



Infrastructure



Land



Workforce

Working Harbor Reinvestment Strategy Business Interview Results

December 2006

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Appendices under separate cover include complete interview results and descriptions of the businesses participating in interviews.

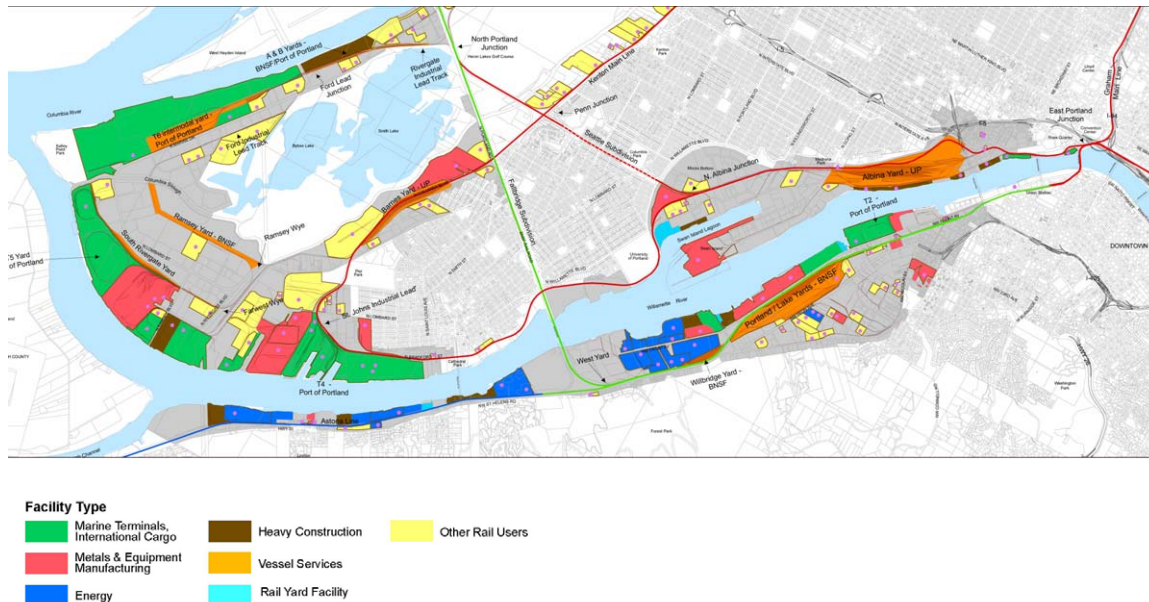
INTRODUCTION

The Working Harbor Reinvestment Strategy will be a 10-year program of coordinated public investments by the City of Portland, Portland Development Commission (PDC), and Port of Portland in the economic vitality of the harbor industrial districts. Oregon Department of Land Conservation and Development provided additional grant funding for the strategy. It is being prepared as an economic development component of the River Plan North Reach. The River Plan is a comprehensive plan for the land along the Willamette River in Portland.

The reinvestment strategy sets out to fuel private industrial investment and district competitiveness through public investments, primarily in infrastructure, developable land, and workforce. Which public investments will be the best catalysts for private reinvestment and economic development in the working harbor? Interviews were conducted with industry leaders to help answer that question for local government decision makers.

What is the working harbor?
 Geographically, it consists of the industrial districts adjacent to Portland's deepwater channel: Northwest, Swan Island / Lower Albina, and Rivergate. The seaport's multimodal infrastructure and facilities that rely on it make these districts unique in the state: the intersection of Oregon's primary marine, rail, road, and pipeline infrastructure and heavy industry clusters in marine and rail trade, energy, construction, and metals and equipment, (see Figure 1). Industry has also built up competitive advantages in the harbor's heavy industrial land use pattern, skilled labor pool, and fixed capital investments. Despite political boundaries, these economic functions and advantages also extend to the adjacent Port of Vancouver.

Figure 1. Working Harbor Clusters of Multimodal-Dependent Facilities



This summary of interview results is the first product of the reinvestment strategy. Project staff of the Planning Bureau, Port, and PDC conducted interviews with 25 businesses and four focus groups, approximately 60 people. The interviews were selected to reflect a cross section of industries in the harbor

districts: manufacturers, warehouse and distribution, marine terminals, the three railroads, the two ports (Portland and Vancouver), and property owners and their representatives. We asked specifically to meet with managers who make local investment decisions. The four focus groups discussions were with industrial developers, industrial real estate brokers, human resource managers/representatives, and industrial association representatives. We asked four basic questions, which varied slightly by the type of interviewee:

1. What are the main opportunities you see for reinvestment and expansion by your business within the Portland Harbor industrial districts over the next ten years?
2. What harbor area challenges or barriers are significant enough to prevent reinvestment or expansion or to consider relocation?
3. What are the primary advantages of the harbor area as an industrial location that should be reinforced?
4. Assume that local governments have a hypothetical budget of \$100 to spend on the following types of public investments in the harbor industrial districts over ten years: land development; transportation; utilities; workforce; others. If the priority is to encourage industrial retention, expansion, and development, how much should be spent on each type and why? What three specific projects from these categories do you think would be most effective catalysts for private industrial investment in these districts?

OVERVIEW AND CONCLUSIONS

The interviews captured a wealth of information and revealed a variety of viewpoints, including some conflicting conclusions. The results illustrate the range of ideas that are influencing private investment decisions. The conclusions that follow represent project staff interpretations of what we heard in the interviews and our attempt to distill down the main points. Each conclusion is followed by a few paraphrased examples of the comments we heard, shown in italics. The full text of the interview results is included in the appendices.

1. INDUSTRY IS EXPANDING AND REINVESTING IN THE HARBOR DISTRICTS.

Following the recent recession, businesses are making major investments in harbor sites and competitive strategies. Companies on 30 sites (nearly all river- or rail-dependent) have funded an estimated \$450 million in recent or current capital investments (2004-07) and are currently planning another \$70 million in capital projects that are not yet funded. Typical projects include new and upgraded buildings, equipment (e.g., cranes, metal shredder, conveyers), and on-site rail and dock improvements. This is an incomplete list, based on which companies we've talked to and which projects they were willing to talk to us about. It undercounts projects by smaller companies and more speculative projects that companies are not yet willing to discuss. Consistent with these estimates, county tax records indicate a \$218 million increase in assessed building and real improvements value in the harbor districts in 2005.



New construction in Rivergate.

A. The five largest multimodal clusters are expanding.

Businesses in each of the five largest multimodal industry clusters (those that rely on marine, rail or pipeline access)—the facilities that make up Portland's diverse seaport (see Figure 1)—are expanding.

International Marine Terminals

- *We completed a \$40 million expansion project in 2004, which included this building, and we are already looking at expanding the building and land area. (marine terminal)*
- *Our bulk terminals at T-4 and T-5 all have growth plans over the next 10 years. We are expanding our container terminal at T-6 and running out of auto storage space there. We are working to take advantage of market opportunities for new bulk fertilizer facilities at T-2.*

Railroads

- *Our annual volume growth over the past few years has been in the double digits. In the future, we expect that the growth rate will be about 3 percent for bulks but higher for merchandise. We hired about 100 employees last year, half to replace retiring or departing employees, half due to growth. (railroad)*
- *Columbia Grain is adding 3 new lines of rail trackage on their site and can now handle 30 percent more freight. We would like to expand their capacity to add 7 or 8 new lines. Glacier NW may need to tear down buildings to handle more rail cars. Canpotex is also expanding rail trackage on their site. A project at Toyota is planned to add 2,000 feet of new track. (railroad)*

What do we mean by industry expansion?

It is not necessarily job growth, vacant land development, or site redevelopment. When we heard from businesses about expansion, they generally referred to capital improvements to expand production or throughput. Expansion may generate the need for additional transportation capacity, utilities, land, and employees, but productivity improvements may also have the opposite effect of reducing the need for these inputs (doing more with less).

Energy

- *We currently have a 60 million gallon capacity for transportation fuels, and we foresee continuing expansion to handle a wider range of products. For a while we have been investing in old, unused tanks to bring them back into use. Now we have no more tanks that are convertible. (marine terminal)*

Metals and Equipment Manufacturing

- *This plant has grown 30 percent in the last 5 years. It's a good, viable plant and will stay competitive. (heavy manufacturer)*
- *We've just made major investments in our Rivergate facility: we've redeveloped part of the dock; rehabilitated the container crane; done maintenance dredging; and added new equipment. (heavy manufacturer)*

Heavy Construction

- *We are relocating from sites in Oregon City and Vancouver to Portland Harbor. We wanted to have both rail and water access close to [the construction activity in] Portland. (property owner/representative)*

B. New business models are emerging.

Manufacturing and distribution firms are adapting to stay competitive.

Manufacturing

- *We have a large knowledge base here, with a lot of intellectual property. In the future, we will be doing more intellectual functions here. The low-tech products will move offshore and the products that are rich in intellectual property—high tech, highly-engineered products—will stay here. (heavy manufacturer)*
- *We were close to closing in 2002, but we started to diversify and bought other companies. Now our full-time workforce is on the rise. We are trying to take advantage of this facility because if you tried to build a place like this from scratch, you just couldn't do it today. (heavy manufacturer)*
- *Our products aren't sold through other retailers. We only sell them on our website, through our catalog, and out of our two stores. As a niche business, we're not as sensitive to some of the industry's competitive pressures, and we're not pinching pennies at every turn. The reasons we make decisions don't apply to all businesses. (manufacturer)*

- *As the company grows, our office needs will grow. Portland is a logical place to add administrative support because it has historically been our headquarters. (heavy manufacturer)*

Distribution

- *We're a medium- to high-growth company in a low-growth market. Our plan is to grow 10 percent per year, which we've been doing. The increasing demand for our services will come from the population growth and the increasing diversity of product demand. (distribution facility)*
- *For the North American market we want to maintain a ratio of 65 percent domestic production to 35 percent imports. Our focus at this facility is strictly on imports. Adding post-production options at the import terminals is a growing trend. We currently employ 177 production associates and 23 salaried employees at this facility. (marine terminal)*

C. Most demand for new sites is not for multimodal facilities.

New industrial facilities are primarily warehouse and truck distribution space. Latent demand for close-in industrial service space is also large. While these segments of demand do not require multimodal freight access, recent demand for rail access is up.

Distribution

- *Distribution facilities are the primary type of development occurring in Rivergate because of the access to the freeway, rail, and harbor. We expect that to continue.*
- *We moved into our Rivergate distribution facility in 1994. At that time, the building was 150,000 square feet. A year later we built Phase 2, adding 150,000 square feet. We thought then that the 300,000 square foot facility would last us 10 years, but four years later we added another 300,000 square feet (Phase 3 in 1999). In 2004, we added another 250,000 square feet to this facility (Phase 4). (distribution facility)*

Industrial services and flex space

- *There is a need for buildings near downtown to accommodate smaller, service-oriented companies that need some, but not much, storage. No one has figured out how to meet that demand, and make it work financially, to build this type of building—small to medium sized buildings (10,000-20,000 square feet) that don't have loading docks for huge boxes or heavy industrial capabilities. The bulkier, older buildings don't work for these modern firms. (industrial developer)*

Demand for new multimodal sites is increasing, but proportionally low

- *Lately, requests for rail access have increased dramatically. Desire for rail access is tied to gas prices. There aren't that many that need water access—we have seen maybe one request a year—but we have had an economic downturn. (property owner/representative)*
- *Everyone is freeway access oriented (industrial broker).*

D. People here expect to be close-in.

Compared to other cities, lower cost suburban space is less desired in this region.

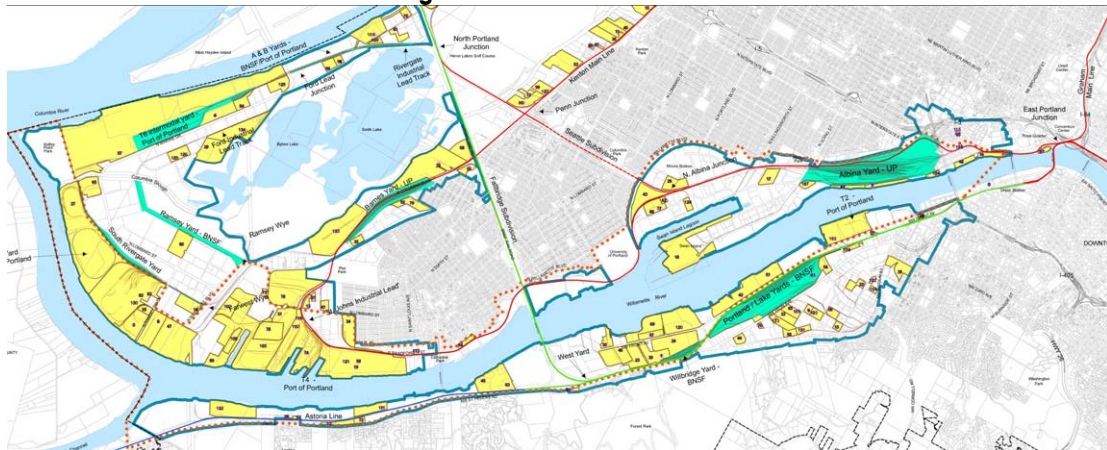
- *Chicago and Sacramento are going to have many more available sites than Portland, and they are less expensive. But we're not Chicago - there is a unique market here. People here expect to be close-in and don't want cheaper sites that are far away (industrial broker)*

- *The central location of the harbor and its proximity to the central business district are important attributes. There are serious congestion problems getting from Gresham to Hillsboro, so there is strong demand for a central location. (industrial developer)*
- *We used to hear about businesses that are moving outside of Portland because they are fed up with high taxes or timeline concerns. We don't hear about this anymore. (industrial broker)*

2. OVERCOMMITTED RAIL APPEARS TO BE THE AREA'S MOST PRESSING COMPETITIVE NEED.

Portland has advantageous rail access among West Coast cities, benefiting from long established rail networks and the Columbia River grade crossing through the Cascade Range to Portland Harbor. Rail lines run along the length of the harbor on both sides, allowing for seamless multimodal transfers. However, repeated interview comments about the growing gap between rail demand and the current capacity and service level suggest that rail improvements are the most pressing investment need to maintain the working harbor's competitiveness as a seaport and heavy industrial center. Also, the potential for regional solutions to rail infrastructure and service needs is hampered by the splintered, nationally oriented responsibility for the region's rail system, which is operated by two Class 1 railroads and one short line.

Figure 2. Rail Customers* in the Working Harbor



* Rail customers are shown as dots, and their sites in yellow.

A. Half of region's rail users are in harbor districts.

Industry in the region is challenged by not being close to large markets, but rail helps make up for it, linking Portland to the larger eastern domestic markets. About 110 rail customers, roughly half of those in the region, are located in the working harbor (see Figure 2). Most of Portland's marine cargo transfers to or from rail.

- *Our customer base isn't here. LA/Long Beach is there because of the population base. Portland relies on links to Chicago. (heavy manufacturer)*
- *We handle 14 percent of the U.S. market share of wheat exports at our Portland terminal. Two thirds of our product comes in on rail. (marine terminal)*

- *Rail, rail, rail. Rivergate is served by both Union Pacific and Burlington Northern, which gives us a huge advantage over others in the region. It's a unique treasure that we need to take care of. It was a big part of our decision to build in Rivergate. (distribution facility)*

B. Class 1 railroads are rationing limited rail capacity.

Increasing demand for congested lines and overcommitted yards are prompting Class 1 railroads to seek new business strategies that emphasize long-distance, high-volume, hook-and-haul operations over small rail customers. Still, local railroad representatives point out that Union Pacific remains primarily a “manifest” railroad of multiple-customer trains, and the local industrial complex continues to be one of the major regional business lines of Burlington Northern Santa Fe.

- *We are turning down business everyday. We are landlocked and have no room to expand. We can only grow now through operating efficiencies. So, we ask new or expanding customers if they have room at their facility to add capacity and expand rail infrastructure. We want to be able to drop their train on their site because Albina Yard does not have room to hold more cars. Albina Yard is designed to move cars through and is already operating beyond full capacity. Unfortunately, it takes a lot of land for a siding—about 7,500-8,000 feet of clear track on a site. (railroad)*
- *For new customers, the rail infrastructure requirements are tougher than five years ago. We are looking at existing customers to see which can add capacity. (railroad)*
- *Last month Union Pacific announced they were doubling their rates [for our business]. (heavy manufacturer)*
- *The shortlines have capabilities, but they are hamstrung by their leases. (heavy manufacturer)*

C. Railroads' capital needs exceed budgets.

Railroads cite significant capital needs to alleviate regional rail congestion—for yard space, expanded rail line capacity, and grade separation from the street system—needs that greatly exceed investment budgets.

- *Trackage in the region was built by predecessors of UP and BNSF. The geography of how things are laid out—chopped up—in Portland makes rail movement in the region very inefficient and should make transportation investments a priority. (railroad)*
- *UP is always on the ragged edge of having a service meltdown—from consolidation of old lines, decisions made elsewhere, and operating at capacity. They've had three meltdowns in the past six or seven years. What happens is gridlock and trains don't move. There aren't enough locomotives locally to fix the gridlock, so they need to pull them from other areas of the country.*
- *We have a capital budget of \$3 billion for the entire 35,000 mile rail system, so we have a lot of projects that we just can't afford to do. Just to maintain the rail, tie, ballast and bridge costs half of our capital budget. Our current capital projects in the Portland area include new rails and ties to maintain track structure, a UP/Port project to expand capacity at the Toyota site, and double tracking at the Hemlock Siding (185th). There are many other projects that we would like to do. (railroad)*
- *We sank \$2.4 billion into this railroad last year, \$1 billion just to keep the lights on. There's a limit to what we can spend on capital investments. When you run out of money, you draw the line. There are lots of worthy projects you can do, but money is the limiting factor. When we make decisions about capital projects, we model how we use the lines and how much delay can be reduced, to figure out the costs and benefits of each project. We participate enthusiastically in public/private projects, including the T-6 lead and Kalama. (railroad)*

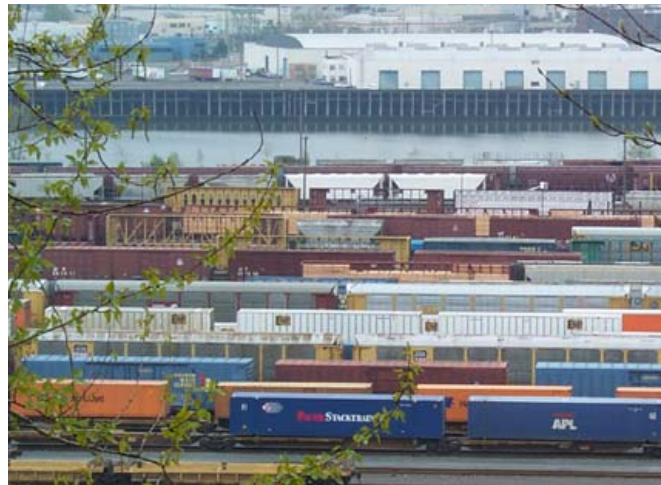
D. Rail capacity is limiting marine expansion.

Marine terminal representatives indicated that rail capacity is limiting their expansion more than channel or road capacity.

- *Our biggest business problem is inbound rail infrastructure. You could create new business for us overnight, and increase our capacity, if sound investments were made in rail infrastructure. ...We advocate full buildout – wherever you can put rail yards, put them. Once the space is gone, and there is no room for expansion of the trains, the opportunity is lost. (marine terminal)*
- *We arm-twisted Union Pacific into allowing us to also use Burlington Northern, so we can now use both, but Burlington Northern's service is limited. Seventy percent of the product goes out by rail from this facility. In 2004, we were shipping 50 rail cars a day. In April, we expect to be shipping 80 loaded rail cars per day for the Midwest. (marine terminal)*

E. Rail service to heavy industry is deficient and declining.

Emerging business strategies of the capacity-constrained Class 1 railroads are deemphasizing small shippers, who make up most of the 110 rail customers in the harbor districts. Several heavy industry representatives were highly critical of regional rail service. They cited needs for fewer delays and a service strategy for small shippers (e.g. third-party switching, reload facilities, favorable shortline leasing).



Union Pacific's Albina Yard in Lower Albina.

- *We have rail service, but it is poor. In the past and elsewhere, we've used rail, but it's untenable here and now. Any notion that you'll be able to easily incent cargo to move from one mode to another is bogus. We can't schedule production because the rail doesn't come on a regular basis. Trains can come in 3 days or 30 days. (heavy manufacturer)*
- *The delay of supplies coming in by rail can shut down our plant. It definitely affects our productivity. Our alternative is to use trucks, but it takes four trucks to equal one rail car. There is a big cost advantage to using rail. Sometimes the rail service is good, and sometimes it's worse. This has been going on for a long time. No one has any sway with the railroads. They're the only game in town. Our few rail cars are not a priority for them, and they don't really care about our business. I've seen the situation progressively decline in my time here. It's not easy to do the business they do, though. (manufacturing)*
- *Our biggest transportation issue is rail car availability. This is not an issue every month, but often. Rail access is in place, though we are putting in new rail lines, but it is service that is the issue. (heavy manufacturer)*

F. Dredging is also critical, but moving forward.

Columbia channel deepening is underway. A plan is being developed for Willamette maintenance dredging to work through contamination issues. Moorage dredging is needed soon at some sites.

- *Dredging at the mouth of the Columbia River is critical. Twenty years ago, the maximum load size for a ship was 52,000 tons. Now the maximum load size is 60,000-62,000 tons requiring 40 foot ship draft. Ships sailing out of Vancouver, B.C. now have a maximum load size of 75,000 tons and 43 foot draft. In order to be competitive, we need to be able to do the same. (marine terminal)*
- *The biggest infrastructure challenge we face is the draft alongside our dock. Today a lot of fuel is coming in by ship and more and more product will arrive via ship in the future. We can't handle the loaded ships, so we have been lightering the product to barges on the Columbia, which is a risky practice. Our dock was last dredged in the early 1990s. We will look at deepening our dock to 32 feet in the next 10 years. (marine terminal)*

3. ROAD CONGESTION IS WIDELY AFFECTING INDUSTRY.

Investments are needed on freeways and close-in roads to maintain freight mobility.

A. Congestion costs cut across industries.

Road congestion is a big cost for the distribution industry and many manufacturers. Companies are adjusting schedules, where feasible, to reduce these costs. Regional distributors pass on congestion costs to consumers; traded sectors are less able to do so. We can alternatively pay more for transportation infrastructure or for goods in the region.

- *Congestion is the top infrastructure issue and constraint. Mobility is important to all businesses. (property owner / representative)*
- *Congestion affects us dramatically. We start delivering at 3-4 am to avoid peak hour congestion. (distribution facility)*
- *Congestion is a big cost for us. The longer it takes per run, the fewer runs we can make. The average load has a return of \$200, so our volume of loads is high. The purchase price of a new truck is about \$250,000. The capital invested in our business is significant. It is difficult to get the customer to understand how congestion impacts our costs, so we have to factor congestion into our rates. We start our drivers at 4 or 5 a.m. every morning, with staggered shifts so that our trucks are running 24/7. Most of our deliveries are within 30 miles of our facility. We start them early to avoid the congestion. (distribution facility)*

B. Congestion costs drive where the distribution industry locates and expands.

Some interregional distribution centers are moving to smaller gateway cities like Portland, and some to exurban sites along interstates. Distribution facilities in the region value centrality. Companies sometimes move even within districts to avoid bottlenecks.

- *Before trucking deregulation, the major manufacturers had four West Coast hubs; afterwards, deregulation made trucking cheap and led to consolidation. Firms then could have one distribution center serving 11 western states. Today, people are dealing with high fuel prices, increasing*

transportation congestion, less availability of drivers, restricted hours of operations, etc, and they're saying that local distribution centers make sense again. (distribution facility)

- Big box retailers take a different view. They are moving towards big distribution centers on cheap land in rural locations on the interstate highways. (distribution facility)
- The reason we stay in Portland is that it is the least congested major port on the West Coast. We don't have to compete with containers. (marine terminal)
- You're not going to be able to site an industrial facility without reasonable interstate access. (distribution facility)
- For us, the advantage of this area is that the location and transportation access lower our freight costs. This area is near I-5 and the rail yards, which is important to us. We have 55 acres of land at 185th and Marine Drive, where we planned to expand earlier but decided against it because of the higher freight costs there. (distribution facility)
- One major reason we moved to NW was to avoid using the St. John's Bridge. (distribution facility)
- You can trace three great industrial districts in Portland back to specific transportation projects in the last 15 years: the extension of Airport Way; the overpasses in Rivergate; and Going Street access to Swan Island. (industrial developer)

C. Bottlenecks need attention: Start with I-5.

I-5 improvements are the most commonly cited investment priority.

- It would be great to wave a magic wand and fix things on I-5. This should be the priority project. (industrial broker)
- Lots of folks hate the big I-5 quagmire that results at the Delta Park and Columbia neckdown. Going from 3 lanes down to 2, then back up to 3 is a physical manifestation of the old bumper sticker "Welcome to Oregon. Please don't stay." (distribution facility)
- We have the same problems as everyone else in terms of congested roads: I-5, I-84, I-205, general central freeway loop delay. (distribution facility)

D. A few district bottlenecks were widely cited.

Street projects have been a major catalyst for development in the city's industrial districts. A few street bottlenecks in harbor districts were widely cited: trucks through St. Johns; constrained single access to Swan Island; and congested Yeon intersections. Various local street issues were also raised.

- There are community issues with freight movement through St. Johns. We don't want to go through the community, but there aren't other good routes. We send out about 50 trucks per day. (marine terminal)
- Our main concern is traffic flow on and off Swan Island. There is only one way on and off, and there are a lot of people going up and down the hill. I've seen [off-ramp] traffic backed up onto I-5 at peak times (7:30am). (distribution facility)
- Businesses on Swan Island are concerned about the Going Street overpass. PDOT is targeting it as an important seismic retrofit project. (industrial association)
- Getting in and out of Plant 3, where employees are trying to go South on Yeon, is a problem, so shift changes are difficult. (heavy manufacturer)
- I am concerned about the loss of arterials for freight—Naito Parkway, Fessenden, Lombard—the lanes are being restricted. (heavy manufacturer)

E. Transit improvements have had costs for freight mobility and limited benefits.

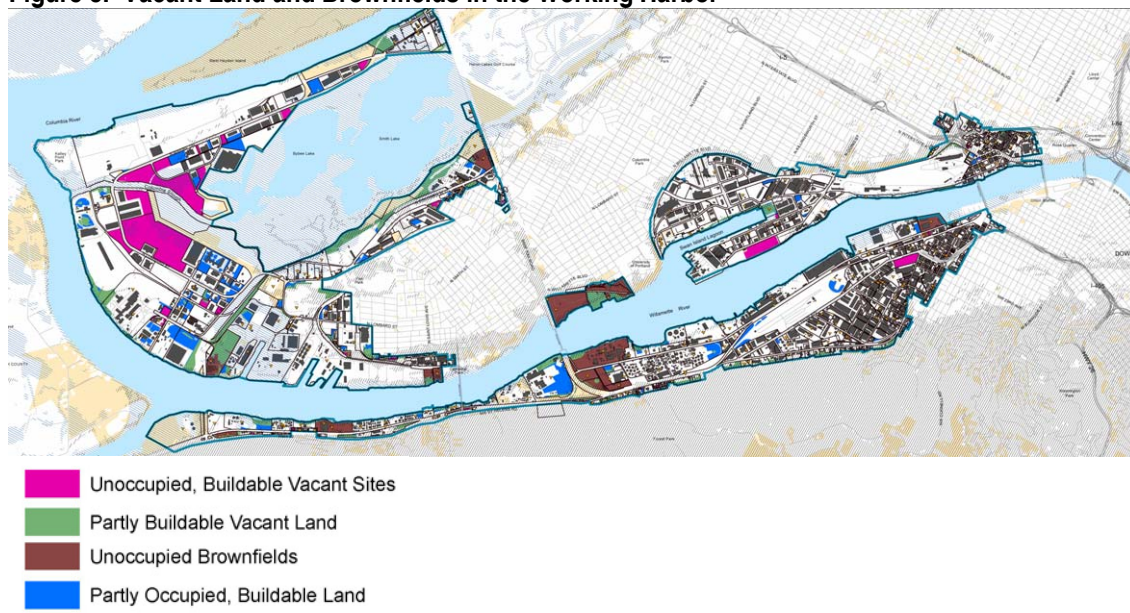
Transit affects industries differently. Transit access has improved and is important to large employers and some employees, but ridership is kept low by infrequent buses and 24-7 industry operations. MAX is seen to have reduced capacity on some freight routes.

- *Transit service and use has gotten much better. A number of employees use transit – many part-time folks use the bus regularly, and some office employees use it occasionally. (distribution facility)*
- *Swan Island and its businesses have encouraged mass transit, but we would be lucky if 5 percent of our employees used transit. (industrial association)*
- *Reactions vary about the benefit of the Interstate MAX. In Lower Albina, I haven't seen a noticeable increase in transit ridership since the MAX opened. The location of the tracks significantly decreased the capacity of Interstate Avenue for freight travel, which went from four lanes down to two. (industrial association)*
- *The introduction of the MAX line has caused significant traffic delays at the Going/Interstate intersection. When trying to get onto I-5 or turn left from Going onto Interstate to go north, you can be stuck there 2 or 3 cycles, sometimes more. (distribution facility)*

4. TIGHTENING HARBOR LAND SUPPLY IS LIMITING GROWTH OPTIONS

As the harbor districts approach build-out, the tightening land supply limits growth options and increases pressure to locate or expand elsewhere, develop constrained land, use land more efficiently, and protect against residential encroachment. Portland's *Industrial Districts Atlas 2004* cites a citywide industrial land absorption forecast of 1,900 gross acres from 2000 to 2025. To meet that demand, the constrained supply of vacant industrial land was estimated at 2,900 acres, out of which 920 acres is potential brownfield, 1,100 acres is partly buildable floodplain and habitat resources, and only 143 acres had no identified constraints.

Figure 3. Vacant Land and Brownfields in the Working Harbor



A. Large, development-ready sites are lacking.

Portland Harbor is nearly built out (see Figure 3), so new investment is coming mainly from on-site expansion and redevelopment. Three of the five development-ready vacant sites larger than 10 acres have pending developments or uses. The harbor does have room for further growth but at sites that need to be prepped for development, mainly a few large, unoccupied brownfields and West Hayden Island, which is being held by the Port of Portland for future annexation and harbor expansion. Additionally, the Port of Vancouver is currently preparing the large, adjacent Columbia Gateway and Rufener farm sites for marine terminal and industrial development.

- *Rivergate has only one more large parcel left. (port)*
- *Five years ago, there was no vacancy in the Northwest district. Now there is some vacancy, but not much. (industrial broker)*
- *Most of our clients don't want to lease, they want to buy, and they want land that has easy access to the freeway. Where is the land for them? (industrial broker)*
- *If 10-20 acres is needed, there are so few available sites that clients will wait longer [for sites that are not development-ready]. (industrial broker)*

B. Expansion decisions often come down to land availability.

Some growing businesses are struggling to expand on already built-out sites, acquiring multiple nearby sites, and considering relocation.

- *After we add the 21 new acres, we have nowhere to grow. There is no available vacant land nearby. We're a land hungry business, and we may eventually outgrow this location. After all, we have been seeing 8-10 percent growth annually. However, I don't think that's going to be a problem. One response is that we are moving our domestic product distribution to Seattle to allow more room for imports at our Portland site. (marine terminal)*
- *One of our constraints is the difference between the acreage we want versus what is available. There is not a lot of property left down here. We're landlocked. When do you say, "Let's give up and go elsewhere?" We're very close to that. That's why our expansion isn't for sure a "Go". (distribution facility)*
- *We store excess product on our site and we need more space. There is no vacant land nearby to buy. (distribution facility)*

C. Brownfields offer opportunities, but multiple needs.

Brownfields are the primary land development opportunity on the harbor (see Figure 3). However, viewpoints are mixed on subsidizing cleanup for economic development. Superfund liability for future in-water cleanup was identified as a major impediment to waterfront development by new owners. Risks and complexity also inhibit brownfield redevelopment generally. Permitting challenges associated with contamination are delaying in-water improvements. Public investment in economical sediment disposal could enable the Superfund project and in-water improvements to get done faster.

- *The challenge is to free up brownfield sites. Someone needs to acquire or condemn them, assemble the parcels, and clean them up. (industrial broker)*

- *There are private investors willing to clean up brownfields. The problem is that the owners are greedy and are asking too much money. It's a market issue, not a public investment issue. Public money should not be invested in brownfields. (industrial broker)*
- *The potential liability for river cleanup is a big deal. The only recourse for those people identified as having contributed to the river problems is to sue everyone else to try to spread out the burden. Any site with contamination is uncertain and opens you up to potential liability. Superfund is a huge cloud and there's no reason for developers to take on the risk. (industrial developer)*
- *We've seen deals terminated because people are scared [of Superfund liability] when sites have existing outfalls. (property owner/ representative)*
- *Superfund is complicated to explain and it's difficult for people to grasp the details, so they give up and decide to look elsewhere. The turn off is not just the liability, but the perception that goes along with the idea of "Superfund" – the sight, smells, and other negative images. On the other hand, when demand is great enough or there is a strategic reason for a user to locate on the harbor, the barriers of contamination will be overcome by users. (industrial developer)*
- *When we were searching for a building, we quickly learned that everything would hinge on environmental issues and finding someplace where I could protect myself from potential liability. For example, I had to sign a non-disclosure agreement to even come close to seeing what the conditions were at one site. It was a great building that didn't hold any risk for my employees, but I consulted the best lawyers in town and they said I couldn't necessarily protect myself from future liability. It was a very sobering experience – here we were trying to bring in all of these jobs, and it was so difficult to find a clean property. When this building came up and it didn't have any ground contamination, we jumped on it. There are so few clean properties close-in. (manufacturer)*
- *The Superfund site is a huge problem. One result is the inability to get permits to get work done on the water. We will want to expand our dock at some point, but it is looking like a 3-year process with no end in sight. (property owner/ representative)*
- *Upland disposal of dredge spoils can be very expensive--\$400 per cubic yard. Public investment to support upland disposal would be very helpful. A nearby disposal facility could make it more cost effective. (marine terminal)*
- *Getting the Superfund project done sooner would be helpful. It's been a long road already. We don't have any income coming in from the property, and Superfund is costing us \$500,000 a year. (property owner/representative)*



An unoccupied brownfield site in the Northwest Industrial District.

D. Businesses are using land more intensively.

Businesses are taking up a variety of strategies to do more on less land, including less inventory dwell time, higher racks in warehouses, taller tanks, possible parking structures, multiple employee shifts, and others.

- *We are working to use our land more efficiently—doing more business on less land. We have reduced the dwell time of vehicles, so that the average vehicle is now here for only 2.5 days. (marine terminal)*
- *Right now we are reconfiguring this building to have more processing capacity. At 806,000 square feet, the building footprint is now maxed out on the site. We need to increase our total output from the*

current rate of 200,000 units to 500,000 units. Our streamlining project is costing us about \$40 million. (distribution facility)

- *Our warehouse on Swan Island has room to expand vertically with higher racks. There is no more buildable space, but we have a 40-foot ceiling. (distribution facility)*
- *To expand we would need to acquire more land or do as Chevron did a few years ago, replacing some of their tanks with taller ones. (marine terminal)*
- *We may have to build an employee parking structure because of land constraints. (distribution facility)*
- *Multi-shift operations also offer opportunities for job growth. Our Swan Island facility is a 24-7 operation. Rivergate shuts down on weekends but has 3 shifts per day. (distribution facility)*
- *Multi-story industrial facilities aren't feasible in the U.S. because trucks are 50 feet long. It is only possible in Japan, where land is \$100 per square foot and trucks are smaller. (industrial developer)*

E. Industrial sanctuaries are a local strength, but perceived to be at risk.

Large industrial sanctuaries are an unusual competitive advantage in Portland. They are also seen as being at long-term risk from gentrification.

- *This is the only plant the company has [of 15 in the U.S.] that is in a protected industrial area. Many of our other plants around the country have been encroached upon by residential development. They'll never be able to expand, and they have frequent neighborhood meetings to work out issues with the residents. A protected industrial sanctuary is the biggest thing we've got going for us here. (manufacturer)*
- *There is a trend of converting industrial land into condominium complexes. Every step in this direction decreases the opportunities for industry in the Portland/Vancouver area. Twenty years from now, areas like St. Helens and Scappoose will be attractive to industry because those areas can be built up without running into land use conflicts. (property owner/ representative)*
- *Virtually all of Oregon's energy comes through this area. This infrastructure needs to be protected. It was built here, for better or worse. The decisions were made a long time ago. It won't be built elsewhere. I mean, we can't even site a black box generator anymore. (heavy manufacturer)*

F. Residential encroachment impacts industry.

- *The area is fairly well-buffered from neighborhoods, which is perceived to be a good thing, although there is more sensitivity now. (developer)*
- *Since this is not a residential area and is free from housing congestion, it allows us to operate 24/7. (distribution facility)*
- *People are concerned about living near heavy industrial uses, and the noise and odors that result. Anywhere you go in the world there are environmental regulations. But residential encroachment means heightened scrutiny: people call DEQ and complain, so it increases regulatory costs. We're required to do better than compliance because of where we exist, even though our nearest townhouse neighbors don't complain. (heavy manufacturer)*
- *Do not build condos near our rail lines. We are just going to be running more and more trains on them, and residents will complain. And we are not going to allow any new at-grade crossings. Instead, we are pushing to close crossings. (railroad)*
- *Those houses out that window are new. They are right next to our facility and right on level with my yard lights. We operate here 20 hours a day, running a day and a night shift. Right now they aren't complaining, but the residents will forget who was here first eventually. (marine terminal)*

5. REVIEWS ARE MIXED ON REGULATIONS, FEES, AND TRAILS.

Businesses voiced concerns, both positive and negative, about regulations, fees, and trails in the harbor districts.

A. Permitting is easier, still a barrier to investment.

Permitting has noticeably improved, but it is still being cited as a barrier to investment by some businesses, but constrained sites can take much longer to prepare.

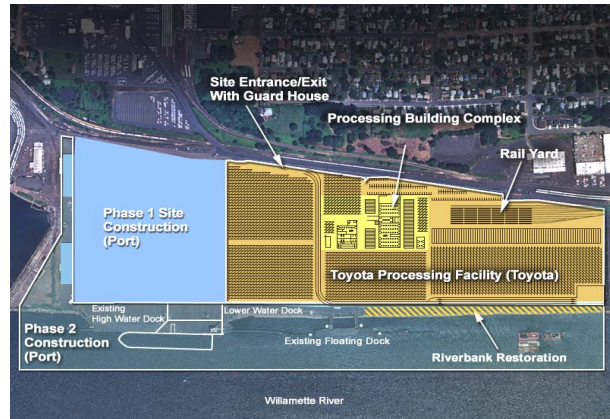
- *There are no noteworthy local regulatory issues that are barriers. The City has come a long way in helping us along the path. (industrial developer)*
- *Portland is no different than anywhere else when it comes to the time and red tape of development review and permitting. Is it good? No. However, since most of our clients are already from this area, they are accepting of the expense and the process. (industrial broker)*
- *We do the same permitting around the world, so we have a good benchmark of how long the permit process takes in different places. Five years ago, we moved a wall. It was a \$50,000 deal for which we needed a permit, and we got bounced from agency to agency. It took forever! It really shocked us. (heavy manufacturer)*
- *The City permit processing is tough, expensive and very demanding. When the \$50 million expansion we almost did was dropped, permitting was a big factor driving the bus. (marine terminal)*
- *When we did our dock work, we missed the first very short in-water work window, because the process was so delayed. (heavy manufacturer)*
- *In Kentucky, getting a permit was like night and day compared to Portland. We had the same engineers and the same builders, and they were on a tight timeline. They went down to the Building Department, and the government was more than helpful. If there was a red carpet, they would have rolled it out for us. It probably took an hour, and they said they could get us a permit by the end of the week. I asked about a review period and he said, "It's your liability to make sure it's built right." (distribution facility)*
- *Permitting is a challenge: cumbersome, expensive, set up to raise every possible impediment to expansion or siting a facility. The burden is on the business and you have to mitigate any impact. (industrial association)*

B. Restrictions that reduce developable land are especially burdensome here.

Land-intensive requirements for non-conforming landscaping, stormwater infiltration, balanced cut and fill, and setbacks are seen as burdensome, especially for facilities that need to be on the harbor and have no room to expand. However, voluntary guidelines have produced win-win results.

- *Land is at a premium so the 10 percent greenspace requirement is challenging. I like the look of the landscaping, but we're trying to utilize every bit of land that we have. We would rather be able to meet the requirement off-site—to build a park or something. (distribution facility)*
- *We take issue with the stormwater fees and the requirement for retention ponds on sites with limited area. We have to build retention ponds for everyone else's water while the land down near the river is at a premium. (heavy manufacturer)*

- *The balanced-cut-and-fill requirements on the mapped floodplain at this site are a huge impediment for development and for selling the property. Why should we have to create wetlands on valuable industrial land? (property owner/representative)*
- *Metro's Goal 5 is a frightening new development. Their Goal 5 map encompasses a lot of this area and is floating out there as another "cloud." (industrial developer)*
- *I think that our greenway improvements and process are a positive story. Toyota is trying to position itself to be a good citizen, so we were looking for something positive to do down here, and we weren't sure what would be the right thing. Former Mayor Katz wanted a restored riverbank and Commissioner Saltzman wanted to see a green roof on an industrial building. In the end everyone was happy and it was a win-win situation. The total cost was about \$2 million and we lost four acres of developable land. (marine terminal)*



Site plan for Toyota marine terminal expansion, completed in 2004.

C. Developers want help working through the uncertainties of constrained sites.

Development readiness of vacant sites is typically expected in 6-9 months.

- *I could build speculative developments on Highway 30, but I would need to spend less time figuring out how to make it work. PDC and DEQ should look into sites that are unavailable and spend some time figuring out how to make it easy for a developer to develop this land in a short time frame. They could get sites prepped and primed and deal with issues on the front end so that we could run with them. We know what we want to build now, but have no idea what the market will be like 2 years from now. We need to be able to work quickly. It shouldn't be that hard to work out these issues. (industrial developer)*
- *People typically won't wait longer than a year, but all sites have some constraints. Shoot for sites being shovel ready in 6-9 months. (industrial broker)*
- *Overcoming the uncertainties related to Superfund was a large hurdle in purchasing our site. We spent lots of time and energy doing our due diligence to understand the liability associated with it. ... A lot of legwork is required to figure out what can and can't be done at a site. (property owner/ representative)*

D. Stormwater fees are high.

Stormwater fees are cited as unusually high, perceived as a tax, and do not encourage good design.

- *We are battling wastewater and stormwater treatment issues—we are trying to find ways to conserve water and reduce costs. We even have an in-house Utilities Conservation Committee to work on it. We paid \$373,000 in sewer costs last year and \$290,000 in stormwater costs. We have to pay the stormwater management fee for impervious surface, and we can't do anything about it. It's like a tax because it has nothing to do with the amount of rain that falls and goes into the city system. That's a factor in attracting new business here to diversify our plant. We have to compete with other facilities to*

attract new business. Headquarters factors the costs in, and if the fees are too high, they will produce product on the East Coast and ship it to California rather than have us produce it. (manufacturer)

- *Our stormwater costs are extremely high. Some businesses are viewing these fees as a tax, because they are not tied to city services. Also, there's nothing you can do to eliminate or reduce the fee, such as by using pervious paving. (port)*
- *After all we did creating a 130-foot wide greenway with bioswales to filter runoff, we're still paying the same stormwater fee at our facility as the guy down the street who runs a pipe straight into the river. (marine terminal)*

E. Trails are employee amenity, heavy industrial liability.

Area trails are seen as an employee amenity by some businesses, and as a significant safety/security liability for heavy industry.

- *We do have the walking paths along the lakes. Our employees use them and enjoy them. Of course there are no sidewalks on Leadbetter. (distribution facility)*
- *There is very little recreation activity at the Swan Island parks after hours or on weekends. It might make sense to build a trail to improve access to these recreational areas and to the businesses. (industrial association)*
- *We are concerned about safety regarding trails through our facilities, because of the hazardous cargo that we handle. We love bike paths, but there is a place for them – not necessarily on industrial lands. It's dangerous to have people on our property – we've never allowed it. (marine terminal)*
- *Areas with heavy industrial activity should not be pressured to accommodate a walking trail. (industrial association)*

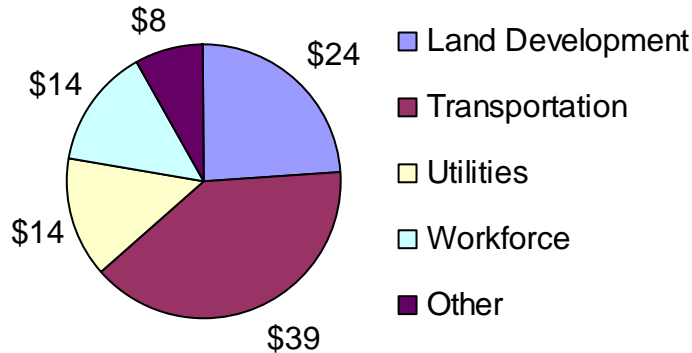
6. INDUSTRY'S PRIORITIES FOR PUBLIC INVESTMENTS HERE ARE IN TRANSPORTATION AND LAND.

Industry's priorities for public investments in these districts are in transportation and developable land, but as part of a broader strategy.

A. To benefit industry, spend about 39 percent of public investment on transportation and 24 percent on land supply.

Assuming a hypothetical budget of \$100 for local governments to spend on public investments in the harbor districts over ten years, we asked those interviewed to allocate it among five categories of investments, based on the goal of encouraging industrial retention, expansion, and development. Figure 4 shows, on average, how people responded.

Figure 4. Industry Priorities for Local Public Investments



		How would you spend \$100 of public funding				
		Land				
	Respondents	Development	Transportation	Utilities	Workforce	Other
Industrial Developers	4	44	38	15	4	1
Industrial Brokers	3	30	43	17	7	3
Industrial Associations	3	32	28	10	15	15
Property Owners	6	38	31	11	5	14
Marine Terminals & Ports	6	27	42	8	6	18
Railroads	4	24	65	4	1	6
Trucking & Warehousing	8	20	46	6	21	6
Manufacturing	14	11	30	27	28	4
Overall Average		24	39	14	14	8

B. Workforce and utilities are also important, especially for manufacturers.

The table in Figure 4 summarizes the range of responses, by the types of businesses or groups interviewed, to the question of priorities for public improvements. Manufacturers recommended spending 53 cents of the local public investment dollar on workforce and utilities, ranking them as higher priorities than any of the other business groups.

C. Hiring challenges are significant, but are already widely addressed.

Hiring low/mid-skilled industrial workers is a challenge for many growing firms and larger employers with retiring workers. Multiple public and private organizations are assisting businesses with hiring and training

challenges, including employment/training agencies, community colleges, schools, industry associations, immigrant organizations, and temporary services.

- *The people in between the unskilled workers and the college educated are a very small pool. It's hard to find those with a high school education and some technical skills. Getting people for creative jobs is not a challenge for us. Getting people for industrial jobs is the challenge. (human resources manager/representative)*
- *We're trying to hire right now and we're not getting applications. We wanted 300 applications and only got 200. Seventy five of those we invited didn't come to interviews. We pay \$20 per hour. (marine terminal)*
- *Workforce is a tough one. Getting qualified people here is hard. The workforce is aging and the schools aren't pumping workers out anymore. The kids have to figure out on their own that the field exists and get trained. There are temp agencies that specialize in welders or pipe fitters. Most of our workers are Asian. We are participating in Manufacturing 21, which is trying to site a new workforce training center. (heavy manufacturer)*
- *We usually use the International Refugee Center, which recruits and trains refugees and immigrants. We have a long history of using folks with limited English-speaking skills. Much of our original workforce was Vietnamese, Cambodian and Laotian, and now we have some second generation employees. These employees don't necessarily have low skills but they often have limited English. Our jobs don't require much communication. (manufacturer)*
- *We work a lot with the school system. The bulk of our part-time folks are recruited off of local college campuses. We have a school-to-work program for high school students—we even have a study room for them. We also have tuition reimbursement programs. (distribution facility)*
- *We have to train our workers ourselves anyway, so the workforce training programs don't help us. (railroad)*
- *Workforce is low on the list, not because it's unimportant, but because it has other sources of funding. There are lots of outside entities to help with this already. (property owner/representative)*
- *The education level of our shop and office workers is better in Portland than in many other places—in terms of basic math skills, for example. This is a good place to recruit people. Having a good quality of life helps too. (heavy manufacturer)*
- *We could use more amenities for employees in Rivergate. Things like daycare, restaurants, quick-stops, and better transit service. Daycare nearby would really help our workforce. (distribution facility)*

D. Need an overall seaport strategy.

Portland lacks a long-range competitive strategy as a mid-sized seaport.

- *One of my concerns is that there are lots of programs in place, many fingers in the pie, and no overriding strategy in place to pull it all together. So things are done piecemeal. (distribution facility)*
- *Portland is underutilized as a seaport. We have the transportation infrastructure, but it seems that population and market size are limiting. We should take some tips from Coors and Wendy's about how to thrive as the #3 player in the marketplace. That's our challenge. We need to refine and expand our market niche. (distribution facility)*
- *The Class I railroads don't want to be interrupted—they just want to hook and go. That's their business model. We need a different model for rail in this region. (heavy manufacturer)*
- *Some thought has to be put into a land bank for future river-dependent needs and expansion. (industrial association)*

E. Where will the money come from?

Where will the money come from for additional public investments?

- *The transportation needs far exceed what is budgeted. The system is not failing yet, but it will not support projected demands in the future. I don't want to see investment limited in the harbor area because of a constrained transportation system. (industrial association)*
- *Where do we find the money to do all this stuff without increasing taxes? (distribution facility)*
- *Would the freight community support tolls as a funding source for major improvements? There is some support for toll bridges, but the devil is in the details. What will it include? Freight is willing to pay its fair share in order to get through faster, but we don't want to pay for the commuters. (heavy manufacturer)*
- *Raising gas taxes is a sore issue because the trucking community has been split on it. Business isn't necessarily opposed to an increase. We need to get to the natural threshold levels. There are efforts to find alternative funding besides the gas tax. (heavy manufacturer)*

NEXT STEPS

Following these interviews, the next three phases of the Working Harbor Reinvestment Strategy will analyze and propose investments to respond to the priority issues identified by harbor area businesses.

Conditions, Opportunities and Constraints Analysis – Forecast harbor area growth. Assess infrastructure needs, focusing on district capacity, vacant site development needs, and catalyst projects. Analyze 10-year land absorption supply and development feasibility. Assess other business priorities for public investments.

Opportunity Sites Portfolio – In coordination with the integrated site design task of the River Plan, identify permissible prototype designs and review pathways and available assistance. Publish a harborwide portfolio of vacant and redevelopable sites.

Reinvestment Strategy – Develop a funding strategy, project selection criteria, and a 10-year capital improvements program for the harbor area. Recommend assistance resources to fill gaps. Recommend ongoing mechanisms to coordinate public investment planning that fosters economic development.