



PORT METRO
vancouver

CANADA TRANSPORTATION ACT REVIEW

INITIAL SUBMISSION FOCUSED ON THE GRAIN INDUSTRY

Infrastructure, Efficiency, Transparency

December 31, 2014

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Introduction and context

Port Metro Vancouver would like to thank the Canada Transportation Act (CTA) review advisors and the secretariat for the opportunity to present our views. To support the CTA review, Port Metro Vancouver is developing two separate submissions: one focused specifically on the grain industry (this document), and a second submission focused more broadly on Port Metro Vancouver's views for improving the overall transportation policy and legislative framework (expected in early 2015).

In developing this submission, we have consulted with several stakeholders within the grain industry including the Western Canadian Wheat Growers Association, Western Grain Elevators Association, and Canadian Canola Growers Association. Additional consultation with grain companies and rail companies is scheduled for late December 2014 and January 2015.

The objectives of this submission are to summarize key issues that impact the stability, transparency, and efficiency of the grain supply chain; explain the actions taken by Port Metro Vancouver and our partners; and summarize Port Metro Vancouver's recommendations for further improvements.

Executive summary

In this submission, Port Metro Vancouver has focused on several areas, within our purpose under the *Canada Marine Act*, to improve the stability, transparency, and efficiency of the grain industry supply chain including:

- **Lower Mainland infrastructure projects.** Working with all required parties to support Lower Mainland infrastructure capital projects and mitigate regional capacity bottlenecks in the grain supply chain.
- **Grain terminal capacity.** Working with terminal operators and supply chain partners to plan expansion of grain terminal capacity from the current 21 million metric tonnes (MMTs) to the projected 2027 future capacity requirement of 28 MMTs¹.
- **Port activity coordination.** Improving the efficiency and synchronization of grain shipments from rail to terminal to vessel with a framework that allows for better information sharing, improved operating practices, systems and processes, and collaborative planning.
- **Drayage sector initiatives.** Improving the stability, transparency and efficiency of the drayage sector for specialty grain shippers transporting product to terminals by truck.

Resolving grain transportation challenges is complex. Most challenges cannot be addressed by one organization alone, but rather require action and collaboration by a variety of stakeholders and/or regulatory alignment.

In consultation with grain industry stakeholders, Port Metro Vancouver is offering the following general recommendations to improve the grain supply chain:

1. Optimize capacity within the existing infrastructure network.
2. Encourage continued investments in trade-enabling infrastructure.
3. Increase strategic data transparency to plan future capacity requirements.
4. Increase operational data transparency to support industry coordination.

In this submission, Port Metro Vancouver also raises key issues impacting the overall stability, transparency and efficiency of the grain industry, including the need to enhance the business relationship between rail companies and shippers and more effectively manage grain supply chain complexity.

Port Metro Vancouver recognizes the impact of these issues at the national and regional level, and that many of the actions required to address challenges require coordinated action by a broad range of stakeholders. Port Metro Vancouver will be seeking additional stakeholder input, which will be reflected in our second submission expected in early 2015.

We look forward to discussion with the review panel, and other stakeholders, focusing on how we can advance our common goals.

¹ Source: Port Metro Vancouver Financial Department based on Informa report

About Port Metro Vancouver

Port Metro Vancouver is Canada's largest and most diversified port – a dynamic gateway for domestic and international trade and tourism, and a major economic force that strengthens the Canadian economy.

Port Metro Vancouver's overall vision is to be recognized as a world-class gateway by efficiently and sustainably connecting Canada with the global economy, inspiring support from our customers and from communities locally and across the nation.

Port Metro Vancouver is a port authority created pursuant to the *Canada Marine Act* as a non-shareholder, financially self-sufficient corporation. The purpose of the *Canada Marine Act* is to, among other things, contribute to the competitiveness, growth, and prosperity of the Canadian economy; ensure marine transportation services satisfy the needs of users at a reasonable cost; provide a high level of safety and environmental protection; and manage infrastructure in a commercial manner taking into account input from users and the community.

Port Metro Vancouver's jurisdiction includes 28 major marine cargo terminal operations, 3,166 vessel calls in 2013, coordination with three major railways (CN, CP, BNSF), and management of 16,000 hectares of water and nearly 1,000 hectares of land and assets.

The primary grain marine cargo terminals are privately held on leased federal land and water managed by Port Metro Vancouver. Acting as landlord, Port Metro Vancouver is responsible for long-term port and land use planning.

According to a 2012 independent report from InterVISTAS Consulting Group, the economic impact of all port operations includes 98,800 total jobs across Canada (38,200 direct jobs in British Columbia, 2,700 direct jobs in Alberta, 700 direct jobs in Saskatchewan, 1,000 direct jobs in Manitoba), \$9.7 billion in GDP, \$20.3 billion in economic output, \$6.1 billion in wages, and \$184 billion in cargo value handled annually.

Key areas of focus for Port Metro Vancouver

In 2010, grain volumes through Port Metro Vancouver were 16.3 million metric tonnes (MMTs) and have been steadily rising. 2014 is forecast to be a record year for grain volumes through Port Metro Vancouver terminals – with expected trade volumes of 18 to 19 MMTs in bulk and 3.6 MMTs in containers – as global demand for Canadian crops remains strong. To ensure trade volumes can be delivered in a timely and efficient manner through terminal facilities, Port Metro Vancouver is working with all stakeholders to identify opportunities to continually improve the efficiency and competitiveness of the port.

In developing this submission, Port Metro Vancouver has reached out to grain industry stakeholders to discuss several key issues impacting the overall stability, transparency, and efficiency of the grain supply chain. Stakeholders expressed a desire to enhance the operating relationship between port grain terminal operators and railways, and to manage grain supply chain complexity through better information sharing and transparency.

In this submission, Port Metro Vancouver has focused on several areas, within our purpose under the *Canada Marine Act*, to improve the stability, transparency and efficiency of the grain industry supply chain including:

- **Lower Mainland infrastructure projects.** Working with all required parties to support Lower Mainland infrastructure capital projects and mitigate Lower Mainland capacity bottlenecks in the grain supply chain.
- **Grain terminal capacity.** Working with terminal operators and supply chain partners to plan expansion of grain terminal capacity from the current 21 MMTs to the projected 2027 future state requirement of 28 MMTs.
- **Port activity coordination.** Improving the efficiency and synchronization of grain shipments from rail to terminal to vessel with a framework that allows for better information sharing and improved operating practices, systems and processes, and collaborative planning.
- **Drayage sector initiatives.** Improving the stability, transparency and efficiency of the drayage sector for specialty grain shippers transporting product to terminals by truck.

Resolving grain transportation challenges is complex. Most challenges cannot be addressed by one organization alone, but rather require action and collaboration by a variety of stakeholders and/or regulatory alignment.

The following sections offer additional detail on these areas of focus, providing a summary of underlying issues, actions taken by Port Metro Vancouver and our partners, and our recommendations for improving the stability, transparency and efficiency of the grain transportation sector.

Lower Mainland infrastructure projects

The efficiency of the grain supply chain relies on critical Lower Mainland rail network including the Fraser River and Second Narrows rail crossings, and terminal-based rail infrastructure. To best understand capacity requirements and plan capital improvements, Port Metro Vancouver works with the private sector and other partners including Transport Canada, the provincial Ministry of Transportation and Infrastructure, and TransLink. Rail infrastructure is owned and operated by rail companies, with the exception of the New Westminster rail bridge, which is owned by Canada, and operated by CN. Strong partnerships with both CN and CP are required in order to address capacity requirements and capital improvements related to these assets.

A common concern of grain industry stakeholders is that rail infrastructure capacity is a bottleneck impacting grain transportation to the port. Even with improvements in other areas of the supply chain (e.g. grain terminal capacity, vessel scheduling, etc.), grain stakeholders say industry challenges will persist unless regional rail infrastructure capacity is better aligned with demand.

To help address this issue, Port Metro Vancouver has worked with government, industry, shippers, and railways to fund and deliver billions of dollars in off-terminal, trade-enabling infrastructure to reduce landside conflicts in the Lower Mainland.



As part of this collaboration, Port Metro Vancouver worked with partners on the development of trade area projects totaling \$700 million² (as shown in the figure on the right). Much of this funding has been a result of the successful Asia Pacific Gateway Corridor Initiative that brought private and public sector partners together to improve our trade corridors. These improvements include significant expansion to rail infrastructure, and the programs are expected to increase rail capacity in the Lower Mainland in support of current operations and planned terminal investments.

Although Port Metro Vancouver recognizes infrastructure improvements are delivering results, continued investment is needed to eliminate regional capacity bottlenecks. Stakeholders have expressed concern about supply chain capacity during periods of peak demand, specifically at the Fraser River rail crossing and the Second Narrows rail crossing. Until these bottlenecks are resolved, stakeholders believe meeting terminal volume targets will continue to be a challenge, regardless of any potential improvements in capacity.

² PMV Analysis

To address infrastructure needs, Port Metro Vancouver is building on past collaborative successes by working with the Gateway Transportation Collaboration Forum (GTCF) to pursue solutions and funding opportunities under the New Build Canada Fund (see Appendix B).

Recommendations

To respond to Lower Mainland infrastructure challenges, Port Metro Vancouver recommends:

Optimize capacity within the existing infrastructure network.

Measures should be taken to optimize capacity within the Lower Mainland existing network of rail infrastructure, involving potential improvements to agreements between rail companies and enhancing the operating relationship between rail companies and port grain terminal operators.

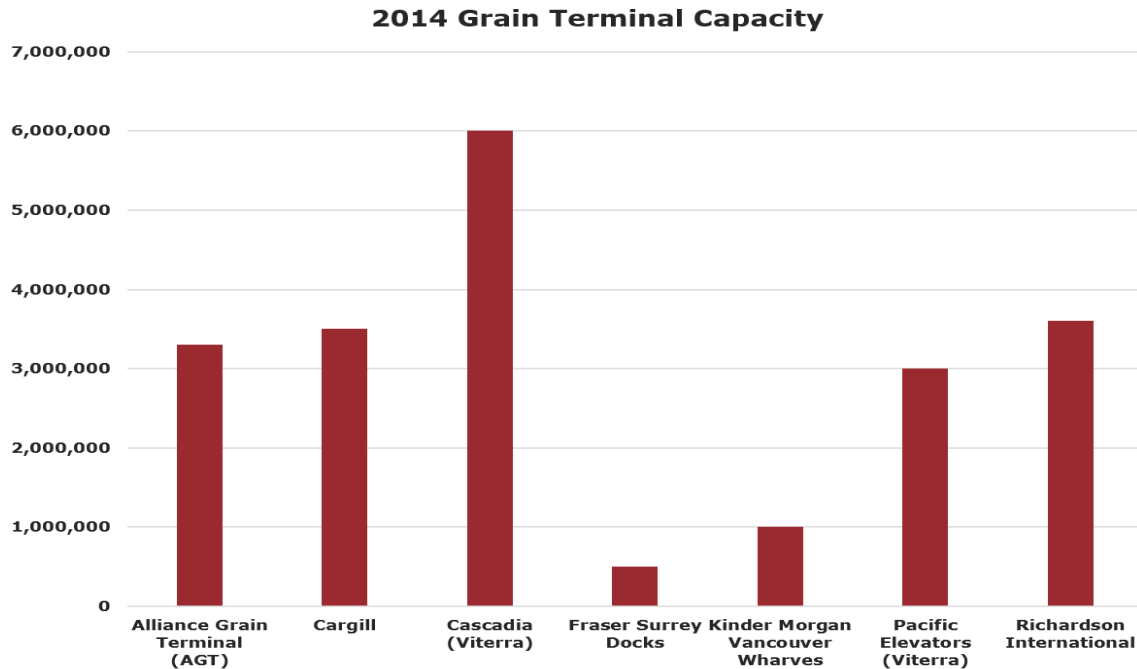
Encourage continued investments in trade-enabling infrastructure.

Continued collaboration should be encouraged between national, provincial and regional partners – including rail companies, which own and/or operate regional infrastructure – to plan and finance new trade-enabling infrastructure.

Increase strategic data transparency to plan future capacity requirements.

Although many stakeholders have reported bottlenecks in the grain supply chain (e.g. Fraser River and Second Narrows rail crossings), there is limited data available across supply chain partners to proactively identify, analyze, and mitigate bottlenecks. This recommendation calls for rail companies and grain companies to provide data and forecast transparency to support efforts to plan to mitigate/eliminate infrastructure capacity constraints in the grain supply chain, from producer to vessel.

Grain terminal capacity



Port Metro Vancouver works collaboratively with seven grain terminals: Alliance Grain Terminal, Cargill, Cascadia (Viterra), Fraser Surrey Docks, Kinder Morgan Vancouver Wharves, Pacific Elevators (Viterra), and Richardson International (see Appendix B for map of grain terminals). Grain terminals in Port Metro Vancouver are privately held and most operate on federal leased land and water managed by Port Metro Vancouver.³

In total, across all grain terminals, existing (2014) bulk grain terminal capacity is approximately 21 MMTs.⁴ The graph above illustrates the relative contribution of grain terminals to the total gateway capacity. Trade volumes of bulk grain for 2014 are estimated to be 18 to 19 MMTs.

Although the volatility of grain supply over time can result in short-term capacity constraints, terminal capacity is typically not currently a bottleneck for transporting grain.

Port Metro Vancouver is working collaboratively with terminal operators to support long-term capacity planning and industry investment while balancing the needs of the grain sector with other sectors. While existing capacity exceeds present trade volumes, Port Metro Vancouver forecasts additional capital investments will be required to meet future volumes. It is expected approximately 28 MMTs bulk grain will be traded through port terminals by

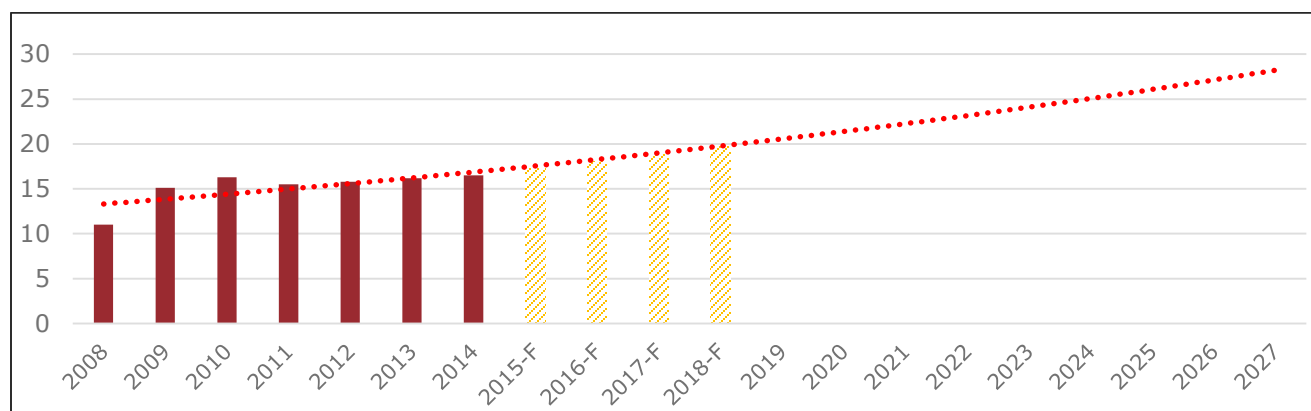
³ Kinder Morgan Vancouver Wharves is situated on land owned by the government of British Columbia

⁴ Note: terminal capacity is dynamic and will vary significantly based on several factors including type of product handled, number of product segregations and level of rail service.

2027,⁵ and significant grain terminal investment plans are being advanced in anticipation of this growth.

The following graphic illustrates the projected growth in grain, special crops, and feed trade volumes for the period ending in 2027.⁶

Projected gain, special crops and feed trade volumes



Port Metro Vancouver works collaboratively with grain terminal operators to coordinate grain terminal capacity expansion. Although terminal operators are private businesses responsible for developing their own capital expansion plans, all expansion proposals on Port Metro Vancouver-managed land are reviewed and evaluated by Port Metro Vancouver to confirm alignment with the *Canada Marine Act* and overall port development. Port Metro Vancouver often supports proponents in developing and refining proposals to ensure they have considered all necessary factors including economic, social, operational, and environmental impacts.⁷

Port Metro Vancouver estimates only 405 hectares of the 11,300 hectares of industrial land available in the Lower Mainland are available for new port logistic facilities⁸. To meet forecasted demand, it is critical terminals continue to invest in existing facilities to maximize their efficiency and the use of valuable port land. Port authorities and others continue the increasingly challenging task of securing land suitable for port terminal and supporting activities such as trans-loading facilities for agricultural products.

⁵ Source: Port Metro Vancouver Finance Department based on Informa report

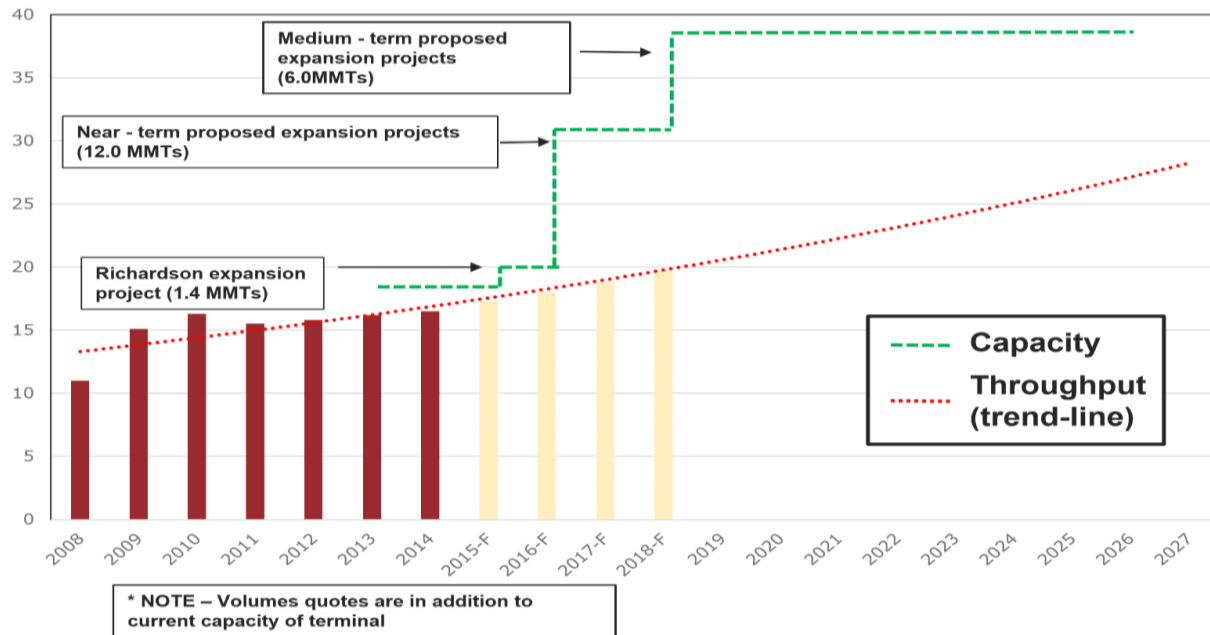
⁶ Graphic available in Port Metro Vancouver business plan

⁷ Port Metro Vancouver analysis

⁸ Port Metro Vancouver Land Use Plan December 2014 (available on PMV website)

A number of capital projects are currently being advanced and funded by industry, such as the recently announced expansion in North Vancouver by Richardson International. The current Richardson project is the first in a generation of this scale on Canada’s west coast.⁹ Over the next five years proposed expansions will add an additional 19.4 MMTs of capacity.

Industry confirmed and proposed investments to increase capacity



Recommendations

To respond to grain terminal capacity challenges, Port Metro Vancouver recommends:

Increase strategic data transparency to plan future capacity

In consultation with stakeholders, Port Metro Vancouver seeks to integrate information regarding trade volume projections to support our long-term planning. This information is useful in evaluating capacity expansion programs, optimizing utilization of existing industrial land, and fulfilling our purpose under the Canada Marine Act more broadly. This recommendation calls on the CTA to facilitate data sharing and participate in collaborative review and planning processes to ensure the port can meet trade demand within the limited supply of industrial port land.

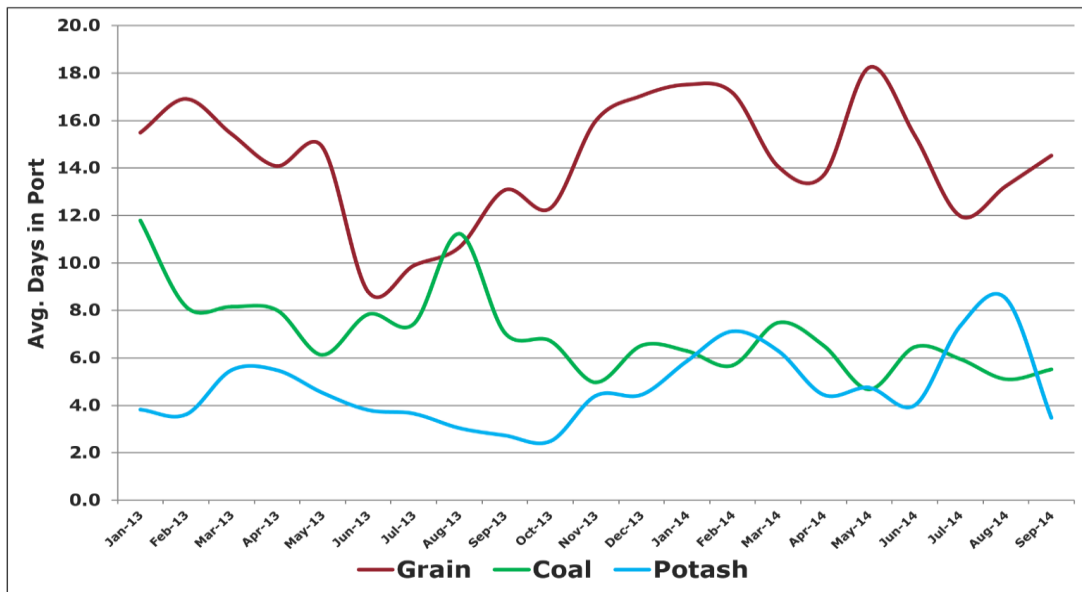
Improving the efficiency and synchronization of grain shipments from rail to terminal to vessel is required and will require a framework that will allow for better information sharing and improved operating practices, systems and processes, and collaborative planning.

⁹ See Port Metro Vancouver website for further details on the Richardson project

Improved port activity coordination

Wait times are longer for grain vessels than other bulk vessels. Average grain vessel time in port was greater than 15 days earlier this year, while other bulk commodity vessels average around six days in port.¹⁰ Grain vessels typically must wait in anchorage until their scheduled arrival at the grain terminal, which is coordinated by the ocean carrier and the grain terminal operator. Once the vessel arrives at the terminal, it takes an average of four days to be loaded.¹¹ The figure below shows the average number of days spent by grain vessels at anchor and at berth over the past two years.

Bulk Vessels Average Days in Port By Month - 2013/2014



Average grain vessel wait time

Vessel scheduling problems are the symptom of several underlying challenges in a highly fractured grain supply chain. Root causes for vessel scheduling challenges include supply chain complexities, capacity constraints, and a highly diverse grain supply, which makes it difficult for rail companies, grain companies, and ocean carriers to coordinate logistics.

Other problems include rail transportation delays due to operations, poor weather or capacity constraints, as well as the availability of anchorages within the port.

¹⁰ Port Metro Vancouver Analysis

¹¹ Note: the majority of variability in grain vessel wait times stems for anchorage wait times; wait times at berth are generally consistent

At present, the ability of shippers, rail companies, grain terminal operators and ocean carriers to share operational information is limited, negatively impacting the efficiency of the grain supply chain.

While implementing new systems and processes to support rail and terminal operations is beyond the scope of Port Metro Vancouver, we are committed to supporting all parties' initiatives to improve information availability and data exchange regarding grain production, rail capacity, potential operational and weather delays, and infrastructure utilization to improve rail and terminal logistics and decrease grain vessel wait times.

Given the low cost of anchorage, off charter vessels are attracted to Port Metro Vancouver to seek new business, putting greater pressure on available anchorages. Port Metro Vancouver is currently considering revising our anchorage policy to improve rail and terminal logistics. Port Metro Vancouver operates 32 anchorages, of which 23 to 25 are available at any given time, with the remainder dedicated for emergencies or short-term use.¹² Anchorages are finite assets that require behavioural rigour and proper management in order to keep the port fluid. Additional safe anchorage locations can be difficult to establish. As one of many revisions to our policy, Port Metro Vancouver is considering reviewing its anchorage charges should vessel wait times exceed a pre-determined threshold, resulting in an additional incentive for improving vessel scheduling and terminal logistics and ultimately reducing grain vessel demand for anchorages.

Recommendation

To address port activity coordination, Port Metro Vancouver recommends:

Increasing operation data transparency to support industry coordination

Although supply chain challenges are likely to persist given the diversity of grain products, Port Metro Vancouver believes improved data transparency regarding grain production, rail capacity, potential operational and weather delays, and infrastructure utilization will improve rail and terminal logistics and decrease grain vessel wait times. In addition, Port Metro Vancouver believes that an equal level of transparency is required from the grain companies regarding production volumes and forecasting of transportation requirements. This recommendation calls for a comprehensive review of opportunities to improve and optimize data exchange.

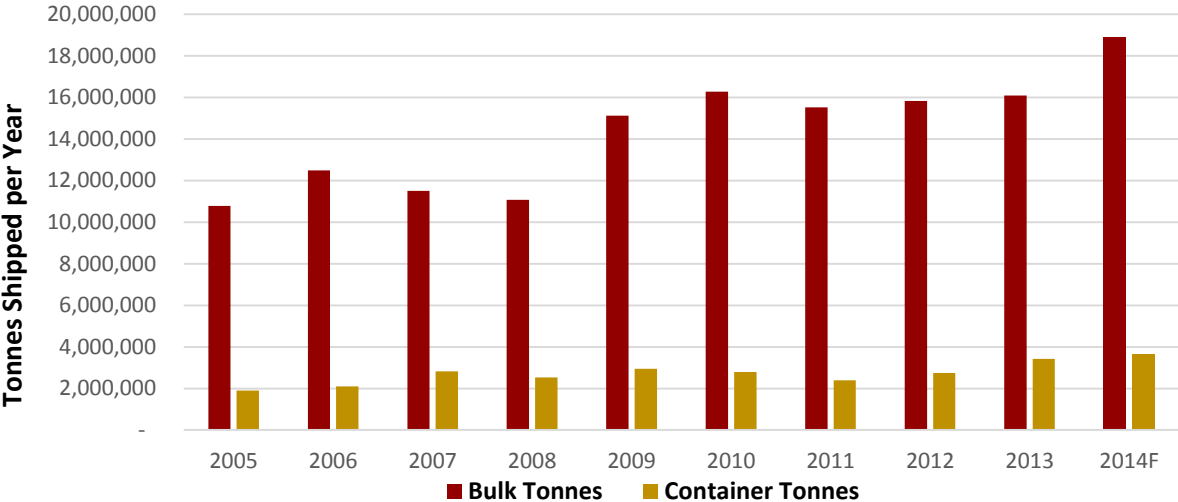
Port Metro Vancouver acknowledges the significant work undertaken by Transport Canada in addressing this issue, and we look forward to further collaboration to improve operational data transparency.

We also advocate for the creation of a Canadian Transportation Agency role in ongoing data collection and analysis to proactively address emerging supply chain issues, and initiate dialogue on establishing long-term goals for supply chain performance.

¹² Port Metro Vancouver Analysis

Drayage sector initiatives

Specialty crops represent a significant percentage of total grain trade volumes (as shown in the figure below), and have an added level of supply chain complexity as they are en transported to terminals by truck rather than by rail. During the drayage sector labour disruption in early 2014, specialty grain shippers were negativity impacted by trucking sector instability.



Total grain tonnes shipped – bulk vs. container

To end the labour disruption, Port Metro Vancouver worked with the federal and provincial governments to develop the Joint Action Plan – a 14-point strategy calling for, among others, changes to driver compensation, increased accountability between terminal operators and trucking stakeholders, and improved information sharing.

Port Metro Vancouver has worked collaboratively with national, provincial and regional partners to deliver on our responsibilities in the Joint Action Plan. As part of this, Port Metro Vancouver has invested resources to support the container drayage sector through our Smart Fleet program, a three-year action plan to improve the efficiency of the container truck sector (see Appendix C for an overview of the Smart Fleet program).

The program focuses on revising the truck licensing system, implementing a common reservation system (a system enabling trucking companies to more efficiently book appointments at any container terminals), improving Port Metro Vancouver’s ability to track and analyze data captured through GPS devices, developing models to analyze operating and financial scenarios, and implementing performance metrics for terminal operators and trucking companies.

Transport Canada has implemented changes to regulations impacting driver compensation as per the Joint Action Plan. The Province of British Columbia has introduced the *Container Trucking Act* (Bill 5) to provide sector oversight and set minimum rates for off-dock moves. Combined with other elements of Port Metro Vancouver’s Smart Fleet program, the truck licensing system has been overhauled and is a critical step in improving stability amongst

drayage industry stakeholders and increasing operational efficiency in the gateway. The licensing program is designed to manage the supply of trucking companies and trucks, and monitor their performance. Details of the reforms have been communicated to trucking stakeholders and the new system is expected to take effect February 1, 2015.

Port Metro Vancouver is also currently implementing a common reservation system enabling trucking companies to more efficiently book appointments with terminal operators. This project is in the initial-design stage of system implementation, and the full development of the system is expected to take at least one year.

Strong federal support has been critical to resolving drayage sector challenges and Port Metro Vancouver looks forward to continued collaboration to complete the remaining measures.

Conclusion

Port Metro Vancouver has focused our submission only on those areas that fall within our mandate under the *Canada Marine Act*, specifically on Lower Mainland infrastructure projects, grain terminal capacity, grain vessel scheduling and coordination, and drayage sector initiatives.

We are continuing our stakeholder consultation and will provide any additional information in our second submission to the review panel in 2015. To date, our recommendations to improve the grain supply chain are to:

1. Optimize capacity within the existing infrastructure network.
2. Encourage continued investment in trade-enabling infrastructure.
3. Increase strategic data transparency to plan future capacity requirements.
4. Increase operational data transparency to support industry coordination.

Ongoing collaboration between stakeholders will be necessary to ensure success of any reforms. Port Metro Vancouver would like to again thank the Canada Transportation Act (CTA) review advisors and the secretariat for the opportunity to present our views. We look forward to discussion with the CTA review panel, and other stakeholders, focusing on how we can advance our common goals.

Appendix A: Gateway Transportation Collaboration Forum

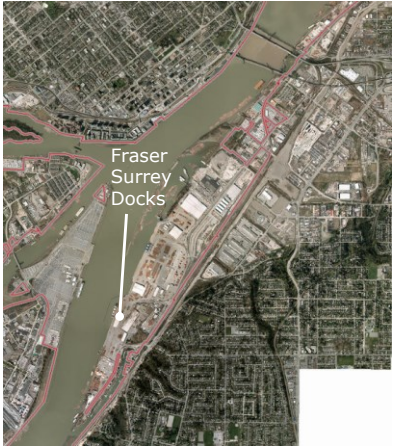
Purpose

Building on the success of past projects, the purpose of the Gateway Transportation Collaboration Forum (GTCF) is to collaboratively evaluate needs and pursue solutions and funding opportunities under the New Building Canada Fund. The goal is to develop and deliver transportation and related infrastructure necessary for continued gateway growth that provides overall net benefits to host communities. It is recognized that a coordinated approach in pursuing funding for projects that are supported across multiple agencies and stakeholders presents a better chance of success than if each member were to pursue funding independently.

Structure



Appendix B: Aerial view of grain terminals



Appendix C: Overview of the Smart Fleet program

