Southwest Washington Regional

Transportation Council

Clark County Freight Mobility Study

Technical Memorandum:

Task 2C Outreach to Shippers and Documentation of Representative Supply Chains: Interviews Summary

Prepared By:

Starboard Alliance Company, LLC

Prepared For:

RTC

September 2009

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1. Executive Summary

1.1 Background

This task was designed to reach out to various stakeholders and users of the multimodal transportation system, and based on that outreach, document representative supply chains significant to Clark County. Starboard Alliance Company LLC (Consultant) created three separate questionnaires: one for importers and exporters (shippers); the second for motor carriers; and the third for ports, barge operators and railroads (ports/barge/rail). The questionnaires, which were reviewed by the David Evans and Associates, Inc. (DEA) Consultant Team, RTC and Port of Vancouver USA staff, included queries regarding the volume of freight flows in, out, and through Clark County by transportation mode; location of manufacturing, processing, distribution center, and cargo handling facilities; shipping and distribution strategies; the strengths and weaknesses of Clark County's multimodal transportation system; types of service issues stakeholders have with the system and how these issues negatively impact their operations; and recommendations for how the multimodal transportation system might be improved.

A list of potential interviewees was developed by the DEA Team in coordination with RTC and Port staff, using industry and regional knowledge. An attempt was made to select companies that represent the top Washington state commodity and employment sectors, companies of varying sizes and business models, and key regional logistics service providers.

From May to August 2009, using that list, the Consultant conducted phone interviews with ten shippers, eight motor carriers, and seven ports, barge operators and railroads for a total of 25 stakeholders. The appropriate type of questionnaire was completed for each interviewee to ensure consistency of results. The data and comments collected for each of the three types of stakeholders was collated into three sub-reports, which can be found in the appendix. Because of the proprietary nature of the information disclosed by the stakeholders, no data or comments were attributed to a particular company in order to preserve confidentiality. For certain questions where the Consultant could make observations, these observations were included in *italics* after the question.

Anecdotal stories provided by stakeholders about their issues and potential recommendations for multimodal transportation system improvements were also included for future use in telling the story of why freight mobility is important to Southwest Washington's economy.

A list of the stakeholders interviewed is as follows:

- Ten Shippers: CalPortland, Columbia Machine, Columbia Sportswear, Frito Lay, Fred Meyer, Northwest Pipe, ProTech Industries, REpower, Trimac, and Vestas
- Eight Motor Carriers: ATS International Services, Atlantic Pacific Freightways, FedEx Express, Food Express, Helser Bros., Taylor Transport, UPS, and Wilhelm Trucking
- Seven Ports, Barge Operators and Railroads: BNSF Railway, Bernet Barge, Chelatchie Prairie Railroad, Port of Camas-Washougal, Port of Ridgefield, Port of Vancouver USA, and Tidewater Barge Lines

1.2 Key Study Findings

The following is a synopsis of key study results. The synopsis consists of the three stakeholder categories combined. Because of the relatively small sampling of companies in each category, it was difficult to draw meaningful conclusions for each survey question. Nonetheless, broad observations were made after many of the questions in each of the survey categories that will be useful for RTC's future strategic planning purposes.

The companies surveyed employ from 40 to 4,000 full-time employees. Shippers have distribution centers all over the U.S., but most have at least one in Washington or Oregon, and only one expects to add a distribution center in the next two years.

The types of products surveyed companies move through Clark County range from raw materials and agricultural products to fast moving consumer goods. Raw materials, components and finished products are sourced from all over the U.S. and the world, but most shippers use suppliers in Oregon and Washington. Shippers sell to customers across the U.S., but primarily on the West Coast. Sales to foreign customers are fairly limited and import and export gateways are primarily on the West Coast. Motor carriers report that the key origins and destinations of their customers' cargo are in Washington and Oregon.

Shippers use container ships, breakbulk vessels, barges, airfreight, railcars, a wide variety of trucks, and small package service to transport products to production sites or to market. All shippers use multiple modes in their supply chains and only one shipper anticipates shifting cargo from one mode to another in the next two years. Motor carriers lease or own a wide variety of types of trucks to service their customers from conventional full truckload and less-than truckload (LTL) trucks to specialized trucks that can handle over-dimensional cargo and bulk products.

It was difficult for many of the shippers and logistics service providers to furnish their 2008 inbound and outbound volumes. But it is clear that 2009 is proving to be a challenging year for stakeholders due to the global economic crisis. About half of the shippers estimate their inbound and outbound volumes will decline; nearly all motor carriers anticipate their volumes will decline; and almost half of ports, barge operators and railroads say their volumes will be less than in 2008. Stakeholders expect the situation in 2010 will stabilize, with about half estimating their volumes will either grow or remain stable. 2015 is harder to predict, but more than half of the stakeholders believe volumes will grow by that time, with the balance saying it is too far off to accurately predict.

About half of the shippers intend to make changes to their supply chains in the next two years, which makes sense since companies need to be nimble to remain competitive. The changes they propose include cutting costs, increasing the portion of cargo that bypasses distribution centers, importing less by increasing manufacturing operations, and consolidating into full truckloads (fewer LTL shipments). Only three motor carriers say they will change their business models, for example, by expanding their geographic scope or diversifying the types of trucks they utilize. Three ports and railroads intend to change their business models to attract new business, mainly by improving infrastructure and services.

Many global trade and transportation trends are affecting stakeholders. Five shippers indicated their concern over the rising cost of fuel. Eleven other comments were provided, some of which related to road, interstate bridge, and rail congestion. The global economic crisis of 2008 and

2009 has negatively impacted demand for truck transport and forced motor carriers to drop their rates to customers to maintain market share. The escalation of fuel prices which increases operating costs is also troublesome to motor carriers. Ports, barge operators and railroads are dealing with a wide range of issues from the global economic crisis to sector-specific problems. Stakeholders cannot always make changes to their business models to counterbalance the negative effects of global trade and transportation trends. However, shippers cited sixteen ways they are dealing with these trends, many of which related to cutting costs and operating more efficiently. Some motor carriers are cutting costs and expanding their geographic reach of services to attract business. Ports, barge operators and railroads identified nine ways they are trying to cope, mainly related to increasing storage area and encouraging highway interchange improvements.

It is encouraging to note that shippers furnished fourteen comments about the strengths of Clark County's multimodal transportation system. Six praised the Port of Vancouver and six praised the road and interstate system. The Port of Vancouver also received high marks from motor carriers and there were several positive comments about the road and interstate system as well. Ports, barge operators and railroads cited sixteen positive things about the system; most related to the port and river system, good road and highway access, and good rail system. In terms of weaknesses in the County's multimodal transportation system, shippers cited thirteen. Five concerned I-5 bridge delays and six related to congestion and access to the road and interstate system. The biggest complaint that motor carriers had was I-5 bridge congestion. Ports, barge operators and railroads identified thirteen weaknesses. The biggest issues concerned congestion on the Interstate (I-5) and Glen Jackson (I-205) bridges and navigational challenges in the river system. Three out of ten shippers and one out of seven ports, barge operators and railroads could not identify any weaknesses, which can be viewed positively.

The most heavily-traveled county routes by shippers and motor carriers are I-5, I-205, I-84, Mill Plain, 4th Plain, and State Route 14. Shippers and motor carriers offered information about 24 bottlenecks; the most frequently identified being congestion on I-5 and I-205. Ports, barge operators and railroads cited fifteen specific bottlenecks, with congestion at the Vancouver Wye and rail yard and navigational problems being the most frequently identified. It was easier for motor carriers to estimate the additional costs incurred due to these bottlenecks than shippers, ports, barge operators or railroads. These additional costs can be substantial – up to $1,000 per hour when a motor carrier transports high value cargo or close to $4,000 per day per truck, and multiple thousands of dollars a minute when the BNSF mainline is shut down at the Vancouver Wye when railcars are interchanged by the Portland Vancouver Junction Railroad. Most (80 percent) of the motor carriers are able to adjust their operations to avoid peak traffic times by loading cargo at night and/or dispatching drivers early in the morning, at midday or at night when possible.

The bridges themselves are part of the I-5 and I-205 transportation corridors. The Interstate Bridge (I-5) and Glen Jackson Bridge (I-205) are critical, major arteries for Clark County. Ninety percent of the shippers and all of the motor carriers utilize the bridges, and many make multiple trips across daily. The customers of five of the ports, barge operators and railroads use the bridges. I-5 Bridge congestion negatively impacts eight shippers, all motor carriers, and the customers of two of the ports, barge operators and railroads. Whenever possible, shippers and motor carriers try to schedule deliveries and dispatch drivers during non-peak traffic times to avoid bridge congestion. Some build extra time into schedules to maintain delivery time

integrity, but this adds costs to supply chains. But there are times when trucks must travel across the Interstate or Glen Jackson bridges when traffic is heavy in order to fulfill pickup and delivery appointments, and the time spent idling results in higher operating costs.

Stakeholders identified 32 potential regional transportation system challenges with which they may have to deal in the next three years. The three key areas related to worsening road and interstate congestion, potential delays during the construction of a new Columbia River crossing, and rail system congestion issues.

It is encouraging that stakeholders provided 35 recommendations for how WA legislators and public officials might improve the regional multimodal transportation system. Ten companies supported construction of a new Columbia River crossing in a timely manner, although three hope legislators implement tolls at reasonable levels that will not negatively impact users too greatly. Three said hauling triple trailers should be allowed. There were several comments about the need for legislators to take a regional system-wide view of the County's multimodal transportation system when formulating policies and strategies to enhance freight mobility. If these recommendations were implemented, stakeholders believe they would receive tangible bottom-line benefits including increased operating efficiency, lower costs, improved transit travel times and reliability, improved customer service, and increased business. One motor carrier estimated these benefits to be worth $1,000,000 per year for his company; another said it would translate into a 10 percent reduction in operating costs. Although none of the shippers could estimate the value of the benefits, nearly all commented that the benefits would be very helpful and, in some case, substantial.

The most important message that can be gleaned from these study findings is that in this challenging economic environment, if Washington legislators and policy makers could enhance the multimodal transportation system in ways that enabled companies to conduct business more efficiently and cost-effectively, it would help stabilize Clark County and the State's economy and slow down the loss of jobs. Movement of freight and the economy are inextricably linked, so health for one means health for the other.

Appendix: Stakeholder Questionnaire Results

Shipper Questionnaire

Ten Shippers Interviewed: CalPortland, Columbia Machine, Columbia Sportswear, Frito Lay, Fred Meyer, Northwest Pipe, ProTech Industries, REpower, Trimac, and Vestas

Shipper Supply Chain Profile Questions:

1. What key products does your company sell, produce or distribute?

Wind turbines and components (2); aluminum and steel truck accessories (boxes, fenders, flatbeds, etc.); equipment used to manufacture concrete products; building materials; laminated wood panels and components for casegood manufacturers (cabinetmakers); wall paneling; sand and gravel; cement; ready-mix concrete; large diameter welded steel pipe for water transmission; food; snack food products; general department store merchandise; footwear; apparel; fashion accessories

Observation: Because of the shippers selected to participate in the study and the small sampling, the commodities fall into distinct categories, but are quite varied.

2. How many full-time employees work for your company in WA and/or OR?

40, 50, 81, 205, 300, 350, 525, 900, 1500, 4000

3. What key raw materials, components or finished products does your company transport inbound into your WA and/or OR facility (ies)?

Steel (3); steel coil and plate; aluminum; cement; sand and gravel; welding supplies; fittings; components (conveyors, belts, motors, electrical controls, panels, and mixers), lumber; plywood; particle board; decorative papers; glue; paint; safety equipment; wind turbine towers, cells and hubs; wind energy components; food; raw potatoes; raw corn; oil; spices; snack food products; cardboard; film for bags; general department store merchandise; apparel; office supplies

4. From what key foreign and domestic locations? (foreign countries and states)

Foreign	Responses	Domestic	Responses
China	5	OR	5
India	3	WA	3
Germany	2	CA	2
Hong Kong	2	ID	2
Indonesia	2	NC	2
Korea	2	MT	1
Japan	2	NC	1
Vietnam	2	NE	1
Australia	1	SC	1
Canada	1	SD	1
Denmark	1	WA	1
Malaysia	1	Midwest	1
New Zealand	1	48 States	1
Russia	1	49 States except HI	1
Spain	1		
Sri Lanka	1		
Thailand	1		
UK	1		
Vietnam	1		

Observation: Most shippers source close to home in WA and OR, but some use suppliers across the U.S. and in foreign countries.

5. What key raw materials, components or finished products does your company transport outbound from your WA and/or OR facility (ies)?

Wind turbines and components (2); aluminum and steel truck accessories (boxes, fenders, flatbeds, etc.); equipment used to manufacture concrete products; building materials; laminated wood panels for casegood manufacturers (cabinetmakers) and components; wall paneling; sand and gravel; cement; ready-mix concrete; large diameter welded steel pipe for water transmission; food; snack food products; general department store merchandise; apparel

6. To what key foreign and domestic locations? (foreign countries and states)

Foreign	Responses	Domestic	Responses
Canada	3	WA	7
Russia	1	OR	7
100 countries	1	CA	5
		ID	4
		UT	4
		AK	3
		CO	2
		50 states	2
		MT	1
		NM	1
		TX	1
		WY	1
		Midwest	1

Observation: Nearly all shippers sell to customers in WA and OR, but some market across the U.S. Foreign sales are more limited.

7. What transport modes do you use? (container ship, bulk vessel, breakbulk vessel, barge, air, rail, truck, small package)

Mode	Responses
Container Ship	5
Bulk Vessel	0
Breakbulk Vessel	4
Barge	4
Airfreight	3
Railcar	5
Rail Gondola Car	1
Full Truckload	7
LTL Truck	3
Dump Truck	1
Cement Truck	1
Flatbed	2
Heavy Haul Specialized Flatbed	1
Stepdeck Truck	1
Double Drop Truck	1
Small Package	4

Observation: It is clear that shippers use a wide variety of modes of transport including many types of specialty trucks. No shipper used only one mode.

8. What were your inbound volumes in 2008 by mode and percent by modal category? (containers, bulk tons, airfreight kilos, rail carloads, intermodal rail containers, full truckloads, LTL truck shipments, small package shipments)

Mode	Vessels	Tons	Kilos	Units	Ship-ments	Contain-ers	%
Water							
Barge		Millions					35 (1) 40 (1)
Ocean vessel	80	Hundreds of thousands		100 (1)	10 (1)	20 (1) 2900 1)	5 (2) 9 (1) 80 95
Rail							
Bulk		68,224 Thousands			702		1 (2) 11 30 60 75
Intermodal		17,472			998		15
Breakbulk/ Neobulk							
Truck							
Full truckload		96,408			4930 20		5 20 59 70 74
LTL truck					50		15
Dump and cement		Millions					55

Mode	Vessels	Tons	Kilos	Units	Ship-ments	Contain-ers	%
truck							
Flatbed and heavy haul trucks				100			20
Air			132,000				5
Small Package					20		
Can't Estimate Volumes		(2)					

Observation: Many shippers had difficulty estimating their volumes. A few could only list the percent by mode.

Do you forecast your inbound volume to grow, decline or be relatively the same in 2009, 2010 and 2015 compared with 2008? By what percent do you forecast your volume to increase or decline in 2009, 2010 and 2015?

Year	Grow	Grow %	Decline	Decline %	Remain Stable	Unsure
2009	1	50	5	5 10 18 40 Can't estimate (1)	3	1
2010	4	7 50 Can't estimate (2)			3	3
2015	6	20 30 50 Can't estimate (3)				4

Observation: 2009 will be a challenging year for shippers with half expecting their inbound volume will decline. 2010 will be a better year as 70% anticipate either increased or stable volume. 60% believe their inbound volumes will grow in 2015, but the balance cannot make a prediction this far in advance.

9. What were your outbound volumes in 2008 by mode and percent by modal category? (containers, bulk tons, airfreight kilos, rail carloads, intermodal rail containers, full truckloads, LTL truck shipments, small package shipments)

Mode	Tons	Units	Shipments	Containers	%
Water					
Barge					2
Ocean vessel	10,920		5	624	5
Rail					
Bulk	Millions				5 50
Intermodal					5
Breakbulk/Neobulk	3400				50
Truck					
Full truckload	218,400		5	12,480	95 (3)
LTL truck			35		2
Dump and cement truck	Millions				50
Flatbed					96
Specialized heavy haul truck		10,000			50
Small Package			55		
Can't Estimate Any Volumes	3				

Observation: Many shippers had difficulty estimating their volumes. A few could only list the percent by mode.

10. Do you forecast your outbound volume to grow, decline or be relatively the same in 2009, 2010 and 2015 compared with 2008? By what percent do you forecast your volume to increase or decline in 2009, 2010 and 2015?

Year	Grow	Grow %	Decline	Decline %	Remain Stable	Unsure	N/A
2009	1	Can't estimate	5	6 10 18 40 Can't estimate (1)	3		1
2010	4	7 Can't estimate (3)			4	1	1
2015	6	20 30 Can't estimate (4)				3	1

Observation: 50% of shippers estimate their outbound volume will decline in 2009. The situation will improve next year with 80% expecting their volume to either grow or remain stable. Shippers are more bullish about 2015; with 60% anticipating volume will grow, with the balance being unsure.

11. Do you anticipate shifting some portion of your cargo from one mode to another in 2009 or 2010? If so, from what mode to what mode?

Yes	From LTL to Full truckload			No
1	1			9

Observation: The modes of transport that shippers intend to use in the near future will not change measurably.

12. What are you primary import or export gateway cities?

Gateway	Responses
Portland	5
Seattle	4
Los Angeles/Long Beach	3
Tacoma	3
Vancouver	3
Blaine	2
Anchorage	1
Beaumont, TX	1
Great Lakes ports	1
Houston	1
Kalama	1
Laredo, TX	1
Miami	1
New Orleans	1
Stockton, CA	1
Sweetgrass, MT	1
New Westminster, BC	1

Observation: Import and export gateways are primarily on the West Coast.

13. In what cities are your primary domestic distribution centers located? Portland

City	Responses
Portland	4
Boise	2
Vancouver	2
Adelanto, CA	1
Colton, CA	1
Columbia Gorge wind farms	1
Denver	1
Everett	1

City	Responses
Federal Way	1
Harrisburg, OR	1
Las Vegas	1
Mojave, CA	1
Olympia	1
Parkersburg, WV	1
Rialto, AZ	1
Robards, KY	1
Saginaw, TX	1
Salem	1
Seattle	1
Spokane	1
Tacoma	1
Wherever Company has project served by rail	1

Observation: Shippers have distribution centers all over the U.S., but most have at least one in WA or OR.

14. If you use the services of 3PL warehouse operators, in which key cities are they located?

Yes	City	N/A
1	Portland Manly, IA	9

Observation: The usage of 3PL warehouse operators is not prevalent for the shippers interviewed. This could be related to the types of commodities they produce or ship, the business model to invest in bricks and mortar and handle warehouse activities in-house, and/or the lack of a need for additional storage or value-added services.

15. Do you intend to add domestic distribution centers in 2009 or 2010? If so, in what states?

Yes	State	No
1	IA Southern MN TX Southern Ontario, Canada Alberta, Canada	9

Observation: Because sales are not expected to increase substantially in the next two years, 90% of shippers do not plan to add distribution centers because their current facilities are sufficient.

16. Do you intend to make major changes to your supply chain in 2009 or 2010? If so, what kind?

Yes	Type	No	Unsure
4	Company will increase the portion of cargo that moves direct from the foreign supplier to the customer, bypassing Company's distribution center to save transportation and warehousing handling costs. Company will try to cut costs. Company has three U.S. manufacturing facilities that are operational or will soon come online, so Company will import less. Company is looking at purchasing products at the corporate level rather than allowing field personnel to order to reduce the number of vendors, take control of transportation, and consolidate more shipments into full truckloads rather than LTL, which will reduce costs.	5	1

Observation: 40% of shippers intend to adjust their supply chains in a variety of ways.

17. What global trade and transportation trends currently impact your company the most?

Trends
▪ The price of fuel impacts the cost of doing business. ▪ Company is concerned with the rising price of fuel. ▪ The rising price of fuel for all modes of transport is increasing Company's operating costs. ▪ Rising fuel costs ▪ Fuel surcharges ▪ The additional federal regulations governing supply chain security such as C-TPAT has slowed down Company's supply chain and added costs. ▪ The risk of business interruption due to uncontrollable security issues like terrorist attacks and uncertainty of if or when those events may occur forces Company to allocate resources to contingency planning. ▪ There is reduced availability of breakbulk vessels. ▪ Increasing congestion slows down Company's supply chain so it has to add drivers to move the same volume, which adds costs. ▪ Even though there is an oversupply of truck capacity currently, it is harder to get loads transported in some lanes because drivers aren't interested in going into certain areas at any price because they want a round trip. This is particularly true for flatbeds since drivers don't want to deadhead 200 to 400 miles. ▪ WA law prohibits pulling triple trucks so Company's own truck fleet drivers perform a shuttle service where the driver transports two trailers from the Vancouver facility a few miles across the CRC to the PUC yard in Portland, bobtails back to the Vancouver facility to pick up the third trailer, and transports it to the PUC yard where the driver hooks all three trailers together and then begins the delivery route across OR, where triples are allowed. Then at the end of the day, the driver performs a reverse shuttle operation to get the three trailers back to the Vancouver facility. This increases the number of trips across the CRC, increases travel time for drivers, and Company's operating costs. ▪ Congestion around the CRC causes delays. ▪ Sometimes railcars get delayed in transit between Portland and the Company's Vancouver facility rail siding, and even though the distance is only a few miles, it can take three days. There have been instances where the Company has come close to shutting down a production line as a result. ▪ Many of the new environmental regulations relating to global warming are impacting the Company locally. ▪ Company will gain business because states are mandating renewable energy.

Trends
▪ The extension of the U.S. tax credit for renewable energy through the end of 2009 will likely be extended, bringing more business to Company. ▪ Can't cite any (1)

Observation: Five shippers indicated their concern over rising fuel prices. There were eleven other comments of various kinds including road, CRC, and rail congestion.

18. How are you adjusting operations to deal with these trends?

Methods of Adjusting
▪ Company tries very hard to keep costs down so its products are competitive. ▪ Company passes on fuel surcharges to its customers. ▪ Company is making sure that every truck departing its distribution centers is fully loaded to reduce the amount of empty space it pays to transport. ▪ Company factors in the extra time for performing the shuttle operation into its driver delivery schedules in order to minimize delays to customers. ▪ Company has added extra motor carriers to its supply chain to give it a better chance of moving loads into more remote areas. ▪ Company recently started using a transportation management software system (TMS) to better plan routing. ▪ Company is testing a dedicated run program on certain lanes with a couple of motor carriers that will dedicate drivers and in return, be paid for a round trip to ensure the freight arrives at destination on time. ▪ Since there is tighter capacity on flatbeds, Company is trying to partner with the right motor carriers to get products moved when needed so it will be in a better position once the economy improves and there is more competition among shippers for truck capacity. ▪ The way Company's customers are now managing their business has forced Company to change how it transports its products, because Company often has to cancel a load pickup or push back the pickup to accommodate the customer's schedule, which negatively impacts the motor carrier. ▪ Company ensures it has back-to-back contracts between itself, the breakbulk vessel operator and its customer to hedge against an escalation in fuel prices. ▪ Company does contingency planning for fuel prices. ▪ There is nothing Company can do about rail delays. ▪ Coupled with this issue of reduced availability of breakbulk vessels is that Company has a problem with limited storage capacity at its facilities, so the staff must be very good at forecasting customer demand far in advance in order to

Methods of Adjusting
match it with supply. Sometimes the breakbulk vessel must wait at anchor till Company's facility has enough empty capacity to accept the product in the vessel. The Company pays a high demurrage fee for delaying the vessel unloading. Occasionally, Company has had to reroute vessels to other Company facilities for unloading, which increases transit time and costs. ▪ The Logistics Department strategizes with the Sourcing Department in advance of bringing on new foreign suppliers or adding new foreign countries to mitigate the risk of business disruptions. ▪ The Logistics Department speaks with the Import and Trade Compliance Department regularly in order to be in front of new customs regulations and trade compliance issues. ▪ To comply with the new environmental regulations relating to global warming, Company has been updating its fleet of diesel trucks with modern engines that produce less air pollution. The Company has several hundred trucks in WA and OR, so this fleet upgrade has dramatically increased operating costs. ▪ N/A (1)

Observation: Sixteen ways of adjusting business models to deal with global trade and transportation trends were cited, many of which related to cutting costs and operating more efficiently.

Regional Transportation Questions:

19. From your perspective, what are the strengths of Clark County's multimodal transportation system?

Strengths
▪ The Port of Vancouver is easier to do business with than many other ports. ▪ The Port of Vancouver has been proactive in pursuing wind energy and has taken the initiative to upgrade its facility. The Port staff understands the nuances of this commodity. The Port also helped entice the UP back to the Port, which is advantageous for Company. ▪ Having barge facilities at Port of Vancouver USA is a big advantage for Company. ▪ County and Port of Vancouver USA are very supportive of Company. ▪ Having access to breakbulk facilities at Port of Vancouver USA is very helpful. ▪ The proximity to major interstates and ocean ports is good. ▪ It is in a good location with good access to points north, south and east. ▪ Company does not experience congestion on roads and highways from the Port of Vancouver USA to destinations. ▪ Company enjoys having easy access to the interstate system. ▪ ODOT and WSDOT issue permits to move cargo timely. ▪ The ease of trucking cargo from the ports of Seattle and Tacoma to Company's distribution center in Portland is beneficial. ▪ Improvements in Clark County's road system, particularly Highway 500 and Padden Parkway, in the past ten to fifteen years have helped from a freight mobility standpoint. ▪ Company has been able to find a good pool of qualified drivers for its own fleet. ▪ Having rail access as an option is good because this mode is cheaper than truck for Company. ▪ Can't cite any (2)

Observation: Fourteen positive comments were cited; six relating to the Port of Vancouver and six concerning the road and interstate system.

20. From your perspective, what are the weaknesses of Clark County's multimodal transportation system?

Weaknesses
▪ Congestion at the CRC (2) ▪ Congestion on interstate bridges ▪ Transit time unreliability is caused by CRC congestion. ▪ Congestion and bridge lifts on the CRC cause delays. ▪ The road and highway system could be better. ▪ Congestion on I-5 and I-205 slows down operations. ▪ Company would like better access to Highway 14 and I-205 in East Clark County. ▪ The biggest weakness is highway congestion at key points. ▪ Having better road access to Port of Vancouver USA would be helpful. ▪ WA and OR are more restrictive regarding weights limits and the type of equipment needed for transporting over-dimensional cargo on highways than some other states. ▪ Company has an issue with low clearances on the rail system. ▪ Rail congestion from Portland to Vancouver ▪ Can't cite any (3)

Observation: Thirteen weaknesses were cited; five concerned bridge delays and six related to congestion and access to the road and interstate system. Three out of ten shippers could not think of any negative things to say, which can be viewed positively.

21. What key transportation corridors do you use to truck cargo in, out or through Clark County?

Corridors	**Responses**
I-5	9
I-84	4
Mill Plain	4
I-205	3
Hwy 14	2
78th	1
139th	1

Corridors	Responses
SE 192nd Avenue	1
SE 164th Avenue	1
Fruit Valley Road	1
Salmon Creek	1
SR 500	1
SR 503	1
Back country roads	1
Motor carriers arrange the routing	1

Observation: I-5 by far is the most critical corridor with all but one shipper listing it. I-84, Mill Plain and I-205 are also important for many shippers.

22. What are the key multimodal transportation-related and infrastructure-related bottlenecks or issues in Clark County and how do they negatively impact your operations? These could be related to congestion, velocity, safety, physical structure, etc. Keep in mind that some of these bottlenecks and issues may currently be impacting you less due to the global economic crisis of 2008 and 2009.

Bottlenecks and Issues
▪ Congestion at the CRC (3) ▪ Congestion on I-5, I-205 and the CRC ▪ Increased transit time due to delays on CRC and I-205 Bridge ▪ Congestion and bridge lifts on the CRC cause delays. ▪ Congestion at Mill Plain/Chkalov, congestion at Highway 14/164th Avenue, and congestion on I-5 at the CRC all increase Company's operating costs, increase transit times, and negatively affect performance and on-time delivery. ▪ Motor carriers deal with any issues that arise and don't report them to Company. ▪ Can't cite any (1)

Observation: Six out of the eight bottlenecks related to congestion and delays on the bridges and/or interstate system.

23. Can you estimate the additional transportation and operating costs you incur as a result of these bottlenecks and issues compared with your typical transportation and operating costs?

Yes	**No**
2	8
▪ The cost of congestion is built into the cost of doing business and it is hard to estimate incremental costs. It costs Company $2 per minute to operate one of its trucks, so delays add direct costs. Company needs consistency and reliability. If consistency varies, it is a problem for Company. ▪ Company pays drivers an extra $15 per hour for idle time when sitting on congested roads or waiting for accidents to clear.	▪ Company builds extra time into its delivery schedule to allow for delays since it must deliver on time, otherwise it could be assessed high penalties up to $100,000 and/or liquidated damages. All this extra time is built into the cost per load ▪ Company has not experienced increased costs.

24. Does your company transport cargo across the I-5 Interstate Bridge - Columbia River Crossing (CRC)? If so, how often? (daily, weekly, monthly, other frequency)

Yes	**No**	**Unsure**	**Frequency**	**Responses**
8	1	1	Daily Multiple times per day	4 4

Observation: Only one shipper is certain it does not transport cargo across the CRC. 80% of the shippers have enough cargo for their motor carriers to travel across the CRC each day, with 40% saying they make multiple trips per day.

25. Does congestion at the CRC negatively impact your company?

Yes	No	Unsure	N/A
8	0	1	1
▪ Because one of Company's products is perishable and delays affect product quality, customer satisfaction, and ultimately, future sales. Moreover, it costs Company $2 per minute to operate one of its trucks, so CRC delays add direct cost and negatively impact customer satisfaction.			

Observation: CRC congestion is a problem for 80% of the shippers.

26. If so, how has your company had to adjust operations to deal with CRC congestion?

- Company adjusts its delivery schedule to load at night when possible to avoid peak travel times.
- Company dispatches drivers out during non-peak traffic hours when possible.
- Company tries to schedule deliveries outside of peak CRC traffic times on shipments from OR to WA and from WA to OR, but this can't always be done since customers often desire specific deliveries, which can be during peak CRC traffic times. Furthermore, Company can't always provide the same product from one of its other facilities. So it sometimes has to schedule production in such a manner that one facility is underutilized and the other is over-stressed beyond capacity. This increases costs through overtime pay at one facility and idle employee time at another. Dead-head trucks also can result, which increases transportation costs.
- Company tries to load and move product at night when possible, tries not to operate during peak traffic times, and builds in delay time to its driver delivery schedules so they won't miss the delivery window on routine runs.
- Company tries to operate its trucks at night as much as possible to avoid peak traffic times.
- Company builds extra time into its schedule.
- Company has to add staff and orders get delayed.
- Company has to wait for inbound trucks to arrive at its facilities and this can impact the production schedule.
- N/A (1)

Observation: Eight comments were provided. Six companies actively try to adjust their operations by working at night and/or dispatching their drivers to avoid the CRC during peak traffic times when possible.

27. With what regional transportation system challenges do you anticipate your company will have to deal in the next three years?

Challenges
▪ Company fears that road access to Port of Vancouver USA will worsen and freight mobility will be negatively impacted. ▪ Road and highway congestion will get worse. ▪ Increased highway congestion will drive up operating costs and slow deliveries. ▪ Construction of the new CRC may cause further delays and detours. ▪ Once the new CRC is under construction, Company anticipates having to deal with more congestion and possibly detours. ▪ Overall congestion in Metro Portland will increase and slow down Company's supply chain. ▪ When the economy improves and unemployment decreases, there will be more people on the road competing with trucks and congestion will increase. ▪ There will be a potential increase in road and highway congestion. ▪ As the economy improves, rail infrastructure will get back to being at capacity and the railroads will turn away cargo like over-dimensional, so there will be more overflow to truck especially for over 800 mile trips. ▪ Clearances and permitting has become more rigorous and difficult for wind energy shippers since the MN bridge collapse. ▪ Same as Company faces now. ▪ Can't cite any (2)

Observation: Eleven comments were made. Six related to worsening highway congestion and two concerned potential delays during the construction of a new CRC.

28. What can WA legislators and public officials do from a physical, policy or regulatory standpoint to improve the regional multimodal transportation system?

Recommendations
▪ Allow triple trailers to be hauled. (2) ▪ Build a new CRC quickly. ▪ Build a new CRC to improve freight mobility. ▪ Improve the flow of traffic on I-205 from Oregon City to up past the Mill Plain exit by fixing the CRC and adding highway capacity. ▪ Build another crossing across the Columbia ▪ Take a comprehensive look at the entire Northwest OR and Southwest WA region as a whole, rather than from separate state perspectives, and form regional freight mobility policies that address mobility and safety, particularly at the CRC. ▪ Having the HOV lanes on I-5 is good, but the distance should be extended north and south to alleviate congestion. ▪ Reduce road and highway congestion. ▪ Do what it takes to keep traffic moving at the posted speed limits. ▪ Improve access on I-205 south of the Glen Jackson Bridge to PDX and the PDX airport industrial area. ▪ Don't add a toll on the new CRC. ▪ WSDOT and local agencies need to be more accommodating of wind energy since legislators are supportive, and requirements are so onerous now. ▪ Can't cite any (2)

Observation: Thirteen recommendations were offered. Five related to bridges across the Columbia and two companies suggested that triple trailers be allowed on WA highways.

29. What benefits would these improvements bring to your business?

Benefits
▪ Streamlined deliveries will not be hindered by traffic congestion. ▪ There would be improved transit time consistency and reliability. ▪ There would be greater efficiency and fewer delays. ▪ It would lower operating costs. ▪ Since Company's logistics service providers could move cargo more reliably and quicker, they are less likely to raise Company's rates as quickly. ▪ Company would be able to more efficiently deliver projects to its customers so the projects could get on line faster and more cost effectively. ▪ Can't cite any (3)

Observation: The six comments offered related to increased operating efficiency, lower costs, improved transit times and reliability, and improved customer service, all of which are critically important to businesses.

30. Can you estimate the reduction in transportation or operating costs these benefits might represent to you?

Yes	**No**
0	10
	This would lower Company's operating costs by eliminating miles traveled and reducing fuel usage, as well as Company's carbon footprint. It is difficult to estimate cost reduction. It would likely mean transportation rates and fuel surcharges would rise slower.

Observation: Although none of the shippers could estimate cost savings if their recommendations were implemented by WA legislators, nearly all commented that the benefits would be very helpful and, in some cases, substantial. And in this challenging economic environment, enabling companies to conduct business more efficiently translates into retaining jobs and helping to stabilize the economy.

31. What else would you like the RTC to know?

Comments
▪ Company is worried that tolls on the new CRC might be so high that it forces too many more vehicles onto I-205, thereby exacerbating traffic on that route. Company would like to see the tolls set at a reasonable level. ▪ Don't toll the new CRC because it penalizes the local people. ▪ Company is pleased with how it has been treated by the County and Port of Vancouver USA; it is a business-friendly environment.

Motor Carrier Questionnaire

Eight Motor Carriers Interviewed: ATS International Services, Atlantic Pacific Freightways, FedEx Express, Food Express, Helser Bros., Taylor Transport, UPS, and Wilhelm Trucking

Motor Carrier Business Profile Questions:

32. What key products does your company transport in, out and through Clark County on behalf of your customers?

Products
Wind energy components (2), documents (2), consumer goods (2), manufactured goods (2), perishables (2), steel and PVC pipe, shingles, power generating equipment; project cargo, heavy lift items, long and heavy bridge cast girders, cement bridge sections, machinery, HVAC units, oversized products, recycled and waste concrete and asphalt, construction waste, hot asphalt, crushed rocks, vehicles, dangerous goods, bulk food products, bulk corn starch, and bulk paper mill chemicals

1. How many full-time employees work for your company in WA and/or OR?

Full-time Employees
40, 42, 45, 48, 75, 120, 400, and 3600

2. Of that number, how many are truck drivers?

Truck Drivers
28, 30, 32, 35, 55, 102, 300, and 2650

3. In what WA and OR cities are your primary cargo handling facilities and truck terminals located?

WA	Responses	OR	Responses
Vancouver	4	Portland	4
Seattle	3	Tualatin	2
Longview	1	Hermiston	1
Olympia	1	Roseburg	1
Puyallup	1	Swan Island	1
Redmond	1		
Spokane	1		
Tacoma	1		

4. Do you intend to add or eliminate cargo handling facilities or truck terminals in WA or OR in 2009 or 2010? If so, how many in each state?

	Add Yes	Add Number	Add No	Eliminate Yes	Eliminate Number	Eliminate No
WA	1	1	7	1	1	7
OR	1	unknown	7	1	2	7

Observation: In the next two years, the motor carriers generally expect to maintain their current number of facilities due to poor economic conditions and reduced demand for their services.

5. What types of trucks do you use?

Type	Responses
Flatbeds	3
Parcel delivery vans (from 200 to 1200 cu. ft.)	2
Single and tandem axle tractors with single, double and tripe trailers	1
Specialized heavy haul flatbeds	1
Open deck flatbeds	1
Flatbeds	1
LTL flatbeds	1

Type	Responses
Class 8 heavy haul trucks	1
Lowboys	1
Dry and liquid bulk tankers	1
Dump trucks, side dumps and semi-end dump trucks	1
Sweepers	1
Water trucks	1

Observation: Because of the motor carriers selected for this study, there was a heavy concentration of specialized carriers rather than general full trailer and LTL carriers, hence the types of trucks in use varies greatly. Specialized heavy-haul transporters are very prevalent in the region, particularly those that move bulk products to and from the Port of Vancouver.

6. How many trucks are in your fleet in WA and OR?

Number of Trucks
35, 41, 42, 47, 50, 116, 300 and 2879

7. Do you lease or own these trucks?

Lease	Own	Both	Comment
1	4	3	Owns but over time is selling trucks on contract to drivers

8. Do you intend to increase or decrease the size of your truck fleet in 2009 or 2010? If so, by what percent?

Increase	Increase %	Decrease	Decrease %	Remain Stable
2	12% unknown	4	3% 10% 25% unknown	2

Observation: Because of the challenging economic environment, 75% of the motor carriers intend to either reduce or maintain the number of trucks in their fleets by the end of 2010.

9. What is your current average fully loaded cost per hour?

Cost Per Hour
▪ $225 (hauling high-value products) ▪ $60 ▪ $57.77 ▪ $57 ▪ $23.95 including benefits ▪ Company makes 20% gross margin on each load and the driver gets 80%, which he must use to cover his costs. To keep whole, the Company also charges a fuel surcharge to customers per load, the level of which is changed every Monday. Delays reduce the number of trips a driver can make each day, and therefore, decreases productivity. ▪ Company is impacted by federal hours of service rules because when the truck is idling due to congestion, the driver might have to stop for the night without delivering the load. This may cause the driver to miss the opportunity to pick up his next load because he can't get back to the terminal in time. ▪ If there are delays on the route from Vancouver to the ports of Tacoma or Seattle, the driver might miss the barge sailing cutoff for cargo destined to AK, resulting in the Company having to contact a competitor to broker the load out and have that competitor move the load on behalf of Company's shipper to the port to meet the barge cutoff. In this case, the Company's gross margin drops from 20% to 10%. ▪ Can't estimate since it varies drastically across the fleet

Observation: Truck operating costs vary considerably and depend upon the type of truck in use and sometimes by the commodity hauled. Transit delays often cause the driver to lose the opportunity to haul another load or miss a delivery window, which erodes gross margins.

10. What were your volumes inbound into your WA and OR facilities in 2008? (full truckloads, LTL truck shipments, etc.)

Mode -Truck	Tons	Units	Shipments
Full truckload			1,004,000
LTL truck			
Specialized heavy haul flatbed			3100
Flatbed	37,000		Can't estimate
LTL flatbed			Can't estimate
Lowboys			Can't estimate
Dump trucks, side dumps and semi-end dump trucks			Can't estimate
Sweepers and water trucks			Can't estimate
Small package delivery vans			17,000,000
Small package delivery vans via air			16,182,000
Railcars that company transloads into tanker trucks		600	

Observation: Many motor carriers surveyed had difficulty estimating volumes, so no real conclusions can be drawn from these results.

11. By what percent do you forecast your inbound volumes will increase or decline in 2009, 2010 and 2015 relative to 2008, or will the volumes remain relatively stable?

Year	Grow	Grow %	Decline	Decline %	Remain Stable	N/A
2009	0		6	5 (1) 10 (1) 25 (1) 40 (2) 65 (1)	1	1
2010	3	5 (1) 20 (1) 35 (1)	1	10 (1)	3	1
2015	7	1 (1) 5 (1) 10 (1) 15 (1) 20 (1) 50 (1) Can't estimate (1)				1

Observation: Motor carriers are bearish on their estimated volumes for 2009 with volumes declining substantially; fairly neutral for 2010, though volumes should increase modestly; and bullish on the chances for increased demand by 2015.

33. From what key states do your customers' shipments originate that you handle in WA and OR facilities and terminals?

States and Foreign Countries
WA (4)
OR (4)
IL (2)
CA (1)
IL (1)
KS (1)
MO (1)
UT (1)
48 states (1)
Worldwide (1)
Thailand (1)

Observation: Companies haul cargo that originates all over the U.S. and some foreign countries, with the biggest share coming from WA and OR.

12. What were your volumes outbound from your WA and OR facilities in 2008? (full truckloads, LTL truck shipments, etc.)

Mode -Truck	Tons	Units	Shipments
Full truckload			
LTL truck			
Heavy haul trucks		3600	
Specialized heavy haul flatbed			2675
Flatbed	87,600		Can't estimate
LTL flatbed			Can't estimate
Lowboys			Can't estimate
Tanker trucks		7800	

Mode -Truck	Tons	Units	Shipments
Dump trucks, side dumps and semi-end dump trucks			Can't estimate
Sweepers and water trucks			Can't estimate
Small package delivery vans			11,500,000 6,003,000
Transloaded rail tankers		2400	

Observation: Many motor carriers surveyed had difficulty estimating volumes, so no real conclusions can be drawn from these results.

13. By what percent do you forecast your outbound volumes will increase or decline in 2009, 2010 and 2015 relative to 2008, or will the volumes remain relatively stable?

Year	Grow	Grow %	Decline	Decline %	Remain Stable
2009	0		6	7 (1) 10 (1) 25 (1) 30 (1) 40 (2)	2
2010	4	5 (2) 20 (1) 35 (1)	1	10 (1)	3
2015	8	1 (1) 3 (1) 4 (1) 10 (1) 15 (1) 20 (1) 50 (1) Can't estimate (1)			

Observation: Motor carriers are bearish on their estimated volumes for 2009 with volumes declining substantially; fairly neutral for 2010, though volumes should increase modestly; and bullish on the chances for increased demand by 2015.

14. To what key states are your customers' shipments destined that you handle in WA and OR facilities and terminals?

States
▪ WA (8) ▪ OR (7) ▪ AZ (2) ▪ CA (2) ▪ ID (2) ▪ UT (2) ▪ CO (1) ▪ FL (1) ▪ MT (1) ▪ OH (1) ▪ 48 states (1)

Observation: Companies haul cargo that is destined to many states, the preponderance being to locations in WA and OR.

34. What percentage of truck shipments that depart your cargo handling facilities in WA and OR are involved in a tour that requires multiple stops within WA and/or OR?

Percentage
▪ 100 (2) ▪ N/A (2) ▪ 2 (1) ▪ 10 (1) ▪ 15 (1) ▪ 50 (1)

15. For a typical multiple stop tour, what is the typical number of stops.

Number of Stops
▪ 2 (3) ▪ N/A (2) ▪ 3 (1) ▪ 100 (1) ▪ 144 (1)

16. For a typical multiple stop tour, what are the average and total distances per tour?

Average Distance in Miles	Total Distance in Miles
▪ N/A (2) ▪ 1 (1) ▪ 6 (1) ▪ 38 (1) ▪ 100 (1) ▪ 905 (1) ▪ Can't estimate (1)	▪ N/A (2) ▪ 18 (1) ▪ 38 (1) ▪ 100 (1) ▪ 200 (1) ▪ 300 (1) ▪ 1200 (1)

17. What percentage of inbound truck shipments to your WA and OR facilities originate from within or outside of Clark County or are just passing through?

Inbound %	Within	Outside	Pass Through
	10 (2) 15 (2) 1 (1) 45 (1) 100 (1) N/A (1)	45 (2) 30 (1) 50 (1) 60 (1) 99 (1) N/A (1)	45 (2) 10 (1) 25 (1) 60 (1) N/A (1)

18. What percentage of outbound truck shipments from your WA and OR facilities are destined to within or outside of Clark County or are just passing through?

Outbound %	Within	Outside	Pass Through
	10 (3) 0 (2) 1 (1) 15 (1) 45 (1)	45 (2) 60 (2) 10 (1) 30 (1) 90 (1) 99 (1)	10 (1) 25 (1) 40 (1) 45 (1) 60 (1) 90 (1)

19. Inbound long haul trucks travel to your WA and OR facilities from many places. Measured from the last stop, about what percent of trips fall into each distance category? (should equal 100%)

0-10 miles	11-25 miles	26-50 miles	51-100 miles	>101 miles	N/A
1 (1) 10 (1) 30 (1) 100 (1)	2 (1) 10 (1) 35 (1)	8 (1) 15 (1) 25 (1)	10 (1) 15 (1) 29 (1) 30 (1)	100 (2) 35 (1) 60 (1) 85 (1)	1

20. Outbound long haul trucks travel from your WA and OR facilities to many places. Measured from your facility, about what percent of trips fall into each distance category? (should equal 100%)

0-10 miles	11-25 miles	26-50 miles	51-100 miles	>101 miles
5 (1) 10 (1) 30 (1)	3 (1) 10 (1) 35 (1)	25 (2) 5 (1) 10 (1) 15 (1) 16 (1)	30 (2) 10 (1) 31 (1) 50 (1)	100 (2) 25 (1) 35 (1) 45 (1) 65 (1) 90 (1)

35. Short haul trucks depart your WA and OR facilities and make single and/or multiple stop deliveries and return back to your facilities. Measured from your facilities, about what percent of trips from your facilities and back again fall into each round trip distance category? (should equal 100%)

0-25	26-50	51-75	76-100	101-125	126-150	151-176	176-200	>200	N/A
4 (1) 10 (1) 45 (1)	10 (1) 26 (1) 45 (1)	5 (1) 10 (1) 32 (1)	5 (2) 13 (1) 100 (1)	5 (1) 10 (1)	5 (1) 7 (1)	4 (1) 10 (1)	2 (1) 10 (1)	2 (1) 35 (1) 100 (1)	3

21. Do you intend to make major changes to your business model in 2009 or 2010? Yes If so, what kind?

Yes	No	Type
3	5	▪ Company is trying to attract more local drayage business from Port of Vancouver to rail transload facilities in Clark County since this increases driver productivity. ▪ Company will diversify types of trucks Company offers for service and expand geographic scope to Eastern WA and Northern CA. ▪ Company will expand its market geography. ▪ By following a conservation approach, Company will continue to augment its fleet with non-asset equipment through owner operators so it won't have to take on huge debt. ▪ Company is converting to newer, more environmentally friendly trucks over time. ▪ Company is trying to develop more west to east business and northbound barge business to Tacoma and Seattle. ▪ Company would like to increase its volume of business that involves multiple stops.

22. What global trade and transportation trends currently impact your company the most?

Trends
▪ The economic crisis of 2008 and 2009 has decreased customer demand. ▪ The collapse of the financial markets has really impacted the wind energy business and slowed international trade, which has negatively affected Company's volume. ▪ The global economic crisis has reduced customer demand. ▪ The fluctuation of commodity prices in the U.S. and foreign countries affects Company's volumes. ▪ Bulk commodities are now moving more frequently in containers, so Company's business has dropped. ▪ Shippers are becoming more knowledgeable about managing their logistics and inventory, so they don't get into a pinch as often where they need time-sensitive express service. ▪ Economic downturn domestically and internationally is causing Company's overall volumes to be down and also causing shippers to choose a lower cost alternative, i.e. choosing 2 day service rather than 1 day service ▪ There is unbearable pressure from customers to drop prices below Company's cost. ▪ Some competitors are willing to take cargo at a loss due to the decrease in available volume as a result of the economic recession. This results in loss of business for Company. ▪ Higher fuel costs impact profitability. ▪ The elevation in fuel prices has caused shippers to use truck less and rail more, which negatively impacts motor carriers. ▪ The trend towards federal, state and local governments forcing motor carriers to be more environmentally conscious and reduce their carbon footprints is spreading from CA to other states. This means Company will have to upgrade its truck fleet, which increases capital costs. Company would prefer a national environmental standard. ▪ Green regulations, such as the mandate to use biofuels in Portland, makes it more costly for Company to operate. ▪ As companies globalize and get purchased by foreign companies, it is harder for Company to maintain close relationships with local employees since more decisions are made at the corporate level or at the foreign headquarters solely based on cost, not historical performance and service. ▪ Reverse discrimination against white business owners is decreasing Company's business opportunities.

Observation: The global economic crisis of 2008 and 2009 has negatively impacted demand and forced motor carriers to drop their rates to customers to maintain market share. The escalation in fuel prices increases operating costs.

23. How are you adjusting operations to deal with these trends?

Method of Adjusting
▪ Company is trying to ride out the downturn and is proactively reducing fleet capacity and costs. ▪ Company is running its business in a more fiscally conservative manner and passing fuel cost increases to customers. ▪ Company lowers customer rates when it's a good business decision. ▪ Company tries to reduce costs and improve customer service to demonstrate it has something of value to sell. ▪ Company is cutting its budget, improving performance, re-evaluating routes to reduce miles driven, improving cargo space utilization to reduce number of vehicles needed, and imposing fuel surcharges at times. ▪ Company changes its methods of operation and workload. ▪ Company is expanding the geographic areas where it will allow its trucks to move. ▪ Company has decided not to change its business model of only operating flatbeds for the time being, so it is doing the best it can. ▪ Company can't control this trend so it is losing business. ▪ Company is upgrading to more fuel efficient and aerodynamic trucks with auxiliary power units.

Observation: Some companies are cutting costs and expanding their services or geographic reach to attract more business.

Regional Transportation Questions:

24. From your perspective, what are the strengths of Clark County's multimodal transportation system?

Strengths
▪ There is good access to Port of Vancouver. ▪ Company gives a high grade for good access to Port of Vancouver. ▪ There is good cooperation between the County and Port of Vancouver staff. ▪ There is good access to the interstate system. ▪ The strong port is the County's biggest asset and its proximity to the I-84 corridor is very helpful. ▪ It is easier to traverse east to west via the new Padden Parkway. ▪ There isn't a lot of congestion north to south on I-5 and I-205. ▪ Clark County has done a nice job of improving access to Port of Vancouver with the reconstruction of Mill Plain. ▪ There is a good rail system. ▪ Public transportation connecting to TriMet in Portland is important for employees commuting to/from work and in reducing traffic congestion on the I-5 and I-205 bridges. ▪ Can't cite any (1)

Observation: The Port of Vancouver received high marks and there were several positive comments about the road and interstate system in the County.

25. From your perspective, what are the weaknesses of Clark County's multimodal transportation system?

Weaknesses
▪ Congestion at the CRC (3) ▪ Not being able to ever go across the CRC with heavy haul or long cargo due to the inability to get permits limits Company's options. ▪ There are bottleneck at bridges between Oregon and Washington. ▪ Congestion at Hwy 14 and I-5 interchange ▪ Congestion at Mill Plain and 164th ▪ The truck routes between Port of Vancouver and I-5 and access to Port of Vancouver are miserable. ▪ Lack of sufficient available parking for trucks north of Vancouver in rest areas,

which is critical due to federal hours of service regulations.

- The inability for motor carriers to move in a triple trailer configuration in Washington increases operating costs.
- The rail system is overloaded.
- Can't cite any (1)

Observation: The biggest compliant was bridge congestion.

26. What key transportation corridors do you use to truck cargo in, out or through Clark County?

Corridors
▪ I-5 (7) ▪ I-205 (5) ▪ Hwy 14 (5) ▪ 4th Plain (4) ▪ Mill Plain (3) ▪ I-84 (2) ▪ Padden Pkwy (2) ▪ SR 14 (1) ▪ Hwy 500 (1) ▪ Hwy 99 (1) ▪ Andresen Road (1) ▪ 78th Street (1) ▪ 178th Street (1)

Observation: The most traveled routes are I-5, I-205, Hwy 14, 4th Plain and Mill Plain.

27. What are the key multimodal transportation-related and infrastructure-related bottlenecks or issues in Clark County and how do they negatively impact your operations? These could be related to congestion, velocity, safety, physical structure, turning radius, etc. Keep in mind that some of these bottlenecks and issues may currently be impacting you less due to the global economic crisis of 2008 and 2009.

Bottlenecks and Issues
▪ CRC congestion (2) ▪ CRC congestion impacts operations and slows deliveries. ▪ Congestion on the CRC and I-205 Bridge during rush hour increases Company's operating costs. ▪ The CRC presents a safety issue to Company's drivers. ▪ Bridge lifts on the CRC cause delays and negatively affect employees, making them late for work. ▪ Primarily the congestion along the I-5 corridor due to inadequate infrastructure as well as lack of alternate routes impacts Company. ▪ Congestion at 164th and Mill Plain ▪ Congestion at 4th Plain and SR 500 ▪ Congestion at SR 500 at Vancouver Mall Drive ▪ Congestion at I-205 and Mill Plain/Vancouver Mall exit ▪ Hwy 14 north and south congestion ▪ Congestion at 4th Plain and 117th ▪ Portland highway congestion is problematic, but Clark County's congestion isn't bad compared with many other cities. ▪ Since Company hauls oversized products, it encounters lots of problems relating to turning radii on local streets outside of the Port of Vancouver. It has to buy up parking meter spaces to keep them free of cars; otherwise its trucks wouldn't be able to pass. ▪ It is helpful that the stoplights on the west end of Mill Plain were raised above 16 ft during the reconstruction. But some on the east end are still at 15 ft, and Company's trucks have a hard time maneuvering around them. ▪ Since Company picks up railcars for transloading into trucks, the Vancouver Wye rail system is a bottleneck because it slows Company's operations.

Observation: The most frequent bottlenecks cited related to the CRC.

28. Can you estimate the additional operating costs you incur as a result of these bottlenecks and issues compared with your typical transportation and operating costs in terms of hours of delay and value per hour?

Yes	No	Additional Operating Costs
6	2	▪ It could cost an additional $1000 per hour for high value cargo, depending upon the load. ▪ Congestion along the I-5 and I-205 corridors, primarily at the bridges, costs Company approximately 20 hours/day in travel delays and approximately 100 hours/day in cargo handling delays in hubs. This amounts to $3,855/day or $971,560/year in excess operating costs. The congestion also increases fuel consumption and emissions as traffic is idling on either side of the bridges. ▪ $25 per hour extra since Company pays drivers for idling in traffic ▪ $1 per minute ▪ Less than 1% ▪ Most of Company's outbound trucks travel north in the morning so the runs are contrary to peak traffic, so congestion isn't a huge factor to Company for those moves. But the delays due to bridge lifts and congestion encountered when drivers transport pass-through cargo represents five hours of lost efficiency for Company or $300 per day. ▪ Drivers are often traveling in the opposite direction of traffic at peak times, so Company is not so negatively impacted by many bottlenecks, and therefore, doesn't experience much added costs.

Observation: 75% of the respondents were able to estimate the additional operating costs they incurred due to bottlenecks, and these costs can be substantial, resulting in erosion of profit margins.

29. Can you adjust your operating schedule to avoid peak travel times?

Yes	No
6	2

Observation: 75% of the interviewees said they were able adjust their schedules to avoid peak traffic times.

30. If so, how do you accomplish this adjustment?

Yes
▪ Company routes drivers a different way or dispatches drivers from the terminal early in the day to avoid peak congestion when possible. ▪ It is standard operating procedure to dispatch drivers to avoid peak traffic times. ▪ This can only be done by adding more trucks to Company's fleet, which raises costs since according to state and local laws, Company's trucks can only operate during certain hours such as 9:00 and 3:00 and between 6:00 pm and sunset and are restricted on weekends. Trucks operate less during the winter due to fewer daylight hours. ▪ Drivers can often detour around bottlenecks to avoid idling. ▪ Company dispatches its drivers to bypass congested areas whenever possible. ▪ Drivers aren't dispatched during peak travel times such as 6:00 am to 8:00 am. ▪ Drivers avoid the CRC between 4:00 and 6:00 pm as much as possible.
No
▪ Company cannot adjust operations because the Port of Vancouver and Company's customers have certain operating hours so pickups and deliveries need to be made during those hours. Most cargo that Company transports is moved from origin to destination without stopping at Company's terminal. ▪ The nature of Company's business demands peak travel times in both the AM and PM rush hours to make service commitments to customers.

Observation: Some companies load cargo at night and/or dispatch drivers very early in the morning or midday when possible to avoid peak traffic times.

31. Does your company transport cargo across the I-5 Interstate Bridge - Columbia River Crossing (CRC)? If so, how often? (daily, weekly, monthly, other frequency)

Yes	**No**
8	0
Frequency	
Multiple times per day (5) 100 trips per day (1) Weekly (1)	

Observation: All the motor carriers use the CRC, and most do so multiple times per day.

32. Does congestion at the CRC negatively impact your company?

Yes	No	Comments
8	0	▪ Impact is minimal because most of the crossings are during non-peak hours ▪ Congestion along the I-5 and i-205 corridors, primarily at the bridges, costs Company approximately 20 hours/day in travel delays and approximately 100 hours/day in cargo handling delays in its hubs. This amounts to $3855.40/day or $971,560.80/year in excess costs. It also increases fuel consumption and emissions as traffic is idling on either side of the bridges. ▪ A negative effect is that traffic congestion extends all the way to the I-5/I-205 merge in Oregon. This affects delivery companies trying to make it to PDX for outbound flights with overnight product. In order for Company drivers to arrive consistently in time for a 6:55 PM flight departure, its Tualatin origin loads must depart at 5:20 PM for what should be a half hour trip, but is often more than an hour or more.

Observation: Congestion at the CRC creates problems for all the motor carriers interviewed.

33. If so, how has your company had to adjust operations to deal with CRC congestion?

- Company routes drivers a different way or dispatches drivers from the terminal early in the day to avoid peak congestion when possible.
- Company operates as much as possible at night and avoids peak travel times when feasible.
- Company tries to move loads during non-peak hours as much as possible and factors congestion and delays at the CRC into the rates it charges its customers.
- Drivers avoid the CRC between 4:00 and 6:00 pm if possible.
- Company dispatches drivers to avoid peak traffic times when possible, but often

drivers are stuck in traffic.

- This translates into earlier pickup times for Company's customers. In turn, that causes them to have earlier cut-off times for orders being placed for same day shipping. Delays in the I-5 corridor negatively impact on-time arrivals and cause Company to extend its cargo handling operations to maintain service commitments to customers.
- N/A (1)

Observation: A few companies dispatch drivers early in the morning, mid-day, or at night to avoid the CRC during peak traffic times.

34. With what regional transportation system challenges do you anticipate your company will have to deal in the next three years?

- Increased congestion especially due to highway construction projects funded by federal stimulus money will drive up Company's operating costs.
- Congestion will increase in Vancouver, especially downtown, due to population growth.
- Increased travel times will result due to increased congestion along I-5.
- Company doesn't anticipate problems in Clark County, but believes congestion in Metro Portland and difficulties crossing the Willamette River will increase.
- Transportation costs will increase due to creation of an alternative bridge.
- Construction of the new CRC will result in delays.
- New environmental regulations forced Company to install self-cleaning exhaust air filters for trucks older than February 2007, which increased operating costs. These regulations will change again in 2010.
- As wind energy components increase in size, Company will have more trouble transporting the cargo over local roads due to the geometry issues.
- Construction of the new Ledbetter over-crossing at the rail crossing will cause delays.
- Company constantly has to work with state bridge and permit offices and it takes a long time to receive permits, which adds to overall transit and administrative time.

Observation: Companies are concerned primarily with an anticipated increase in road and interstate congestion and possible delays due to the construction of a new CRC.

35. What can WA legislators and public officials do from a physical, policy or regulatory standpoint to improve the regional multimodal transportation system?

- Support construction of a new CRC so it can be built quickly
- Support the new CRC.
- Keep the new CRC and light rail extension on track so they will get done quickly
- Evaluate alternatives to increase capacity of Oregon to Washington transportation. Studies have shown the CRC to be the worst bottleneck on the entire I-5 corridor. Company desperately needs a fix that has a vision of 20 years from now and that will incorporate a multiuse plan including public transportation such as bus or light rail. Freight needs to be able to move in a timely manner and delays only add to the costs that we all have to pay for goods.
- Release money to fix regional roads quickly
- Try to address congestion on the OR side of the CRC.
- When developing policies and making physical changes to the road system, legislators should keep in mind the physical characteristics and nuances of the wind energy sector.
- Allowing triple trailers would be helpful.
- Legislators need to look at companies as customers and partners instead of part of the problem and try to make improvements based on companies' issues.
- Provide incentives for WA and OR residents to live and work in the same state.
- Encourage use of public transportation by increasing the ease of use and frequency of public transportation.

Observation: Companies offered a wide variety of solutions.

36. What benefits would these improvements bring to your business?

- This would reduce Company's operating costs. (2)
- This would improve productivity, which would enable Company to maintain customer rates at a stable level, but remain profitable.
- It would boost sales and profits.
- It would reduce wasted hours and lower operating costs.
- It would lower operating costs and improve efficiency of the Company's truck fleet so it could do the same amount of work with fewer trucks.
- Company will experience savings on cash-out-of-pocket for every load hauled and the worsening of conditions will slow down.
- This would improve movement and traffic flow and decrease Company's extra costs due to congestion.

Observation: Changes would bring benefits that would put money into the bottom line of the motor carriers.

37. Can you estimate the reduction in operating costs these benefits might represent to you?

Yes	No	Cost Reduction
2	6	In the neighborhood of more than $1,000,000 per year 10% reduction

38. What else would you like the RTC to know?

Comments
▪ Be careful when establishing the CRC toll structure, since these fees will greatly impact Company and possibly force it into bankruptcy due to the high number of trips its drivers make across the CRC daily. ▪ The Port of Vancouver has good leadership and vision and has been proactive in working with shippers and motor carriers better than anywhere in the country to give the end users a good product. All levels of staff at the Port provide good customer service. This enables Company to deliver good service to its customers as a value-added carrier. ▪ The real problem in the region is in OR.

Port, Barge Operator and Railroad Questionnaire

Seven Companies Interviewed: BNSF Railway, Bernet Barge, Chelatchie Prairie Railroad, Port of Camas-Washougal, Port of Ridgefield, Port of Vancouver USA, and Tidewater Barge Lines

Company Business Profile Questions

1. By what percent do you forecast your inbound volumes into your WA facilities will increase or decline in 2009, 2010 and 2015 relative to 2008, or will the volumes remain relatively stable?

Year	Grow	Grow %	Decline	Decline %	Remain Stable	Can't Estimate	N/A
2009			3	7 (1) 25 (1) Unknown (1)	1	1	2
2010	1	8 (1)	1	5 (1)	2	1	2
2015	2	10 (2)			1	2	2

Observation: The economy will negatively affect the inbound volumes of nearly half of these stakeholders. The situation will stabilize in 2010, but the stakeholders do not anticipate a period of sizable growth in the next five years.

2. By what percent do you forecast your outbound volumes from your WA facilities will increase or decline in 2009, 2010 and 2015 relative to 2008, or will the volumes remain relatively stable?

Year	Grow	Grow %	Decline	Decline %	Remain Stable	Can't Estimate	N/A
2009			3	7 (1) 22 (1) Unknown (1)	1	1	2
2010	2	2 (1) 8 (1)			2	1	2
2015	2	5 (1) 10 (2)			1	2	2

Observation: The economy will negatively affect the outbound volumes of nearly half of these stakeholders. The situation will stabilize in 2010 and improve for two, but the stakeholders do not anticipate a period of sizable growth in the next five years.

3. Do you intend to make major changes to your business model in 2009 or 2010? If so, what kind?

Yes	No	Type
4	3	▪ The Port is trying to diversify the types of cargo it handles, further develop the wind energy business, and attract more bulk facility customers and tenants. ▪ The Port is intending to redevelop existing industrial property from classic industrial to retail/employment-based waterfront use. ▪ The Shortline will continue to make infrastructure improvements on its first 14 miles of track, which will help attract customers. ▪ The growth in unit train business for many commodity sectors will continue to be a trend. ▪ Company is focusing on working with customers to ensure they are efficient by adding infrastructure and improving service.

4. What global trade and transportation trends currently impact your company the most?

Trends
▪ There is a shortage of container vessels calling Columbia River ports. ▪ The poor economy has affected industrial land tenants. Tenants are downsizing their labor forces. One company will shut down its plant by the end of 2009, one closed recently, and some are having trouble making lease payments. ▪ The dynamics of where wind energy components are being produced has expanded from two or three countries to ten. In addition, EPA regulations

Trends
that set renewable energy targets by 2025 will drive the production of more wind energy components. Both will have a positive impact on the Port's volume. ▪ The Port is very interested in renewable energy as it might create local jobs. ▪ I-5 cuts through the Port's district for nine miles. There is a trend for more cargo to flow through ports in the Puget Sound, 60% of which moves through the Port's district via rail or the interstate. As the volume of international trade increases, congestion on the railroads and interstates will increase, and the Port is paying attention to this because freight mobility is important to attracting tenants and business to the Port, as well as the overall economics of the port district. ▪ The volume of steel and lumber moving through the Port is down due to decreased demand as a result of the global economic crisis of 2008 and 2009. ▪ Droughts in Australia and other countries this year are mild so demand for U.S. grain has decreased, but this fluctuates year to year. ▪ Decreased auto sales means less throughput for the Port, but the auto makers are paying for storage since the autos are staying on dock longer, which is beneficial for the Port. ▪ The new business model of Class I railroads to hook and haul has greatly affected the Port. ▪ The increased price of fuel has caused shippers to shift volume from truck to rail, thereby increasing the Shortline's volume. ▪ Can't cite any (1)

5. How are you adjusting operations to deal with these trends?

Adjustments
▪ The Port spent capital to purchase two mobile cranes and develop a new terminal for wind energy and auto storage. ▪ The Port is spending conservatively against its capital and operating budgets. ▪ The Port is working with some tenants to restructure lease payments. ▪ Wind energy affects dock space, so the Port had to reconfigure where other products are stored. ▪ There are four interchanges on the I-5 in the Port's district. The Pioneer Street interchange improvement project is out to bid now, which will help

Adjustments
relieve congestion in that area. The Battleground interchange has already been improved. But now people need to recognize the importance of preserving and enhancing the arterial grid to keep local traffic off I-5 and provide drivers with lots of alternative routes. This will enable freight to move more freely on I-5 and on frontage roads and arterials along I-5. ▪ The Port is pumping money into changing and enhancing its rail facilities and system to accommodate unit trains and the Class I railroad model of hook and haul, but the capital costs have increased dramatically. ▪ The Port is trying to get an overpass built that would close three at-grade rail crossings to increase train velocity and relieve road bottlenecks. ▪ The Port will need to develop more storage area to build unit trains primarily for bulk cargo. ▪ The Shortline embraces more volume, but has difficulty storing railcars. ▪ N/A (1)

6. How many acres of industrial land do you own?

Number of Acres
▪ 40 ▪ 300 ▪ 900 developed and 1200 undeveloped ▪ N/A (2)

7. Of that, what percentage is vacant?

Percent Vacant
▪ 10% of developed land ▪ 40% ▪ 80% ▪ 95% ▪ N/A (2)

8. What impediments do you face in attracting buyers for your industrial land?

Impediments
▪ Some companies want to be on the I-5 or I-205 corridors rather than between the two interstates, but Port's land is lower priced than many parcels along the corridors. ▪ Bad credit market in which companies can't get loans ▪ Poor economy ▪ Because of the poor economy, one of the Port's new spec buildings is empty. ▪ Safe and uninterrupted access is important, but now people have to access port property by crossing the BNSF mainline, so building an overpass will alleviate this problem. ▪ There is a lack of interchange track on the Shortline. ▪ The Shortline rail yard is constrained. ▪ The small gauge of rail track on the Shortline is a problem because it can't handle heavier loads that are more common now. ▪ Federal economic stimulus money hasn't trickled down to the local level, but rather is being dispersed to other entities and on projects of statewide significance. ▪ N/A (2)

Regional Transportation Questions

9. From your perspective, what are the strengths of Clark County's multimodal transportation system?

Strengths
▪ Deep water channel ▪ There are five deepwater ports within one hour of Clark County and there are good connections to the ports, and because the ports are nicely dispersed, traffic doesn't clog up too badly. ▪ There are good road connections to the Port of Vancouver. ▪ The County's transportation system is laid out pretty well. ▪ I-205 is a good alternative north-south route to bypass Portland. ▪ There are good east-west, north-south interstate connectors. ▪ SR 14 is a good alternative to I-84 when going east-west.

Strengths
▪ The County's transportation system is laid out in a grid, so there are some local routes for local traffic, which preserves efficient freight movement on the interstate and allows it to be used for its intended use. ▪ There is easy access between I-5, I-205 and SR 14 and the local road system. ▪ East-west rail and highway connections are good and the land is flat. ▪ Having two east-west, north-south railroads is good. ▪ The rail system around the Port of Vancouver is congested, but is being improved, which will benefit Port of Camas-Washougal. ▪ Clark County has a good rail system by having both the UP and BNSF, and it benefits Port tenants to be able to work with both railroads. ▪ The Shortline can easily tie into the interstate system and mainline rail system. ▪ There is good access to PDX. ▪ Agencies are willing to partner to deal with freight mobility issues. ▪ Can't cite any (2)

Observation: There were sixteen positive comments relating to all the modes of transport.

10. From your perspective, what are the weaknesses of Clark County's multimodal transportation system?

Weaknesses
▪ Does the County have policymakers focusing on the right issues to preserve freight mobility, who understand the interconnectedness of the entire multimodal transportation system and share ideas? People have different ideas and some don't have a global perspective. They should take a systems rather than a piecemeal approach and understand that the County is a link to national and international markets and the system can't be taken for granted. Partners need to be outside the County. ▪ Population growth will outpace infrastructure growth, resulting in more congestion. ▪ CRC congestion ▪ The CRC is congested and building a new bridge takes a long time and is costly. The benefits will accrue to the Port of Ridgefield and beyond the County and this needs to be communicated to the public and policymakers.

Weaknesses
▪ When going north on I-205, if a driver wants to get on I-5 in Clark County, it's not possible. So there is an issue with circulation and secondary routes. ▪ When going west on SR 500 to I-5 from I-205, a driver must go on surface streets. ▪ SR 501 at Mill Plain out to the I-5 is a problem due to the turning radius, height grade and truck clearance and is below state and federal standards, so wind energy motor carriers have to use other city streets to access I-5. ▪ The Vancouver Wye chokepoint where the UP and BNSF converge is getting fixed, but there is congestion in the BNSF yard so the Port has to break down trains and this blocks the mainline for 45 minutes. ▪ Labor costs at Port of Vancouver are high. ▪ The buoys marking the hazards in the slough north of Lady Island are necessary, but since they are not authorized nor maintained by Coast Guard, Company is concerned both about their accuracy and whether they will remain in service. ▪ There are hazards to navigation during low water periods near the western entrance to the slough, but these waters are not included in the federally authorized channel, so the Corps of Engineers takes no responsibility in maintaining the depth of the approach, nor does it survey the area to locate potential hazards. Company nearly lost a vessel that was holed by an object lying on the river bottom in this area. ▪ The grain loading facility (United Grain) that lies just downstream of the BNSF Rail Bridge can cause navigational problems under certain circumstances. If there is a large ship docked for loading, it necessarily occupies some of the channel, and when the current is swift and tows must plow through the rail bridge opening at full power, there is very little room to maneuver between the rail bridge and the grain ship. There have been some close calls. ▪ There is a need to evaluate if the connections to PDX are as smooth as they could be and forecast what future problems will arise for airfreight cargo. ▪ Can't cite any (1)

Observation: There were thirteen negative comments relating, primarily, to CRC and road congestion and navigation issues.

11. What key transportation corridors do you and your customers use to truck cargo in, out or through Clark County?

Corridors	Responses
SR 14	4
I-5	4
4th Plain	2
I-205	2
Mill Plain	1
BNSF mainline north, south and east	1
N/A	1

12. What are the key multimodal transportation-related and infrastructure-related bottlenecks or issues in Clark County and how do they negatively impact your operations? These could be related to congestion, velocity, safety, physical structure, turning radius, water depth, pier footing placements, at grade crossings, etc. Keep in mind that some of these bottlenecks and issues may currently be impacting you less due to the global economic crisis of 2008 and 2009.

Bottlenecks and Issues
▪ CRC congestion ▪ The intersections of Union and SR 14 and 2nd Street and SR 14 are congested, but this is being corrected by WSDOT through the construction of two overpasses. This project will start in mid-2010. ▪ There is a problem with egress when a driver departs the Port of Camas-Washougal's industrial park. If the driver is on 32nd at the intersection of SR 14, the road offers only right in or right out options. So the driver must make a large loop on Index and 27th and pass under SR 14 to get back onto the north side in order to head west of SR 14, which is cumbersome. ▪ The geometry of Mill Plain is problematic. ▪ 4th Plain is congested because the signals are too close together and not timed well for the passage of trucks. ▪ 4th Plain and I-5 interchange turning radius is very limiting for large loads. ▪ There is congestion at the 179th interchange to I-5 that serves the Amphitheater. ▪ There is congestion in the Vancouver Wye. ▪ The area of the Vancouver Wye where the Shortline ties into the BNSF line is one of the most congested in the U.S. The Port of Vancouver has a

Bottlenecks and Issues
project underway to improve the situation. This will help overall movement of freight north and south by having the interchange off the mainline. The Shortline is working with the BNSF to identify another place to do the interchange off the mainline, which will take time and money. ▪ There is a lack of capacity in the Shortline rail yard. ▪ A project is in the planning stages to close three at-grade crossings along I-5 (Mill Street, Division Street and South Refuge Road) and build an overpass. This will alleviate the congestion issue and rail/vehicle conflicts. ▪ The railroad bridge crossing the Columbia Rive blocks river traffic when it sticks closed on hot days and freezes closed on cold days. The passage way through the Bridge is also not in line with the passage way through the I-5 Bridge. This causes river traffic to maneuver laterally over a short distance, which can be hazardous during severe conditions. ▪ The grain loading facility (United Grain) that lies just downstream of the rail bridge can cause navigational problems under certain circumstances. If there is a large ship docked for loading, it necessarily occupies some of the channel, and when the current is swift and tows must plow through the rail bridge opening at full power, there is very little room to maneuver between the rail bridge and the grain ship. There have been some close calls. ▪ There are hazards to navigation during low water periods near the western entrance to the slough, but these waters are not included in the federally authorized channel, so the Corps of Engineers takes no responsibility in maintaining the depth of the approach, nor does it survey the area to locate potential hazards. Company nearly lost a vessel that was holed by an object lying on the river bottom in this area. ▪ The BNSF rail bridge is an issue for barges.

Observation: Fifteen bottlenecks were identified, with most relating to specific road and rail system issues.

13. Can you estimate the additional operating costs you incur as a result of these bottlenecks and issues compared with your typical transportation and operating costs in terms of hours of delay and value per hour?

Yes	No	Value
1	6	▪ It is very sizable for cargo moving through the Vancouver Wye. ▪ In 2004, it cost $30,000 per minute for the BNSF and $2500 per minute for the Shortline to operate the interchange of railcars between the Shortline and the BNSF, so when the mainline is shut at the Wye for twenty to forty minutes as cars are interchanged, it costs an extra $650,000 too $1,300,000. Moreover, the delay also affects train movement to CA and the Canadian border and points east.

14. Can you estimate what percentage of the cargo that your company handles gets transported across the I-5 Interstate Bridge - Columbia River Crossing (CRC)?

Yes	No	Percentage
5	2	▪ <1% ▪ 10% ▪ 25% ▪ 50% ▪ 150,000 trips annually; many shippers make multiple trips per day.

15. Have your customers complained that congestion at the CRC negatively impacts them? If so, in what ways?

Yes	No	Impacts
2	5	▪ Congestion impacts customers in a huge way. One customer estimates its extra annual operating costs are $100,000 due to delays and unpredictability. ▪ Costs may not be too much now, but could increase, so it's important to proactively get in front of these issues.

16. With what regional transportation system challenges do you anticipate your company will have to deal in the next three years?

- There will be increased congestion in the multimodal transportation system.
- As Portland Metro grows and if it booms, Clark County will receive the thrust and could explode. The County isn't prepared because it takes lots of time and money to improve the system.
- City of Vancouver waterfront development will impact the Port of Vancouver.
- Fixing Mill Plain will be very expensive.
- Fixing the Vancouver Wye problem and coordinating with the WSDOT passenger rail project in the same area will be a challenge.
- Shortline will experience the same issues as exist today until the Wye is fixed, rail yard capacity is expanded, and a new interchange site is located.
- As the County grows, the Shortline will have to be more vigilant in moving railcars in off-peak road travel times.
- As the Shortline's business increases, there potentially will be more conflicts with the community, so the Shortline will need to have a good public relations and education program.
- The rail line and spur at Port of Camas-Washougal is deteriorating and money needs to be found, perhaps from tenants, to improve them.
- Navigation lock maintenance, channel dredging, and seasonally mandated water flow rates will continue to be problematic.
- Same as exists today

Observation: Eleven comments were made about challenges stakeholders anticipate facing in the next few years. All of these concerned the road, rail and river systems.

17. What can WA legislators and public officials do from a physical, policy or regulatory standpoint to improve the regional multimodal transportation system?

Suggestions
▪ Provide funding for transportation infrastructure improvements. ▪ Find a funding source to improve key corridor facilities through a partnership, rather than expecting the local entity to fund the improvement itself. ▪ There have been past instances when state funding of rail projects have not taken into consideration that the cargo targeted by the project was already moving on the river system. Spending State funds to switch cargo from an already functioning system to a new route can negatively impact the existing system at the expense of industry and the public. When funding transportation projects it would be best to evaluate the impacts to all modes of transportation before allocating funds to one mode. ▪ Get money for the region, especially for rail projects. ▪ Shortlines don't have the ability to raise funds, so legislators need to find legitimate, consistent sources of funds to maintain and enhance shortlines. ▪ Policymakers must not view their region as 400,000 people, but rather include Portland Metro and frame policies and manage the transportation system for 2+ million people. There is a huge difference in how policies should be developed for a population of 400,000 vs. 2+ million. Population growth can quickly turn large swaths of rural land into urban/industrial use so demand and the transportation system needs in rural vs. urban areas are very different. Will there be a quick change in the County that we aren't prepared for? Policymakers need to plan proactively to ensure the right public infrastructure is in place to handle increasing demand. ▪ Legislators need to look at freight mobility while redesigning Mill Plain and 4th Plain, the CRC, and interchanges to ensure the Port of Vancouver continues to have good access and capacity and that geometry issues don't become to big of an impediment. ▪ The Port will continue to be asked about what are potential solutions for freight mobility, such as the CRC tolling, bike lanes and light rail. These can be lightning rod issues. So the reasons why the new CRC must be built from a freight mobility and economic vitality standpoint to keep the link to the Portland Metro region easily accessible need to be articulated. ▪ The CRC proposal is a replacement I-5 bridge with sufficient height

Suggestions
clearance at the north end so that the alignment between the bridges eliminates the infamous "S" curve that tows are currently forced to execute when not using the lifts. This solution gets us part of the way to safe navigation, but a replacement for the narrow BNSF bridge opening is the final necessary piece. Legislators should support finding a solution for the BNSF bridge issue from a navigational standpoint. ▪ Policymakers need to deal with issues from a systems-wide perspective to understand the CRC bridge influence area with its series of intersections, all of which need to be improved. This should be viewed as a corridor, not independent interchanges. Also policymakers should look at the I-5 SR 14 rail system altogether. Policymakers can't be parochial and just think of their own territories or believe fixing one facility will improve the entire corridor or system, since it won't. ▪ Legislators need to understand the value of preserving shortlines as an integral part of society and their interconnectedness with mainline railroads as well as the shortline's value in serving the passenger rail system. ▪ Railroads provide a source of good family wage jobs, and legislators need to support them.

Observation: Twelve wide-ranging recommendations were offered.

18. What benefits would these improvements bring to your business?

Benefits
▪ Considering the impacts of project funding across all modes of transportation will cause funds to be spent more cost effectively. A thorough cost-benefit analysis of all modes will put/keep cargo that should move by water on the water, by rail on the rail, and road on the road. ▪ The Port will be able to attract more and higher quality tenants. ▪ In the next 15 years, the Port of Vancouver expects truck volume to increase to 400,000 moves per year, so improving 4th Plain is critical to the Port's economic viability; otherwise the Port's business will be in jeopardy. ▪ This would help improve the flow of traffic in and out of the industrial area, which would generate more business for the Port of Camas-Washougal and make the Port's land more desirable to tenants. ▪ Improvements would revitalize shortlines and make them a viable and vital piece of the freight mobility wheel, which would reduce pressure on mainline railroads.

Benefits
▪ Improvements would help revitalize the local economy, increase jobs and keep the Shortline profitable. ▪ Because rail is a very green way of moving freight, moving more volume on rail would help reduce the overall carbon footprint compared with truck. ▪ It would be easier to navigate and improve safety

19. Can you estimate the reduction in operating costs these benefits might represent to you?

Yes	No	Value
0	7	▪ Port of Vancouver customers need to be able to access the interstate system from the Port and industrial low lands. ▪ Rail track life expectancy is based on a 100 year cycle; rail ties on a 30 year cycle; and roads on a 20-25 year cycle. So investing in rail is more cost-effective than road due to the lower maintenance costs.

20. What else would you like the RTC and other public agencies to know?

Comments
▪ The RTC needs to work with the jurisdictions on the urban growth boundary issue and enable local businesses to move freight efficiently and cost effectively. The region's economy thrives on efficient freight movement. ▪ Joint public-private investments have a successful record for river-borne freight activity in Clark County. Examples of this are NuStar and United Harvest at the Port of Vancouver. There are also active private facilities using the river system as can be seen with Tidewater, Cemex, and Georgia-Pacific. It is essential that private industry be involved with the allocation of public funds for intermodal infrastructure projects.