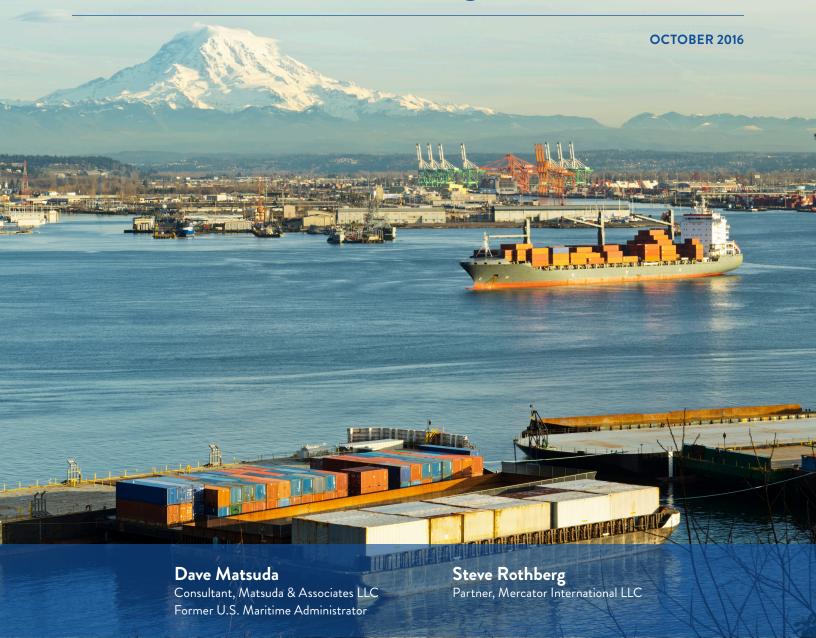
UNLEASHING WASHINGTON'S MARITIME POTENTIAL:

Identifying Challenges to Port Competitiveness and Recommending Solutions







From Native American canoe cultures that plied the waterways long before Washington's founding to today's megaports, cruise liners and shipyards, Washington's economic history and future are inseparable from its vastly complex maritime industry. Today, in its entirety, this industry represents more than 150,000 jobs and \$30 billion worth of economic activity to Washington, making it the state's second largest.¹ Many segments of the state's economy rely on the industry's maritime mobility – to move people and goods to, from and through its ports and terminals; to harvest and process seafood; to design, build, repair, operate and maintain vessels for commercial, government, research and military uses; and to offer recreational activities that support the state's tourism industry, ranging from small recreational watercraft to large cruise ships. In sum, the breadth and importance of the maritime industry to Washington cannot be overstated.

A common axiom in the industry provides that the work of the men and women in Washington's maritime industry tends to go largely unnoticed, until something goes wrong. Day by day, skilled maritime professionals go about their business rigging lines, hauling goods, bunkering vessels, welding steel, operating cranes – this work does not capture the attention of most media outlets. It is only when high profile actions by public or industry officials draw controversy that most people even take notice.

Some of these recent actions have drawn such notice. Take, for instance, the singling out of port infrastructure projects for additional permitting requirements, opposition to development of a major marine terminal based on the maritime company's controversial energy customer, and the move to displace longtime maritime facilities to support construction of a non-waterfront dependent land use (a sports arena). Considered collectively, these actions can begin to stitch together a reputation for the state that reflects a growing level of disaffection for activities of its second-largest industry and harm Washington's competitiveness.

Given this background, the primary purpose of this paper is to examine current challenges and provide actionable policy recommendations to the state to proactively strengthen its maritime sector, drawing from successful policies utilized in other maritime regions of North America. One of the largest components of this industry is the port and logistics system, which we focus on specifically in this review. In addition, we will examine land-side supply chain connections which rely on port commerce. These industries make up one of the largest portions of the industry – one with clear ties to the state's economy.

The paper will first examine Washington's major ports, demonstrating their economic value and indisputable position as a driver of growth. Then it will review successful maritime policies adopted in other North American ports such as those in British Columbia, Canada, and Savannah, Georgia. Finally, it will compare those successes with Washington's opportunity slate, gleaning ways that they can be transposed to fit the state's needs and contribute to a thriving maritime economy.

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Washington Ports System Integral to Overall Economic Health of the State

Few states have benefited more from and rely as heavily on international trade than Washington. (See Table 1.) At least 40 percent of the state's jobs can be tied to trade-related industries.² Export-related jobs for the state totaled 371,853 in 2013 and account for more than 30 percent of new jobs created in the past 30 years.³ Import-related activity is equally important, accounting for 277,477 jobs, an increase of 31.2 percent in just more than four years, according to a study by the Washington Council on International Trade.⁴

The trade-dependent industries and jobs in the state depend on a well-integrated network of transportation providers and infrastructure that supports interstate, interregional and international connections. Washington's ports are a major part of this network. The state's deep-water and inland waterway ports and geographic location make Washington a natural gateway for U.S. consumer goods, agricultural products, and raw materials headed overseas as well as a wide array of imported parts, equipment, and resources critical to the American manufacturing sector.

Table 1

Top 10 U.S. Exports (Origin of Movement) from Washington (Values in millions of dollars)

Rank	Description	2013 Value	2014 Value	2015 Value
1	Aircraft, Engines, and Parts	42,572	47,786	51,149
2	Soybeans	4,638	5,382	3,776
3	Wheat and Meslin	2,456	1,940	1,838
4	Petrol Oil Bitum Mineral (Not Crude)	3,262	2,848	1,530
5	Corn (Maize), Other Than Seed Corn	835	1,751	1,418
6	Passenger Vehicles	79	1,947	1,205
7	Apples, Fresh	845	838	797
8	Potatoes, Prepared	764	729	721
9	Ultrasonic Scanning Apparatus	666	744	703
10	Coniferous Wood in the Rough, Not treated	1,074	1,022	681
To	tal Washington Exports	81,630	90,554	86,377

Source: U.S. Census Bureau

Top 10 U.S. Imports to Washington (Values in millions of dollars)

Rank	Description	2013 Value	2014 Value	2015 Value
1	Parts of Airplanes of Helicopters	5,152	5,655	5,314
2	Crude Oil From Petroleum and Bituminous Miner	7,699	6,895	3,924
3	Passenger Vehicles	2,170	2,401	2,358
4	Natural Gas, Gaseous	2,642	3,478	2,181
5	Turbojets (Thrust Exceeding 25 KN)	2,089	2,688	1,826
6	Reception App For TV NT Designed To INC Video	735	1,273	889
7	Video Game Consoles & Mach, Exc of Subhead 95	1,725	503	851
8	Transmission Apparatus Reception, for Radio	61	108	666
9	Undercarriage & Parts Gliders & A/C, Non-Powered	568	631	646
10	Phone For Cellular Networks of Other Wireless	1,032	1,005	624
To	tal Washington Imports	49,900	52,539	51,116

Source: U.S. Census Bureau

Ports

At the foundation of this vast global commerce complex are the state's seaports. Washington has 75 state-recognized port authorities located in 33 of its 39 counties. Port authorities in the state manage waterfront property, market transportation and handling services in their districts, have certain authorities to raise capital through taxes and/or bonding, and set policies for land use and management of waterborne commerce in their regions.

Ports by their very definition serve as gateways linking maritime and surface transportation systems in supply chains. They depend on waterfront siting and are accessible by oceangoing and inland waterway vessels. Vessels from all over the world call on Washington's ports, ensuring trading opportunities for both in-state businesses as well as those in other inland states participating in interstate commerce. In 2014, Washington ports exported the 4th highest level of commerce (by weight)⁶ and had the 5th highest level of cargo overall (by weight) of any U.S. state.⁷

The main ports on Puget Sound are blessed with natural deep harbors that require little dredging maintenance. In contrast the main ports on the Columbia River and elsewhere rely on dredging to maintain channel depth for the safe navigation of ocean-going vessels. The State tracks as a performance measure in its Freight Mobility plan the depth of navigable harbor channels including coastal and Columbia River waterways.⁸

In the industry, it is said that if you've seen one port then you've seen... one port. The variety of Washington's ports can best be described with several key examples. (See Table 2.)

Washington harbors one of the largest locally controlled public port systems in the world: the Northwest Seaport Alliance (NWSA) comprising the Port of Seattle and Port of Tacoma. The NWSA serves as the fourth-largest container gateway in North America by Twenty Foot Equivalent Unit (TEU) and the fourth by export value, handling 8.2 percent of total U.S. container traffic. Marine cargo operations in the Puget Sound support 48,000 jobs in the region, generated nearly \$4.3 billion in economic activity and produced \$379 million in state and local tax revenue.¹⁰ Two-thirds of import containers transiting NWSA ports are headed to destinations east of the Mississippi River.¹¹ Much of this "discretionary cargo" is subject to intense competition by other North American ports/ supply chains through alternate routing.

Table 2
Top 10 Washington Ports: 2013 Seaborne Trade Statistics

Port	Total Trade (2013 Short Tons)	Foreign Imports (2013 Short Tons)	Total Imports (2013 Short Tons)	Foreign Exports (2013 Short Tons)	Total Exports (2013 Short Tons)
Tacoma	22,905,704	7,272,236	8,914,120	11,121,702	13,617,873
Seattle	20,563,501	7,230,803	10,848,711	7,593,548	9,530,480
Longview	13,712,139	986,463	3,261,701	10,260,448	10,447,860
Anacortes	9,889,028	526,383	5,559,611	2,370,881	4,262,291
Kalama	9,785,826	486,470	1,651,616	8,116,710	8,134,210
Vancouver	5,363,607	621,054	984,754	4,227,716	4,378,853
Gray's Harbor	2,570,919	227,826	227,826	2,190,973	2,343,093
Olympia	1,793,524	173,353	636,772	598,906	869,952
Everett	1,527,674	98,729	694,537	318,074	831,387
Port Angeles	650,364	14,066	70,670	494,175	576,309

(All imports and exports are referring to water bound trade.) **Source:** U.S. Army Corps of Engineers Data

Columbia River seaports, especially the Ports of Vancouver, Kalama, and Longview, also play major roles in the movement of commodities, specifically exported agricultural products. In 2013, the Port of Kalama exported 9,290,324 short tons of grain. This number includes soybeans, corn, milo, and several varieties of wheat, most of which come from Oregon, Washington, and Idaho, as well as Montana and North Dakota.¹² These Columbia River ports have played an increasingly major role in United States grain exports, and that role is expected to grow further as evidenced by the continued investments in waterway infrastructure. Since the U.S. Army Corps of Engineers' completed its \$180 million investment to deepen the 110-mile navigation channel from 40 feet to 43 feet deep,13 this project has led to more than \$1 billion worth of additional public and private investment in port infrastructure along the Columbia the river.14

Furthermore, Washington tallies a number of smaller and medium-sized ports. The Port of Bellingham supports 100 businesses in Whatcom County, employing over 2,300 people and generating annual revenue of \$550 million,¹⁵ and Skagit County has put into place initiatives that will garner new business, leasing space to startup companies and marine – related business to bolster economic growth around the Port of Skagit. The Port of Everett specializes in high-value, over-dimensional cargo that supports the state's aerospace, construction and manufacturing industries. These ports often comprise the largest generators of economic activity in their communities.

The state's maritime sector enables economic activity in a wide array of other sectors throughout Washington, the Pacific Northwest region, and the greater United States, particularly through related infrastructure and transportation. Ports are dependent on efficient surface transportation infrastructure to facilitate freight movement to and from inland sources/destinations. Therefore, maintenance and improvement of road and rail infrastructure are critical to port competitiveness and regional economic health. These vital appendages of the port system are owned and maintained by both public and private entities and must be advanced sufficiently to meet the state's full maritime potential.



Land-side Connections - Rail

A significant portion of the goods exported or imported through Washington seaports are carried by one of the state's many freight rail connections. Nearly two-thirds of international containers that move to and from the NWSA ports are moved by rail. Rail transportation is one of the most economically efficient means to transport large volumes of goods and materials over land. Freight rail alone contributes at least \$28.5 billion to Washington's economy, or 7.5 percent of the state's GDP. Additionally, one in ten jobs in Washington are related to rail activities, many of which are high skill and well paying positions contributing \$13.4 billion to household incomes.

The link between maritime competitiveness and rail is well recognized. According to the State's 2013 Rail Plan, "availability of reliable rail service contributes to increase the attractiveness of Washington ports for discretionary cargo, and could help improve competitiveness for the ports located in the Pacific Northwest." Likewise, it states that if surface transportation capacity or efficiency is harmed, Washington ports could become less attractive to ocean carriers, leading to a loss of business and export opportunities. 20

Though public funds are often spent to improve safety projects with public benefits – like highway rail grade crossings improvements – much of the infrastructure on which trains operate is privately funded, owned and maintained. BNSF, the largest railroad company in the state, announced that they will spend nearly \$220 million on rail infrastructure in Washington this year.²¹ The importance of rail service to Washington is further amplified in the current Great Northern Corridor Program, an effort underway among the Northern Tier states stretching from Washington to Illinois in cooperation with the Federal Highway Administration Multimodal Corridors program and BNSF Railway. Its goal is to provide a more seamless and efficient rail route along the Northern Tier and to protect this interstate corridor from incursions of incompatible uses and local zoning decisions. The coalition also emphasizes safety improvements at rail crossings.

Two rail providers dominate Washington: BNSF Railway and Union Pacific Railway. These two operators play a crucial role in maritime trade, and together they own 60 percent of the rail infrastructure in Washington by mileage. In 2012, BNSF employed 3,514 people in the state and UP employed 342. Combined, these jobs generated more than \$274 million in wages.²²

Besides these two companies, 25 short-line railroads operate within Washington.²³ These short line railroads can serve as last-mile connections to ports, such as the Puget Sound and Pacific Railroad (PSAP). Many of Washington's ports are served by rail.

Land-side Connections - Trucking

In addition to large volumes of freight moved efficiently by rail, products are also moved by roadway, primarily in tractor-trailer trucks. Trucking, like shipping by rail, has unique advantages of its own and is mutually beneficial to and dependent on other modes of transportation.



Trucks move an estimated \$42 million of freight on roadways in Washington State every hour of every day.²⁴ The trucking industry in the state is made up of an estimated 1,788 trucking firms, producing \$4.9 billion in gross business income. There are an estimated 1.5 million trucks (of all types) registered in the state and almost 231,000 carry freight for business or commercial purposes. Truck-related jobs account for approximately 8 percent of Washington's workforce.²⁵ As of 2012, a total of 372.2 million tons of freight worth \$342.4 billion was moved by truck in Washington State, accounting for 64 percent of total freight shipment by weight in the state.

Trucks rely on highway and roadway infrastructure, the majority of which is publicly-funded. Trucking plays a particularly vital role as the one of the primary outlets for last-mile deliveries within the state.²⁶ As the Washington state legislature passed a statewide transportation package in 2015 worth \$16.1 billion for new infrastructure and transportation projects, significant work remains to make sure that appropriate investments are made in infrastructure that support port and maritime commerce.²⁷ For example, the Port of Everett's top freight priority is a first/last-mile project to improve its roadway freight corridor.²⁸ Responsibility for funding these last-mile projects often falls between the jurisdictional cracks: many of them are in areas outside the gate and jurisdiction of a port authority yet not on a state-owned roadway either. This places them at a disadvantage for funding as they compete with more local priorities.

Emerging Threats to Washington Ports' Competitiveness

Despite the state's close proximity to Asian markets and deep natural harbors, a number of factors have led to Washington's ports easing out on opportunities to handle North American export and import cargos in international trade. As a result, Washington's ports are not growing as guickly as some North American competitors. For example, while U.S. Army Corps of Engineers data shows a slight 3 percent increase in total commerce through Washington ports from 2011 to 2014, the state's two largest ports lost ground to both Vancouver and Prince Rupert. (See Figure 1.) Among the combined container market share between the ports of Seattle-Tacoma, Vancouver and Prince Rupert in the Pacific Northwest, Seattle-Tacoma's share dropped from 48 percent in 2011 to 42 percent in 2014, while Vancouver increased its share from 44 percent (2011) to 48 percent (2014) and Prince Rupert saw its share increase from 7 percent (2011) to 10 percent (2014) over the same period. Seattle and Tacoma have also been suffering a long-term market share loss to Southern California as carriers have concentrated port calls at the Los Angeles-Long Beach complex.²⁹

In fact since the beginning of the century, while West Coast ports' slice of overall U.S. market share has dropped consistently, Puget Sound's loss has been far more substantial. From 2000 to 2015, the Puget Sound's market share in North America declined from 15 percent to 10 percent, a 33 percent drop.³⁰

There are many factors that are frequently cited as reasons for this decline:

- 1 The international movement to shared vessel cargo space through use of alliances, larger vessels and fewer port calls;
- 2 Anticipation of an expanded Panama Canal combined with improved cargo handling capability by East and Gulf Coast ports and related rail lines;
- 3 Increased competition through capacity/service improvements at other west coast ports, including ports in California, Mexico and Canada;
- 4 Improved resiliency of cargo supply chains through diversification of routing;
- 5 Service challenges, including lack of available containers for exporters

50% 48% 48% Percentage of Market Share 47% 46% 40% 44. 44% 42% 30% 20% 10% 10% 9% 9% **7**% 2011 2012 2013 2014 Sea-Tac Vancouver Prince Rupert

Figure 1
Pacific Northwest Container Market Share 2011-2014

Source: Journal of Commerce, IHS

Looking ahead, these factors may continue to play a role in Washington's port competitiveness, in addition to predicted population growth, market trade growth with Pacific Rim nations, and unforeseen factors. In order to create and sustain a maritime infrastructure that will be ready for these changes, Washington must commit to effective policies that put the state in the most competitive position to retain and grow jobs. Therefore, it is imperative to identify and address current and looming challenges to Washington's port and logistics systems. State officials and other stakeholders should see efforts to adjust to changing market dynamics and infrastructure needs as opportunities to enhance the state's continued growth and prosperity.

In order to encourage job growth and catalyze global market opportunity with the state's natural advantages, Washington must confront a number of challenges

In addition to constantly shifting market dynamics, Washington's ports face several internal dynamics that could slow expansion of this vital system even further. In order to encourage job growth and catalyze global market opportunity with the state's natural advantages, Washington must confront a number of challenges, including looming freight infrastructure investment needs, project delivery challenges and improved stakeholder coordination. The state should seize the opportunity to address these issues in order to enhance the state's competitiveness as a maritime leader and continue to support jobs in this critical sector.

Investment in Washington State Ports

Port infrastructure can be capital intensive to build and maintain as well as the connecting landside infrastructure ports need to function effectively. Adequate investment will be needed to ensure Washington's port infrastructure keeps up with expected demand.

With populations increasing – Washington's population is expected to increase 17 percent by 2030 ³¹ – and more of the goods we sell and buy demanding to reach markets outside of the state, now more than ever we need reliable policies to support planning for the port infrastructure of our future. The right policies will successfully guide the state's future economic growth in coordination with forecast demand.

One forecast cited by the State in its Freight Mobility Plan predicts that in a moderate-growth scenario Washington's waterway system will move a total of 197 million tons annually in 2030, while the high-growth scenario projects the system will move a total of 285 million tons annually in 2030.³² (See Table 3.) This scenario assumes that all necessary maritime infrastructure will be in place. This forecast is a call to action for policymakers to ensure that Washington's port infrastructure can support this level of commerce and associated job creation.

Ironically, as the need for modernized and expanded facilities has grown with the expansion of trade, financing infrastructure like port projects has become more of a challenge. This is due to several reasons.

Table 3
Washington State Marine Cargo Forecast 2010-2030

	2010	2030 (Moderate)		2030	(High)
Commodity Group	Volume*	Volume*	% Change	Volume*	% Change
Container	3.7	8.3	124%	12.3	232%
Breakbulk/NeoBulk	8.2	10.5	28%	12.7	55%
Grain and Related	34.1	39.1	15%	53.3	56%
Ory Bulk Cargos	26.0	97.1	273%	155.3	497%
Liquid Cargos	40.7	42.4	4%	51.6	27%
All commodities	112.7	197.4	28%	285.2	48%

*Volume in million tons

Source: WSDOT

First, as a country we spend less on infrastructure than our trading partners and competitors. Currently, U.S. government infrastructure investment as a percentage of GDP is less than 2 percent, the lowest level of infrastructure investment at any point since World War II.³³ Meanwhile, Canada invests twice as much at 4 percent.³⁴ Canada also benefits from the fact that a limited number of ports and trade lanes minimizes competition amongst them and allows the federal government to play a stronger role in marketing its ports and trade lanes than in the U.S.

Second, U.S. policy has traditionally been to leave ports to their own devices to plan and fund infrastructure projects given that many ports have steady sources of revenue from cargo and land use fees and charges. So there is no federal or state program that specifically funds port infrastructure projects.

Third, the U.S. only recently adopted a multi-modal national freight policy and strategy to enhance the mobility of freight within the country across all modes of transport.³⁵ This legislation, including provisions authored by Washington's U.S. Senators Maria Cantwell and Patty Murray, requires the U.S. Department of Transportation to develop a national multimodal freight strategy – to be published by Q4 of 2017. The legislation also allocated \$4.5 billion in competitive grant funds for multi-modal freight infrastructure projects across the U.S. over the next 5 years. However, execution of a new policy within the legislation that also requires compatible federal and state freight plans still in progress.

These factors – lack of secure, long-term funding for key freight mobility projects and absence of a fully-developed national freight policy – hinder economic growth and threaten to risk Washington's global competitive edge. It is important for public and private sector leaders in Washington to consider the full range of options and be innovative in their approaches to financing needed improvements. For example, lack of sufficient public funding for infrastructure calls for a heightened urgency to consider public-private partnerships or other means of attracting private capital to the state. Public funds can be used to leverage private dollars and retain and create jobs where these private sector funds might otherwise be spent in other states or at competing ports.

Furthermore, as previously mentioned, landside transportation infrastructure investment needs continue to aggregate. According to a report by the American Association of Port Authorities, one-third of U.S. ports need at least \$100 million in landside upgrades, especially in road connections, to handle projected 2025 freight volumes.³⁶ But competition for scarce surface transportation funds can be intense. On state-owned roads alone, WSDOT has identified some \$3.1 billion in unmet needs through 2021.³⁷

One roadblock exists in the State's own Constitution. The 18th Amendment – passed 72 years ago – requires motor vehicle fuel taxes collected to be used exclusively for highway purposes. While the Washington State Ferry System is a part of the state highway system, this restriction unduly limits the potential for these funds to be used to address key port and other non-highway supply chain infrastructure project needs.

Port Infrastructure Project Siting and Permitting Challenges

In addition to the investments required, the planning, siting and building of major infrastructure poses a challenge because it can take many years. This often means that planners need to think about the long-term needs of infrastructure, not just today's demand. However, recent highly-publicized decisions regarding use of waterfront property in the state have created a perceived bias against maritime industrial uses, particularly in urban areas with many competing uses. For example, the Port of Seattle and Foss Maritime's proposed use of Terminal 5 – which longtime Washington maritime company Foss said would create 400 new jobs – was opposed by the City of Seattle and many local officials as it involved the maintenance and support of Shell Oil Alaskan drill rigs. Earlier this year, a proposed sports arena in a port industrial district in South Seattle also put pressure on maritime port uses in that region of the city.³⁹ These efforts highlight the competitiveness issues that Washington ports face. The notion that it is more difficult to conduct business in Washington than elsewhere because of lack of public and government support for the industry can be detrimental to competitiveness.



For the planning process to work, we also need to ensure that those officials responsible for delivering the freight infrastructure needed in the state can do so in time so that project benefits – both public and private – can be realized. Conjunctive to this planning process, administration of the permitting laws and rules is a challenge for many permitting agencies around the country. For example, if a project receives public funding from multiple federal programs, multiple federal agencies may be required to issue permits which can add project review time if these processes are not carefully coordinated. States are not immune from these challenges either and are even sometimes required to perform reviews independent from federal agencies, further lengthening the permitting process. These delays come at a cost of jobs and economic activity.

When it comes to port infrastructure such as terminals, much of it is financed and operated by private entities. In order to be competitive in attracting private investment in these facilities, the state's permitting process must work to ensure a decision can be reached within as predictable a time frame as possible. In fact, a growing body of work suggests permitting risk is a key barrier to speedy project development and private investment – a significant cost to the U.S. economy.⁴⁰ According to

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a Business Roundtable report, overly complex and uncertain permitting processes are raising the cost of doing business and meaningful reform of the permitting process can unlock companies' financial assets for investment in job creating projects – encouraging the deployment of idle capital and enhancing economic growth and private-sector job creation in the near term.⁴²

While as a policy the federal government and many states have attempted to rein in the length of time it takes to complete the infrastructure project permitting process, Washington has actually taken steps that can lengthen it. For example, in 2014 the Washington State Department of Ecology effectively broadened the State Environmental Policy Act (SEPA) permit review process to include a discretionary review component that analyzes the impacts of

life-cycle greenhouse gas (GHG) emissions from transportation impacts – even those occurring outside the state.⁴¹

Even without this addition the SEPA review process is seen as inherently lengthy and capable of expanding review timelines out for several years. This unprecedented decision has now set a practice that has the potential to seriously hurt Washington's competitiveness. The lack of a process or clear timeframe for decision-making in Washington factors as a disincentive to investment in the state's ports, pushing these jobs and economic opportunities to other North American ports.

To date it appears this practice has been used to consider the proposed Gateway Pacific Terminal (GPT) at Cherry Point, Millennium Bulk Terminals export facility near Longview and the Tesoro Savage Petroleum's crude oil loading facility at the Port of Vancouver, WA. (See Table 4.) While it is clear the common denominator in all of these projects is the politically-charged issue of fossil fuels trade, it is disconcerting that (1) only port infrastructure has been singled out for such treatment, and (2) these proposed transportation waypoints are essentially treated like points of origin for SEPA purposes. Given the diverse nature of maritime commerce and the roles ports play in interstate and international supply chains, these developments can hurt the competitiveness of Washington's maritime sector and lose major job creation opportunities within the state. The Millennium Bulk Terminal could potentially be delayed or canceled altogether due to this unprecedented review. The construction activity on this project alone is estimated to support \$70 million in direct wages, over 2,900 jobs and \$232 million in direct output. ⁴³ These facilities are expected to spur additional associated investments in manufacturing operations and transportation infrastructure, leading to even more job growth.

In addition to lacking a clear timeframe for decision-making, Washington's recent implementation of its own permitting rules on its face stands as a deterrent factor for port investment. Highly-publicized instances of port infrastructure projects being subject to additional review rigor by permitting agencies (and accompanying delay) can take Washington out of the running for new projects at an early stage. This impacts the state's competitiveness and ability to create new jobs.

Finally, even existing Washington port-related businesses which have invested in the state and built a regional jobs base might assess whether to reinvest or pursue siting elsewhere when the time comes for facility expansion or newer facility siting. Increased pressure on maritime industrial land use combined with perceived bias against port infrastructure projects can weigh against an existing Washington maritime employer's decision on whether to remain in Washington.

Table 4
Proposed Washington Port Infrastructure Expansion Projects

Project	Review Process Initiated	Public Hearings	Full Time Jobs	Outcome	Economic Impact/ Value Added (Annual Tax Revenue, State & Local)	Length of Review
Gateway Pacific Terminal	15-Jul-12	7 public scoping hearings held from October to December 2012. Further hearings canceled.	1,250 FULL TIME JOBS	Denied permitting on May 9, 2016 by the U.S. Army Corps of Engineers.	\$140 MILLION	1394 DAYS D
Millennium Bulk Terminal	22-Feb-12	3 public hearings held by the Washington Department of Ecology and Cowlitz County in May and June 2016.	300 FULL TIME JOBS	Pending	\$70 MILLION	1658 DAYS*
Vancouver Energy Terminal	29-Aug-13	21 days of public EFSEC hearings in June and July 2016.	616 FULL TIME JOBS	Pending	\$116-151 MILLION	1104 DAYS*

*As of 9/6/2016

Source: Economic & Fiscal Impacts of Millennium Bulk Terminals Longview

Source: Economic Evaluation of Regional Impacts for the Proposed Gateway Pacific Terminal at Cherry Point

Source: Vancouver Energy Economic Study

Opportunities for Improved Coordination on Freight and Port Planning

In addition to investment and permitting challenges, freight and port planning must be better coordinated amongst state and industry stakeholders. Due to the expansiveness of supply chains across multiple jurisdictions of state-owned, local governmentowned and privately-owned infrastructure, effective freight infrastructure planning requires participation and partnership from all levels of government and industry. Ports tend not to have a coordinating role in state governments, and many coastal states do not have a port/maritime office within their transportation departments, which handle most of the transportation planning throughout the state. As such, coordinated planning of infrastructure investments can become more challenging for stakeholders on key maritime corridors than on surface transportation-only corridors, for example.

Washington is no stranger to innovative government and industry partnership. In August 2015, the ports of Seattle and Tacoma joined forces and formed the Northwest Seaport Alliance to unify management of marine cargo facilities and businesses in order to strengthen the Puget Sound gateway and attract more marine cargo and jobs to the region. The Alliance was the first of its kind in North America and seeks to build on the competitive advantage the ports have as the fourth-largest gateway for containerized cargo shipping between Asia and major distribution points in the Midwest, Ohio Valley and the East Coast.⁴⁴ The two ports are equal members of the Alliance, with each port acting through its elected commissioners.

Notably, the Alliance is a prime example of an attempt to engender coordination as a gateway and generate further growth. And while this partnership is still in its infancy and definitive metrics pointing to its success are not yet available, there is confidence in this approach by most stakeholders.

In addition to the Alliance, another example of successful cooperation exists in the early form of the Freight Action Strategy for the Everett-Seattle-Tacoma Corridor (FAST Corridor). This partnership of 26 local cities, counties, port authorities, federal, state and regional transportation agencies, railroads and trucking interests was intent on solving freight mobility problems with coordinated solutions. Working together and sharing information, these entities were able to plan and prioritize how funds were used. The partners identified and assembled more than \$650 million of public and private funding to complete 20 of the original 25 partnership projects, and continue to work towards completion of the remaining five projects.⁴⁵

However some stakeholders lament the decision to remove administrative responsibility for the FAST Corridor initiative from the Washington State Department of Transportation (WSDOT) in 2006 and away from WSDOT's direct planning and funding capacity. While many of the 25 partnership projects were accomplished under WSDOT's watch, some see the slowed pace of continuing progress as a direct result of being one step further removed from WSDOT. A consideration for lawmakers and agency officials might be how to ensure that freight and port needs receive higher emphasis in the WSDOT planning and funding picture.

Finally, Washington's Freight Mobility Strategic Investment Board (FMSIB) whose mission is serve as the de-facto freight project screening agency for state and federal policy makers also acts as a leader in identifying the most strategic and viable freight projects. Established as a direct response to the lack of a robust freight mobility program within the WDOT, the organization may be in a good position to handle the state's freight project planning and coordination, as we will discuss later.

The involvement and leadership of the state in the coordination and planning of freight projects – specifically those dedicated to state maritime initiatives – with private entities is needed. Properly resourced, both WSDOT and FMSIB could be sources of much-needed freight planning expertise in the state and one that local governments can utilize as well.

Models of Successful Growth: British Columbia and Port of Savannah

The ports of Vancouver and Prince Rupert, British Columbia, and Savannah, Georgia, are distinctly different in geography and customer base but have seen substantially greater growth in recent years than Washington's major ports. To the extent that public policy decisions have contributed to their growth, we will briefly examine these underlying policies to see whether Washington could benefit from similar practices.

British Columbia Maritime Sector and Ports

British Columbia (B.C.) ports, particularly the Port of Vancouver and the Port of Prince Rupert, have a similar geographic advantage to that of Washington with regard to proximity to the growing economies of Asia. Currently about 65 percent of U.S. imports are routed through West Coast ports. ⁴⁶ Accordingly, these ports have increasingly attempted to capture more Trans-Pacific trade, and in 2011, for the first time ever, B.C. ports exported more goods to the Pacific Rim than to the United States, posting 14 percent export growth. ⁴⁷ (See Table 5.)

Port Motro Vancouver

Adopting a strategy conducive to cooperation and economic growth, policy decisions to date have helped B.C. generate a system that is poised for continued success. With these goals in mind, the province has created an environment where state, provincial, local, and federal bodies can work together with ports and Canadian railroads to promote projects that show positive outcomes throughout all levels.

With strong leadership from the Canadian national government, B.C. has worked to develop and promote its gateways and trade corridors. While some efforts like province-wide permanent tax caps on port properties began earlier, B.C. participated in Canada's Asia-Pacific Gateway and Corridor Initiative (APGCI), formally launched in 2006.⁴⁸

The initiative represents a seamless integration of government and industry partners all across the supply chain. It endeavors to integrate planning and finance of infrastructure projects for rail, seaports, airports, roadways and border crossings. Importantly, it is helping to facilitate and coordinate major public-private investments that will increase capacity, eliminate congestion, and streamline operations.

Ports of Soattle and Tacoma

Table 5
Ports of Vancouver and Seattle-Tacoma Cargo Volumes 2010- 2015

	PC	ort Metro vancouver		Ports	of Seattle and Taco	oma
Year	Container Cargo (MT)	Break Bulk (MT)	Autos (MT)*	Container Cargo (MT)	Break Bulk (MT)	Autos (MT)*
2010	20,928,784	16,800,139	381,609	24,746,930	149,421	170,170
2011	21,674,616	16,052,952	298,113	25,926,747	203,692	235,462
2012	23,022,655	16,684,240	383,933	26,817,593	303,575	203,669
2013	24,843,824	17,051,196	378,883	26,346,987	250,124	226,397
2014	24,665,665	16,967,423	351,463	25,145,870	253,378	252,325
2015	25,181,122	16,471,999	384,474	25,204,317	234,183	270,746

*1 vehicle = 1 metric ton

Source: Port Metro Vancouver Measured in Metric Tons **Source:** NW Seaport Alliance Measured in Metric Tons

Since 2005, \$22 billion has been committed to projects that will expand and enhance port, rail, roadway and airport infrastructure currently planned or underway.⁴⁹ Of that, investment of \$5.2 billion has been dedicated to port infrastructure. (See Table 6 in Appendix.) In addition, the initiative cleverly markets opportunities to make these investments into sustainable transportation corridors – for example, creating bicycle lanes and transit options when possible.⁵⁰

B.C. is not immune from the challenges of extensive corridors spanning multiple jurisdictions with public and private ownership, but through this initiative has coordinated planning and funding responsibilities amongst private and public entities. This structure facilitates and simplifies the decision making process for port improvements, consolidates regulation, and encourages cooperation.⁵¹ Business Council of B.C. president Greg D'Avignon said "It's an example of public policy gone right."⁵²



One key to reducing project permitting risk and encouraging needed private investment was the Canadian government's adoption of a 'shot clock' policy approach to permitting.⁵³ Generally speaking, the Canadian Environmental Assessment Act, 2012 (CEAA 2012) requires the Canadian Environmental Assessment Agency to decide within 45 days whether a federal environmental assessment will be required and to complete environmental assessments within 365 days of commencement (24 months if referred to a review panel by the Minister of Environment).⁵⁴

Now evolved into Canada's Pacific Gateway initiative, the results thus far of this coordination, permitting improvements and investment have been impressive. In fact, Port Metro Vancouver saw container traffic increase by 3.1 percent in 2014 to a record 2.9 million TEUs and expects that number to continue to grow with upcoming expansion projects.⁵⁵ In 2015, Peter Xotta, Port Metro Vancouver vice-president of planning and operations, said expansion projects

would add 2.4 million TEU to its container-handling capacity and allow the ports to service 18,000 TEU mega-container vessels in three to five years.⁵⁶

B.C. and the Canadian government maintain critical roles in bringing together public and private stakeholders to pursue a shared vision of increasing market share of North America-bound containers and improving reliability throughout the gateway and corridor.

Port of Savannah

A U.S. port that provides examples of policy successes that could be instructive for Washington's ports is the Port of Savannah. Savannah now boasts the largest container terminal in North America and is the second busiest container exporter in the country. The state's ports (including the smaller Port of Brunswick) help sustain 369,000 jobs in Georgia – about 8.4% of the state's total employment. ⁵⁷ Since 2000 the port has seen a 9.4% annual growth rate, making it the fastest-growing port in the U.S. ⁵⁸

At first glance, Savannah lacks many of the advantages that characterize Washington's ports. While on a deep navigable river, it is located approximately 21 miles inland from the open Atlantic and is currently draft-limited to vessels drawing 42 feet. ⁵⁹ Though it has access to both major east coast Class I railroads – the Norfolk Southern Railroad and CSX – it is a four-hour drive to major East Coast markets. ⁶⁰ Nonetheless, the port has been very successful in maximizing its inherent advantages and has experienced rapid growth in recent years.

Substantial market factors contributed to the Port of Savannah's growth when siting distribution facilities. Shippers have not overlooked the past and continued projected population growth of the Southeastern mega-region centered in Atlanta. In addition, since the turn of the century many have incorporated a "four corners strategy" rather than relying on a single linear supply chain and distribution center. By siting major distribution centers strategically near the four corners of the continental U.S., these shippers design their supply chains to reduce overall transportation costs and improve resiliency to disruptions. With the single largest concentration of import distribution centers on the east coast U.S., Savannah has become a Southeast 'corner' favorite among shippers. Similarly, Washington's strategic location in the



Pacific Northwest lends itself well to this strategy and creates opportunity for future growth in this emerging distribution dynamic.

While these market factors created opportunities for the growth of the Port of Savannah, shrewd policy and planning enabled the port to take advantage of them. First and foremost is the high level of cooperation between public and private sector stakeholders in the region. The Georgia Port Authority (GPA), an operator of major terminals at the Port of Savannah, has played a leadership role in the coordination of state and port strategies to further its trade competitiveness. The Georgia Department of Transportation also has done significant work in freight planning in conjunction with GPA and maintains a waterways program in partnership with the U.S. Army Corps of Engineers.⁶¹

On the local side, the Savannah Economic Development Agency (SEDA) has contributed to the port's growth. Dedicated to proactively drawing business to Savannah through strategic partnerships and efficient cooperation, SEDA in the late 1980's took on a risk no private developer would: developing a 2.7 million square foot distribution zone – the Crossroads Business Park – the first in Savannah's logistics cluster. Today the Crossroads Business Park houses distribution centers for major shippers, drawing on its proximity to the port, and its model for development has been replicated several times over. 62 Significant additional investments in port infrastructure over the years have continued to create capacity and promote efficiency.

The federal government is investing as well. The Army Corps of Engineers is undertaking the Savannah Harbor Expansion Project (SHEP) to deepen the Savannah River to 47 feet. Recently the port received a \$44 million Fixing America's Surface Transportation (FAST) grant from the U.S. Department of Transportation to increase rail capacity. The grant is a significant piece of a larger infrastructure project known as the Port of Savannah International Multimodal Connector that will encourage further growth. These federal investment programs prioritize initiatives that prize regional collaboration and vision as well as national leadership.

Finally, effective land use planning has helped the Port of Savannah preserve substantial amounts of land for logistics and warehousing use, a factor that has led to growth in container shipping through the port. As mentioned previously, the development of the Crossroads Business Park in the 1980's was the first step in this effective planning model. Setting a number of logistics zones within a radius of about 25 miles from the port accounts for one of the largest regions in the U.S. for import retail distributions centers. 64 Including all of the major logistics zones larger than 100 acres, this area totals more than 21,800 acres allocated.65 While there are few competing uses for the greenfield properties – largely based on wetlands – the port community continues to take advantage of this available space that many large urban ports don't have.

Importing Sound Policies for Success of Washington Ports

Summary of Policy Recommendations

Capturing Investments for Financial Sustainability and Growth

Improving Siting and Project Delivery

Enhancing Port Stakeholder Coordination

- Creating a new, dedicated state-level funding source
- Expanding eligibility for existing state-level funding sources
- Enhancing federal investment
- Considering other incentives to attract sustainable port development
- Establishing an office or committee to investigate and recommend permitting improvements
- Implementing firm "shot clock" permitting timelines for agency decision-making
- Improving agency transparency and accountability on permitting of projects through use of tools like a web "dashboard"
- Engaging in state-wide land use planning to identify and preserve port-usable properties
- Developing port/maritime expertise at state level agencies
- More active role for state-level agencies/ programs to address port needs
- Strengthing gateway/corridor planning with support of state

Washington must recognize its maritime heritage and the current contributions of the industry to the state all the while embracing the need for a strong maritime future. For such a trade-dependent state, it is in a unique place to cultivate opportunities to grow jobs and economic opportunity within its maritime industry. In place is an extensive array of businesses such stevedores, shipping agents and other logistics services with a long history of successful port and maritime practice. This concentration of maritime support industries is one of the state's key advantages to maintaining a healthy trade status. However, challenges to ports like the three issues discussed previously – looming freight infrastructure investment needs, project siting and delivery challenges and improved stakeholder coordination – are seen as a threat to competitiveness.

Washington must recognize its maritime heritage and the current contributions of the industry to the state all the while embracing the need for a strong maritime future. We recommend the state consider working closely with its port authorities and other stakeholders to conduct a thorough review of incentives and disincentives – as well as intangibles – that work to attract the mix of port business it desires. Along these lines, we present some policy recommendations which have worked well for other North American ports as discussed previously. By adopting specific policies to:

- Better harness freight infrastructure investments;
- Improve siting and project delivery processes; and
- Engender greater coordination among port stakeholders

Washington will undoubtedly see significant maritime growth and job retention and creation in the state.



Capturing Investments for Financial Sustainability and Growth

There is a wide array of funding sources available that will allow Washington to make sure its ports consist of and tie to the freight transportation infrastructure needed to keep the state competitive as international trade expands. We have identified four initiatives which could strengthen investment in Washington ports: (1) creating a new, dedicated state-level funding source, (2) expanding eligibility for existing state-level funding sources, (3) enhancing federal investment, and (4) considering other incentives to attract sustainable port development.

The first and most evident solution is the use of dedicated public funds for port projects. By creating a standalone statewide funding source for port infrastructure projects to encourage economic development job creation and ensure a safe and reliable infrastructure, the state's ports – particularly those smaller ones that do not have the same access to capital as larger ones do – can accelerate opportunities for growth. Similar to the State of

Florida, which has prioritized investment in the state's 14 public ports of all sizes, a dedicated port fund could provide the capital these agencies need to remain competitive and ensure investments in ports and connecting infrastructure will make their way to needed projects through a matching fund.

One avenue in which to house and allocate this fund as well as provide additional financial tools could be through an infrastructure bank. A designated fund might be able to better finance multi-year projects, allow small ports to take advantage of better lending rates/terms and combine a mix of financing tools including grants where some element of public benefit is involved.

Second, Washington should consider expanding the eligibility of existing programs to allow for funding port infrastructure projects. This policy option is not as direct in ensuring a dedicated source of funding for port infrastructure as a standalone fund, and therefore would be a distant second in terms of policy preferences.

As the state government recently considered and enacted major transportation funding legislation in 2015, it should consider in the future how investment in Washington's port infrastructure can be accomplished within the budget through existing programs. For example, the largest source of transportation funding for the state is revenue derived from motor fuel tax. Use of these revenues are currently limited to "highway purposes" and the state ferry system.⁶⁶

Expanding eligibility to include port projects beyond ferry-related ones which are currently eligible could lead to additional port infrastructure investment. Washington policymakers could even consider setting aside a certain percentage of such funds each year specifically for port infrastructure projects. Outside of motor fuels taxes, state-level competitive multimodal transportation grants could also be a source of port funding, as such funds are made available in Pennsylvania and Oregon.

Third, the federal government has traditionally taken an important role as funders of dredging and security projects at ports as well as some landside infrastructure. In some cases, port infrastructure projects can be eligible for federal funding administered by WSDOT, including funds from the federal Congestion Mitigation and Air Quality (CMAQ) program. Where possible, port capital projects should be included in Washington's Statewide Transportation Improvement Plan, which helps coordination and planning and may make them more competitive for certain federal funding opportunities. Additional funds have been made available for port infrastructure projects on a competitive basis as the federal government focuses more on freight needs. Washington should continue to work with its port authorities to aggressively pursue funds from these programs where needs exist, including the U.S. Department of Transportation's (USDOT) TIGER and FASTLANE grant programs.

In addition to these types of grant programs, state officials and stakeholders can also work closely with the state's Congressional delegations to reform current maritime related funds and revenue generators like the Inland Waterways Trust Fund (ITWF) and the Harbor Maintenance Tax as ways to both increase federal funds for Washington's ports as well as improve competitiveness.

Harbor Maintenance Tax

The U.S. Harbor Maintenance Tax (HMT) continues to drive diversion of cargo to Canada. Many U.S. ports have also criticized the HMT for its inequality in distribution of funds. Harbor Maintenance Fees, intended to require those who benefit from maintenance of U.S. ports and harbors to share the cost of the maintenance, for have accumulated in the Harbor Maintenance Trust Fund. Often, a large portion of these funds are used to pay for improvements that are unrelated to ports. for the cargo to Canada.

While some improvements have been made through recent federal legislation, this fund still has some fundamental challenges and the current tax regime is a competitive disadvantage for Washington ports, particularly as neighboring competing ports in Canada do not require such fees. Notably, the fund is considered mostly a detrimental cost to the natural deep-water container ports such as Seattle and Tacoma, but a funding boon to the shallow depth ports on the Columbia and elsewhere. The Washington state Congressional delegation should continue to push for comprehensive reform to the HMT to ensure and improve the competitiveness of Washington state ports. However this complex issue warrants a larger discussion and analysis.

Finally, similar to accessibility of funds from existing state programs, the state must also look to other incentives that will attract financial viable port development. For example, tax incentives can be used to encourage more investment from the private sector. B.C. introduced a tax inducement measure in 2004 that has attracted more than \$1 billion in additional maritime investment.⁶⁹

Improving Siting and Project Delivery

If Washington is to improve its competitiveness for cargo handling as well as associated value-added supply chain activities, it must improve its permitting processes and get a handle on runaway project permitting timelines. In order for the state to learn how it might improve the permitting process to reduce project permitting risks while preserving stakeholder and public input rights, it should commit to a continuous improvement process. An ad hoc or even permanent committee or office could review policies and best practices for improved coordination between state agencies as well as coordination with federal agencies. It could also review any available data on permitting and review processes, recommending any new data to be collected.

We can recommend at least two best practices such a committee should consider when it comes to ports. First establish reasonable timeframes for permitting decisions. Competing ports in Canada and California operate under fixed timelines for project permitting decision. In addition to Canada's "shot clock bill" previously mentioned, in California, the California Environmental Quality Act mandates that the lead agency reviewing an Environmental Impact Report (EIR) must complete and certify the final EIR within one year after the date that said agency accepted the project's application as complete.⁷⁰ Washington should consider a similar process to develop firm guidelines for the timing and consideration of port projects. A stated timeline and end date for review should accompany each project in order to give stakeholders an idea how long the regulatory review might take rather than the current uncertainty caused when one study triggers another and so on. Studies of different environmental aspects of a proposed project by different agencies, should, as much as possible, be performed concurrent to one another rather than dragged out one after another.

Second, publication of status reports of permit applications for projects can help improve transparency and accountability of public agencies and often has the effect of speeding up the process. For example, the White House Permitting Dashboard is a useful federal tool used to hold agencies accountable and better coordinate simultaneous permitting reviews.⁷¹ Its benefits in improving agency coordination and reducing project permitting delay have been well-documented.

Additional best practices recently identified by the Bipartisan Policy Center include standardizing common contract terms and regularly educating senior government officials on the permitting process.⁷² These measures have shown promise for increased public accountability and improved coordination and communication among multiple permitting agencies for the same project.

When it comes to project siting, Washington should take action to preserve and protect its working waterfront property and the skilled jobs it supports. These properties are often under constant pressure from development proposals for residential, retail or other non-maritime uses that don't require waterfront access. Unfortunately, the experience of most communities that succumb to such proposals is that once port property is lost to retail or residential use, it does not return to industrial use despite its geographic, economic, historical and transportation significance.

As noted previously, the Port of Savannah and its surrounding communities have been recognized – both with federal and private sector investment – for their commitment to strategic land use planning for port-dependent infrastructure. While stakeholders in the Puget Sound region understand the need to preserve certain lands for industrial maritime use, Savannah's experience should serve as an example of what opportunities exist with strong leadership and support from the government. To further Washington's commitment to grow its maritime economy as a "Northwest Corner" distribution hub, state and county officials can protect the state's long-term economic interests by encouraging the right type of land use opportunities.

Finally, the State of Oregon's progress in land use planning should be noted. Oregon has made an aggressive push to maintain a strong statewide program for land use planning since the early 1970's and has resulted in successful staving off of unbridled development. The foundation of Oregon's program is a set of 19 Statewide Planning Goals one of which is dedicated strictly for land use planning.⁷³ We recommend Washington engage in a focused statelevel effort in order to assist its local port authorities in protecting and preserving appropriate waterfront lands for port use.

Enhancing Port Stakeholder Coordination

Washington has an opportunity to reform the way it manages its ports and competes for maritime commerce. Some states have taken a much more active role to link their ports to their economic future as well as better integrate them into their transportation systems while other states continue to let their local port authorities largely fend for themselves. For example, Connecticut recently created a statewide port authority to manage its ports.⁷⁴

As previously mentioned, the Georgia Ports Authority – part of the state government – manages the Port of Savannah, and the State of Hawaii Department of Transportation manages its 10 commercial harbors.⁷⁵ Florida is one of the more aggressive states when it comes to developing its diverse ports. It has created a dedicated state-level funding source for port infrastructure projects and a state DOT-managed council that recommends state port infrastructure project priorities. So a spectrum of policy choices exists for Washington to consider, depending on what level of integration and promotion it desires for its ports. Given the importance of trade to the state, we recommend a fairly high level.

In Washington, entities like FMSIB embody the type of organization that needs to be given further responsibility specifically for port infrastructure in order to oversee investment coordination. Made up of a board of representatives from all freight industries and state officials including WSDOT, there may be a role for this organization to fill a gap in freight planning capacity both at the state and local level. The group is actually partnering with the Washington Public Ports Association to conduct a Maritime Cargo Forecast that will provide a five-year analysis of commodity movements through the state and the ports.⁷⁶

To better integrate ports into its statewide transportation system and network planning, we recommend WSDOT or FMSIB take a larger, more active role in the promotion and development of its maritime facilities. Some additional duties a state agency could take on include:

- Providing local agencies and councils with corridor planning expertise – particularly with respect to those involving ports;
- Building internal expertise on port and maritime operations – specifically with an industryexperienced WSDOT maritime program lead;*
- Developing conditions/performance metrics and a regular assessment of statewide port infrastructure needs; and
- Coordinating with federal agencies on dredging needs/funding and other functions relevant to Washington's ports.

In addition, as the FAST Corridor effort has shown, a freight corridor planning approach that includes stakeholders spanning multiple municipalities and jurisdictions works best when the agency in the best position to provide funding and expertise – usually the WSDOT or FMSIB - takes responsibility for the effort. Port authorities are no strangers to the concept that their success largely depends on the development of infrastructure outside of their gates as well. We believe enhanced use of corridor planning can assist in the state's further development of its Freight Mobility Plan and guide decisions on freight infrastructure investment along port commercial corridors. For example, utilization and robust engagement with the Great Northern Corridor Coalition – a regional cooperative comprised of interested stakeholders – will improve knowledge and planning of multimodal transportation efforts beneficial to the entire region.

While Washington's ports have diverse needs and traffic in many different types of commerce, the NWSA in particular requires specific focus from the state due to its volume and impact on the state's transportation systems. A rejuvenated long-term corridor planning and operation effort could be led by WSDOT or FMSIB in conjunction with NWSA to ensure the state's ability to compete with the right mix of infrastructure in place.

^{*}We understand the WSDOT has recently reorganized by creating a Rail, Freight, and Ports Division, however there appears to be very little focus on maritime functions. To be successful WSDOT needs broaden its maritime policy, planning and funding capabilities to better assist Washington's maritime industry as well as coordinate with port authorities and other stakeholders. https://washingtonports.org/wp-content/uploads/2016/05/Spring-2016-WSDOT-Rail-Freight-and-Ports-Presentation.pdf

Conclusion

Overall, Washington is in a strong position to continue to grow economically and create jobs with the expansion of trade. Its historic role as a gateway to the Pacific has created a vast interconnected shipping and logistics network that needs to be expanded and modernized from port operations to transportation infrastructure.

At the same time, the state cannot be complacent that its competitive advantages are permanent. Other ports in North America – even as far away as the U.S. East Coast – are expanding capacity that will come as the United States strengthens its trade ties with Pacific nations. New competitive pressures in the global supply chain are present as businesses consider the less expensive or less controversial option of moving goods and materials around the world. In addition to market factors, political landscapes often play a role in routing decisions and investments in projects. This is not something Washington cannot afford to overlook.

With this review of policy challenges and potential polices that can assist Washington's ports – part of the state's second largest industry – we highlight that rapidly-growing North American ports are succeeding not only because of market opportunities but due to support from and coordination with their local and regional (and sometimes national) public institutions governing infrastructure development, project permitting and trade promotion.

We believe the future is bright for this important sector of Washington's maritime industry. While the key ingredients are laid out in detail, one common element exists in all of them: political will. If there is a shared vision of an economically significant and resilient maritime industry in Washington, leaders need to take actions to reaffirm the state's commitment to this vision. This includes engaging with maritime stakeholders, fully understanding what is needed by both public and private stakeholders for success and putting the appropriate policies in place. We hope this review is useful in such an endeavor. And we know that successful outcomes in this regard will require leadership and vision by the state to ensure its ports can be successful competing for cargo in the next 5, 10 and 20 years in the future.

Appendix

Table 6
British Columbia Gateway Strategy Port Investments

Goal	Responsibility	Timing	Investment
Increase container terminal capacity at BC ports:			
Deltaport Terminal, Road and Rail Improvement Project	Public and Private Sector	2012 to 2014	As much as \$280 million
Improvements to Roberts Bank Terminal 2	Private Sector	2020	Over \$2 billion
Prince Rupert Fairview Phase 2 container improvement project	Private Sector	2012 to 2020	\$800 million
Investments in transload facilities and explore the feasibility of developing new integrated logistics facilities across the Pacific Gateway supply chain	Private Sector	2012 to 2020	Over \$250 million
Increase bulk terminal capacity at BC ports:			
Expand coal terminal capacity in Vancouver and Prince Rupert to accommodate up to 93 million tonnes a year	Private Sector	2012 to 2020	As much as \$1.1 billion
Expand metal and mineral terminal capacity in Northwest B.C. and Vancouver to accommodate up to seven million tonnes a year	Private Sector	2012 to 2020	As much as \$60 million
Develop additional potash terminal capacity to accommodate 24 million tonnes a year	Private Sector	2012 to 2020	As much as \$700 million
Develop port terminal capacity for forest products in the North	Private Sector	2012 to 2020	Over \$30 million
Total Hypothetical Investment Commitment			\$5.2 hillion

Total Hypothetical Investment Commitment

\$5.2 billion

Source: Pacific Gateway Transportation Strategy

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