



# Global Trade Impacts: Addressing the Health, Social and Environmental Consequences of Moving International Freight through Our Communities

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# Globalized World, Goods Movement Impacts: An Introduction

We live today in a globalized world where products that were once manufactured locally are now being produced and delivered to us from the other side of the world. In the United States, this globalized system means that more and more products are made overseas due to lower labor costs and more lenient environmental regulations. With this shift in production, a global trade and freight transportation system has emerged to facilitate the movement of goods from the point of production to the point of consumption.

This vast and expanding network of seaports, highways, rail, distribution centers, and other cargo facilities increasingly define and impact the communities where they intersect. A growing array of ships, airplanes, trains and trucks is responsible for moving the raw materials, component parts and finished consumer products that form the backbone of the U.S. economy. These vehicles deliver their freight to a wide assortment of “goods movement” facilities that include seaports, airports, ports of entry (border crossings), rail yard and rail lines, highways, high truck traffic roads, warehouses, distribution centers, and a growing number of inland ports.<sup>1</sup> This distribution and logistics system, heavily influenced by the expansion of global trade, plays a central role in the evolution of global economies and its attendant impact on communities, jobs, the environment, and health.<sup>2</sup>

Throughout the globalization process, cheap labor combined with lax regulations enabled China, for one, to expand manufacturing production during the same period that the United States experienced a decline in manufacturing. With the reduction in U.S. factory jobs, many national, state, and local policy makers began to view global trade and goods movement industries as an economic driver that could replace millions of blue-collar manufacturing jobs lost after the 1980s. However, the shift from the United States as a producer nation to a consumer nation reliant upon distribution systems has had fundamental negative impacts on worker and neighborhood health, security and safety. Many of the new jobs created have been low-paying, with unhealthy working conditions, including use of a contingent workforce<sup>3</sup> of temporary workers (or “temps”) who have fewer benefits and far less job security. This is particularly the case with the massive distribution centers that constitute a key part of the freight transportation system.

To facilitate such a shift, legislators have directed public dollars to subsidies and infrastructure projects (e.g., new or expanded highways, bridges,

or dredging of rivers) as a means to lure business investment related to global trade. Thus, although international trade has generated new jobs, they have been accompanied by a visible price tag, including negative environmental, health, labor, and community consequences and an economic development scenario that encourages the growth of a low wage workforce.

Negative environmental impacts include air and water pollution from major shipping and freight transportation activities, with nearby community residents (or marine life, in the case of ships) exposed to diesel particulate matter and noise. The oceans are also impacted by the release of sewage and ballast water (water used to balance the ship) and the ballast water, taken onto a ship in one part of the world and released in another, can carry invasive species dangerous to plant and marine life.<sup>4</sup> Research findings now link air pollution to cardiovascular, respiratory and other health problems, and link noise pollution to cardiovascular illness, sleep difficulty, and anxiety. Studies show that living in close proximity to traffic-related pollution and noise brings additional risks. Air pollution and noise also affect the health of dock and warehouse workers, truck drivers, and railroad employees. Workers in distribution centers that usually have no air-conditioning also face heat stress in the warmer months, and there is a higher than average worker fatality rate. New studies also point to problems of 24-hour lighting at port and rail operations, conflicts involving incompatible land uses, the potential for contamination from hazardous spills, traffic safety problems, and hefty local costs to repair streets that are damaged by big-rig trucks. At the global level, international trade activities contribute to global warming, with significant emissions of carbon dioxide, black carbon and other pollutants. Despite the ever-growing evidence about the nature of these widespread health and workplace issues, negative health, environmental justice and labor impacts have not been widely incorporated into policy decisions.

Decisions by global retail chains such as Walmart determine how and where goods are moved. Without a national industrial policy or an effective global regulatory system to ensure that health, community, environmental and labor considerations become incorporated into such decisions, economic and political forces aligned with powerful industry advocates are able to frame the nature of the debates. As a result, the dominant narrative promoted by the freight transportation industry and most government agencies makes it appear that the goods movement system creates new jobs and cheap goods, while the downside of the shift of jobs from production to distribution and the negative external costs of the system are ignored or minimized.<sup>5</sup>

Despite these dominant growth and development agendas, environmental justice and community groups, health and environmental advocates, and labor unions and worker organizations have effectively challenged these agendas, and in some cases, shifted the nature of the debates. The report documents where and how this is happening, with one starting point identifying some of the steps that enable a product made in Asia (in this case, a doll) to eventually get into the hands of a child who lives near Chicago. (See box below)

The doll's itinerary is not unusual when goods made in China are shipped to the United States for sale by U.S. retailers. Today, nearly half of all imported goods sold in Chicago take a route like this from factories in Asia through Southern California ports before heading east. In fact, more than 200,000 containers of toys arrive from Asia every year, just at the Ports of Los Angeles and Long Beach.<sup>10</sup>

But this is not the only possible shipping route. Increasingly, new trade and freight transportation routes are expanding in port communities along the East Coast, such as Savannah GA, Norfolk VA, and

Charleston SC, linked to the scheduled expansion of the Panama Canal that will enable increased size and numbers of container ships from Asia to access U.S. ports. As a consequence, a complex system of distribution centers, intermodal rail facilities, inland ports, and other logistics industry locations are expanding throughout the United States. Additionally, the doll's route illustrates the negative potential impacts on health, the environment, communities and workers. Transportation experts refer to the impacts from our doll's journey as "externalities," but to community residents and workers they are everyday factors that can directly harm health and quality of life.<sup>11</sup>

The health, community and other impacts that are the focus of this report fail to be depicted in an animated video by one of the country's major railroads on how goods are moved from China to the United States. In "How Tomorrow Moves," by an East Coast railroad company, the freight transportation system seems simple and problem-free. See <http://www.youtube.com/user/HowTomorrowMoves>. Any negative impacts are invisible.<sup>12</sup> Our report, on the other hand,

## ***A Doll's Journey: from China to Chicago<sup>6</sup>***

*To illustrate the global reach and local impacts of goods movement, one could follow the retail cycle of a toy doll. That doll - perhaps with a retail price of \$9.97 - is an example of how the products we consume today travel long pathways from manufacturer to consumer. The dolls are likely to be made and assembled in China by workers who earn low wages and often toil under hazardous conditions.*

*Thousands of dolls are packed into a container and loaded by Chinese dockworkers onto a marine vessel that may be carrying a total of 4,000, 8,000 or even 13,000 + other containers filled with toys, shoes, furniture and electronics. Fueled by low-quality, high polluting bunker fuel which might have been shipped to Asia from Venezuela,<sup>7</sup> the ship leaves one of the world's largest ports in China, and chugs across the Pacific, discharging nitrogen oxides, sulfur oxides, particulates, black carbon and other pollutants into the earth's environment.*

*Arriving at the Southern California ports of Los Angeles or Long Beach (where more than 40% of all U.S. imports arrive), the container is unloaded by dock workers, who breathe exhaust from the idling ship as well as diesel emissions from a row of idling trucks, while drivers, who also breathe that exhaust, wait for their loads.*

*A trucker then drives the container to a nearby rail yard, located just 400 feet from an elementary school and homes, where it is loaded onto a freight train, pulled by several diesel locomotives. The container proceeds on its journey to a major retailer's distribution center hundreds (or several thousand) miles away, such as to a suburb of Chicago.*

*Alternatively, the container is placed onto big-rig trucks at the Los Angeles docks and sent for repackaging to a regional mega-warehouse (distribution center) some 50 miles inland from the ports. In Southern California, land that formerly had cows and dairies has given way to million-square-foot warehouses for consumer goods, drawing thousands of diesel trucks a day into formerly rural communities.*

*Near the distribution center, neighboring residents and truck drivers breathe air that contains diesel exhaust as truckers drive on residential streets to deliver their goods and unload their containers, including the one with the dolls. The workers often work for "temp" agencies rather than as employees of the distribution center itself, and face hazards on their job, such as heat stress from lack of air conditioning inside the warehouses.*

*Once repackaged, the dolls are trucked to a rail yard and reloaded onto a train that travels cross-country to an intermodal<sup>8</sup> rail/distribution facility outside of Chicago. There the container is put onto another truck, and it travels to its final retail destination, a big-box store in suburban Chicago. By this time, the dolls have journeyed more than 8,000 miles on diesel-burning conveyances.<sup>9</sup> This distance does not include the nautical miles and impact of initially transporting the ships' bunker fuel from Venezuela to China.*

focuses on the hidden and not-so-hidden negative impacts on workers, community, and the globe.

As ports and goods movement activity expands throughout the United States, a major challenge is how to make the adverse impacts of freight transportation a more central part of economic development, policy and planning discussions and transportation decision-making.<sup>13</sup> On a human level, the challenge entails how to make the American public and policymakers understand that what appears like a streamlined system of moving goods from another continent to the United States, and from a U.S. port to a retail store, is actually anything but simple, and costs the public much more than the shipping, trucking, railroad, road-building and retail industries usually tell the public. In fact, billions of dollars of public funds are being spent to expand the country's infrastructure to accommodate ever-larger ships and ever-increasing volumes of imported containers. In addition, as the American economy continues to shift from manufacturing to a system of distributing products, major social, environmental, economic, and human health costs are created throughout the system.

## ***A National Landscape Report: Impacts, Trends, and Organizing Responses***

In 2009, faculty and staff from the Urban & Environmental Policy Institute of Occidental College and from the environmental health sciences and regional equity programs of the University of Southern California (USC) began a study of this evolving global trade and freight transportation system, focusing on areas in the United States where the system is expanding and where community, labor and social justice groups have begun to challenge the system. Funded by The Kresge Foundation, the purpose of the study - which resulted in this report - was to provide an overview of the growth and scale of the goods movement industries and the shift from a production to a distribution economy. At the same time, the study documents examples of organizing and policy approaches that have injected important considerations of health, labor, and community impacts into decision-making and identified new directions so that local and regional communities can better address what is happening in their backyards due to these shifts.

The primary authors of this report have actively participated in local and regional collaborations in Southern California and have collaborated with groups in California and across the country on issues of health, environmental justice, ports and freight transportation, and other social justice efforts. Through their involvement (along with

others) in organizing the "Moving Forward Together" conferences in 2007 and 2010, the authors have begun to work with a range of organizations, many of which are referenced in this report. See inset.

### **Moving Forward Together National Conferences**

*Organized by the Southern California Environmental Health Sciences Center based at USC and THE Impact Project (a community-academic collaborative), the "Moving Forward Together" conferences have enabled local organizations across the country to meet, share their experiences and concerns about the adverse health, community and labor impacts of global trade and freight transportation and develop a platform for action and solutions.*

*The first conference in 2007 drew 550 attendees from 16 states and four countries; three years later in October 2010, more than 600 participants from port, warehouse, and rail communities all over the United States and six other countries attended. See <http://www.TheImpactProject.org>.*

Building on their research and experience, the authors identified 17 areas to study, including the locations of the top 10 ports in the continental United States, ports and hubs where rapid expansion and growth are occurring, and places where community efforts to address port, rail and warehouse pollution are taking place. Anchored by major seaports, goods movement relies on rail yards that are often in inland hub areas. We have included several of these hubs in the report, including the Inland Valleys of San Bernardino and Riverside Counties in Southern California, Detroit, Chicago, and Kansas City. Although we did not profile Dallas and regions in Ohio (e.g., Columbus) where new intermodal activity is concentrating, we discuss the importance of these goods movement hubs in our discussion of the selected profile regions. New rail intermodal hubs have been proposed even in agricultural areas, such as eastern Tennessee and the Central Valley of California.

The individual port and distribution hub locations discussed in the report include: Los Angeles and Long Beach, CA; New York and New Jersey, NY/NJ; Savannah, GA; Oakland, CA; Houston, TX; Norfolk/Hampton Roads, VA; Seattle, WA; Tacoma, WA; Charleston, SC; Miami and Port Everglades, FL; Jacksonville, FL; Baltimore, MD; San Diego, CA; Detroit, MI; Riverside and San Bernardino, CA; Chicago, IL; Stockton, CA; and metropolitan Kansas City and the surrounding area. See Figure 1 next page.

For each region, this report analyzes facilities and trends in goods movement in a regional and economic



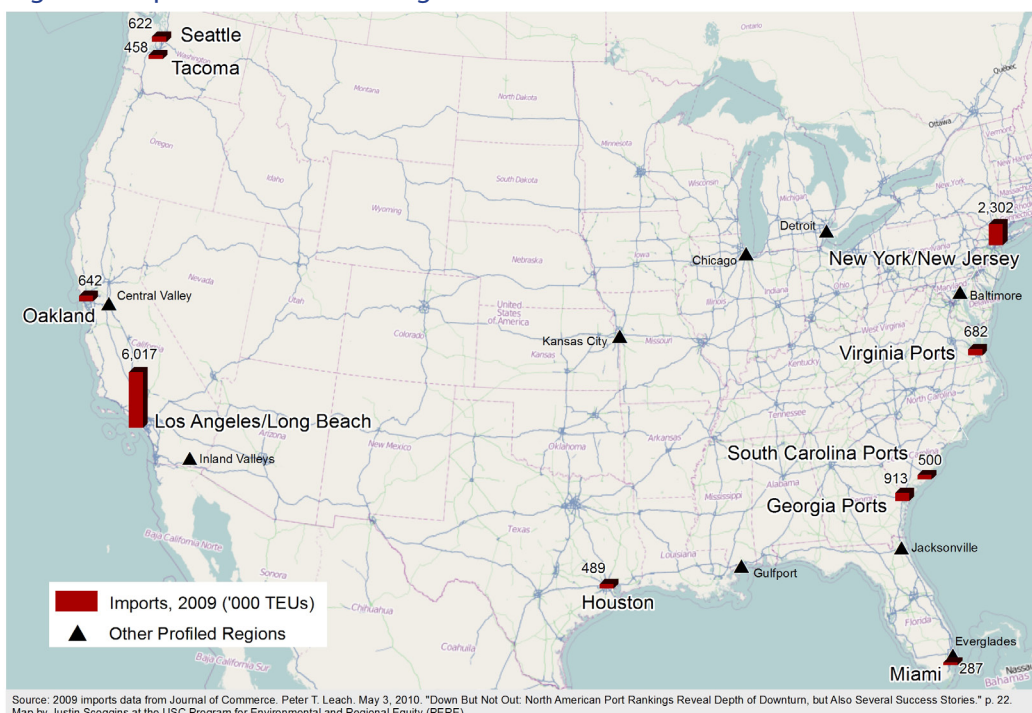
context and describes organizations and the strategies they use to address ports and freight transportation issues and solutions. We conducted research through telephone interviews, review of news articles, surveys of Port websites and Port Association information, reviews of published economic and business literature on trade and commerce and the use of U.S. Census, American Community Survey data, and the United States Bureau of Labor Statistics (BLS), Quarterly Census of Employment and Wages (QCEW). In addition, the authors conducted a review of research findings on noise, air pollution and other health impacts.

The report is organized into three sections. Part I documents the system and its trends: the continuing dominance of Asian imports, particularly from China; the impact of the expansion of the Panama Canal scheduled for completion in 2014; the growth of inland ports, intermodal facilities and related infrastructure developments; the consolidation of rail and highway expansion projects; and the role of rail and truck transport in moving goods from ports and freight facilities to their end points. The report draws on the research findings in the literature about the negative impacts freight transportation has had on health, community, the environment, and labor as well as the economic, political, and policy dimensions associated with those trends. Part II provides a snapshot of the different regions where the goods movement system will be expanding and where new movements are emerging to address system impacts. The authors point to examples of strategies that involve sharing information on health research findings, education, community organizing, legal advocacy, research, and coalition building that have informed and engaged community residents, workers, and environmental,



health and labor advocates to focus on goods movement issues, public policy and decision-making. Examples of policies are provided that represent levers to ensure that health, labor, community, and environmental conditions are addressed in freight transportation planning and decision-making. In Part III, we discuss efforts to advance and build the capacity of the groups such as organizing and policy innovations that have effectively changed how the global trade and freight transportation movement issues are being framed and how decisions are being made. The recommendations reflect an urgency to “scale up” - in both knowledge about negative impacts of goods movement and in the organizing and policymaking capacity to shift debates and decision-making at the regional, national and international levels.

Figure 1. Top 10 U.S. Ports and Regional Hubs Profiled





## Part I: Trends and Issues



### *Trends in the Freight Transportation Industry*

The expansion of global trade has transformed the U.S. economy during the last several decades. Millions of manufacturing jobs have disappeared as companies moved their operations to countries with cheaper labor and weaker regulations. Meanwhile, U.S. consumption has grown to record levels as imported goods from China and other foreign countries have replaced American-made products on the country's retail shelves. Rising consumption and a growing import-based economy have required an extensive transportation network capable of delivering just-in-time high-demand consumer goods from Asian places like Guangdong, China, to U.S. locations like Kansas City. In the United States, this has led to an expansion in port-related infrastructure in both established and emerging gateways. Figure 2 on the next page shows how the booming import-based economy during the mid-2000s led to rapid growth in a wide range of U.S. ports including Long Beach, Seattle, and Savannah. A shift in the geography of where products are made and where they are consumed has created a new set of relationships between global economic development, commodity distribution networks, and environmental health. This section spells out some of the key trends that are taking place in that system.

Figure 3 on the next page shows the location and volume of imports at the top U.S. container ports. Half of the top 10 ports are on the West Coast; four are on the East Coast, and one is on the Gulf Coast.

### **Dominance of East Asian Imports**

In the global production system, China has emerged as an export giant and is now at the center of the world's global manufacturing and product development. In just a decade, imports from East Asia, particularly China, have expanded significantly and are expected to continue to dominate the U.S. market for years to come. China's share of U.S. containerized imports, for example, expanded from 43% to 48% between 2005 and 2009.<sup>14</sup>

A review of the world's top ports shows the extent to which China controls global trade. The top port in China handled 28 million TEUs (Twenty-foot Equivalent Units, a measure of container volume) in 2008, compared to 7.8 million for the largest port in the United States (Los Angeles). As the following chart indicates, some of China's key



Figure 2. Top 10 U.S. Maritime Container Ports by Annual Traffic 1995- 2008 (Thousands of TEUs)

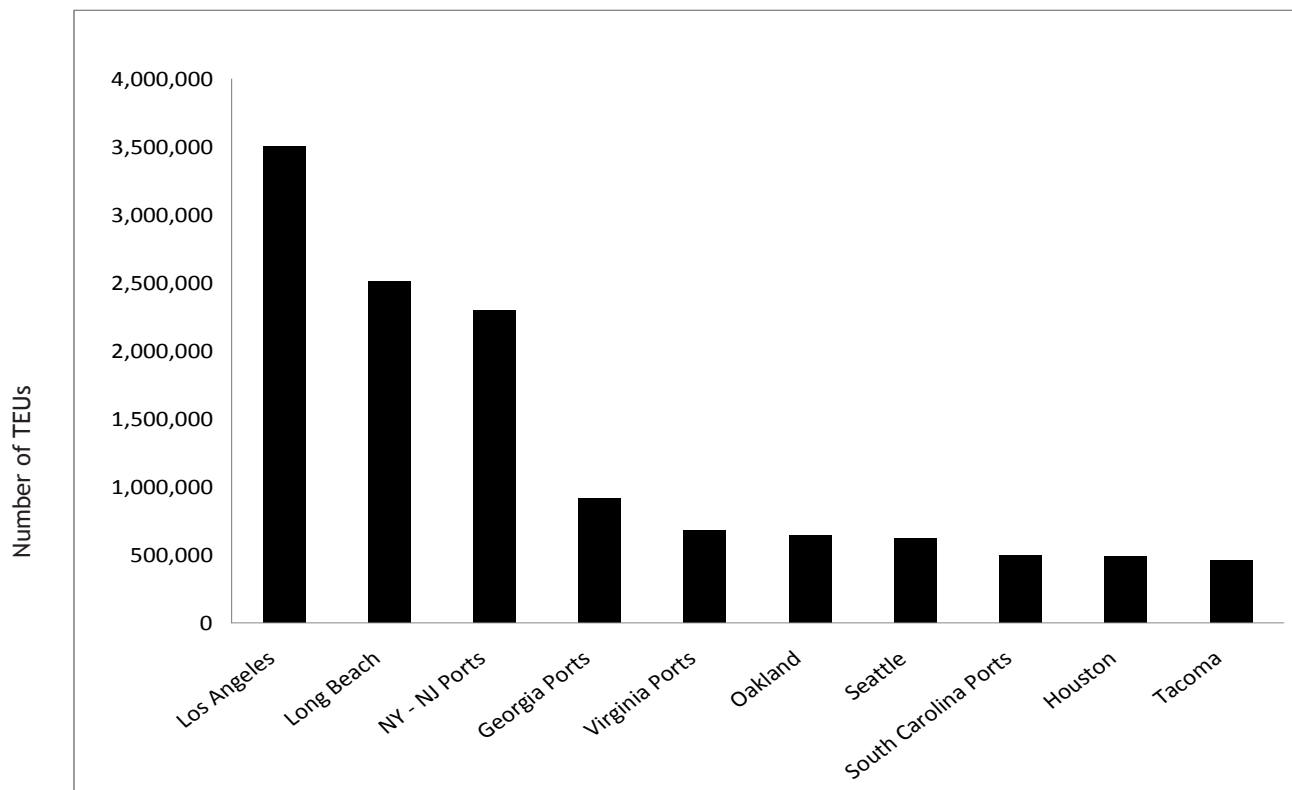
Port	1995	2008	Percent change 1995-2008	Avg. Annual Growth Rate (%) 1995-2008
Los Angeles, CA	1,849	5,671	206.7	9.0
Long Beach, CA	2,137	4,612	115.8	6.1
New York/New Jersey	1,537	3,992	159.7	7.6
Savannah, GA	445	2,116	375.5	12.7
Norfolk, VA	647	1,592	146.00	7.2
Oakland, CA	919	1,395	51.8	3.3
Charleston, SC	758	1,371	80.8	4.7
Houston, TX	489	1,331	172.2	8.0
Seattle, WA	993	1,129	13.7	1.0
Tacoma, WA	604	1,083	79.3	4.6
Total top 10 ports	10,378	24,291	134.1	6.8
Total all ports	13,328	28,190	111.5	5.9
Top 10, percent of total	77.9	86.2		

KEY: TEUs = twenty foot equivalent units. One 20-foot container equals one TEU, and one 40-foot container equals two TEUs.

NOTE: The data in this table include only loaded containers in U.S. international maritime activity and cover U.S imports, exports, and transshipments. Therefore the trade levels will be greater than those reported from U.S. international trade statistics, which exclude transshipments. The data also exclude military shipments.

Source: Chart adapted from "America's Container Ports: Freight Hubs That Connect Our Nation to Global Markets June 2009." U.S Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, based on data from U.S. Department of Transportation, Maritime Administration, which are drawn from The Journal of Commerce, Port Import Export Reporting Service (PIERS) as of March 20, 2009.

Figure 3: Top 10 U.S. Container Ports by TEUs



Source: Data from The Journal of Commerce, May 3, 2010 Adapted by Elba Garcia, USC

ports showed an average annual growth rate of 22% to 37% between 2000 and 2008. See Figure 4.

China has been moving to extend its future trade capacity by investing heavily in transportation infrastructure. For example, the Chinese government plans on developing an intermodal rail system that will eventually connect 18 inland ports to existing ocean shipping ports. Seven have already been built and connected, with five additional terminals scheduled for completion. These projects give China the ability to maintain and extend its role as the world's leading producer and exporter of goods.<sup>15</sup>

## Expansion of the Panama Canal

When the Panama Canal was completed in 1914, the largest container ships at that time, dubbed "Panamax ships," had the capacity to pass through its locks. As the years progressed, however, ocean-going vessels grew larger and more able to carry additional containers. By 1985, these larger ships, known as "post-Panamax" ships, were carrying a maximum of 4,500-5,000 containers, and they could no longer fit through the canal.<sup>16</sup> As a result, East Coast ports

suffered as shippers turned to the West Coast and to inland distribution networks to deliver their goods.

In 2005, plans for the expansion of the Canal were introduced; a year later in a highly political and contested election, voters in Panama approved the project. When the \$5.25 billion expansion of the Panama Canal is complete in October 2014, the Canal will be able to handle even larger ships, called "New Panamax," with a capacity of 12-13,000 TEUs.<sup>17 18</sup> Most of the ships expected to transit through the locks, however, are expected to be in the 6-8000 TEU capacity.<sup>19</sup> For the most part, only U.S. ports that are in the range of 48-50 feet deep will be able to readily accommodate these larger New Panamax ships. As a result, many East Coast ports - including those in Baltimore, Jacksonville, Miami, Savannah, Charleston, and Norfolk are actively engaged in seeking approval to dredge or otherwise expand their port facilities. In New York/New Jersey the port authority has even agreed to raise the roadbed of the Bayonne Bridge in order to accommodate the New Panamax ships, a project that will cost up to one billion dollars.<sup>20</sup> Many East Coast ports have petitioned for federal dollars to underwrite expansion projects that they believe will allow them to capture an anticipated "reverse Gold Rush" of Panama Canal related imports.

Figure 4. Top 20 World Ports

Rank in 2000	Rank in 2007	Rank in 2008	Port Name	Country	2000	2007	2008	Percent Change, 2000-2008	Percent Change, 2007-2008	Avg annual rate (percents), 2000-2008
2	1	1	Singapore	Singapore	17,040	27,932	29,918	76	7.1	7.3
6	2	2	Shanghai	China	5,613	26,150	27,980	398	7.0	22.2
1	3	3	Hong Kong	China	18,098	23,881	24,248	34	1.5	3.7
11	4	4	Shenzhen	China	3,994	21,099	21,414	436	1.5	23.4
3	5	5	Busan	South Korea	7,540	13,270	13,425	78	1.2	7.5
13	7	6	Dubai	United Arab Emirates	3,059	10,653	11,828	287	11.0	18.4
65	11	7	Ningbo	China	902	9,360	11,226	1,145	19.9	37.0
38	12	8	Guangzhou	China	1,430	9,200	11,001	669	19.6	29.1
5	6	9	Rotterdam	Netherlands	6,280	10,791	10,800	72	0.1	7.0
24	10	10	Qingdao	China	2,120	9,462	10,320	387	9.1	21.9
9	9	11	Hamburg	Germany	4,248	9,900	9,700	128	-2.0	10.9
4	8	12	Kaohsiung	Taiwan	7,426	10,257	9,677	30	-5.7	3.4
10	14	13	Antwerp	Belgium	4,082	8,177	8,664	112	6.0	9.9
32	17	14	Tianjin	China	1,708	7,103	8,500	398	19.7	22.2
12	16	15	Port Klang	Malaysia	3,207	7,120	7,970	149	11.9	12.1
7	13	16	Los Angeles	United States	4,879	8,355	7,850	61	-6.0	6.1
8	15	17	Long Beach	United States	4,601	7,312	6,488	41	-11.3	4.4
113	18	18	Tanjung Pelepas	Malaysia	418	5,500	5,600	1,239	1.8	38.3
17	20	19	Bremen/Bremerhaven	Germany	2,712	4,892	5,501	103	12.4	9.2
14	19	20	New York/New Jersey	United States	3,050	5,400	5,265	73	-2.5	7.1

KEY: TEUs = twenty-foot equivalent units. One 20-foot container equals one TEU, and one 40-foot container equals two TEUs.

Chart adapted from: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics. "America's Container Ports: Freight Hubs That Connect Our Nation to Global Markets" Washington, DC: 2009.

## Inland Expansion of Goods Movement Hubs

Global trade shifts, including the impact of the Panama Canal expansion, directly affect the landscape of how and where freight in the United States will be transported and distributed. Innovations in retail and distribution technologies and the desire to maximize efficiencies and minimize risk have spurred investment in intermodal facilities that create more fluid connections between rail, trucks, warehouses, and distribution centers. This development pattern has created fast-growing inland hubs where trucks deliver containers from the seaports to inland distribution centers. Workers in these inland hubs then load imported goods onto trucks that are bound for regional stores or onto long-haul trains set for cross-country markets. The result is an elaborate and extensive “hub and spoke” distribution system that delivers containers from the seaports to inland rail hubs and then to distribution hubs and on to local and national retail markets.

A milestone in the shipping industry’s adoption of inland distribution strategies was the 1989 opening of the Virginia Inland Port, located 220 miles from the ports of Norfolk, Newport News, and Hampton Roads. Another example of this trend is the key role that inland distribution centers and intermodal hubs in Riverside and San Bernardino counties, which are 50 miles inland from the coast, have played in the expansion of Southern California’s port capacity since the late 1990s. Distribution hubs are also growing around new intermodal rail facilities, such as the \$370 million, 785-acre Joliet Intermodal Terminal outside of Chicago. In conjunction with the Joliet rail terminal a 20 million square feet of container distribution facilities (warehouse, distribution, cross-dock, and transloading) will be built at the CenterPoint Intermodal Center.<sup>21</sup> This new complex in Will County, IL further illustrates the development of freight transportation infrastructure outside urban core areas - an increasing trend used to avoid bottlenecks and congestion. The facility is expected to address transport bottlenecks in Chicago, where it has become increasingly difficult for the trains to move through the region in less than two days, or the same amount of time required to reach Chicago from the West Coast.<sup>22</sup>

Similarly, just 12 miles from downtown Dallas, the 360-acre Southern Dallas Intermodal Terminal (DIT) is designed to support growing intermodal volume in the region. A new warehouse distribution and manufacturing center, the Dallas Logistics Hub, is under development and will become the largest new logistics park in North America, with 6,000 acres of land and the potential for 60 million square feet of distribution, manufacturing, and retail development.<sup>23</sup> Located near four major highways, intermodal rail facilities and a proposed air cargo

airport, the Dallas Logistics Hub will compete with older intermodal facilities in Dallas and create new competition for other hub areas such as Chicago.<sup>24</sup>

Large distribution centers are a growing trend national trend. Walmart alone has 40 regional distribution centers around the United States that are larger than one million square feet each.<sup>25</sup> Ross Stores recently finished a 1.3 million square foot distribution center in Fort Mill, South Carolina, an important component of the goods movement route anchored by the port in Charleston.<sup>26</sup> A 1.8 million square foot distribution center is under construction for Skechers shoe store in Moreno Valley, CA.<sup>27</sup> Despite the arguments that the Skechers warehouse would bring jobs, many residents fought its approval, fearful that it would bring traffic congestion and air pollution to the area and lower their property values.<sup>28</sup>

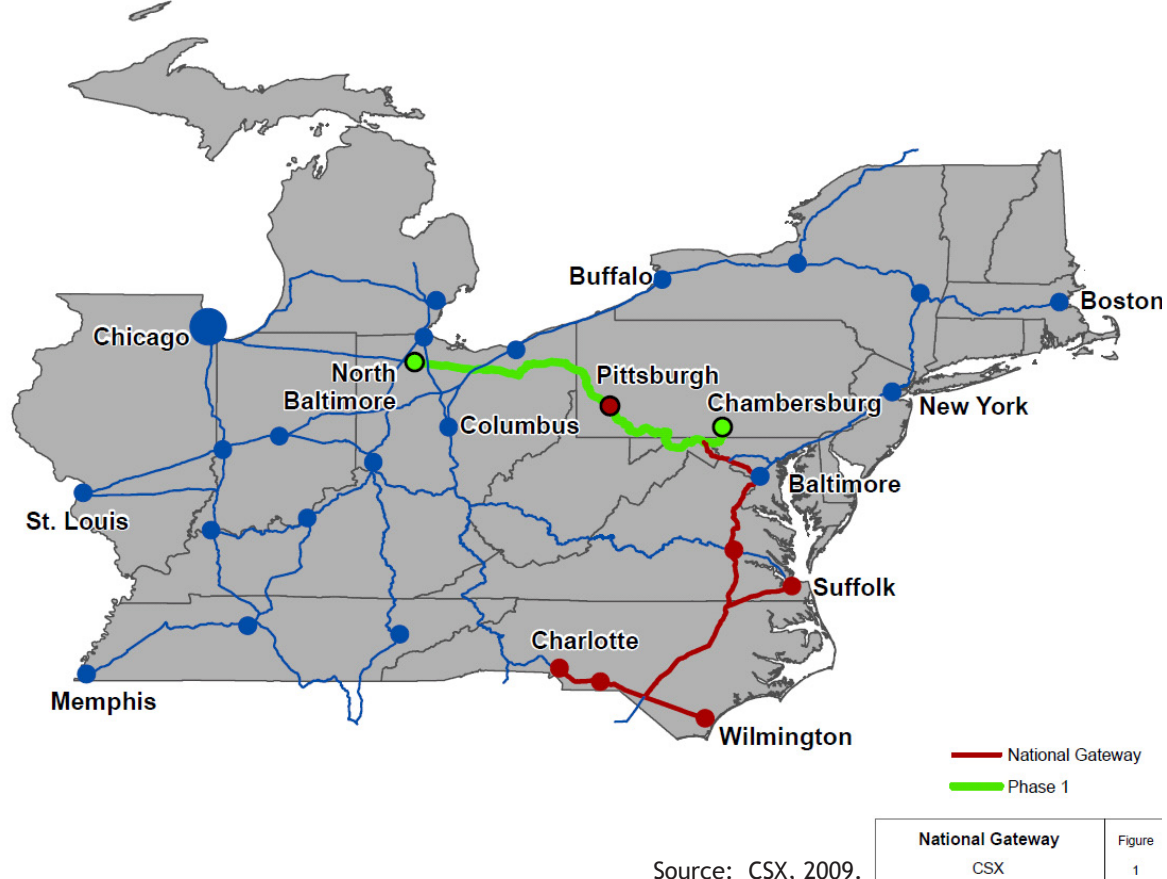
## Expansion of Rail and Highway Corridors

The inland hubs are facilitated by major investments in rail and highway corridors, especially on the East Coast. Many of these rail and highway projects have been subsidized by the American Recovery and Reinvestment Act (ARRA) stimulus funds, and as a recent *Journal of Commerce* article notes, they are expected to “change the economic landscape of the country’s distribution networks.”<sup>29</sup>

Two of the nation’s freight railroad companies, Norfolk Southern and CSX railroads, have capitalized on such ARRA stimulus funds (see section “Public Subsidies for Import-Based Development”) and have created public-private partnerships with local, state and federal government agencies to expand and develop rail corridor projects that link established East Coast ports with Midwest markets. As an example of the project’s magnitude, a Norfolk Southern project entailed blasting through 28 mountain tunnels in West Virginia to allow higher clearances for double-stacked Norfolk Southern trains, as well as laying new rail track. This project, called the “Heartland Corridor,” opened in September 2010 linking the Norfolk, VA port terminals to Columbus, OH.<sup>30</sup> The corridor is designed to facilitate goods movement from the Virginia ports by shortening the route to the Midwest along high-speed double stack rail. Because of the Corridor, new Norfolk Southern intermodal terminals are under construction in Roanoke, VA, Columbus, OH and Prichard, WV.<sup>31</sup>

Competing for East Coast rail growth is CSX Corporation that has proposed a National Gateway Corridor project in an effort to build more efficient freight transportation links between Mid-Atlantic ports and the Midwest. The CSX plan includes a combination of rail infrastructure and intermodal terminal projects along three major freight rail corridors owned and operated by CSX. The proposed

Figure 5. National Gateway Project of CSX Transportation



Source: CSX, 2009.

National Gateway Corridor will also provide a more efficient north-south route between North Carolina and Baltimore, paralleling I-95. The project proposes to expand three existing rail corridors that run through Maryland, Virginia, North Carolina, Pennsylvania, Ohio and West Virginia.<sup>32</sup> See Figure 5.

West Coast railroads are also expanding, as are some highways in the West. Union Pacific (UP) and Burlington Northern Santa Fe (BNSF) are the country's largest railroads and operate in the Western United States. Both have used private and, recently, public funds to expand their operations or make them more efficient.<sup>33</sup> For example, funding is being used to make the Colton Crossing in Riverside, CA less of a chokepoint by constructing a flyover for freight trains. This crossing is currently one of the busiest at-grade rail-to-rail crossings in the nation. This is a description of the project's funding:

*The funding comes from a combination of state, federal, and private monies from BNSF and Union Pacific. In February 2010, the project was awarded \$33.8 million in American Recovery and Reinvestment Act (ARRA) stimulus funds through the Transportation Investment Generating Economic Recovery (TIGER) program. In May 2010, the California Transportation Commission approved \$91*

*million in funding from the voter-approved California Proposition 1B Trade Corridor Improvement Fund (TCIF).<sup>34</sup>*

We can expect these trends (new highway corridors and expansion of distribution centers) to continue as many intermodal facilities (with related warehousing operations) are being proposed or constructed in inland areas, including in Ohio, Kansas, Tennessee and elsewhere.

## The Continuing Importance of Trucks

Although the airwaves are full of commercials arguing in favor of rail transport,<sup>35</sup> trucks continue to play a major role in the goods movement industry. Rail companies promote a rail advantage in hauling containers on less fuel than trucks.<sup>36</sup> This may be true on long stretches of land across the country. But to get containerized products to and from their final destinations, multiple truck trips almost always are a necessity and can also include a rail yard where containers are transferred to trains. Few port terminals in the United States use an efficient system of placing a container onto a train directly from a ship without any involvement of a truck (although the technology exists to do this and the scheme is depicted in the CSX video). The highway trade



association American Association of State Highway and Transportation Officials provides the following example of truck involvement in “rail movement” of goods:

*... Merchandise manufactured and packed in a container in China may be imported to the United States through the Port of Long Beach, trucked to the nearby intermodal container transfer facility, loaded onto a double-stack unit train, moved by rail to Chicago, transferred across town by truck from a western railroad to an eastern railroad, moved by rail to north Jersey, transferred to truck, taken to a nearby distribution center where the contents are transferred to smaller trucks, and finally delivered by van to a customer in Brooklyn (underlining added).<sup>37</sup>*

One route described above may be slightly shortened by a developing partnership between BNSF (a western railroad) and CSX (an eastern railroad) whereby a CSX crew in Chicago can relieve a BNSF crew and move the train to a proposed intermodal facility in northeast Ohio. In Ohio, the train’s containers are unloaded before it travels back to the BNSF crew in Chicago. This would eliminate the need for moving containers by trains within the city of Chicago from one train terminal to another.

Trucks hauling containers are extremely heavy and can cause serious damage to bridges, highways, and local roads. The California State Department of Transportation (Caltrans) states that “trucks traveling from the ports in Southern California cause the majority of damage and stress to roadway surfaces, bridges and other infrastructure elements.”<sup>38</sup> According to Resources for the Future (RFF), an environmental think-tank in Washington, D.C., “heavy-duty commercial trucks account for only 7.5% of highway miles, but they contribute disproportionately ... to pavement deterioration, traffic congestion, pollution, and nationwide dependence on a volatile world oil market.”<sup>39</sup> Similarly, a study of pavement damage conducted at the University of Texas found that “one big-rig pass causes the damage equivalent to 2,000 to 3,000 cars.”<sup>40</sup>

As the RFF study noted, to calculate the range of truck-based external costs, air pollution, pavement damage, traffic congestion, noise, road accidents, global warming, and fuel security need to be considered. Continuing truck use, along with its extensive impacts, remains a key trend that often complements rail systems as the pivotal anchor of freight transportation within the United States as well as exporting countries like China.

## Public Subsidies for Import-Based Development

The influence of major global firms and their role in global markets has had a large role in shaping trends and economic development policies. Many cities and regions turned to import-based development policies in the wake of the global economic restructuring that took place in the 1980s and 1990s.<sup>41</sup> While most studies of globalization focus on runaway production, declining manufacturing sectors, information technology and the rise of financial sectors, little has been written about how commodity distribution networks have shaped urban development.<sup>42</sup> Retail innovations and shifting distribution processes have created new links between American cities and the global economy. Rising imports and an expanding shipping network have made it possible for a growing number of regions and cities, such as Southern California, Oakland, Savannah, Chicago, and Virginia, to capture a greater share of global commodity shipments by adopting port-based economic and transportation development models.<sup>43</sup>

This port-based development discourse became the underlying logic of regional economic policies that cleared the way for government support for goods movement projects. Los Angeles’ emergence as a major gateway for Asian imports was made possible by a significant public investment in port capacity. Billions of dollars were invested in port infrastructure as a way to modernize the ports and to make them competitive in a global context.<sup>44</sup> Recent state funding initiatives like California’s Prop 1B program collected as much as \$20 billion in tax revenues to subsidize projects and programs related to transportation and goods movement in California. Although \$2 billion was set aside for air quality programs, the investment of public funds is one example of how taxpayers pay for the infrastructure that enables private development, logistics, shipping and retail corporations to expand their operations without addressing the public costs of health impacts.<sup>45</sup>

The expansion of Southern California port activities is one example of how local policy makers have deployed an imports-based development approach and set of arguments to justify massive public spending on freight transportation projects in the 1990s and 2000s. Expansion of goods movement infrastructure serving the ports of Long Beach and Los Angeles has become the embodiment for numerous policymakers of the path to regional economic prosperity. Economic boosters - often linked to the Southern California Association of Governments, other associations of governments and the port authorities - regularly claim that expanding the region’s distribution network will provide middle class jobs to local blue-collar workers with only a high school education (or less).<sup>46, 47</sup> Moreover, SCAG argues



that if the region builds the necessary infrastructure “to accommodate the growth of international trade and clean up its worst environmental side-effects, some 1,381,000 jobs can be created in Southern California.”<sup>48</sup>

Meanwhile, national policy makers used the economic crisis of 2008 to call for expanded public funding of the country’s transportation system. Both Republicans and Democrats argued that improving the country’s aging infrastructure - through transportation funding for bridges, roads, highways, freight rail and intermodal facilities - would stimulate the economy. As part of the American Recovery and Reinvestment Act (ARRA) stimulus funds package, the U.S. Department of Transportation has funded \$1.2 billion for transportation projects through the Transportation Investments Generating Economic Recovery (TIGER) program. To date, two rounds of funding in February 2010 and October 2010 have funneled more than \$961.3 million in public funds to key ports and freight transportation projects. See Appendix.

In October 2010, President Obama called for a \$50 billion initiative to modernize the nation’s infrastructure; his 2012-13 budget proposal includes a six-year \$556 billion for federal transportation funding. The wave of public investment and subsidies has fueled private enterprise but comes at a time when trust in the public sector and government’s ability and willingness to increase health, labor and environmental protections is at a low point. Thus, while public investment for private economic growth appears acceptable, public protection of health, environment, and workers appears to be considered unacceptable by some, as noted in the next section.

## **Impacts on Workers, Health, Community, and the Environment**

Evidence makes it clear that global trade and the freight transportation system causes substantial environmental, health, workplace and community impacts. These include local and regional air pollution from emissions of ships, trucks, locomotives, and yard equipment operating at ports, rail facilities, on highways, and at warehousing operations. Such impacts can disproportionately affect residents in communities near ports and in neighborhoods near freeways or where heavy truck traffic or locomotives are present, in addition to affecting the health of dock and warehouse workers, truck drivers, and railroad employees. Recognizing that port and rail communities disproportionately bear the costs of health impacts from international trade while the rest of the United States reaps benefits, Mayor Bob Foster of Long Beach CA commented in 2008:

*Quite frankly, my first job as mayor of Long Beach is to protect the health and safety of my citizens. In my city, families that live along the trade corridors have two to three times the statewide average of asthma cases. That’s not an accident. I’ve said it many times: we are not going to allow kids in Long Beach to contract asthma so someone in Kansas can get a cheaper television set. Those days are over.*<sup>49</sup>

Other neighborhood impacts from freight transportation operations include noise, round-the-clock bright lighting at port and rail operations, conflicts between incompatible land uses and public health, and the potential for contamination from hazardous spills. Goods movement communities also face traffic safety problems, unsafe streets for pedestrians, and hefty local tax charges to repair streets that are damaged by big-rig trucks.

Workers in the freight transportation industry face a number of issues. Some, such as unionized longshore workers, are able to secure living wages and benefits while others, such as warehouse workers, are part of the contingent workforce, working at the convenience of employers and often through a temp agency. Still others, such as port truck drivers, who are technically classified as “independent contractors,” are left to carry the heavy burden of maintaining and operating their trucks while performing the work of private freight transport firms.

On a more global scale, international trade activities contribute to global warming, with significant emissions of carbon dioxide, black carbon and other pollutants. While the published and peer review literature has documented these community, workplace, health, and environmental impacts, findings have not been widely incorporated into policy decisions or into assessments of the comparative benefits and negative impacts from international trade and freight transportation. The section of the report below provides a brief summary of health research findings and helps situate the policy and organizing context for how best to address the underlying problems associated with international trade and goods movement traffic. See also chart at the end of this section. Additional information about air pollution and health impacts can be found in a searchable U.S. EPA database of scientific citations.<sup>50</sup>

### **Impact on Workers**

Labor impacts include how the freight transportation and logistics industries that manage the flow of goods from overseas to U.S. consumers have produced a new generation of contingent workers. These workers have low wages and are often used seasonally or hired periodically as the

economy ebbs and flows. Many of the jobs involve temporary workers who have fewer benefits and far less job security, particularly those associated with the massive distribution centers that constitute a key part of the freight transportation system. Port truck drivers are misclassified as independent contractors and lack basic worker protections such as hourly wage, overtime, health insurance, unemployment benefits, OSHA protections, and the right to organize. The global shift of production away from higher paying manufacturing jobs in the United States to this contingent or “flexible” labor work force has therefore emerged as a key outcome of the rapid growth of the global freight transportation system.

### Impacts on temp workers and independent contractors

One of the ways that shippers have reduced their costs in the development of inland hubs is by creating a distribution system that relies on a large army of low-wage, temporary warehouse workers. Evidence from Chicago and Southern California reveals that many of the workers who are employed as “flexible labor” (or temps) by the goods movement industry’s massive distribution centers are paid poverty-level wages.<sup>51</sup> A survey in Chicago found that the majority of warehouse workers were temps earning wages below the federal poverty level.<sup>52</sup>

It is important to note that the freight transportation and logistics industries have historically used inland distribution centers and workers as a cost-saving and anti-union strategy. For example, while shippers claim that a decentralized system is part of their move towards more efficient and flexible distribution of goods, it is also an attempt to circumvent the type of labor power displayed by the West Coast port lockout of 2002.<sup>53</sup>

One has to search carefully to find where these temporary warehouse workers show up in employment statistics, and not all economists appear to include them when they calculate the average wages of warehouse workers. Our analysis shows that increased numbers of temporary workers appear in annual average employment growth under the category of Professional and Technical Services.<sup>54</sup> For example, from 2000-2009 annual average employment growth in goods movement industries rose 3.1% and 5.3% respectively in San Bernardino and Riverside Counties. Meanwhile, there was additional growth in the category called Professional and Technical Services (the classification for temp workers) of 5.5% and 7.3% respectively. In Will County, Chicago, where warehouse activity has expanded, average employment growth in the Professional and Technical Services grew 4.2%, in addition to 8.2% annual growth in goods movement employment.<sup>55</sup>

Truck drivers who move cargo to and from the ports reflect another set of workers in the freight transportation system earning poverty-level wages and serving as flexible labor for freight shipping firms. With the deregulation of the trucking industry in the 1980s, independent truck drivers were forced to bear the burden of all maintenance and upkeep for trucks that cost over \$100K, along with Port fees, licensure, fuel and other costs of doing business at the Port. Truck drivers who own and operate their own trucks and must compete individually for hauling jobs, and net less than \$30,000 annually.<sup>56</sup> In a survey of 2,183 workers at seven major ports, researchers from National Employment Law Project, the union federation Change to Win and Rutgers University found that 82% of the nation’s 110,000 port truck drivers are treated as independent contractors.<sup>57</sup> This misclassification of drivers as independent contractors prevents them from securing basic worker protections, such as hourly wage, overtime, health insurance, unemployment benefits, and the right to organize.<sup>58</sup>

The interlocking factors of employment status, poor wages, lack of benefits and health insurance, combined with exposure and increased health and safety risks as described below, pose employment, workplace, and residential impacts to this growing sector of workers.

### Health and safety of workers in the freight transportation industry

Many workers in the goods movement industry also face significant health and safety hazards on their jobs as truck drivers, warehouse workers, and railroad workers. For example:

- **Worker fatalities.** In 2009, workers in the “transportation and warehousing” industry had the second highest number of worker fatalities in the United States, with #1 being “construction.” Workers in this industry had the third highest work injury fatality rate of all industries, exceeded only by the category of “agriculture, forestry, fishing, and hunting” (#1) and by “mining” (#2).<sup>59</sup>
- **High hazard jobs.** In California, both warehousing and truck transportation were on the “Highest Hazard Occupation” list for OSHA inspections (2009-2010).
- **Exposure to heat stress.** Workers in non-air conditioned truck and locomotive cabs and in warehouses are subject to potential heat stress. Warehouses in the Inland Valleys of Southern California, where summer temperatures are often above 100 degrees Fahrenheit, seldom have air-conditioning.

- **Lung cancer and heart disease deaths, accidents - truck drivers.** A study of causes of death among unionized workers in the trucking industry (compared with the general U.S. population) found an excess of lung cancer and heart disease deaths among drivers, dock workers and shop workers at trucking terminals, and higher than expected deaths from transportation-related accidents.<sup>60</sup> Another scientific study surveyed 31,000 union workers in the U.S. trucking industry exposed to higher levels of diesel exhaust on a regular basis as part of their jobs. It found that they were more likely to develop lung cancer with increasing years of work.<sup>61</sup> According to the California Air Resources Board, lung cancer rates among workers in the trucking industry are among the top five highest rates of all industries surveyed in the state.<sup>62, 63</sup>
- **Lung cancer deaths - railroad workers.** A study of nearly 55,000 U.S. railroad workers (who worked in the industry from 1959 - 1996) found that exposure to diesel exhaust was linked to lung cancer deaths among these workers.<sup>64</sup>
- **COPD - railroad workers.** U.S. railroad workers hired after the introduction of diesel locomotives had a 2.5% increase in chronic obstructive pulmonary disease (COPD) mortality risk for each additional year of work in a diesel-exposed job.<sup>65</sup>
- For those workers who live in the neighborhoods surrounding ports, the health risk is compounded. In Los Angeles, for example, 50% of port truck drivers live in low-income or poverty level neighborhoods near the ports and along the port trucking corridors,<sup>66</sup> where levels of localized air pollution are elevated.

## Exposure to Air Pollutants

Air pollution is a mixture of gases, such as carbon monoxide and nitrogen dioxide, and particles of different sizes. The particles usually come from vehicle emissions, factories, wood or gas stoves, and/or wildfires.

Goods movement activities provide multiple sources of air pollution, much of which relate to diesel emissions. Freight transportation can add to “regional air pollution” or, in cases where freight facilities are close to homes and schools, they can create “localized pollution.” Thus, ship and vehicle emissions near a port can add to the regional pollution that residents in a wide geographic breathe. But for those residents who live in close proximity to a marine terminal with

ships, yard equipment and idling trucks waiting for containers, it can mean additional “local pollution.” This is also true for residents living near rail yards, highways, and distribution centers. In these cases, not only are the residents exposed to regional pollution similar to all residents in their region, but they are also exposed to additional pollution because of their closeness to truck, locomotive and ship exhaust.

Diesel exhaust consists of gases and particles. Some of these particles are in the  $PM_{2.5}$  range (that is they are smaller than 2.5 microns in diameter). Within that size range are extremely small particles called “ultrafine particles,” tinier than 0.1 microns in diameter. Automobile exhaust also contains particles in these sizes. Both cars and diesel trucks emit “black carbon” in their exhaust, although much higher levels of black carbon (or “elemental carbon”) are found when sampling air pollution levels on truck-congested highways than on highways with mostly gasoline vehicles.

Diesel particulate forms a large part of the fine particulate matter (PM) in urban air.<sup>67</sup> Because studies of PM seldom differentiate the source of the particulate matter (that is, whether the PM comes from gasoline vehicles, diesel vehicles, power plants, refineries, etc.), we present first the information on health effects of PM and then the specific studies addressing diesel PM. We also note that diesel exhaust contains gases as well as both fine and ultrafine particles (UFPs).

Below, we describe some of the research findings on health effects of exposure to air pollution.

## Health effects of exposure to $PM_{2.5}$

Studies demonstrate that exposure to  $PM_{2.5}$  (particles) increases the risk of cardiovascular disease and reduces life expectancy. That is, those exposed to higher levels of particulate matter are more likely to develop cardiovascular disease or die earlier than expected from heart disease (such as heart attacks and coronary artery disease, according to a number of studies published during the past 20 years.<sup>68 69 70</sup> The American Heart Association recently published a statement on the role of air pollution in heart diseases, stating that:

*Numerous epidemiological studies conducted worldwide have demonstrated consistent associations between short-term elevations in PM and increases in daily cardiovascular morbidity [illness] and mortality [death].... Several studies have also reported adverse cardiovascular outcomes in relation to long-term PM exposure. Elderly patients, those with underlying coronary or pulmonary disease, lower socioeconomic populations, and diabetics may be at particularly increased risk... Pope has*



*estimated an average loss of life expectancy directly related to chronic air pollution exposure from between 1.8 and 3.1 years for those living in the most polluted cities in the United States. Cardiovascular causes account for the majority (69%) of the overall excess in morbidity and mortality.<sup>71</sup>*

Globally, concerns have also been raised about shipping emissions, because ships have diesel engines that run on bunker fuel - a low-grade fuel that is considered “dirtier” than diesel fuel. A landmark study by a University of Delaware scientist noted that those living near coastlines are at particular risk from particulate matter in shipping emissions; he and his team calculated that 60,000 persons a year die prematurely from particulate matter released by ocean-going ships involved in international trade.<sup>72</sup>

### **Diesel particulate emissions in the community: impacts on residents’ health**

Concerns about diesel exposure are highlighted in this report because the ships, trucks, locomotives and much of the yard equipment used along the entire goods movement supply chain are diesel-fueled and emit a significant amount of air pollutants - and they create significant risk for residents in goods movement communities.

Diesel emissions cause some of the most extensive impacts from freight transportation. The California Air Resources Board estimates, for example, that goods movement activities in that state each year cause 3,700 people to die prematurely - earlier than they would have if they had not been breathing high levels of particulate matter.<sup>73</sup>

To calculate the anticipated output of particulate matter (PM) and other air pollutants, a number of ports have conducted emissions inventories. One of the first such studies was conducted in Southern California and published in 2007, estimating that the Port of Los Angeles in 2005 was contributing 12.5% of the PM air pollution in the Southern California region (and that the Los Angeles and Long Beach Ports combined were contributing some 25% of the region’s PM).<sup>74</sup> This inventory determined that ships were the largest source of diesel pollution from the ports, producing 54% of the ports’ diesel emissions in 2006, with freight trucks being second.<sup>75</sup>

Another study of the Port of Los Angeles was a Health Risk Assessment (HRA), conducted by the California Air Resources Board. It found an elevated diesel cancer risk in those living close to the Port, but also found that even 15 miles away residents had a higher risk than others in Southern California did. The HRA calculated that emissions from the two Ports combined were estimated to cause annually 120

premature deaths and 750 asthma attacks.<sup>76</sup> Another study by the South Coast Air Quality Management District took air pollution samples and modeled air pollution risks. It, too, demonstrated elevated diesel cancer risks in and around the Port of Los Angeles, leading one resident - an emergency room physician - to proclaim that those in the Harbor area were “living in a diesel death zone.”<sup>77</sup>

Emissions inventories have also been conducted at 18 major rail yards in California, as part of a series of Health Risk Assessments for those yards prepared by staff of the California Air Resources Board. The inventories were used to estimate the tons of particulate matter in diesel exhaust emissions at each yard per year. For example, a large BNSF rail yard in Barstow, CA was estimated to emit 26 tons of diesel particulate matter per year.

Above, we described some of the known health impacts of diesel exposure on workers, including lung cancer. Exposed community members are also considered at risk of lung cancer from diesel emissions in and near their communities. Some of the other known health impacts for residents exposed to diesel include:

- **Reduced lung function in children exposed to diesel while growing up.** According to investigators at USC, children who grow up in more polluted communities with high levels of elemental carbon or EC (indicating diesel particle pollution) are more likely to have reduced lung function.<sup>78</sup>
- **Effects on lung function in adults with asthma, exposed for a brief period to diesel exhaust.** A study in London demonstrated that short-term acute exposure to diesel exhaust in adults who already had asthma could impact lung function; the study compared persons with asthma who walked in a park with no diesel traffic and then several weeks later walked on a London street with high volumes of diesel taxis and buses. Reduction in lung function and an increase in markers of inflammation were seen when the group was exposed to diesel exhaust - and the changes were associated with elevated levels of elemental carbon and UFPs.<sup>79</sup>
- **Reduced sperm production and endocrine disruption in laboratory animals.** In a series of Japanese studies of laboratory animals, prenatal (in *utero*) exposure to diesel exhaust particles were found to reduce sperm production in adulthood.<sup>80</sup> The Japanese team concluded that exposure to diesel exhaust particles disrupts endocrine (testicular) function in the male mouse reproductive system.<sup>81</sup> In many of these

studies, filtered air caused the adverse effects, suggesting that the gaseous phase of diesel exhaust appears to be the cause.

## Health impacts of exposure to ultrafine particles

New concerns have been raised in the past 10-12 years about the potential health effects of ultrafine particles (UFPs) from combustion processes. These UFPs have been studied less extensively than  $PM_{2.5}$  or larger  $PM_{10}$  particles. UFPs do not weigh much because of their size, making up only 10% of the total mass of  $PM_{2.5}$ , and they have a large surface area, to which harmful chemical constituents from the exhaust can adhere.<sup>82</sup>

Recently, fourteen European scientific experts collaborated on reviewing the scientific literature on UFPs. Most of the experts concluded that:

*The likelihood of an independent causal relationship between increased short-term UFP exposure and increased all-cause mortality, hospital admissions for cardiovascular and respiratory diseases, aggravation of asthma symptoms and lung function decrements was rated medium to high.*<sup>83</sup>

The group stressed the importance of considering UFPs in future risk assessments and the need for further research on UFP exposure and health effects. Similar suggestions were made at a symposium in California sponsored by the South Coast Air Quality Management District, at which several scientists who spoke concluded that if UFPs cause health effects, an air pollution standard for UFPs is needed.<sup>84</sup>

Some of the studies show that:

- **More than 90% of particles in diesel exhaust are actually ultrafine particles UFPs,** smaller than 0.1 micron in diameter, and the **tiny particles can be easily inhaled into the lung.**<sup>85</sup> Laboratory studies increasingly show that these UFPs are more toxic and have a greater ability to cause lung inflammation than larger sized particles.<sup>86</sup>
- **Ultrafine particles appear to possess the most toxic potential of various size particles,** according to Los Angeles researchers.<sup>87</sup>
- **Ultrafine particles translocate (migrate) to the brain<sup>88</sup> and to promote early atherosclerosis** (hardening of the arteries) in exposed laboratory animals.<sup>89</sup>

## Exposure to traffic-related pollution: living close to busy road and highways

New studies over the past decade have examined the levels of traffic-related pollution at different

distances from homes and schools, the volume of nearby traffic, and the nature of land uses in the area. These studies have shown that the levels of several traffic-related pollutants (ultrafine particles, nitrogen dioxide, and elemental carbon, a marker for diesel) are high in close proximity to roadways, especially within the first 150 meters from the road<sup>90</sup> and that living or going to school in close proximity to busy roads and highways with significant traffic-related pollution is linked to adverse health effects. Studies involving children exposed to traffic-related pollution have shown the following effects:

- **Reduced lung function.** Children who live near traffic-related air pollution are more likely to suffer reduced lung function as they grow up.<sup>91</sup>
- **Increased risk of asthma.** Children living in homes within 225 feet of a highway have an increased risk of asthma.<sup>92</sup> Children are more likely to develop asthma when exposed to traffic pollution at school.<sup>93</sup>
- **Increased wheezing, use of medication.** Asthma exacerbation such as wheezing and use of more asthma medication occurs more often among children living closer to highways.<sup>94</sup>

Many recent studies involve adults exposed to traffic-related pollution. The research findings have shown the following adverse effects:

- **Low-birth weight babies.** Women who live near busy highways while pregnant are more likely to have babies with low-birth weight or who are premature.<sup>95</sup>
- **Miscarriages.** California women who live within 50 meters of a road with daily traffic of 15,200 or more (compared to women living further away and exposed to less traffic) were more likely to suffer miscarriage. This finding was especially true among African-American and nonsmoking women.<sup>96</sup>
- **Pregnancy complications.** Exposure to traffic-related air pollution during pregnancy increases risk of preeclampsia and preterm birth.<sup>97</sup>
- **Women undergoing in-vitro fertilization** who were exposed to higher levels of traffic-related air pollutants, particularly nitrogen dioxide, had an increased chance of in-vitro fertilization failure.<sup>98</sup>
- **Breast cancer.** The risk of breast cancer among post-menopausal women is higher in areas where there are higher levels of  $NO_2$ . In this Canadian study, there was an increased risk of ~25% for every increase of 5 ppb in exposure to  $NO_2$  (as a marker for traffic-



related pollutants) when the levels in one area were 5 ppb higher than in another area, the risk of breast cancer went up by 25%.<sup>99</sup>

- **Atherosclerosis.** Adults living within 328 feet of a Los Angeles freeway have twice the average progression of atherosclerosis, the thickening of artery walls that can lead to heart disease and stroke.<sup>100</sup>
- **Cognitive impairment.** Women living within 50 meters of roads with at least 10,000 vehicles a day on them are more likely to develop mild cognitive impairment as they age.<sup>101</sup>
- **Diabetes.** In a study of German women living near busy roadways, women who were exposed to traffic-related pollution were more likely to develop new cases of diabetes than those who were not exposed.<sup>102</sup>
- **Heart/lung disease deaths.** Living near a major road is strongly associated with deaths from cardiopulmonary (heart/lung) disease. Adults who lived near a major road in the Netherlands were found to have twice the risk of mortality from heart/lung disease as adults in the same city living further from roads.<sup>103</sup>
- **COPD.** Long-term exposure to traffic-related air pollution may contribute to the development of chronic obstructive pulmonary disease (e.g., emphysema), and this may be more likely to occur in people with diabetes and asthma.<sup>104</sup>

In addition, an analysis of cancer by census tracts in Los Angeles County found elevated rates of throat, mouth and tongue cancers and certain types of lung cancer in close proximity to a truck-congested I-710 freeway in Los Angeles County,<sup>105</sup> one of the most heavily used highways for movement of goods in the country.

## Regulation of diesel emissions

Vehicle emission standards in the United States are promulgated by the U.S. EPA. The State of California has authority under the Clean Air Act to adopt more stringent standards, which are set by the California Air Resources Board. Other states can adopt the California standards or the national standards.

The U.S. EPA has studied the health effects of diesel exhaust and concluded that diesel is a “likely” human carcinogen, that is, a toxic likely to cause cancer in humans who are exposed over time. The agency regulates diesel exhaust as a Mobile Source Air Toxic (MSAT).

In California, diesel particulate matter is regulated more strictly than in the rest of the United States.

In 1998, diesel particulate was designated a Toxic Air Contaminant (TAC) in that state, based on more than 30 studies showing that worker exposure to diesel exhaust is linked to lung cancer and other health effects.<sup>106</sup> This designation, along with hundreds of scientific studies showing the health effects of particulate matter (especially PM<sub>2.5</sub>) provides authority for California to strictly regulate diesel emissions.

Community groups have raised serious concerns about locomotive emissions, especially from idling locomotives operating at rail yards that are near homes and schools. U.S. EPA has primary regulatory authority over locomotive emissions and has issued regulations. Arguing that “Federal law preempts California from setting emission standards for new locomotives and new engines used in locomotives,” CARB has instead negotiated voluntary agreements with BNSF and Union Pacific, the two major freight railroads operating in the State. The South Coast Air Quality Management District attempted to limit idling of locomotives, efforts that have ended up in litigation. These voluntary efforts have disappointed and angered environmental justice organizations that represent residents who live near rail yards and have resulted in protests in both Los Angeles and Sacramento.

## Exposure to Noise

Port and intermodal rail operations are noisy by virtue of the locomotives and yard equipment being used and the handling of heavy containers by cranes and other equipment. A common negative impact in freight transportation communities relates to the high volume of heavy-duty trucks - a major source of noise. Community and occupational health studies show that noise can affect health and quality of life.

Transportation noise research, largely conducted in Europe, shows three main types of impacts from noise:

- **Psychological (e.g., annoyance).** A number of studies show significant annoyance from exposure to high levels of transportation noise above 60 dB.<sup>107</sup> Children studied in The Netherlands were found to be seriously annoyed by both aircraft noise and road traffic noise at school.<sup>108</sup>
- **Physiological (e.g., hearing loss, increase in blood pressure).** Published studies show that workers are at risk of noise-induced hearing loss from noise at rail yards.<sup>109</sup> In addition, chronic noise exposure may contribute to the progression of heart disease.<sup>110</sup> In a recent study in the Netherlands, adults living near roadways who were exposed to noise were found to have higher rates of stroke in relationship to higher levels of noise, after accounting for air pollution.<sup>111</sup>

- **Mental health (e.g., anxiety).** Elevated noise levels from road traffic and airports affect children's mental health and classroom behavior.<sup>112 113 114</sup> Excessive noise from traffic can disturb restorative sleep.<sup>115</sup>

Figure 6 shows the noise levels in decibels for common outdoor and indoor noise activities. Note that quiet urban daytime noise is usually slightly above 50 dBA and that a diesel truck 50 feet away, going 50 miles per hour, may register between 80 and 90 decibels.

Figure 6. Noise levels for common activities

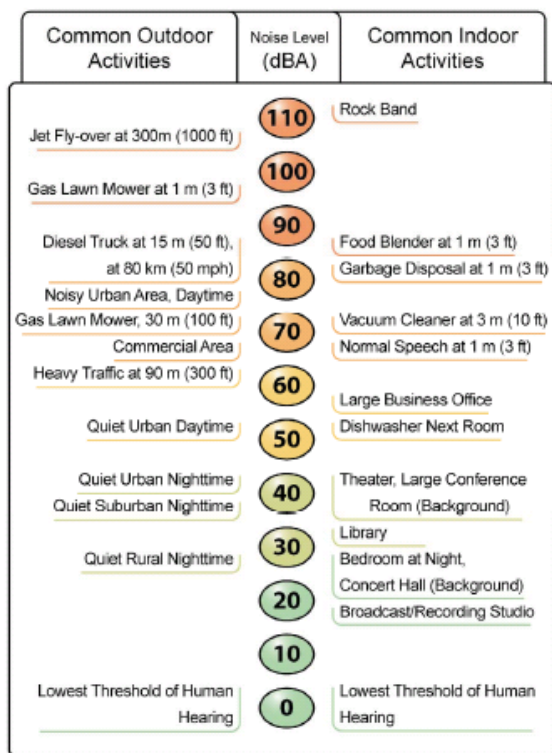


Exhibit 2.2.6-1  
Typical Sound Levels from Indoor and Outdoor Noise Sources

Source: Final Environmental Impact Report for the Gerald Desmond Bridge, Port of Long Beach. 2010

Figure 7 shows estimated noise levels at certain distances from busy roads and at certain speeds, with varying levels of traffic. It helps to illustrate how much the number of trucks and the speed that the traffic is moving impacts the noise levels. The more trucks there are and the faster the traffic is moving results in higher noise levels.

Figure 7. Levels of noise at 150 feet from busy roads

Vehicles per Hour				
Automobiles	Medium Trucks	Heavy Trucks	Speed, mph	Leg (h) dB (A)
1,500	100	200	65	67
1,500	100	200	50	64
1,500	100	0	65	63
1,500	0	0	65	62

Source: Transportation Research Board of the National Academies, TR News. Transportation noise. Sept-Oct 2005, Number 240.

According to Southern California Association of Governments, complaints about noise vary according to the decibel level.<sup>116</sup> As Figure 8 shows, widespread complaints begin when noise gets into the 60 dB range, with serious annoyance between 60 and 70 dB.

Figure 8. Impacts of various noise levels on sensitive uses

Noise level	Where the noise is	Impact
55 dB	Outdoors near homes and sensitive uses	Sporadic complaints and community annoyance start
DNL 55-60 dB	Outdoors and near sensitive uses	Upper range for intelligible speech indoors at a typical home
55-60 dB range	Homes and sensitive uses	Widespread complaints
60-70 dB	Homes and sensitive uses	Threats of legal action begin
70 dB and above	Homes and sensitive	Strong appeals to local officials to stop the noise and threats of legal action

Source: Adapted from text, SCAG Regional Transportation Plan, Proposed EIR, 2004.<sup>117</sup>

Noise from locomotives is particularly high. A Southern California study showed that the noise impact caused by 40 freight trains per day generates approximately 75 decibels at 200 feet from the tracks and that freight trains also generate substantial amounts of ground-borne vibration near the tracks.<sup>118</sup> Community residents near rail yards in Los Angeles have complained about noise for decades.<sup>119</sup> A recent study in Teaneck, NJ by Rutgers investigators estimated that 40% of residents living near train tracks where locomotive horns sounded at night had a high probability of waking from the horn noise.<sup>120</sup>

Despite documentation of excessive noise levels and the presence of federal noise limits, many proposed rail yard projects claim that they will generate no significant noise impacts. For example, in 2010, McCalla, AL, residents expressed concerns about potential noise from a proposed Norfolk Southern Railroad intermodal hub,<sup>121</sup> but a consultant hired by the railroad dismissed the noise concerns even before finishing an environmental review.<sup>122</sup>

## Neighborhood Impacts - Lighting, Traffic Congestion, Truck and Rail Accidents

When faced with new or expanding freight transportation facilities, concerns of residents often focus on the proximity of neighborhood schools and homes to ports, rail yards, warehouses, and highways. While residents in these communities highlight potential health effects of traffic-related

air pollution and noise, they also express deep concern about their “quality of life.” Ports, rail yards, and many distribution centers operate round-the-clock operations, often employing bright lights, often referred to as “stadium lighting.” New interest in the effects of bright nighttime lighting has recently emerged, with human studies looking at the effect of bright light and disturbances in sleep, hormones, immune function, and circadian rhythm.<sup>123</sup> A laboratory study in mice has shown that nighttime exposure to artificial light stimulated the growth of breast tumors by suppressing the levels of a key hormone called melatonin.<sup>124</sup> In addition, night lighting (or “bright skies”) creates serious negative consequences for animal and bird life.<sup>125</sup>

Occasional train derailments and frequent truck accidents are a common occurrence in goods movement communities. Nationwide, in 2008, more than 4,000 persons were killed in big-rig truck accidents, with 69% of them being occupants of passenger vehicles.<sup>126</sup> Also in 2008, more than 200 persons died at highway-rail grade crossings involving freight railroads.<sup>127</sup> Traffic congested with big-rig trucks is also a common complaint and safety hazard in communities with ports and rail yards. Big-rig trucks constitute 20-25% of the volume of vehicles on the Long Beach Freeway in Southern California, the conduit from the Ports to the major downtown rail yards.<sup>128</sup> The truck route already has 35,000 trucks a day on it, and there is a proposal to triple that number by widening and double-decking the freeway in some sections of its 20-mile route.<sup>129</sup>

## Race and Place Issues

According to the U.S. EPA National Environmental Justice Advisory Council report on goods movement:

*The environmental, public health and quality-of-life impacts of goods movement on communities are more pronounced in areas with major transportation hubs and high traffic roads. Minority and low-income communities near these hubs and throughways bear disproportionate impacts because of their close proximity to multiple pollution sources.*<sup>130</sup>

A screening analysis done for U.S. EPA determined that at least 13 million people, including a disproportionate number of low-income, African-Americans and Latinos, live in close proximity to these facilities and are exposed to higher levels of diesel particulate matter than other residents in their region.<sup>131</sup>

## Incompatible Land Uses

As in many communities across the country, land use decisions have resulted in homes, schools, and even parks being located near ports, highways, rail yards, and warehouses. Despite the growing amount of scientific research that shows the direct correlation of health risk with proximity to freeways, rail yards, and diesel emission sources, health considerations typically are not integrated into land use decision-making. In Southern California for example, 65 schools are located within one mile of the I-710 Freeway,<sup>132</sup> a major highway connector from the Ports of Los Angeles and Long Beach for which government officials have proposed an expansion. More than 600,000 residents, including 212,000 under age 18, live within 1,500 meters of the freeway.<sup>133</sup>

Another example of incompatible land uses concerns rail yards in Southern California. In the Los Angeles area, BNSF is proposing to develop a new intermodal rail facility four miles from the ports,<sup>134</sup> and Union Pacific has proposed expansion of its adjacent UP Intermodal Container Transfer Facility (ICTF).<sup>135</sup> Many neighboring residents oppose both projects because they are located in close proximity to schools and established residential communities.<sup>136</sup> Draft environment impact reviews for the two projects are expected in 2011.

At the urging of community and environmental justice groups in California, the California Air Resources Board adopted guidelines for the siting of schools near sources of pollution, such as rail yards, ports, warehouses, and busy highways.<sup>137</sup> In addition, the U.S. EPA recently published draft guidelines on school siting, which suggest buffer zones to protect students from the pollution of highways, rail yards, and ports.<sup>138</sup> These proposed guidelines do not have legal authority, however, and few local governments responsible for land use planning have actively pursued implementation of such approaches. See land use and health section below.

## Health Impacts in Asia from Manufacturing Products for Export

The dramatic increase in international trade, especially between developing countries in Asia and the United States, has also resulted in major impacts for the exporting countries as well, where the system of trade is inextricably linked to manufacturing processes that compound negative impacts to worker, health, and communities.

As China’s economy has changed to focus on manufacturing and on international trade, occupational hazards have become a major concern. Lead poisoning



(and more recently cadmium poisoning) among workers, for example, has been a ubiquitous problem in - and near - metal smelters in China. Children in Chinese provinces have also suffered. For example, children living near factories that produce car batteries (which contain recycled lead) have suffered from elevated levels of lead in their blood.<sup>139</sup> Protests have broken out in a number of Chinese cities when children have been found with lead poisoning or when authorities have suggested siting new chemical plants there.<sup>140</sup>

Growing awareness and concern focuses on air pollution. A finance organization called 24/7 Wall St. recently performed an analysis to determine the 10 cities with the world's worst air. They reviewed studies on air quality, government data, and information about sulfur dioxide, nitrogen dioxide, and particulate matter. Among the top 10 were the following four cities in China: Beijing (tied with New Delhi, India), Chongqing, Guangzhou and Hong Kong.<sup>141</sup>

A 2006 scientific study investigated high levels of air pollution in the Pearl River Delta region of China, home to hundreds of manufacturing operations and found that the region "produces more than \$100 billion of goods annually for export to North America, Europe, and other parts of Asia [and that] 10-40% of emissions of primary SO<sub>2</sub> [sulfur dioxide], NO<sub>x</sub> [nitrogen oxides], RSP [respirable suspended particulates], and VOC [volatile organic chemicals] in the region are caused by export-related activities."<sup>142</sup> This funding has spurred environmental and public interest groups such as Civic Exchange, who advocate for reduction of sulfur content in fuels burned by ships.<sup>143</sup>

## Climate Change/Global Warming/ Natural Resource Impacts

Beyond the enormous and multi-dimensional health impacts, international shipping and freight transportation have begun to be identified as major contributors to greenhouse gas emissions and climate change. In fact, a recent study by NASA's Goddard Institute for Space Studies identifies the transportation sector, including trucks, ships, and rail that rely on diesel fuel, as "the greatest contributor to atmospheric warming now and in the near term."<sup>144</sup> Trucking and rail freight in the United States alone accounts for 1.5% of global emissions,<sup>145</sup> and shipping alone accounts for approximately 3-3.5% of total global emissions and 13% of global emissions from transportation.<sup>146</sup> According to the International Maritime Organization (IMO), the shipping industry releases more greenhouse gases than the global aviation industry.<sup>147</sup> On its own, a single container ship is said to emit more greenhouse gases than two thousand diesel trucks<sup>148</sup> and its emissions may contribute to pollution hundreds of kilometers inland.<sup>149</sup>

Shipping releases more carbon dioxide (CO<sub>2</sub>) than all but six of the world's nations - more, for example, than is released by Germany.<sup>150</sup> Due to the anticipated growth in world trade, CO<sub>2</sub> emissions from global shipping are expected to rise by 126-218% by 2050 if a business-as-usual approach is followed.<sup>151</sup>

Much of these greenhouse gases come from the shipping industry's use of bunker fuel, a "bottom of the barrel" high sulfur petroleum product. Ships burn bunker fuel in diesel engines and the engines are among the world's highest polluting combustion sources per ton of fuel consumed.<sup>152</sup> Not only is bunker fuel dirty, but much of it is actually imported by China from Venezuela making the transport of the dirty fuel even more polluting in the process of transporting it. California officials are worried about increased concentrations of nitrogen oxides from burning bunker fuel, stating that they are "causing a rise in the acidification of the ocean, since the oceans are the "sink" into which about one-third of all NO<sub>x</sub> emissions are eventually deposited."<sup>153</sup> Burning bunker fuel in ships also produces harmful black carbon, a carbonaceous (carbon rich) aerosol considered by many to be responsible for climate change, second only to CO<sub>2</sub>.<sup>154</sup> A December 2009 study in the scientific journal *Lancet* pointed to the importance of black carbon, which, in combination with ozone, "could together exert nearly half as much global warming as carbon dioxide."<sup>155</sup>

In yet another piece of the fuel supply chain, exports of low-sulfur coal from Montana to China are raising concerns and protests among residents in Oregon, not far from a coal export terminal in Longview, Washington, from which the coal would be shipped to Asia. Residents point out the irony that they are trying to close their own coal-burning generating plants and meanwhile may become the export location for millions of tons of coal each year to China.<sup>156</sup>



# Selected Health, Worker & Community Impacts - Freight Transportation

	Hazard	Where it is found, who is at risk	Illness or condition that the long-term exposure or impact can cause
REGIONAL AIR POLLUTION	Particulate matter	Elevated levels of PM <sub>2.5</sub> in the air	Cardiovascular disease, COPD (e.g., emphysema)
	PM and elemental carbon (EC)	In vehicle exhaust; EC is a marker for diesel	Chronic exposure leads to reduction lung function in children
	Ultrafine particles (UFPs)	In vehicle exhaust; considered very toxic	When lab animals breathe UFPs, some end up in the brain; UFPs can cause artery hardening in lab animals
	Nitrogen dioxide - precursor to ozone	Diesel emissions contains high levels of NO <sub>2</sub>	Increase in school absences is linked to increases in ozone levels
LIVING NEAR TRAFFIC-RELATED AIR POLLUTION	Living close to highways	Children	Increased asthma; exacerbation of asthma (e.g., wheezing) and use of more asthma medication
	Living or going to school near a busy road	Children	More likely to develop new cases of asthma
	Living near busy roads	Pregnant women	More likely to have premature or low birth weight babies or miscarriages, or develop preeclampsia
	Living near a freeway	Adults	Thickening of the artery walls that can lead to heart disease and stroke
	Living within 50 meters of a busy road with more than 15,000 vehicles/day	Women	More likely to develop mild cognitive decline as they age
	Living near busy roadways	Women	More likely to develop new cases of diabetes
	Living near busy roads	Men and women	More likely to develop stroke and new cases of heart disease
HIGH NOISE LEVELS	Community noise pollution	At risk: those living near busy highways, marine terminals, airports, rail yards, and train tracks, and/or construction of the above	Residents near airports and highways show (for adults) an increase in cardiovascular disease and stroke, sleep difficulties and anxiety; and (for children) problems with school behavior and anxiety
	Elevated levels of noise in workplaces	At risk: dock workers, railroad workers and truck drivers	Long term exposure can cause hearing loss, stress and high blood pressure
LABOR ISSUES; WORKER HEALTH AND SAFETY	Contingent employment - e.g., warehouse workers	Workers often hired by agencies as temporary workers with low-pay and no benefits	Stressful, insecure jobs without benefits
	Misclassification as independent contractors rather than employees	Port truck drivers	Lack of basic worker protections, such as hourly wage, overtime, health insurance, unemployment benefits, right to organize and OSHA protections
	Diesel exhaust	Dock workers, railroad workers, truck drivers and workers at trucking operations	Increase in lung cancer in all three occupations; increase in COPD (e.g., emphysema) among railroad workers
	Heat	Lack of air conditioning in cabs of trucks and locomotives and inside huge distribution centers	If outdoor temperatures are extremely high and there is no relief or mitigation, workers can suffer from heat stress illnesses
	Injuries/fatalities	Some parts of the freight transportation industry are considered "high hazard"	E.g., The 2009-2010 California OSHA highest hazard industry list included warehousing and truck transportation
COMMUNITY IMPACTS	Industrial blight	Empty containers in lots near homes; views of industrial cranes	Decreases home values and quality of life
	Traffic congestion	Cars must travel with big-rig trucks; expanding number of heavy duty trucks hauling containers; truck driving schools operating in neighborhoods	Stress from congestion; increased commuting time means longer times on the road breathing air pollution in exhaust from cars and trucks
	Cars traveling in same lanes and on same highways	Expanding number of heavy duty trucks	Injuries and fatalities in car-truck accidents
	24-hour lighting	Lights shine in windows	Difficulty sleeping at night
	Road repairs	Highways, truck routes, residential streets near rail yards, ports and warehouses	High cost to local and state taxpayers to repair the roads and highways from big-rig truck damage
	Eminent domain	Exerts the right of railroads or governments to appropriate private property (e.g., to build a highway)	Community residents can lose their homes





## Part II. The Changing Landscape: Organizing Strategies and Policy Innovations



As the global system of trade expands and becomes more flexible in its operations, disparities in health, work, and community quality of life are clearly visible at the local, regional, national, and international levels. While the freight transportation industry uses its political muscle to push forward with its publicly subsidized plans for expansion, communities are trying to reframe the debate about responsible and equitable development. Across the country in places like Southwest Detroit, the Harbor area of Los Angeles, West Oakland, Gardner, KS, Newark, NJ, and Gulfport, MS, communities have responded by organizing and advocating for policies that encourage clean air, good jobs, and livable neighborhoods. Despite the limited focus on community, environmental, health, and labor issues in how the dominant global trade and goods movement politics are framed, this organizing and advocacy around the country has resulted in important policy innovations. Increasingly, local groups have begun to work at the regional level and build state and national coalitions and networks to address what is a non-transparent, massive global system of trade and distribution of products. In doing so, these organizations have staked out a role in decision-making that affects their health and long-term well-being.

The emerging and increasing influence by health, labor, environmental justice and community organizations suggest that future political debates over freight transportation may become increasingly contentious. This section of the report provides an overview of freight transportation activity, organizing, and advocacy across the country in 17 locations where seaports and/or freight distribution hubs are located. Regions were selected because of the large size of their ports and freight transport activity, others because they have significant organizing efforts to prevent/reduce diesel emissions and community/worker impacts, and still others because expansions are planned and few residents or community groups seem to be aware or engaged in evaluating these potential impacts. Through review of published sources, interviews, and analysis of socioeconomic data sources we profile existing and proposed port and freight transportation projects, document negative local and regional impacts, and identify visible and emerging examples of organizations and strategies specific to ports and freight transportation. See Inset on pages 26-27 for a list of groups identified in the study. See Appendix for contact information.

# California

## Los Angeles/Long Beach, California

### Issues

The adjacent ports of Los Angeles and Long Beach make up the San Pedro Bay Ports complex, the nation's largest and 7th largest port facility in the world. Within the national landscape of freight transportation, the San Pedro Bay Ports represent a strategic hub not only for the West Coast but also for the nation. More than 40% of the nation's imports come through these two ports, making Los Angeles and Long Beach critical to the system of trade nationally and globally.<sup>157</sup>

The Port of Los Angeles encompasses 7,500 acres including 27 cargo terminals and includes on-dock intermodal facilities and rail yards.

Despite their already large size, the Ports of Los Angeles and Long Beach continue exploring ways to expand. Governed by separate and often competing Harbor Departments in the adjacent cities of Los Angeles and Long Beach, the two Ports handled 11,816,592 TEUs in 2009;<sup>158</sup> that number is expected to more than double by 2030.<sup>159</sup> The Long Beach Port, for example, is moving ahead with its \$750 million Middle Harbor Project that would allow the port to replace three smaller container terminals with one larger facility including an on-dock rail yard. Once complete, the project will increase the size of the two existing terminals from 290 acres to 345 acres and double the cargo-handling capacity of the three piers.<sup>160</sup> In addition, the Port will modernize its ITS container facility and expand on-dock rail operations on Pier G.

The Port of Long Beach also has begun development of its \$1.1 billion project to replace the 40-year-old Gerald Desmond Bridge with a larger, higher bridge that will accommodate more traffic and allow passage underneath of the largest vessels in operation today.<sup>161</sup> Currently, about 15% of total U.S. containerized imports move across the bridge.<sup>162</sup> Other proposed projects include a new terminal (Pier S) on existing vacant land at the port with an estimated project cost of \$650 million, and expansion of on-dock rail at Pier B.<sup>163</sup>

The Port of Los Angeles has also embarked on a five-year, \$245 million expansion of the TransPacific (the TraPac project) that will deepen the waterside at Berths 144-147, upgrade approximately 50 additional acres of existing land to modern container handling standards, and construct a new on-dock rail facility.<sup>164</sup> Another project involving the Terminal Island facility will provide for the redevelopment and expansion of the existing container terminal by 56 acres, for an approximate total of 346 acres.<sup>165</sup> And

finally, the China Shipping container terminal will be expanded from an existing 72 acres to 142 acres of backland and 2,500 feet of wharves served by 10 Post-Panamax A-frame cranes, the new equipment required to unload the massive Post-Panamax ships. Expansion is expected to increase the terminal's capacity to handle 1.4 million TEUs a year.<sup>166</sup>

Although the ports are developing new and expanded rail yards on-dock, they rely heavily on a regional intermodal train network to access other rail yards throughout Southern California - some the largest in the country. The major rail corridor is the Alameda Corridor, a \$12 billion, 24-mile stretch of rail that links the Port of Los Angeles to the massive rail yards in East Los Angeles and Commerce. The corridor is governed by a joint powers authority that involves both cities as well as the regional transportation agency, Los Angeles County Metropolitan Transportation Authority ("Metro").

Four miles north of the Ports is a proposed expansion of an existing intermodal facility, the Union Pacific Intermodal Container Transfer Facility, which currently handles 750,000 containers a year. Next to that rail yard is proposed a new rail yard - the Southern California International Gateway (SCIG) facility, which would be built and operated by BNSF. If the ICTF is expanded and the SCIG is built, the two yards together would handle three million containers a year. Residents adjacent to the two yards have been voicing strong opposition since 2005 specifically targeting the Port of Los Angeles that owns the land for both of these projects. Meanwhile, in Commerce, CA alone there are four yards, with the BNSF Hobart Yard being one of the largest intermodal rail facilities west of the Mississippi River. In San Bernardino, the rail yard owned by BNSF produces the highest diesel cancer risk of any rail yard in the state of California, due to the way the wind blows and the proximity of homes to the rail yard.

Both Ports support expansion of the I-710 Freeway, a truck-congested highway running from the Ports to the Commerce/East Los Angeles rail yards. The project proposes to add lanes and double-deck the freeway in some sections, tripling its capacity. The proposed project would affect an 18-mile stretch of freeway that goes through 15 cities in close proximity to schools, hospitals, daycare and senior centers.

### Groups

The scale and negative impacts of port operations and goods movement in Southern California are the subject of numerous scientific studies as well as successful organizing, advocacy and policy campaigns in Los Angeles which have changed the way the ports and freight transportation industries do business throughout the country. For goods movement activists, what happens in Los Angeles/Long Beach has become

a benchmark for opportunities and challenges for organizing and policy change. Historically, the International Longshore and Warehouse Workers Union (ILWU) launched statewide actions by focusing on the Los Angeles/Long Beach Ports to secure contracts for its dockworkers along the West Coast. Today, there are more than 15 organizations (community-based, environmental, academic, and labor) with full-time staff working on port/goods movement issues in the Los Angeles/Long Beach area.

### ***Community-based and Environmental Justice Organizations***

Community-based and fenceline environmental justice community organizations near Los Angeles ports and highway and rail corridors have engaged in direct organizing and resident education and the need to prevent new, and reduce existing, negative health and environmental impacts to residents and workers.

- **Communities for a Better Environment (CBE)** is an environmental justice group that works to protect communities suffering disproportionately from environmental pollution caused by refineries, power plants, and mobile sources such as diesel trucks. CBE's team of researchers, lawyers, and organizers focus strategies in the communities of Wilmington, Huntington Park and South Gate.
- **East Yard Communities for Environmental Justice (EYCEJ)** was formed in the City of Commerce (20 miles north of the Ports of LA and Long Beach) to provide a resident perspective in decisions related to four freight rail yards in the community. In addition to involvement in THE Impact Project, EYCEJ is also a key organization addressing the negative impacts of the expansion of the I-710 (Long Beach) Freeway that divides the communities in Southeast Los Angeles County. In addition to community base building strategies, EYCEJ has led statewide advocacy efforts to strengthen regulation related to rail yards and has begun work with other health and environmental justice organizations in the state to focus on health considerations in state level policies related to federal Transportation Reauthorization.
- **The Coalition for a Safe Environment (CFASE)** is based in Wilmington, adjacent to the Port of Los Angeles. CFASE regularly responds to draft environmental impact review documents, an arduous, technical and time-consuming effort because many of the documents are 2000+ pages long. CFASE is a leader in advocating for alternative, zero emissions technologies to move containers.

CFASE has also been involved in precedent setting legal actions to secure community benefits from port expansion projects. See discussion of electrification of the China Shipping Terminal and the fund settlement negotiated from the TraPac expansion.

- **The Long Beach Alliance for Children with Asthma (LBACA)** is a project of Memorial Care Hospital in Long Beach. LBACA educates residents about the connection between environmental factors (including air pollution) and asthma. LBACA works closely with mothers in the impacted neighborhoods to conduct traffic counts and engage in research and advocacy on behalf of their children who suffer from asthma. In addition, LBACA provides education and training to improve the skills of physicians when they provide care at community provider sites.
- **The Long Beach Interfaith Community Organization**, a PICO-affiliated faith-based organization, educates congregational and school leaders in Long Beach to become active in ports and goods movement discussions.

These groups have educated and organized residents to share important community perspectives and knowledge, inform scientific studies on community health risks and exposure, and mobilize residents to participate in policy debates. Several of the above grassroots organizations have been bolstered by funding and programmatic support from The Liberty Hill Foundation, a progressive foundation dedicated to social change and building grassroots leadership.

### ***Environmental groups***

Environmental organizations have played key roles in advocating for policy changes to achieve cleaner air at the Ports and in goods movement operations.

- **The Natural Resources Defense Council (NRDC)** has played a leadership role in Southern California on issues of air pollution, ports, and freight transportation through its technical and legal expertise. In 2002, for example, NRDC filed a lawsuit on behalf of community and environmental plaintiffs against the City of Los Angeles and its Harbor Department for failing to comply with the California Environmental Quality Act (CEQA) when it reviewed the proposed expansion of the China Shipping terminal at the Los Angeles port. The result: a settlement that included electrification of the China Shipping Terminal and a shift in the shipping industry to implement health protective technologies. The precedent has pushed the Port of Los Angeles to advance





## Select Groups Engaged in Ports and Freight Transportation\*

### Los Angeles/Long Beach

#### *Community-based Organizations*

Coalition For A Safe Environment  
Communities for a Better Environment  
East Yard Communities for  
Environmental Justice  
Communities for Clean Ports/End Oil  
Long Beach Alliance for Children with Asthma  
Long Beach Interfaith Community Organization

#### *Local and Regional Coalitions*

Coalition for Clean and Safe Ports  
Port Work Group, Green LA Coalition  
The Trade, Health and Environment  
Impact Project (THE Impact Project)  
Coalition for Environmental Health and Justice

#### *Environmental Groups*

Coalition for Clean Air  
Natural Resources Defense Council

#### *Homeowner Associations*

Peninsula-San Pedro Homeowners  
West Long Beach Neighborhood Association

#### *Research and Academic Institutions*

Southern California Environmental  
Health Sciences Center, based at  
University of Southern California  
Southern California Particle Center,  
based at UCLA  
Urban and Environmental Policy Institute,  
Occidental College

### **The Inland Valley: San**

### **Bernardino and Riverside**

Center for Community Action  
and Environmental Justice  
Clergy and Laity United for Economic Justice  
Inland Valley Action Network

Partnership for Working Families  
Warehouse Workers United/Change to Win

### **Oakland/East Bay**

Ditching Dirty Diesel Collaborative  
East Bay Alliance for a Sustainable Economy  
Pacific Institute  
Regional Asthma Management and Prevention  
West Oakland Environmental Indicators Project

### **Central Valley, CA**

Central Valley Air Quality Coalition  
Natural Resources Defense Council  
Center for Race, Poverty & the Environment  
Greenaction  
Fresno Metro Ministry

### **San Diego**

Environmental Health Coalition

### **California Statewide Coalitions**

California Diesel Rule Work Group  
Statewide Environmental Justice, Health  
and Freight Movement Policy Project

### **Pacific Northwest: Seattle and Tacoma**

Puget Sound SAGE  
Washington CAN  
Washington Coalition for Clean and Safe Ports  
University of Washington,  
School of Public Health

### **The Gulf Coast**

Air Alliance Houston  
Clean Economy Coalition  
Community In-Power and  
Development Association  
Gulfport Community Land Trust  
Mississippi Center for Justice  
Sealy Center for Environmental Health Sciences  
at the University of Texas Medical Branch





Southwest Network for Economic  
and Environmental Justice  
STEPS Coalition / Partners for Safe  
& Healthy Port Campaign  
Texas Environmental Justice Advocacy Services  
Turkey Creek Community Initiatives

**Detroit**

Detroit Community-Academic Urban  
Research Center (University of Michigan,  
Schools of Public Health, Nursing and  
Social Work and Detroit Department  
of Health and Wellness Promotion)  
Detroit Hispanic Development Corporation  
Detroitters Working for Environmental Justice  
East Michigan Environmental Action Council  
Southwest Detroit Community Benefits Coalition

**Chicago**

Center for Urban Economic Development,  
University of Illinois at Chicago  
Citizen Action, Illinois  
Greater Englewood Community  
and Family Task Force  
Illinois Campaign to Clean up Diesel Pollution  
Respiratory Health Association  
of Metropolitan Chicago  
Warehouse Workers for Justice  
Warehouse Workers United/Change to Win  
Will County Residents for Responsible  
Intermodal Development

**Kansas City**

Hilldale Environmental Loss Prevention  
Johnson County Intermodal Coalition  
Natural Resources Defense Council  
Sierra Club

**New York/New Jersey**

Center for the Urban Environment,  
John S. Watson Institute for Public Policy,

Thomas Edison State College  
Coalition for Healthy Ports  
Environmental and Occupational  
Health Sciences Institute, University of  
Medicine and Dentistry of New Jersey  
Ironbound Community Corporation  
Garden State Alliance for a New Economy  
New Jersey Environmental Federation  
New Jersey Environmental Justice Alliance

**Baltimore**

Environmental Justice Partnership  
NIEHS Center in Urban Environmental Health,  
Johns Hopkins Bloomberg  
School of Public Health

**Philadelphia**

Clean Air Council

**Hampton Roads and Southwest Virginia**

Citizens for the Preservation of our Country

**Savannah, Georgia**

Citizens for Environmental  
Justice/Harambee House  
First African Baptist Church  
Southern Environmental Law Center

**Charleston, South Carolina**

Department of Epidemiology and Biostatistics,  
University of South Carolina  
The Lowcountry Alliance for Model Communities  
South Carolina Coastal Conservation League  
New Rosemont Homeowners Association  
Southern Environmental Law Center

**Jacksonville, Florida**

Mayport Village Civic Association

\* These are examples of groups identified  
in regions profiled in this study

electrification projects at the port including at the proposed China Shipping expansion project.

- The **Coalition for Clean Air (CCA)** is a statewide environmental advocacy organization focused on a broad set of issues related to air quality in California. CCA's "Preventing Port Pollution" project focuses on securing policies that reduce pollution from ports and freight transportation throughout the state. Working with coalitions such as the Port Work Group of the Green LA Coalition and the Coalition for Clean and Safe Ports (see below), CCA's has provided leadership roles in efforts to adopt the Clean Air Action Plan, implement the Clean Trucks Program at the Ports, and ensure health and air quality protections with the I-710 Freeway expansion. Its advocacy work also includes efforts to reduce air pollution in the Central Valley of California.

### *Local and regional coalitions*

Some of the ability of these community-based groups to influence policy is due to effective local and regional coalitions that serve to bring diverse organizational missions together for long-term work or for specific issue campaigns. These include:

- The **Port Work Group**, a working group of the citywide (Los Angeles) Green LA Coalition, that brings together environmental justice, environmental, and public health organizations, with support from academic researchers.<sup>167</sup> The Port Work Group worked with groups throughout the state to come up with a set of health and environmental justice criteria to apply to projects funded by the \$2 billion Trade Corridors Improvement Fund (TCIF).<sup>168</sup> The PWG also pushed for the passage of the Clean Air Action Plan (CAAP), adopted in 2006 by the Ports of Los Angeles and Long Beach, the first air emissions policy to be developed jointly between the two port authorities in the United States (and one of the first times that the two competitive ports in Southern California have ever collaborated). Currently, the PWG along with community organizations in Long Beach are engaged in a campaign to convince the Ports of LA and Long Beach to adopt on-dock rail, alternative technologies, and health protective land uses instead of approving the SCIG and the ICTF rail yard expansion projects. See above. The Port Work Group includes all of the groups listed above as well as Communities for Clean Ports, a Long Beach organization focused on clean ports and alternative energy.
- The **Coalition for Clean and Safe Ports**, made up of labor, community, environmental,

environmental justice, faith and community organizations (including many of the groups mentioned above), forged a successful campaign to push the Harbor Department and City of Los Angeles to adopt a Clean Trucks Program at its Port. The program calls for replacement and retrofits of approximately 16,000 trucks in order to meet the 2007 federal EPA emissions standards by 2012. To achieve these goals, the program featured a "concessionaire model" that requires trucking companies who service the Port to hire truck drivers as employees in return for securing concession contracts with the Port. Currently, truck drivers are misclassified as "independent contractors" even though they lease a truck from their employer and have to report to their employer. Although the Coalition also pushed for a similar program at the Port of Long Beach, decision-makers there decided to pass a plan that required retrofits without addressing the issue of employee status facing port drivers. Through the Coalition, organizers have connected resident concerns about the neighborhood impact of goods movement and ports operations, e.g., trucks parking in residential areas to issues of drivers and the port trucking industry. The Coalition is staffed by the Los Angeles Alliance for a New Economy (LAANE), an organization with strong relationships with labor, including the Los Angeles County Federation of Labor, and links to similar coalitions in other port and goods movement communities.

- The **Trade, Health and Environment Impact Project (THE Impact Project)**,<sup>169</sup> a community-university collaboration that brings together scientific research from USC and UCLA (see below), global trade analysis from Occidental College (see below), and a community perspective from four of the environmental justice organizations discussed above (CCA EJ, CFASE, EYCEJ, and LBACA). This collaborative functions as a hub for information and resources as well as local and regional campaigns. USC and THE Impact Project have hosted three major conferences on the impacts of port and goods movement that have drawn scientists and advocates from across the United States and internationally. THE Impact Project provides important technical assistance and peer-to-peer support to the growing number of participants of these conferences. Members of THE Impact Project have visited Kansas, South Carolina, Washington, and Georgia to give talks about the health impacts of ports and goods movement or provide technical assistance to community and environmental justice



groups. Each group in THE Impact Project has a Neighborhood Assessment Team (“A-Team”) composed of members who have been trained to count traffic and measure air pollution.<sup>170</sup>

- **Coalition for Environmental Health and Justice (CEHAJ)** works to ensure that health issues are the number one priority in plans to expand the Long Beach (I-710) Freeway, which runs from the Port of Long Beach to the rail yards in East Los Angeles/Commerce. Involved groups include EYCEJ, CBE, CCA, and NRDC. Organizing by these groups, along with testimony provided by USC and UCLA faculty and staff resulted in the I-710 Project Committee voting to support conducting a HIA as part of the environmental review for the proposed expansion of the I-710. The HIA will help to measure comprehensive impacts that may not be addressed in traditional EIRs/EISs. For the I-710 expansion project, the HIA will focus on additional areas of: air pollution, noise, light, congestion and mobility, displacement, economic effects, access to community resources and segregation and isolation.<sup>171</sup>

### **Homeowner Associations**

In Los Angeles and Long Beach, homeowner associations have worked in coalition with environmental, health, labor and other community organizations to link homeowner concerns with broader concerns of public health. During the 1990s and until 2001, the **Peninsula-San Pedro Homeowners Association** was one of the only groups regularly attending Port of Los Angeles Harbor Commission meetings and hearings, demanding more accountability, and engaging in lawsuits to ensure that environmental health impacts were considered in port expansion projects. Since then the Association has worked with other groups, including the coalition that appealed the TraPac decision and negotiated a community benefits settlement from the Port. See discussion of the TraPac community benefits agreement in the Policy section later in the report. The **West Long Beach Neighborhood Association** educates its members around the expansion of rail yards in that community and organizes residents to attend hearings.

In addition to the range of organizations focused specifically on ports and goods movement, Los Angeles is home to a robust set of social, environmental, and economic justice organizations that have won significant policy campaigns. These include a citywide living wage policy, community benefits agreements from major development projects, prevention of siting of polluting industries, and public funding for innovative workforce development programs. Because

of this broader and established organizing and advocacy infrastructure, individuals or groups organizing around ports and goods movement are able to draw from experience as well as political influence of these organizations, helping to build a progressive movement through a focus on ports and goods movement.

### **Academic research centers**

A number of academic and research centers in Southern California focus on the health, labor, and community impacts of freight transportation.

- **The Urban & Environmental Policy Institute (UEPI) at Occidental College** is a community-oriented research and advocacy organization with projects that include food justice, globalization and trade, the built environment, and transportation. As a partner of THE Impact Project, UEPI has brought the food supply chain into focus as a global goods movement issue.<sup>172</sup> A UEPI faculty member also facilitates the Los Angeles Port Work Group and is part of a facilitation team for the Statewide Freight, Health and Environmental Justice Project (see below).
- Scientific investigators from both USC and UCLA participate in two research centers: the **Southern California Environmental Health Sciences Center**, funded by the National Institute of Environmental Health Sciences (NIEHS) and the **Children’s Environmental Health Center**, funded by U.S. EPA and NIEHS. USC scientists conduct the Children’s Health Study of the effects of air pollution on children’s respiratory health as well as other studies related to health effects in Los Angeles’ Harbor Communities. The Centers’ Community Outreach and Engagement Program seeks to ensure that public health becomes an integral part of transportation decisions, including ports, rail yards, highways, and warehouses. The outreach program coordinates THE Impact Project and a key organizer of the Moving Forward Together conferences.
- **Investigators at the Southern California Particle Center**, based at the University of California, Los Angeles (UCLA) have been conducting exposure assessment and toxicologic studies of ultrafine particles for the past 11 years, and are conducting a study of particle toxicity at rail yards.
- **USC & UEPI** are taking the lead in developing a communications network that can help those involved in freight transportation and public health campaigns around the country to share information and strategies for change.

The impact of these organizations working independently and also collaborating in various coalitions has resulted in a growing capacity of groups able to work with and directly challenge port and freight transportation decision-making that does not place a high priority on community, worker, and environmental impacts.

## The Inland Valleys: San Bernardino and Riverside Counties, California

### Issues

As one of the fastest growing metropolitan areas of the country prior to the Great Recession, the Inland Valleys are home to the nation's boom-and-bust housing market as well as the nation's largest conglomeration and most rapidly expanding group of warehouses and distribution centers. Between 2000 and 2005, the influx of new residents to the region represented one-fifth of California's population growth.<sup>173</sup> In 2008, more than 80% of Southern California industrial space under construction was located in these two counties; approximately 159 million square feet of industrial space entered the Inland Valley's market between 2000 and 2008.<sup>174</sup> Local boosters and policymakers have pushed a pro-growth agenda that encouraged the construction of speculative housing and large scale warehouses along the region's major transportation corridors

These warehouse, some larger than 1.5 million square feet,<sup>175</sup> are critical to freight transportation and logistics industries that require the vast buildings to store, load and distribute goods. In Southern California, 44% of the state's existing warehouse space, or approximately 36.5 million square feet is located in San Bernardino and Riverside Counties; 60.4% of the region's available (empty) warehouse space and 62.4% of available industrial land parcels that could be used for warehousing are located in these two counties.<sup>176</sup>

Similar to other goods movement communities, the combination of warehouse construction, increased port-related truck and train trips, and a growing number of low-income communities of color have led to heightened economic and environmental health disparities. People of color represent 65% of San Bernardino County's population and 58% of Riverside County's residents; in 2009 poverty rates were 17% and 14% respectively.<sup>177</sup>

Freight transportation and logistics industry activities, particularly the construction of massive warehouses and intermodal rail facilities, have turned parts of the region into environmental justice hotspots that threaten the health and quality of life of local communities. Pollution from trucks traveling to these warehouses, commuters driving cars far distances

to work, chemical reactions that create smog from vehicle and industrial pollution blown in from Central Los Angeles, railroad operations and other industrial practices - all contribute to making the Inland Valleys one of the most polluted areas in the country. In 2000, the South Coast Air Quality Management District found that Mira Loma Village, a low-income Latino community in Riverside County had the highest levels of particulate pollution in the nation.<sup>178</sup>

The conversion of former military bases into public-private redevelopment projects has opened up large tracts of land for further goods movement development with government agencies providing subsidies for these new projects. For example, George Air Force Base (located in Victorville, San Bernardino County) is being developed into Global Access, a 8,500 acre airport, rail and logistics complex; March Air Force Base as the 1,290-acre logistics-focused Meridian Business Park (Riverside County); and Norton Air Force Base as a logistics hub developed by Alliance\*California (San Bernardino County).<sup>179</sup> Building upon existence of air fields, these inland hubs now include facilities such as free trade zones and U.S. customs offices designed to facilitate foreign imports by air as well as facilitating freight transport from the ports of Los Angeles and Long Beach.

Until recently, local and regional planning agencies in the Inland Valleys have been able to advance goods movement industrial growth without accounting for the low wages and increased health risks the industries produce. Industrial and residential developers are the largest contributors to local electoral campaigns and have launched successful recall efforts against local officials who oppose new warehouse construction.<sup>180</sup> The power of these developers over many of the region's political jurisdictions leaves many communities with no political recourse and/or political power to influence debates on growth and development. The region's large populations of young people of color and immigrants who do not or cannot vote further concentrate political power in the hands of pro-developer interests. In 2008, 37% of the population in Riverside County and 40% of San Bernardino were 24 years or younger.<sup>181</sup> Community and labor organizers recognize shifting trends in demographics and see the potential to develop this new electorate into a more progressive force in the political base of the Inland Valleys in the future.

### Groups

Environmental justice organizing in these two counties has been anchored and led by the **Center for Community Action and Environmental Justice (CCA EJ)** since the 1970s when community activists targeted the largest Superfund site in the country. Combining grassroots organizing and



leadership development with research and policy advocacy, CCAEJ supports grassroots leaders to push back against the expansion of massive retail corporation distribution centers near homes and to reduce the diesel emission impacts of rail yards in Mira Loma, Colton and San Bernardino.

Organized labor has struggled to build significant bargaining power in the region's primary logistics and residential construction industries. Other labor and worker justice organizations such as **Clergy and Laity United for Economic Justice (CLUE)**, **Partnership for Working Families (PWF)** and the **Inland Valleys Labor Action Network (IVLAN)** have facilitated relationships and potential partnerships between organized labor and community organizations. Unions affiliated with **Change to Win** have turned attention to goods movement industries. The **Warehouse Workers United** campaign, for example, has focused attention on the growing temporary, contingent workforce related to the expansion of warehouse and distribution centers in the Inland Valleys. The **United Food and Commercial Workers** union is engaged in a worker organizing campaign focused on major food retailers such as Walmart and Tesco (Fresh & Easy).

These new collaborations, along with shifting demographics and electoral campaigns, seek to build more progressive politics in the Inland Valleys. Organizing around the major presence of the goods movement industry has galvanized residents, developed relationships and set in motion a shift in the way that health and environmental justice organizing and policymaking occurs. Demographic changes in the Valleys also suggest that pro-development elected officials may shift under the weight of shifting demographics. Young Latinos for example will age into a potentially powerful voting block. The community, labor, health, and environmental organizations will play an important role as these young leaders and voters begin to exert electoral influence over the political and policy landscape in the Inland Valleys.<sup>182</sup>

## Oakland/East Bay, California

### Issues

The Port of Oakland, the 6th largest port in the country, is located along 19 miles of waterfront on the San Francisco Bay and includes 20 deepwater berths and 35 container cranes, 29 of which are Post-Panamax size.<sup>183</sup> The Port of Oakland handles nearly all of the containerized goods moving through Northern California<sup>184</sup> that are transported from the port through the low-income neighborhood of West Oakland and onto the region's major highways and rail lines. According to the Alameda County Public Health Department, West Oakland has cancer risk rates twice

as high as other Bay Area residents<sup>185</sup> and the highest rates of asthma hospitalization in the county.<sup>186</sup>

The Port has completed a \$600 million expansion that includes two new marine terminals, an intermodal rail terminal, realignment of roadways, dredging, and a 38+ acre public waterfront park for education and wetland estuary. The design vessel for the project is a container ship that transports more than 6,500 TEUs. It has a design draft (depth in the water) of 46 ft. that is 1,139 ft. long and 140 ft. wide. The -50 foot dredging project will also support transitioning four military bases to civilian use. The Port argues that it is essential for this project to occur if it is to remain internationally competitive. The dredging project is designed to maintain and improve Oakland's position as an international cargo gateway.<sup>187</sup>

### Groups

In response to this expansion, environmental justice and health advocates along with neighborhood activists and a labor community coalition have begun to coalesce and have elevated issues of worker, health, and community participation in ports and freight transportation discussions. Some of this organizing has occurred in West Oakland, the neighborhood along the fence line of the Port of Oakland and the former Oakland Army Base currently under redevelopment. The West Oakland neighborhood is utilized as the major truck route to and from the port and for freight rail traffic to and from the UP and BNSF rail terminals. Organizing around the impacts of freight transportation in the East Bay Area is represented by:

- **The West Oakland Environmental Indicators Project (WOEIP)**, a community-based research project developed between community residents and the Oakland-based Pacific Institute, a research institute that works to advance environmental protection, economic development, and social equity. The community knowledge and research work of the WOEIP has established a scientific framing of the issues related to diesel, air pollution, and health for the community-based campaigns. With research support from the Pacific Institute, WOEIP published a report, "Clearing the Air: Reducing Diesel Pollution in West Oakland" which documents the diesel emissions and the impact pollution has on West Oakland.<sup>188</sup>
- **The Pacific Institute**, a research intermediary based in Oakland provides research support, targeted technical assistance and capacity building with Bay Area community organizations to develop capacity to engage in planning and policies that affect them. The Institute helps convene and organize scientific and popular education resources to support

groups. For example, along with community-based and health organizations in the East Bay, the Institute is working on issues of diesel and rerouting truck routes that run from the Port north toward Sacramento. The Institute published a report on the cost of the impacts of freight transport and has developed popular education materials on goods movement and health.<sup>189</sup>

- **The Regional Asthma Management and Prevention (RAMP)** program works to reduce the burden of asthma by facilitating collaboration among a diverse group of stakeholders focused on activities ranging from clinical management to environmental prevention, with a particular emphasis on those communities inequitably burdened by the disease. RAMP's freight transportation advocacy includes work to monitor the California Air Resources Board in order to prevent or minimize any rollbacks of diesel reduction regulations as well as track freight transportation and climate change policy at the state level. At the regional level, RAMP focuses on incorporating freight transportation and health issues into the development of the regional plans under the implementation of SB 375, California's land use policy to address climate change.

Several campaign-specific coalitions have formed that focus on freight transportation and ports and that investigate the root causes of negative health, labor, and environmental, and community conditions. WOIEP, RAMP, and Pacific Institute are core members of the **Ditching Dirty Diesel Collaborative (DDDC)** a Bay Area-wide coalition of individuals, community based organizations, public agencies, and health organizations focused on reducing diesel and its negative impacts, particularly in low-income communities of color. Through advocacy, education and community mobilization, the DDDC focuses on truck idling and freight transport through the Bay Area.

**The East Bay Alliance for a Sustainable Economy (EBASE)** a social justice organization based in Oakland coordinates the Oakland campaign of the Coalition for Clean and Safe Ports, the labor, community, environmental justice, and faith coalition to implement a Clean Trucks Plan based on the employee concessionaire model passed in Los Angeles (discussed later in this report). The Coalition includes member organizations from the DDDC, and DDDC staff serves on the CCSP's executive committee. In 2007 EBASE wrote a report, produced for the CCSP titled that documents the negative impacts of industry trucking operations on workers and public health in Oakland and the region.<sup>190</sup> With the Pacific

Institute, EBASE conducted research in 2009 and found that health impacts from truck pollution in the Oakland region total \$153 million a year.<sup>191</sup>

Similar to Los Angeles, ports and goods movement-focused organizations in Oakland also draw on a broader landscape of social justice, labor, public health, and environmental organizations.

## Central Valley: Stockton, California

### *Issues*

The Port of Stockton in the Central Valley of California positions itself as a key facilitator of the movement of bulk cargo serving the agriculture and construction industries of the Central Valley. A recent Brookings Institution report noted the importance of San Joaquin County where the Port of Stockton is located, as a key to exporting California's agricultural products.<sup>192</sup> The port is approximately 75 miles inland from San Francisco Bay and the Pacific Ocean. Inbound ships sail past San Francisco, Oakland, Redwood City, Richmond, Benicia, Pittsburgh, and Sacramento to dock in Stockton to take advantage of the direct access to Interstate 5 - the north-south corridor in California.

In 2004, the Port of Stockton expanded by incorporating and assuming control over Rough and Ready Island, a 1,561 acre area once part of the United States Navy Supply Depot. The redevelopment project area, now designated for port related uses, is being developed into industrial, warehousing, and other Port-related uses. In 2010, the Port received a \$30 million federal ARRA/TIGER grant to develop its "highway to sea" waterborne shipping route between Oakland, Stockton and West Sacramento, which will move goods between the Port of Oakland and the Port of Stockton and West Sacramento via waterways instead of trucks having to rely on the Altamont highway.<sup>193</sup> This "Green Trade Corridor" project seeks to capitalize on the waterways that link the three ports to facilitate goods movement from Oakland through Sacramento and Stockton.<sup>194</sup>

### *Groups*

Concerns over Port operations and redevelopment projects have emerged among established homeowner associations and environmental organizations concerned about the ecosystems surrounding the deep-water channel and the delta region. The Deep Water Ship Channel, the Port's primary waterway, is on the federal list of highly polluted waterways, contaminated by toxic chemicals from Navy operations, large-scale agriculture, and gold mining activities as well as by port ships.

Homeowner groups who live across the channel from the Port and Rough and Ready Island along with environmental organizations (including NRDC) have stopped port projects and pushed the Port to agree to mitigations for dredging and development projects. That included two major lawsuits. The first, filed in 2004, challenged approval of a massive 1400 acre port expansion project that would have tripled the size of the port to include a marine terminal, commercial and industrial development and result in more than 13 million additional vehicle trips annually.<sup>195</sup> A second, in 2007, was against the Port of Stockton and the Army Corps of Engineers to halt the dredging in the San Joaquin River due to inadequate review of the impacts the dredging and port expansion would have on people living in the surrounding communities and the river. A settlement was reached in the 2004 lawsuit that requires the Port to establish a \$5 million air quality mitigation fund, an amount that will be reduced if the port requires its tenants to utilize clean trucks in their operations. The port also agreed to reduce dock fees to ship operators using cleaner fuels, impose mandatory idling restrictions on tugboats and trucks, and require use of electrical hook-ups for tugboats.<sup>196</sup>

Despite port expansions and significant recent public investment in port projects, there is no visible organized community-based environmental justice and health advocacy focused on the Port of Stockton. Stockton resident Maya Abood, who organizes for Pesticide Watch in Stockton, suggests that although there are no actively involved groups focused on the Port, other organized groups may be poised to move that direction. “No one has made the link between food, imports, and the Port and how it relates to low-income immigrants who make up much of Stockton’s population. A community group has worked hard to establish a community garden on county land close to the Port but has little idea about the hazards and toxics that might exist.”<sup>197</sup>

Increasing ports and freight transportation related organizing and advocacy of environmental justice and health organizations in other parts of the Valley might hold promise for Stockton. For example, the **Central Valley Air Quality Coalition (CVAQ)**, a coalition organization based in Fresno, includes more than 70 member organizations focused on air quality in the Central Valley, including curbing diesel emissions from agricultural trucks. CVAQ has played an important role in creating linkages between air quality and environmental justice advocates in the Central Valley with other health and labor organizations in Northern and Southern California. CVAQ priority areas include a focus on the relationship between air quality, regional transportation, and land use planning required under SB 375 (passed in 2008) that requires the state’s Air Resources Board to develop regional greenhouse gas emission reduction targets

for passenger vehicles. Working in collaboration with groups in the Bay Area (Pacific Institute, RAMP, Greenaction, and Ditching Dirty Diesel Collaborative), CVAQ sees regional planning under SB 375 as important process through which emissions reductions can be reduced in the heavily impacted Central Valley.

Member organizations within CVAQ have also organized their respective campaigns in the Central Valley to address air quality and environmental justice. The **Center on Race, Poverty & the Environment (CRPE)** uses organizing, legal, policy and advocacy strategies to focus on improving air quality by holding mega-dairies and government accountable for environmental pollution, policy discussions related to the state compliance with the federal Clean Air Act, issues of climate change and land use planning, and eliminating health impacts from agricultural pesticide use. As a member of the Central Valley Air Quality Coalition (CVAQ), CRPE provides legal, policy and organizing knowledge and experience to the discussions about air quality, health, and freight transportation in the Central Valley. The **San Joaquin Valley Environmental Health & Justice Project of Greenaction** focuses on reducing diesel emissions due to goods movement and waste movement in primarily low-income communities who suffer disproportionate rates of disease. **Fresno Metro Ministry’s Environmental Health Program** focuses on air quality and improving environmental health in the Fresno area. It is a member of CVAQ and the San Joaquin Valley Cumulative Health Impact Project (SVJ CHIP), a community-university partnership founded by environmental health and social justice organizations representing low-income and communities of color in the San Joaquin Valley and UC Davis.<sup>198</sup>

## San Diego, California

### Issues

For the border region of San Diego and Imperial Counties, trade via the San Diego seaport combines with the increasing numbers of trucks and trains that travel to and from Mexico. The Port consists of two cargo terminals: the 10th Avenue Cargo Terminal located next to the Barrio Logan neighborhood of San Diego and the National City Cargo Terminal. While there appear to be no expansion projects proposed for the port itself, there is tremendous investment in off-port transportation and highway improvement projects to facilitate the transport of Port cargo and also cross-border trade. In April 2010, the California Transportation Commission approved the allocation of \$400 million of primarily Prop 1B monies to the San Diego region to fund goods movement infrastructure projects including: completion of SR 905 between the Otay Mesa border crossing and Interstate 805, a third



border crossing at East Otay Mesa with connecting SR 11, freeway access improvements at the Port of San Diego and capacity enhancements at the National City Marine Terminal, and improvements to rail corridors.

With the new investments in infrastructure expansion, communities in San Diego will be faced with increased truck traffic. New housing developments along the freeways have intensified the negative health and environmental impacts of truck traffic. For example, the new residential communities in San Ysidro along the I-905 Freeway will be directly impacted by truck traffic moving from the Otay Mesa border crossing (near a maquiladora industrial zone) and Interstate 805. The project also received \$20.2 million in TIGER funds granted in February 2010.<sup>199</sup>

### **Groups**

For the **Environmental Health Coalition (EHC)**, organizing around ports and goods movement has focused on the local and regional impacts of the San Diego Port and the regional truck traffic that heavily affects neighborhoods like Barrio Logan. Organizing began in the 1990s when residents began taking action on the increased truck traffic in the Barrio Logan community emanating from the 7th Avenue Marine Terminal. In addition, EHC organized to curtail the use of methyl bromide in fumigation plants on port property affecting Barrio Logan or, depending on the wind direction, across the San Diego Bay to Coronado. EHC has waged community plan campaigns that have institutionalized the separation of industrial and residential uses in National City; an approach they are using to address the negative impacts of the ports in San Diego's neighborhoods. Through this combined set of strategies, EHC has successfully pressured the city to ban trucks weighing more than five tons from surface streets in Barrio Logan. EHC's successful campaign to shut down the South Bay Power Plant, a peaker plant owned by the Port of San Diego, illustrates a strategy to rid the Chula Vista neighborhood of a polluting facility and to push the Port to adopt an alternative energy strategy in order to come up with 50 megawatts of power by either reducing demand and/or creating distributive generation, e.g., cogeneration, solar, and wind energy. Toward this goal, EHC has worked with the International Brotherhood of Electrical Workers (IBEW), the International Longshore and Warehouse Workers Union (ILWU), the Sierra Club, the Apollo Alliance and the San Diego Community College District to successfully push the port to commit to \$7.5 million infrastructure for shorepower to service cruise and cargo terminals at the Port. The next challenge: ensure that cargo shippers comply with the new shorepower rule.

In 2009, recognizing the influence of the Harbor Commission, EHC Executive Director,

Diane Takvorian, also campaigned for a seat on the Port Commission. She was unsuccessful in being appointed, leaving the Commission strongly in control of growth and business interests.

The strategies used by EHC focus on the conditions specific to neighborhoods while linking these issues to broader trends such as the relationship between regional housing and increased truck traffic between United States and Mexico.

## **Statewide Coalitions and Initiatives**

Within California, several statewide coalitions and initiatives focus attention on the negative health and environmental justice impacts of ports and goods movement. A statewide coalition of environmental justice and health advocates formed to influence state policy related to the siting, expansion and operations of rail yards in California, particularly in Wilmington, Commerce, the Inland Valleys, and Oakland. The coalition is led by community groups whose members live next to rail yards: **East Yard Communities for Environmental Justice**, **Communities for a Safe Environment**, **Center for Community Action and Environmental Justice (CCA EJ)**, and community group members of the **Ditching Dirty Diesel Collaborative**. In addition, the **California Diesel Rule Work Group** works to ensure stricter rules on the use of diesel. In 2009 as part of its phase of funding for freight transportation work, The California Endowment provided resources to its goods movement grantees to engage in an 18-month **Statewide Environmental Justice, Health and Freight Movement Policy Project** to develop strategies to achieve health and environmental justice in goods movement projects and policies. The Project decided to focus on three areas: 1) movement building; 2) policy research and education; and 3) communications and media. Based on this work, several of the groups have begun new collaborations to integrate health and environmental justice considerations into decision-making related to land use planning to address climate change (SB 375) and inject health and environmental considerations into state level planning related to the Federal Transportation Reauthorization Act.

## **Pacific Northwest: Seattle and Tacoma, Washington**

### **Issues**

The Port of Seattle is a deep-water port located in Puget Sound, and is the 10<sup>th</sup> largest seaport in North America. The Port cargo facilities include four container terminals, 11 container berths that support two million TEUs annually.<sup>200</sup> Located along



Interstate 5, the port is situated within one mile of two major rail hubs operated as well as four railroad routes that link the Port to inland markets. In a push to expand the port facilities to accommodate larger vessels, more container traffic, and cruise ships, the Port of Seattle proposes to enlarge its Terminal 18 to double capacity, create a rail yard, develop on-dock rail structures, upgrade the cruise terminal, and undertake a \$7.5 million project to dredge the Duwamish River.<sup>201</sup> According to the Port, factors influencing expansion plans include the expansion of the Panama Canal and competition with the Canadian ports of Vancouver and Prince Rupert and with the Port of Tacoma, 30 miles south.<sup>202 203</sup>

The Port of Tacoma is situated in a deep water harbor of Commencement Bay in Puget Sound and is linked to two transcontinental railroads, Interstate 5, Interstate 90, SR 509 and SR 167, creating a hub of warehouse and distribution activities. It is a major entry point for goods moving east; more than 70% of the Port's international imported container cargo heads east via rail to major markets, such as Detroit, Chicago, New York and Boston.<sup>204</sup>

At the Tacoma port, the Port's four on-dock or near-dock intermodal rail yards are served by the BNSF Railway Company and UP Railroad. Within three miles of the port are 15 transload warehouse facilities and distribution centers with over 2.8 million square feet of storage space.<sup>205</sup> The Port of Tacoma, like Seattle, is gearing up for competition for the large-scale post-Panamax ships by expanding its Washington United Terminal wharf and extending the berth to support two cranes to accommodate the larger ships.<sup>206</sup>

### Groups

Seattle-based **Puget Sound SAGE** (SAGE) focuses work primarily at the Port of Seattle on issues of economic and environmental justice. Local and regional organizing currently focuses on organizing port truck drivers in the Tacoma/Seattle region, 40% of whom are immigrants from East Africa; 20% Latino and 20% white (including Russian and Eastern European immigrants).<sup>207</sup> An 8-week long training curriculum developed by SAGE includes segments on labor rights, power analysis, organizing, pollution and health.

SAGE, along with other labor, environmental and community organizations, including **Washington CAN**, a statewide grassroots lobbying organization, constitute the **Washington Coalition for Clean and Safe Ports**, the regional effort of the national Coalition for Clean and Safe Ports. Led by SAGE, the coalition works to win approval and implementation of a Clean Trucks Program modeled after Los Angeles' Clean Trucks Program (described more fully in the next section). The Port of Seattle approved a clean trucks program in April 2009; however, the program

bans only pre-1994 trucks from the port docks (Los Angeles' plan bans pre-2004 trucks) and lacks the important employee concession requirement, leaving drivers with few resources to be able to retrofit their trucks in order to meet the new regulations. A loan program exists to support qualified truck drivers but no driver has applied or qualified for the loans.<sup>208</sup>

The Coalition works closely with other clean trucks campaigns to build a national strategy that has focused on passage of the Clean Ports Act, proposed federal legislation that would give greater regulatory and planning authority to local governments in order to address the negative impacts of port trucking.

SAGE and Washington CAN are also exploring collaboration with the **University of Washington School of Public Health** researchers on a health impacts study of diesel trucks and exposures to air emissions. The findings from this study will help lay the groundwork for possible organizing and activism at the Port of Tacoma.

As an entry point for goods shipped east to the Midwest and onward to the East Coast, Seattle and Tacoma play critical roles in the global freight transportation system. The state lacks the same sort of organizing focus on impacts of goods movement and ports that exists in California, although building on the national infrastructure of the Coalition for Clean and Safe Ports helps provide traction for shifting the policy debates in the region.

## The Gulf Coast

### Houston, Texas

#### Issues

Known as The Bayou City, Houston is home to ten waterways that flow through the surrounding area connecting Houston to the Gulf of Mexico for the transport of petrochemical products and grain from the Midwest. The port complex, located along the Houston Ship Channel, is made up of more than 150 private companies that operate their own private terminals and facilities that handle 85% of the total cargo moving through the port. The Port of Houston Authority (PHA) handles just 15% of the total cargo in the Ship Channel. In 2004, the PHA began construction of its Bayport Container and Cruise terminal that has catalyzed the construction of large scale distribution centers for companies such as Walmart. The terminal is slated for completion in 2022 and will have seven container berths with capacity of handling 2.3 million TEUs, tripling the Port's container handling capacity.<sup>209</sup>

Public health studies by the University of Texas School of Public Health in Houston have documented

the health risks in the Houston area and measured the Ship Channel's pollution (which includes not only the port activities but also chemical plants and oil refineries) and its impact on children living within two miles.<sup>210</sup> Despite these demonstrated health impacts, the Texas Commission on Environmental Quality (TCEQ), which regulates the state's pollution permitting, has some of the most lax restrictions on air pollutants in the country. For example, the median concentration of benzene found in Houston's Manchester neighborhood was 12 times the highest acceptable levels in New Jersey, but well within Texas' limits.<sup>211</sup>

## Groups

Organizing and advocacy groups face considerable challenges in the face of powerful oil interests who define the political economy of Houston and Texas. The combination of powerful oil industries along with the lack of state regulatory standards and enforcement for air pollution has meant that community-based and environmental justice organizations must find common ground with environmental and health advocacy organizations at the regional and state levels.<sup>212</sup>

In spite of the heavy influence of private industry in the Ship Channel and the lack of public participation in decision-making, several organizations have begun to increase their organizing and advocacy efforts focused on air pollution and have begun to address port issues. These groups include:

- **The TEJAS (Texas Environmental Justice Advocacy Services)**, a grassroots environmental justice organization formed in 2006 to address issues in the low-income Latino communities in Houston by offering technical assistance and information to the community and helping organize community members on issues related to air quality and community health. Organizing communities adjacent to the Houston Turning Basin (where ships turn around to head back to the Gulf), TEJAS has focused campaigns on ship idling, hazardous waste transport, air monitoring, and abandoned barges along the ship channel.
- TEJAS partners with the **CIDA (Community In-Power and Development Association)**, the **Clean Economy Coalition** in Corpus Christi, and the **Southwest Network for Environmental and Economic Justice (SNEEJ)** based in San Antonio, a regional environmental justice network of grassroots environmental justice organizations. It also works closely with **Air Alliance Houston**, an organization that formed when the Galveston-Houston Association for Smog Prevention (GHASP) and the Mothers for Clean Air organization merged to create a joint mission to reduce

air pollution in the Houston area through research, education, and advocacy.

- **The University of Texas Medical Branch, Galveston**, houses the Sealy Center for Environmental Health Sciences, which has a Community Outreach and Engagement Program. The program has begun working with TEJAS and other community groups around port air emission issues. The Center's coordinator for public forums and toxics assistance has attended the Moving Forward Together conferences along with community leaders from TEJAS and other groups.

The expansion of ports and freight transportation infrastructure in the wake of Katrina and the BP oil disaster pits low-income and communities of color against tremendously powerful industry leaders without strong regulatory policies in place to protect air quality and community health. The expansion of Walmart's distribution center along the Channel Harbor, for example, reflects the scale and pressure of goods movement development in Houston and the Gulf. Breaking the status quo and forging health and environmental protective policies is necessary to redefine development and ensure health in economic development strategies in the gulf communities.

## Gulfport, Mississippi

### Issues

Four hundred miles due east of Houston, the community of Gulfport faces the pressure of port expansion in the form of a proposed highway project that connects Gulfport with inland distribution centers, a proposed inland port to be created by filling in 160 acres of landfill, and large scale railroad projects. The Port expects to spend \$40 million to expand its west container terminal by 60 acres and is investing \$570 million to increase growth to 700,000 TEUs.<sup>213</sup> The proposed "port connector road," SR 601, consists of a six-lane highway connecting the Port of Gulfport to inland ports along the I-10. According to residents, the highway and other port projects will negatively impact wetlands, residents' health, and historic African American communities.

Like other communities along the Gulf Coast, Gulfport must deal with the impacts of the longtime presence of industry, toxics, poverty, and disinvestment in addition to the recent devastation by Hurricane Katrina and the BP oil spill. The dominant pro-business agenda has pushed for rebuilding efforts that focus on the Port and large-scale infrastructure projects. In August 2010, Governor Haley Barbour and the Mississippi State Port Authority signed a memorandum of understanding with the Panama Canal Authority

to share information and technology and engage in joint marketing ventures in order to increase trade as the Panama Canal expands.<sup>214</sup> A public-private partnership between the Mississippi State Port Authority and the Kansas City Southern (KCS) Railway Company, recently received \$20 million of TIGER funds to upgrade the KCS rail line in order to connect the Port of Gulfport to Chicago and Canada as well as to New Orleans and the East Coast.<sup>215</sup>

In 2007, the State announced it was redirecting \$600 million of federal Post-Katrina housing funds to expand the port instead of meeting the needs of low-income homeowners to rebuild their homes. Civil rights and public interest attorneys led the **Mississippi Center for Justice**, with assistance from NRDC's Santa Monica office, filed a suit on behalf of low-income residents in Mississippi contesting the U.S. Department of Housing and Urban Development's approval of the state's plan to spend funds on port expansion. The lawsuit was settled in November 2010 with HUD agreeing to provide funds to a state program that would reach out and help low-income homeowners rebuild.<sup>216</sup>

### Groups

Community-based, environmental justice groups are actively involved in campaigns to address environmental racism and economic disinvestment long before Katrina and face the challenges of redirecting economic development in the process of rebuilding. Members of the **Gulfport Community Land Trust** in North Gulfport have been actively opposing the port expansion. Using land use and land trust approaches, the Land Trust seeks to protect wetlands and natural flood control areas in their historic African American community.<sup>217</sup>

In Turkey Creek, the community formed the **Turkey Creek Community Initiatives**, a community development organization engaged in the revitalization of coastal Mississippi's low-income, historic Turkey Creek community and watershed. They, along with the Land Trust and other grassroots organizations and environmental groups face significant challenges as they take on pro-business and pro-development interests in order to inject health, community, environmental, and cultural considerations into policies related to environmental, housing, transportation, and local and state economic development.

The **Mississippi Center for Justice** has represented a wide range of community, environmental and social justice organizations and has facilitated public interest legal assistance to address the range of civil rights, housing, environmental, and economic justice issues in the Gulf communities.

The **Steps Coalition**, a group of community leaders and social justice advocates formed in 2006

to identify ways to strategize about post-Katrina development in the Gulf Coast. Coalition members have launched the **Steps Coalition Partners for Safe & Healthy Port Campaign** that focuses on educating and organizing residents in the many neighborhoods that will be affected by port expansion and freight transportation projects. These include port fenceline communities, neighborhoods located near highway and rail construction projects that will serve the expanded port, and residents near an inland storage yard where containers would be evacuated for hurricanes.<sup>218</sup>

## The Midwest

### Detroit, Michigan

#### Issues

The Port of Detroit, located across the Detroit River from Windsor Canada, encompasses 35 acres of dock and shipping facilities. Three interstate highways, I75, I94, and I96, as well as six railroad companies service the Port. The port, along with bridges, highways, and rail yards facilitate the flow of goods between North America and Canada. These freight transport facilities contribute to the Windsor-Detroit corridor's ranking as the busiest commercial land border crossing in North America.<sup>219</sup> Detroit, Wayne County, and the State of Michigan eye the port and freight transport to bring jobs and development to the region.

Among the proposed projects are:

- The **Detroit Intermodal Freight Terminal (DIFT)** is a 595-acre expansion of the 300-acre Livernois Junction Yard intermodal freight terminals in Southwest Detroit. The project is a public private partnership between the Michigan Department of Transportation and the following railroad companies: Norfolk Southern, Canadian Pacific, CSX, and Canadian National. The Federal Highway Administration has issued the final environmental clearance for the project.
- The **Detroit River International Crossing (DRIC)**, now referred to as the **New International Trade Crossing (NITC)**, will connect Detroit/I-75 to Windsor, Ontario, Canada/Highway 401. Bridge advocates note that the project would help facilitate trade between the United States and Canada, now about \$44 billion annually.<sup>220</sup> The project administered by a partnership between the U.S. Federal Highway Administration, Transport Canada, the Ontario Ministry of Transportation and the Michigan Department of Transportation, includes a customs plaza, and will increase



freight transport, directly impacting the Delray neighborhood in Southwest Detroit where four railroads operate. The project, a direct competitor to an existing privately owned Ambassador Bridge, was initially stalled because of influential pressure by Ambassador Bridge owners. However, in early 2011 Detroit Governor Snyder and U.S. Transportation Secretary Ray LaHood announced support for the NITC giving the project new momentum.

- The **Detroit River Rail Tunnel (DRTP)** would connect Detroit and Windsor underground and allow double stack cargo trains for freight transport between the two countries.

In addition to the proposed new projects, residents in Southwest Detroit face the challenge of already existing polluting facilities such as a regional wastewater treatment plant, the largest rail yard in Michigan, three major highways and heavy industry.<sup>221</sup>

### Groups

These various projects have a direct impact on Southwest Detroit where community-based and environmental justice organizations develop strategies to influence these projects. These include **Detroiters Working for Environmental Justice (DWEJ)**, an environmental justice organization, and **Detroit Hispanic Development Corporation (DHDC)**. These two community-based organizations address ports and freight transportation concerns along with other community-based issues. DWEJ formed in the early 1990s in the swell of the emerging environmental justice movement to focus on pollution, health, and jobs. The DHDC organizes around environmental issues but also provides direct services and advocacy on other issues such as immigration, education, and juvenile justice issues that face the Latino immigrant community. Both groups rely on organizing and leadership development strategies to strengthen relationships within the community in order to build grassroots influence. DWEJ and DHDC are partners with the **University of Michigan School of Public Health** to produce community-based research and develop educational tools for community residents to understand the health impacts of proposed projects and policies. Through a long-term university-community partnership called Community Action Against Asthma (funded through NIEHS), DWEJ and other community organizations focus attention on the development of the DIFT.<sup>222</sup>

The **Southwest Detroit Community Benefits Coalition**, a community benefits agreement coalition that is supported by the Los Angeles Alliance for a New Economy and the Detroit office of LISC (Local Initiative Support Corporation), has begun organizing around the development of the NITC. Formation of

the coalition brings together labor and community organizations for project-specific campaigns and builds long-term relationships between these groups. A related citywide coalition, **Doing Development Differently in Detroit (D4)**, has also helped convene and strengthen relationships labor, community, environmental justice, environmental, community, and other social justice interests in Detroit.<sup>223</sup> See also discussion of community benefits agreements below.

The **East Michigan Environmental Action Council (EMEAC)** is a Detroit-based environmental organization that has focused its air quality work on issues of diesel pollution. Actively engaged in state level coalitions and the national **Clean Air Task Force**, EMEAC also focuses on local level diesel education in Southwest Detroit and serves as a community representative on the Southwest Detroit Environmental Vision, a business and community collaboration closely associated with the Port Authority. Within EMEAC, an emerging environmental justice focus has begun to link air pollution work to ports and freight transportation issues.<sup>224</sup>

Organizing in Detroit also means organizing in an international context. Canada's push to build its trade corridor capacity illustrates how local projects in Detroit are inherently international ones. The international context also illustrates the limited role the City of Detroit has in local development planning. For example, the City of Detroit's Department of Environment, faces budgetary as well as internal political challenges leaving much of the power to direct local development in the hands of Canada and the private sector. Established and emerging organizing in Detroit, however, points to the ways that global framing and expanded collaborations address goods movement and incorporate health considerations into development debates.

## Chicago, Illinois

### Issues

Chicago is the only place in the nation where six of the seven major North American railroads (BNSF, UP, Canadian National, Canadian Pacific, CSX, and Norfolk Southern) converge, making the entire region (Will, Cook and Page counties) a "switching yard for America's eastern and western railroads."<sup>225</sup> Today one-third of all freight traffic in the nation passes through Chicago<sup>226</sup> and is expected to double over the next 20 years.<sup>227</sup> The region's newest intermodal, UP's Joliet Intermodal Terminal, is a 785-acre facility developed by CenterPoint Properties, a company that also created the CenterPoint Intermodal Center in Elwood, a \$1 billion, 2,500-acre logistics park billed as "one of the largest private developments ever undertaken in the United States."<sup>228</sup>



The Chicago area is home to at least 25 intermodal facilities - making it also the largest concentration of intermodal rail yards in the United States.<sup>229 230</sup> Chicago also has the second largest amount of warehouse space in the western hemisphere, after California's Inland Valleys.<sup>231</sup> Its more than 300 warehouses employ about 150,000 warehouse workers, a number likely to continue to grow.<sup>232</sup> Much of this warehouse activity is located in Will County where annual freight transportation employment grew on average 8.2% between 2000 and 2009.<sup>233</sup> Mirroring the warehouse growth in the Inland Valleys in California, Will County is one of the fastest growing counties in the United States due to the logistics industry's presence.<sup>234</sup>

Many of the region's older rail yards are located adjacent to low-income communities of color in Chicago. These include neighborhoods such as Back of the Yards, Brighton Park, Roseland, Bedford Park, and Englewood.<sup>235</sup> Residents who live near these yards not only suffer from higher asthma rates, but from higher rates of respiratory disease, cardiac disease, and premature death as well.<sup>236</sup> The average cancer risk of residents living within ½ mile of the 15 largest Chicago-area intermodal facilities has been estimated at more than 10 times that of people living just four miles away.<sup>237</sup> According to a report by the Chicago Reporter, about 57,000 people, the majority of them people of color, live within one-half mile of these 15 rail yards alone.<sup>238</sup>

## Groups

Organizations working in the Chicago region to address the impacts of truck and rail pollution include:

- **Warehouse Workers for Justice (WWJ)** is an independent workers' center founded by the United Electrical Workers (UE) that was established in 2009 following a successful plant occupation at Chicago's Republic Windows and Doors. The new WWJ was founded realizing that the union's traditional base was shrinking as electrical manufacturing jobs continued to be shipped overseas. UE wanted to try to reach out to logistics industry workers, where it saw jobs that cannot be outsourced and saw warehouse workers with the "potential to build power."<sup>239</sup> WWJ provides a venue to educate warehouse workers on their rights and fight for policy change to secure greater workplace protections.<sup>240</sup> WWJ has established a partnership with **Warehouse Workers United**, a Change to Win project. WWJ worked with the **Center for Urban Economic Development (CUED) at University of Illinois at Chicago (UIC)** to conduct a survey of warehouse workers in Will County and produced a detailed profile of the new Will County logistics industry jobs and the impacts of the expanding warehouse industry has on workers.<sup>241</sup> Through the Warehouse Workers United campaign, WWJ has begun collaborating with CCAEJ in California to organize warehouse workers, many of whom are temporary workers and residents of environmental justice communities in the California's Inland Valleys and Chicago.<sup>242</sup>
- **The Will County Residents for Responsible Intermodal Development** is a coalition in Will County that formed to oppose the proposed development of the CenterPoint Intermodal facility in Crete Village.<sup>243</sup>
- **The Greater Englewood Community and Family Task Force** formed to stop the development of the CSX Englewood intermodal facility, located in the South Side African-American community of Englewood. Organized opposition by the Task Force resulted in a community benefits agreement in which the railroad pays the city of Englewood \$300,000/year, allocated to residents "for home repairs and other projects."<sup>244</sup> A class action lawsuit was filed against CSX in 2005 where homeowners sought to limit the yard's operations to daytime and early-evening hours. Although the rail company acknowledged the negative impact on the neighborhood, their lawyers successfully argued that the company was protected by a federal law that leaves regulation of rail operations to the federal government.
- **The Respiratory Health Association of Metropolitan Chicago (RHAMC)** performs research, advocacy, and outreach to fight asthma, lung cancer, chronic obstructive pulmonary disease (COPD), emphysema and other respiratory illness and disease.<sup>245</sup> As part of RHAMC's work combating diesel pollution, the organization has secured funding for and implemented - often in tandem with Illinois EPA - "more than 100 clean diesel projects throughout the state." US EPA recognized that work with a leadership award earlier this year.<sup>246</sup> Other than its successful work lobbying for idling limits, much of its focus on diesel pollution involves coal power plants, public transportation and construction, and private passenger rail - rather than freight rail and trucks.<sup>247</sup>
- **Citizen Action/Illinois** is the state's largest public interest group. Tackling diesel pollution is among its program areas.<sup>248 249</sup> Along with RHAMC, Citizen Action/Illinois actively advocates for the use of ultra-low sulfur

diesel (ULSD), particulate filters or diesel oxidation catalysts (DOCs) in trucks, buses, and construction equipment, anti-idling, automatic shut-off technologies in locomotives, and the replacement of old switcher engines with Gen-Set or hybrid diesel-electric models.<sup>250 251</sup>

- Citizens Action/Illinois and RHMAC founded the **Illinois Campaign to Clean Up Diesel Pollution** in 2007, a coalition comprised of over 80 health, environmental, labor, faith and community organizations.<sup>252</sup> It is also part of the National Partnership to Reduce Diesel Pollution, a nationwide coalition of organizations “committed to reducing direct diesel fine particulate matter emissions by 40% by 2012, 55% by 2015, and 70% by 2020.”<sup>253</sup> The Illinois Campaign applies pressure to elected representatives to secure state and federal dollars for retrofitting and replacing diesel vehicles and equipment, as well as encourages government and industry to apply for these funds.

Increasingly, organizations in Chicago are starting to consider how to make the links between issues and organizing in the urban core neighborhoods of Chicago with outer ring neighborhoods facing new freight transportation expansion projects. The intensification and expansion of freight transportation in the Chicago region illustrates the need for regional scale analysis and organizing and the challenges facing community and workplace-based organizers and health advocates.

## Kansas City, Kansas

### Issues

Kansas City has served as one of the nation’s primary logistics hubs since the construction of the transcontinental railroad in the 1860s. The City’s Argentine Yard, a 780-acre freight car yard is the second largest rail yard in the world, representing one of three terminal points for BNSF to service diesel locomotives. More than 1,800 train cars run in and out of the yard every day.<sup>254</sup> Several years ago BNSF announced its plans to build an intermodal logistics park to include a rail yard, a large trucking distribution center and warehousing in the area of Gardner, KS, about 30 miles southwest of the Argentine yard. The railroad wanted the City of Gardner to annex land on which to build the rail yard, but significant controversy arose over the plans, involving residents and political leaders. As a result, the small city of Edgerton decided to annex the 1,100-acre site, which is located in Johnson County, KS, less than a mile from two schools and homes in Edgerton. The 24-hour a day facility is expected to generate more than 5,000 new truck trips per day and an estimated 17,080

trips by 2030.<sup>255</sup> Residents of Edgerton and Johnson County are also concerned about potential water contamination because of the proposed intermodal facility’s proximity to the Hillsdale Watershed that provides drinking water for the surrounding areas.

### Groups

Because of concerns about the intermodal development and proposals to build large distribution centers in the city of Gardner, the **Johnson County Intermodal Coalition** was formed and included homeowner Eric Kirkendall, whose house was threatened by the prospect of development. He and his wife lived in an old farmhouse in Gardner, where they had hoped to retire. However, the developers wanted to build 12-acre warehouses to support the intermodal rail yard on three sides of his 4-acre homestead. The Intermodal Coalition, along with the **Hillsdale Environmental Loss Prevention (HELP)** organization, stepped up its efforts to protect the community, raising particular concerns about whether possible pollution from the proposed facility could harm the Hillsdale watershed. HELP filed a lawsuit, which was joined by NRDC in Santa Monica, CA, against the Army Corps of Engineers focusing on the project’s water quality and air quality impacts. The suit asked the Kansas District Court to freeze a permit issued by the Army Corps of Engineers and require a full Environmental Impact Statement (rather than the simpler Environmental Assessment that had been conducted) before allowing BNSF to move forward with the project.

Several Johnson County officials, as well as Eric Kirkendall, attended the 2007 Moving Forward Together conference in Los Angeles, where they met USC faculty members, environmental justice activists, and lawyers from NRDC. When a member of the City Council in Gardner, along with the Coalition and HELP, decided to sponsor a community forum on the rail yard and distribution centers, they invited three representatives from Los Angeles (USC, East Yard Communities for Environmental Justice, and NRDC) to speak at the meeting, along with representatives of HELP, the Sierra Club and the American Cancer Society. More than 100 residents attended, and significant local press was generated. Subsequently, Kirkendall was a featured speaker at the 2010 Moving Forward Together conference. He told attendees that his fight to stop the distribution centers from construction was unsuccessful. His home was demolished and he and his wife are now residents of Lawrence, KS. The lawsuit against the intermodal rail yard has not yet been decided in court.

As is the case in other communities with few organizations focused on ports and freight transportation, local organizers and campaigns in Kansas City drew upon the capacity and expertise of

other regional campaigns, resources and experiences in order to build stronger organizational and movement capacity to shift the terms of the goods movement debates. In the Kansas City region, the primacy of rail and goods movement industries and employment has begun to bring together interests focused on water quality and community quality of life. Connecting these new emerging constituencies to a broader network of similar communities and interests will be important in building a stronger base of organizing in Kansas so that residents have a stronger voice in decisions that are being made about their own community's future.

## Northeast/Central Atlantic Coast

### New York/New Jersey

#### Issues

The Ports of New York and New Jersey make up the 3<sup>rd</sup> largest port complex in the nation and handle the highest volume of shipping containers on the East Coast. The Port Authority of New York and New Jersey (PANYNJ) runs the Port Newark and the Elizabeth Marine Terminal (Port Elizabeth), adjacent ports that include six container terminals, four auto processing terminals, and cargo berths. The PANYNJ is also responsible for other port terminals: APM Terminal, Maher Terminal, Global Terminal, New York Container Terminal, Red Hook Container Terminal, Brooklyn Port Authority Marine Terminals, South Brooklyn Marine Terminal, and the Port Jersey-Port Authority Marine Terminal.<sup>256</sup> In addition, the PANYNJ governs the regional airport system, the PATH rail transit system, six tunnels and bridges between NY and NJ, the Port Authority Bus Terminal in Manhattan, and the World Trade Center.

In 2008, the port handled over 377,000 intermodal containers, more than double its volume in 2000.<sup>257</sup> With hopes of attracting trade from the expansion of the Panama Canal, the PANYNJ has invested in a number of port expansion and improvement projects. \$3 billion has been committed to terminal expansions and improvements alone.<sup>258</sup> These projects include costly alterations to the Bayonne Bridge in order to accommodate Panamax ships, the expansion of the Port of Newark Container Terminal and the construction of a permanent rail facility that could increase capacity to 1.2 million boxes, deepening two of its berths, and the creation of a fourth container berth at the New York Container Terminal.<sup>259</sup> Once complete the Corbin Street Intermodal Support Yard, part of the \$600 million Port Authority investment in the ExpressRail, will be able to move 1.5 million cargo containers annually.<sup>260</sup> Several other rail expansion projects have been completed initial phases and

will facilitate distribution of goods from the port to inland Midwest distribution hubs. In October 2010, CSX Corporation opened a double-stack rail line at the Port of New Jersey/New York, a \$20 million project to raise clearances on a five-mile track linking port terminals with CSX's main route between New York and the Midwest. The initial phase of the Liberty Corridor line features the enlargement of two tunnels, including a 4,400-foot tunnel under Jersey City.

The New Jersey neighborhoods of Ironbound and South Ward are surrounded by these existing and expanding port, rail, and highway corridors. In December 2008, activists and residents stood at six intersections, four in the Ironbound neighborhood and two in the South Ward, counting port trucks passing through their community. Although they were aware of the large truck volume in their community, in just two hours they counted over 630 trucks, or 5 trucks per minute, passing directly through their neighborhoods.<sup>261</sup> In fact, approximately 7,000 diesel trucks make an estimated 10,000 trips to and from the ports every day.<sup>262</sup>

Using scientific testing methodology of the U.S. EPA, the Clean Air Task Force conducted research on diesel exposure in the areas around the ports and found cancer risks to be 486 times greater than U.S. EPA's acceptable cancer level of one in a million.<sup>263 264</sup>

#### Groups

Several well established organizing and coalition groups are involved in organizing around ports and goods movement. These include:

- **The New Jersey Environmental Justice Alliance**, founded in 2003, is an umbrella organization of more than 40 environmental justice organizations in Jersey working on issues related to particulate matter air pollution, climate change, cumulative risk and impacts, and the siting of schools on contaminated land. The NJEJA works with community-based environmental justice organizations as well as advocacy and research institutions, to develop environmental justice legal strategies and increase the capacity of the environmental justice community to address these and other issues. A recent conference featured a founding member of NJEJA who raised the imperative of "environmental health justice."<sup>265</sup>
- **New Jersey Environmental Federation (NJEF)**, a statewide organization with over 100,000 members and almost 100 affiliated groups, has been working since 2003 to combat the health and environmental impacts of diesel emissions in vulnerable communities. Working with the New Jersey Environmental Justice



Alliance, NJEF has won legislation to publicly fund the retrofitting of diesel-powered vehicles and a statewide idling law. NJEF has a long history of working with labor, such as chemical workers and refinery workers. In 2006, NJEF released a report detailing the port-related health impacts from diesel emissions in the Ironbound, a port-adjacent community in Newark with an extreme legacy of environmental injustice and pollution.<sup>266</sup>

- **Ironbound Community Corporation (ICC)**, a social service organization that worked with NJEF to produce the 2006 report, had been fighting for years against the harmful impacts of toxic emissions from a waste plant, an international airport, a Superfund site, chemical plants, interstate freeways, more than 100 brownfields, and the Ports of Newark and Elizabeth. Prior to the ports campaign in New Jersey, the ICC was fighting against the construction of a proposed incinerator in their community, which was already wrought with diesel hotspots and other polluting facilities. In March 2010, ICC received a U.S. EPA CARE grant to survey the neighborhood and develop a cumulative analysis of toxics and health effects in a community with high poverty rates and where 75% of residents speak languages other than English, primarily Portuguese or Spanish.<sup>267</sup> 55% of those over 18 do not have a high school diploma. Census tracts in the neighborhood range from 25% to 55% of households below the poverty level.
- The **Coalition for Healthy Ports** is a bi-state coalition of community-based organizations, labor, faith based and environmental organizations are involved in the campaign for clean trucks. The Coalition for Healthy Ports is the East Coast campaign of the national Coalition for Clean and Safe Ports. The coalition is staffed by the **Garden State Alliance for a New Economy (GANE)**, the region's equivalent to LAANE (Los Angeles), SAGE (Seattle) and EBASE (Oakland). Members include the organizations discussed above as well as **GreenFaith**, an interfaith organization of religious leaders that have engaged in environmental justice campaigns. Using the Los Angeles model for a Clean Trucks Program, the Coalition for Healthy Ports pushed for a similar clean trucks program that would meet community needs and address emissions through an employee concessions model. See full discussion on the Clean Trucks Programs below. The Coalition has produced a series of important reports that document the health, labor and community

issues faced by port truck drivers and community residents who live adjacent to the ports and freight movement corridors.<sup>268</sup>

Collaboration with academic researchers has produced important community-based research and industrial analyses. The director of the **Center for the Urban Environment at the John S. Watson Institute for Public Policy at Thomas Edison State College** has been conducting surveys to determine the level of exposure of communities of color to the diesel emissions from port commerce<sup>269</sup> and has helped Coalition members conduct truck counts near the Newark port. The Coalition for Healthy Ports also draws upon research by **Rutgers University's School of Management and Labor Relations** on the low wages and poor working conditions of port truck drivers in the trucking industry.<sup>270</sup>

Organizing and activism around the New York/New Jersey ports and freight transportation reflects a robust labor, community, and environmental sector that recognizes the power and negative impacts of freight transportation at the local, state, and national level. Organizing and advocacy strategies by these groups illustrate the ability to build local level work into effective state level influence able to impact decision-making by the state governed Port Authority of New York/New Jersey.

## Baltimore, Maryland

### Issues

The Port of Baltimore, situated on Chesapeake Bay, is a major auto-handling port and the East Coast port closest to the Midwest cities. Although only 21st among U.S. ports, the city of Baltimore has become focused on freight industry expansion related to the Panama Canal. In 2010, Baltimore signed a deal with Ports America, the nation's largest terminal operator to take over expansion and operation of the Seagirt Container Terminal, the state's primary container terminal. The \$105 million expansion includes building a fourth berth, dredging the harbor, and purchasing four super-post-Panamax cranes.<sup>271</sup>

In order to accommodate the doublestack container rail transport which are unable to travel through the existing Howard Street Tunnel, CSX Corporation is seeking a new location for a proposed intermodal facility. Several possible 100-acre rail adjacent sites are in consideration, including a location in Elkridge adjacent to a proposed new school site.<sup>272</sup>

The new intermodal project is but one project of the proposed CSX rail expansion strategy to expand rail transport and distribution along the East coast and to Midwest markets.<sup>273</sup> As noted earlier, CSX

has entered into a public private partnership to develop the National Gateway Corridor, a north-south rail expansion effort between North Carolina and Baltimore, paralleling I-95. The project proposes to expand three existing rail corridors that run through Maryland, Virginia, North Carolina, Pennsylvania, Ohio and West Virginia. The project received \$98 million in TIGER funds in February 2010.<sup>274</sup>

### Groups

While there are no visible community-based organizations or campaigns within the City of Baltimore organized explicitly around ports commerce or goods movement, there are a number of environmental justice organizations in Baltimore concerned and engaged in health and environmental justice issues, particularly in the East Baltimore community. Many of these groups are involved with the **Environmental Justice Partnership (EJP)**, a community-university partnership between the **Johns Hopkins Bloomberg School of Public Health (JHSPH)**, the Maryland Institute College of Art (MICA) and community-based organizations in East Baltimore.<sup>275</sup> Formed in 2003 with start up monies from the National Institute of Environmental Health Sciences (NIEHS), the EJP connects academics with East Baltimore residents to build capacity for environmental justice groups to engage in discussions with governmental agencies, academic institutions, and the private sector.<sup>276</sup> The EJP's accomplishments include winning paid relocation of residents in the Wagner Point neighborhood, which heavy industry has made unlivable, and the dissemination of newsletters and educational materials produced with the help of graphic design students at MICA. Pat Tracey of Johns Hopkins states that the EJP had mostly been focusing on "the impacts of urban demolition, the number of industries in low-income neighborhoods, and bus depots situated so close to residents that it feels as if they are in their backyards."<sup>277</sup> To date, there has been little community demand to investigate port-related community issues.

Port industry stakeholders on the other hand are organized through the Baltimore Port Alliance, an organization of about 150 public and private maritime business interests.<sup>278</sup> The industry stakeholder group has its own environmental committee that received \$3.5 million in stimulus funding in 2009 from the U.S. EPA to help industry retrofit its diesel-powered locomotives, short-haul trucks, and cargo-handling equipment at the port with clean-diesel technology.<sup>279</sup>

Although the Port's Green Port Initiatives (including electrification of cranes, reducing idling time on-dock, and installing dust emissions systems) have not yet intersected with concerns and needs of the environmental justice community in Baltimore, the active set of environmental justice organizations

working with public health researchers and scientists, suggests a potential alignment and community-based capacity to develop health and justice strategies in port and freight transportation policy and decision-making.

## Norfolk/Hampton Roads and Inland Virginia

### Issues

The Port of Hampton Roads is the oldest continuously operating port system in the United States.<sup>280</sup> Many consider the Port of Hampton Roads the economic engine of the region and indeed, all of the area's biggest industries are port-related: shipbuilding, ship repair, naval installations, cargo transfer and storage, and manufacturing related to the processing of imports and exports.<sup>281</sup> Presently, the Port consists of four terminals operated by the Virginia Port Authority (VPA): Norfolk International Terminals (NIT), Portsmouth Marine Terminal (PMT), Newport News Marine Terminal (NNMT), and APM Terminal Virginia (APMT). The APM, or Maersk Terminal, was the United States's first privately developed container terminal and is among the most technologically advanced and automated cargo-handling facilities in the world.<sup>282</sup> It also used to be in competition with the Port of Hampton Roads until the Port acquired it for a 20-year \$1 billion lease in July 2010.<sup>283</sup> Additionally, the VPA owns and operates an inland intermodal facility, the Virginia Inland Port (VIP) in Front Royal, 220 miles inland and connected to the Port by rail.<sup>284</sup>

While all four terminals have on-dock rail, the majority (about 2/3) of the freight leaving the port is carried on trucks and just 30% via rail.<sup>285</sup> This truck-to-rail ratio - as well as the Port of Hampton Roads' attractiveness as a port of call in general - likely has something to do with the fact that a full two-thirds of the U.S. population can be said to be located "within a 750-mile, 2-day truck drive" of the Port,<sup>286</sup> making trucking relatively easy.

Notably, Hampton Roads is a deepwater port and one of the world's largest natural harbors. This has meant that unlike all other Eastern seaports except for Baltimore, the Port of Hampton Roads requires no additional dredging, which puts it in a prime position to begin accepting - without delay and absent many costly infrastructure improvements - the expected arrival of Post-Panamax ships in 2014. In fact, Norfolk, the largest terminal, already boasts the world's largest "Suez-class" container cranes equipped to handle ships larger than any yet built.<sup>287</sup> A fifth terminal, Craney Island is scheduled to open in 2017 to accommodate the doubling and tripling of container traffic expected by 2015 and 2020, respectively.<sup>288</sup> Goods movement infrastructure projects such as the rail-based Heartland Corridor, capitalize upon the expanded infrastructure and the linking of the Port to

Midwest intermodal facilities and markets. In March 2010, the Virginia Department of Environmental Quality (VDEQ) granted the Port of Virginia and the U.S. Army Corps of Engineers permit approval to start construction of the Craney Island Eastward Expansion.

In terms of air quality, the air shed that includes the Port of Hampton Roads had been in violation of the federal '8-hour ozone standard' in the past (from 2004 to at least 2006), but appears to be in compliance at present.<sup>289</sup> In response to the Port of Hampton Road's past noncompliance with National Ambient Air Quality Standards (NAAQS), the VPA has taken several steps to address air pollution.<sup>290</sup> This includes the development and implementation of its "Green Operator" Voluntary Diesel Truck Retrofit Program, which encourages trucking companies to voluntarily retrofit and replace their aging trucks. The port-initiated effort, like many other clean trucks programs at other ports however, lacks the employee concession element necessary to address the negative impact of clean trucks programs on port drivers.

In 2005, the Virginia Port Authority initiated its Comprehensive Air Emissions Inventory and Integrated Planning program as a way to track the emissions produced by all port operations (i.e., from ships, trucks, trains, and equipment).<sup>291</sup> While the monitoring plan is in place, policies that other ports utilize to cut emissions such as cold ironing capability, speed reduction regulations, emissions regulations for trucks or rail, and any significant alternative fuel programs have not yet been implemented at VPA. Most recently, the VPA issued its Craney Island Eastward Expansion Environmental Mitigation Plan, which focuses on minimizing the environmental impacts of the expansion.

### Groups

There does not appear to be any engaged health, environmental justice, or community-based group actively working on freight transport and port-related issues in this region of the country. By contrast, in Southwest Virginia, Norfolk Southern and business leaders are pitted against farmers and community members over a proposed intermodal facility in Elliston (Montgomery County) that would convert 65 acres of pristine farmland to a Norfolk Southern rail yard for transferring freight between trucks and trains. The proposed rail expansion will require state funding to facilitate increased freight on the new Heartland Corridor, which provides shorter, double-stacked service between the Port of Hampton Roads and Midwest markets.<sup>292</sup> Montgomery County residents, along with the Montgomery County Board of Supervisors, are concerned about the impacts the facility would have on their rural communities - and specifically about the effects

of unprecedented increases in traffic and pollution and the construction of new roads and warehousing. A number of Montgomery County residents formed **Citizens for the Preservation of Our Country** and have been pursuing legal means to halt construction.<sup>293</sup> The residents group faces strong opposition in the form of the Roanoke Regional Chamber of Commerce and the Virginia Department of Rail and Public Transit (DRPT) which cites the Virginia Department of Transportation (VDOT)'s assessment that "truck traffic generated by the intermodal facility should present little to no impact."<sup>294</sup> The Montgomery County Board of Supervisors has also come out in opposition to the proposed intermodal, anticipating that the environmental and health impacts from the large increase in truck traffic through their communities would far outweigh any economic benefits.<sup>295</sup> The body passed four resolutions to oppose the proposed facility and filed a lawsuit to block its construction. The resolution is now before the Virginia Supreme Court.

## Southeast

### Charleston, South Carolina

#### Issues

The Port of Charleston ranks 13<sup>th</sup> of North American ports and handles approximately 8,400-TEU vessels annually at its five marine terminals.<sup>296</sup> It is located in the Charleston Harbor and with access to interstate highways 526 and 26 and two state highways. Norfolk Southern and CSX rail lines link the port to cities in the South, Mid-West, and Mid-Atlantic.

Like other East Coast ports, the Port of Charleston is positioning itself to attract trade from the widening of the Panama Canal. The Port has developed a 10-year, \$1.3-billion capital plan in order to increase container capacity in the port 50% by 2018.<sup>297</sup> This includes the \$21.7 million expansion of the Columbus Street Terminal that added more than 70 acres of storage yard and additional rail infrastructure to the auto terminal.<sup>298</sup>

Several other port projects as well as goods movement infrastructure projects are also in the works. The South Carolina State Port Authority (SPA), the state agency responsible for the Port of Charleston and Port of Georgetown, has assumed authority over the 280-acre former Navy base in North Charleston, and is in the process of developing a new three-berth, 280-acre container terminal that is expected to increase port capacity by 1.4 million TEUs.<sup>299</sup> The South Carolina SPA had also developed a cooperative agreement with the Georgia Ports Authority (GPA) to develop a new marine terminal on the Savannah River



in Jasper County, SC, and had therefore supported the Savannah Harbor dredging plan. However, the SPA has raised some objections to the GPA dredging plan and is threatening to withdraw from the project.<sup>300</sup>

Port communities in the densely populated downtown area of Charleston and North Charleston face harmful health and environmental impacts of existing port commerce.<sup>301</sup> Industrial and port-related activities, particularly that of ship traffic, port trucks, trains, and other diesel-powered vehicles, contaminate the surrounding neighborhoods with toxic chemical emissions.<sup>302</sup> Specifically, in 2005, operations at the Port of Charleston, according to its own emissions inventory, released 175 tons of PM<sub>2.5</sub> (particle pollution).<sup>303</sup> Although the Port said that this was less than 5% of Charleston's particulate pollution, the Coastal Conservation League, a local environmental advocacy organization, calculated that it would make up about 70% of Charleston's permitted industrial emissions, most of which remains in downtown communities.<sup>304</sup>

A study commissioned by the **Coastal Conservation League** concluded that the cost of port pollution from the port expansion in Charleston could be up to \$81 million every year.<sup>305</sup> However, Nancy Vinson, the League's program director for Water, Air, and Public Health, contends this is actually a conservative estimate, so the real costs will be even higher if the port does not take measures to reduce diesel emissions as it expands.<sup>306</sup> A lawsuit filed by the CCL charged that SPA approved the port expansion before receiving the results of at least three environmental studies and illegally issued environmental permits for the port expansion. As part of the recent settlement in August 2010, the SPA acknowledged the health and environmental impacts of port-related diesel emissions and vowed to clean up port activities. In the settlement, the SPA agreed to install new air pollution monitors, switch to cleaner port trucks, and begin relying on post-1994 trucks that are less polluting. Although the replaced trucks will only make up about 15% of port traffic, emissions from older engines currently comprise one third of air pollution from port commerce.<sup>307</sup>

Prior to this settlement, there were no local policies regulating the emissions of port-related vehicles. Since the SPA is a state-owned agency where the governor appoints SPA board members, it is difficult to establish policies to mitigate port-related diesel emissions at the local level because the issue is part of the statewide agenda and involves a more robust and complex decision-making system.<sup>308</sup> Local government, therefore, has no power to govern the ports and cannot monitor emissions or mandate emissions reducing measures.

## Groups

The **South Carolina Coastal Conservation League** (CCL), a nonprofit environmental organization working to protect South Carolina's natural resources and communities along the coast, originally got involved in port issues about a decade ago when the South Carolina Port Authority was planning on expanding the port to a peninsula called Daniel's Island adjacent to Charleston. The Port Authority was planning to build a new 12-berth port terminal that would have generated as much port traffic as the Ports of New York and New Jersey, which is the second largest port facility in the country.<sup>309</sup> In response to the threat of environmental degradation along the South Carolina coast, the Conservation League led a campaign to stop the planned port expansion, and succeeded. The Port Authority then proposed a smaller expansion on the old naval base north of downtown Charleston, which is currently underway. The naval base is, however, close to a number of African-American communities.

The Coastal Conservation League originally agreed with moving the port expansion away from Daniel Island to the old naval base, because it had a rail infrastructure to move containers. However, the SPA decided to use trucks instead of rail, which would bring 10,000 additional diesel-powered vehicles per day to I-26, the already burdened main line into Charleston.<sup>310</sup> In response, the Conservation League formally decided to take action against the proposed port expansion and sought out community partners.

Since then, the CCL and the **New Rosemont Homeowners Association**, representing the community closest to the proposed port expansion, have formed a strong environmental-community partnership fighting for the port to take measures to reduce diesel emissions. The CCL has also developed an environmental-medical partnership with the Charleston County Medical Society to work together to highlight the health effects the port expansion will have on port-adjacent communities, as well as the associated health costs. In March 2010, the CCL and the New Rosemont Homeowners Association hosted a community meeting, with panels including experts from Charleston as well as from California, to educate local community members and elected officials about the devastating impacts of port commerce. As a result, a new coalition, CLEAN, was formed to address environmental health and environmental justice issues in their port communities.

The **Lowcountry Alliance for Model Communities** (LAMC) is a non-profit community-based organization in North Charleston, SC that is organized to address environmental justice and health issues in seven African-American neighborhoods near the Port of Charleston. It formed in 2005 to unite the voices of

seven economically disadvantaged neighborhoods in North Charleston and became involved in port issues when they learned that the environmental review of the proposed port expansion had completely ignored the impacts that the project would have on their port-adjacent communities, namely: diesel truck traffic, Superfund sites, an incinerator, brownfields, heavily-trafficked roads, and chemical plants.<sup>311</sup> The neighborhoods experience high levels of poverty, segregation, crime, and drug use.<sup>312</sup>

Starting in 2005, LAMC, the SPA, and the City of North Charleston began to negotiate a community Mitigation Plan Agreement (MPA) to address LAMC member concerns. In the MPA, the SPA granted the communities \$4 million to address important community needs such as funding for local scholarship programs, affordable housing, environmental monitoring, healthcare and fitness initiatives, and other programs.<sup>313</sup> The SPA also made a separate, voluntary, agreement with the South Carolina Department of Health and Environmental Control, pledging to address pollution and health issues associated with the Port and other local industries.<sup>314</sup> The SPA reports that it is using cleaner engines and including emissions-reducing guidelines in its construction bid documents, and that it has switched all of its terminal equipment to ultra-low sulfur diesel (ULSD).<sup>315</sup>

LAMC has also formed a community-academic partnership with the Department of Epidemiology and Biostatistics at the University of South Carolina. With a four-year grant from the NIEHS, the university and LAMC are conducting an environmental health study in the City of North Charleston to determine if there is a link between multiple sources of pollution and the health of the residents living in the seven neighborhoods that comprise LAMC. The partnership utilizes a collaborative problem-solving model to address cumulative impacts. Working with LAMC, researchers are using “training and community outreach techniques to educate residents about local environmental health risks and education to teach ways to reduce their exposure.”<sup>316</sup>

Important community, health, and environmental organizing focused on the Port and freight transportation has taken place in Charleston. Even with important gains for the community, the scope and scale of proposed port expansion points to gaps between health, environmental justice, labor, and community development issues and health protective policies. Specifically, since South Carolina is a right-to-work state, organized labor (other than the International Longshore Association) does not have as strong a presence as in some other states and therefore does not play a major role in the debate surrounding the port expansion in Charleston. Finding strategies that integrate health and worker

considerations across the range of organizing, advocacy, and policy solutions will be critical as the port moves forward with its plans to expand.

## Savannah, Georgia

### Issues

The Port of Savannah, the 4th largest in the United States by container volume, is a major gateway for imports from South and Central America and the Caribbean and for exports to Asian countries. As with many of the Eastern and Southern ports, the widening of the Panama Canal has become a major focus for expansion. These include plans to deepen the Savannah harbor, by up to six feet (for a depth of 48 feet) to accommodate post-Panamax and Super post-Panamax cargo ships expected to start using the Panama Canal. The dredging project is estimated to cost \$588 million and to be completed by 2015.<sup>317</sup>

Federal funding has been a major contributor to Port expansion. \$21.7 million, for example, was approved by Congress to fund the deepening and maintenance of the Savannah and Brunswick harbors, run by the Georgia Ports Authority (GPA).<sup>318</sup> “The approval of \$1.49 million in construction funds is another solid vote of confidence by the Congress in support of Georgia’s effort to prepare the Savannah Harbor channel for the new generation of larger ships that represents the future of ocean commerce,” said Steve Green, GPA Chairman of the Board.

The Draft Environmental Impact Statement (DEIS) for deepening the Savannah River was released on November 16, 2010.<sup>319</sup> The DEIS minimizes air pollution issues that will result from port expansion. Unlike the San Pedro Bay Ports in Southern California, the expanded port in Savannah would not require any ships to plug in to electricity while in harbor. The DEIS actually claims that such electrical shore power is “experimental,” despite the fact that ports in Los Angeles, Long Beach, and Tacoma are already plugging in ships at some terminals. Recently the Port of Charleston, SC announced that it is going to replace pre-1994 trucks<sup>320</sup> but there are no plans to replace old trucks at the expanded Port in Savannah, according to the DEIS.<sup>321</sup>

The Port relies on the expansive network of warehouse and distribution facilities. There are more than 20 Savannah-area distribution centers that combine to generate 500,000 TEU annually.<sup>322</sup> In addition, there are 200 more distribution centers within a five-hour drive. These include major retailers such as Walmart (3.3 million sq. ft.), IKEA (1.7 million sq. ft.), Target (2.1 million sq. ft.) and Home Depot (1.4 million sq. ft.).<sup>323</sup>

In relation to freight transportation corridor activity, Georgia is also expected to be the first state in the Southeast to finish its expansion of I-95, which will accommodate three lanes of traffic in each direction from South Carolina to Florida. Overall, the expansion is expected to facilitate port growth and tourism in the area. Specifically, the I-95 expansion is crucial to the port because Port of Savannah officials estimate that 80% of the port's containers end up on I-95.<sup>324</sup>

## Groups

A number of community-based environmental justice, neighborhood, and faith-based organizations target the port and its proposed expansion projects. Citizens for Environmental Justice/Harambee House is a longtime environmental justice organization, along with the First African Baptist Church represented Savannah at the 2010 "Moving Forward Together" conference in Los Angeles. Other attendees included Operation Street Harvest, from Decatur Georgia and the Center for Sustainable Coast from Saint Simons Island. Through contacts made at the conference, Harambee House developed a working relationship with the Coalition for a Safe Environment in Wilmington (Los Angeles), California. Jesse Marquez of CFASE has travelled twice to Savannah to provide technical assistance. In January 2011, he joined with groups in Savannah to sponsor a community meeting to discuss potential impacts of the proposed dredging of the Savannah River and review the draft EIS released in late 2010. As a result of technical assistance provided to the Savannah organizations, six community groups signed onto a letter and submitted it to the Army Corps of Engineers, asking for a more thorough evaluation of the impacts of the river deepening, including health and environmental justice concerns.<sup>325</sup> USC's community outreach program also submitted comments on the river deepening project, including lengthy documentation of the latest research findings on air pollution and noise that it argued must be considered in the Corps' evaluation.

Together with technical experts, environmental justice activists have been able to engage in formal environmental review processes. Like other community-based organizations however, the groups in Savannah engage in the port expansion debates by necessity rather than choice. Harambee House/Citizens for Environmental Justice was founded in 1991 after studies showed the overwhelmingly disproportionate number of hazardous waste facilities located in African American communities in the south.<sup>326</sup> Organizing has focused not only on the Port of Savannah but also on the Savannah River Site, a Department of Energy facility and former nuclear reactor, waste management, risk assessment toxic use and public participation to involve local residents in environmental decision-making.<sup>327</sup>

Environmental organizations have weighed-in on the dredging project; seven groups oppose the dredging: Savannah Riverkeeper, Center for a Sustainable Coast, Coastal Conservation League, Altamaha Riverkeeper, Ogeechee Riverkeeper, the Georgia chapter of the Sierra Club, the South Wildlife Federation, and the South Carolina chapter of the Southern Environmental Law Center. One organization, the Georgia Conservancy however, has taken a neutral stance on the important project.<sup>328</sup>

## Miami/Port Everglades, Florida

### Issues

The Port of Miami is the largest container port in the state of Florida and ninth in the United States.<sup>329</sup> The port handles a mix of containerized cargo and passenger cruise ships and is located just off I-95, the major north-south artery between Florida and the northeast states. Known also as the "Cruise Capital of the World," the ports feature four passenger terminals. Like many other East Coast ports, the Port of Miami is gearing up for the expanded Panama Canal with large-scale projects that include:

- A \$1 billion tunnel project under Biscayne Bay to facilitate the truck traffic from the port's eight terminals on Dodge Island to I-395 via Watson Island. When complete, the tunnel will connect the port's eight terminals on Dodge Island to I-395 via Watson Island.<sup>330</sup>
- Deepening of the Miami Harbor to accommodate the largest Panamax vessels. Estimated total cost of the project is \$171 million with local funding sources contributing approximately half the cost.<sup>331</sup> The Port originally sought federal funds for the project and the County committed \$150 million of local funds toward cost of the project. However, the President's proposed budget plan for 2012-13 did not include the \$75 million sought Port officials.<sup>332</sup> The State Department of Transportation announced in early March 2011 that it would fill the funding gap.<sup>333</sup>
- Construction of on-dock rail and rehabilitation of a rail connection to the port. Once complete, the rail line, which was damaged by Hurricane Katrina, will link the port to the nearby Hialeah rail yard operated by the Florida East Coast Railway. The \$50 million project, partially funded through TIGER federal stimulus funds, will contribute to Port and rail plans to expand Hialeah into an inland port and logistics hub to stage and shuttle rail cars to and from the port.<sup>334</sup>



Just over 20 miles north of Miami, Port Everglades is located across from the three cities of Fort Lauderdale, Hollywood, and Dania Beach. It is the 12<sup>th</sup> largest container port in the United States with 5.2 million tons of containerized cargo that move through Port Everglades annually.<sup>335</sup> Port Everglades also has proposed expansion projects, which include a dredging project that is part of the 2006 Master/Vision Plan approved by the Broward County Board of County Commissioners in December 2007; a \$2 billion expansion plan was developed which projects an annual 4% growth of port cargo volume over the next 20 years. A new integrated fumigation plant was opened in January 2011 to facilitate the transport of fresh food products and a new 41-acre terminal Southport Container Yard is in the final phase of completion.

### Groups

In Port Everglades, environmental organizations including the **South Florida Audubon Society** pushed for negotiation and a compromise with port officials in February 2010 to adhere to the 20-year old conservation easement in which the port promised to protect a stand of mangroves. As a result of negotiation, the Broward County Board of Commissioners approved a plan that would eliminate 8.5 acres of mangroves in order to expand berth activity and replace it with 16 acres of mangroves at an alternative adjacent location.<sup>336</sup> The **Coalition for Clean and Safe Ports** has also begun to explore a campaign at the Port of Everglades but no active campaign has begun yet. In Miami, environmental groups such as the **Sierra Club** have focused on addressing the environmental impacts of port projects but there is only a limited health and environmental justice focus on the Port and freight transportation.

While environmental organizations have actively engaged in to ports and freight transportation, other well-established and successful organizing groups in South Florida that focus on issues of displacement, housing, gentrification, and economic justice have not yet focused on these issues explicitly.<sup>337</sup> The strength of environmental organizations along with progressive health, economic and environmental justice groups represents a potential environmental and social justice base for building new port and goods movement organizing and advocacy campaigns.

## Jacksonville, Florida

### Issues

Similar to other regions, increased investment in the seaports of Jacksonville, FL, reflects the competition among local ports for anticipated increased trade through the Panama Canal. Commenting on the Panama Canal expansion's potential impact on the state

of Florida, Joe Mazurkiewicz, a political consultant and member of the state's transportation commission, said: "With strategic investment we could position the state of Florida to be the kingpin for everything east of the Rockies and south of Canada."<sup>338</sup> The 2009 Master Plan for the port focuses on the development of port terminals as well as the acquisition of additional property, primarily parcels along the western and northern shores of the shipping channel, a 2-mile stretch of the St. Johns River between the mouth of the Atlantic Ocean and the Talleyrand Marine Terminal, the port's largest terminal.<sup>339</sup> These projects include a terminal expansion project sponsored by Hanjin Shipping company that was originally set to open in 2014 to make Jacksonville its hub for East Coast Operations,<sup>340</sup> but construction recently was delayed by two years so that the harbor would have enough time to complete its 48-foot deepening project. The new terminal will not be ready until 2016.<sup>341</sup>

### Groups

Specific organizing to inject health, labor, community, environmental and environmental justice considerations have begun to address this growth. In Jacksonville, the **Mayport Village Civic Association** waged fierce opposition to oppose potential cruise ship terminal expansion, arguing that cruise ships would take away important dock space for the long-time shrimp trawlers and expand cruise terminals closer to residential areas, in some cases just 60 feet from residences.<sup>342</sup>

After the Association filed a lawsuit seeking an injunction against the Jacksonville Port Authority (JaxPort) in 2009, JaxPort announced that it would explore other expansion options for the cruise terminal. Nonetheless, a news story in January 2011 stated that Mayport is still in consideration by JaxPort.<sup>343</sup> In the process, the northeast Florida Sierra Club began advocating for use of ultra-low sulfur diesel fuels and electrification of the new terminal, if and when it is built. There are tremendous political obstacles for organizing and advocacy: a review of the JaxPort Master Plan published in March 2009 makes no reference to health risk or air quality standards or diesel emissions despite the expansion proposed at its terminals. Its description of environmental impacts calls them a "reasonable consequence" of growth. The plan states:

*It is the desire of JaxPort to grow in an orderly manner, carefully addressing the impacts of its growth. As this growth occurs, there will no doubt be some environmental impacts as a reasonable consequence of the industrial processes to port operations.*<sup>344</sup>

While there may be a wide range of opportunities to raise health, community, labor and environmental

considerations in policy debates, JaxPort is overseen by a seven-member Board of Directors: four are appointed by the Mayor and three by the Governor; six of seven represent the private sector with three having direct ties to logistics and trade firms.

## Strategies and Organizational Issues

From the description of the issues and organizing in the regions, we find that while communities share similar negative impacts of freight transportation, organizing capacity and political conditions in each region determine the appropriate corresponding strategies. For example, in Los Angeles/Long Beach (home to the country's largest ports) there are numerous organizations and experienced, multi-sectoral coalitions engaged in successful campaigns. Advocates have sought out key allies and formed partnerships with academic institutions, illustrating how the merging of community organizing, advocacy and science can influence policy. In regions with fewer organizations and/or less developed attention to health, ports, and freight transportation, strategies are geared towards education and identifying opportunities for establishing coalitions and networks. Despite the wide variation between groups and strategies across the United States, examples point to the need for capacity in three areas: increasing knowledge and awareness of issues, strengthening organizational effectiveness, and building political power sufficient to influence policy and decision-making.

### Education and Direct Organizing

Increasing awareness of the negative impacts freight transport has on community, worker, and environmental health, particularly in directly impacted communities, serves as the necessary baseline for informing the public as well as engaging the range of necessary stakeholders in freight transport planning and decision-making.

### Peer to Peer Learning and Training

Peer learning and one-on-one trainings have clearly helped to educate, mobilize, and connect communities across the country on this issue. Popular education materials such as the development of "Goods Movement 101" (a project developed by East Yard CEJ along with USC) serves as a popular education training tool (also available in a customizable PowerPoint format for other goods movement communities) that presents the system of ports and goods movement, the negative impacts, and examples of solutions that improve community health and quality of life.

The Pacific Institute's popular education training manual, "Gearing Up for Action: A Curriculum Guide for Freight Transport Justice," also provides important educational tools for community groups.

Moreover, peer-to-peer learning and training can help address the tensions that emerge within and between organizations. Building coalitions and developing long-term trust among labor, community, environmental, environmental justice, and health interests is a necessary but challenging effort. When left unaddressed, tensions between labor and community, mainstream environmental and environmental justice goals and process may result in instances where environmental and conservation goals conflict with broader community, environmental justice, and health and community development goals. Without opportunities to dialogue and learn from each other groups may ultimately cut individual deals to mitigate some off port impacts and miss addressing others. Similarly, tensions between community and labor interests may slow or undermine campaigns. Identifying opportunities and deploying appropriate and relevant methods for facilitation and conflict resolution to address these tensions is critical to short-term campaign success as well as longer-term movement building.

### Coalitions and Networks

Building the relationships between a wide range of stakeholders and building capacity for the groups to take action together requires organizational structures that are able to bridge interests, bring together resources, and facilitate shared agenda setting and action. For many regions, coalitions have served important roles in bridging interests and helped build political power that individual groups may not achieve on their own.

These coalitions have been key engines for progressive policy change in ports operations and goods movement. Tackling the freight transportation system and forging solutions to address negative impacts of projects and operations require command of a broad range of issues - e.g., air and water quality, health risk, and land use along with policy and technical capacity that often no single organization is able to tackle alone. Instead, freight transportation-related coalitions of organizations bring together the necessary health, labor, community and environmental perspectives and organizational resources to focus on influencing specific goods movement related decision-making. Whether labor-community coalitions or coalitions made up of broad stakeholders, such collaborations enable single issue and community-specific groups to work toward a common goal.

Coalitions across the country have helped ensure that industry is not able to promote economic development and job growth without necessary health and environmental protections. In Southwest Detroit, for example, the formation of the Southwest Community Benefits Coalition is an important step. However, given the influences of industry, high unemployment rate, and low capacity of local government to direct private sector development projects, securing permanent and long lasting benefits will require deep relationships and attention to longstanding issues facing Southwest Detroit's low-income, communities of color. In Gulfport and other right-to-work states where labor has less influence, freight transportation organizing and coalitions rely heavily on environmental justice, community, and other worker rights organizing as well as community-based research and legal strategies.

New coalition organizations such as worker centers are emerging in Chicago and the Inland Valleys that serve to bridge community and labor union interests and focus on workers as community residents as well as laborers. This draws on the resources of nonprofit organizing institutions as well as labor unions. National networks such as the Coalition for Clean and Safe Ports and the Clean Air Task Force also serve as important resources that provide opportunities for capacity building, linked policy development, and organizing strategies.

An overall national network focused on the broad efforts around the goods movement sector can additionally play a role in strengthening local campaigns, providing information sharing tools, such as an interactive web site, providing links to researchers, and enhancing outreach to new constituencies while also expanding media coverage of key issues. Such a network has been requested by participants at the "Moving Forward Together" conferences and efforts to build it are underway. Ultimately, a national network can play a role, with its regional and state counterparts, in changing the discourse around freight transportation to make community, health, environmental, and labor impacts more central in project planning policy.

In addition, through coalitions, community-based organizations have gained access to and engaged support from important technical, legal, and scientific resources. It was a coalition that filed the successful lawsuit against the City of Los Angeles' failure to provide public environmental review over the construction of the China Shipping (North American) Holding Co. Another coalition used a legal challenge to the Los Angeles Harbor Department's limited environmental review of the TraPac terminal expansion and as part of the settlement, secured a \$50 million mitigation fund (see above). In Edgerton, Kansas,

NRDC's lawsuit filed on behalf of the Intermodal Coalition along with the Hillsdale Environmental Loss Prevention (HELP) organization has temporarily slowed the proposed project giving community residents an opportunity and time to educate and organize themselves. NRDC also helped make arguments on behalf of the City of Los Angeles in legal challenges filed by the American Trucking Association to block implementation of the City's Clean Trucks Program.

Coalitions and collaborative organizations are also a vehicle for community organizations to gain access to important scientific research and to inject community knowledge into research. While the complexity and scale of goods movement and port operations require academic scientists, trained lawyers, and the resources of mainstream labor organizations and advocacy groups, grassroots organizing and leadership development must be at the core of building long-term capacity and leadership focused on freight transportation. The policy successes in Southern California reflect how experienced base building strategies tied to coalition building result in strong campaigns and policy change.

## ***Ensuring Health in Decision-making: Power and Policy Innovations***

Despite the ever-growing evidence about the nature of these widespread health, environmental and workplace issues, these findings have not been widely incorporated into policy decisions about expanding the size of ports and the freight transportation system in the United States. Powerful economic and political actors continue to push for expansion of the global trade and goods movement system even as the negative community, environmental, health, and labor costs mount. Decisions by global retail chains such as Walmart are able to dictate the scope and scale of how and where goods are produced and moved. These retailers work closely with and influence powerful shipping, logistics, and other freight companies that in turn influence developers and government decision-makers about expansion of ports and infrastructure. In addition, fragmented regulatory authorities mean that state and local agencies are unable to effectively address ship emissions (regulated at the international level) or locomotives (regulated at the federal level). Interstate commerce laws prevent local and state governments from exercising authority over freight transportation, although numerous legal challenges are underway. Lobbying by the freight transportation stakeholders often results in less strict regulatory enforcement and the use of public subsidies for new infrastructure projects.



Industry's power to frame the debate about freight transportation as an economic engine that creates new jobs has provided policymakers with political cover to override community public health, and workplace concerns about further expansion. With the needs of private interests treated as a public good, the government ends up underwriting goods movement infrastructure at the local, state, and national levels. Lobbyists for the freight industry are especially effective in pressing national legislators into funding new transportation projects. The Center for Public Integrity (CPI) in Washington, D.C. has singled out the work of a group called the Freight Stakeholders Coalition, with 17 national members, to document how this industry maneuvered to influence federal transportation spending.<sup>345</sup> This Coalition includes members from the trucking, ports, rail, road building, retail, export/import, and shipping industries. CPI's investigation found that the members of the Coalition spent \$28.5 million to lobby Congress in the first six months of 2008, much of it on transportation issues. The Center has also examined the road-building lobby, noting that it spent "more than \$65 million on total lobbying expenses last year including paying more than 300 lobbyists to weigh in on federal transportation policy."<sup>346</sup> Included in this group of lobbyists are construction firms, the sand, gravel and cement industries, environmental consultants, the trucking industry and more.

Following President Obama's call for an infrastructure initiative in October 2010, a bipartisan panel of transportation experts recommended major investment in infrastructure projects.<sup>347</sup> The panel included representatives from industry such as the American Association of Railroads, CSX Transportation, Inc., Norfolk Southern Railroad, American Trucking Association, and the American Road and Transportation Builders Association. Public health, environmental, and labor constituencies were excluded from this process. Consequently, the 92-page report, called "Well Within Reach - America's New Transportation Agenda," mentions "health" only once and completely ignores how such a plan would affect noise and air pollution from increased ports, rail yard and highway activity.

At the local level, community residents are faced with an increasing array of goods movement related highway expansion projects, intermodal rail facility growth, the construction of massive distribution centers and never-ending retail stores. They find themselves at odds with development proponents like the Freight Stakeholders Coalition who argue that their projects will be "green" and that they will provide much-needed jobs. Local politicians commonly adopt this "green jobs" frame even when it results in land use policies that put communities at risk and expose workers to economic insecurity.

Nevertheless, successful campaigns and organizing initiatives have resulted in models for injecting health, community, labor, and environmental consideration into goods movement decision-making and simultaneously serving to bring a range of stakeholders together and fuel coalition and movement building. In the section that follows, we present examples of policies that address health, labor, community and environmental considerations in goods movement and that have served as rallying points around which coalitions and local organizations have come together. These examples illustrate the challenges of building capacity, in terms of both knowledge and awareness of issues but also the need to build political power sufficient to influence freight transportation policy and decision-making. We begin with examples in three areas: air quality policies, clean trucks programs and community benefits agreements as successful campaigns that involve coalitions of local and regional groups across the country. We conclude the section with areas where community-based policy campaigns have begun to emerge. Both successful and emerging campaigns recognize the need for strong public policy to ensure that goods movement, decision-making, and projects address the negative impacts on health, community, environment, and labor and that public investment in ports and freight transport systems leads to healthy communities and good jobs.

## Air Quality Policies

Across the country, diesel emissions policies have been adopted by regional and state governments, important steps in using air quality standards to address the negative health impacts on communities. Diesel policy campaigns at the local, state, and national levels, once passed and implemented, are important levers for cleaning the air generally, and for focusing attention on emissions from ports. For example, local and regional groups such as the New Jersey Environmental Justice Alliance and the East Michigan Environmental Action Coalition work closely with the national Clean Air Task Force and its Diesel Cleanup Campaign to push for a 70% reduction of diesel emissions by 2020 through engine retrofits, replacements, and use of diesel fuel alternatives. In 2003, California environmental justice and health groups pushed for and won an anti-idling port truck bill which limits port truck idling to 30 minutes when outside port property. Working together, groups in Southern California pushed for anti-idling programs such as rules approved in 2006 by the South Coast Air Quality Management District (the regional authority for air pollution in Southern California). In Oakland and Richmond, the Ditching Dirty Diesel Campaign has also been engaged in similar policy campaigns related to truck idling.

Groups have worked successfully to influence federal level air policy. Members of the Clean Air Task Force are organized to secure Congressional action to fully fund the Diesel Emission Reduction Act (DERA) which provides the opportunity for fast-acting diesel reduction measures, such as requiring the retrofit of public fleets, but which has lacked adequate funding since its original passage in 2005. These coalition efforts reflect and build on federal agency programs such as the “Credit for Clunkers” Clean Truck Initiative by U.S. EPA to reduce pollution from large trucks with financial incentives to assist with compliance. A provision in the federal Transportation Reauthorization Bill will require and fund the installation of modern pollution controls on diesel construction equipment used on federally funded transportation projects.

At the international policy level, health and environmental advocates have begun to focus on the inadequate and often negative rulemaking involving regulations of ships by the International Maritime Organization (IMO), the United Nations agency responsible for safety and security of shipping and the prevention of marine pollution by ships. Organizing and advocacy efforts focus on how local governments and state regulatory agencies can play a role (albeit voluntary) to reduce vessel speed in port waters. This provides a strategy to reduce pollution for ocean-going ships that come into port that also bypasses the industry-friendly IMO.

Similarly, the focus on regional and state action has sought to address rail issues that often escape federal intervention. This included the 2005 rules adopted by California’s South Coast Air Quality Management District (SCAQMD) that restricted rail idling. As anticipated, the rail industry fought back and challenged the ruling. In September 2010, a federal judge ruled in favor of the rail industry, arguing that SCAQMD could not impose restrictions that interfere with interstate commerce. Environmental justice and health activists are now pushing to develop statewide regulations. In California, community and environmental justice groups have fought to win regulations on port and goods movement operations. See California Air Resources Board for rules such as Cargo handling equipment and vessel fuel rules ([www.arb.ca.gov/parts](http://www.arb.ca.gov/parts)).

The link between energy source and use and emissions has also become a part of the policy arena for activists. As discussed above, this organizing has begun to result in policy advances to protect health. The China Shipping lawsuit in Los Angeles, for example, resulted in electrification of the 176-acre China Shipping Terminal. A new China Shipping Terminal there will also feature electrification. The Port has signed memoranda of understanding with five other shipping lines to implement alternative marine power on vessels and/or their Los Angeles

terminals. The Port of San Diego has also recently approved \$7.6 million to install electrical plug-ins at its cruise-ship and 10th Avenue terminals so visiting vessels can shut down their diesel engines while in port. On the East Coast, the Port of Miami has begun to electrify its cruise ship terminal although no plans are in place to do the same at its cargo port. The Port of Oakland also received a boost for its shorepower plan with a \$5 million grant from the Bay Area Air Quality Management District. The Port of Seattle now requires that cruise ships plug into electricity when docked in the harbor and the Port of Tacoma recent plugged in its first ocean going cargo ship. Environmental and community coalitions in Los Angeles have pushed the San Pedro Bay Ports to implement low sulfur fuel programs targeting shipping lines and terminal operators. The Los Angeles port as well as the New York/New Jersey ports has adopted low-sulfur fuel programs although both are only voluntary.

## Clean Trucks Programs

The adoption of clean truck programs across the country point to important policy innovations that can achieve improved health outcomes simultaneously with labor, environmental and community benefits as well. The Clean Trucks Program adopted in Los Angeles, for example, represents an innovative approach to ensure health outcomes through an employment strategy. The approval of the policy reflected the breadth and power of a multi-constituency-based coalition and campaign. The campaign and the policy has become an important national test case for the degree to which such policies will face opposition, and for assessing the level of skill, capacity, resources, and power it takes to win - and implement - the program.

The Clean Trucks Program was approved as a key piece of an earlier adopted policy the Clean Air Action Plan (CAAP). In 2006, the Ports of Los Angeles and Long Beach, adopted the CAAP as the first clean air emissions policy by port authorities in the United States; it was also one of the first times that the two competitive ports in Southern California have partnered on any endeavor). In addition to requiring the development and implementation of a clean trucks program, the policy requires that all new projects meet a residential cancer risk threshold of 10 in 1 million, a goal the ports can only achieve through the use of cleaner equipment and vehicles. Some of the freight industry players, especially the railroads, have strongly opposed key CAAP goals.

The adoption of the Clean Trucks Program in Los Angeles in 2008 as a key program of the CAAP marked a historic and pathbreaking win for port truck drivers and members of the Coalition for Clean and Safe Ports. For the port drivers, the successful campaign,

led by the Teamsters and joined by other labor unions and immigrant labor groups, directly addressed the trucking system put in place with the deregulation of the industry in the 1980s that required independent truck drivers to bear the burden of all maintenance and upkeep for trucks that cost over \$100K, along with Port fees, licensure, fuel and other costs of doing business at the Port. In Los Angeles, truck drivers - who owned and operated their own trucks and must compete individually for hauling jobs - net less than \$30,000 annually.<sup>348 349</sup> By adopting a Clean Trucks Program that includes an employee concession model as a key aspect of its implementation, the Los Angeles Harbor Department saw the need to improve air quality by replacing port trucks and recognized the importance of putting the cost of doing business at the Port on port trucking firms rather than individual truckers. As employers, trucking companies must now shoulder the costs of the clean air program instead of the individual truck drivers. Moreover, as employees, truckers now have the right to organize.

The policy was immediately met with opposition from the American Trucking Association (ATA) that filed an injunction blocking the implementation of the employee concession element of the Program from moving forward. The Coalition stepped up its support for the Mayor and the Harbor Department's decision and organized to generate support for the Program.

In August 2010, a federal court judge cleared the way for full implementation of the Program but an appeal filed by the ATA put yet another stop to the implementation of the policy. The judge ruled that the program could be implemented during the appeals process except for the employee concessionaire component that continues to be held up in the legal process. The legal tug of war and the inability of the City of Los Angeles to implement the full program has put additional burdens on the truck drivers who are now required to retrofit their trucks but without any means to do so. As a result, port drivers are foregoing necessary maintenance on their trucks because they cannot afford the costs.

In New York/New Jersey, the Coalition for Healthy Ports built a campaign around the Los Angeles model and participated in the Port Authority's Truck Working Group to develop the clean trucks program. With the legal challenges to the Los Angeles program however, officials balked. Instead a new version, the Regional Truck Replacement Program, contained only a ban of 1994 and older trucks (Los Angeles' plan bans 2004 and older) without the attendant concession system that would require trucking firms to hire drivers as employees. With \$7 million of ARRA funds (a grant from the U.S. EPA to the Port Authority) and an additional \$23 million of its own funds, the Port Authority set up a loan program for drivers to make

the required retrofits to get the estimated 640 old trucks off the road. According to Amy Goldsmith, an organizer with the Coalition for Healthy Ports, most drivers are not eligible for the loans due to restrictive loan criteria and only ten have received one. The ban went into place on January 1, 2011 and many drivers are expected to be out of work as a result. One advocate argued: "There will be no diesel relief, no driver relief, and no community relief. The Plan is a low-road loan model that will have an outcome far worse than what existed before."<sup>350</sup>

Clean trucks program advocates argue that the use of public funds to give loans to drivers will push drivers into financial crisis adding expensive loan payments when they are barely making ends meet and which does nothing to clean the air.<sup>351</sup> This has been the case in Oakland where a similar loan program has been put in place. In a recent survey of drivers who participated in a loan based program in Oakland, 25% of port truckers that participated in the Port of Oakland's financing plan have either filed bankruptcy, lost their home to foreclosure or been evicted.<sup>352</sup> Further, the Port Authority of New York and New Jersey expects its similar loan program to have the same kind of negative impact on drivers with a predicted 1 in 5 default rate. As part of a national legislative strategy, the Coalition for Clean and Safe Ports pushed for the introduction of a Congressional bill, the Clean Ports Act of 2010, to amend the Federal Motor Carrier Act to allow ports to enact and enforce clean truck programs and implement environmental programs above the current federal requirements. The bill was first introduced in July 2010 by Rep. Jerrold Nadler (D-NY) along with 57 co-sponsors; the bill was reintroduced in February 2011 as a way to maintain federal level attention on issue of misclassified drivers and the need for increased authority at the local level.

Adoption of the Clean Trucks Program in Los Angeles reflected the coming together of oft-competing groups - labor, mainstream environmentalists, environmental justice, faith based, and civil rights organizations - all aligned around the fight for good jobs and clean air. The coalition and the policy win also represents an example of what could happen if movements and public officials align and if movements help public officials hold steadfast to key positions and policies. Moreover, the win established a national policy model for other social movements and policymakers in Port and inland communities impacted by global trade and goods movement.

These alliances are critical to counter powerful industry interests who have challenged the health protective policy at every step. Across the country, the campaigns for clean trucks illustrate the challenge and also potential of achieving policy wins at the local as well as national scales. As the policy continues to be



tested in the courts, regional clean trucks campaigns continue to seek to develop the most effective program and policy implementation. Lessons from the Clean Trucks campaign in Los Angeles point to the important role of environmental justice organizations as able to provide the important link between labor and environmental goals with community and health goals in labor-community campaigns. Additionally, the presence of committed labor organizations in coalition with community, environmental justice and health groups, created a community-based yet regionally and nationally powerful coalition able to withstand divide-conquer strategies from opponents of the trucks program.<sup>353</sup> Yet, political pressure by industry along with legal challenges waged by the American Truck Association has resulted in policymakers defaulting to clean trucks programs without the important but contested employee concession element.

The Los Angeles program, therefore, has had mixed outcomes. More than 9,000 2007 compliant trucks are now registered to move in and out of the ports and an emissions inventory conducted in 2009 showed a 50% reduction in truck-related emissions due to the initial implementation of the program as well as the 2008-2009 recession.<sup>354</sup> At the same time however, without the employee requirement, the burden to retrofit and maintain these trucks falls to low-wage earning truck drivers, leaving the program in an unsustainable place.

## Project Mitigations and Community Benefit Agreements

Combining community organizing and coalition strategies to secure legally binding, project related community benefits agreements has resulted in progressive policies and precedents for securing health, environmental, community and labor protections in goods movement projects. An example from the late 1990s in Southern California was the successful efforts of the Alameda Corridor Job Coalition formed to secure benefits from the \$2.4 billion construction of the 20-mile long Alameda Corridor Rail project that built a below-grade rail line connecting the Port of Los Angeles to the rail intermodal train traffic network near downtown Los Angeles. The Coalition negotiated with the Alameda Corridor Transportation Authority to secure a local hiring agreement for construction of the rail project and also funds for community-based organizations to recruit and train residents for entry into pre-apprenticeship and apprentice training in the construction and building trades.

In 2002, NRDC on behalf of community and environmental groups in Los Angeles filed a lawsuit against the City of Los Angeles and Harbor Department for failing to comply with California's Environmental Quality Act (CEQA) when it reviewed the proposed

expansion of the China Shipping terminal at the Los Angeles port. The final settlement a year later required the Port to establish a \$50 million fund to mitigate the impacts of Port operations in the community and commit to specific steps to address pollution at the new terminal and among other alternative fuel and technological goals, provide electric power for ships berthed at the China Shipping terminal.<sup>355</sup>

Five years later, despite strong community, environmental and health criticism of an inadequate CEQA review in measuring the environmental and community impacts of the proposed expansion, the Port of Los Angeles Harbor Commission approved the TraPac project. The proposal sought to build out the terminal and expand volume to a level equal to the current operations of the Port of Oakland, the fourth busiest container port in the United States. At build out, the terminal expansion would increase ship calls by 30% and add 1,800 daily truck trips.<sup>356</sup> With NRDC's assistance environmental justice, resident, environmental, labor, public health and community groups submitted a letter to the City Council seeking to appeal the Harbor Commission's decision.

The coalition that came together around the appeal worked together to develop a community-based settlement that proposed establishment of an independent nonprofit that would administer an off-port mitigation fund. This would be financed through fees related to future expansion projects and provide over \$50 million in off-port property community mitigation projects such as: the installation of air purification and sound proofing systems in public elementary schools and residents' homes, public respiratory health care services at local community clinics and health services providers, studies of off-port property impacts on health and land use, off-port property impacts on public safety, traffic, aesthetics, light glare, recreation and cultural resources and potential wetlands restoration projects in Wilmington and San Pedro. After much negotiation, the City of Los Angeles and the Port of Los Angeles agreed to the settlement in 2008. In his blog about the Port Community Mitigation Trust Fund, NRDC's Adrian Martinez writes, "...people would have thought pigs would fly before community, environmental and port leadership would work together to mitigate harmful impacts from port operations."<sup>357</sup>

In Detroit, the Southwest Detroit Community Benefits Coalition formed to secure community benefits related to building new freight transportation infrastructure. The Coalition was formalized in 2007, four years after community organizations had begun discussions about how to ensure community needs were met by development in Detroit and focuses in three areas: transportation (e.g. tunnel and rail projects), weatherization (e.g., community-benefits

in construction and building retrofits), and food delivery (e.g., creating greater neighborhood food options).<sup>358</sup> A primary target is the New International Trade Crossing (NITC), the international bridge crossing between Detroit and Windsor, Canada. Much of the organizing focuses on state level decision-making since U.S.-based administration of the bridge lie with the Michigan Department of Transportation and the U.S. Federal Highway Administration.

Through project-specific mitigation settlements and community benefit agreements, local communities and workers have been able to leverage benefits out of port expansions and freight transportation projects. However, benefits agreements and project mitigations often do not address the root cause of the conditions communities and workers seek to mitigate. As an example, the TraPac mitigation fund provides an impressive \$50 million toward much needed health protective retrofit projects in communities. Continued funding, however, relies upon increased growth of freight at the port. Nevertheless, organizing around the community benefits agreements and project settlements have brought together important groups to raise health, community and labor considerations in decision-making, an important movement building approach that has the potential to shift power and policy in the long-term.

## Emerging Policy Campaigns

In addition to successful integration of health into air policies, clean trucks programs, and project mitigation agreements, there are a number of areas where health, labor, community and environmental organizations and coalitions have begun to make connections between goods movement and broader issues.

### Military base re-use and redevelopment

At local levels, local organizing and advocacy groups have begun to address planning related to ports and military facilities. Similarly, community groups and local government have begun organizing to influence the redevelopment planning of the former Oakland Army Base. In the case of Oakland, the redevelopment process has provided an opportunity for residents to engage in port development policies and planning. In some cases port planning overlaps with redevelopment planning as in the case of the March, Norton, and Edwards air bases (located in Southern California). However, newly elected California Governor Jerry Brown has proposed the elimination of the state's redevelopment agencies, making it unclear about the future of redevelopment in California cities. In Joliet, Illinois, organizers are looking at redevelopment opportunities as an opening to secure legal employment standing for warehouse workers.

## Alternative energy efforts

Campaigns to electrify rail and ships have yet to emerge at the national level, although local groups have built such demands into their campaigns. In Los Angeles, the campaign to halt the rail expansion projects includes an alternative to electrify and utilize the publicly owned Alameda Corridor rail corridor to its full capacity before building additional rail projects. Groups such as the Coalition for a Safe Environment (Wilmington CA) and the Interfaith Community Organization in Long Beach have advocated for Magnetic Levitation (MAGLEV) trains as viable options for consideration, and the Port of Los Angeles has committed to a test project with this technology.

## Natural resources

Emerging campaigns and focus on the effect the shipping industry has on coastal and inland waterways. In early March, 2011, due to pressure by environmental and conservation organizations, the U.S. EPA announced that it will issue a new permit to U.S. shippers regulating ballast water discharges from commercial vessels. The discharge of ballast water is the prime source of invasive species that have negatively affected local and regional ecosystems. For example, ballast water from ocean-going ships has contributed to the 185 invasive species now living in the Great Lakes.<sup>359</sup> The agreement settled lawsuits brought by NRDC, Center for Biological Diversity, the National Wildlife Federation, and many regional environmental organizations that challenged the legality of EPA's existing permit.<sup>360</sup> Although the legal and advocacy efforts to address the impacts of freight transport on water and natural resources are not new, there is little engagement between these environmental campaigns and public health and social justice efforts.

## Climate policy

In California, AB 32 set in motion a process of land use planning requiring regional planning organizations to implement plans that reduce the vehicle miles travelled by cars and light trucks as a way to reduce greenhouse emission. Although the focus on land use planning to reduce greenhouse gas emissions does not include emissions from the transport of freight in heavy-duty trucks, AB 32's implementation has major implications for communities that are already disproportionately impacted by freight transport. There have also been efforts to consider funding for diesel black carbon reductions as part of federal climate legislation. Although climate change legislation at the national level is now in hiatus, this topic is an important arena for advocacy, education, and future campaign initiatives.

## Land use and health

The connection between land use, the environmental and public health is also becoming part of an emerging policy landscape. One of the country's first known buffer zones to separate sensitive uses (homes, schools, hospitals, etc.) and goods movement facilities was adopted in 2002 in Mira Loma, CA, then an unincorporated section of Riverside County where distribution centers were under development. The community-based group Center for Community Action and Environmental Justice (CCA EJ) worked with a regional air quality task force to encourage adoption of a 1000-foot buffer zone, which was later included in "good neighbor" guidelines adopted by the regional council of governments. In 2005, CCA EJ was successful in urging Riverside County to pass truck routing and parking regulations to address the large volume of trucks in residential areas. Using the buffer zone policy as a guideline, the planning commissioners voted to unanimously deny any new warehouse project proposal near sensitive receptors, resulting in 700 acres of land removed from industrial development.<sup>361</sup>

Organizing by the Environmental Health Coalition in San Diego led to National City becoming the first city in California to adopt an environmental justice element into its general plan. The plan includes for example, important language to create buffer zones: "... Create adequate distance separation ... between sensitive receptor land use designations and potential identified sources of hazardous substances such as freeways, industrial operations or areas such as warehouses, train depots, port facilities, etc."

The Clean Up Green Up campaign in Los Angeles seeks to establish "green zones" in environmental justice communities to require stepped-up enforcement and investment priorities to address the existing toxic burden in certain neighborhoods and facilitates new green business development. The campaign includes groups working on port and freight transportation who recognize the role of land use to address mobile and stationary sources of pollution. In Richmond, CA activists successfully organized to get the City to adopt a Health Element in the City's General Plan, as a guiding framework for all project and planning decision-making throughout the city.

## The Shifting Landscape of Federal Policy

The Clean Ports Act of 2011 (see also a discussion of Clean Trucks programs above) illustrates an important coalition-led strategy to win federal level policies to ensure health, labor, and community consideration in goods movement. In the economic and political climate facing the 2011-2012 Congress, advancing health, labor, environmental and community protective

policies and programs will be difficult but there are openings and possibilities including the following:

## Federal Transportation Reauthorization Bill

Ports and goods movement campaigns have begun to focus on legislation, federal programs, and regulatory requirements and will have impact on policies and funding streams at the state, regional and local levels. The Federal Transportation Reauthorization Bill as well as the "Focusing Resources, Economic Investment, and Guidance to Help Transportation Act of 2010," (S.3629) also known as the FREIGHT Act, was introduced in the Senate last year. A similar FREIGHT Act was also introduced in the House (H.R.5976). In addition, the Freight Rail Infrastructure Capacity Expansion Act (FRICEA) (H.R.1806) proposes tax incentives for improvements to freight rail infrastructure. This includes projects such as intermodal facilities and terminals at ports. The Senate Environment and Public Works Committee have begun hearings on federal Transportation Reauthorization and bills are expected to move through Congress in 2011, either separately or part of the omnibus Federal Transportation Reauthorization Bill. This new timeline has pushed health, community, and labor advocates to develop campaigns at the federal and state level in order to influence decision-making about funding criteria and priorities.<sup>362</sup>

## The Interagency Task Force on Environmental Justice and Plan EJ 2014

The White House's Council on Environmental Quality recently re-established the Interagency Task Force on Environmental Justice that includes U.S. EPA as well as the Department of Transportation, Department of Housing and Urban Development, Labor, Health and Human Services, Commerce, and others. This renewed focus on environmental justice at the federal level creates openings for integrated and comprehensive policy approaches that could support local and governments to address the health and environmental risks of goods movement.

The U.S. EPA also recently adopted its "Plan EJ 2014" as the overarching way to "expand the conversation on environmentalism and work for environmental justice." The goals of the plan are to: 1) protect health in communities over-burdened by pollution; 2) empower communities to take action to improve their health and environment; and 3) establish partnerships with local, state, tribal and federal organizations to achieve healthy and sustainable communities. The Plan EJ 2014 plan supports the recommendations made by the National Environmental Justice Advisory Committee (NEJAC) Goods Movement Work Group (GMWG) that address local and regional health, community, labor and



industry concerns. The group's 2009 report<sup>363</sup> directly addresses the environmental, public health and quality-of-life impacts of goods movement and includes recommendations on land use (buffer zones), funding priorities, alternative fuels and decision-making about siting, in particular looking at what U.S. EPA has authority to do.<sup>364</sup> The GMWG recommendations were adopted by NEJAC, and the report has been forwarded to the head of U.S. EPA, Lisa Jackson. Some of the recommendations have begun to be implemented, but much more work needs to be done.

## Policy Capacity for Change

Because the goods movement policy debates are framed primarily as economic development and job creation approaches, negative impacts on health, labor, community, and environment continue to be seen only as externalities. However, the groups profiled above have made significant advances to insert these issues into policy debates and decision-making at the local, regional and state levels. Achieving health, labor community, and environmental protections in goods movement decision-making however, also requires federal level policy. The powerful industry challenges to local and state policy advances described earlier in the report illustrate this point.

Organizing and advocacy groups as well as researchers and local and state legislators will need to engage nationally with others like them working to incorporate health considerations into decision-making and develop effective and influential strategies to engage in national level debates and decision-making. As our cases illustrate, there will be considerable challenges in the face of powerful industry interests. For example, federal funds for port dredging and expansion projects at the Port of Miami, the Charleston Harbor, and the Port of Savannah were not included in the President's proposed budget for 2012-13.<sup>365</sup> Although negotiations over the budget will likely yield changes in proposed funding, health, labor, community, and environmental coalitions face considerable challenges influencing these decisions given the unequal playing field that tilts toward industry. As our examples illustrate, influencing these national policies along with state, regional and local level planning, policy and project decision-making will require continued and expanded integration of research on the health impacts of freight transportation, widespread community organizing, deeper and more extensive coalitions, and a political will to push for progressive rules and policies.

While much attention focuses on injecting health and environmental agendas into freight transportation and ports policy, organizers also see ports and goods movement policy as a means to achieve clean air

and healthy communities in a context where other health and environmental policies may not exist. In regions where there are large port complexes and where air pollution substantially results from ports and goods movement activities, changing ports and goods movement policy may be the most efficient way to achieve environmental goals such as improving air quality. At the same time, groups that primarily focus on freight transportation issues find themselves seeking to develop policies limited to a specific issue related to separate environmental, health, community, or labor agendas. The key - and challenge - is integrating the efforts together into common policy campaign and longer-term movement. When that happens, strong organizing and coalition efforts result in notable policy interventions and innovations that forge health, community, environmental and labor considerations into goods movement policies and decision-making.







## Part III: Moving Forward Together: An Agenda for Change



In order to build the capacity of the groups, organizing, and policy innovations that have been described and effectively change how the global trade and freight transportation issues are being framed, several key areas for action emerge. Organizers, researchers, advocates, funders, and policymakers each have a role to play in advancing action in these areas in order to ensure that health, labor, environmental and community considerations are addressed in freight transportation.

### ***Ensure public notice and participation policies***

Across the regions, public policies related to public notification and participation have varied widely. In places like Savannah, Charleston, and Miami, port authorities do not make use of the internet to make their agendas available online or post meeting notices and minutes. Without easily accessible information, communities may be unaware of proposed projects and the impact on their health and communities. Some ports, such as New York and Los Angeles (through its Port Community Advisory Committee), have institutionalized a formal community advisory committee, comprised of residents, businesses and other stakeholders, that meets regularly and provides input to the governing body of the Port. The Ports of Los Angeles and Long

Beach both videotape their Harbor Commission meetings and have agendas, searchable transcripts and videos online for the public to view.

### ***Connect local organizing to regional organizing***

The system of freight transportation directly impacts adjacent neighborhoods and port communities but also impacts communities along freeways that serve as freight corridors, near rail yards and rail lines, and near distribution centers and warehouses. Organizing, research and funding at the regional level captures the relationship between Port communities with the broader impacts of goods movement and the relationship with freeway, rail yard, and distribution center development. For example, organizers in San Diego utilize a regional framework that enables them to link their neighborhood organizing work in Barrio Logan to trucks that cross the Mexican border. In Southern California, environmental justice and warehouse worker organizers in Riverside and San Bernardino counties are forging links with Los Angeles-based organizations as a way to confront a regionally defined system of goods movement that sets a broader common agenda. For those organizing in small Kansas towns like Gardner and Edgerton, where a new rail yard is proposed to be built soon, organizing regionally will enable local efforts to coalesce with other resources and organizations



in Kansas City, who may have experience working on issues related to the nearby Argentine rail yard. Similar regional issues exist for areas like Chicago where organizers face the challenge of bridging bridges between newer suburban warehouse workers with inner city rail yard workers in Chicago's urban core.

### ***Strengthen, expand, and link national networks and international ties***

Freight transportation and the logistics industry rely on distribution and consumption that is both national and global in scale. Organizing and influencing this system requires not only an integrated regional approach, but also a parallel national advocacy network of public health, environmental and social justice, and labor advocates. A national network has emerged from the "Moving Forward Together" conferences (2007 and 2010), sponsored by USC and THE Impact Project. The "Moving Forward Together" conferences also helped identify important international connections that can provide linkages to share information and establish shared approaches around specific campaigns and larger change agendas. For example, community groups in Australia are fighting a large intermodal facility in Liverpool and the heavy volumes of truck traffic through residential communities near Melbourne. See Appendix for contact information and organizational websites.

Strengthening this network will provide an important national scale vehicle for continued information sharing, strategizing, research, and resource sharing across a wide range of constituencies interested in and concerned about freight transportation in their communities. Other national network organizations such as the Clean Air Task Force serve as important vehicles for local and regional organizers and advocates to strategize about issues such as diesel pollution and climate change. The labor-anchored Coalition for Clean and Safe Ports represents a unique national coalition focused on implementing the successful clean trucks program in port communities across the United States. These national organizations provide important technical and policy support and serve as critical organizational infrastructure for local and regional organizing and advocacy to achieve scale in terms of influencing national policy. The Natural Resources Defense Council's air office in Santa Monica, CA provides significant legal and technical support to Los Angeles groups and selected ports/rail communities around the country. Building a national network focused on port and freight transportation will complement efforts by these national organizations.

### ***Strengthen and expand research on health and environmental impacts***

An increasing number of studies link adverse health and environmental impacts with freight transportation activities. More research in this area needs to be conducted, particularly around rail yard emissions, (where there have been few studies to date), on the health effects of noise, on the potential reproductive effects of exposure to diesel exhaust, on air toxics in diesel exhaust, on ultrafine particles, and on the range of chronic diseases linked to air pollution exposure. In addition, community-university partnerships serve as important vehicles to integrate public health research with advocacy, organizing, and policy campaigns. These partnerships provide important research, organizing, and advocacy infrastructure. Examples of engaged academic institutions include:

- **The Detroit Community-Academic Urban Research Center (URC)**, a collaboration of the University of Michigan Schools of Public Health, Nursing, and Social Work, the Detroit Department of Health and Wellness Promotion, and eight community-based organizations in Detroit which focuses on asthma as well as freight transportation and international trade between United States and Canada.
- **The Center for Urban Economic Development (CUED) at the University of Illinois at Chicago (UIC)** provides technical and research support to Warehouse Workers for Justice to examine the trends of logistics industry jobs and the impacts of the expanding warehouse industry has on workers.
- **The Center for the Urban Environment at Thomas Edison State College, New Jersey**, works with the New Jersey Environmental Justice Alliance and other groups in Newark and New York on issues involving the ports.
- **Loma Linda School of Public Health** recently began a study of the health of several thousand residents living near a large freight rail yard in San Bernardino, CA, in conjunction with a community-based organization.
- **The Labor Education Center, Rutgers University, New Jersey** conducts research on the impacts of deregulation on truck drivers and on other labor issues.
- **The Southern California Environmental Health Sciences Center & Children's Environmental Health Center, based at the Keck School of Medicine of USC** conducts studies on the health effects of air pollution, including in goods movement communities and in close

proximity to highways. The Centers include a community outreach and engagement program that focuses on ports and goods movement issues and coordinates THE Impact Project.

- **The Southern California Particle Center based at UCLA**, in conjunction with several community-based environmental justice groups in Southern California, studies the toxicity of particles emitted from equipment at rail yards in Commerce, West Long Beach, and San Bernardino.
- **The University of Medicine and Dentistry of New Jersey's Environmental and Occupational Health Sciences Institute** works with a community-based organization in Newark, NJ on a study of triggers for asthma in children, including diesel soot.
- **The University of South Carolina's Department of Epidemiology and Biostatistics and Institute of Families in Society** works closely on environmental justice issues with community-based organizations in Charleston, SC.
- **The Urban & Environmental Policy Institute at Occidental College** in Los Angeles conducts community-based research and facilitates linkages between labor, community, environmental and social justice organizations, funders and policymakers, and is also a partner in THE Impact Project.
- **The University of Washington's School of Public Health** is engaged with community and labor organizations on a study of diesel trucks and exposures to air emissions.

These forms of collaborations will be critical for deepening the levels of research, organizing, and advocacy necessary to move forward health protective public policies related to goods movement.

***Forge and promote public policies that integrate community and worker health protective measures into freight transportation planning and project approval***

Comprehensive methods of environmental assessment need to become part of all freight transportation projects and planning. Environmental Impact Reviews/Statements (EIRs and EISs) and Environmental Assessments (EAs) should be required to include comprehensive assessments of all health-related impacts as well as environmental impacts. Assessment tools such as Health Impact Assessments (HIAs) are promising approaches for assessing comprehensive environmental and health impacts. Environmental justice organizations and public

health advocates in Southern California have been successful in getting the California State Department of Transportation to agree to include an HIA to assess impacts of the widening of the I-710 Freeway, a major goods movement corridor in Southern California. Meanwhile, the U.S. EPA (Region 9) is proposing the use of an HIA at the Port of Los Angeles. A group called Human Impact Partners is engaged in both of these efforts, conducting the I-710 expansion project's HIA and conducting scoping for a possible Port HIA.<sup>366</sup>

HIAs are a step toward "Health in All Policies" (HiAP) - an approach to policymaking being advocated in many European countries and by many progressive health departments in California. HiAP urges finding opportunities to add a health lens in public policy and program development and to increase collaboration across agencies and with communities. HiAP is an all-inclusive approach to policymaking that would promote healthy communities and ensure that "health" is considered in all transportation policies.<sup>367 368</sup>

Identifying all health impacts is the critical first step in evaluating risks and the negative impacts of freight transportation. Addressing them will require innovations in technologies and policy requirements and incentives to "clean-up and green-up" the facilities and operations that have operated for decades along with proposed and future projects. Government policies and programs must certify, pilot and promote these technologies to address existing pollution as well reduce future risk.

***Increase local government capacity***

Cities across the country face enormous economic and budgetary challenges. The result has been layoffs, furloughs, and elimination of environmental and regulatory enforcement programs. New partnerships with the nonprofit sector, when deeply rooted in the public sector, can provide local authorities more tools and resources to address health and environmental impacts of goods movement. In the City of Commerce, CA, for example, members of East Yard Communities for Environmental Justice successfully urged the City Council to adopt an environmental justice resolution and an Environmental Justice Task Force. Further north, in the City of Richmond CA, organizing and policy advocacy led by the Richmond Equitable Development Initiative (REDI), pushed that City to include a specific Health Element in its General Plan. In December 2006, The California Endowment - through Policy Link, a national research and policy organization - awarded the City of Richmond an initial \$255,000 grant to develop a Health Policy Element for the General Plan. By including a specific Health Element in the General Plan, city officials and the residents of Richmond have the opportunity to assess the health impacts of all of the major development projects.

## *Broaden and strengthen the movement*

In order to challenge the way goods are moved throughout the country, organizers and advocates must be able to connect and deepen the relationships between a wide range of constituent groups in order to build a broad-based movement that links health, labor, and environmental aspects of goods movement. As a system, goods movement represents a “maypole” around which many other issues can be linked and organized: public health, environmental justice, consumer rights, consumerism, community and economic development, regional planning, climate justice, land use, housing and transportation, and food security. At the national scale, “connecting the dots” across movements can integrate health, environment, community, and labor, and bring discussions of climate change, smart growth, sustainable food systems, regional transportation planning, and health to the goods movement discussions and decision-making.

In sum, this report has been designed to demonstrate how efforts to incorporate community, environmental, health, and labor issues into the global trade and goods movement discussions about policies and impacts are crucial. There is a growing movement of people and organizations across the country that are concerned about the health of their communities that has taken steps to reframe the debates and change the ways that global trade moves throughout the United States. These groups have forged and pushed for important policy solutions. However, without continued growth and power of engaged community, labor, health, and environmental interests across the country, these new rules and policies for ports and freight may fail to address the critical health needs facing communities along the entire system of trade. These efforts are now at a crucial juncture, requiring greater awareness about the importance of the agenda for change that extends at each point along the global trade and goods movement system’s pathways.







## Appendices



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#### **Sierra Club, Miami Group and Manatee-Sarasota Group**

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<http://florida.sierraclub.org/sarasota>

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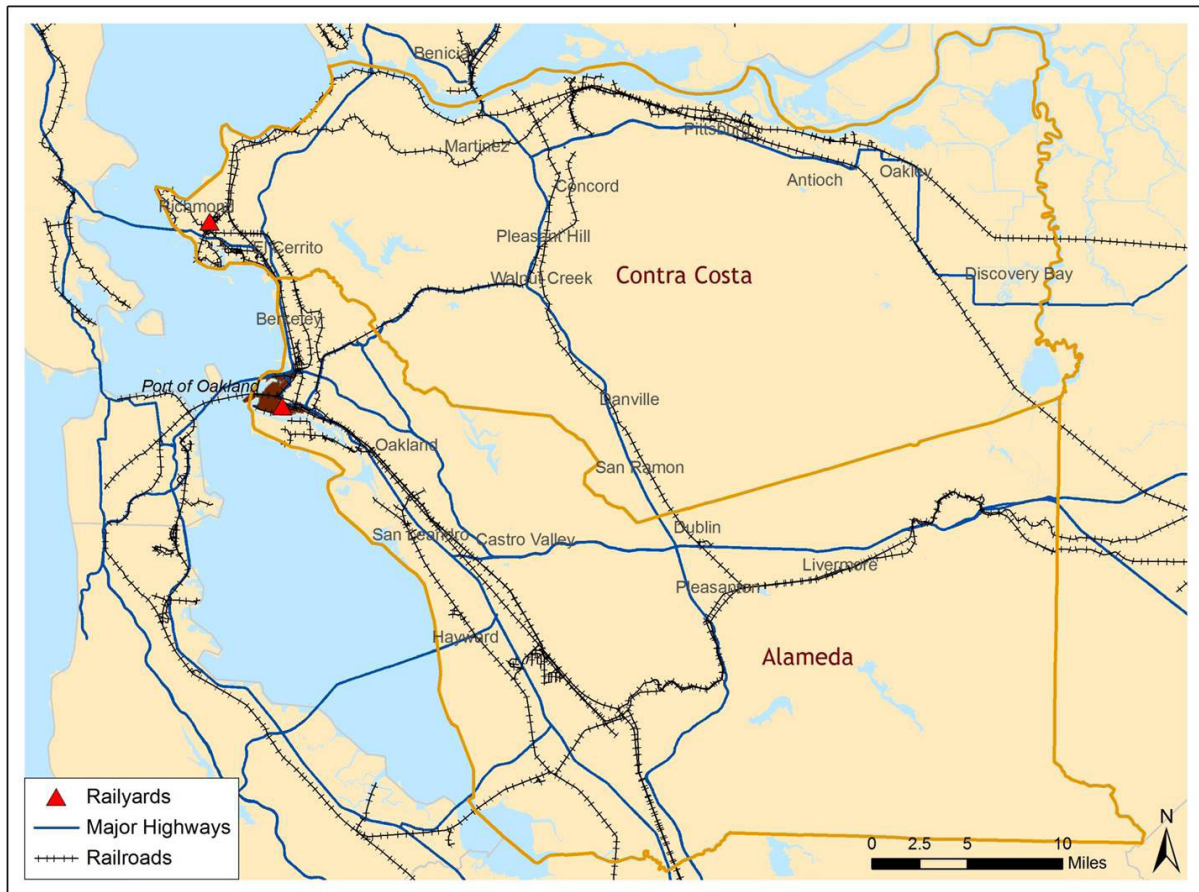
*Charlottesville, Virginia*

<http://www.southernenvironment.org>

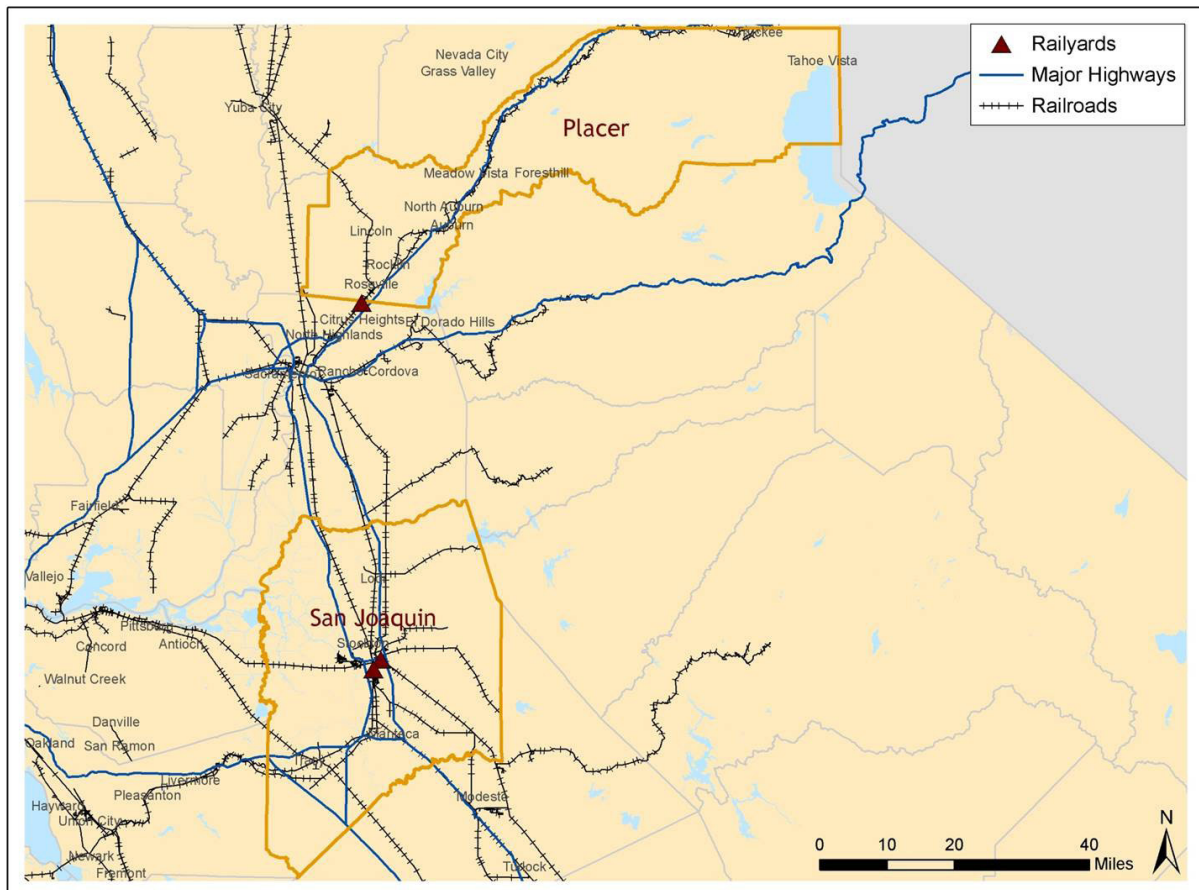


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Oakland/East Bay, California Map



Central Valley: Stockton, California Map

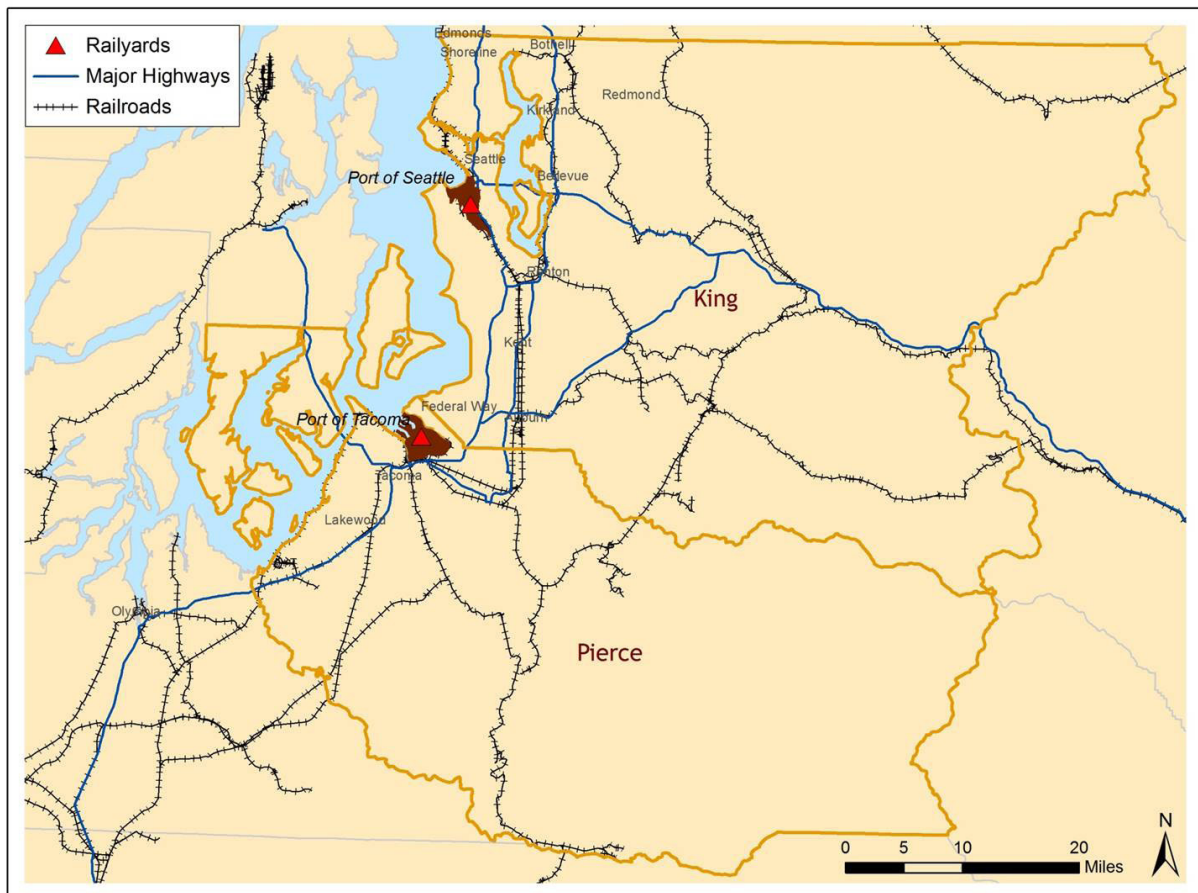




## San Diego, California Map

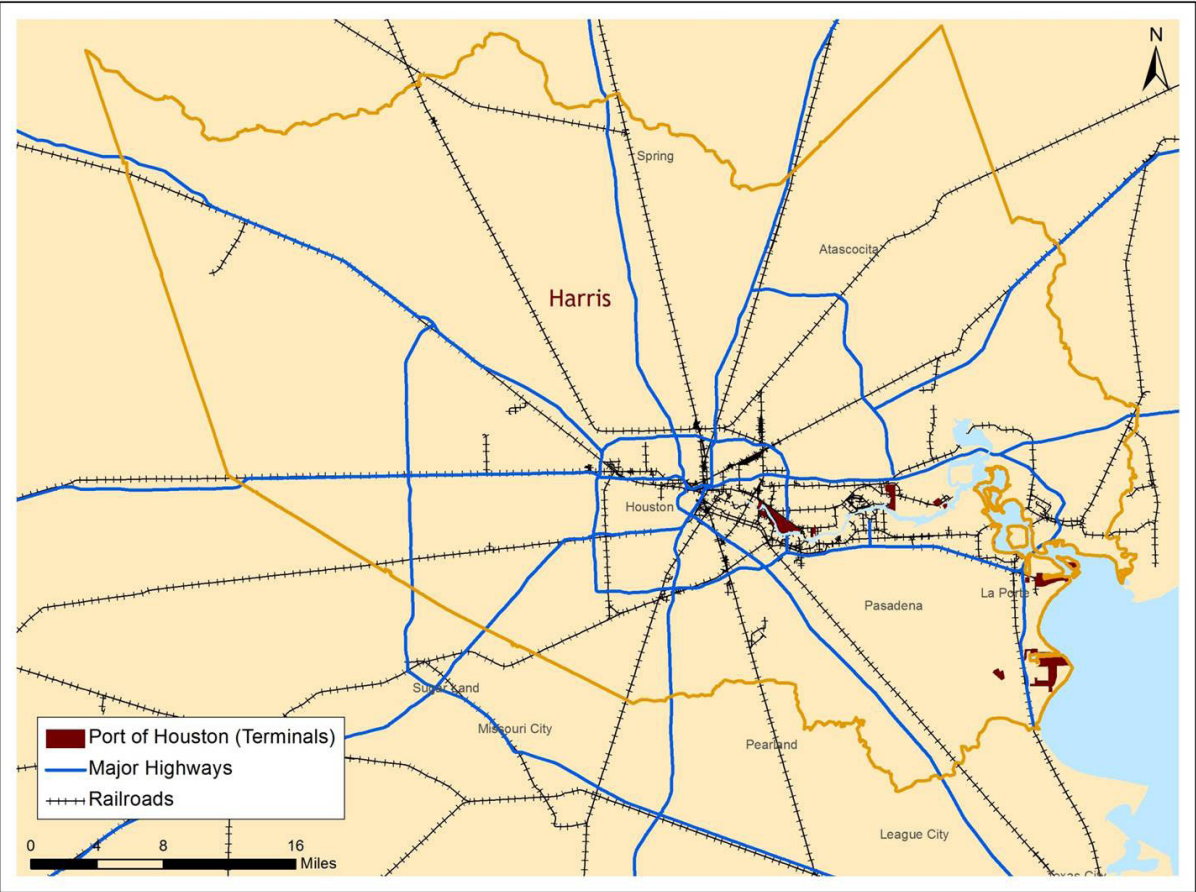


## Seattle and Tacoma, Washington Map





Houston, Texas Map



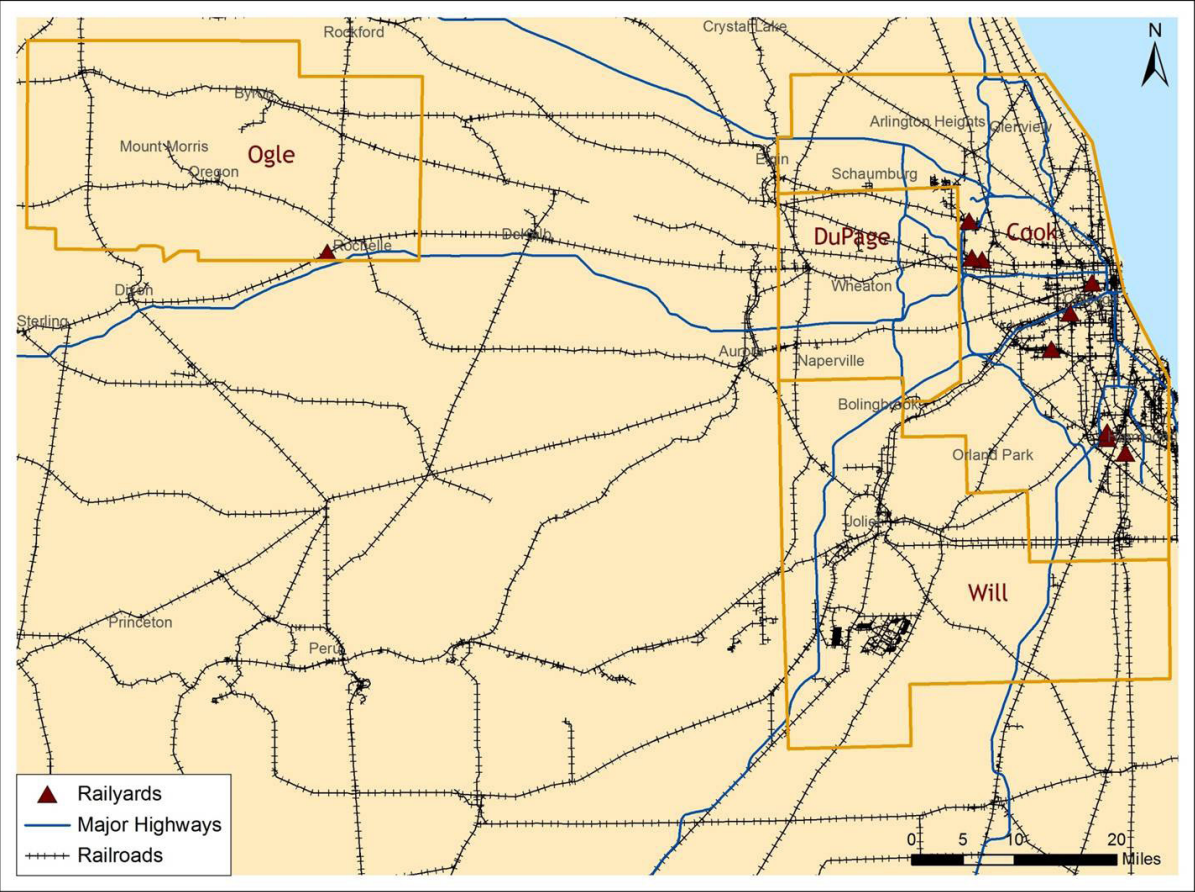
Gulfport, Mississippi Map



Detroit, Michigan Map

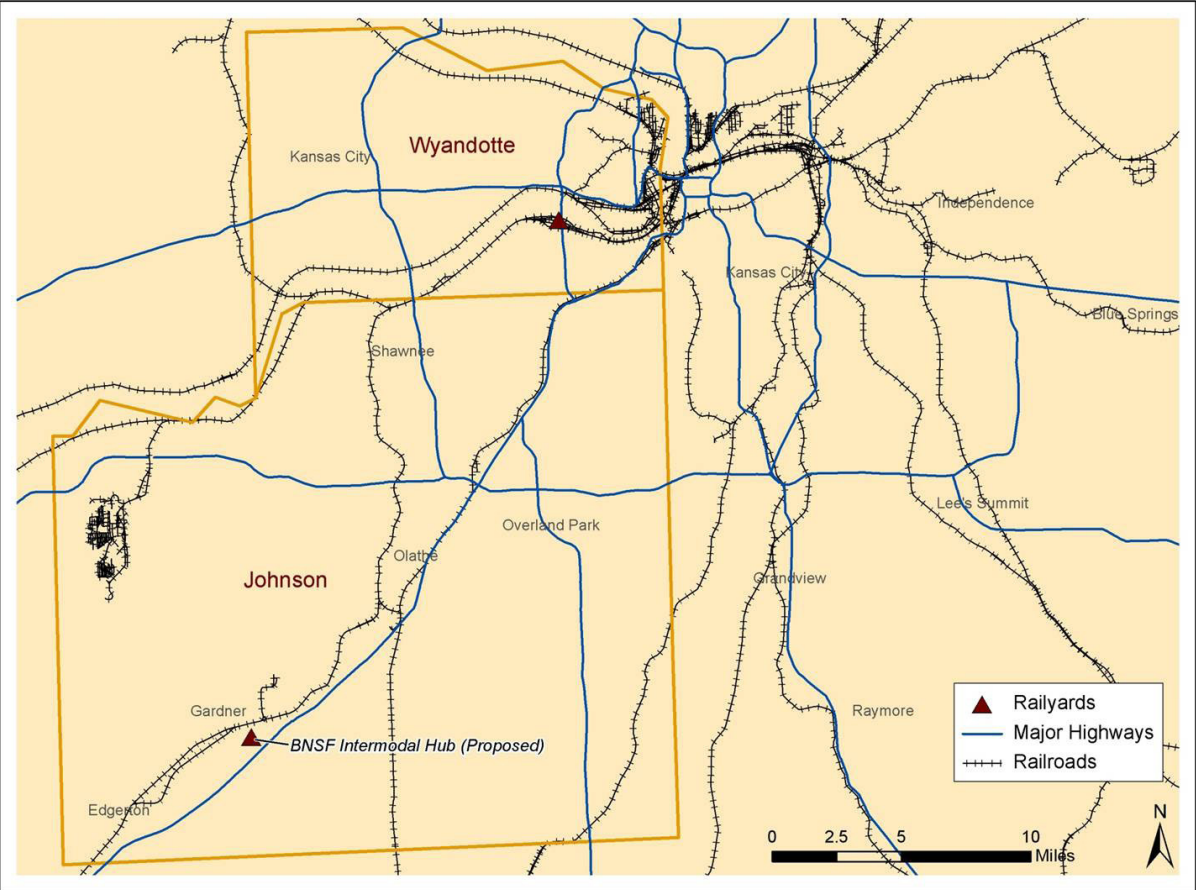


Chicago, Illinois Map

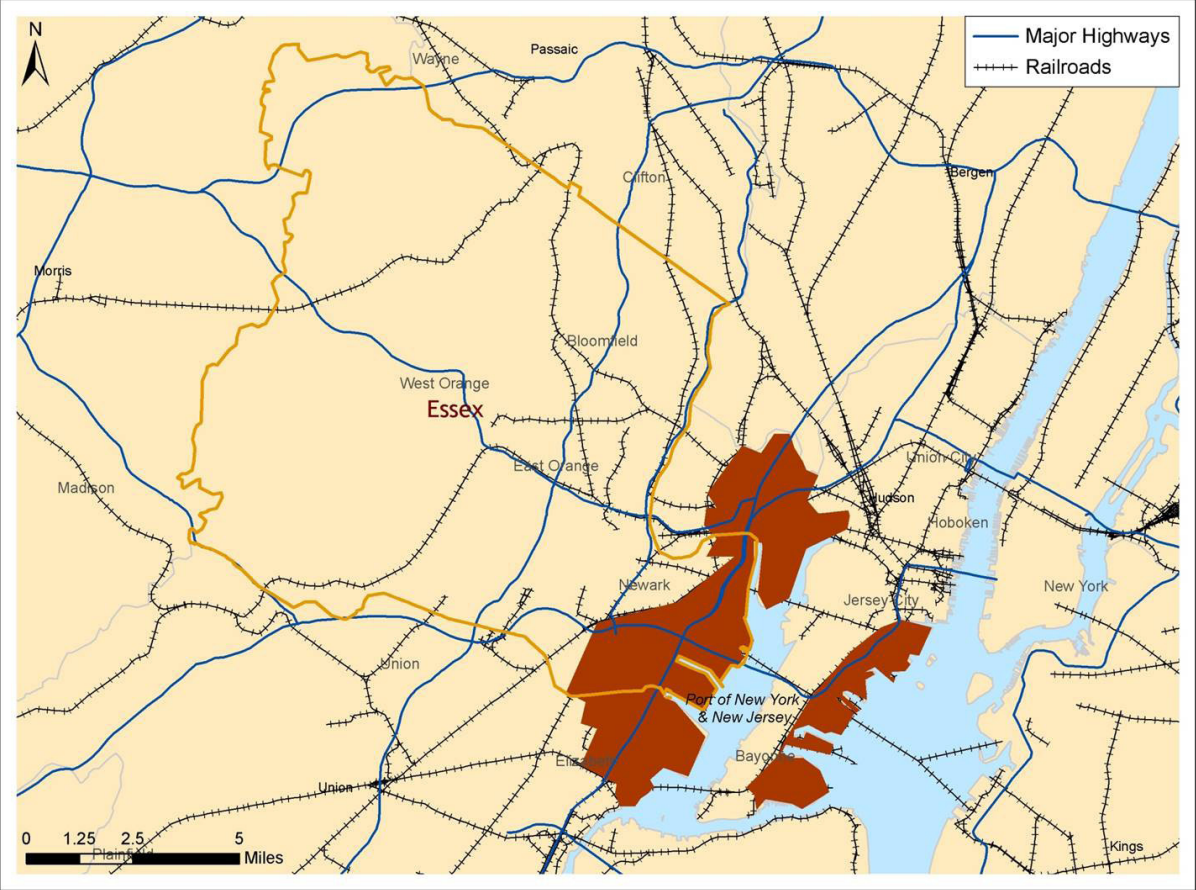




Kansas City Map

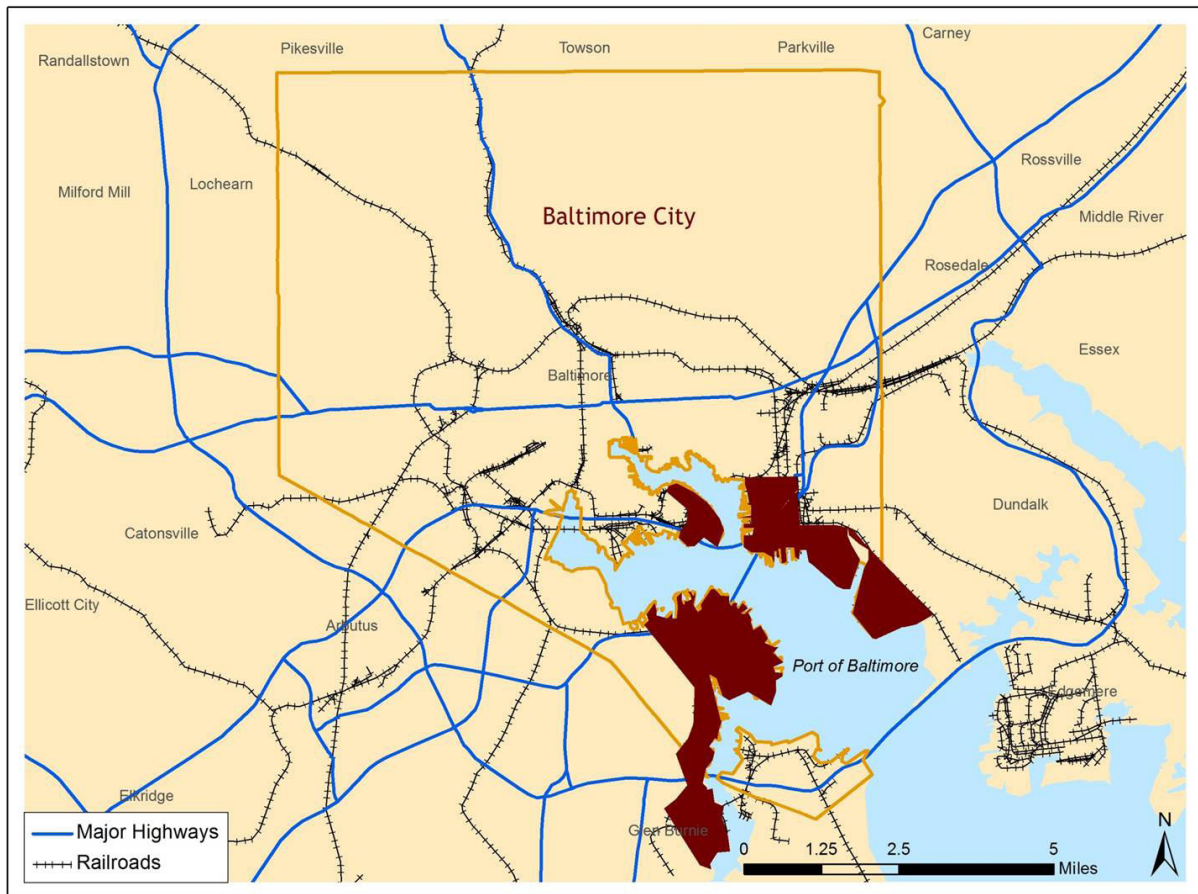


New York/New Jersey Map

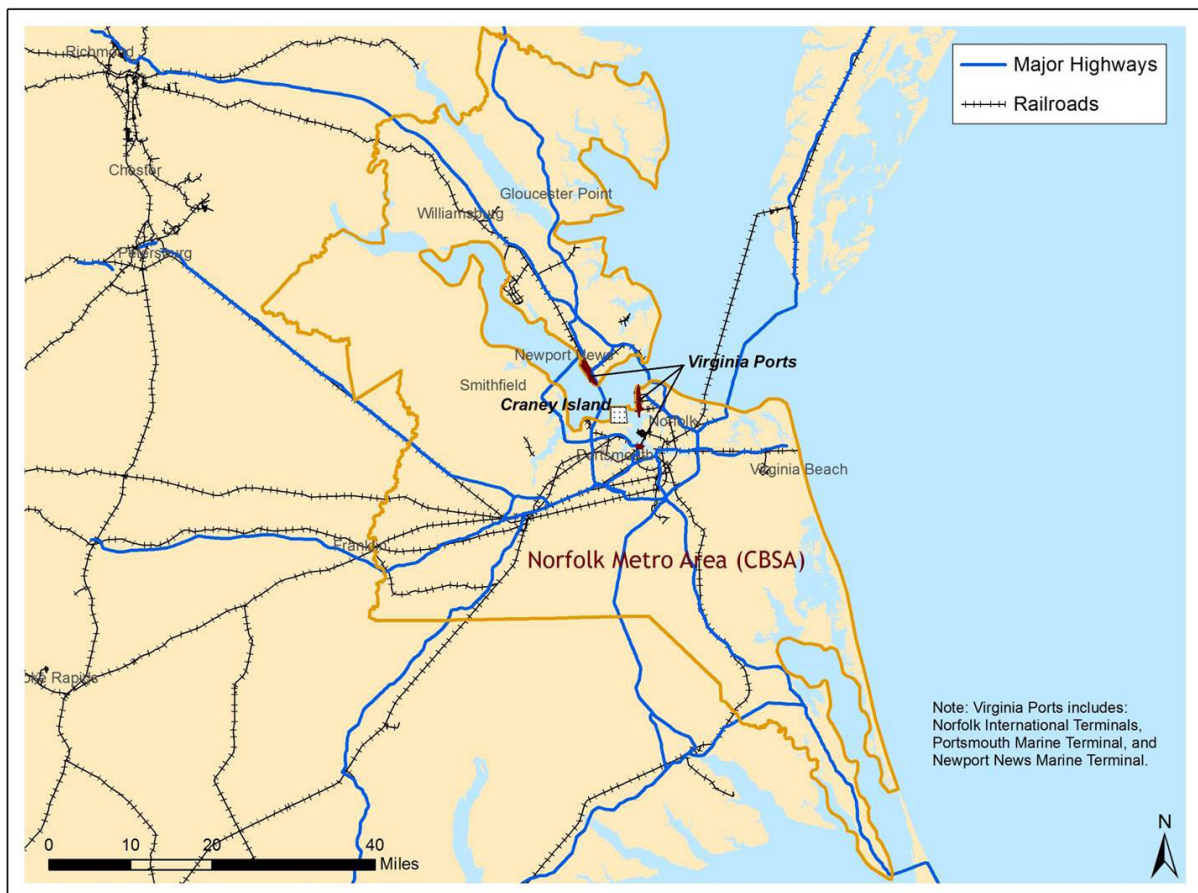




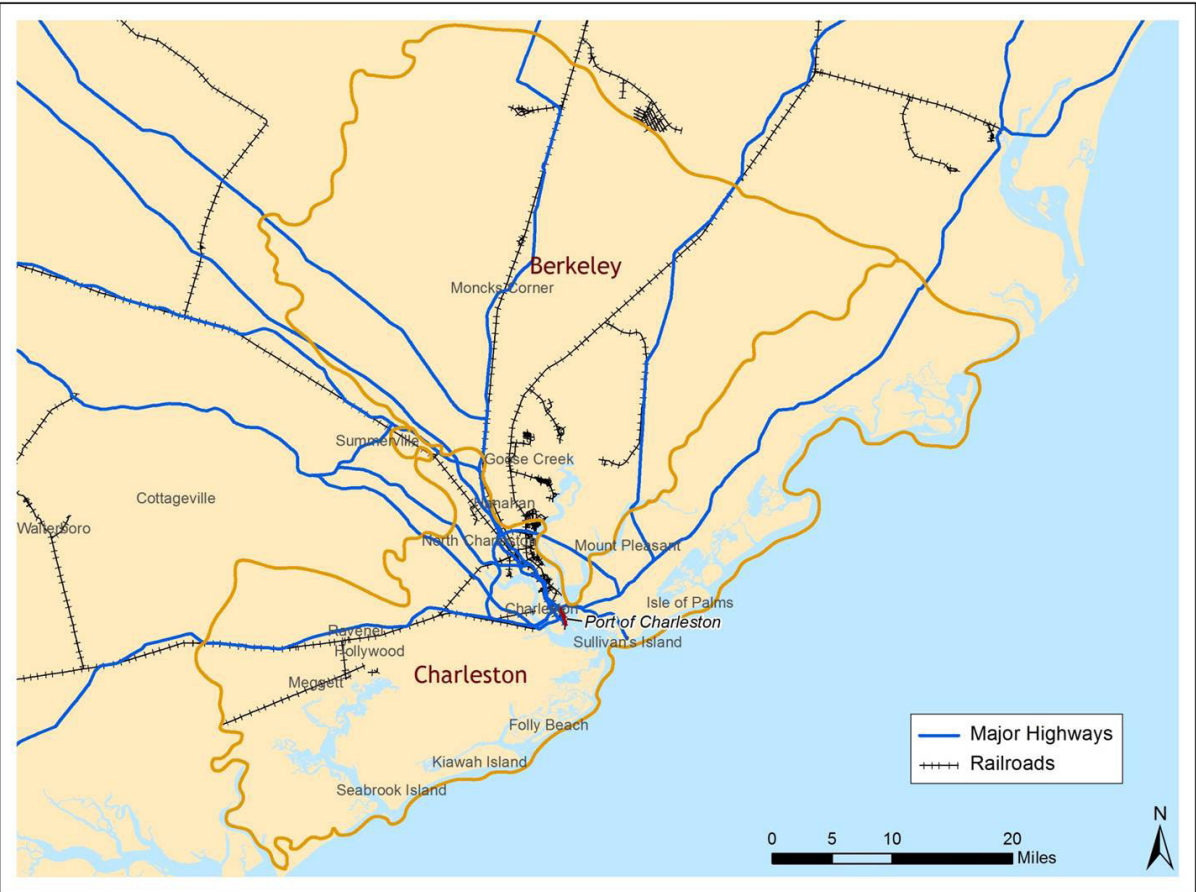
## Baltimore, Maryland Map



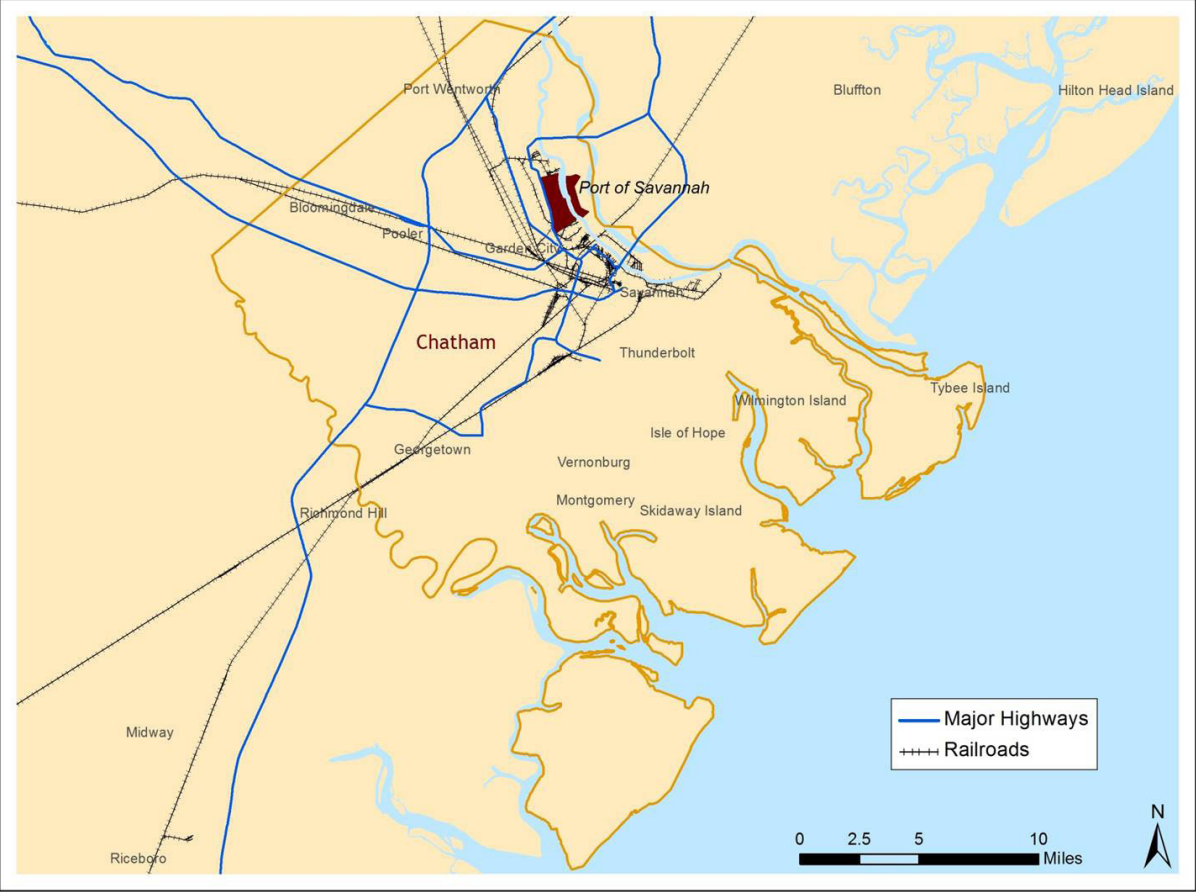
## Norfolk/Hampton Roads and Inland Virginia Map



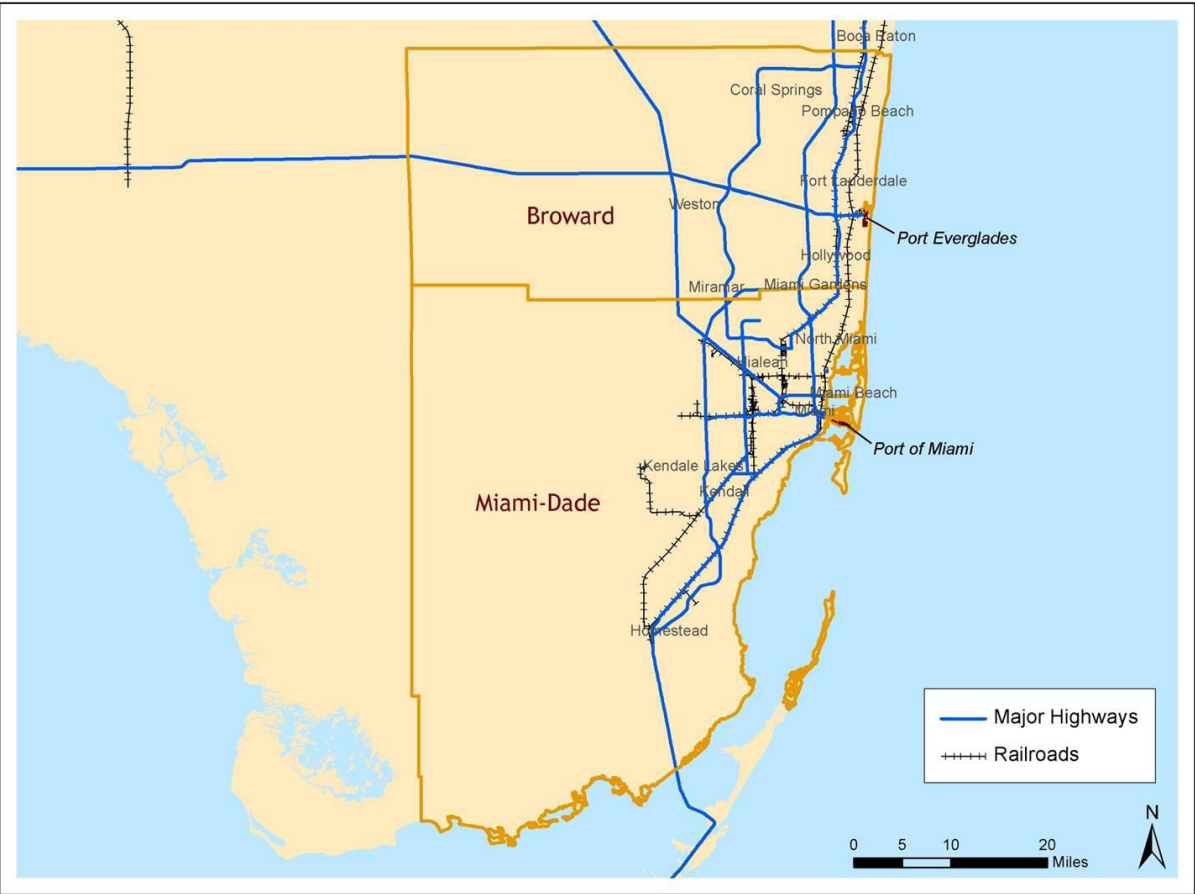
Charleston, South Carolina Map



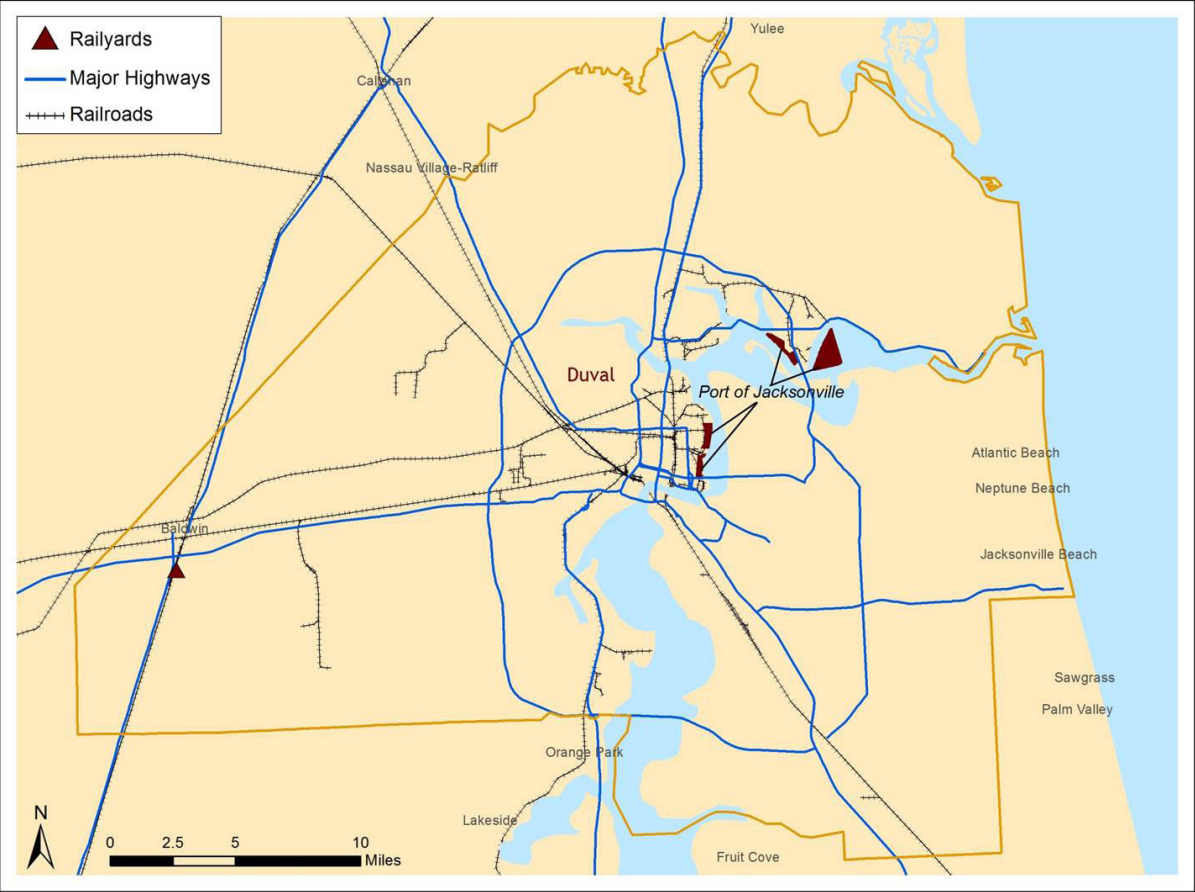
Savannah, Georgia Map



Miami/Port Everglades, Florida Map



Jacksonville, Florida Map





**Table 1. Ports and Freight Transportation Related Transportation Investment Generating Economic Recovery (TIGER) Grants**

Chart adapted from U.S. Department of Transportation/Transportation for America Summary of Grants. The chart includes the categories for: 1) Freight Rail; 2) Ports; 3) Ports Freight Rail. Select projects from "Road Projects" are also included because of their primary focus on freight transport. Projects in other categories such as "Bridge Repair/Replacement" are not listed here but may also facilitate freight transportation. See [www.t4america.org](http://www.t4america.org) for a list of all projects.

Northeast

Project Type	Project Title	Description	City	State	Amount	Round
Freight Rail	National Gateway Freight Rail Corridor (OH, PA, WV, MD)	A package of rail infrastructure and intermodal terminal projects will enhance freight transportation service options along three major freight rail corridors owned and operated by CSX through the Midwest and along the Atlantic coast, allowing trains to carry double- stacked containers, increasing freight capacity and making the corridor more marketable to major East Coast ports and shippers.		MD (also OH, PA, and WV)	\$98,000,000	TIGER I
Freight Rail	Fast Track New Bedford	Reconstruct four inadequate and dangerous freight rail bridges.	New Bedford	MA	\$20,000,000	TIGER I
Ports	Revitalizing Maine's Ports	Help the Port of Portland to upgrade the wharf and upland storage facility at the International Marine Terminal Facility.	Portland	ME	\$14,000,000	TIGER I
Freight	Aroostook Rail Preservation	Restore the rail routes serving Northern Maine and re-establish a vital rail link to meet regional and national goods movement needs.	Aroostook	ME	\$10,546,436	TIGER II
Ports	Port of Providence: Electric Cranes	Expand and upgrade the Port of Providence in Rhode Island, replacing two aged diesel cranes, one of which is currently non-functional, with new electric, barge-based cranes that will enable the Port to handle container traffic.	Providence	RI	\$10,500,000	TIGER II
Roads, Freight Rail	Central Pennsylvania Rail and Road Expansion	Improve the safety and efficiency of freight movement for Pennsylvania's publicly owned short line railway system, making system-wide improvement for the 200 miles of track owned by the SEDA-Council of Governments Joint Rail Authority.	Pennsylvania	PA	\$10,000,000	TIGER II
Rail/Roads	Access to Quonset Wind Energy Project	Improve freight transportation at the port, achieve a state of good repair, extend the useful life of former military assets and increase port capacity.	North Kingston	RI	\$22,300,000	TIGER I
Freight Rail	Crescent Corridor Intermodal Freight Rail Project	A major intermodal freight program to support development of Norfolk Southern's rail intermodal route from the Gulf Coast to the Mid-Atlantic. Once fully-developed, the Crescent Corridor will improve domestic rail intermodal service between the Northeast and Southeast and connect this 2,500-mile network of existing rail lines with regional intermodal freight distribution centers and will strengthen domestic and international freight distribution in the Southeast, Gulf Coast and Mid-Atlantic markets.	Memphis	TN, also AL	\$105,000,000	TIGER I
Freight Rail	CREATE Program Rail Projects	A package of 78 projects that address freight rail congestion in the Chicago area, a nationally significant freight bottleneck adversely affecting the delivery of goods throughout the country.	Chicago	IL	\$100,000,000	TIGER I
Freight Rail	National Gateway Freight Rail Corridor (OH, PA, WV, MD)	See above		OH; also (PA, WV, MD). SEE ALSO NORTHEAST	\$98,000,000	TIGER I
Freight Rail	Appalachian Regional Short Line Rail Project (KY, WV and TN)	This will rehabilitate hundreds of miles on five unconnected short-line railroads in three states, all operated by a single holding company. Investments include rail, crossties, grade crossing, bridge and tunnel work.		TN, KY and WV	\$17,551,028	TIGER I

Central

Project Type	Project Title	Description	City	State	Amount	Round
Freight Rail	Reconstruct Mitchell-Rapid City Railroad	The reconstructed rail line will increase the capacity and efficiency of the line principally used for transportation of agricultural commodities.	Mitchell	SD	\$16,000,000	TIGER II
Freight Rail	Minot Grade Separation	This will construct a grade separated pass over Burlington Northern Santa Fe's mainline and service tracks and approach roadways on 55th Street NE.	Minot	ND	\$14,130,000	TIGER II
Freight	Great Plains Freight Rail (Kansas and Oklahoma)	This project will construct yard, shop, and rail line improvements and relocate the South Kansas and Oklahoma Railroad hub from an urban to rural area.	Coffeyville	KS	\$10,230,597	TIGER II
Freight Rail, Bridge Repair/Replacement	Staples North/South Corridor	This will construct a new crossing over the Burlington Northern Santa Fe (BNSF) Railroad and U.S. Highway 10 in Staples, Minnesota, where a pair of grade crossings receive an average of 52 trains per day, meaning Staples residents sit in congestion for hours each day waiting for trains.	Staples	MN	\$7,650,000	TIGER II
Freight	The Southwestern Illinois Intermodal Freight Transportation Hub	Funds construction of a public harbor on the Mississippi River which will be used for barge loading and unloading. The project will allow the Tri-City Regional Port District to expand barge, rail and truck transportation systems in the region and allow shippers, including Midwest agricultural shippers, to move goods down the Mississippi River from Illinois to the Gulf of Mexico without the use of a lock.	Granite City	IL	\$6,000,000	TIGER I
Freight Rail	Freight Rail Reactivation & Rehab	Rehabilitates the 7.5 mile rail line from the Chadron East Yards to the west end of Dakota Junction.	Chadron	NE	\$4,923,509	TIGER II
Freight Rail	Crescent Corridor Intermodal Freight Rail Project	See above.	Birmingham	AL (also IN)	\$105,000,000	TIGER I
Freight	Tower 55 Freight Rail Improvements	Adds an additional north-south track and install new signals and a new interlocking system to improve the flow of train traffic through Tower 55, a major rail and traffic bottleneck in downtown Fort Worth, TX, where Union Pacific and Burlington Northern Santa Fe railroad lines cross.	Fort Worth	TX	\$34,000,000	TIGER II
Ports, Freight Rail	Port of Miami Rail Access	Helps establish intermodal container rail service to the Port of Miami by building an intermodal yard and making necessary rail and bridge improvements.	Miami	FL	\$22,767,000	TIGER II
Ports, Freight Rail	Port of Gulfport Rail Improvements	Upgrades 76.5 miles of rail so that double-stack trains will be able to run at 49 mph instead of the current 10 mph speed for just single-stacked trains, massively increasing capacity and speed for freight. This connects the Port of Gulfport to Chicago and Canada as well as to New Orleans and the East Coast	Gulfport	MS	\$20,000,000	TIGER I
Ports	Northwest Tennessee Port (Lake County)	Tiger II dollars will be used to build a port and harbor facility on the Mississippi River, at Cates Landing in Tennessee. Dock facilities will be constructed and additional, necessary, on-site improvements will be made to create a connection between barge traffic at the port and truck freight movement.	Dyersburg	TN	\$13,000,000	TIGER II

Project Type	Project Title	Description	City	State	Amount	Round
Roads	Bella Vista Bypass (AR and MO)	The project will create a 19-mile, access-controlled, 4-lane, partially tolled road around the City of Bella Vista in Northwest Arkansas and Southwest Missouri. The bypass will complete a link for I-49, connecting the Port of New Orleans with a number of interstates and improving the flow of goods to the Great Lakes and Canada. Major corporations and universities are located along this fast growing corridor. (TIFIA Loan Grant)	Bella Vista	AR	\$10,000,000	TIGER I
Roads	Port Manatee Marine Highway	A 32 acre container terminal will be constructed adjacent to the existing 1,000 foot berth, expanding the Port's cargo storage capacity both for the Marine Highway operation and for other tenants.	Bradenton	FL	\$9,000,000	TIGER II
Freight Rail	Alameda Corridor East: Colton Crossing	Eliminates the mainline at-grade rail crossing of the Union Pacific Railroad and the BNSF Railway at Colton in San Bernardino County. This crossing is on the major east-west corridor for each of the two carriers, and at its peak in 2006 the crossing handled 129 trains a day. The trains that wait and queue behind the crossing create a major choke point for traffic moving to and from Southern California.	Colton	CA	\$33,800,000	TIGER I
Roads	US-491 Safety Improvements	A collaborative effort of three regional ports in California to develop and use a marine highway system as an alternative to existing truck and rail infrastructure. The Port of Oakland along with the inland Ports of Stockton and West Sacramento have formed a partnership to provide freight service via barge, primarily for consumer goods moving by ocean vessel and agricultural products grown in Central California.	McKinley County	NM	\$31,000,000	TIGER I
Ports	California Green Trade Corridor/ Marine Highway Project	This is a collaborative effort of three regional ports in California to develop and use a marine highway system as an alternative to existing truck and rail infrastructure. The Port of Oakland along with the inland Ports of Stockton and West Sacramento have formed a partnership to provide freight service via barge, primarily for consumer goods moving by ocean vessel and agricultural products grown in Central California. This will improve the quality of life for Northern Californians by reducing greenhouse gas emissions and air pollutants and relieving congestion and wear-and-tear on Northern and Central California's highways, helping to reduce round-trip and overall truck miles traveled to and from distribution centers and port facilities in the area, with corresponding savings in fuel costs achieved by shipping goods by barge rather than exclusively by truck.	Stockton	CA	\$30,000,000	TIGER I
Ports	Reconstruction of Pier 29 in Honolulu Harbor	In 2008, the Pier 29 container yard at the Honolulu Harbor suffered structural failures, displacing the international carrier that used it. These funds will reconstruct Pier 29, adding approximately 12 acres of upgraded cargo yard while also increasing efficiency and safety in Honolulu Harbor. Reconstructing Pier 29 will reduce truck traffic on busy and congested roadways in downtown Honolulu near Piers 1 and 2 by moving much of the traffic west towards the reconstructed Pier 29. Since Pier 29 is closer to Nimitz Highway and the primary inter-modal highway routes, reconstructing Pier 29 helps reduce fuel consumption and greenhouse emissions from cargo movements at Piers 1 and 2 in the downtown Honolulu area.	Honolulu	HI	\$24,500,000	TIGER I



Project Type	Project Title	Description	City	State	Amount	Round
Roads	Otay Mesa Port-of-Entry I-805/SR-905 Interchange	This is a critical interchange linking I-805 in San Diego to the new SR-905 highway now under construction. Once complete, the project will provide a direct 6-lane highway link to the Otay Mesa Port of Entry at the Mexican border, with reduced grades and improved shoulders. Otay Mesa is the largest freight border crossing between California and Mexico. International freight will use the new highway instead of using heavily congested Otay Mesa Road. Completing this Interstate connection is a high priority for reducing congestion at the border on a major international freight route. The project will improve efficiency and reliability in the movement of goods and services and will reduce border wait times.	San Diego	CA	\$20,200,000	TIGER I
Port/ Freight	Port of Los Angeles: West Basin Railyard	This project will construct an intermodal railyard, which includes staging and storage tracks connecting on-dock railyards with the Alameda Corridor, and includes a railyard for a short-line railroad serving major carriers and both major ports. The project will remove two at-grade rail-highway crossings, relieving congestion. This project mitigates disruptions to commercial activity that cost an estimated \$9.1 billion per year, improves safety by reducing truck trips on I-710, which has the highest accident rate in California, and by removing two at-grade rail-roadway crossings between a residential community and waterfront area, and creates nearly 2,000 construction jobs in an economically distressed area.	Los Angeles	CA	\$16,000,000	TIGER II
Freight Rail	Coos Bay Rail Line (Coos, Douglas, Lane Counties)	This will rehabilitate the track structure of the 133-mile Coos Bay Rail Link, which closed in 2007 as a result of deferred maintenance, including replacement of worn-out rails, fasteners, and wood ties; re-establishment of proper surface, line, and dress of the track; drainage improvement of the track bed; and enhancing the ballast bed. It will reduce truck shipments for former customers of the line, customers who currently face an average 330 mile truck dray, and puts the freight back on rail, decreasing costs by 20 percent.	Coos Bay	OR	\$13,573,133	TIGER II
Freight	West Vancouver Freight Access	The West Vancouver Freight Access project will construct a new rail access route to alleviate rail traffic congestion at the Port of Vancouver. The project will relocate facilities within the port to provide a new entryway into port terminals. This will create an estimated 400 permanent new jobs in two to five years, and up to 1,836 construction jobs per year, in a county with the highest unemployment rate (13.3 percent as of July 2010) in the state of Washington and support the port's commitment to expand its use of rail from 72 percent to 85 percent.	West Vancouver	WA	\$10,000,000	TIGER II
Ports	Auke Bay Loading Facility	This will fund Phase II of the Auke Bay Loading Facility in Juneau, which includes an additional half-acre of storage, lighting, security gate and fences; a freighter loading facility and ramp; and a fisheries dock, improving freight transfer activities for Alaska communities that use barge and landing craft as primary marine services. This will help deliver government programs to remote communities and contribute to lower costs of living and improved living standards. The facility is important to serving the needs of the fishing community by reducing the need for long and dangerous voyages around Douglas Island to reach Juneau, and provides almost direct access to Juneau airport for fresh seafood exports.	Juneau	AK	\$3,640,000	TIGER I

# Endnotes

- 1 Throughout this report, we use the terms “goods movement” and “freight transportation” interchangeably to mean the movement of goods (usually in cargo containers) across oceans into ports and along supply chains to rail facilities, warehouses, and retail stores. “Goods movement” is the term most often used in California; “freight transportation” is often used by U.S. transportation agencies; and “freight transport” is a phrase commonly used in Europe. “The logistics industry” refers to managing the flow of goods, e.g., from Asia to Chicago. The “supply chain” is the network of those involved in moving a product from a supplier to a customer. A recent report by the U.S. EPA provides the following definition: “*Goods movement refers to the distribution of freight (including raw materials, parts, and finished consumer products) by all modes of transportation including marine, air, rail, and truck. Goods movement facilities, also called freight facilities, include seaports, airports, and land ports of entry (border crossings), rail yard and rail lines, highways and high truck traffic roads and warehouse and distribution centers.*” Definition from: National Environmental Justice Advisory Council. Reducing Air Emissions Associated With Goods Movement: Working Towards Environmental Justice. U.S. EPA, Nov. 2009. (Accessed February 25, 2011, at <http://www.epa.gov/compliance/ej/resources/publications/nejac/2009-goods-movement.pdf>)
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- 167 The Port Work Group is facilitated by Martha Matsuoka, Occidental College, who is one of the authors of this report.
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