and Long Beach, as well as the population and employment figures that reflect, in part, the activities related to trade. This section also considers how goods are moved, whether by truck or rail, and the relationship between the ports and the rest of the goods movement chain. This last point is critical, because no one link in the chain can be responsible for addressing all of the challenges that come with growth in our ports.

1.1.1 Terminal Operations at the Ports of Los Angeles and Long Beach

The 10,000-acre San Pedro complex moves a combined 160 million tons and \$200 billion worth of cargo each year, more than 80% via container (Chang, 2003). This total is greater any other maritime port in the nation, including New York/New Jersey, Charleston, Houston and Seattle/Tacoma; it is due in part to a large local market, proximity to trading partners, favorable geography and climate, and waters deep enough to handle the berths necessary for international trade. Historically, both good roads and rail networks have also played a role. The Ports of Los Angeles and Long Beach form the third largest port complex in the world in container volume, after Hong Kong and Singapore. Some 35% of U.S. containerized imports enter the country through L.A. and Long Beach (L.A.C.M.T.A., 2002).

The number of ships calling at the Ports of Los Angeles and Long Beach has risen steadily. In 2003, container ships accounted for 53% of the 5,696 vessels calling at the two ports – a number that is expected to grow in coming years (Shippers Today, 2004). The rate of increase appears to be slowing because cargo is being carried by increasingly larger ships.

1.1.2 Goods Moved Through the Ports of Los Angeles and Long Beach

Foreign trade is expected to grow dramatically in the next few years despite concerns over security. Total U.S. imports will likely increase by 87% through 2020; the comparable figure for exports is 148%. In California, the figures are projected to be 81% and 187%, respectively. This growth in exports is likely to be driven by the opening of new markets (Haveman and Hummels, 2004).

Since the early 1990s East Asian exports to the U.S. have grown some seven percent annually, outstripping trade with Europe; and U.S. trade with China, valued at \$68.3 billion dollars in 2003 for L.A. and Long Beach alone, is expected to more than double by 2020. Close to 75% of these goods will enter the U.S. via California (Haveman and Hummels, 2004; White, 2004).

By 2005, worldwide container volumes could be double what they were in 2000. L.A. and Long Beach, which currently process in the vicinity of 12 million twenty-foot equivalent container units, or TEUs, annually (Figure 1) could be asked to handle close to 17 million TEUs by 2010 and up to 36 million TEUs by 2025 (L.A.C.M.T.A., 2002).

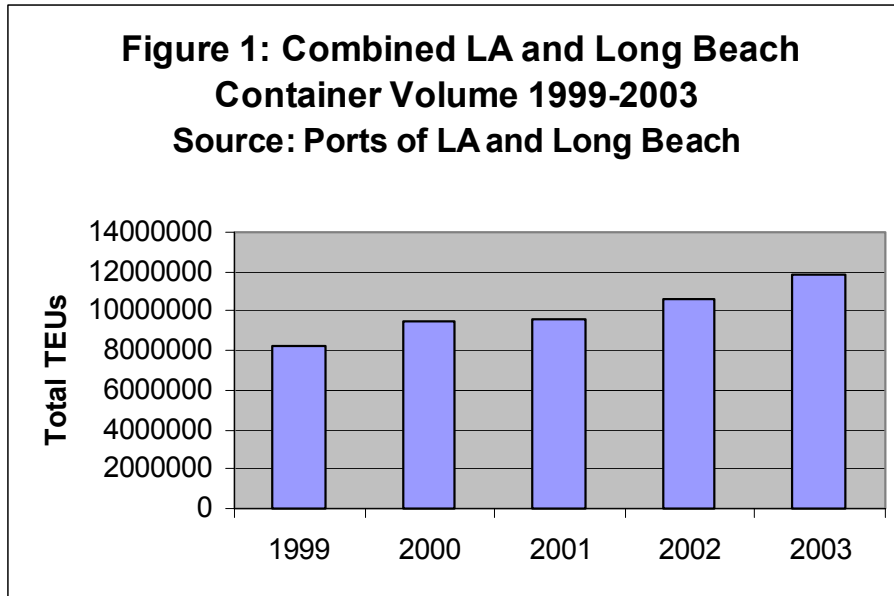


Figure 1

While port growth is occurring in general along the west coast, the San Pedro complex is leading the charge. The share of traffic coming through L.A. and Long Beach relative to the other major west coast ports (Seattle/Tacoma and Oakland) has increased from below 50% in 1992 to 62% in 2002 (Chang, 2003; Keyser and Huang, 2003). The Port of Los Angeles, due in part to expansion, moved 7,178,940 TEUs in 2003, up 17.6% from 2002. Long Beach had a record 2003 with a total of 4,658,124 TEUs, up 2.9% over 2002. Both ports have already reached 2003 peak levels in the first half of 2004 (Figures 2 and 3).

The majority of the goods moving through Southern California are containerized imports, including electronics, electrical machinery, textiles, furniture and toys (Keyser and Huang, 2003; Haveman and Hummels, 2004). Japan is the top export destination and China the top import source (Keyser and Huang, 2003). In fact, East Asian trade is responsible for just under 90% of the imports coming into the region (Chang, 2003). With a growing demand for consumer goods on both sides of the Pacific, L.A. and Long Beach will continue to play central roles in world trade.

The activity at the Port of Los Angeles brings in over \$1.4 billion in state and local tax revenue to Southern California (Port of Los Angeles, 2004). The figure is comparable for Long Beach, where the port reports that it is responsible for one in every eight jobs in the City. Standard and Poor's Financial Report Card grades both the Port of Los Angeles (AA rating) and the Port of Long Beach (AA- rating) favorably. The Port of Los Angeles' rating is the highest for any US seaport not receiving taxpayer support (Mayor's Office of Economic Development, 2004).

Figure 2: Port of Los Angeles Cargo Volume 2001-2004

Source: Port of Los Angeles

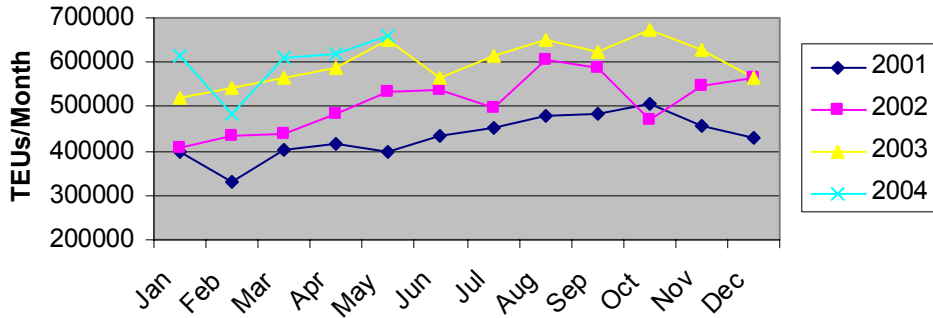


Figure 2

Figure 3: Port of Long Beach Cargo Volume 2001-2004

Source: Port of Long Beach

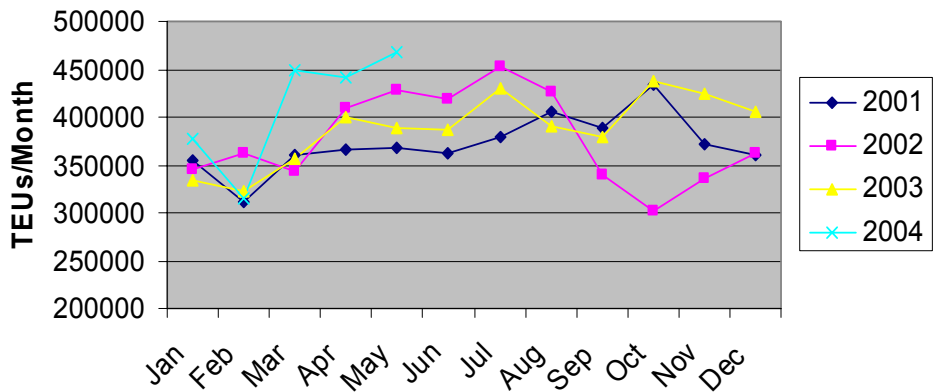


Figure 3

1.1.3 Population and Employment

According to the Southern California Association of Governments (S.C.A.G.), the greater Southern California region grew by 1.9% between 2001 and 2002 alone, faster than either the rest of California (1.5%) or the nation as a whole (1.1%). The greater L.A.-Orange-Riverside-San Bernardino-Ventura-Imperial County area now has over 17 million people; and with a relatively healthy economy in Southern California (particularly compared with the San Francisco Bay Area which has suffered from the “dot.com” bust), four of the top five counties in the State in population increase in 2002 were located here (Chang, 2003).

A growing population means a growing demand for goods and services. Even if goods were diverted to other ports, they would still have to be shipped here by either truck or rail. In fact the robust economy is attributable, in part, to trade. This reflects the region’s comparative advantage as a geographic and cultural gateway to both Asia and Latin America. Trade figures for the U.S. Customs Ports of Entry in Los Angeles¹ suggest that the value of total trade through the local ports has increased six-fold since 1980 and now totals \$267 billion. This region now represents 14% of total U.S. trade value, more than any other in the U.S. (Chang, 2003). Jobs directly related to international trade now number 440,000 in the 5-County area – up from 282,000 at the start of the 1990’s (Keyser and Huang, 2003). Simply put, international trade is the number one industry in Los Angeles County (Chang, 2003; Keyser and Huang, 2003).

1.1.4 Roles of Truck and Rail

Both trucks and rail play critical roles in moving goods from the ports to distribution centers and beyond. A large majority of the 12 million TEUs entering and leaving the Ports do so by truck. It is more cost effective and the only means of getting goods to most final destination points, particularly for the 35% of the goods that are destined for Southern California² (Johnson, 2004).

Trucks will continue to play a predominant role in local goods movement despite the fact that the highways suffer stress from both freight and passenger traffic. The Southern California Association of Governments estimates that the shipment of goods reduces average highway speeds by 65% (Haveman and Hummels, 2004). Without improved maintenance, changing business practices and increased capacity of our highways (either through expansion or technology-enhanced operations), both the movement of goods and passenger traffic will be slowed.

Rail is also important. Six of the seven container terminals in Long Beach have on-dock rail and there are five intermodal rail yards at the Port of Los Angeles. Approximately 25% of all port cargo now moves in and out of the ports via the Alameda Corridor (Agarwal et al., 2004). The Corridor is a 20-mile long cargo “expressway” running from the ports north to downtown Los Angeles. When it opened in 2002, it eliminated over 200 street-rail intersections and has moved goods more efficiently since that time.

¹ The US Customs Ports of Entry in Los Angeles, formerly the LA Customs District, includes the ports of LA and Long Beach, Port Hueneme and LAX and Ontario airports. It also includes Las Vegas.

² Haveman and Hummels (2004) report that 40-50% of all goods arriving at the POLA/POLB are destined for the local market.

The Alameda Corridor is one attempt to increase throughput while easing congestion on local roads. The California Highway Patrol reports that, between January 2000 and August 2003, trucks were involved in 20% of all unplanned incidents in Los Angeles County that impeded the flow of traffic for 30 minutes or more. Furthermore, when trucks were involved, the length of the delay averaged two hours (California Highway Patrol, 2003). Many of these incidents are maintenance-related, and the challenge is to limit the likelihood of these events so that both trucks and passenger cars can move unimpeded. The Transportation Authority overseeing the Alameda Corridor has plans to build a bridge from the ports to the I-110 Freeway that would facilitate truck traffic and help reduce the potential for accidents.

1.2 Challenges and Successes: Trends in Environmental Consciousness and Quality

With growth at the ports has come an awareness of the impacts of goods movement on the environment. Widening and deepening channels may make harbor transport safer but could harm marine life. Those who live and work in and near the ports are concerned about air quality, water quality, congestion and noise. While great strides have been made recently in combating the effects of diesel exhaust and other harmful pollutants, there are still concerns that the ports have a negative impact on the quality of life for their neighbors.

1.2.1 Air Quality

A 1999 study by the South Coast Air Quality Management District (A.Q.M.D.) found that 71% of all cancer risk from air pollution comes solely from diesel exhaust (South Coast Air Quality Management District, 2000); and a 2004 inventory of pollutants produced by the ports determined that ships are the biggest source of air pollution. A single container ship produces an equivalent amount of particulate matter and nitrogen oxides as a mid-sized oil refinery (Talerico, 2003). The entire San Pedro complex generates approximately 25% of the diesel pollution in the region. With a recent Supreme Court ruling setting the stage for Mexican trucks to have access to the U.S. there is concern that these numbers could worsen in the coming years. The trucks are not subject to the same pollution control and maintenance measures, and they are not required to use the more expensive diesel fuel required for California trucks.

The Ports of L.A. and Long Beach represent the single largest source of air pollution in Southern California. More than 90% of emissions of harmful particulate matter at the ports comes from ships, container handling equipment, trains and trucks. The approximately 16 ships that visit the Ports of L.A. and Long Beach on any given day emit pollutants equal to 1,000,000 vehicles (Natural Resources Defense Council, 2004). The ports as a whole produce the equivalent of 16,000 tractor-trailers idling their engines 24 hours a day³. Diesel exhaust is also emitted by the cranes and lifts that are used to move goods from ship to shore. Even trains emit harmful exhaust, particularly the aging locomotives that are used in on-dock rail operations (National

³ Houston-based Starcrest Consulting Group has performed emissions inventories for both the Ports of Los Angeles and Long Beach. See Port-wide Baseline Air Emissions Inventory: Executive Summary (Final Draft), prepared for the Port of Los Angeles and available at http://www.portoflosangeles.org/publicnotice/portoflapublicnotice96421020_07072004.pdf and 2002 Baseline Emissions Inventory: Cargo Handling Equipment, Rail Locomotives and Heavy-Duty Vehicles prepared for the Port of Long Beach and available at http://www.polb.com/pdfs/4_environment/Emissions-Inventory.pdf

Resources Defense Council, 2004). All of these have an impact on public health. Research conducted by the University of Southern California has shown that children living in the region's most air polluted communities have reduced lung capacity and more school absences than children living in less polluted areas (Coussens, 2004).

There is good news to report, however. Modernized ships are not only increasingly larger but also cleaner; and using port, state and A.Q.M.D. funding, the areas around the San Pedro complex have benefited from a number of programs. These include:

- A \$25 + million project to fund the replacement of aging diesel engines in ships and boats, including deep water commercial vessels, along with more than 600 pieces of port equipment. The older equipment is being replaced with newer cleaner models, some running on alternative sources of energy, that can reduce smog-forming emissions by up to 80%.
- A \$14 million fleet modernization project managed by the Gateway Cities Council of Governments and funded by both government and the ports. This project pays for a portion of the cost to purchase new trucks for drivers who deliver to and from the Ports of Los Angeles and Long Beach. This voluntary program uses financial incentives to help drivers replace 1983 and older trucks with cleaner 1994 and newer trucks. For each truck replaced, nitrogen oxides are reduced by more than 50% (South Bay Cities Council of Governments, 2004). Since the fall of 2002, more than 100 trucks have been replaced. There is still a long way to go. The Gateway Cities report that at least 6,000 trucks servicing the ports are 20 years old or more (Schoch, 2004).
- Requiring the enclosure of petroleum coke piles and handling equipment to reduce airborne levels of carbon in the area. At the Port of Long Beach, coke fallout has dropped from 21% of the dust samples collected in 1997 to less than 5% in more recent readings (Cunningham Report, 2004). This reduction is the result of a multi-year \$35 million effort involving new equipment, including environmentally friendly bulk loaders, truck-wash facilities and street sweepers.
- Planned replacement of the Pacific Harbor Line locomotive fleet with cleaner locomotives
- A voluntary program to reduce the speed of vessels arriving and departing from the Ports, designed to reduce nitrogen oxides from ocean-going vessels at the rate of 10% per day
- A coordinated program with the Harbor Patrol Office to step-up enforcement of smoke stack violations
- Reducing emissions of particulate matter through the use of ultra-low sulfur diesel fuel as part of all new bid specifications
- Requiring the purchase and lease of alternative fuel yard tractors for new leases at the Port of Los Angeles
- Installing diesel oxidation catalysts (DOCs) on 600 pieces of yard equipment and running another 160 pieces on emulsified diesel
- Conducting a liquefied natural gas yard hostler project to determine the feasibility of reducing emissions for cargo handling
- A storm water pollution prevention program at the Port Of Long Beach that has been recognized by the California E.P.A.

While more work is needed, the Ports have demonstrated the ability to reduce emissions through effective use of technology and in cooperation with other stakeholders. These previous efforts provide a model for future public-private action.

1.2.2 Congestion

Related to the question of air quality is reducing congestion in and around the ports. The more trucks idle inside the terminals, at rail yards and on freeways, the more pollutants are emitted into the air. Trucks are not the only concern. An increasing number of passenger vehicles also has an impact on air quality and places great demands on the local infrastructure. While cars today produce up to 80% less air pollution than in the 1960's, people are driving 3 trillion more miles than they did only 30 years ago; and gas refineries continue to emit smog-forming volatile organic compounds. Furthermore the life of a vehicle often outlasts its pollution control devices (U.S. Environmental Protection Agency, 2004).

One option, then, is to increase the use of rail as an alternative to trucks to reduce harmful emissions and ease congestion; and to stagger the hours in which trucks use the highways leading out from the ports to distribution centers. The 35,000 truck trips made daily in and out of the ports occur because rail options are limited by the availability of on-dock and near-dock rail, the lack of modern rail yards and intermodal transfer facilities, and the lack of shuttle trains to transport containers to local distribution centers, particularly for goods destined for the Southern California market.

Until changes occur in the distribution process, changes in hours of operation hold the best hope for easing congestion on the area's highways. While many terminals operate extended gate hours, which increase the number of deliveries in the off-peak hours, changes must be made along the entire length of the goods movement chain to have any impact on congestion. Both state legislation and voluntary action on the part of all stakeholders to increase incentives for off-peak moves are the next steps in reducing truck traffic.

1.2.3 Water Quality

There are also concerns over the impact of port operations on water quality in the L.A. and Long Beach harbors. Marine vessels discharge waste that contaminates local waters. Runoff from the terminals themselves may contain harmful pollutants from on-site activities; and oil spills and dredging also pose potential risks to water quality and marine life.

Over the last thirty years however--even as trade has increased --better technology, regulations and environmental consciousness have contributed to much cleaner water in and around harbor facilities. Water quality has improved, and the fish and marine life populating these locations have increased substantially. The U.S. National Dredging Team, a federal interagency group, has developed an action plan that addresses the beneficial use of dredged material and sediment management (U.S. Environmental Protection Agency, 2003).

1.2.4 Noise and Aesthetics

The Port's neighbors have also expressed concerns about noise and visual blight in and around the ports. These concerns include the number of empty containers in yards around the Harbor area, tall cranes, glare and haze from the ports and from port-related vehicle emissions, and the potential for disruption from extended terminal operations and after-hours truck traffic, even if the latter have a positive effect on air pollution.

The Port of Los Angeles has agreed to require low-profile cranes at its new China Shipping Terminal. This was done as part of a settlement with the NRDC and helps to guarantee that views of the hills from nearby homes are not blocked. The NRDC has also argued that all discussions of extended gate hours should include the impacts of evening truck traffic on the surrounding community.

1.3 The Future: Balancing Trade and the Environment

Recognizing the importance of trade and quality of life does not ensure agreement on the best solutions to achieve both. Some favor regulatory approaches, others voluntary operational changes and still others, new technology. In reality, it will likely take a combination of all three to guarantee that the ports will prosper in a way that allows for clean air and water and does not increase congestion.

Some of the negotiation over appropriate responses occurs at the international level and is beyond local control. Since 1950, the United States has been a member state of the International Maritime Organization (IMO), a specialized United Nations agency that deals with both maritime safety and environmental protection. The IMO has adopted regulations for the prevention of pollution from ships, developed guidelines for the control of ship ballast water, and approved measures for the prevention of oil pollution. The agency also addresses ship recycling.

Many responses do however occur at the federal, state and local level. Local stakeholders are particularly aware of the unique nature of a given port and its relationship to the surrounding community. They are playing an increasingly important role in the identification of both problems and solutions.

1.3.1 Regulatory Responses: Objectives, Summaries and Status

The purpose of regulatory action is to make sure that the negative impacts of port operations, if not controlled through the market, are addressed through legislation. Many attempts to address quality of life issues have come through federal legislation such as the Clean Air and Water Acts. Some have come through state and local legislation meant to address concerns pertaining to a specific area or even a specific port.

1.3.1.1 Federal Responses

The Federal Clean Air Act and the Federal Clean Water Act are the two pieces of legislation with perhaps the greatest impact on the standards established to measure quality of life in and around ports. There have also been legislative acts that attempt to deal directly with truck

operations, fuel standards and security. These also have an impact on the quality of life in the port communities.

1.3.1.1.1 Federal Clean Air and Water Acts

The Clean Air Act was adopted in 1990. While a law covering all of the US, the States are required to develop state implementation plans and play an integral role in enforcing federal standards. The Act limits how much of a pollutant can be in the air and authorizes the U.S. Environmental Protection Agency (USEPA) to fine violators. The Clean Air Act covers trucks, locomotives and construction equipment. Given differing conditions throughout the country, many states have adopted stricter regulations.

One of the USEPA's charges via the Clean Air Act is to limit the impact of mobile sources, including trucks and trains, on air quality. The USEPA is also charged with setting emission standards for marine diesel engines and fuel quality standards for tugs and ferries. It has established a West Coast Diesel Emissions Reduction Collaborative whose goal, among others, is to develop best practices for marine activities.

Both trucks and buses, while regulated, have not had to clean up engines and exhaust systems to the same extent as automobiles. Diesel refining has been modified however so that fuels have less sulfur, a factor in both acid rain and smog (U.S. Environmental Protection Agency, 2004).

The Clean Water Act was originally passed in 1972 and amended in 1977. The Act is the basis for regulation of pollution discharge into US waters. It also established quality standards for contaminants in all surface waters. In 1987, the State Water Pollution Control Revolving Fund was established to better allow for state involvement in water quality control.

1.3.1.1.2 Federal Trucking and Fuels Legislation

Apart from the overarching Clean Air Act, the federal government is involved in other areas of regulation that have an impact on the ability of truck drivers and trucking companies to play a role in more efficient goods movement and a better quality of life. The federal government has long been involved in developing guidelines for truck safety via the Interstate Commerce Commission, the US Department of Transportation and the National Surface Transportation Board. Two recent pieces of legislation offer other examples.

A recently passed bill limits the number of consecutive hours a truck driver may be on-duty. The legislation may have an impact on extended gate hours at the terminals. Without regular evening truck shifts, terminals open in off-peak hours will still be unable to move goods to distribution centers and final destination.

An example of pending legislation is HR 2863, the Intermodal Equipment Safety and Responsibility Act. This bill would amend the Federal Motor Carrier Safety Regulations by holding chassis owners (often the shipping companies) responsible for maintenance and repair of their equipment. Previously this responsibility has fallen upon the transporters of the chassis, i.e., the truck driver. The hope is that, in relieving the repair burden from the trucker, the chassis on the road will be better maintained and the trucker will be able to more readily invest in new

trucks that meet current environmental standards. A similar California law requires chassis owners and transporters to share the responsibility.

In 1997 the federal government through the E.P.A. adopted new emission standards for model year 2004-and-later diesel trucks. Newer standards will take effect in 2007 to regulate the emission of particulate matter. Other standards, including limits on sulfur content, will be phased in by 2010.

The federal government has also attempted to use “carrots” along with “sticks.” The U.S. E.P.A.’s SmartWay program is a voluntary partnership between the federal government and the freight industry. Designed to increase energy efficiency and reduce emissions, SmartWay asks shippers and truckers to integrate cost-saving strategies into their operations. In return, partner companies receive assistance from the E.P.A. in assessing the efficiency of their fleets. The program also facilitates a preferred partner program for members as a means of developing customer bases.

1.3.1.1.3 Security Legislation

In addition to legislation pertaining directly to air quality, there are other federal directives that may have an impact on a port’s ability to contribute to improved quality of life. One such directive is the Maritime Transportation Security Act of 2002. The regulations, which include requirements for new ID systems, also involve tests of security measures and funds for the development of technology to protect the port workers, the surrounding community and the cargo. Improved security enhances quality of life; furthermore the by-product of new technology may make for a more efficient terminal and the smoother movement of goods, all to the benefit of the community.

The U.S. has also adopted the International Ship and Port Security Act (I.S.P.S.), which establishes a global security standard and requires vessels and ports to conduct security assessments and develop security plans. The I.S.P.S. regulations went into effect on July 1, 2004.

The implementation of these directives will be costly, however. A study of the Ports of Los Angeles and Long Beach determined that the start-up costs alone for a card-based worker identification system would total \$45 million (General Accounting Office, 2003).

1.3.1.2 State and Local Responses

Given the sheer volume of containerized goods moved through the Ports of Los Angeles and Long Beach, their importance to the national economy and the ever-increasing attention being paid to the impacts of international trade, it is not surprising that state and local legislators have attempted to respond to the concerns of their constituencies and move beyond federal regulations. Their goal is to ensure that the benefits of the ports are not outweighed by environmental impacts.

Better planning is one approach. The Southern California Association of Governments has a Goods Movement Program designed to identify projects with regional significance that will optimize goods movement. Legislation is another approach. Most recently, legislative action has

centered on truck idling outside of marine terminal gates, emissions, gate operations, and truck and fuel standards.

1.3.1.2.1 Trucks, Yard Equipment and Gate Hours

The most widely discussed legislative response to the problem of diesel emissions, particularly as a result of truck idling, has been California Assembly Bill (AB) 2650. Also known as the Lowenthal Bill, after the port-area Assemblyman who sponsored it, the legislation attempts to limit truck idling by fining terminal operators who require trucks with appointments to wait more than 30 minutes outside the gates. The legislation impacts the Ports of Los Angeles, Long Beach and Oakland. A companion piece of pending legislation (AB 1971) would ensure that the intent of AB 2650 is not circumvented by moving trucks with appointments inside the terminal gates to wait.

AB 2650 set in motion a number of responses from the terminals, including appointment systems and extended gate hours, meant to comply with the law. The onset of the legislation occurred while the ports were expanding by 700 acres, opening 120 new gates and deploying new technology. As a result, the impacts of the legislation--as opposed to the impacts of operational changes--have yet to be determined.

State legislators are not waiting to propose other bills, however, that would attempt to control emissions at the ports. Another Lowenthal bill, AB 2042, would require the South Coast Air Quality Management District to establish a baseline level of air quality against which future growth is to be assessed. Future growth at either the Port of Los Angeles or Long Beach would not be allowed if it resulted in a net increase in air pollution over the baseline. The mayor of Los Angeles, James Hahn, has also called for establishing a baseline inventory beyond which no new net emissions will be allowed.

Both the State, through the California E.P.A.'s Air Resources Board (A.R.B.), and the South Coast Air Quality Management District have also attempted to control diesel emissions by regulating yard equipment. The off-road engines used in this equipment will likely produce 74% of the state's diesel particulate matter emissions in 2010 (California Environmental Protection Agency, 2004). The A.R.B. also passed new rules to take effect in 2005 making it illegal to leave diesel-powered trucks and buses running idle for longer than five minutes. This rule is not in conflict with AB 2650, however, since the regulation does not pertain to trucks while in service at the ports.

The A.Q.M.D. has issued regulations for tractors; and in October 2000, the A.R.B. approved a risk reduction plan to reduce particulate matter emissions from diesel-fueled engines and vehicles. Particulate matter can become lodged in the lungs and contribute to respiratory conditions. The agency has already established control measures for truck refrigerators; and is in the process of establishing new statewide standards for mobile diesel-fueled cargo handling equipment at intermodal facilities.

California State legislators are also attempting to control air quality through the regulation of gate operations. Assembly Bill 2024 would lead to an expansion of hours in which goods could

be moved through the ports and would result in recommended changes mandating hours of operation for all points along the goods movement chain.

1.3.1.2.2 Fuel Standards

As the saying goes, “As California goes, so goes the rest of the country.” Fuel standards and trucking legislation are examples. In 1993, the California Air Resources Board established rules for a specially formulated California-only diesel fuel; and while the federal E.P.A. was adopting new emission standards for model year 2004-and-later diesel trucks, California was moving beyond federal regulations. State certification for trucks with engine model years 2005-2007 has an added requirement for a supplemental emission test and limits that are 1.25 times the federal test procedure standards.

1.3.2 Changes in Port Operations

While legislators pursue regulatory responses, terminal operators and other goods movement stakeholders have proposed additional means of improving quality of life around the ports through operational changes. Not surprisingly, many of these address gate operations, since these are most directly under the control of the terminals themselves. Major changes include extended use of rail, extended gate hours and voluntary retrofits of port equipment.

1.3.2.1 Use of Rail and the Alameda Corridor

Railroads have the potential to remove some of the traffic from the highways. There are constraints, however, since rail capacity and personnel are not unlimited. In Southern California, freight traffic shares tracks with regional passenger service run by Metrolink and west coast service operated by Amtrak. Furthermore, increased capacity would most likely have to come through funding by the railroads themselves (Keyser and Huang, 2003). Both the BNSF and the UP have adopted an allotment system and limit the number of containers each is willing to receive, given the record number of carloads being handled (Mongelluzzo, 2004).

1.3.2.2 Use of Extended Gate Hours

A number of terminals are already engaged in off-peak hour operations at the Ports of L.A. and Long Beach. With a limited supply of land, extended gate hours can help make terminals more efficient. Major retailers have taken part in tests of extended hours between 5:00 p.m. and 7:00 a.m. Only 15% of truckers make use of off-peak gates however (Port of Long Beach, 2004). Terminal operators need a greater percentage to justify the costs of operating around the clock, while truckers argue that consistent off-hour operations at both ports and distribution centers are lacking. Without them, there is little reason for truckers to modify their operations either. Recently, the marine terminal operators and shipping lines in an effort supported by the Waterfront Coalition –made up of many large retailers and importers- have proposed to extend gate hours. Terminal operators would sign a Cargo Commitment Form to allow the pick-up of import containers and the drop-off of empties during night shifts at all terminals at the two ports. A traffic mitigation fee of \$20 would be assessed per TEU but rebated for cargo moved during off-peak hours or via the Alameda Corridor. Successful implementation depends upon available

labor, increased use of rail, available freeway capacity and the cooperation of truckers, retailers and distribution facilities.

1.3.2.3 Vehicle, Engine and Fuel Standards at the Ports

The terminals have been actively involved in modifying the equipment used at the ports so that they are more environmentally friendly. The Port of Long Beach, using matching funds from the California Air Resources Board, has retrofitted over 600 pieces of port-related equipment with a diesel oxidation catalyst and using emulsified diesel. Diesel oxidation catalysts can reduce particulate matter emissions by 25% and, when used with emulsified diesel, can reduce particulate matter more than 50% and nitrogen oxides by some 20%.

1.3.3 Enhanced Technologies and New Technology Development

For both the legislators and industry, new technologies hold the key to many of the desired impacts with regard to quality of life. In a capacity-constrained environment, increasing throughput without increasing emissions or congestion depends upon innovation. Some of these will come about via new security measures. Others will result from negotiations among the various stakeholders.

1.3.3.1 Security-Related Technology

Operation Safe Commerce (O.S.C.) is a collaborative effort between the federal government, business interests, and the maritime industry to develop and share best practices for the safe movement of containerized cargo. Its goal is to protect the global supply chain while facilitating the flow of commerce.

O.S.C. has identified 18 projects which examine technologies and practices while testing innovative solutions in an operational environment. The projects scrutinize supply chain security through container tracking and tracing technology, non-intrusive detection strategies, and improved container seal concepts. Plans also include an automated ship ID system to be used in identifying vessels while they are still in international waters. The projects are attempting to utilize off-the-shelf technologies.

The Ports of Los Angeles and Long Beach were awarded \$13.6 million to take part in the tests of these new technologies. The Ports of Seattle/Tacoma and New York/New Jersey were also selected. It is hoped that the spillover benefits will include the more efficient movement of goods via operational changes such as container tracking. More efficient terminal operations could translate into better turn times for trucks at the ports, reducing both idling and emissions.

1.3.2.2 Cold Ironing

After long and protracted negotiations, the China Shipping Terminal opened at the Port of Los Angeles in May 2004. The result of a 2000 lawsuit brought by the Natural Resources Defense Council on behalf of local residents, the China Shipping settlement offers the community an additional \$10 million to clean up diesel trucks as part of the Gateway Cities project and \$20 million for parks, open space, landscaping and other facilities. It also offers yard equipment

powered by cleaner burning fuels and a test of a new alternate marine power (amp) technology, cold ironing, which could prove a model for other terminals.

Cold Ironing allows ships calling at a terminal to shut down their on-board engines and plug into shore-side power generated by locally regulated power plants. The Port of Los Angeles has installed the infrastructure needed and will help pay for the cost of retrofitting China Shipping vessels. It is the first example of a commercial harbor anywhere in the world using the

technology. Seventy percent of the ships calling at the new terminal will be able to use the cold ironing process, reducing marine vessel emissions. Each ship could eliminate some 30% of its emissions in the process (Talerico, 2003). These often go unregulated, particularly when the ships involved are foreign owned. The Port of Los Angeles has equipped a second pier with cold ironing technology.

Sixth Annual CITT State of the Trade and Transportation Industry Town Hall Meeting	
Quality of Life and Port Operations: <i>Challenges, Successes and the Future</i>	
Wednesday, March 24, 2004 6:00 - 8:30 PM Carpenter Performing Arts Center, CSULB	
<u>AGENDA</u>	
Call to Order	Marianne Venieris, CITT
Welcome	Dr. Gary Reichard, CSULB
Purpose of the Town Hall and Introduction of the Video	Dr. Genevieve Giuliano, USC
Video Presentation <i>A pictorial summary of environmental issue related to port operations, industry and community concerns, and active and proposed mitigation programs</i>	
Setting the Stage for the Panel Discussion	Dr. Genevieve Giuliano
Stakeholder Panel Discussion: <u>Moderator/Facilitator</u> Richard Hollingsworth, GCPI	
➤ Public Policy Assembly	Alan Lowenthal, California Stat
➤ Communities Beach	Frank Colonna, City of Long
➤ ILWU	Thomas Warren, ILWU
➤ Ports/Terminals/Industry	Douglas Tilden, MTC
➤ Trucking	Stephanie Williams, CTA
➤ Environment	Julie Masters, NRDC
Q & A with audience	
Closing remarks	Dr. Domenick Miretti, ILWU
Adjourn	Marianne Venieris

2.0 Sixth Annual CITT State of the Trade and Transportation Industry Town Hall Meeting

The 2004 Town Hall is an attempt to discuss all of the above issues in a way that respects the differences of the participants but encourages mutual understanding and common ground. The Town Hall format allows for both summary presentations and a question-and-answer period. The former provides valuable context for discussion. The latter provides a framework for the discussion itself.

2.1 Setting the Stage: Why Quality of Life and Port Operations?

The inevitability of port growth has been matched by both environmental consciousness and community success at challenging port expansion. The debate over the widening of the I-710 freeway and the opening of the China Shipping Terminal at the Port of Los Angeles underscores the role played by the environmental community, including local residents, in setting parameters for growth. It also underscores the responsibility of all parties to come to the debate well informed and willing to compromise. Recent efforts by local Assemblyman Alan Lowenthal to address quality of life issues via legislation have also moved the question to the forefront.

The Town Hall format allows for airing of all possible opinions and the respectful discussion of those opinions. Since the goal is to ensure that opinions are shaped by facts, the Town Hall begins with an introductory video that highlights the trends in both port operations and environmental quality. The complete video is included as part of the Town Hall webcast, which may be accessed at <http://www.uces.csulb.edu/citt>, or the videotape can be purchased by calling 562-296-1170.

2.1.1 Summary of Introductory Comments

Marianne Venieris, CITT Executive Director, welcomed the 6th Town Hall participants and invited them to take part in a discussion of the state of the goods movement industry in the spirit of education. She emphasized that CITT and California State University, Long Beach, offers a neutral forum for such a discussion and introduced CSULB Provost, Dr. Gary Reichard.

Dr. Reichard echoed the sentiments that a debate surrounding the issue of quality of life and port operations deserves a civil and thoughtful discourse. A university setting reminds all participants that the goal should be to expand the knowledge base and not simply to air grievances. Dr. Reichard also reminded attendees that the particular role of a California State University, such as CSULB, is to serve the community and the region, as well as the State. Since the environment intersects with vital economic activity not only at the national level but at the regional and local levels as well, then it is fitting that this discussion occur in Long Beach. He closed by reminding everyone that the ports and community need each other and that the focus should be on possible solutions to shared problems that take the dialogue beyond the Town Hall.

Following Dr. Reichard, Dr. Genevieve Giuliano, Director of the Metrans Transportation Center set the stage for the introductory video. She reflected back to the previous CITT Town Hall meetings, noticing that they have evolved naturally from a focus on the relationship between management and labor to include all industry stakeholders and the wider community. It is fitting then that the topic of this Town Hall, “Quality of Life and Port Operations,” focuses on problem solving and includes this broadly defined stakeholder group. The purpose is collaboration based, once again, on facts and not perceptions or opinions.

Prof. Giuliano also remarked that the timing of this discussion was appropriate, given the recent release of a NRDC report card on the nation’s ports. This report card suggested that both the Ports of Los Angeles and Long Beach have room for improvement. She asked that the video be understood in the context of this debate:

- That growth is driven by forces outside of the control of the region
- That ports and trade account for jobs and economic activity
- That they also account for impacts resulting from that economic activity
- That there is still a lot to do, despite recent improvements

After the video, Prof. Giuliano underscored some key points from it as a way of focusing the Town Hall discussion. First, international trade will continue to grow. Los Angeles and Long Beach are attractive locations because of the port facilities, the Southern California market, and their strategic location vis-à-vis the Pacific Rim and their connection to a national network. Second, the management of trade is not keeping up with trade itself. This includes the inefficient

operation of our highway networks. As a result, we need appropriate and feasible solutions balancing interests and addressing the question of trade management.

2.2 Panel Discussion

The Panel Discussion was directed by Mr. Richard Hollingsworth, President and CEO of the Gateway Cities Partnership, Inc. Following an introductory question for each of the panelists posed by Mr. Hollingsworth himself, the panelists took questions from the floor.

2.2.1 Summary of Panel Comments

Mr. Hollingsworth's first question was for *Alan Lowenthal*, Assemblymember, CA State Assembly and sponsor of several port-related bills.

What role can policy play in addressing quality of life and international trade?

Mr. Lowenthal responded that Southern California is doing things not being done anywhere else. Good policy looks at disparate issues and frames questions so that both dialogue and the process can move forward. He argued, however, that the best policies come from the affected parties, from the bottom-up. His package of California port-related bills was the result of years of observation. His ultimate goal is to encourage all parties to create policy unless the public good is not being addressed.

Following was *Frank Colonna*, Councilmember for the 3rd District, Vice Mayor of the City of Long Beach, and Chair of the Gateway Cities Council of Governments (C.O.G.). Mr. Hollingsworth's question:

How long will it take to expand the I-710 freeway and will residents accept relocation as part of the expansion?

Mr. Colonna stated that the process could take 10-12 years, depending in part on the federal transportation authorization process. Listening to the public is essential.⁴

Stephanie Williams is the Senior Vice President of the California Trucking Association. Mr. Hollingsworth asked her:

Will the industry regulate itself and use more environmentally friendly trucks?

Her answer was simply "No." Self-regulation would require some sort of compensation and the income is not there for the truck drivers to do it alone.

⁴ In a follow-up clarification, Mr. Colonna stated that plans would be completed by about 2009, with construction probably occurring in 2020 and preservation of the homes along the I-710 a primary concern. The C.O.G. has taken great care to ensure that members of the public participate in the locally preferred plan for the freeway by assembling the I-710 Oversight Policy Committee (OPC). This includes representatives from cities directly affected by the freeway activity and representatives from County and State agencies. The Committee initiated the formation of citizen groups from each city to determine the needs and wants of the community and to report the findings back to the OPC to be incorporated into the locally preferred alternative.

For *Julie Masters*, Staff Attorney with the Natural Resources Defense Council, Mr. Hollingsworth asked if the N.R.D.C. has a position on maritime growth.

Ms. Masters said that the N.R.D.C. is not necessarily opposed to growth but that any growth must be “smart.” Impacts have to be offset. The China Shipping settlement is a model. It allows operations and the Port of Los Angeles to turn a profit but requires new technologies to reduce pollution. The N.R.D.C. is interested in seeing current operations cleaned up before new expansions are allowed. The organization also supports “no new net emissions” legislation because there are unacceptable costs of trade.

Following was Mr. *Thomas H. Warren*, Member of the Board of Harbor Commissioners of the Port of Los Angeles and Past President of ILWU Local 63, Marine Clerks Association. He was asked:

Since labor is most affected by operations, how does the ILWU want to see changes take place?

Mr. Warren wants to see cleaner equipment both inside and outside the terminals. This includes alternative power for ships, electric vehicles and LNG (liquefied natural gas) equipment. It also means more on-dock rail and newer trucks running cleaner fuels. He supports the Gateway Cities model program which has been a great benefit to the truck owner/operators.

The last panelist presented was Mr. *Douglas A. Tilden*, President and CEO of Marine Terminal Corporation. Mr. Tilden’s question from Richard Hollingsworth was:

Terminals are under siege. What can be done long and short-term to clean up operations?

Mr. Tilden questioned the notion that the terminals were under siege. Rather, they are the most visible and focal point of the goods movement chain. They have experimented with propane tractors and electric gantry cranes among other things; but truckers and shippers need to be involved so that movement along all points of the chain is more rapid. He also added that new capacity helps improve turn times. Two new facilities have been added at the ports recently and are evidence of this. He also thinks that extended hours are a means of using facilities better.

Ms. Williams from the CTA responded that trucks are moving faster outside of the gates but not necessarily inside of the gates. There is still a lot to be done to improve turn times at many of the terminals and she suggested making turn times public as a means of building consensus around the issue. Mr. Tilden said that he could only speak for the MTC-run terminals.

2.2.2 Summary of Question and Answer Session

Mr. Hollingsworth then took questions from the audience. Some of the questions were directed at specific panelists. In some cases Mr. Hollingsworth, as moderator, directed the questions to the appropriate respondent.

How can we achieve the consensus of stakeholders?

Assemblyman Lowenthal said that consensus can come legislatively but that the best solutions come from the people themselves. If resolutions are not possible, then policy makers will step in. AB 2650 (truck idling) is an example. The community won't tolerate an intolerable solution.

What resolution is there (and who is responsible) for older workers exposed to asbestosis?

Stephanie Williams said that the C.T.A. Board's Environmental Policy Committee is looking for a legislative response. There were no pollution controls for particulate matter prior to 1988. In 1991, they were controlled again. New standards were established in 1994 and will be again in 2007. Legislation is needed that will facilitate truck upgrades; for example by 2009 no diesel truck can be registered if it does not meet 1994 standards.

Thomas Warren added that new trucks are needed for owner/operators and they need a better wage to afford better trucks. Goods move more cheaply per ton these days, and the cost will have to increase to guarantee that it is moved safely.

Are there plans to enforce equalized trade across countries, particularly to establish a level playing field with China? Is there any federal legislation directing funds here given the importance of Southern California trade?

Assemblyman Lowenthal remarked that California is a donor state with regard to trade and that the question is how to organize a response. At the State level, a unified delegation is needed. A lesson should be learned from the loss of the Long Beach Naval Shipyard. The community assumed it would always be there.

Frank Colonna stated that Southern California trade is important to the nation, but the process for obtaining mitigating federal funds is frustrating.

Stephanie Williams added that we should look to lobbying interests beyond the State. Railroads, the Waterfront Coalition and retailers can be partners.

Will there be more after-hour gates?

Douglas Tilden stated that gates are driven by demand. After-hour gates don't do a lot to improve the situation. There is a need to shift overall trade patterns to nighttime activity in order to maintain traffic flows. That requires support from the distribution end, but customers for the most part are not interested. Terminals are operating after-hour gates now but not getting any support. They need to be open if increased traffic is to be handled, but all stakeholders must be involved. The solutions must address air quality concerns at the same time or it might result in increased emissions. It is important to look at the impact of extended gates, more on-dock rail and increased use of the Alameda Corridor as well.

Thomas Warren added that there is work underway by Mayor James Hahn (City of Los Angeles) to keep the cargo moving at night to control pollution. There is also movement toward a fee on day shift moves.

Stephanie Williams said that idling is of course bad for air quality but that major night moves have not occurred because after-hour gates are not consistent and not all facilities are open. Frank Colonna added that 40% of all goods trucked from the ports are used in the LA region. Ultimately the goods will be delivered; the issue is to initiate an efficient goods movement operation.

Why are goods movement charges not based on the hour, using a taxi model?

Stephanie Williams said that rates are regulated by the U.S. Department of Transportation. Federal legislation is needed to change this. Rates are being dictated and they don't include maintenance and fuel.

Assemblyman Lowenthal added that we're not using rail enough and that the solution to pollution is prevention (not dilution). Frank Colonna reminded the audience that through the Gateway Cities Clean Air Improvement Project, 210 older diesel trucks have been permanently removed from the road and replaced by newer trucks. The target is to replace 6,000 trucks.

Can we tax containers to evenly spread out costs and use the revenue to fund infrastructure?

Assemblyman Lowenthal reminded the group that a 2/3 vote and the signature of the governor are required to introduce a new tax. This is not likely now. As for a fee, a 2/3 vote is not needed but is the nexus there? This is something the Assemblyman is trying to do with AB 2042, which would require the South Coast Air Quality Management District to establish a baseline level of air quality on which future growth is to be assessed. Future growth at either the Port of Los Angeles or Long Beach would not be allowed if it resulted in a net increase in air pollution over the baseline. He is also looking at a premium fee for day shipping and no fee for goods moved during the evening. This is an incentive to move more goods at night and still put money into the system to pay for infrastructure costs.

Thomas Warren cautioned that the fee, if implemented, needs to be nationwide so as not to disadvantage any one port. Ports are in fact better at maintaining infrastructure than the cities outside the gates. The fees need to stay inside the ports.

Julie Masters agrees that a fee is a good idea for all of the west coast ports or at the national level, but that revenue should also be directed to air quality and pollution control measures.

What suggestions are there to improve driver compensation? Reregulate?

Stephanie Williams said that it is critical that truckers ask the U.S. Department of Transportation for anti-trust immunity so that they can at least talk about rates. The steamship lines are given such authorization but truckers are precluded from doing so.

Regarding LNG site approval, the California Public Utilities Commission (C.P.U.C.) has a role to play but the Federal Energy Regulatory Commission (F.E.R.C.) is challenging the California jurisdiction. Local government and port authority decision making are also at risk. What role is there for the California legislature, delegation and governor in supporting the P.U.C.?

Assemblyman Lowenthal supports the C.P.U.C. standing on LNG siting, as do the State E.P.A. and N.R.D.C.. There are four proposed LNG sites in California.

Regarding the appointment system, why are terminal operators not scheduling more appointments for off-hour gates?

Douglas Tilden responded that appointments are not mandatory. They are not being used to force moves to off-peak hours. Plus, more off-peak appointments have implications downstream. The industry is not fully ready to change operations to make off-peak appointments necessary.

What best practices and case studies have been considered?

Thomas Warren stated that Los Angeles and Long Beach are unique because cargo involves through-goods (i.e., they do not arrive and leave by vessel as they do in places like Hong Kong and Singapore). Europe and Australia/New Zealand have similar problems but not similar volumes. In general, the efficiency of operations here is good.

Frank Colonna responded that the U.S. is on the consumer side of the supply chain. Trade will increase with growth, and a greater emphasis on efficiency is needed.

What strategies are being used to address emissions from ships? Throughput is doubling with ship maneuvering which could mean that we are going back to unacceptable levels of air quality.

Assemblyman Lowenthal stated that ships are controlled by federal standards, but that there is an opportunity to look at cruise ships and establish state-level regulations regarding alternative fuels.

Owner/operator truck drivers are not likely to accept shifts in off-peak hours. Why do terminal operators get to dictate pay rates ?

Stephanie Williams stated that we're dealing with store-door rates set by shippers, which is a problem. Truckers need to be competitive with the Alameda Corridor.

Why haven't terminals committed to a timeline to reduce pollution and adopt solutions regarding equipment, etc.?

Douglas Tilden argued that, in fact, the China Shipping settlement shows momentum. He can only speak for terminal operators, but other changes depend on other parts of the goods movement chain.

With an increase in traffic, won't new truck lanes be obsolete by the time they're built? Who decides when enough is enough?

Frank Colonna remarked that enforcement and education of all 710 Freeway users is vital to create a better and safer roadway. The objective is the efficient movement of goods.⁵

Why is train capacity (i.e. Alameda Corridor) underutilized?

Douglas Tilden argued that train use is the victim of different distribution patterns. Distribution centers are now closer to the ports and this favors truck traffic. You can't affect world trade patterns.

Mr. Dominick Miretti, the ILWU Senior Liaison for the Ports of LA and Long Beach brought the 6th Town Hall to its conclusion. He stated that there were two polarizing points. One argued for better quality of life, the other for economic growth. The problem is that no matter how good port operations are, the cargo is moving onto dilapidated freeways. The good news is that the I-710 Oversight Committee is looking at options; and education and enforcement are both part of the solution. They are already influencing business practices. The Waterfront Coalition has agreed to try new operational standards. They are changing. More changes are likely. These include on-dock rail and inland ports to reduce cargo dwell time. New San Pedro waterfront access and a pedestrian corridor will help integrate the community into the life of the ports.

The ports are the economic and social threads of the region. Unbiased solutions are needed to make both growth and quality of life possible. Neither the port nor the community prospers without the other. Common ground is possible. The CITT Town Hall forum can lead to consensus building and the greatest good for the greatest number of people.

2.2.3 Conclusions: Building a Consensus?

Despite the differences expressed by members of the panel and the audience, there was general agreement on a number of issues raised in the Town Hall.

- Some of the forces dictating change at the port are external in nature (federal regulators, national demand for consumer goods).
- The ports and trade account for both valuable economic activity and environmental impacts. Improvements have been made but more needs to be done, including replacing older trucks with newer models.
- Increases in both cargo throughput and quality of life will require more use of rail and more coordination along the goods movement chain to allow for changes like extended gate hours.
- Better coordination will allow stakeholders to identify other points of agreement and convey those points to Sacramento and Washington with a single unified voice.

Consensus on these matters does not guarantee, however, that there will be agreement on the next steps to take. Should extended gate hours be mandated through legislation or adopted voluntarily over time? Who should fund programs that remove older trucks from the road?

⁵ In a follow-up, Mr. Colonna added that the efficient movement of goods will include railways as well as highways. In the future, more and more containers will be transported by rail.

Answers to these and other questions will require continued discussion and negotiation; and the discussion must be based on facts. Too much of the debate surrounding the ports and quality of life has depended upon anecdotal evidence. Unbiased research will provide the valuable tools needed by all stakeholders, including policy makers, to make effective decisions about balancing growth and the environment. CITT hopes to play a role in encouraging useful research so that the work of the Town Hall participants continues.

2.3 Next Steps: Role of CITT

CITT and Metrans offer the expertise of researchers at the CSULB and USC campuses. They also offer links to networks of researchers in the U.S. and elsewhere. CITT intends to draw upon these in taking a wider and more deliberative look at what port growth portends. The goal is to quantify more explicitly the costs and benefits of decisions made by and for the stakeholders.

Too often, however, researchers work in isolation, apart from other disciplines or from the affected communities. In the case of ports, in particular, research will only be made feasible through the cooperation of terminal operators, truckers, elected officials and all other stakeholders along the goods movement chain.

As a result, the next step in moving beyond the Town Hall and this White Paper is to work with researchers and stakeholders to discuss agreed-upon problems, possible researchable questions that address those problems, and determine how best to implement a research program. The discussion will include the availability of data and the pursuit of funding sources.

A short-term and a long-term approach will be pursued. In the short-term, Metrans and CITT will combine local and national expertise to develop a policy paper that addresses one of the themes of the Town Hall. Possible topics include the costs of extended gate hours and the effective capacity of key points along the goods movement chain. In bringing together a cadre of experts from different regions, the lessons from Southern California, the largest port complex in the nation, will shape the national debate. At the same time, we will come to understand how successes and failures elsewhere can help resolve outstanding concerns at home.

Often however, effective research does not have the same momentum as the policy it hopes to inform. Instead, research is best used to provide factual data for on-going policy, industry and academic needs. In this way, CITT and Metrans provide useful and factual information that can be used by all stakeholders as the debate over economic growth and quality of life continues. The Town Hall has begun the process of identifying knowledge gaps. The next step is to turn the questions into a longer-term research agenda which will guide us as we pursue topics of interest to industry and community alike. In independently collecting and updating data, the research community can lay the groundwork for a civil and thoughtful discourse.

In bringing together the academic community and those who depend upon its findings, CITT will come closer to realizing the original goals of its 6th Annual Town Hall. It is not simply sufficient to raise awareness of the issues surrounding port growth. The awareness is there. It is more a question of harnessing the strength of that awareness to further common goals. In the process, it

is just possible that the ports and the community will be seen less as mutually exclusive entities and more as complementary parts of a greater dynamic whole.

REFERENCES

- Agarwal, A. and Agarwal, S. (2002) Transportation, International Trade and Economic Competitiveness. Symposium Proceedings, NCHRP Project 20-24(23)B. Los Angeles, California: METRANS Transportation Center, University of Southern California. Available at <http://www.metrans.org/whatsnew/AASHTO/AASHTO%20Final%20Report.pdf>
- Agarwal, A., G. Giuliano and C. Redfearn (2004) The Alameda Corridor: A White Paper. Prepared for Alameda Corridor: A Blueprint for the Future? February 10, 2004. Los Angeles, California: METRANS Transportation Center and Keston Institute for Infrastructure, University of Southern California. Available at <http://www.metrans.org/whatsnew/Alameda/Alameda%20Corridor%20White%20Paper.pdf>
- California Environmental Protection Agency, Air Resources Board (2004) “Public Workshop to Discuss Reducing Emissions from Diesel-Fueled Cargo Handling Equipment at Intermodal Facilities.” PowerPoint Presentation made at the Port of Los Angeles, San Pedro CA, July 7, 2004. Available at <http://www.arb.ca.gov/msprog/offroad/cargo/cargo.htm>
- California Highway Patrol (2003) Presentation by Craig Klein, CHP Southern Division Communications Unit, to the CSULB Center for International Trade and Transportation Policy and Steering Committee, August 2003.
- Chang, P. (2003) The State of the Region 2003: Measuring Progress in the 21st Century. Los Angeles, California: Southern California Association of Governments. Available at <http://www.scag.ca.gov/publications/#sotr03>
- Coussens, C. (2004) “The Intersections of Trade and Environmental Health: Discussion of the Roundtable on Environmental Health Sciences, Research, and Medicine.” Journal of Philosophy, Science and Law (4). Available at <http://www.psljournal.com/archives/newsedit/iom.cfm>
- Cunningham Report (2004) “What’s The Buzz.” Vol. 9, No. 20, May 17, 2004.
- General Accounting Office (2003) “Posthearing Questions Related to Aviation and Port Security.” December 12, 2003 Letter from Gerald Dillingham, Director of Civil Aviation Issues, and Margaret Wrightson, Director of Homeland Security and Justice Issues, to Ernest F. Hollings of the US Senate Committee on Commerce, Science and Transportation. Document Number GAO 04-315R. Washington, DC: General Accounting Office.
- Haveman, J. D. and Hummels, D. (2004) California’s Global Gateways: Trends and Issues. San Francisco, CA: Public Policy Institute of California.
- Johnson, E. (2004) “Planes, Trains & More: Forums seeks balance on economics, environment in a port town,” Long Beach Press Telegram, March 22, 2004.
- Keyser, J. and G. Huang (2003) International Trade Trends and Impacts: The Los Angeles Region. Los Angeles, California: Economic Information and Research Department, Los Angeles County Economic Development Corporation. Available at <http://laedc.info/pdf/trade-2003.pdf>

Los Angeles County Metropolitan Transportation Authority (LACMTA) (2002) Southern California Freight Management Case Study. Available at http://www.LACMTA.net/trans_planning/CPD/publications/images/SOCA_FreightStudy.pdf

Mayor's Office of Economic Development (2004) "Special Projects: LA International Trade." Available at www.lacity.org/mayor/sp/latrade/partners3.htm

Mongelluzzo, B. (2004) "Union Pacific, BNSF Hike Intermodal Rates," Journal of Commerce, July 12, 2004.

National Resources Defense Council (2004) "Ports, People and Pollution: Raising the Bar," Presentation by Gail Ruderman Feuer, Senior NRDC Attorney to the Women in International Trade, Orange County Chapter, February 5, 2004.

Port of Long Beach (2004) "Graveyard Shifts and Hoot Gates: Off-hour Trucking Would Ease Freeway Traffic," The Port of Long Beach Report, Summer 2004.

Port of Los Angeles (2004) "Statistics." Available at www.portoflosangeles.org/statistics.htm

Schoch, D. (2004) "City Downplays Port Pollution, Critics Say," Los Angeles Times, July 9, 2004

Shippers Today (2004) "Long Beach Sets Another Record Year," Shippers Today Mar/April 2004. Available at www.tdctrade.com/shippers/vol27_2/vol27_2_logistic_16.htm

South Bay Cities Council of Governments (2004) "Gateway Cities Clean Air Program," South Bay Watch. Special air quality management plan issue.

South Coast Air Quality Management District (2000) Multiple Air Toxics Exposure Study In the South Coast Air Basin: MATES-II Final Report and Appendices. Diamond Bar, CA: SCAQMD. Available at <http://www.aqmd.gov/matesiidf/matestoc.htm>

Southern California Association of Governments (2003) Goods Movement. Winter/Spring 2003. Available at www.scag.ca.gov/goodsmove

Talerico, Teresa (2003) "Mitigating Port Growth: A Multi-Faceted Issue with no Silver Bullet," Long Beach Business Journal, October 28-November 10, 2003.

U.S. Environmental Protection Agency (2003) Dredged Material Management: Action Agenda for the Next Decade. EPA Report No. 842-B-04-002. Washington, DC: USEPA. Available at <http://www.epa.gov/owow/oceans/ndt/DredgingActionOlan.pdf>

U.S. Environmental Protection Agency (2004) The Plain English Guide to the Clean Air Act. Available at http://www.epa.gov/oar/oaqps/peg_caa/pegcaa02.html

White, R.D. (2004) "Ports, Airports Need Upgrade Report Warns," Los Angeles Times, May 6, 2004

ACKNOWLEDGEMENTS

Funding to support the development of this White Paper was provided by the METRANS Transportation Center through grants provided by the US Department of Transportation and the California Department of Transportation. Comments provided by the Policy and Steering Committee of the Center for International Trade and Transportation at California State University, Long Beach are greatly appreciated. All errors and omissions are the responsibility of the author.

A Special Thank You to the Town Hall Sponsors and Industry Endorsements

Sponsors:



**United States Department
of Transportation**



Long Beach Business Journal



Industry Endorsements:

California Highway Patrol • California Marine Intermodal Transportation System Advisory Council • California Trucking Association • Gateway Cities Council of Governments • Gateway Cities Partnership, Inc. • Harbor Association of Industry and Commerce • Harbor Transportation Club • International Business Association of Southern California • International Trade Club of Southern California • Los Angeles Custom Brokers and Freight Forwarders Association • Los Angeles Transportation Club • Pacific Maritime Association • Pacific Merchant Shipping Association • Women in International Trade Orange County • Women's Transportation Seminar