

August 23, 2024

Office of the Governor
254 State Capitol
Salem, OR 97301-4047

Dear Governor Kotek,

The Port of Portland (Port) is very grateful for your recommended \$40 million state investment to sustain container service at Terminal 6 (T6), which provides critical shipping services so Oregon businesses can get their products to and from markets overseas. From seafood and grains to animal feed, building supplies, consumer electronics, and toys, industries across the state rely on container service, which is why the Port has worked to keep it available despite significant financial challenges over the years.

Container service isn't only needed for Oregon businesses to remain competitive. It also provides jobs and tax revenue for the state. Container operations provide 696 direct jobs — family-wage jobs averaging \$79,000 per year — and an additional 871 indirect and induced jobs in the region. This contributes an estimated \$20 million in state and local tax revenue annually. T6 also advances the state's environmental goals. A carbon emissions model comparing the greenhouse gas emissions of direct Portland container service with alternative modes like truck and rail transport to Puget Sound ports found that, at current volumes of roughly 60,000 containers annually, direct T6 service reduces carbon emissions by 12,801 metric tons — that's 28 percent less than the emissions from truck and rail transport to Puget Sound terminals.

While other states have made substantial investments to modernize and sustain their port operations, Oregon has not historically dedicated similar levels of resources to its only international container terminal. Through the exploration of several possible operating models over the last several years, it's clear that maintaining and growing Oregon's marine container service will require financial support from the state and cost efficiencies from partners in the shipping industry. I appreciate your proposal of support and the engagement of the International Longshore & Warehouse Union, Harbor Industrial Services, and our two carrier lines for their partnership in this endeavor.

At your request, the Port has prepared the attached report, which outlines a business plan to reduce losses in the current fiscal year and sustain container operations over the mid- and long-term. The report also details our engagement with impacted constituencies and industry leaders. The Port's Board of Commissioners has reviewed the report, and their feedback is reflected in the final version. The report is also the result of active engagement and feedback from our newly formed Industry Advisory Council, which includes key exporters, importers, labor, and other industry leaders.

Next Steps

The Port is conducting extensive legislative outreach ahead of the Joint Emergency Board meeting in September, where we aim to secure legislative approval of your proposed \$5 million investment. Additionally, we are engaging and mobilizing coalitions of key labor, industry, trade, government, and business partners to ensure their voices are included in this discussion.

During the 2025 Legislative Session, I look forward to collaborating with you, the Legislature, and this coalition of partners to secure the additional \$35 million for Lower Columbia River dredging and capital improvements at T6 that will be included in your 2025-27 recommended budget. Moving forward, we will keep your office apprised of key milestones and report annually on our progress in meeting the performance metrics outlined in the business plan. Together, the Port, the state, and Oregon's shipping community can stabilize, sustain, and grow Oregon's international container service in the years to come.

Respectfully,



Curtis Robinhold
Executive Director

cc: Port of Portland Board of Commissioners
Industry Advisory Council
Senate President Rob Wagner
House Speaker Julie Fahey
Sen. Kate Lieber, Co-Chair, Joint Committee on Ways and Means
Rep. Tawna Sanchez, Co-Chair, Joint Committee on Ways and Means



Terminal 6 Business Plan

7200 N.E. Airport Way
Portland, OR 97218
503.415.6000
www.portofportland.com

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Terminal 6 Business Plan Summary

This Terminal 6 Business Plan and attachments (Plan) respond to Governor Tina Kotek's May 16, 2024, letter to the Port of Portland (Port) requesting a report on current Terminal 6 (T6) operations and a plan to operate the terminal sustainably.

The Plan first addresses current T6 container operations and the historical and recent market conditions that have resulted in financial losses for the terminal. The Plan then turns to the significant economic value of T6 to Oregon. Next, the Port summarizes specific efforts to reduce operating losses in the near term to stabilize T6, including the Governor's request on behalf of the Port for \$5 million in funding from the Joint Emergency Board. The Port then describes a mid- to long-term plan to achieve financial sustainability for the terminal, including the Governor's proposal pledging \$20 million in initial capital investment to fund three years of immediate modernization needs at T6. Also included in the Plan is a volume forecast from The Tioga Group (Tioga), a reputable consulting firm with expertise in Pacific NW container trade. Finally, the Plan describes the Port's engagement with stakeholders and a plan for ongoing collaboration and adaptive management of the Port's, state's, and industry's efforts.

Ultimately, the Plan concludes that stabilization and future sustainable operations of T6 will require the following steps:

Near Term (2024–2025)

- Port takes action to improve operating income before depreciation (OIBD) by \$2.1 million in FY 2024-25.
- Joint Emergency Board allocates \$5 million to the Port for container operations.
- State begins supporting Lower Columbia River channel maintenance, including \$15 million in 2025.
- State supports \$20 million investment in capital improvements at T6.

Mid Term (2025–2032)

- Port secures an agreement with a private terminal operator for T6 container service, including (1) negotiating an agreement in principle, (2) finalizing an agreement in 2025, and (3) transferring container operations by June 2026.¹
- Port uses \$20 million in capital from the state for immediate modernization needs at T6.
- Private terminal operator conducts a focused marketing campaign to double container volumes at T6 from current levels to 120,000 containers by 2032.
- Port seeks additional state funding for Lower Columbia River channel maintenance.

¹ This is an aggressive timeline that builds on prior negotiations and assumes state funding to help address capital needs. An additional year will be necessary if a solicitation process is needed. The Port will report on the negotiation progress in January 2025.

Long Term (After 2032)

- Private terminal operator increases volumes at T6 to 180,000 containers or more.
- Port positions the terminal for ongoing public and private capital investments that are consistent with other West Coast ports. Future capital investments will be used to complete terminal modernization and invest further in cranes and support equipment needed for increased volumes.
- Port seeks additional public and private sources of capital funding.
- Port seeks additional state funding for Lower Columbia River channel maintenance.

Background & Current Operations at Terminal 6

Port Mission, Financial Structure & Relevant Operations

The Port's mission is to build shared prosperity through trade, travel, and economic development. The Port's three airports, four marine terminals, and five business parks all facilitate the safe and efficient movement of people and goods.

The Port has two business divisions: Aviation, and Trade and Economic Development. In compliance with Federal Aviation Administration regulations, the Port's budget must be divided into two funds: Aviation and the General Fund. The Port is only permitted to use aviation revenue on aviation facilities; therefore, the General Fund must generate revenue for the Port's trade and economic development work, which includes the Port's dredging and marine terminal operations.

The Port is part of the Columbia River Shipping System, a marine highway for commerce that exports U.S.-made products worldwide and imports needed goods. As part of this system, the Port moves grain, bulk minerals like potash and soda ash, cars, trucks, non-containerized general cargo – called breakbulk – and containers. According to the U.S. Army Corps of Engineers, the Columbia-Snake River Navigation System moved 54.4 million metric tons of cargo in calendar year 2022. The U.S. Census Department reports that the value of Columbia River international trade by vessel was \$30.8 billion in 2022 and \$25.6 billion in 2023.

Together with four Washington ports along the Columbia River, the Port sponsors and funds the non-federal cost share for maintenance dredging, including upland placement of dredge material that is part of channel maintenance activity. The Governor's proposal pledges \$15 million in her 2025-27 recommended budget to cover a portion of Oregon's share of maintaining the Lower Columbia River channel. Over the next 20-year project period, this obligation is estimated to be upwards of \$70 million due to several factors, including the acquisition of costly upland real estate for material placement and construction costs. This obligation is a large component of the Port's General Fund budget. The Governor's acknowledgment that this channel maintenance work must be funded in FY 2025-27 and beyond reflects that such maintenance is essential to Oregon's economy.

The Washington sponsor ports are responsible for an equal amount of money and are preparing their requests for the Washington State Legislature. Both the states of Oregon and Washington will be asked to contribute the non-federal cost share for maintaining the Lower Columbia River for the next 20-year planning cycle – just as they did for the prior 20-year cycle when the two states contributed \$27.7 million each for the channel deepening project that commenced in 2010.

About Terminal 6

Terminal 6, located at the confluence of the Willamette and Columbia Rivers, has handled containers for Oregon shippers since 1975. It is the only international container terminal in Oregon. T6 is a central link between multiple modes of container transportation, including vessel, truck,

rail, and barge. In addition to containers, the 420-acre terminal is a significant hub for importing and exporting automobiles. T6 also handles breakbulk cargo.

Container service is vital for many Oregon industries and is especially critical for agricultural exporters from the Willamette Valley.

Table 1: Top Terminal 6 Commodities – 2023

Exports	Imports
Hay and animal feed	Furniture
Recyclables (metal and paper)	Toys and games
Grass seed	Tires
Wood products	Auto parts
Grains and vegetables	Apparel

Other exports from T6 include potatoes, vegetables, hazelnuts, cheese, cranberries, wood pulp, paper, plywood, beer, machinery, and seafood. Other imports to T6 include batteries, printers, tire chains, footwear components, refrigerators, heaters, lamps, and knives.

Terminal 6 Operations & Challenges

T6 differs from other West Coast container ports in essential ways, leading to a long history of economic instability in Portland's marine container business.

- **Geography:** T6 is more than 100 miles upriver from the ocean, requiring more vessel steaming time and both a bar and river pilot, increasing the direct call costs. T6 services must be priced to offset the higher vessel costs.
- **Vessel size:** The Columbia River has a depth of 43 feet, which limits the drafts of modern container vessels calling at T6, further increasing the cost of a direct call. In addition, T6 container cranes must be raised to efficiently handle the new generation of large container vessels.
- **Market size:** While Portland has a robust container export market, the regional import market is small compared to other West Coast container ports. Imports draw higher freight rates and, significantly for the region, supply containers and equipment to the export market.
- **Profitability:** From 1975 to 2004, T6 generated a positive operating income before depreciation (OIBD) in most years. Capital needs were met by income from other marine operations, land sales, and property tax revenue. However, since 2004, T6 container

volumes and profitability have declined significantly.² The Port projects a \$12.3 million OIBD loss in FY 2024-25.

- **Operating model:** While other ports operate their container terminals through private companies, the Port is currently the only public operator of an international container terminal on the West Coast. This operating model exposes the Port to market fluctuations and financial risks that other West Coast public ports can share with private partners.

Attachment 4 includes a timeline of the Port's history of container operations at T6.

² Two major services, operated by “K” Line and Hyundai Merchant Marine, discontinued calling T6 in late 2004.

Value of Container Service

To better understand the benefits of T6 to Oregon, the Port asked Tioga, a respected freight transportation consulting firm specializing in container logistics and forecasting, to answer three questions:

- What is the current value of T6 container shipping activity to Oregon and its population?
- What value would be lost if T6 loses direct container shipping calls permanently?
- What is the cargo growth potential if container service continues to operate at T6?

To address these questions, Tioga used recent container market data, trucking cost estimates, vessel schedules, Port financial data, shipper interviews, and insights from previous studies.

Economic Value

Oregon shippers have repeatedly testified to the importance of direct T6 container vessel service at public forums and in writing. Tioga notes that direct ocean carrier service to Portland allows Oregon shippers to truck their containers to and from T6 more efficiently than to and from Puget Sound terminals. Depending on their distance from Portland, shippers report that their drivers can make two or three trips (turns) per day at T6 versus one turn, at most, driving to Seattle or Tacoma. Recurrent terminal congestion at the Washington ports has led some trucking firms to impose a \$100 per trip congestion fee.³ In 2021-2023, an average of about \$0.5 billion in Oregon exports and \$1.8 billion in Oregon imports passed through T6 each year.

Tioga estimates that T6 generated \$208 million of personal income in 2022. This included 1,567 total jobs: 696 direct and 871 indirect and induced.⁴

Value Lost if T6 Container Service Closes

Without direct service to T6, Oregon containers would be handled at Seattle or Tacoma and moved primarily by truck. Tioga estimates that Oregon importers and exporters will incur \$19.2 million in additional net trucking costs, an average of about \$585 per container. This extra cost burden will reduce the competitiveness and profitability of Oregon exports and the attractiveness of Oregon locations for import and distribution business.

Tioga estimates that the annual economic value at risk from a closure of container operations at T6 encompasses 869 jobs (169 direct and 700 indirect and induced) and \$91 million in labor income.⁵

³ Oregon export shipments are unique in that many are moved to and from ports using trucks owned by the producers or processors rather than by commercial trucking firms.

⁴ “Indirect” are jobs generated by business-to-business purchases resulting from T6 activity. “Induced” are the jobs generated by household spending of income generated by T6 activity.

⁵ Not all jobs currently attributable to T6 would be lost if container service at T6 closes. For example, many truckers would switch from trucking containers to T6 to trucking containers to rail hubs, container depots, and Puget Sound ports.

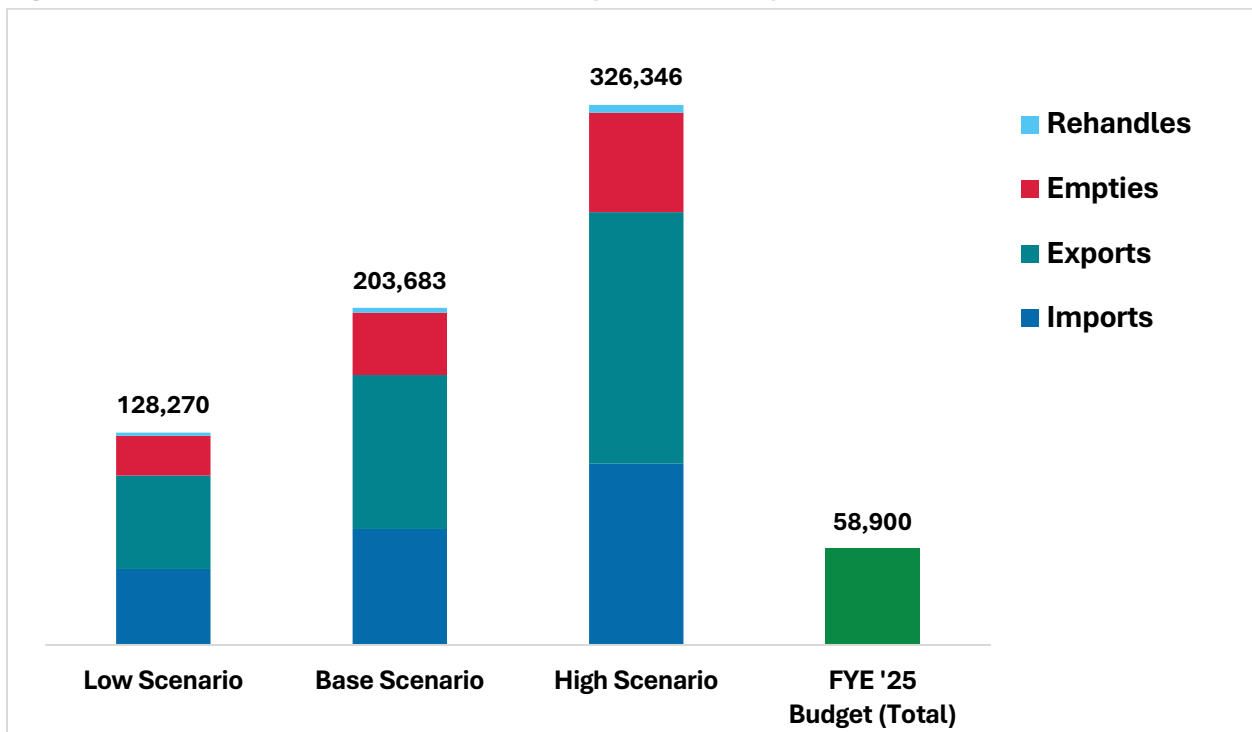
T6 Cargo Growth Potential

Tioga notes that every shipper contacted for its study moves as much cargo as possible through T6 and would move more if more vessel space was available and more foreign ports were served. There is more than enough Oregon cargo to expand T6 volumes, and Oregon cargo continues to grow. The volume through T6 depends on cargo share rather than cargo volume.

The Tioga study forecasts T6 volumes using an exhaustive analysis of Oregon’s economy, the general container trade, regional commodity flows, Oregon trade partners, and past T6 forecasts. The Tioga forecast includes a detailed examination of past and current container services and considers potential future container service scenarios for T6.

This figure shows the Low, Base, and High forecasts for vessel moves in 2030 and compares those to the Port’s current budgeted volume.⁶

Figure 1: Terminal 6 Container Forecast – 2030 (Vessel Moves)



Attachment 3 includes an executive summary of Tioga’s report.

Environmental & Traffic Benefits

The benefit of direct container service to Portland extends beyond the cost savings provided to shippers. T6 container service also reduces greenhouse gas emissions (GHG), which has a global environmental benefit. With population growth in the I-5 corridor and increased congestion

⁶ Tioga’s forecast, which is in twenty-foot equivalent units, has been converted to vessel moves for comparison to the Port’s budgeted volume.

between the Willamette Valley, I-84 corridor, and Seattle/Tacoma, the climate benefits of T6 are significant today and will only grow over time.

The Port has developed a carbon emission model specifically designed to compare the GHG emissions of direct Portland container service with alternative modes of transport, i.e., truck and rail to Puget Sound ports.⁷ Assuming today's volumes of roughly 60,000 annual containers, the model estimates direct container service at T6 reduces CO₂ emissions by 12,801 metric tons, or 28 percent less than the GHG emissions generated by truck and rail transport to Puget Sound terminals.⁸ The annual value of the lowered GHG emissions is an estimated \$2.98 million.⁹ Assuming the Port's goal of doubling container volumes over the next five to seven years, these climate benefits will grow substantially.

The expected replacement of the Interstate Bridge should also be considered when assessing the benefit of reducing truck traffic on the I-5 corridor. The general construction estimate for the replacement bridge is between five and seven years. While current plans show that the existing bridge spans will remain open to travelers until the construction of the replacement bridge is complete, the magnitude of the construction project will certainly result in significant traffic impacts. Stabilized and sustained container operations at T6 during this time will help to reduce truck traffic heading north on I-5.

⁷ *An Evaluation of Greenhouse Gas Emissions from Container Service Changes in Portland, Port of Portland*, December 2016. **See Attachment 2** for a description of the model and its methodology.

⁸ Assumes 75/25 split truck and rail (Puget Sound), 50/50 split export and import, ocean voyage to/from Korea, and a single port of call in the U.S. Pacific Northwest.

⁹ GHG cost factor source: *Benefit-Cost Analysis Guidance for Discretionary Grant Programs, USDOT, December 2023*, U.S. Department of Transportation. See Table A-6: Damage Costs for Emissions per Metric Ton, p. 43 (\$233 per metric ton).

Near-Term Plan to Reduce Operating Losses

The Port is budgeting an OIBD loss of \$12.3 million for its T6 container operations in Fiscal Year 2024-25 (Table 2).

Table 2: Container Business Line Budget Summary, Fiscal Year 2024-25¹⁰

	<i>\$ Millions</i>
Total Revenue	\$23.3
Longshore Labor	-\$18.9
Contract Terminal Management	-\$4.7
Port Administration	-\$4.0
Security & DCTU Maintenance	-\$2.5
Utilities	-\$1.6
Materials & Supplies	-\$1.5
Other ¹¹	-\$2.4
Operating Income Before Depreciation	-\$12.3

Container terminal losses must be paid for out of the Port’s General Fund; as noted above, the General Fund supports the Port's trade and economic development work, which includes the Port's dredging and other marine terminal operations. The General Fund is also needed to fund the Port’s environmental liabilities, including those related to the Portland Harbor Superfund Site. Some General Fund revenue sources used in the past, such as property sales, are no longer available to the Port. Container terminal losses of this magnitude, therefore, jeopardize the Port’s continued ability to fund these activities and obligations.

To reduce this budgeted T6 container service loss, the Port has taken aggressive action in four key areas: container volume, pricing, management cost, and efficiency.

Container Volume

Volume is the most critical factor affecting T6's financial performance. The Port recently communicated with its T6 ocean carriers that, in addition to the significant rate increases agreed to in 2023, T6 needed more containers to reduce operating losses. In response, the carriers agreed to increase the Portland allocations on their vessels, increasing T6 volumes.

¹⁰ The budgeted volume is 58,900 vessel moves. Longshore Labor excludes Harbor Industrial compensation. Contract Terminal Management includes Harbor Industrial expense charges on longshore hours, profit markup, and reimbursements. Port employees perform security (ILWU) and maintenance (DCTU). Utilities include stormwater fees and electricity.

¹¹ “Other” includes I.T. staff and software (\$0.7M), insurance (\$0.5M), fuel (\$0.4M), and miscellaneous other expenses.

Over the coming fiscal year, the Port is targeting a 10 percent increase in volume over budget, resulting in a \$0.9 million improvement in OIBD. Over the next five to seven years, the Port will work with shippers, carriers, a private terminal operator, and the International Longshore & Warehouse Union (ILWU) to double container volumes to 120,000 containers by 2032. These volume increases are required to reach financial sustainability and will require all parties' focus and commitment.

Pricing

Pricing – the rates the Port charges container carriers – is another critical factor impacting financial performance. In 2023, the Port and its carriers agreed to rate increases of 16 percent to 20 percent, which have helped to reduce operating losses. This increase also restructures the rates from a tiered structure to a flat per-container fee. The Port aims to continue raising prices at the new flat fee structure in future years to keep pace with expense growth.¹²

Management Cost

The Port pays an outside contractor, Harbor Industrial Services (Harbor Industrial), to payroll the longshore labor force and manage work on the terminal. Considering the losses budgeted for 2024-25, the Port and Harbor Industrial recently agreed to restructure their agreement to reduce T6 management costs by \$700,000. As discussed below, the Port intends to enter a financially feasible agreement with a private terminal operator. If reached, this new agreement will include more comprehensive terms that will build upon these near-term savings and contribute to the long-term sustainability of T6 operations.

Efficiency

The Port, ILWU Locals 8, 40, and 92, and Harbor Industrial will work cooperatively on an ongoing basis to improve the efficiency of T6 operations. The table below shows some of the current areas of focus.

¹² This reduction in operating losses is reflected in the \$12.3 million loss in Fiscal Year 2024-25. The Port's ability to raise rates even faster is constrained by competition from other West Coast container ports.

Table 3: Recent Efforts to Improve Efficiency

Improving terminal efficiency is an ongoing process. The Port, ILWU, and Harbor Industrial have recently undertaken the following actions to improve the efficiency of container operations:

- Improved vessel productivity, resulting in crane productivity levels (moves per crane hour) exceeding prior T6 and current West Coast industry levels
- Increased focus on day-to-day hiring and optimization of equipment use
- Moved from a 5-day to a 4-day gate in response to decreased volumes
- Increased yard densification to improve reach stacker proximity to the container stacks
- Implemented scheduling initiatives to reduce costs in the gearlocker¹³

Recognizing that the state's investment in T6 is conditioned on an aggressive strategy to make T6 sustainable long-term, the three parties have committed to meet regularly to discuss ways to improve terminal efficiency. Please see **Attachment 1**, the Memorandum of Understanding between the Port, Harbor Industrial, and ILWU.

The Port's goal is a 2 percent improvement in efficiency in the current fiscal year, resulting in a \$500,000 improvement in OIBD.

Near-Term Plan Summary

The above actions will improve OIBD by \$2.1 million, reducing losses from \$12.3 million to \$10.2 million (**Table 4**).

Table 4: Summary of Near-Term Port Actions to Reduce Container Losses

Action Area	Action	OIBD Improvement \$ Millions
Volume	Increase 10%	\$0.9
Pricing	Keep pace with expense growth	--
Management Cost	Restructured Harbor Industrial Contract	\$0.7
Efficiency	Improve 2%	\$0.5
Total OIBD Improvement		\$2.1

Joint Emergency Board funding will further reduce the Port's FY 2024-25 loss to \$5.2 million (**Table 5**).

¹³ The "gearlocker" refers to the on-site shop and mechanics who maintain the cranes, lift trucks, vehicles, and other equipment at T6.

Table 5: Adjusted Operating Income Before Depreciation Loss, FY 2024-25

	\$ Millions
FY 2024-25 Budgeted Loss	(\$12.3)
OIBD Improvement	\$2.1
Joint Emergency Board	\$5.0
Port Adjusted Loss	\$5.2

Mid- to Long-Term Plan for Financial Sustainability

The near-term actions described above, in combination with the requested Joint Emergency Board funding, will reduce operating losses and stabilize T6's financial situation in the coming year. These actions will give the Port time to implement the mid- to long-term strategies to achieve financial sustainability. The major elements of this plan include:

- Securing a private terminal operator agreement and investing the state's proposed \$20 million in capital funding for T6 modernization
- Continuing volume increases
- Expanding non-traditional cargo handling
- Securing additional public and private sources of capital funding

Secure a Private Terminal Operator & Invest Capital in Terminal Modernization in FY 2025–26

The Port intends to negotiate an agreement with a private terminal operator to reduce its risk and stabilize its financial performance. Under a potential agreement, the private operator would market the terminal, contract with the carriers, collect terminal revenues, and manage terminal operations, including hiring and managing the longshore workers. An agreement with a private operator would shield the Port from the highly cyclical nature of the business and remove the current stevedore management structure for hiring labor and managing the terminal. An agreement would also align the Port with successful practices used by other West Coast ports, reduce the Port's business risk, and provide more stable and predictable financial performance.

The Port's goal is to finalize an agreement in principle by January 2025. If an agreement can be reached, it should be finalized in 2025 and conditioned on receipt of \$20 million in capital funding from the state in the 2025 Legislative Session. The lack of funding for capital improvements to address immediate terminal modernization was an obstacle to reaching an agreement in last year's terminal operator contract negotiations. The Port will provide an update on this critical work by January 2025 so that the Governor and Legislature know if terms have been reached or if there are funding gaps that must be addressed to finalize a deal. If an agreement is not reached, the Port will report back with recommendations on what is needed to successfully engage in a market solicitation process for a third-party operator.

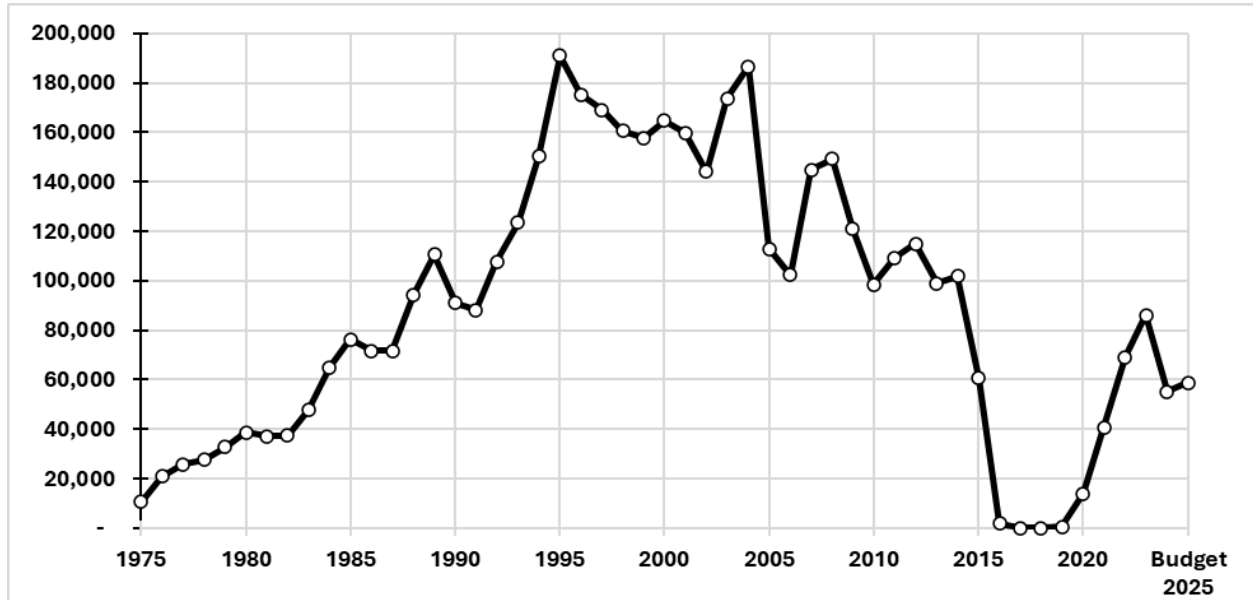
Immediate capital needs at T6 include pavement, stormwater, berth maintenance, electrical, and building projects. Work to refine the T6 capital investment plan will be done in concert with contract negotiations in 2025. State funding for Lower Columbia River channel maintenance over the next three biennia is also vital as it allows the Port to allocate scarce General Fund resources to fund ongoing T6 maintenance obligations under an agreement with a private operator.

Increase Volumes

Terminal 6's financial sustainability is highly dependent on volume and operations at scale.

Figure 2 shows the facility's volumes since 1975.

Figure 2: Terminal 6 Container Volumes, 1975 - 2025 (Vessel Moves)



To reach an acceptable level of financial performance, the Port estimates that volumes must increase from the 2025 budgeted volume of 58,900 to approximately 120,000 vessel moves. As noted in the Tioga report, only 25 percent of Oregon goods traveling internationally by ocean container move through T6.

There are four primary mechanisms available to the Port to grow the business to the desired levels and capture more of the market:

- Work with a private terminal operator to market T6 and **secure more direct service**.
- **Maximize T6's share of the local container market** through shipper outreach and increased allocations on Portland-calling vessels.
- **Increase the volume of intermodal containers**, primarily to and from the U.S. Midwest, moving through T6.
- **Provide T6 shippers with stable and ongoing container operations**, establishing service reliability and confidence through an agreement with a private terminal operator.

Attachment 3 describes the path to achieving the needed volume increase in more detail.

Secure Capital Funding

Container terminal operations are capital-intensive. Even with volume growth, the Port will need external funding to support T6 container operations into the future. The goal of this plan is to

position the business for long-term public and private infrastructure investment. The immediate capital needs for terminal modernization include pavement, stormwater, berth maintenance, electrical and building projects. Once the immediate needs are addressed, further investment in cranes and support equipment will be necessary to maintain and grow the targeted volume.

Portland's West Coast container port competitors enjoy significant state and local support for their capital programs. For example:

- In 2023, California awarded more than \$735 million in state grants to Los Angeles, Long Beach, and Oakland for container projects.¹⁴
- The members of the Northwest Seaport Alliance (NWSA) – Seattle and Tacoma – annually collect more than \$100 million of property tax, which the NWSA uses to support container terminal development.

California and Washington ports use these taxes and grants to leverage significant federal investment in their container facilities.

Unlike most public agencies, the Port of Portland has relied very little on public taxpayer support, instead generating 96 percent of its total revenue from transactions with the private sector such as fees for use of services and facilities – not public funds. The small amount of property tax dollars the Port receives – for the current fiscal year, \$16.6 million – must be spread across all marine and economic development operations. These funds are primarily used to assist with capital costs in the marine, industrial development, and navigation departments. This relative lack of public investment represents the most significant disadvantage for Portland compared to other West Coast ports.

¹⁴ These funds come from California's \$1.5 billion Port and Freight Infrastructure Program for harbor-related road, rail, and maritime support facilities.

Stakeholder Engagement

Stabilizing and sustaining operations at T6 will require collaboration between many partners, from the shipping industry to the Oregon State Legislature. The Port continues to make significant progress in uniting partners to share knowledge, develop strategies, and communicate progress.

Industry Advisory Council

The Port established a standing Industry Advisory Council (Council) that includes key exporters, importers, labor, and other industry leaders to provide expert advice and actionable recommendations for the long-term financial sustainability of T6 container operations. The Port held meetings with the Council on July 23, 2024, and August 20, 2024, to develop strategies outlined in this report.

Council members include:

Name	Organization
Shelly Boshart Davis	Bossco Trading
Stu Follen	SL Follen Company
Bill Kennedy	Columbia Sportswear
Keith Lee	Chins Import
Tim McCarthy	Harbor Industrial
Stuart Strader	ILWU Local 8
Phil Traylor	Geo S Bush
Patricia Villalonga	Kroger
Tom Yu	Unique Logistics Int'l

The Council has agreed to provide ongoing advice to the Port on the following:

- Provide input and recommend strategies to grow container volumes, improve terminal efficiency, and advance terminal modernization
- Provide expert advice on building the business over the long term, including performance metrics
- Assist with shipper engagement and marketing strategies
- Support public investment strategies

The Council acknowledges the statewide significance of container service in Oregon. Members have raised concerns about the potential closure of container operations, citing increased business costs, economic impacts, climate impacts, and heightened traffic affecting communities

along the I-5 corridor. The Council is united in collaborating with the Port to address the short-term and long-term funding requirements to continue T6 container operations, and has agreed to continue to engage with the Port throughout FY 2024-25 and beyond to guide the Port's T6 work. Council membership is likely to change over time; the Port plans to invite participation from the state in future Council discussions.

Reporting & Key Performance Metrics

The Port recommends three key performance metrics for the long-term sustainability of T6 container operations: volume, OIBD, and efficiency.

Volume

The critical volume metric is "vessel moves," which are the number of containers moved to and from vessels by the T6 ship-to-shore cranes. The number of vessel moves is highly correlated to total revenue. As volume increases, so does the gross margin for the Port and its terminal operator, improving the terminal's financial performance.

The current budgeted volume – 58,900 vessel moves – is well below the level needed for sustainability. The Port's target for the private terminal operator is to double that number to approximately 120,000 vessel moves annually. This volume would indicate that Terminal 6 has recaptured a sizable portion of the regional container market, reducing transportation costs for Oregon shippers. It would also correlate to substantially improved financial performance.

Port Operating Income Before Depreciation

Another key performance metric is the Port's OIBD from T6 container operations. The Port must significantly reduce its losses from the current \$12.3 million (FY 2024-25 budget) to keep container operations at T6 open. The combination of increased volume and the terms of an agreement with a terminal operator are critical components to accomplish this goal.

Efficiency

Maintaining and improving efficiency is essential to T6's financial performance and competitiveness. The Port's recommended efficiency metric is the number of longshore hours worked divided by the number of vessel moves. This metric is an industry standard for tracking container terminal productivity. In FY 2023-24, T6 efficiency was 2.79 longshore hours per vessel move. The Port expects this number will decline, indicating progress as the Port, Harbor Industrial, and ILWU work together to identify ways to improve efficiencies and T6 container volumes increase.

Reporting

The Port proposes to report performance metrics to the Governor's office annually and invites further discussion regarding proposed metrics.

Conclusion

The T6 container operation is a statewide asset that requires significant state investments in partnership with the Port of Portland, ocean carriers, shippers, and labor. The following key questions are answered by this Plan:

1. Does the Port need additional financial assistance to stabilize and grow the container business?

Yes. The Port lacks the robust funding tools other container ports enjoy from their tax base and states. When coupled with unfunded obligations to fund maintenance dredging and the Lower Willamette River cleanup, the container business will require state funding.

2. Is there a financial return on investment for the state?

Yes. The container operation at T6 is a beehive of jobs and trade activity with excellent economic benefits in the Portland region and through competitive transportation rates for shippers across Oregon. Annual tax revenue is estimated at \$20 million and will grow as the operation grows.

3. Are the private sector stakeholders sharing in the financial risks of future container operations?

Yes. Carriers have increased rates by 16-20 percent, and volume is expected to grow by 10 percent in the coming fiscal year. The Port, Harbor Industrial, and ILWU have agreed to material cost efficiencies to demonstrate to state leaders that the primary stakeholders are deeply invested in making this work.

4. Does a working Terminal 6 decrease carbon emissions, and does that have a climate and financial benefit?

Yes. At today's volumes, if container service at T6 were closed, there would be an additional 12,801 metric tons of carbon – a 28 percent increase – in the I-5 corridor due to additional truck and rail traffic to and from Puget Sound. This benefit has an estimated annual economic value of nearly \$3 million. Assuming the Port's goal of doubling volume over the next five to seven years, these climate benefits will grow substantially.

5. Is Terminal 6 obsolete as a container port?

No. All cargo can't flow through mega ports on mega ships – you also need niche ports.

Supply chain resilience along the West Coast is critically needed, as we saw during COVID, geopolitical unrest in the Red Sea, and drought conditions affecting the Panama Canal.

6. Is it reasonable to assume volumes can double over the next five to seven years?

It is important to remember that T6's container operation was essentially dormant from 2017 to 2019. Today, five years later, 60,000 containers move through T6 with two North Asia-based services serving only 25 percent of the shipper market. While there are no guarantees, it is reasonable that T6 can reach 50 percent of the market served, doubling volumes. At that point, the operation is at a much more sustainable level and should attract public and private long-term investments.

7. Is legislative funding required for the Port to enter into an agreement with a private terminal operator?

Yes. Funding to address immediate terminal modernization needs will be required for the Port to enter into a financially feasible agreement with a private terminal operator. This initial capital investment from the Legislature is a foundational first step to enter an agreement with a private terminal operator, which is required for long-term financial sustainability of container service, whether secured through direct negotiations or an open solicitation process.

8. Will we know whether there is a private operator agreement before the end of the 2025 session?

Yes. The Port's goal is to have an agreement in principle by January 2025. If reached, the finalized agreement is anticipated to be complete later in 2025 and conditioned on legislative funding during the 2025 session. If an agreement is not able to be reached, the Port will provide recommendations on further market solicitation for a third-party operator and additional needs to enter into a financially acceptable agreement.

ATTACHMENT 1: ILWU/PORT/HARBOR INDUSTRIAL MOU

MEMORANDUM OF UNDERSTANDING

This MEMORANDUM OF UNDERSTANDING ("MOU"), between the PORT OF PORTLAND, a port district of the State of Oregon ("Port"), HARBOR INDUSTRIAL SERVICES CORPORATION, a California corporation ("Harbor"), and INTERNATIONAL LONGSHORE AND WAREHOUSE UNION LOCALS 8, 40, 92 ("Local 8," "Local 40," and "Local 92").

RECITALS

A. In May 2024, the Governor of the State of Oregon declared that the State would invest state resources to support the continuation of container service at the Port of Portland's Terminal 6 Container Facility.

B. The State's investment is conditioned on the pursuit of an aggressive strategy to make the Terminal 6 Container Facility sustainable for the long term, with the Port pursuing all viable strategies for making operations sustainable.

C. The parties are committed to pursuing the long-term sustainability of the Terminal 6 Container Facility and desire to meet and work together to explore ways to assure and enhance such long-term sustainability.

UNDERSTANDINGS

1. EFFECTIVE DATE

The Effective Date of this MOU is July 15, 2024 (the "Effective Date").

2. UNDERSTANDING

To explore ways to assure and enhance the long-term sustainability of the Terminal 6 Container Facility, the parties commit to work together to reduce costs by increasing the efficiency of the container yard and gate, vessel operations and cargo handling equipment maintenance.

3. BI-WEEKLY MEETINGS

To explore the above objectives, the parties shall meet every two weeks, beginning the week of July 15, until further notice. The Port will set up the meetings and notify the parties.

4. PARTICIPANTS

The participants in such meetings shall include:

Local 8: Secretary/Treasurer, email: secretary@ilwu8.org

Local 40: Secretary-Treasurer/BA, email: ILWU40@ILWU40.org

Local 92: Craig Bitz, email: ilwu.local92@icloud.com

Harbor Industrial: Mike Fudurich, email: mfudurich@harborindustrial.com

Port of Portland: Fred Myer, email: fred.myer@portofportland.com

5. TERMINATION

This MOU may be terminated at any time by any party, upon written notice to the other parties.

6. MISCELLANEOUS PROVISIONS

6.1 NO AGENCY; NO PARTNERSHIP

No Party shall be deemed the agent of the others for any purpose and this MOU does not create a partnership.

6.2 MODIFICATION

This MOU may be modified by a written amendment signed by authorized representatives of the parties.

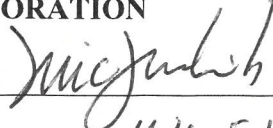
6.3 COUNTERPARTS; SIGNATURES

This MOU may be signed in counterparts, each of which shall be deemed an original, and together shall constitute one and the same instrument. This MOU may be signed via DocuSign™ or similar electronic signature technology. Electronic signatures, together with copies of signatures transmitted by email in .pdf or similar format shall be deemed original signatures for all purposes and fully binding on the signatory.


Entered into as of the Effective Date.

[Signature Page Follow]

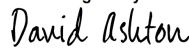
HARBOR INDUSTRIAL SERVICES CORPORATION

By: 
Print Name: Mike Fidurich
As Its: General Manager
Date: 7/24/24

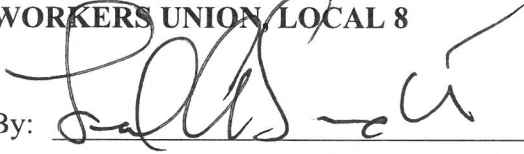
THE PORT OF PORTLAND

DocuSigned by:
By: 
444C02590B0B4AB...
Print Name: Curtis Robinhold
As Its: Executive Director
Date: 7/30/2024


APPROVED FOR LEGAL SUFFICIENCY FOR THE PORT:

DocuSigned by:
By: 
3D53DAFC8FF946A...
Counsel for The Port of Portland

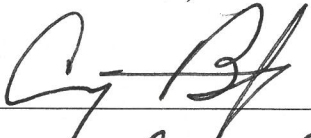
INTERNATIONAL LONGSHORE WORKERS UNION, LOCAL 8

By: 
Print Name: LEAH A. SUNDBET
As Its: Secretary/Treasurer
Date: 7/22/2024

INTERNATIONAL LONGSHORE WORKERS UNION, LOCAL 40

By: 
Print Name: J. KNIGHT
As Its: BUSINESS AGENT
Date: 24-July-2024

INTERNATIONAL LONGSHORE WORKERS UNION, LOCAL 92

By: 
Print Name: CRAIG BITZ
As Its: LOCAL 92 LRC
Date: 7-24-2024

**ATTACHMENT 2: AN EVALUATION OF GREENHOUSE GAS EMISSIONS FROM CONTAINER
SERVICE CHANGES IN PORTLAND**



An Evaluation of Greenhouse Gas Emissions from Container Service Changes in Portland

December 2016

Executive Summary

To quantify how changes in transportation modes affect CO₂ emissions, Port of Portland (Port) conducted an analysis of the impacts of the loss of container shipping services at the Port's Marine Terminal 6. Results show that containers imported and exported using the Port of Portland by ship generally have the lowest per-container CO₂ emission rates. In contrast, containers traveling between Portland and Puget Sound seaports by truck have the highest per-container CO₂ emissions, up to 33 percent more for Asia exports. Containers traveling between Portland and Puget Sound ports by rail have lower per-container CO₂ emissions with more modest increases of 7 percent over direct ocean shipping. Overall, the loss of container shipping services from Terminal 6 has resulted in a 17 percent increase in carbon dioxide emissions.

Purpose

As part of Port of Portland's on-going work to understand local air quality and climate change impacts from its operations, the Port conducted an assessment of carbon dioxide (CO₂) emissions related to the import and export of containers to and from the Portland area. The assessment consisted of two components:

(A) A comparison of CO₂ emissions per container for Portland oceangoing services, with foreign market services that include overland transport to and from the Puget Sound; and

(B) an analysis of the total impact of the loss of ocean-going container services in Portland on CO₂ emissions.

Background

In 2015, two major container shipping services – Hanjin's Asia service and Hapag-Lloyd's Med-Pac Europe service – ceased operations in Portland, which resulted in a loss of almost all container shipping services at Terminal 6. Containers that originate in the Portland area or regions south along the I-5 corridor that are bound for foreign markets, no longer ship directly overseas from Portland. Containers must now travel either by truck or by rail from Portland to marine ports in the Puget Sound. Similarly, containers imported from foreign markets to the Portland area or points south along the I-5 corridor must first ship to Puget Sound ports and then are transported by truck or rail to Portland.

Prior to discontinuation of major container shipping services in 2015 at the Port of Portland, containers originating in or destined for the Portland area were transported to and from foreign markets through the Port's Terminal 6. Export containers were loaded directly onto ships and transported to foreign markets (see Figures 1 and 2); import containers were transported by ship from foreign markets to one or more Puget Sound ports, and then shipped down the west coast of Washington and up the Columbia River to the Port's Terminal 6 (see Figures 3 and 4).

To gain a full understanding of the changing emissions from container service loss and subsequent

adjustments in transportation modes, the Port's analysis estimates per-container CO₂ emissions from:

- (1) Pre-2015 container imports and exports (directly by ship to and from Portland);
- (2) 2015 container imports and exports using trucks to move containers between Portland and Puget Sound ports, and on ships between Puget Sound and foreign ports; and
- (3) 2015 container imports and exports using rail to move containers between Portland and Puget Sound ports, and on ships between Puget Sound and Foreign Ports.

Methodology

The Port's analysis is a high-level estimate of emissions, based on the following:

- 1) Only CO₂ was analyzed. Other greenhouse gases emitted during the movement of cargo (CH₄ and N₂O) were not considered, although this should not significantly impact results, as CO₂ represents approximately 99.5% of greenhouse gas emissions from mobile combustion.¹
- 2) While different routes are taken for trans-Pacific and Europe trade, for comparison purposes, emission estimates were based on service to the nearest Asian port of call and the nearest European port of call.
 - a. Prior to the container service changes, ships carrying exports traveled directly from Portland to Asia (Figure 1). In contrast, ships bound for Europe (Figure 2) made numerous stops between Portland and Europe. Emissions associated with transloading stops at other ports are the same for all scenarios and were therefore not included in the analysis.
 - b. For imports by ship to the Port of Portland, the emission estimates from oceangoing vessels include transload stops at Puget Sound Ports. Figures (3) and (4) illustrate that prior to the 2015 loss of container shipping service at the Port of Portland, ships from Asia called on Port of Seattle prior to transiting to Port of Portland; while ships from Europe called on Port of Tacoma and Port of Vancouver, BC, prior to travelling to Port of Portland. After 2015, emissions from oceangoing vessels no longer include those resulting from ship travel to Portland from Puget Sound ports.
- 3) Ship transiting emissions were calculated on the basis of distance, speed, power, and emission factors in units of grams per kilowatt-hour (g/kW-hr). IHS Marine Data (formerly Lloyds Register)² was used to profile the characteristics of the world's 8,000 teu container vessel class. Ship travel distances were obtained from an online ship distance estimator.³ Travel distance divided by average speed providing an estimate of travel time between ports, in hours. It was assumed the ship operates at an 'open sea state' for the entire leg from Asia or Europe to the Pacific Northwest. Energy consumption in kW-hrs was estimated for main and auxiliary engines using estimated power and loads for the two engine types multiplied by the travel time estimates. Emissions were estimated by multiplying the kW-hr estimates by the g/kW-hr emission factors for main and auxiliary engines. Average emissions per twenty-foot equivalent unit (teu) were calculated by dividing the overall trip emission by the nominal teu capacity of the vessel.
- 4) Ship hoteling time was assumed to be the same at all ports, and therefore was not included in this analysis.
- 5) Emissions from harbor craft assisting oceangoing vessels for maneuvers in and out of Port were not included in the analysis.
- 6) Off-road cargo handling equipment (CHE) emissions were estimated from the emissions inventory published by the Northwest Seaport Alliance (Ports of Tacoma and Seattle).⁴ CHE emission rates in terms of metric tons of CO₂ equivalents per thousand teus were calculated for Tacoma and Seattle individually and a third emission rate was calculated as an average of the two ports. The evaluation calculations for the Puget Sound alternatives can be run with either port's emission rate alone or with the average. CHE emissions from Port of Portland cargo handling are based on the Northwest Seaport Alliance average.
- 7) Additional cargo handling activity is associated with rail transport (due to loading of containers onto rail at the originating facility and unloading of containers from rail at the destination facility).
- 8) Rail emission estimates were based on 200 containers per train, and emission factors were obtained from EPA's *Smartway Shipper Partner 2.0.12 Tool*.⁵
 - a. Emission factors are given in gCO₂/short ton-mile.
 - b. Rail distance (miles) was for Portland to Tacoma, obtained from BNSF Railway's Rail Miles inquiry.⁶

- c. Average container weight was assumed to be 40% of the maximum container weight observed at the Port's T-6. This results in an estimated average container weight of 13.4 short tons, which is in line with the estimate of 14 tons used for recent POLA and POLB emissions inventories.^{7,8}
- 9) Truck emission factors are based on EPA's MOVES model estimates for on-road travel by heavy-duty diesel trucks, as published by the Port Authority of New York and New Jersey in their 2014 Multi-Facility Air Emissions Inventory.⁹ The emission factors are presented in units of grams per mile, and trucking distance (miles) was for Interstate 5 at Marine Drive in Portland, to the Port of Tacoma. The road distance was obtained from Google Maps.^{9,10}
 - 10) For the analysis of the overall impact of losing direct container shipping service from the Port's T-6, the average number of containers moved annually through T-6 from 2011 to 2014 to and from each foreign market (i.e. export to Asia, export to Europe, import from Asia, and import from Europe) was used to calculate baseline emissions (pre-2015). 2015 emissions were estimated using the same ratio of imports and exports to and from Asia and Europe. Interviews with rail and trucking companies were used to establish the percentage of containers moving between Portland and Puget Sound overland by truck and by rail.
 - 11) Hanjin ships that previously serviced the Port's T-6 were well-balanced with import and export containers, so there was little need for repositioning of containers within the region. The current need for rebalancing increases VMT. Additional VMT and emissions from rebalancing were not included in this study.
 - 12) Per container emissions are based on direct service to Portland and do not include transload stops in the Puget Sound.
 - 13) The basic methodology for this study was developed by the Port of Portland and Starcrest Consulting Group, LLC.
 - 14) Table 1 presents the ocean distances, in nautical miles, used in developing the emission estimates.

Table 1: Ocean Voyage Distances, nautical miles

Market / Route	Waypoints	Distance nm
Market - Asia		
Direct service	Busan-Portland	4,663
PNW service	Busan-Tacoma-Vancouver-Portland	5,136
Puget Sound	Busan-Tacoma	4,627
Market - Europe		
Direct service	Valencia-Portland	8,607
PNW service	Valencia-Tacoma-Vancouver-Portland	9,285
Puget Sound	Valencia-Tacoma	8,776

Results

The tables and discussion below present the results of the evaluation of differences in shipping emissions. Table 2 illustrates the emissions, in tonnes per teu, associated with each of the routes and modes of cargo movement (vessel, CHE, truck, and rail). Emissions from all-water service to and from Portland are presented as direct to and from Portland and as a Pacific Northwest service including stops at Tacoma and Vancouver as well as Portland. Currently, inbound trips go through Tacoma and Vancouver before reaching Portland while outbound trips go direct to Asia or Europe from Portland. The routes currently not run are greyed out in the table in order to highlight the current routes.

Table 2: CO₂ Emissions Per Container: Direct Ship vs. Additional Truck/Rail Transport

Market / Route	Waypoints	Distance nm	CO ₂ e, tonnes per teu slot				Total
			Vessel	CHE	Truck	Rail	
Market - Asia							
Imports							
Direct service	Busan-Portland	4,663	0.40	0.015	---	---	0.42
PNW service	Busan-Tacoma-Vancouver-Portland	5,136	0.44	0.015	---	---	0.46
From Puget Sound by truck		4,627	0.40	0.015	0.153	---	0.57
From Puget Sound by rail		4,627	0.40	0.015	---	0.027	0.44
Exports							
Direct service	Portland-Busan	4,663	0.40	0.015	---	---	0.42
PNW service	Portland-Vancouver-Tacoma-Busan	5,136	0.44	0.015	---	---	0.46
Through Puget Sound by truck		4,627	0.40	0.015	0.153	---	0.57
Through Puget Sound by rail		4,627	0.40	0.015	---	0.027	0.44
Market - Europe							
Imports							
Direct service	Valencia-Portland	8,607	0.74	0.015	---	---	0.76
PNW service	Valencia-Tacoma-Vancouver-Portland	9,285	0.80	0.015	---	---	0.82
From Puget Sound by truck		8,776	0.76	0.015	0.153	---	0.93
From Puget Sound by rail		8,776	0.76	0.015	---	0.027	0.80
Exports							
Direct service	Portland -Valencia	8,607	0.74	0.015	---	---	0.76
PNW service	Portland-Vancouver-Tacoma-Valencia	9,285	0.80	0.015	---	---	0.82
Through Puget Sound by truck		8,776	0.76	0.015	0.153	---	0.93
Through Puget Sound by rail		8,776	0.76	0.015	---	0.027	0.80

Table 3 presents a comparison between all-water service to Portland, both direct and via Pacific Northwest service, and the alternatives of shipping to Tacoma with final transport to Portland by truck or by rail. The table shows, for each market and direction (Asia/Europe, import/export), the differences in tonnes per container and percent between the alternative listed in the left-most column and the direct or PNW all-water service. As in Table 2, the routes not currently used are greyed out in order to highlight the emissions associated with current practice. In Table 3, the negative numbers associated with all-water service to Portland via the PNW service compared with rail shipment from Tacoma reflect lower emissions from the rail transport versus all-water to Portland. Truck and rail shipment from Tacoma produces higher emissions for the other currently used routes.

Table 3 shows that shipping international containers through the Port of Portland via water-only transport has the lowest rate of CO₂ emissions, with the exception of importing containers by ship through the Puget Sound, and then transporting them to Portland by rail. This exception is due to the slightly increased ship emissions from transiting through two Puget Sound ports (Tacoma and Vancouver, BC) before arriving at the Port of Portland. However, for exports to both Asia and Europe, transporting containers directly from Portland by ship is the cleanest option in terms of CO₂ emissions. For overland transport of containers, rail is the cleaner option. Rail is an efficient way to move containers over land, which is illustrated by the substantially lower per-container CO₂ emissions for rail compared to trucking.

Table 3: CO₂ Emissions Per Container: Compared to Water-Only Service

Market / Route	Waypoints	Comparison with All-Water Service to Portland			
		Direct Service		PNW Service	
		tonnes CO ₂ e	%	tonnes CO ₂ e	%
Market - Asia					
Imports					
	From Puget Sound by truck	0.15	36%	0.11	24%
	From Puget Sound by rail	0.02	6%	-0.02	-4%
Exports					
	Through Puget Sound by truck	0.15	36%	0.11	24%
	Through Puget Sound by rail	0.02	6%	-0.02	-4%
Market - Europe					
Imports					
	From Puget Sound by truck	0.17	22%	0.11	13%
	From Puget Sound by rail	0.04	5%	-0.02	-2%
Exports					
	Through Puget Sound by truck	0.17	22%	0.11	13%
	Through Puget Sound by rail	0.04	5%	-0.02	-2%

CO₂ Emissions Impact from Loss of Port of Portland Container Shipping Services

Table 4 summarizes the overall impact to CO₂ emissions resulting from the loss of direct container shipping services at the Port of Portland:

Table 4: Comparison of Pre-2015 Emissions to 2015 Emissions

	Export to Asia	Import from Asia	Export to Europe	Import from Europe	Total
Pre-2015 CO ₂ Emissions (MT/Year)	27,655	27,185	10,558	10,351	75,748
2015 CO ₂ Emissions (MT/Year)	34,515	30,904	12,247	11,145	88,810
Difference (MT CO₂/Year)	6,860	3,719	1,689	795	13,062
Difference – Percent	25%	14%	16%	8%	17%

Conclusion

The loss in 2015 of direct container shipping services at the Port of Portland results in increased CO₂ emissions of approximately 17%. Rail shipments represent a smaller mode of transportation from the Puget Sound to Portland than truck transport, so the slight decrease in CO₂ emissions represented by the transportation of cargo by rail to Portland are greatly overshadowed by the increase in emissions from the other modes of container movement.

References

- 1) IPCC Guidelines for National Greenhouse Gas Emission Inventories, 2006.
- 2) IHS Markit Marine Data, www.ihs.com/industry/maritime.html
- 3) www.sea-distances.org/
- 4) Puget Sound Maritime Air Emissions Inventory, August 2012.
www.pugetsoundmaritimeairforum.org
- 5) Smartway Shipper Partner 2.0.12 Tool: Technical Documentation 2012 Data Year - United States Version.
nepis.epa.gov/Exe/ZyNET.exe/P100GYCH.TXT?ZyActionD=ZyDocument&Client=EPA&Index=2011+Thru+2015&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A%5Czyfiles%5CIndex%20Data%5C11thru15%5CTxt%5C00000008%5CP100GYCH.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h%7C-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=p%7Cf&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1&SeekPage=x&ZyPURL
- 6) www.bnsf.com/bnsf.was6/RailMiles/RMCentralController
- 7) Port of Long Beach 2014 Air Emissions Inventory
www.polb.com/environment/air/emissions.asp
- 8) Port of Los Angeles Inventory of Air Emissions – 2014
- 9) Port Authority of New York & New Jersey 2014 Multi-Facility Air Emissions Inventory
www.panynj.gov/about/port-initiatives.html
- 10) www.google.com/maps/

ATTACHMENT 3: TIOGA EXECUTIVE SUMMARY



T6 Container Service Value and Growth Potential Executive Summary



Report to:

PORT OF PORTLAND

The Tioga Group, Inc.
Hacket Associates, LLC.

August 22, 2024

Executive Summary

Purpose

Oregon shippers and receivers have repeatedly testified to the importance of direct Port of Portland Terminal 6 (T6) container vessel service at public forums and in writing. The role of T6 in Oregon’s exports, imports, and overall economy has been documented in multiple studies. This study provides updated answers to three vital questions:

- What is the current value of T6 shipping activity to Oregon and its population?
- What value would be lost if T6 loses direct calls permanently?
- What is the cargo growth potential if T6 continues to operate?

To address these questions Tioga and subcontractor Hackett Associates used 2021-2023 shipment data, current trucking cost estimates, current vessel schedules, Port financial data, shipper interviews, and insights from previous studies.

Background

In 2021-2023 about 284,000 twenty-foot equivalent units (TEU) of loaded imports and exports moved through T6, for an annual average of about 95,000 loaded TEU. These flows were predominantly cargo moving to or from points in Oregon but included small amounts of Washington and Idaho cargo and some moving to and from other states via rail. A substantial volume of empty containers also moves through T6. The full volume contributes to the economic value of T6 shipping.

Table 1: 2021-2023 T6 Container Trade in TEU

Trade	Oregon	Share	WA/ID Inland	Share	Total
Imports	140,880	84%	26,050	16%	166,930
Exports	105,795	90%	11,478	10%	117,273
Total	246,675	87%	37,528	13%	284,203

The consultant team separated the Oregon portion for analysis of shipping cost changes and other Oregon impacts. The major export commodities included hay and forage, metal and paper scrap, and grass seed, while imports were concentrated in tires, furniture, and toys.

Oregon shippers have four basic options for containerized ocean shipping:

- Direct vessel service at T6
- The NorthWest Container Services (NWCS) rail intermodal service from Portland to Seattle or Tacoma
- Portland Container Repair (PCR) truck service from Portland to Seattle Tacoma
- Truck drayage to and from Seattle or Tacoma

The first three options typically give the customer a Portland Bill of Lading for ocean carrier service and are priced similarly. The fourth option gives the customer a Seattle or Tacoma Bill of Lading at a lower ocean carrier rate, but that lower rate is exceeded by the additional trucking cost making it the costliest alternative. Loss of service at T6 would eliminate the first option, leaving Oregon’s imports and exports split between the other three.

T6 Service's Value to Oregon

Container vessel operations at T6 benefit the State of Oregon and its population in three basic ways.

Economic Activity at the Port of Portland

Employment and purchasing attributable to container operations at T6 yield direct, indirect, and induced economic activity not unlike a factory or distribution center on a similar scale. BST Associates estimates indicate that T6 generated 1,567 total jobs in 2022, with over \$200 million in personal income, as shown in Table 2. This estimate compares favorably to benchmarks from other port economic impact studies.

Table 2: Estimated T6 Economic Activity - BST Associates

Year	Category	Jobs	Avg. per Job	Personal Income
2022	Direct	696	\$79,236	\$55,148,000
	Indirect/Induced	871	\$176,061	\$153,349,000
	Total	1,567	\$133,055	\$208,497,000

Source: BST Associates

Transportation Cost Saving and Efficiency

Direct ocean carrier service to T6 allows Oregon shippers to truck their containers to and from the terminal more efficiently than at Seattle or Tacoma. At present all Oregon imports and exports that moves through T6 are moved by truck drayage to and from the terminal. The estimated current total annual cost of drayage to Oregon importers and exporters is \$43.9 million. An export cycle typically entails picking up an empty container in Portland and delivering it to the exporter for subsequent loading. Once loaded, which may be a day or more later, the export container is trucked back to T6 for ocean transport. An import cycle is the reverse, with the trucker picking up the loaded import container at T6 and delivering it to the importer for unloading, and later returning the empty container to the Port. Occasionally an empty import container may be used for an export load without returning to the Port, but logistics barriers make this reuse uncommon. The cost of truck drayage is primarily a function of time, as the distances are usually short and considerable time is required at both ends of the trip. The number of round trips drivers can make in their limited hours of service is also a critical factor in drayage efficiency. Depending on their distance from Portland, shippers report that their drivers can make 2-3 trips ("turns") per day at T6 versus one at most driving to Seattle or Tacoma. Recurrent terminal congestion at the Washington ports has led some trucking firms to impose a \$100 per trip congestion fee there. Oregon exports are unique in that many are moved to and from the Port using trucks owned by the producers or processors rather than by commercial trucking firms. This practice is particularly common for grass seed and hay shipments, and holds down the cost of transportation for those commodities while boosting productivity of the drivers and the equipment.

Oregon Trade Facilitation and Productivity

In 2021-2023 an average of about \$0.5 billion in Oregon exports and \$2.6 billion in Oregon imports passed through T6 annually. Beyond the transportation cost factors cited above, direct service to T6 provides Oregon shippers with faster and more reliable access to container shipping services. The availability in Portland of empty containers for export loads is considered a particular advantage. Every shipper contacted for this study prefers to ship via T6 whenever possible, often emphasizing the greater productivity of their operations and the greater ease of meeting the requirements of foreign customers. While these factors could not be quantified within our study scope, they are nonetheless real and vital to Oregon shippers.

Value Lost if T6 Closes

Lost Economic Activity at the Port of Portland

Over 800 jobs and about \$455 million in total economic activity would be lost to Oregon were container operations to cease, as shown in Table 3ⁱ. The main direct impact would be the loss of the 169 jobs now attributable to T6 shipping activity. This loss would reverberate through the Oregon economy. The supply chain jobs and retail purchasing attributable to container operations at T6 would disappear if service there ends, just as if a factory or distribution center on a similar scale closed.

Table 3: Lost Economic Activity with T6 Closure - IMPLAN Estimate

Impact	Jobs	Labor Income	Value Added	Total Output
1 - Direct	169	\$40,079,549	\$90,612,532	\$326,974,036
2 - Indirect	478	\$36,103,783	\$50,105,049	\$85,651,539
3 - Induced	222	\$14,646,442	\$26,565,060	\$42,321,908
Total	869	\$90,829,774	\$167,282,641	\$454,947,483

Higher Transportation Costs and Reduced Efficiency

Absent direct service to T6, all those containers would have to be handled at Seattle or Tacoma, and would be moved primarily by truck. Based on an assumption of 75% direct trucking to and from the Washington ports, we estimate that Oregon importers and exporters will incur **\$19.2 million in additional net trucking costs**, an average of about \$585 per container. This additional cost burden will reduce the competitiveness and profitability of Oregon exports and reduce the attractiveness of Oregon locations for import and distribution business. There would be 43,000 more round trips by truck annually between Portland, and another 14,000+ by a mixture of truck and rail. The need to add drivers, trucks, and container chassis would be an additional burden on the shipping industry. Many Oregon exporters rely on trucks registered for agricultural use for drayage, and cannot use those trucks to serve Washington ports.

Closure of T6 would reduce this competition and open the way to ocean carrier rate increases for the remaining alternatives. While the amount of the increases cannot be predicted, it is noteworthy that ocean carriers imposed large increases for West Coast services during the 2020-2021 pandemic-induced import surge and are doing so again as U.S. imports rise in 2024. **Each \$100 increase in ocean rates would cost Oregon shippers \$4.3 million.**

Increased Barriers to Oregon Trade

Loss of direct T6 service would make it more difficult and less profitable for Oregon exporters to compete in world markets and for Oregon importers to supply Oregon and U.S. markets. With higher transportation costs and reduced reliability, exporters would have to accept lower prices for their goods, particularly agricultural exports subject to competition from other sources and nations. Exporters contacted for this and previous studies have expressed concerns over having to ship goods as much as a week earlier to allow for rail or truck shuttle service to Washington ports, and the disruption caused by changing vessel schedules there. Perishable and other time-sensitive agricultural shipments are particularly vulnerable to delays, congestion, and service variability at Washington ports.

ⁱ Indirect jobs were reduced by excluding industries unlikely to be affected. Induced jobs were reduced to align with the new total of direct and indirect jobs.

Impacts by County

Table 4 shows the estimated total annual trade value and trucking cost impact by county. The greatest impacts would be felt in the greater Portland area and in the Willamette Valley.

Table 4: Estimated Annual Trade Value and Increased Drayage Cost by County

County	Estimated Annual Total Value	Avg. Annual Truck Trips @ 75 %	County to T6 Miles	County to Sea/Tac Avg.	Estimated Net Additional Cost per Container	Annual Additional Drayage Cost*
Baker	\$ 3,023,310	10	314	381	\$ (171)	\$ (1,790)
Benton	\$ 965,754	8	102	257	\$ 661	\$ 4,985
Clackamas	\$ 232,069,297	1,835	60	204	\$ 557	\$ 1,022,856
Clatsop	\$ 3,450,055	20	89	181	\$ 66	\$ 1,281
Columbia	\$ 1,004,187	8	37	149	\$ 255	\$ 1,985
Coos	\$ 1,626,974	25	249	397	\$ 600	\$ 14,722
Crook	\$ 10,662,932	158	201	346	\$ 572	\$ 90,106
Deschutes	\$ 203,397,886	2,045	186	332	\$ 576	\$ 1,178,842
Douglas	\$ 1,346,518	15	202	350	\$ 600	\$ 8,838
Harney	\$ 155,245	2	325	470	\$ 572	\$ 1,315
Hood River	\$ 15,177,606	74	81	227	\$ 581	\$ 42,977
Jackson	\$ 27,076,467	220	289	437	\$ 595	\$ 130,886
Jefferson	\$ 1,565,498	6	123	270	\$ 591	\$ 3,540
Josephine	\$ 3,487,151	38	269	417	\$ 595	\$ 22,607
Klamath	\$ 8,910,484	54	284	432	\$ 600	\$ 32,545
Lane	\$ 281,134,776	3,441	145	293	\$ 595	\$ 2,048,453
Lincoln	\$ 123,724	2	139	287	\$ 600	\$ 1,098
Linn	\$ 322,088,823	7,731	118	266	\$ 600	\$ 4,638,707
Malheur	\$ 177,146	2	412	543	\$ 434	\$ 825
Marion	\$ 139,456,248	2,278	80	224	\$ 557	\$ 1,269,681
Multnomah	\$ 1,234,840,455	9,786	15	162	\$ 586	\$ 5,732,720
Polk	\$ 21,796,234	1,306	81	229	\$ 595	\$ 777,624
Sherman	\$ 831,310	9	128	255	\$ 401	\$ 3,569
Tillamook	\$ 980,497	4	73	229	\$ 676	\$ 2,371
Umatilla	\$ 3,745,312	87	222	271	\$ (341)	\$ (29,808)
Union	\$ 206,602	1	280	345	\$ (190)	\$ (279)
Wasco	\$ 1,009,707	21	102	248	\$ 581	\$ 12,287
Washington	\$ 437,212,539	2,498	28	177	\$ 609	\$ 1,522,145
Yamhill	\$ 79,112,440	1,173	53	201	\$ 595	\$ 698,436
Total	\$ 3,036,635,178	32,856			\$ 585	\$ 19,233,523

* Est @ \$175+ \$ 3.38 /mile

T6 Cargo Growth Potential

The volume of trade through T6 depends on ocean carrier services and their capacity. Every shipper contacted for this study is moving as much cargo as they can through T6 and would move more were more vessel space made available and more foreign ports were served. There is more than enough Oregon cargo to expand T6 volumes, and Oregon cargo continues to grow. The volume through T6 depends on cargo share rather than cargo volume. The consultant team reviewed 2014 shipment data, previous reports, and recent outreach findings to identify the most productive candidates for new or restored service. Those include Japan, Central/South America, Mediterranean/Europe, Southeast Asia, and India. Four potential service scenarios follow.

- **Timberwave Corridor.** The Timberwave Corridor sees a return of a timber-focused trade that connects Portland to Japan, Korea, and China, similar to that previously operated by Westwood.
- **Pacific Produce Pathway.** The Pacific Produce Pathway would connect Oregon, Washington, and Idaho to the vibrant markets of Peru, Chile, and Ecuador. This route would carry commodities such as split peas and seeds to South America and return with fresh fruit and vegetables.
- **Southeast Asia Gateway.** The Southeast Asia Gateway would link Portland to the dynamic markets of Vietnam, Thailand, and Cambodia. A call at Singapore, Hong Kong, or another efficient transshipment hub would also improve Oregon’s access to the growing Indian market.
- **AgriTrade Connection.** The AgriTrade Connection would offer connections between Portland and other PNW ports to Central America and Europe. With the transition to larger vessels globally, this service capitalizes on the availability of smaller ships and transshipment hubs to provide a reliable route for the region’s agricultural exports, opening new markets and trade possibilities.

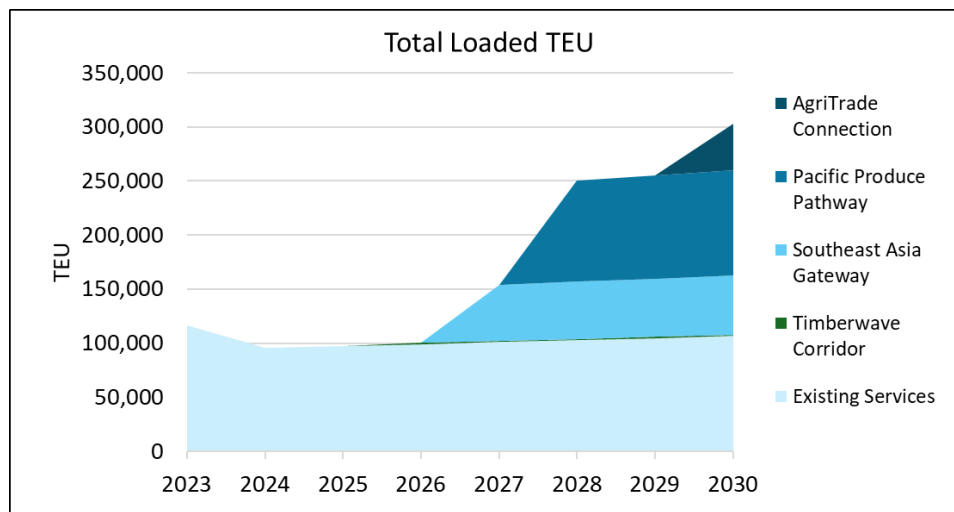
Assuming that SM and MSC remain at Portland at current levels (approximately 100k per year combined imports and exports), Table 5 shows the forecast scenarios extended to 2030. The timing of new services in Table 5 is an example rather than a prediction. Actual success and timing in obtaining new services will depend on trends in the carrier industry, Port marketing efforts, and perhaps most of all on the influence of major ocean carrier customers. While concern for the future of T6 service has often focused on exports, the far higher revenue from imports dominates ocean carrier service planning. Oregon importers will thus likely have greater influence than exporters in obtaining new services.

Table 5: T6 Cargo Growth Scenarios

Total	2023	2024	2025	2026	2027	2028	2029	2030
Existing Services	116,063	95,708	97,431	99,184	100,970	102,787	104,637	106,521
Timberwave Corridor	-	-	-	1,200	1,222	1,244	1,266	1,289
Southeast Asia Gateway	-	-	-	-	51,840	52,773	53,723	54,690
Pacific Produce Pathway	-	-	-	-	-	93,600	95,285	97,000
AgriTrade Connection	-	-	-	-	-	-	-	43,200
	116,063	95,708	97,431	100,384	154,031	250,404	254,911	302,700

As Figure 1 shows, a gradual addition of new or restored services would yield stepwise growth at T6. The timing and size of the steps would depend on the order of service introduction.

Figure 1: Total TEU from Growth Scenarios



Conclusions

Direct container vessel service to the Port of Portland and Terminal 6 has been a cornerstone of Oregon's economy, particularly its agricultural export sectors. Loss of that service would mean:

- Losing 169 jobs and \$40 million of personal income at T6.
- Losing an additional 700 jobs and \$455 million in annual economic output indirectly supported or induced by shipping through T6.
- Imposing an estimated \$19.2 million in additional annual trucking costs on Oregon importers and exporters.
- Leaving Oregon importers and exporters with fewer competitive shipping alternatives and vulnerable to millions of dollars in additional ocean shipping costs.
- Raising logistics barriers to profitable Oregon import and export growth.

ATTACHMENT 4: HISTORY OF CONTAINER OPERATIONS AT TERMINAL 6

History of Container Operations at Terminal 6

October 1974: The Terminal 6 (T6) container facility opened under Port management. It was a two-berth (Berths 604 and 605), three-Panamax crane container facility with a Container Freight Station (CFS), on-dock rail facility, administration building, and gear locker/electrical shop.

1975-1995: T6 was a qualified success. During its two decades of operation, T6 volumes steadily grew, reaching almost 330,000 twenty-foot equivalent units (TEUs) in Fiscal Year 1995. About 75 percent of all local import and export cargo was shipped through the terminal, with the other 25 percent traveling over the road to Puget Sound. *The terminal lost money after depreciation, but the losses were relatively small, making the operation financially manageable.*

1982: T6 was expanded with the construction of Berth 603 and the addition of two Panamax cranes.

February 1988: In a special Commission meeting, staff recommended that the Port prepare to lease out a container berth to obtain an intermodal-based first port-of-call service. Removing the Port from container operations was also identified as a potential alternative.

1988-1989: The Port and other Columbia River ports initiated an effort to deepen the channel in 1988. In 1989, the U.S. Army Corps of Engineers completed a Reconnaissance Study of the channel-deepening project. After a lengthy permitting process and court litigation, the **channel was deepened to 43 feet in 2010.**

1991: The Port engaged in advanced discussions with a major transpacific carrier to lease a container berth at T6. However, the talks were unsuccessful, and no lease agreement was reached.

1995: T6 got its first **post-Panamax crane.** An 85-ton capacity post-Panamax crane (Crane 6378, Hyundai) was moved from T2 and installed at T6. A second post-Panamax crane (Crane 6379, Hyundai) was added.

2000: Portland container-on-barge volumes peaked at 50,000 moves. The major export commodities barged from upriver included paper products from Lewiston and hay cubes and frozen French fries from Pasco, Umatilla, and Boardman. *After 2000, T6 barge volumes started to decline due to three factors: the loss of direct service to T6, the movement of some export production to areas more tributary to Puget Sound ports, and the increased reluctance of transpacific carriers to position empty containers upriver, preferring instead to send those empties back to Asia directly to be filled with higher-rated import cargo.*

2000: T6 container operations turned a profit. FY 2000 was considered by Port staff to be one of the only profitable years in the history of T6 container operations ("profitability" was defined as positive income after operating expenses, including all overhead and depreciation). *The profitability was short-lived, however. Evergreen Marine pulled its service from Portland in 2001, causing a drop in volume and revenue.*

2001: The Port and Oregon Steel Mills (OSM) agreed to **use T6 to import steel slabs.** *The steel slab business moved to Port of Vancouver, WA, in 2014, while T6 was under International Container Terminal Services Inc. (ICTSI) management.*

1995-2004: After T6 volumes peaked in 1995, industry trends started to move against Portland. Transpacific imports skyrocketed while exports entered the doldrums. Export container rates plummeted due to the trade imbalance, and carriers focused their services on larger import markets. *With its large export market but small import base, Portland faced increased difficulty attracting and retaining direct service to T6.*

2004: "K" Line and HMM discontinued their vessel and rail services to T6. Both carriers consolidated their U.S. Pacific NW operations in leased terminals in Tacoma. **This loss of service was the start of significant financial losses for T6.**

November 2006: The Port Commission participated in a two-day strategic planning workshop to discuss how containers at T6 could be made into a sustainable line of business. This workshop kick-started an effort to find a new operating model for the terminal.

May 2008: The Port solicited proposals for a long-term lease or concession of T6. After solid market interest, the solicitation encountered strong headwinds from the 2008-2009 "Great Recession," and the process was halted. However, one of the participants in the solicitation process, ICTSI, expressed continued interest and entered negotiations with the Port, leading to the signing of a 25-year lease to operate T6 in February 2011.

2001-2011: The Port worked to keep container operations at T6 viable as an economic asset for the state and region – despite year-over-year losses. **During this time, the Port funded capital and container operations by selling land at its Swan Island and Rivergate industrial parks.**

February 2011: After losing over \$100 million during the previous decade, **the Port initiated a 25-year lease with ICTSI to operate the terminal.** *At the time, T6 was one of the only publicly owned container terminals on the West Coast not leased to a private operator.*

Spring 2012: A dispute emerged between two labor unions, the International Longshore & Warehouse Union (ILWU) and the International Brotherhood of Electrical Workers (IBEW), over who should handle the work related to refrigerated containers. This created ongoing legal challenges and work stoppages at the terminal.

February-April 2015: With ongoing labor management tension and legal disputes continuing to affect operational productivity at the terminal, Portland's two weekly services, Hanjin (providing service to transpacific) and Hapag Lloyd (providing service to Europe and Central America), decided to stop bringing containers into Portland.

Winter 2016: **The Port initiated a large consulting and market study to help determine the likelihood and targets of recruiting container service to return.** *This was one of several studies aimed at reinvigorating business at the container terminal.*

March 2017: **The Port and ICTSI agreed to terminate ICTSI's lease,** and ICTSI provided the Port with a settlement.

Summer 2017: **The Port kicked off a T6 Business Strategy Study to identify a sustainable business model for container shipping.** As part of the study, **the Port recruited a 23-member Industry Leader Committee** of leaders from the import and export community, railroads, trucking, barge operations, state agencies, upriver ports, labor leaders, and legislators to provide guidance. The group held meetings stretching into 2018.

Fall 2017: **The Port settled all legal disputes with ILWU and resolved the underlying jurisdictional dispute between ILWU and IBEW.** **The Port began a new era of strong labor collaboration and productivity at T6.**

January 2018: The Port's Industry Leader Committee submitted a comprehensive report to the Port Commission. The report concluded that a container-only operation was not financially viable, and that the Port must pursue a multi-use terminal business model relying on rail transport, ocean shipping, and breakbulk operations to ensure costs are spread more broadly across various cargo operations.

January 2018: BNSF Railway initiated a regular intermodal service at T6, delivering ocean containers to and from the ports of Seattle and Tacoma. *This operating agreement funded the rail operation and covered most container yard terminal gate costs.*

January 2020: SM Line, a new and small ocean carrier, brought a weekly transpacific service to Portland. *This was the first time the Port had seen regular weekly carrier service since March 2015.*

May 2020: SM Line entered into a slot charter agreement with MSC, the largest ocean carrier in the world, to handle MSC containers through Portland on SM Line vessels.

August 2021: With the pandemic in full swing and several ports exceeding operational capacity, the Port began handling several vessels a month, receiving imports of newly constructed 53' containers built in China and intended to carry goods by truck and rail for the domestic market. *This activity provided a solid addition to revenues.*

September 2021: With gateway bottlenecks at other ports and success partnering with SM Line to bring containers through Portland, MSC added Portland as a regular port of call using its own vessels.

October 2021: SM Line initiated an intermodal rail service between Portland and Chicago. They would later add Memphis and Kansas City, using Portland as a gateway to route cargo to the Midwest. *This service was operationally successful, but the revenue received by the Port did not cover the full cost of operating the service.*

June 2022: Noting high operational costs and a lack of available rail cars, BNSF terminated intermodal operations between Portland and Seattle/Tacoma at T6, *decreasing revenues used to cover most of the costs to operate the container terminal gate.*

January 2023: Port leadership completed an updated 20-year forecast of the General Fund (non-aviation) that showed an urgent need to correct financial losses from T6 to withstand significantly higher spending related to marine capital investments, navigation, and Lower Willamette River cleanup.

April 2023: With ocean container volumes shrinking, the Port enacted austerity measures, such as reducing the number of days the terminal gate was open each week (shifting from 5 to 4 days per week).

May 2023: The Port projected budget losses of \$14 million to \$17 million associated with T6 and began immediate efforts to renegotiate rates with carriers and seek an agreement with a potential private terminal operator.

May 2023: SM Line discontinued regular intermodal rail service through Portland due to disagreement over rail rates, which would have mitigated ongoing Port losses from the intermodal rail operation. SM Line repositioned its intermodal rail service to Southern California, where they signed a long-term agreement.

July 2023: Port leadership conducted a major organizational restructuring to separate General Fund business lines (marine, industrial, navigation, Lower Willamette River cleanup) from Aviation (which cannot be used for non-aviation uses), providing a greater focus on financial sustainability for the General Fund.

Fall-Winter 2023: The Port continued rate discussions with carriers and efforts to agree with a private party to operate the container yard. At the same time, it met with legislators. The Port requested \$8 million in state support to extend container operations for the 2024-25 fiscal year.

March 2024: The Port held a series of meetings with the shipping community. Shippers voiced concerns that Oregon businesses cannot wait for a state funding decision when planning for the next fiscal year.

April 2024: The Port secured new rates with carriers through June 30, 2025, allowing it to extend container operations while continuing efforts to secure a private operating partner and \$8 million in funding from the state. When potential operating partner discussions fell through, the Port made the difficult decision to notify shippers that container operations could not be sustained in the coming fiscal year.

May 2024: Governor Kotek announced a plan to stabilize container operations and requested that the Port provide a report by August 23, 2024. The plan would include \$20 million for capital at Terminal 6 and \$15 million for the first installment of the Oregon local match for dredging the Lower Columbia River from Portland to Astoria in the Governor's 2025-27 recommended budget. It also proposed \$5 million in operating funds from the Joint Emergency Board in September 2024.

August 2024: The Port delivered its Terminal 6 Business Plan report to Governor Kotek. The report outlines short, mid- and long-term actions to restore financially sustainable container operations at T6.