STATE OF WASHINGTON
BOARD OF PILOTAGE COMMISSIONERS
2901 Third Avenue, Suite 500 | Seattle, Washington 98121 | (206) 515-3904 | www.pilotage.wa.gov

NOTICE

OF

MONTHLY BOARD MEETING

Thursday, June 18, 2020

Skype / Conference Call

Dial In: 206.389.8599 2062643552#

Or to request a Skype invite, contact Jaimie Bever at BeverJ@wsdot.wa.gov or at (206) 515-3887

# # #

If you are a person with a disability and need a special accommodation, please contact Jolene Hamel at (206) 515-3904.

Port of Grays Harbor On Washington's Pacific Coast

May 2020

Around the Docks

Satsop Business Park | Westport Marina | Coastal Innovation Zone | Bowerman Airport | PGH Pilotage Services | Friends Landing & Sterling Landing

PGH Mission: To best utilize our resources to facilitate, enhance and stimulate international trade, economic development and tourism for the region.

Port Leadership

Barnes named to WSDOT 2020 Freight Stakeholders Group

Port of Grays Harbor Deputy Executive Director Leonard Barnes has been named to the newly formed 2020 Freight Stakeholders Group.

Led by the Washington State Department of Transportation, the group is tasked with making recommendations to stand up a Washington State Freight Advisory Committee including but not limited to the Committee's purpose and goals, roles and responsibilities, reporting structure and proposed activities.

The Group is comprised of 34 members representing a wide variety of interests including ports, railroads, the trucking industry, the maritime industry, cities, tribes, and key industrial associations.

"It is an honor to participate in the Freight Stakeholders Group and I look forward to representing ports to the best of my ability," said Barnes. Mr. Barnes has been with the Port for 36 years and also serves on the State's Freight Mobility Strategic Investment Board.

Recreation & Tourism

Westport Marina boat launch and recreational fishing open for Area 2

The Westport Marina is open for business. After an extended closure, the staff is eager to welcome recreational boaters, visitors, and citizens to return to the water and the Port's many public facilities.

The Westport Marina is also excited to unveil the recent improvements to the boat launch parking lot including a newly paved and striped parking lot, restrooms, fish cleaning station, information kiosk, and pay station.

"We've made many notable improvements to the boat launch and marina and look forward to seeing them put to use by our customers and the community," said Westport Business Manager Molly Bold.

Westport Marina
Washington's Premier Ocean Access
A FACILITY OF THE PORT OF GRAYS HARBOR

Sport Fishing Calendar 2020

LINGCOD
March 9 - Oct 17th, 2/day

ROCKFISH
March 9 - Oct 17th, 7/day

HALIBUT
TBD

SALMON
June 20-28th, 7 days a week: 1 Chinook
June 29-sept 30th, Sunday – Thursday: Limit 2, 1 of which may be Chinook

TUNA
Mid July – October, weather permitting

Protecting Essential Workers

PGH to receive face masks from FEMA

The Port of Grays Harbor and approximately 400 other maritime entities are set to receive shipments of reusable cloth facial coverings from the Federal Emergency Management Agency (FEMA) thanks to the efforts of the American Association of Port Authorities (AAPA), the U.S. Department of Transportation's Maritime Administration (MARAD), and a host of port industry partners.

"We truly appreciate the efforts of AAPA, FEMA and MARAD to ensure essential workers throughout the maritime and transportation industries are able to remain safe while keeping cargo flowing through our nation," stated Port of Grays Harbor Executive Director Gary Nelson.

Infrastructure Improvements

Aberdeen submits BUILD application for US 12 Highway-Rail Separation

The City of Aberdeen, with assistance from the Port of Grays Harbor, submitted a Better Utilizing Investments to Leverage Deployment (BUILD) grant for planning and pre-construction activities for the Aberdeen US 12 Highway-Rail Separation Project on May 18th.

The FY20 BUILD grant cycle included a $15 million set-aside for "eligible planning and preconstruction activities". The City's $2.25 million application request included a local match commitment from City, Port, and Grays Harbor County of $1.4 million.

"The Port of Grays Harbor is proud to partner with the many entities involved in this critical project," shared Port Commission President Stan Pinnick. "BUILD is a great opportunity to leverage our limited local resources to continue to advance this important project during its current phase."

Calendar

June 7	*Star Eracle* @ T2
June 9	PGH Commission Meeting, Remotely, 9am
June 19	*Kmarin Melbourne* @ T2
June 25	*Carolyn* @ T2
July 3	PGH Offices Closed, 4th of July Holiday Observed

Around the Docks

is a publication of the

Port of Grays Harbor

On Washington's Pacific Coast

It is available online at **PortofGraysHarbor.com**

To join our mailing list contact Amy Carlson at acarlson@portgrays.org

Recreation & Tourism

Friends Landing campground open with modifications

Friends Landing is pleased to announce it is now open for camping with modifications after an extended closure due to the pandemic.

Currently, no cash will be accepted and the caretaker window will remain closed. The picnic shelters are also open for reservations with limited group sizes. The playground remains closed as well.

Friends Landing offers 18 RV sites with electrical and water hookups as well as 10 tent sites with water available.

For more information or to make your camping reservation visit, friendslanding.org.

WA State Board of Pilotage Commissioners

Industry Update:
June 18, 2020 BPC Meeting

Vessel Arrivals and Assignments Continue to Drop

May YTD 2020 compared to May YTD 2019 comparison

- Container arrivals down 37; Bulkers/General/Other down 16
- Car Carriers and RoRo's down 28
- Passenger down 32 (no season = reduction of 464 assignments for the year)
- Tankers/ATB's flat in May but up 25 YTD
- Trend through Mid-June = Loss of 70 Arrivals for June
- Grays Harbor is essentially flat though May

- ✓ *Assignments Down 4.4% in 2019 and Down 7% in 2020 so far*
- ✓ *PMSA opposed increase in pilots last July – see letter*

How many pilots would BPC license now before adjusting the number down?

PMSA
PACIFIC MERCHANT SHIPPING ASSOCIATION

Briefing Paper: Loss of Market Share at U.S. West Coast Ports

Prepared by Jock O'Connell
June 2020

To highlight the current plight of U.S. West Coast (USWC) ports, here are some of the more discomforting of the latest numbers:

+352,846. That was the increase from 2018 to 2019 in inbound loaded TEUs through the nine East Coast ports the Pacific Merchant Shipping Association (PMSA) monitors.

+191,176. That was the gain over the same period in the number of inbound loaded TEUs handled at the two British Columbia ports (Vancouver and Prince Rupert) with which the USWC ports directly compete.

+80,292. That was how many more inbound loaded TEUs the two Gulf Coast ports we monitor (New Orleans and Houston) handled in 2019 than in the previous year.

-668,980. That was how many ***fewer*** inbound loaded TEUs the Big Five USWC ports (Los Angeles, Long Beach, Oakland, Tacoma, and Seattle) handled in 2019 than in 2018.

West Coast ports may face "significant" continual decline in market share, PMSA warns

High costs, excessive regulation, labor issues, and lack of infrastructure investment contributing factors to decline
By Patrick Burnson, Logistics Management
https://www.logisticsmgmt.com/article/west_coast_ports_may_face_significant_continual_decline_in_market_share_pms
West Coast ports' market share has declined 19.4 percent since 2006, a concerning trajectory that puts port and logistic jobs at increasing risk, according to a new briefing paper released recently by the Pacific Merchant Shipping Association (PMSA). The analysis, *Loss of Market Share at U.S. West Coast Ports* by international trade economist JockO'Connell, details the continuous loss of cargo from ports along the Western United States to East Coast and Gulf Coast ports.

According to the paper, the West Coast port's decline in share of cargo caused a diversion of over 668,980 containers to other states and trade gateways in a single year. Compared to 2006, the erosion of market share represents a loss of 5.6 million containers in 2019 alone – an annual volume of containers that alone would constitute the 4th largest port in the nation. In Washington State, loss of intermodal import cargo threatens the ability of growers and manufacturers to access foreign markets for their products. **Because port call costs, including rail, pilotage, the Harbor Maintenance Tax, and others are more competitive in Canada, bringing Market Share back to the Pacific Northwest is a steep hill to climb….**The "higher cost of doing business in the States of California and Washington" was responsible for the loss of cargo business.

Port of Long Beach and MSC break North American container record

Port Technology
The Port of Long Beach has announced that Total Terminals International (TTI) has set a North American record for the highest volume of container movements during a single call while working on the MSC Sveva.

In a statement, the Port of Long Beach said **Workers transferred 17,080 containers – the equivalent of 30,744 TEUs**, or twenty-foot equivalent units. ILWU crane operators worked seven ship-to-shore cranes, handling at times more than 250 containers per hour to reach the record.

Heavy traffic, potential evacuation orders: What it's like to work near the cracked West Seattle Bridge

By Mike Lindblom, Seattle Times
https://www.seattletimes.com/seattle-news/transportation/heavy-traffic-potential-evacuation-orders-what-its-like-to-work-near-the-cracked-west-seattle-bridge/
Cargo containers used to enter and leave Alaska Marine Lines with ease, whether carried by trucks from Tukwila or barged out to sea through the Duwamish Waterway. Now the maritime trade is being complicated by the closure of the West Seattle Bridge due to runaway cracks in its concrete girders. Detours have generated heavy traffic where truckers once enjoyed empty lanes on four-lane West Marginal Way Southwest, at the company's Terminal 115 entrance. Even worse, there's a risk the vacant bridge two miles downstream might teeter or collapse, blocking the Duwamish passage.

U.S. Exporters Complain of Being 'Blanked' by Ocean Carriers

By Rovert J. Bowman, Supply Chain Brain
https://www.supplychainbrain.com/blogs/1-think-tank/post/31445-us-exporters-complain-of-being-blanked-by-ocean-carriers#:~:text=U.S.%20Exporters%20Complain%20of%20Being%20'Blanked'%20by%20Ocean%20Carriers,-June%208%2C%202020&text=But%20the%20current%20economic%20crisis,afloat%20in%20a%20perilous%20economy.
As if the global economic downturn weren't bad enough, U.S. exporters are confronted by a raft of vessel cancellations that hinder their ability to fulfill what overseas sales they're still able to make. Since the coronavirus pandemic began early this year, ocean carriers have cancelled hundreds of sailings, sometimes with little or no notice to shippers. Their reason: too little cargo to justify making the voyages. There's ample precedent for carriers to frustrate shippers' expectations of available capacity. Over the years, they have regularly withdrawn entire ships from service and placed them in temporary lay up in order to boost freight rates. During peak shipping seasons in the trade from Asia to U.S., they have "rolled" cargo from one sailing to the next when a ship was full, despite the losing shipper having a committed booking.

PMSA

West Coast Trade Report

May 2020

First Glimpse at the April TEU Tallies

Most everyone has been bracing for April's numbers to be subpar, if not appallingly dreadful. Even without firm TEU counts from the thirteen ports it monitors, the National Retail Federation's Global Port Tracker's May 7 outlook for the month of April expected a 13.4% year-over-year drop in containerized imports. At least that was a more optimistic read than GPT's forecast a month earlier, when it feared April would be down 17.6%.

So what do we know so far? That forecasting during a pandemic remains an iffy business.

For the record, inbound container trade through the Ports of Los Angeles and Long Beach teeter-tottered in April. The number of loaded TEUs discharged at LA were actually up by 2.6%, but down a dismal 20.2% across the road at Long Beach. Together, the nation's largest maritime gateway handled 8.1% fewer loaded inbound TEUs than they had a year earlier. Elsewhere in California, the Port of Oakland reported that its inbound loads were down, but only -0.9%. Up in the Pacific Northwest, import loads through the Northwest Seaport Alliance Ports of Tacoma and Seattle fell 13.9%, leaving the Big Five U.S. West Coast ports down 8.2% from April 2019. Further northwest, the British Columbia Ports of Vancouver and Prince Rupert saw modest year-over-year gains of 2.8% and 2.0%, respectively.

Over on the East Coast, the Port of New York/New Jersey has still not reported its April numbers, but Charleston and Savannah each rang up negatives (-5.5% and -5.1%, respectively), while Baltimore showed a 5.3% gain over April 2019. Virginia meanwhile sustained a 15.9% fall-off. Inbound loads at the Port of Houston were down, albeit slightly at -0.6%.

As for exports, loaded outbound TEUs were down 16.2% at Los Angeles and 17.2% at Long Beach. Oakland, however, posted a respectable 3.6% year-over-year gain. But almost everywhere else, exports fared much worse than imports. The NWSA ports recorded a 17.6% drop in export loads, leaving the Big Five USWC ports with a combined 13.2% decline. Prince Rupert saw an 11.1% gain over last April, but Vancouver was off by 5.9%. On the East Coast, Charleston (-22.8%), Virginia (-16.7%), Houston (-13.9%), Savannah (-6.8%), and Baltimore (-25.9%) were all decidedly down from a year ago.

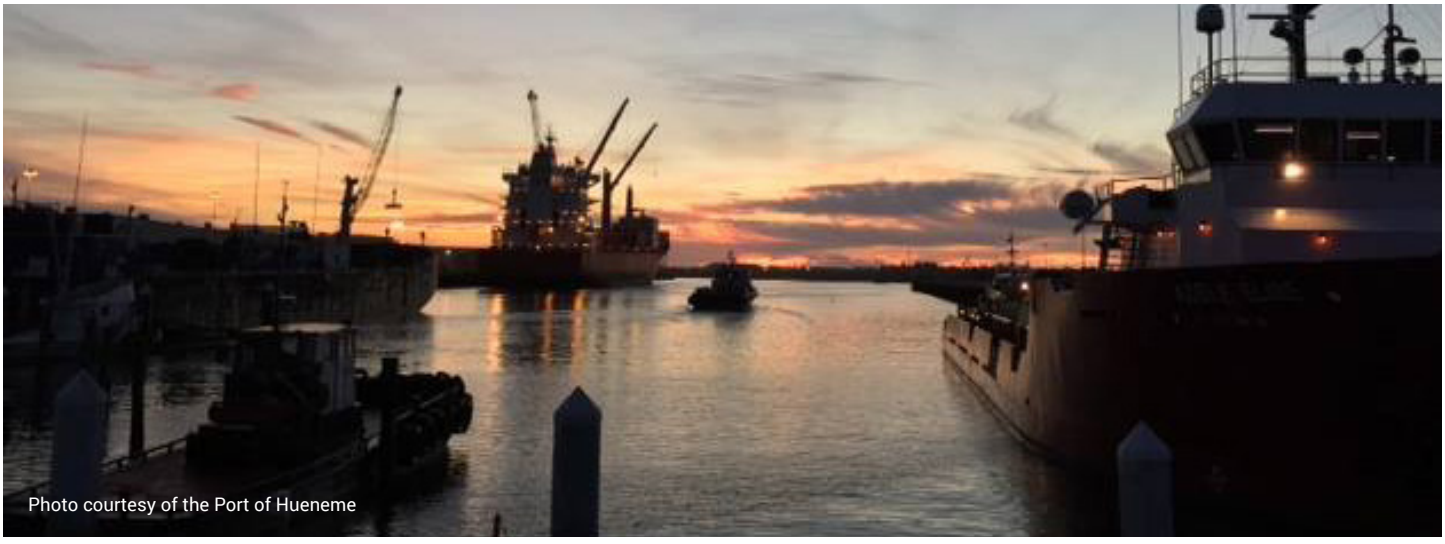


Photo courtesy of the Port of Hueneme

Pacific Merchant Shipping Association
70 Washington Street, Suite 305, Oakland, CA 94607
510-987-5000 info@pmsaship.com

Parsing the March 2020 TEU Numbers

Please note: The numbers here are not derived from forecasting algorithms or the partial information available from U.S. Customs and Border Protection but instead represent the actual TEU counts as reported by the major North American seaports we survey each month. The U.S. mainland ports we monitor collectively handle over 90% of the container movements at continental U.S. ports. Unless otherwise stated, the numbers in this portion of our analysis do not include empty containers.

Import Traffic

March import numbers reflected the pandemic-extended Asian New Year holiday in China as well as the initial, if sporadic efforts in Europe and the United States to impose measures to stymie the spread of the COVID-19 virus. With the exception of the Ports of New Orleans and Port Everglades, all of the eighteen ports whose import/export traffic this newsletter regularly monitors showed sharp declines from a year earlier.

Inbound loads at the Port of Los Angeles in March were down 25.9% year-over-year, while next door at the Port of Long Beach inbound loads were off just 5.0%. Together, the year-over-year drop in inbound loads at the two San Pedro Bay ports – the nation's largest port complex -- was 16.4%. Worth noting is that March was the first month since September 2016 that Long Beach handled a higher volume of inbound loads than its generally busier neighbor.

Elsewhere on the West Coast, inbound loads declined by 10.3% at the Port of Oakland, while plunging 28.2% at the

Exhibit 1 March 2020 - Inbound Loaded TEUs at Selected Ports

	Mar 2020	Mar 2019	% Change	Mar 2020 YTD	Mar 2019 YTD	% Change
Los Angeles	220,255	297,187	-25.9%	905,010	1,075,426	-15.8%
Long Beach	234,570	247,039	-5.0%	793,123	873,742	-9.2%
San Pedro Bay Totals	**454,825**	**544,226**	-16.4%	**1,698,133**	**1,949,168**	-12.9%
Oakland	67,035	74,714	-10.3%	218,474	226,548	-3.6%
NWSA	84,035	117,007	-28.2%	278,573	345,291	-19.3%
USWC Totals	**605,895**	**735,947**	-17.7%	**2,195,180**	**2,521,007**	-12.9%
Boston	11,326	11,856	-4.5%	36,350	35,641	2.0%
NYNJ	271,511	282,981	-4.1%	894,599	905,849	-1.2%
Maryland	40,530	43,700	-7.3%	122,703	129,856	-5.5%
Virginia	99,129	107,040	-7.4%	305,572	322,154	-5.1%
South Carolina	76,019	92,875	-18.1%	254,862	258,649	-1.5%
Georgia	147,034	186,369	-21.1%	505,803	545,637	-7.3%
Jaxport	24,431	30,202	-19.1%	77,204	86,225	-10.5%
Port Everglades	30,602	28,507	7.3%	84,704	83,598	1.3%
Miami	33,887	38,690	-12.4%	106,668	110,101	-3.1%
USEC Totals	**734,469**	**822,220**	-10.7%	**2,388,465**	**2,477,710**	-3.6%
New Orleans	13,696	13,179	3.9%	35,550	33,423	6.4%
Houston	88,302	109,604	-19.4%	283,272	291,875	-2.9%
USGC Totals	**101,998**	**122,783**	-16.9%	**318,822**	**325,298**	-2.0%
Vancouver	111,378	130,472	-14.6%	369,185	430,336	-14.2%
Prince Rupert	29,820	43,122	-30.8%	134,721	132,361	1.8%
BC Totals	**141,198**	**173,594**	-18.7%	**503,906**	**562,697**	-10.4%
US/BC Totals	**1,583,560**	**1,854,544**	-14.6%	**5,406,373**	**5,886,712**	-8.2%
US Total	**1,442,362**	**1,680,950**	-14.2%	**4,902,467**	**5,324,015**	-7.9%
USWC/BC	**747,093**	**909,541**	-17.9%	**2,699,086**	**3,083,704**	-10.2%

Source Individual Ports

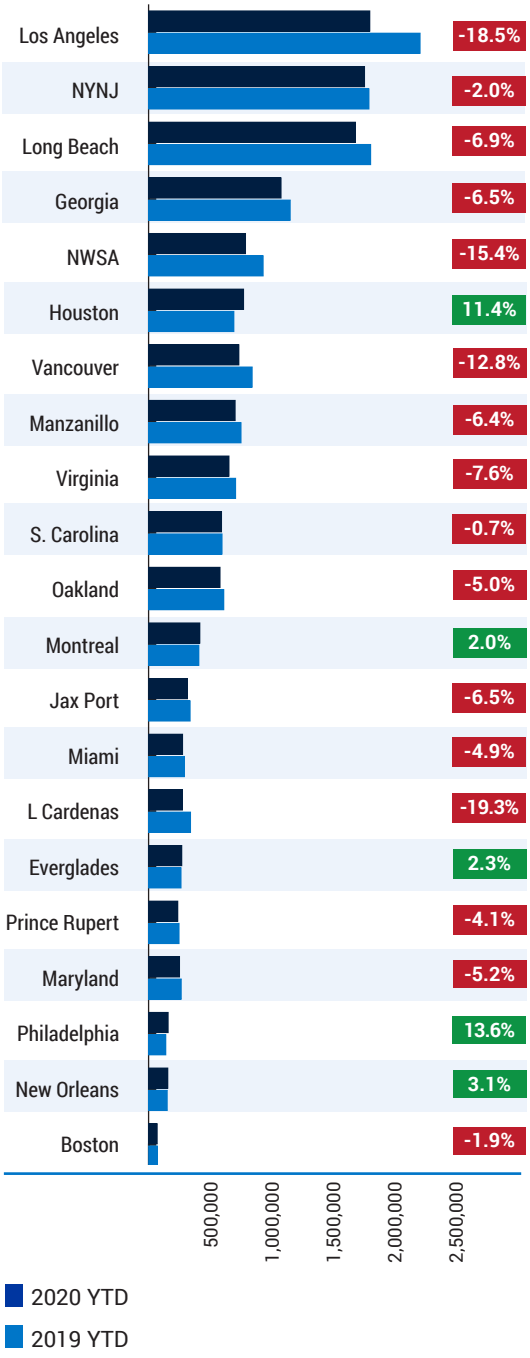
Parsing the March 2020 Loaded TEU Numbers Continued

Exhibit 2 March 2020 - Outbound Loaded TEUs at Selected Ports

	Mar 2020	Mar 2019	% Change	Mar 2020 YTD	Mar 2019 YTD	% Change
Los Angeles	121,146	158,924	-23.8%	408,821	446,472	-8.4%
Long Beach	145,442	131,436	10.7%	379,624	354,010	7.2%
San Pedro Bay Totals	**266,588**	**290,360**	-8.2%	**788,445**	**800,482**	-1.5%
Oakland	83,782	88,202	-5.0%	239,904	231,389	3.7%
NWSA	79,395	86,856	-8.6%	214,359	225,325	-4.9%
USWC Totals	**429,765**	**465,418**	-7.7%	**1,242,708**	**1,257,196**	-1.2%
Boston	6,513	6,645	-2.0%	19,245	18,226	5.6%
NYNJ	136,780	130,038	5.2%	369,069	355,229	3.9%
Maryland	21,450	20,589	4.2%	61,860	55,092	12.3%
Virginia	90,761	89,282	1.7%	250,923	243,872	2.9%
South Carolina	73,077	77,704	-6.0%	215,816	203,539	6.0%
Georgia	136,774	155,083	-11.8%	384,687	384,716	0.0%
Jaxport	48,902	45,740	6.9%	128,904	125,322	2.9%
Port Everglades	33,810	37,351	-9.5%	101,906	103,677	-1.7%
Miami	31,703	38,947	-18.6%	101,070	108,426	-6.8%
USEC Totals	**579,770**	**601,379**	-3.6%	**1,633,480**	**1,598,099**	2.2%
New Orleans	27,944	26,364	6.0%	77,619	70,957	9.4%
Houston	114,972	118,295	-2.8%	344,608	292,716	17.7%
USGC Totals	**142,916**	**144,659**	-1.2%	**77,619**	**70,957**	9.4%
Vancouver	92,766	103,472	-10.3%	255,840	287,739	-11.1%
Prince Rupert	15,520	17,832	-13.0%	44,635	46,665	-4.4%
British Columbia Totals	**108,286**	**121,304**	-10.7%	**300,475**	**334,404**	-10.1%
US/Canada Total	**1,260,737**	**1,332,760**	-5.4%	**3,254,282**	**3,260,656**	-0.2%
US Total	**1,117,821**	**1,188,101**	-5.9%	**3,176,663**	**3,189,699**	-0.4%
USWC/BC	**538,051**	**586,722**	-8.3%	**1,543,183**	**1,591,600**	-3.0%

Source Individual Ports

Exhibit 3 March Year-to-Date Total TEUs (Loaded and Empty) Handled at Selected Ports



Source: Individual Ports

Parsing the March 2020 Loaded TEU Numbers Continued

Northwest Seaport Alliance Ports of Tacoma and Seattle. Collectively, the five major U.S. West Coast container ports recorded a 17.7% fall-off (-130,052 TEUs) in inbound loads from March 2019.

Things were nearly as bad along the East Coast. Charleston sustained an 18.1% slump, and Savannah's inbound laden traffic tumbled by 21.1%. The Port of New York/New Jersey, however, fared less worse, posting a 4.1% year-over-year decline in inbound loads. Altogether, the nine East Coast ports we track ended March with a 10.7% (-87,751 TEUs) fall-off from a year earlier.

Along the Gulf Coast, Houston recorded a 19.4% drop in inbound loads from March of 2019, but New Orleans managed a 3.9% gain, leaving the two Gulf Coast ports we track with a combined 16.9% (-20,785 TEUs) decline.

The two British Columbia ports we track also saw unpleasant import numbers in March, with Vancouver down 14.6% and Prince Rupert off by 30.8%. Combined import traffic through the two ports fell 18.7% (-32,396 TEUs) in March.

In market share terms, the Big Five USWC ports saw their share of inbound loads discharged at the U.S. mainland ports we track slide in March to 42.0% from 43.8% a year earlier.

Export Traffic

As is often their wont, the Ports of Long Beach and Los Angeles went in different directions in March. At the Port of LA, outbound loads plummeted by 23.8% (-37,778 TEUs), while Long Beach posted a strong 10.7% (+14,006 TEUs) gain over the previous March. Together, outbound loads at the two Southern California ports were down by 8.2% (-23,772 TEUs).

Outbound loads in March fell by 5.0% (-4,420 TEUs) at the Port of Oakland and by 8.6% (-7,461 TEUs at the two NWSA ports. Outbound loads through the Big Five USWC ports in March were accordingly off by 7.7% (-35,653 TEUs) from the same month a year earlier.

Along the Atlantic Seaboard, export numbers were mixed. Savannah and Miami both posted double-digit declines, but PNYNJ was up 5.2%. Coastwise, outbound loads at the nine USEC ports we follow were down 3.6% (-21,609 TEUs). Meanwhile, the two Gulf Coast ports we monitor saw outbound loads dip 1.2% (-1,743 TEUs). Up in British Columbia, outbound loads at Vancouver and Prince Rupert were off by 10.7% (-13,018 TEUs).

Altogether, outbound loads from the U.S. mainland and two British Columbia ports we track were down 5.4% (-72,023 TEUs) from last March.

The Big Five USWC ports saw their share of outbound loads sailing from the U.S. mainland ports we track slip in March to 38.4% from 39.2% a year earlier.

Weights and Values

Even though the TEU is the shipping industry's preferred unit of measurement, we offer two alternative metrics – the declared weight and value of the goods contained in those TEUs -- in hopes of further illuminating recent trends in the container trade along the USWC. For the most part, these numbers contain little good news for USWC port officials.

Exhibit 4: USWC Ports and the Worldwide Container Trade. Exhibit 4 illustrates the pretty much relentless decline in the overall USWC share of containerized imports (regardless of point of origin) entering mainland U.S ports. The two San Pedro Bay ports saw their combined percentage of containerized import tonnage tumble in March to 21.7% from 23.5% a year earlier. The two also experienced a drop in the declared value of containerized imports to 28.2% from 30.4%. Meanwhile, the Port of Oakland's share of import tonnage slipped to 4.0% from 4.1%, with its share of import value edging down to 3.7% from 3.8%. Further north, the two NWSA ports saw a decline in their shares of import tonnage to 4.9% from 5.1%. However, they stayed even at 6.7% in value terms.

On the export side, the Southern California ports continued to shed market share, whether measured in tonnage or dollar value. Oakland had mixed results, with a substantial year-over-year gain in export value while holding serve in its share of export tonnage. The NWSA ports' export shares trended downward in both tonnage and value.

Exhibit 5: USWC Ports and the East Asia Trade. The figures on containerized imports arriving at U.S. mainland ports from East Asia, which normally cause USWC port officials to reach for the antacid bottle, brought some relief in March. The Ports of Los Angeles and Long Beach saw their combined share of containerized import

Parsing the March Loaded TEU Numbers Continued

Exhibit 4 USWC Ports Shares of Worldwide U.S. Mainland, March 2020

	Mar 2020	Feb 2020	Mar 2019
Shares of U.S. Mainland Ports Containerized Import Tonnage			
LA/LB	21.7%	23.4%	23.5%
Oakland	4.0%	3.8%	4.1%
NWSA	4.9%	4.5%	5.1%
Shares of U.S. Mainland Ports Containerized Import Value			
LA/LB	28.2%	30.5%	30.4%
Oakland	3.7%	3.4%	3.8%
NWSA	6.7%	6.2%	6.7%
Shares of U.S. Mainland Containerized Export Tonnage			
LA/LB	20.9%	19.6%	22.7%
Oakland	6.5%	6.6%	6.5%
NWSA	7.3%	7.4%	8.2%
Shares of U.S. Mainland Conatainerized Export Value			
LA/LB	20.7%	19.8%	21.0%
Oakland	7.0%	7.9%	6.2%
NWSA	4.0%	4.2%	4.4%

Source: U.S. Commerce Department.

Exhibit 5 USWC Ports Shares of U.S. Mainland Trade With East Asia, March 2020

	Mar 2020	Feb 2020	Mar 2019
Shares of U.S. Mainland Ports' East Asian Container Import Tonnage			
LA/LB	41.9%	38.4%	39.4%
Oakland	5.0%	4.7%	4.8%
NWSA	8.7%	7.1%	8.1%
Shares of U.S. Mainland Ports' East Asian Container Import Value			
LA/LB	48.5%	45.9%	47.9%
Oakland	4.8%	4.3%	4.8%
NWSA	11.2%	9.3%	10.2%
Shares of U.S. Mainland Ports' East Asian Container Export Tonnage			
LA/LB	37.4%	34.0%	37.8%
Oakland	10.5%	10.1%	9.6%
NWSA	12.7%	12.7%	13.2%
Shares of U.S. Mainland Ports' East Asian Container Export Value			
LA/LB	42.9%	39.8%	43.5%
Oakland	12.8%	13.6%	11.1%
NWSA	8.3%	8.5%	8.6%

Source: U.S. Commerce Department.

tonnage from East Asia increase to 41.9% from 39.4% a year earlier. At the same time, their collective share of containerized import value rose to 48.5% from 47.9%. Elsewhere along the coast, Oakland improved its tonnage share and stayed even in terms of value. But the NWSA ports saw important increases in both measures.

On the outbound side, the San Pedro Bay ports' share of containerized export tonnage to East Asia slipped to 37.4% from 37.8% a year earlier, while their combined share of the value of those containerized imports dropped to 42.9% from 43.5%. Oakland experienced a year-over-year bump in both its import tonnage and value tonnage shares. However, the two NWSA ports saw their shares of U.S. containerized exports headed to the Far East decline in both tonnage and value terms.

Soybeans

In the weeks just prior to the outbreak of the COVID-19 pandemic, talk about trade policy was focused very much on so-called Phase One agreement Washington and Beijing had hammered out (or thought they had hammered out) late last year. A key part of the accord was a Chinese commitment to buy more agricultural goods from us than they had ever bought before (and even in volumes for which they had no evident need). To growers in the Upper Midwest as well as to ports in the Pacific Northwest, the pledge to sharply increase purchases of U.S. soybeans was certainly a welcomed development. If anything, soybeans had become the poster crop for U.S. agricultural trade losses since President Trump began imposing import tariffs two years ago. American soybean exports to China tumbled by 74.0% in 2018 as the tariff

Parsing the March Loaded TEU Numbers Continued

conflict between the U.S. and China emerged. Although the soybean trade improved considerably last year, it has been down 41.7% through the first quarter of this year as economic activity in China was plagued. Although some observers have been skeptical about China's earnestness, word in the agricultural press is that Chinese buyers have lately resumed large-scale purchases of American soybeans.

Even though soybean shipments this spring are apparently being largely routed through USGC ports, there are new reports that authorities in Beijing have been directing importers to substantially bolster Chinese inventories of oil seeds and grains against further supply chain disruptions. So, it is worth emphasizing the key role USWC ports normally play in transporting soybeans from the Upper Midwest to China. Even though first quarter soybean exports to China were lower than last year, they still totaled 2,820,053 metric tons. Ports in Washington State accounted for 57.1% of those shipments, with Kalama leading the way with a 28.2% share, edging out the 26.7% share that went through the NWSA Ports of Seattle and Tacoma. Kalama, a river port on the Columbia River, even accounted for the larger share of the nation's soybean exports to China in the year's first quarter than did the Port of New Orleans.

Who's #1?

For more than a year now we have been keeping an eye on the rivalry between the Port of Long Beach, long the nation's second busiest container port, and the Port of New York/New Jersey. However, March brought an interesting development. For the second straight month, PNYNJ not only eclipsed Long Beach as the nation's second busiest container port, it also leap-frogged into first place over the Port of Los Angeles. More than that, normally dominant LA placed third behind neighbor Long Beach in terms of total container traffic in March.

For the month of March, a total of 560,830 loaded and empty TEUs crossed PNYNJ's docks as opposed to the 517,663 TEUs handled by the Port of Long Beach and the 449,568 TEUs at LA.

Now, if you insist that only loaded boxes count in ranking the ports, PNYNJ was still the country's busiest container port in March, with 408,291 loaded TEUs as opposed to 380,012 loaded TEUs at Long Beach and 341,401 loaded TEUs at Los Angeles.

For total TEUs in the first quarter of the year, Los Angeles clung to its #1 rank with PNYNJ in second place followed by Long Beach.

Jock O'Connell's Commentary:
A Lot of Supposin' Goin' On

As economists puzzle over which letter of the alphabet will most accurately depict the curve of U.S. economic recovery, port officials across the country are trying to assess how gravely their operations over the next few years will be affected by the rechanneling of global supply chains.

One thing that's certain is that the cargo forecasts ports have been using to inform their planning and investment decisions have all now gone seriously sour.

Optimists profess confidence in a V-shaped recovery, with a robust upsurge in economic output and commensurate drop in unemployment starting late this summer or in early fall.

That, though, is a minority view. A Bank of America survey of 223 fund managers over the week ended May 14 found just 10% expecting a V-shaped recovery, while 75% forecast more prolonged U- or W-shaped recoveries.

Federal Reserve Chair Jerome Powell thinks recovery will follow a bumpier trajectory, with stops and starts until an effective treatment or vaccine can be found. The Congressional Budget Office is leaning in favor of a swoosh, a sustained but gradual growth curve that will

Commentary Continued

not bring the economy back to 2019 levels until well into 2022. Still others, like Nobel Prize winner Paul Krugman, think a W is more likely, especially if there is another spike in virus-related deaths this fall or if America's recovery does not sync with the pace of the recoveries in Europe and Asia. In the end – if there is ever an end to this plague – we may ultimately need Greek or Cyrillic alphabets to chart the economy's travails.

How will all of this play out down on the docks? The short-term outlook is unmistakably grim. The numbers already in hand for the number of blank sailings scheduled through mid-summer point to months of continued pain. The National Retail Federation's Global Port Tracker (GPT) expects container imports will decline 20.4% in May, 18.6% in June, 19.3% in July, 12.0% in August, and 9.3% in September. The GPT forecast takes us through the third quarter, when, as the V crowd believes, economic growth will have already begun to soar.

Raise your hand if you see a disconnect between these respective guesses.

What lurks beyond Q3?

Should COVID-19 deaths surge again this fall in tandem with the start of the normal flu season, it's an even bet that Christmas – at least for commercial purposes – will be cancelled. At the very least, little Emma and Liam won't be sitting in Santa's lap at Higbee's department store this December.

But enough about the dangers posed by a public health crisis. This is an election year in which the politics of trade policy are poised to make further hash of the coping plans port directors are now busily devising. Recent statements by President Trump and Secretary of State Pompeo have taken on an increasingly anti-China tone as have the administration's latest actions against the multinational technology giant Huawei and Chinese companies listed on U.S. stock exchanges. Presidential advisor Peter Navarro, who seems singularly bent on using the virus to not merely disengage the U.S. from China economically but to isolate China as an international pariah, said on ABC's "This Week" program earlier this month that "this election will be a referendum on China." For their part, Chinese officials have stepped up anti-American rhetoric at home while seeking to take advantage of the unsettled situation in Washington to outmaneuver the United States on several diplomatic fronts, including those involving the future of both the World Health Organization (WHO) and the World Trade Organization (WTO).

In short, there is virtually no hope American ports will see any relief anytime soon from the trade tensions between Washington and Beijing that have driven container volumes down.

The prospect of a trade war without end will give further impetus to those U.S. shippers looking to diversify their overseas businesses into newer markets. Two years of tariffs and higher import levies have certainly given importers all the more reason to partner with suppliers outside of China, with countries like Vietnam and India being major beneficiaries of the migration. In 2003, U.S. containerized import tonnage from Vietnam was less than the amount we imported from Nigeria. By last year, Vietnam had jumped into third place among America's largest sources of containerized imports, ahead of South Korea, Japan, Brazil, and every European nation. (So much for the domino whose fall was supposed to imperil all of Southeast Asia.) China, of course, has remained the top exporter of containerized goods to the U.S. but who is second? The answer is India. Between 2010 and last year, India's rank had risen steadily past South Korea, Japan, Germany, and Brazil.

The point here? That by diversifying their sources and seeking out new markets for U.S. products, shippers are establishing supply chains that are increasingly handicapping USWC ports geographically. No doubt, this is the logic that informed the recent statement of Port of Los Angeles Executive Director Gene Seroka that "in my estimation" diversification will result in "a loss of 15% of our inbound traffic over time" as shippers seek sources in locations better served by all-water routes to the East Coast via Suez.

This is going to pose some fairly daunting challenges. Like all businesses, ports have numerous financial obligations. Unfortunately, their current fiscal year budgets were all presumably based on forecasts that had predicted growing revenues from growing traffic. Those forecasts have now been knocked off the rails, and dramatically changing circumstances have swept away the empirical foundations upon which those forecasts

Commentary Continued

had been built. Any attempt right down to rejigger existing forecasts would have to contend with the risks implicit in Fed Chair Powell's recent remark that he has been studying epidemiological statistics closer than unemployment data.

In most instances, American seaports are public agencies operating under the auspices of municipal or state governments. They are expected to be financially self-sustaining. But, especially at those ports that rely for much of their revenue on operations not related to maritime trade – like air travel and cruise ships – the financial threat posed by the coronavirus pandemic could prove existential without bailout funding from government coffers. That, pretty much, was the message in a press release from the Port of Oakland that juxtaposed the port's public responsibilities as an essential transportation asset with the sharp decline in port revenues, largely the result of a 95% drop in passenger traffic through the port's Oakland International Airport. And the San Francisco Bay Area port is hardly alone facing dire financial straits. The Port Authority of New York/New Jersey is currently seeking $3 billion in federal assistance to help offset its virus-related revenue losses.

The current plight of the ports, alas, has not much deterred air quality regulators from pursuing costly new demands that not only defy current budgetary realities but, in the case of California's ports, further threaten to drive shippers to other gateways, even if doing so increases the volume of toxic emissions being discharged into the world's atmosphere. (Not our problem, seems to be the prevailing attitude.) Indeed, the sole lesson, it would seem, that organizations like the California Air Resources Board (CARB) have taken from the last couple of months is that the surest way to achieve the clean air goals that CARB has otherwise been incapable of achieving is to shut down vast swaths of the economy.

Disclaimer: *The views expressed in Jock's commentaries are his own and may not reflect the positions of the Pacific Merchant Shipping Association.*

Looking to the Future: Is it too Early?

By Thomas Jelenić, Vice President, Pacific Merchant Shipping Association

We are in the midst of a crisis. Forget the Great Recession, the pandemic is creating Great Depression levels of economic harm. Throughout the maritime industry, ocean carriers, marine terminals, port authorities, trucking companies and countless other stakeholders are focused on basic survival. Obviously, job number one is keeping everyone safe: workers, customers, and our communities. Job number two is keeping the companies that run the global supply chain from sinking.

But at some point, we will need to collectively look to the future. When we do is a matter of timing. Uncertainty reigns, survival is unknown. But if we are ever to have a revitalized future, we need to consider how to ensure our success. In the past, economic decline was accompanied by broken supply chains. And when economic improvement returned, supply chain planners reassessed the supply lines. That, unfortunately, often meant lost market share for Southern California to the benefit of East Coast and Gulf Coast ports and lost cargo translates to lost jobs, lost tax revenue, and lost economic investment in our communities. When this crisis passes, how do we encourage cargo owners to choose Southern California as their preferred gateway? How do we work together to make Southern California the inevitable gateway choice? Here are four actions we can do now.

First, we need a plan for labor peace. We all now know the pain of declining cargo volumes. We need to make sure that declining volumes will be a bad memory of the pandemic and not our future. There is no stronger signal in terms of certainty and assured reliability that can be

Looking to the Future Continued

sent to cargo owners than beginning and concluding contract negotiations well ahead of the 2022 deadline. Without a contract, cargo owners will only see more future uncertainty when we emerge from the present crisis. Labor peace must provide them with the confidence to select Southern California.

Second, marine terminals and port authorities need to work cooperatively – not independently – to attract cargo to Southern California. When cargo owners select a gateway, they are selecting both a marine terminal and a port. Marine terminals and port authorities are truly partners, it is only the sum of their business terms that will appeal to a cargo owner. Port authorities and marine terminals that do not appear indivisible will only sow the seeds of uncertainty and provide the hint of unreliability to cargo owners. Only through the joint marketing of facilities will Southern California be successful.

Third, the railroads must be partners in retaining and improving market share. Retaining and improving market share means competitively delivering cargo to the Midwest and beyond. Ports, terminals, and ocean carriers will only be successful if Class 1 railroads prioritize competitive intermodal cargo. Canadian rail represents a real threat to Southern California market share. That threat can only be countered by the pricing and efficiency measures that Southern California's Class 1 railroads take.

Finally, we need to ensure that our hinterland fully supports the ports. One of Southern California's greatest assets is the one billion plus square feet of industrial space that can process imports that enter North America through Southern California. That industrial space may be the ports' most unheralded competitive advantage as compared to other gateways. However, that competitive advantage is at risk through lack of development and modernization. For example, some believe the abnormally low (pre-crisis) vacancy rates is a sign of a strong market but is really the product of California's out of control development prohibitions that prevent new industrial space from coming to market. If Southern California ports will be competitive in the future, the ports must work today with its inland partners and elected officials in order to allow needed development that supports warehouses and distribution centers that are responsible for countless jobs.

We need to focus on these issues now. If we wait until the economy improves it will be too late.

At that point, other gateways will emerge as the choice of cargo owners. The San Pedro Bay ports will be left with higher costs to be spread over less cargo that will push more cargo away: a negative, self-fulfilling feedback loop. As a reminder of what is at stake locally and for California:

- Jobs: Over 700,000
- Income: Nearly $40 billion
- Economic Activity: $110 billion
- State and Local Tax Revenue: $7.3 billion
- Economically Vibrant Communities: Unquantifiable

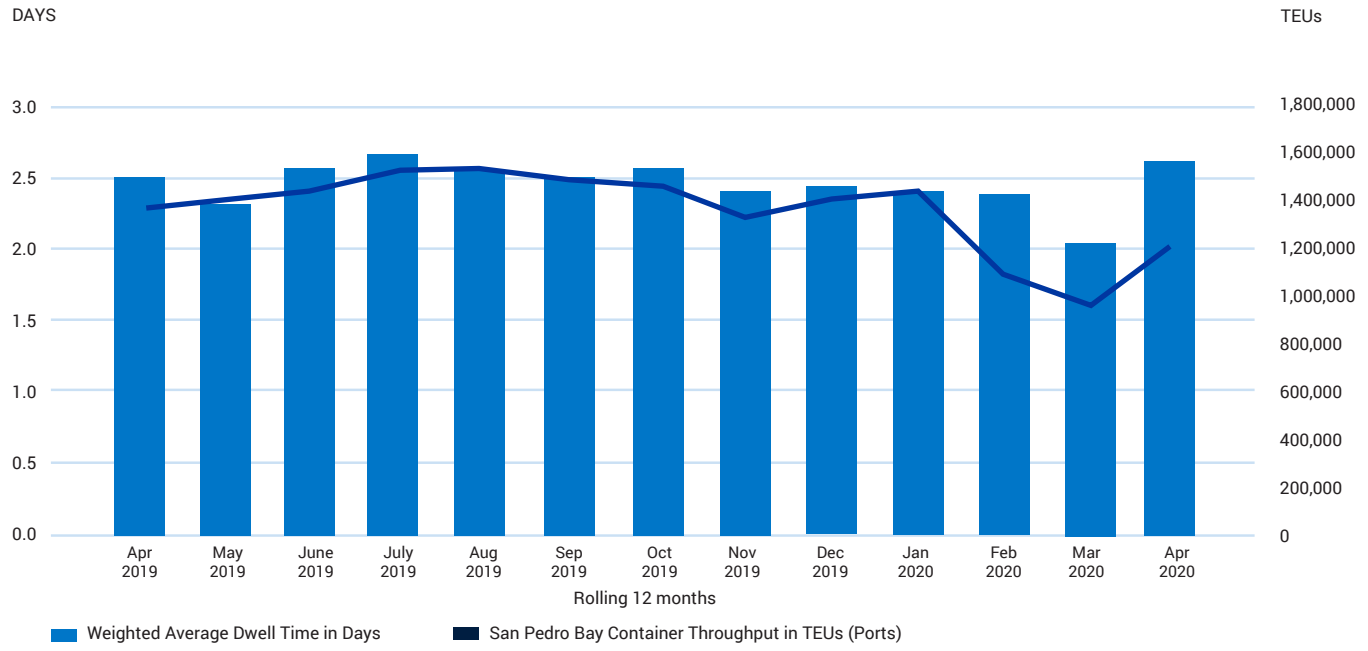
Some leaders are taking initial steps to address competitiveness collaboratively. If we act now, decisively, we can maintain Southern California as the leading North American gateway. Let's turn the COVID -19 crisis into an opportunity – a time when the economic decline turned around and became a market share gain.

Interested in membership in PMSA?
Contact Laura Germany for details at: lgermany@pmsaship.com or 510-987-5000.

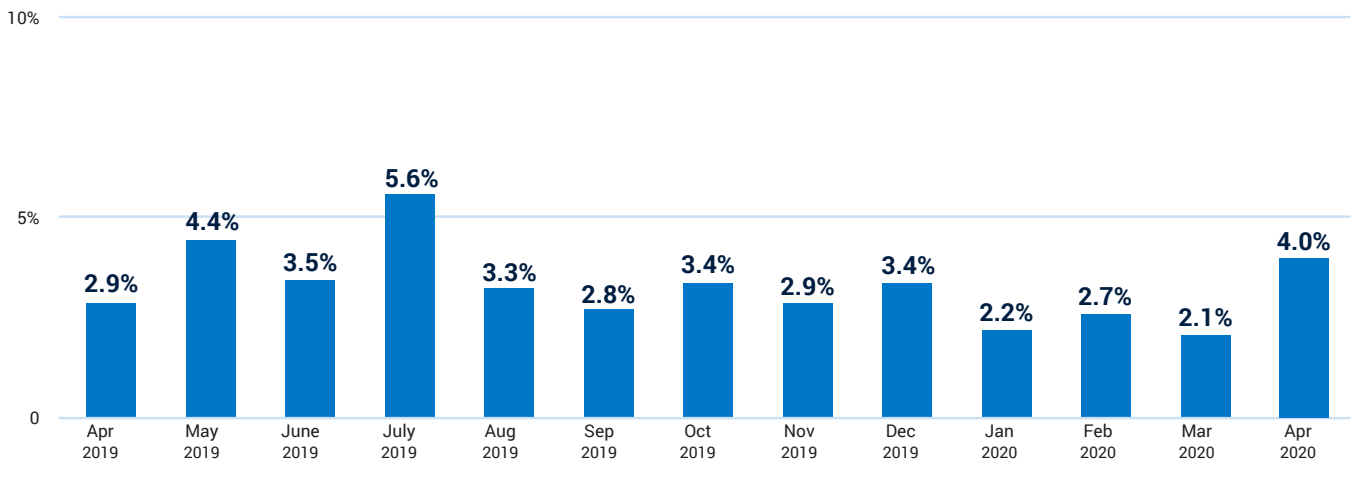
Follow PMSA on Twitter @PMSAShip and Facebook.

Dwell Time Went Up in April

San Pedro Bay Weighted Average Inbound Laden Container Dwell Time in Days



Dwell Time in Days % > 5 Days



PACIFIC MERCHANT SHIPPING ASSOCIATION

Briefing Paper: Loss of Market Share at U.S. West Coast Ports

Prepared by Jock O'Connell

June 2020

To highlight the current plight of U.S. West Coast (USWC) ports, here are some of the more discomforting of the latest numbers:

+352,846. That was the increase from 2018 to 2019 in inbound loaded TEUs through the nine East Coast ports the Pacific Merchant Shipping Association (PMSA) monitors.

+191,176. That was the gain over the same period in the number of inbound loaded TEUs handled at the two British Columbia ports (Vancouver and Prince Rupert) with which the USWC ports directly compete.

+80,292. That was how many more inbound loaded TEUs the two Gulf Coast ports we monitor (New Orleans and Houston) handled in 2019 than in the previous year.

-668,980. That was how many ***fewer*** inbound loaded TEUs the Big Five USWC ports (Los Angeles, Long Beach, Oakland, Tacoma, and Seattle) handled in 2019 than in 2018.

Purpose and Scope. This brief provides the most recent annual data on the loss of containerized trade market share experienced by the principal USWC ports in recent years. Although several ports in the States of California, Oregon, and Washington are regularly engaged in foreign trade, roughly 98% of all USWC containerized tonnage is transported via the five ports that are the main focus of this report. Those five are the neighboring Ports of Los Angeles and Long Beach in Southern California's San Pedro Bay (SPB), the Port of Oakland on San Francisco Bay in Northern California, and Washington State's Ports of Seattle and Tacoma, which have been operating jointly as the Northwest Seaport Alliance (NWSA) since 2014.

For the purposes of this analysis, the two San Pedro Bay ports are regarded as a single maritime gateway as are the two NWSA ports. The Port of Oakland is considered independently. (Oregon's Port of Portland, which had handled as many as 260,128 TEUs or 2.7 million metric tons of containerized cargo as recently as 2007, has seen little container traffic of late. It is therefore not included in this report.)

Charting the Decline in USWC Market Share

For some years now, fretting about declining market share has been part of the job description for USWC port officials. According to the account often repeated in the maritime industry press, an obstreperous labor union has been singularly responsible for the loss of market share. The saga is said to have begun in 2002, when a ten-day shutdown of USWC ports prompted Beneficial Cargo Owners (BCOs) to reassess their reliance on transpacific supply chains that traversed USWC ports. Importers, in particular, are said to have concluded that labor-management relations were more volatile on the USWC than at ports elsewhere in the country. So, to ensure that disrupted cargo movements through any one port or through an entire coast of ports would not entirely compromise their ability to efficiently move imported goods to domestic markets, many of the nation's largest importers reportedly came to embrace what is vaguely described as a "four-corners" strategy. The result was that more and more containers that might ordinarily have been routed through USWC ports were being shunted to other maritime gateways in North America.

To be sure, periodic disputes between the International Longshore and Warehouse Union and Pacific Maritime Association have made retaining, let along growing, market share all the more challenging. A months-long slowdown in port operations during the winter of 2014-2015 hardly improved the USWC ports' reputation for reliability. However, explanations for the loss of market share that focus primarily on the quality of labor-management relations overlooks other factors that have helped drive the containers to other North American ports.

Certainly the most prominent among these is the generally higher cost of doing business in the States of California and Washington. And that is especially the case if your business attracts the scrutiny of environmental regulators as aggressive as the California Air Resources Board. Even if ports elsewhere in the country are eventually obliged to bear the cost of complying with stricter air quality regulations (an increasingly iffy proposition given current political divisions among the several states), USWC ports are expected to transition to zero-emissions standards right now. That obviously puts them at a competitive disadvantage against ports in political jurisdictions that are less fastidious about environmental issues. Acquiring the equipment necessary to comply with more exacting "only-here" standards is an exceedingly costly burden that effectively ensures two outcomes: (1) higher costs, potentially leading to higher port charges to finance the deployment of zero or near-zero emission equipment, and (2) even greater incentives for more shippers to divert more cargo to competing ports.

Additionally, the governments of West Coast states have been less than assertive in bolstering the physical infrastructure needed to support international trade. While there has been a productive market for consultants' reports detailing the economic value of such things as designated trade corridors, there has been relatively little in the way of concrete investment or policy measures aimed at facilitating international goods movement. By contrast, other states have not been neglecting the material needs of their ports.

The hand-wringing along the USWC over diversions of imports from East Asia to other North American ports became even more energetic following Panama's decision in 2005 to invest $5 billion in the construction of a bigger ditch (to adapt Ronald Reagan's disparaging term) through the isthmus. The opening of the expanded canal in late June 2016 provided the key piece of

infrastructure needed to more fully implement the Four Corners Strategy and thus siphon more of America's transpacific trade from USWC ports. So, too, did the tens of billion dollars invested by port authorities along the East and Gulf Coast to prepare for the eventual arrival of the larger vessels that would regularly transit the new set of locks.

To be sure, lost market share does not necessarily translate into reduced cargo volumes. Historical statistics from the U.S. Maritime Administration (MARAD) – currently unavailable for public viewing -- show that all U.S. mainland ports enjoyed a 96.1% increase in loaded container traffic between 2000 and 2017 (i.e., before the tariff wars that have distorted established trade patterns). This was a period that saw not only a convulsive global financial crisis but also two serious labor-management disputes that adversely affected the reputations of USWC ports. It also was a period in which rival East and Gulf Coast ports (and the Army Corps of Engineers) invested heavily in maritime infrastructure enhancements ranging from deepening and widening channels to elevating bridge roadways to better accommodate the steadily larger vessels that an expanded Panama Canal would bring their way.

During that 2000-2017 period, the number of loaded containers moving through all USWC ports rose by 64.4%. Far steeper, however, was the increase in loaded boxes handled at U.S. East Coast (USEC) ports, which collectively reported a 126.9% jump. Even more precipitous was the 157.4% surge at U.S. Gulf Coast (USGC) ports.

MARAD statistics further show that, after some three decades in which more of the nation's loaded container trade transited USWC than USEC ports, the USEC ports in 2015 reclaimed the title they had lost in the mid-1980s.

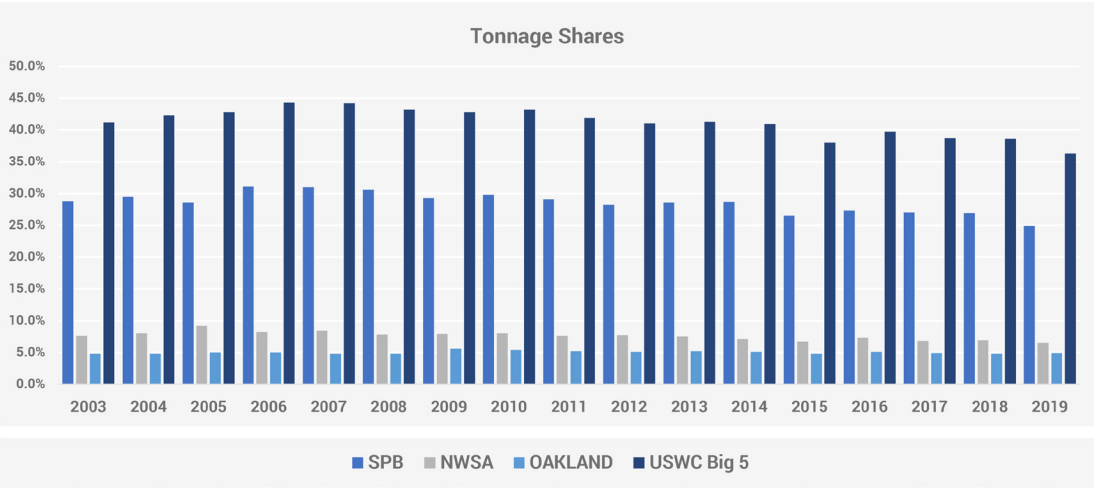
As the statistics portrayed in this report indicate, the deterioration in the USWC ports' collective market share has been almost relentless since the years immediately prior to the Great Recession. The trend has been especially evident with respect to the all-important eastbound transpacific container trade. Typically, containerized imports from East Asia have accounted for approximately half of all containerized import ***and*** export tonnage handled at the five major USWC ports and between 70% and 75% of the declared dollar value of those ports' two-way container trade.

Exhibit A shows the shares of the five USWC ports' shares of all containerized tonnage handled at mainland U.S. ports in each year since 2003. The high watermark for the USWC ports came in the years immediately prior to the onset of the Great Recession. The subsequent declines have been particularly evident at the two San Pedro Bay ports.

Exhibit A

USWC Shares of Total U.S. Containerized Trade: 2003-2019

Source: U.S. Commerce Department



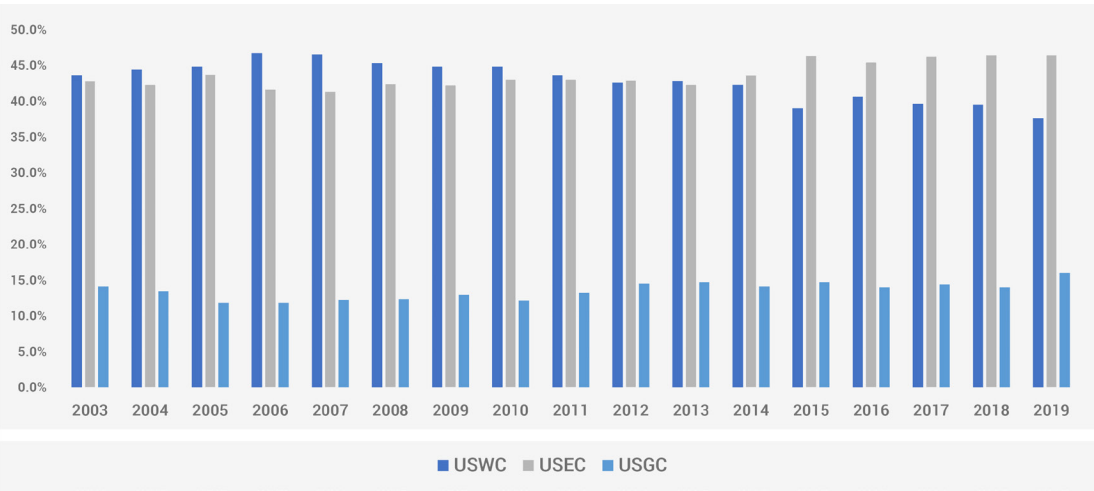
Since the end of the recession, the gains made by East and Gulf Coast ports have been manifest. The eastward shift has been especially evident in the wake of the longshore labor dispute that substantially slowed container traffic through USWC ports in late 2014 and early 2015. In addition, the opening of a larger set of locks at the Panama Canal at the end of June 2016 has enabled shippers to divert higher volumes of transpacific container traffic from the USWC ports to their East and Gulf Coast rivals. (Despite early hopes, the canal expansion has not led to a significant increase in maritime trade between USWC ports and the markets of Europe, the Mediterranean, and the Middle East. See Exhibit K.)

Exhibit B provides a breakdown by coastal region of total containerized tonnage (imports and exports) through mainland U.S. ports from 2003 through 2019. The USWC ports' share of containerized trade fell almost steadily from a high of 46.8% in 2006 (when the Port of Portland was still an active container port) to 37.7% in 2019. Over the same period, the U.S. East Coast (USEC) ports saw their collective share rise from 41.7% to 46.5%%, while the U.S. Gulf Coast (USGC) ports' share jumped from 11.9% to 16.1%.

Exhibit B

Coastal Shares of Total U.S. Containerized Trade: 2003-2019

Source: U.S. Commerce Department



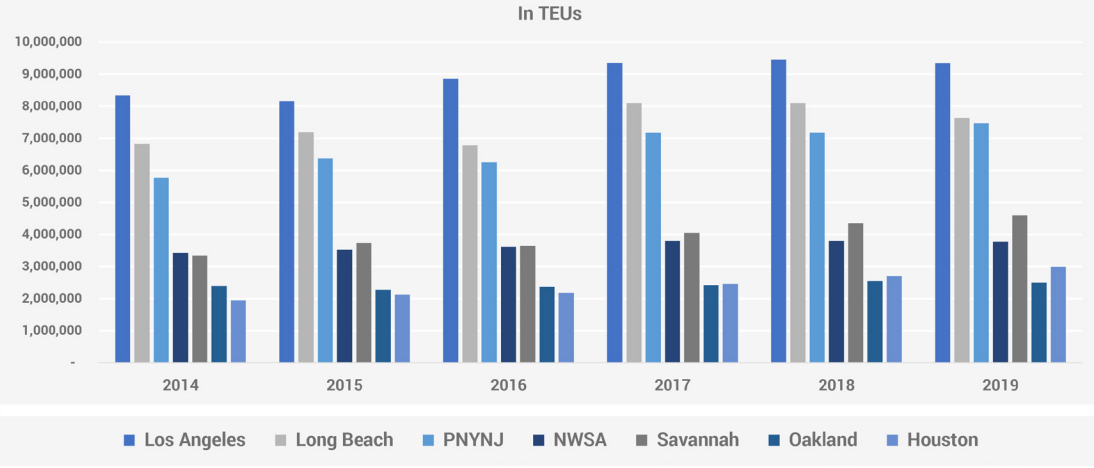
As previously noted, declining market shares do not necessarily equate to declining volumes. Indeed, the volume of containerized trade through USWC ports had been edging up before normal trade flows were severely disrupted by rounds of new U.S. and retaliatory tariffs were imposed

starting in 2018, and ultimately by the COVID-19 pandemic pandemonium. The problem, as **Exhibit C** reveals, is that rival gateways such as the Ports of New York/New Jersey (PNYNJ), Savannah, and Houston have recorded faster growth rates, resulting in a lower market share for the major USWC ports. Between 2010 and last year, containerized import tonnage from East Asia grew by 12.5% at the Ports of Los Angeles and Long Beach, by 16.6% at the Port of Oakland, and by 22.9% at the NWSA ports. But the largest East Coast port, the Port of New York/New Jersey, recorded a 37.9% expansion of its containerized import tonnage from East Asia between 2010 and 2019. Savannah saw a 93.0% boost, while Charleston posted a 124.5% surge. Along the Gulf Coast, the Port of Houston reported a 200.2% jump in its containerized import tonnage from East Asia between 2010 and last year.

Exhibit C

Total TEU Traffic at Leading U.S. Mainland Seaports: 2014-2019

Source: Individual Seaport Records



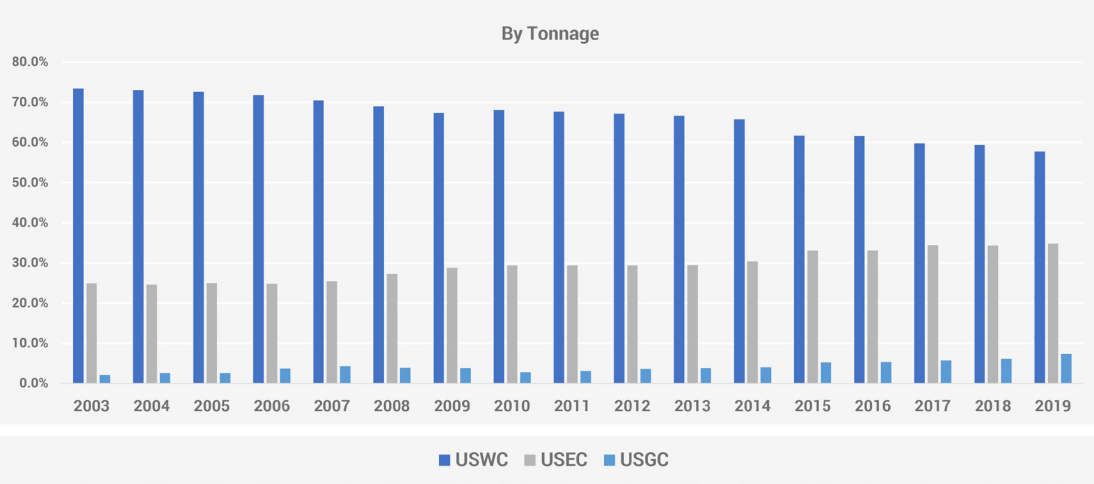
Container traffic volumes can, of course, be influenced by factors other than those grouped under the ambiguous heading of "port competitiveness." Just as America's burgeoning trade with Japan and other fast-emerging economies of East Asia in the 1970s and 1980s shifted the balance of America's foreign maritime trade from the Atlantic to the Pacific, a surge in trade with transatlantic trading partners might have helped shift the balance back in favor of ports along the Eastern Seaboard and the Gulf of Mexico. But that is not the case here. There has been almost no change in the USEC and USGC combined share of America's containerized trade with Europe, the Mediterranean, and the Middle East over the past decade and a half. Instead, the resurgence of East and Gulf Coast ports has had everything to do with their success in poaching increasing numbers of containers than might otherwise have been shipped through USWC ports.

Exhibit D depicts the rising shares of America's containerized trade with East Asia at USEC and USGC ports in recent years. USWC ports began the period with a 70.4% share of all containerized tonnage transported between U.S. mainland ports and the economies of East Asia. By last year, that share had shrunk to 57.8%. Meanwhile, the USEC and USGC ports saw their shares increase from 24.9% to 34.8% and 2.1% to 7.4%, respectively.

Exhibit D

Coastal Shares of All U.S. Containerized Trade with East Asia

Source: U.S. Commerce Department



The erosion of the once dominant share held by USWC ports has been particularly apparent with respect to imports from East Asia. More than anything else, it has been the decline in USWC share of containerized imports from East Asia that worries American port officials up and down the Pacific Coast. As **Exhibit E** demonstrates, the fall-off in the USWC share of U.S. containerized import tonnage from East Asia has plummeted. At the outset of the period depicted in the graph, the USWC share was 75.1%. By last year, it had plunged to 57.0%. Meanwhile, the USEC ports grew their share from 23.6% to 36.1%, and USGC ports saw their share soar from 1.6% in 2003 to 7.0% last year.

Exhibit E

Coastal Shares of U.S. Containerized Import Tonnage from East Asia: 2003-2019

Source: U.S. Commerce Department

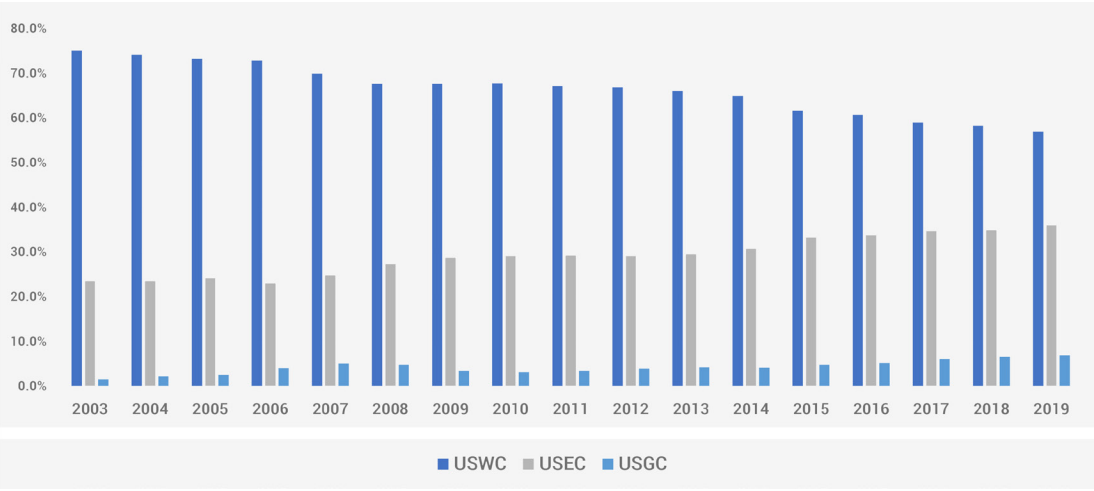
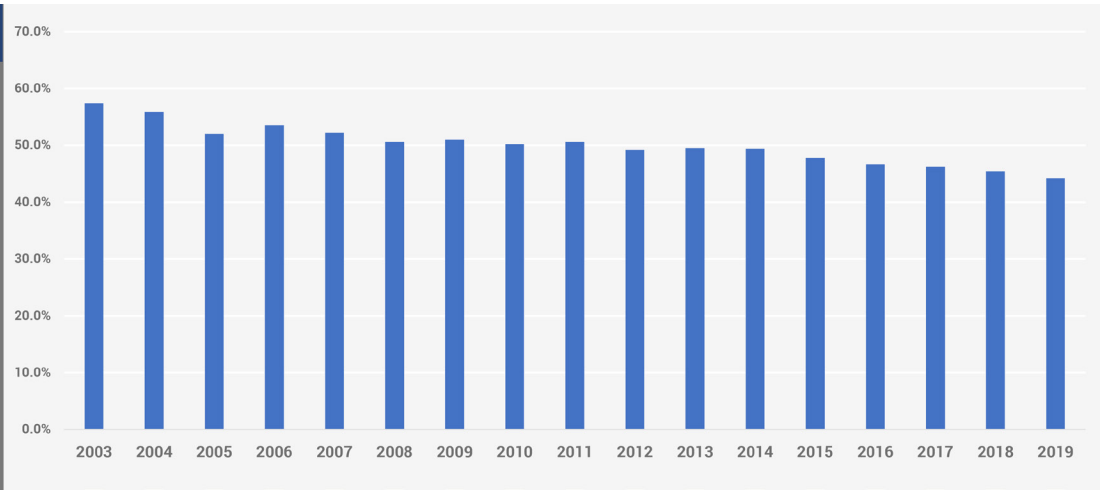


Exhibit F shows that the drop in containerized import tonnage from East Asia has been most precipitous at the Ports of Los Angeles and Long Beach. Between 2003 and last year, their combined share of the trade fell from 57.4% in 2003 to 44.2%.

Exhibit F

San Pedro Bay Ports' Share of U.S. Containerized Import Tonnage from East Asia: 2003-2019

Source: U.S. Commerce Department

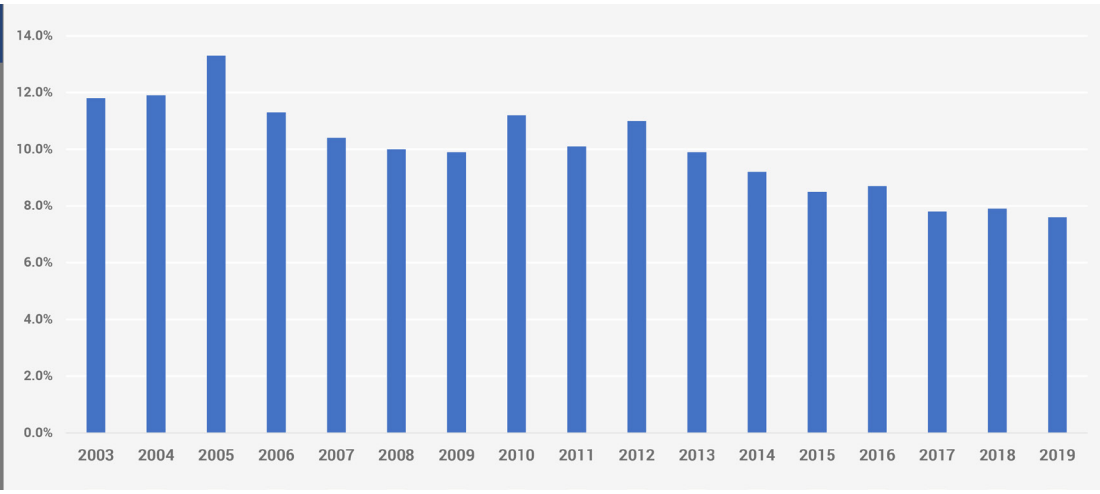


As **Exhibit G** shows, the NWSA Ports of Seattle and Tacoma have seen their combined share of containerized import tonnage from the East Asia discharged at mainland U.S. ports slide from 11.9% in 2003 to 7.7% in 2019.

Exhibit G

NWSA Ports' Share of U.S. Containerized Import Tonnage from East Asia: 2003-2019

Source: U.S. Commerce Department

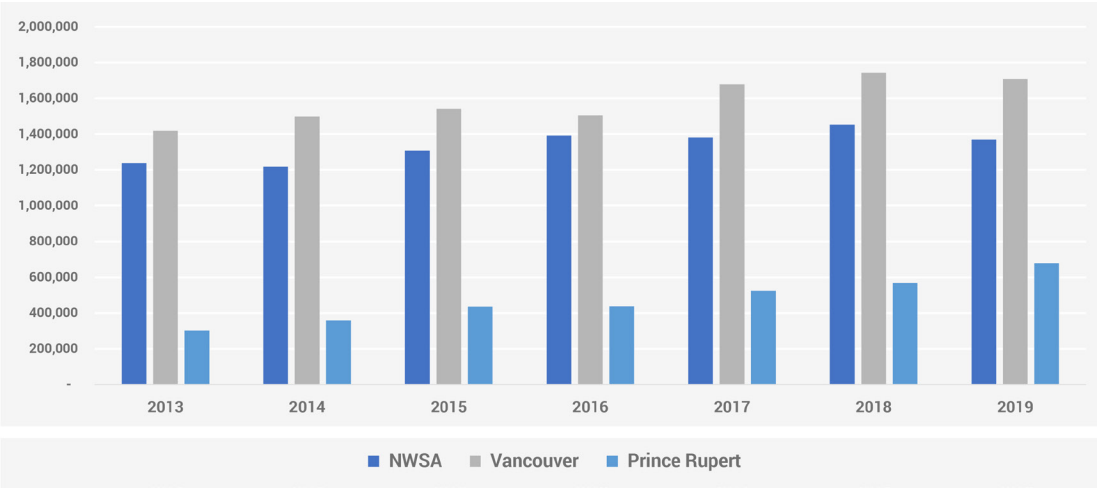


In addition to losing cargo to other U.S. ports, the NSWA ports face a much more proximate challenge from Canada's Pacific Coast ports in British Columbia, Vancouver and Prince Rupert. Both the NWSA ports and their Canadian rivals vie to serve markets in the Midwestern region of the United States. All costs of doing business matter, but here the costs add up in favor of the Canadian ports. Both Vancouver and Prince Rupert enjoy significant cost advantages over the NWSA ports. These include a Canadian currency that has gradually weakened against the U.S. dollar over the past two years, the absence of a Harbor Maintenance Fee charged on shipments through the NWSA ports but not those in British Columbia (even when the cargo may be bound for a U.S. destination), and competitive pricing by Canadian Pacific and Canadian National Railways. Both railroads offer service to destinations in the Upper Midwest. **Exhibit H** sheds light on this crossborder competition.

Exhibit H

NWSA Ports vs. British Columbia Ports Loaded Import TEUs

Source: Individual Port Websites

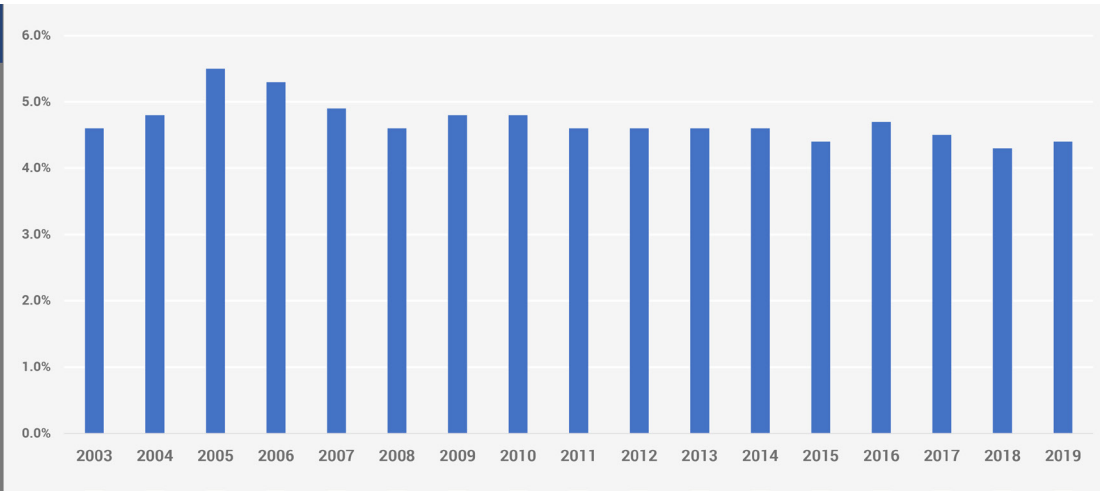


The Port of Oakland offers something of a contrast. As **Exhibit I** shows, the Port of Oakland's market shares have remained relatively stable, ebbing from 4.6% in 2003 to 4.4% last year.

Exhibit I

Port of Oakland's Share of U.S. Containerized Import Tonnage from East Asia: 2003-2019

Source: U.S. Commerce Department



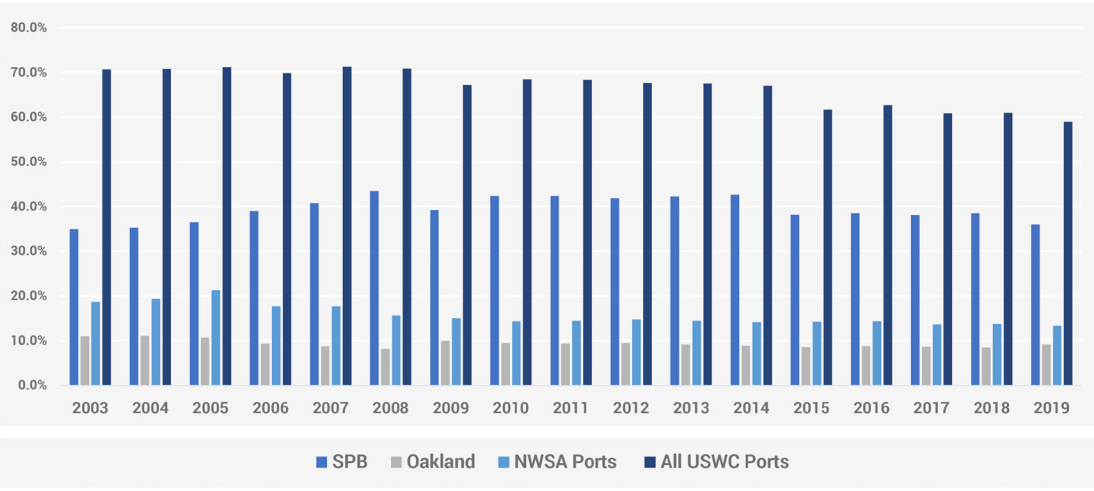
USWC slide in containerized exports to East Asia. While nearly all of the containerized *imports* through USWC ports pass through one of the top five gateways, there are several other USWC ports that have played a significant role in the nation's containerized *export* trade. At one time, the Port of Portland was a major participant in the trade. Until the current trade conflict with China emerged, a large volume of soybeans and grains was regularly shipped in containers from ports such as the Columbia River Ports of Kalama, Vancouver, and Longview in Washington State.

But, as with its containerized imports from East Asia, the USWC ports have gradually yielded market share in containerized export tonnage to East and Gulf Coast ports. As **Exhibit J** shows, the USWC share declined from 70.7% to 59.0% between 2003 and 2019. Even before China retaliated against Trump administration tariffs by targeting American soybeans, the USWC share of exports to East Asia had fallen about ten percent to 60.9% in 2017.

Exhibit J

USWC Share of U.S. Containerized Export Tonnage to East Asia: 2003-2019

Source: U.S. Commerce Department



USWC Ports' High Dependence on Transpacific Trade

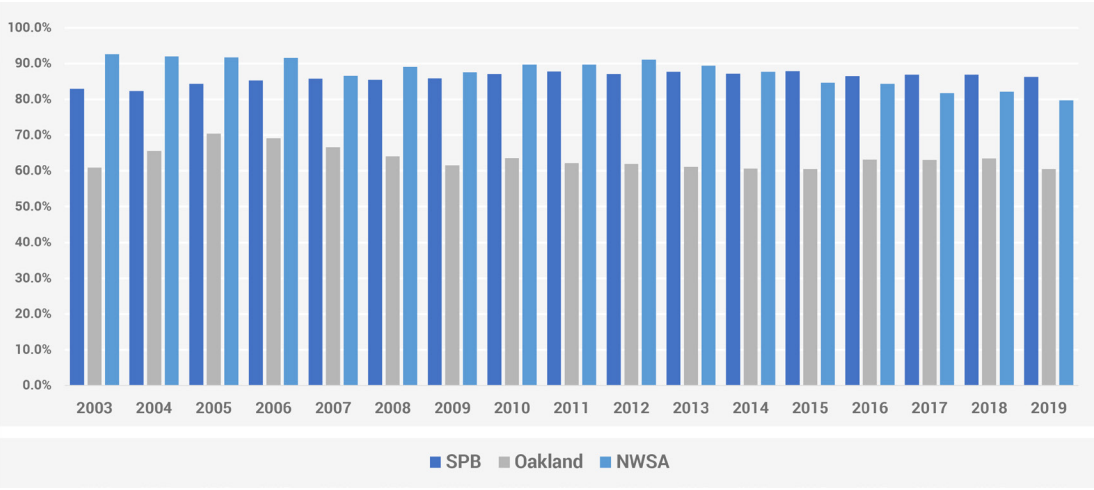
It could be argued that the declining percentage of U.S. mainland container trade passing through USWC ports may be a product of sheer inertia. For many years, the USWC ports prospered from their domination of trade with the fast-growing economies of East Asia. By contrast, East Coast ports remained primarily reliant on trade with the more mature and therefore more slowly expanding economies of Europe.

But, while ports elsewhere in North America have been steadily eating away at the transpacific container volumes that once would have moved through USWC ports, operations at USWC ports have continued to be extraordinarily reliant on trade with East Asia. **Exhibit K** tracks the percentage of containerized import tonnage at the chief USWC maritime gateways that originated in East Asia.

Exhibit K

Shares of USWC Containerized Import Tonnage Originating in East Asia: 2003-2019

Source: U.S. Commerce Department

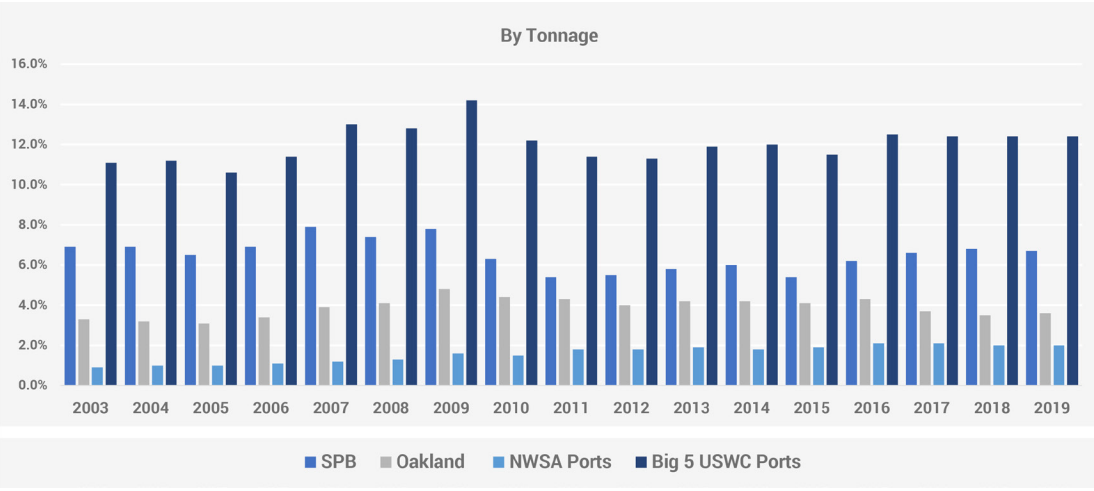


The chief USWC ports meanwhile have not increased their shares of America's trade with the trading nations of Europe, the Mediterranean, and the Middle East, as **Exhibit L** indicates.

Exhibit L

USWC Share of Total U.S. Containerized Trade with Europe, Mediterranean, and Middle East Markets: 2003-2019

Source: U.S. Commerce Department



So, while increasingly large numbers of containers bound from East Asia to U.S. markets have been moving through East and Gulf Coast ports, there has been almost no parallel diversion of transatlantic trade to West Coast ports. The expectation that the new set of locks at the Panama Canal might become more of a two-way street driving appreciably higher volumes of containers to/from Europe or the east coast of South America to the USWC is not being realized. According to the website of the Port of Los Angeles, a mere 2% of its 2019 trade involved Northern Europe in 2019.

First Quarter 2020 Update

Containerized trade during the quarter of 2020 was severely distorted by the COVID-19 outbreak. As a result, it is inadvisable to draw any firm conclusions from the data. Still, although the impact of the pandemic has been broadly felt across the nation's ports this spring, the numbers offer little consolation to USWC ports. The Big Five USWC ports' combined share of all containerized import tonnage discharged at U.S. mainland ports in this year's first quarter fell from 37.9% in last year's first quarter to 33.4% this year. In a longer-term context, as **Exhibit M** indicates, the USWC share of first quarter imports has declined from 43.1% in 2010 to 33.4% this year. At the San Pedro Bay gateway, the import share dropped from 32.0% in 2010 to 24.5%. The falloff at the NWSA ports was from 6.8% to 4.9%, while Oakland saw its share slip from 4.2% to 4.0%.

Exhibit M

USWC First Quarter Shares of Total U.S. Containerized Imports: 2010-2020

Source: U.S. Commerce Department

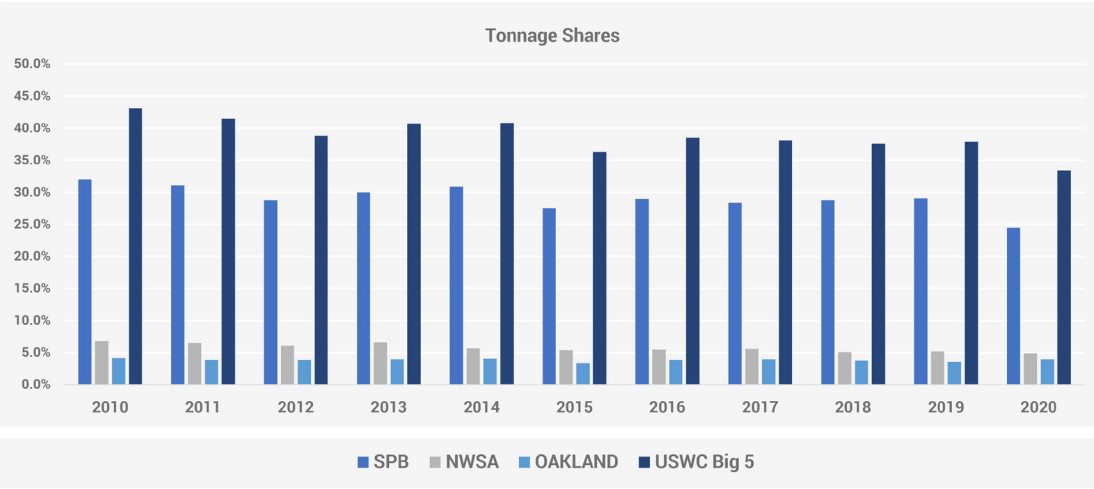
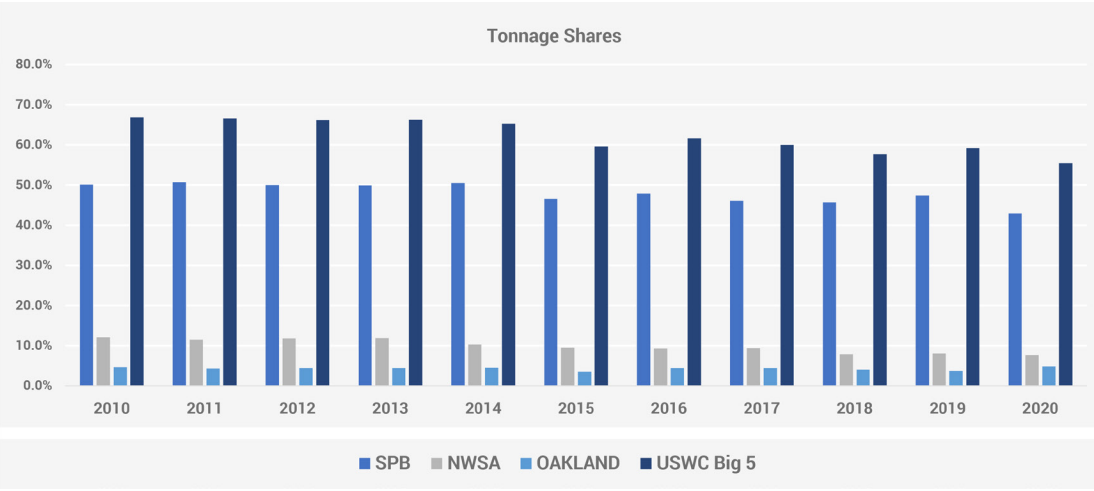


Exhibit N describes the share of U.S. containerized import tonnage arriving from the economies of Northwest Asia (Japan, South Korea, China, Taiwan, and Hong Kong) in the first quarter of each year from 2010 to 2020.

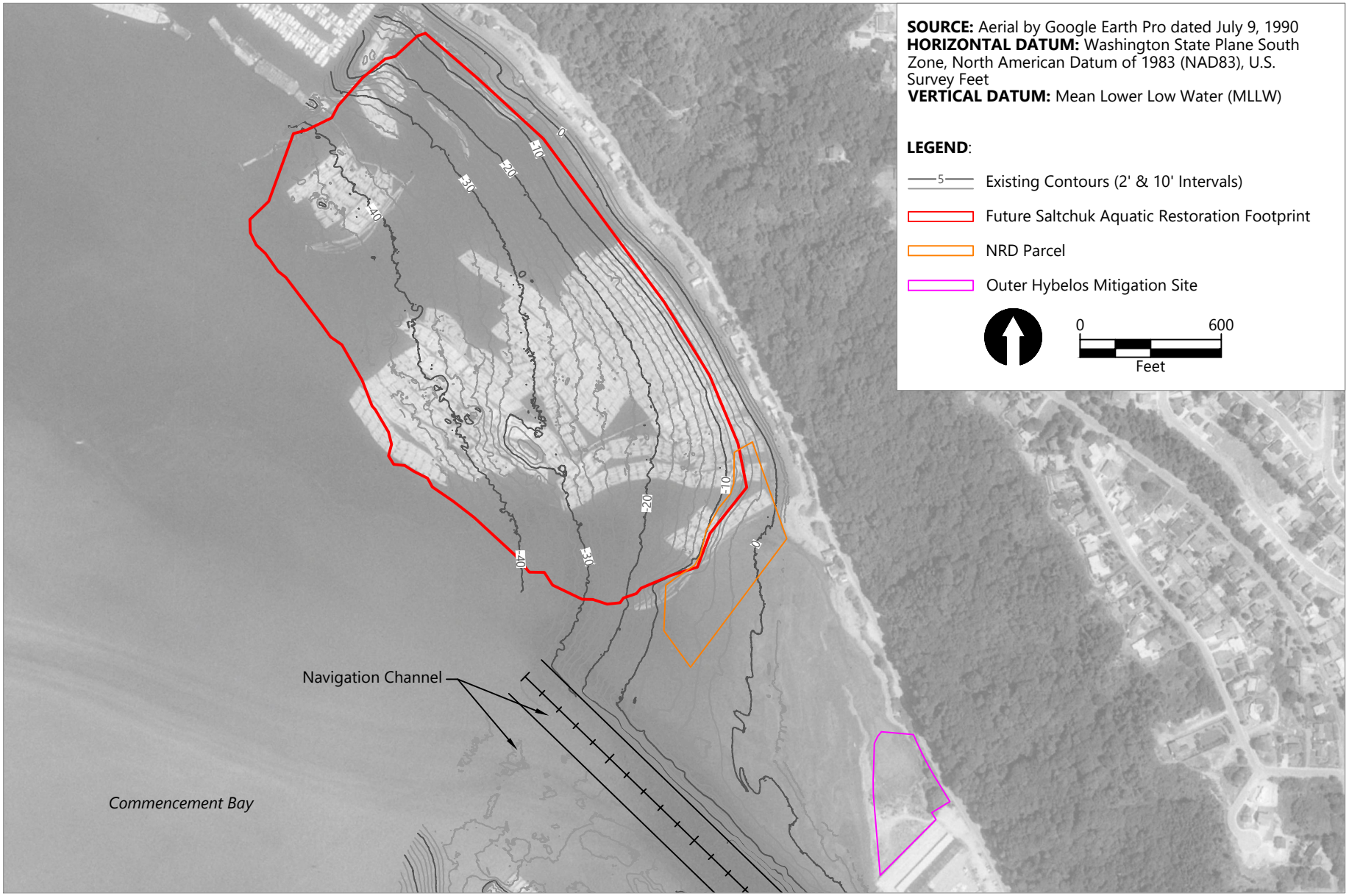
Exhibit N

USWC First Quarter Shares of Total U.S. Containerized Imports from Northeast Asia: 2010-2020

Source: U.S. Commerce Department



In the first quarter of 2010, the Big Five USWC ports collectively enjoyed a 66.9% share of all containerized import tonnage at U.S. mainland ports from Northeast Asia. By last year's first quarter, that share had eroded to 59.2%. In this year's first quarter, it had fallen further to just 55.5%. The Ports of Los Angeles and Long Beach accounted for 50.1% of containerized import tonnage from Northeast Asia in 2010's first quarter. In last year's first quarter, that share stood at 47.4% before collapsing further to 42.9% this year. Similarly, the NWSA ports' combined share of containerized import tonnage from Northeast Asia declined from 12.1% in 2010's first quarter to 8.1% last year and 7.7% this year. Only Oakland managed to increase its share of first quarter imports from Northeast Asia, from 4.7% in 2010 to 4.9% this year.



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Publish Date: 2020/01/30 1:45 PM | User: tgriga
Filepath: K:\Projects\2058-Wood\SMA 421B Mitigation Plan Revision\2058-RP-003-Overlay.dwg Figure 1

ANCHOR QEA

Figure 1
Existing Saltchuk Area Conditions (with 1990 Aerial)
Saltchuk Mitigation/Restoration Demonstration Project

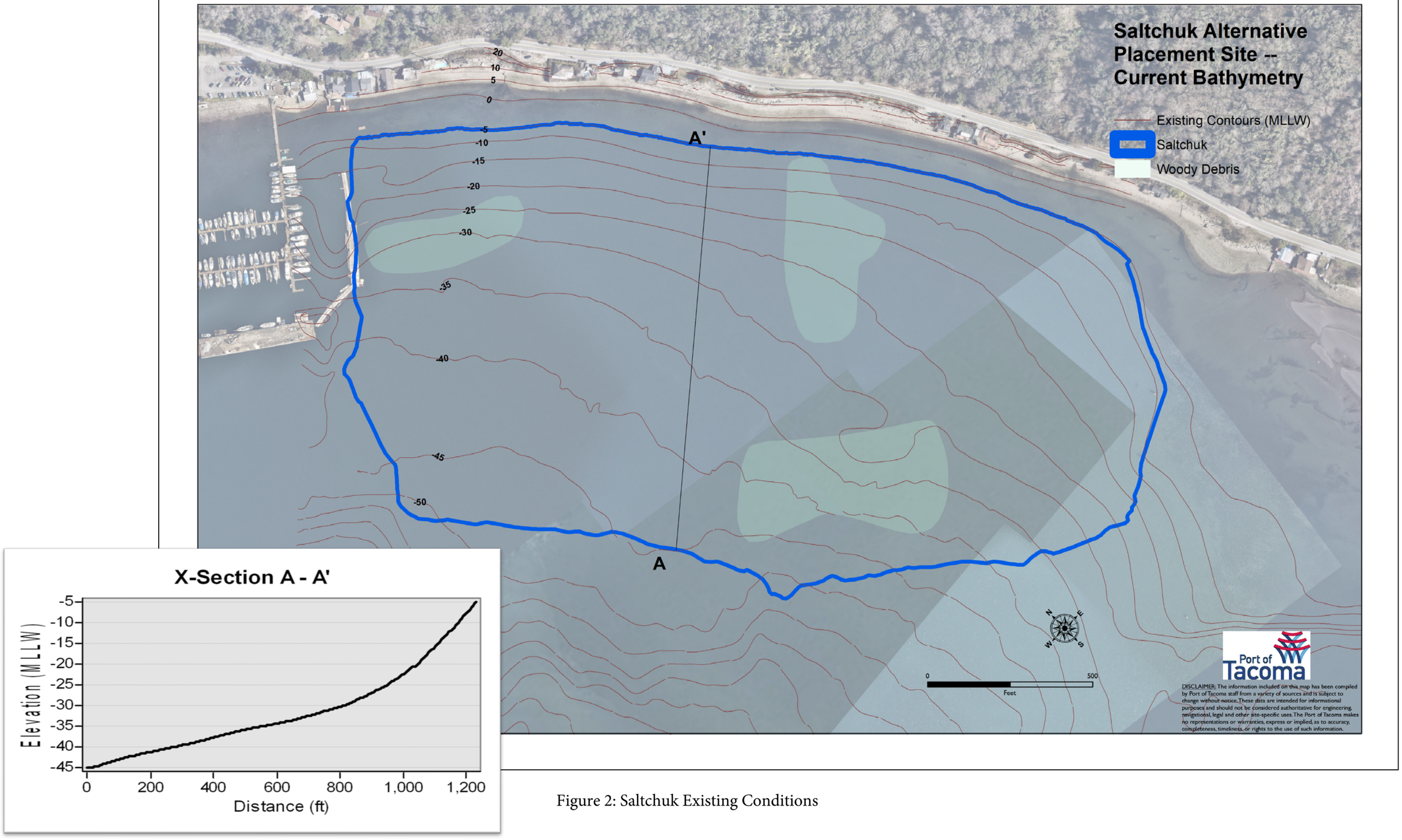
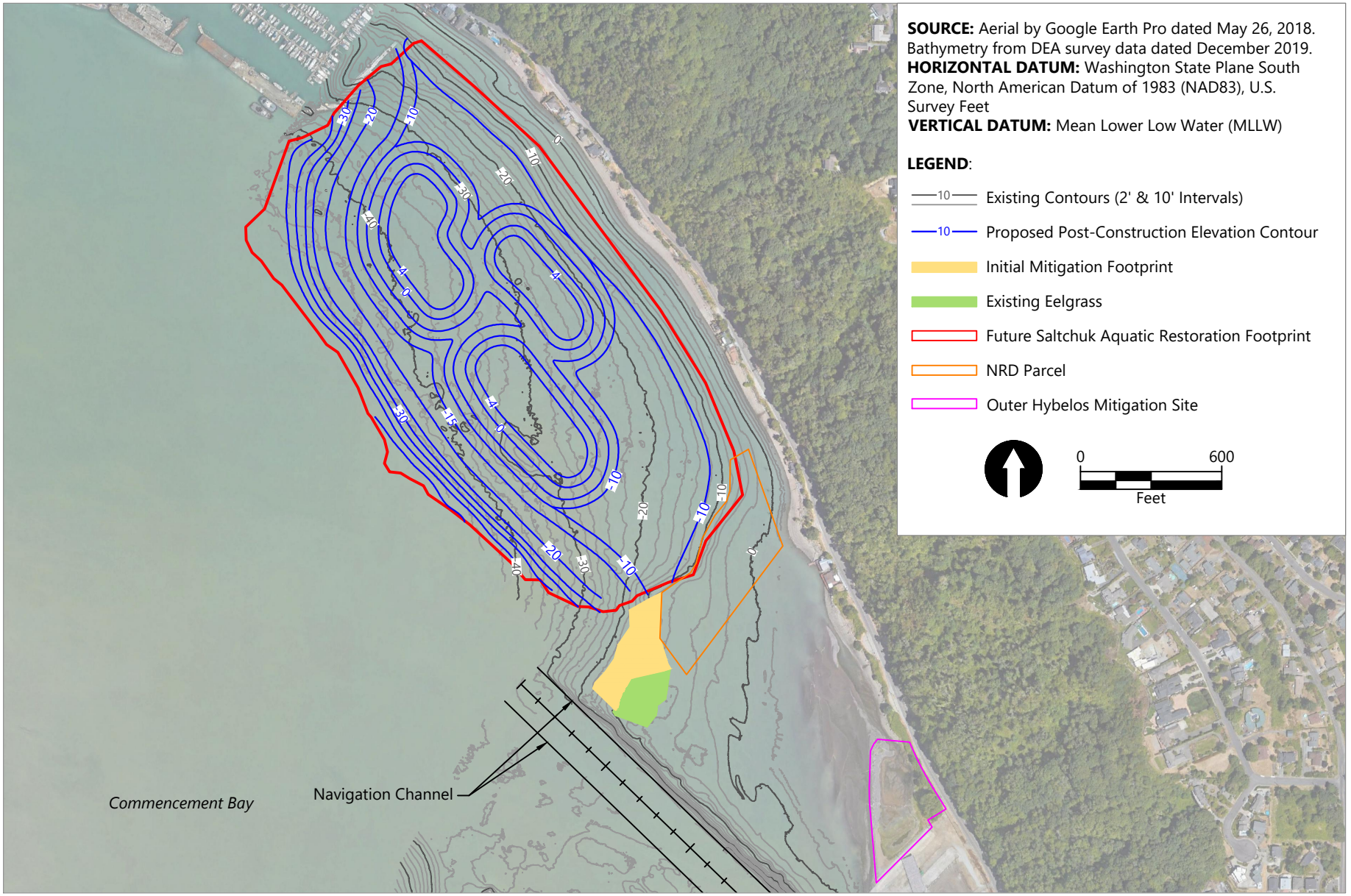


Figure 2: Saltchuk Existing Conditions



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Publish Date: 2020/01/30 1:45 PM | User: tgriga
Filepath: K:\Projects\2058-Wood\SMA 421B Mitigation Plan Revision\2058-RP-003-Overlay.dwg Figure 3

ANCHOR QEA

Figure 3
Final Saltchuk Restoration Project Footprint
Saltchuk Mitigation/Restoration Demonstration Project

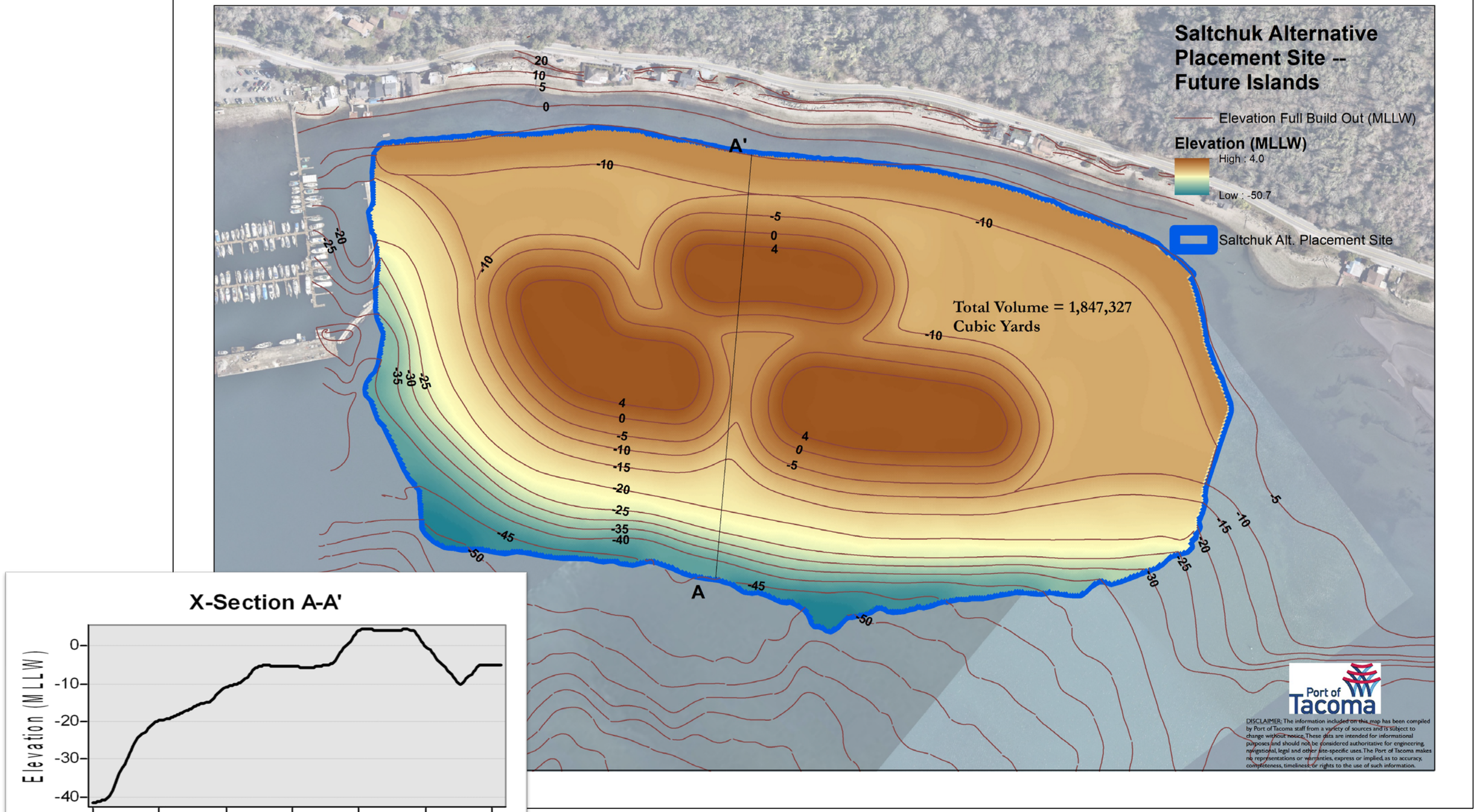


Figure 4: Saltchuk Full Build Out with Islands

PUGET SOUND PILOTAGE DISTRICT ACTIVITY REPORT

May-2020

The Board of Pilotage Commissioners (BPC) requests the following information be provided to the BPC staff **no**

Activity											
Total pilotage assignments:	482				Cancellations:	7					
Total ship moves:	475	Cont'r:	174	Tanker:	141	Genl/Bulk:	102	Other:	58		
Assignments delayed due to unavailable rested pilot	2					Total delay time:	7.5				
2 pilot jobs:	35	Reason:	PSP GUIDELINES FOR RESTRICTED WATERWAYS								
Day of week & date of highest number of assignmen	THU-May 7									35	
Day of week & date of lowest number of assignment	SUN-May 10, TUE-May 26, WED-May 27, SUN-May 31									9	
Total number of pilot repositio	104										

Comp Days						
Beg Total -	3491	Call Backs (+)	46	Used (-)	107	3430

Pilots Out of Regular Dispatch Rotation (pilot not available for dispatch during "regular" rotation)

A. Training & Continuing Education Programs

Start Dt	End Dt	City	Facility	Program Description	Pilot Attendees

B. Board, Committee & Key Government Meetings (BPC, PSP, USCG, USACE, Port & similar)

Start Dt	End Dt	City	Group	Meeting Description	Pilot Attendees
1-May	1-May	Seattle	PSP	President	CAI
2-May	15-May	Seattle	PSP	UTC	CAI
5-May	9-May	Seattle	PSP	President	COL
6-May	6-May	Seattle	PSP	BPC-OTSC	BOU, KRI
16-May	17-May	Seattle	PSP	UTC	CAI
15-May	15-May	Seattle	BPC	BPC	ANT
18-May	18-May	Seattle	PSP	BPC	CAI
19-May	20-May	Seattle	PSP	UTC	CAI
19-May	19-May	Seattle	BPC	BPC-PSC	SCR
20-May	20-May	Seattle	BPC	TEC	ANT, KLA, SCR
21-May	21-May	Seattle	BPC	BPC-BOD	ANT, CAI, SCR
22-May	25-May	Seattle	PSP	UTC	CAI
26-May	26-May	Seattle	PSP	BOD	ANA, CAI, COL, KLA, NEW, SEM
27-May	28-May	Seattle	PSP	UTC	CAI
27-May	28-May	Seattle	PSP	UTC	MOT
28-May	28-May	Seattle	PSP	Port of Tacoma	LOB
29-May	29-May	Seattle	PSP	UTC	CAI, COL, MOT, KLA

30-May	31-May	Seattle	PSP	UTC	CAI, MOT

C. Other (i.e. injury, not-fit-for-duty status, earned time off)

Start Dt	End Dt	REASON	PILOT
1-May	5-May	ETO	LIC, LOB, LOW, NIN
12-May	19-May	ETO	BUJ, GRK, HAR, THG
26-May	31-May	ETO	ANA, CAW, KAL, KEA
26-May	31-May	Not fit for d	BEN

Presentations

If requesting to make a presentation, provide a brief explanation of the subject, the requested amount of time for

- *Presentations may be deferred if prior arrangements have not been made.*
- *The Board may also defer taking action on issues being presented with less than 1 week notice prior to a schedule Board Meeting to allow adequate time for the Commissioners and the public to review and prepare for discussion.*

Other Information (Any other information requested or intended to be provided to the BPC)

PUGET SOUND PILOTS

Protecting Puget Sound Since 1935

1

Financial Statements Presentation

for

Washington State Board of Pilotage Commissioners

June 18, 2020

Engagement in Financial Statements

Puget Sound Pilots Station

Port Angeles, Washington

Puget Sound Pilots Overview

- Audited Financial Statements on a Modified Accrual Basis (not Generally Accepted Accounting aka GAAP)
- Puget Sound Pilots taxed as a Partnership
- Figures consolidated with Pilot Technology Services (dissolved in 2018)

Continuous Improvement in Reporting

- Goal: Improve financial statements reporting, efficiency and alignment with normal and customary financial statements reporting practices
- Objectives:
  - maintain alignment with normal and customary financial statements practices and compliance with RCW 88.16.035(1)(f)
  - continue to enhance fiscal and schedule notes to increase transparency and understanding of information provided
  - continue to preserve and secure pilot personal information

Audit Process & Modified Accrual Basis

Audit Process

- Risk Based Audit
- Test tariff rates
- Sample of invoices recalculated and tested
- Sample of bills paid
- Review of process and internal controls

Modified Accrual Basis

- Records revenue (income) at the time it is earned (the day job is completed)
- Expenses are recorded when paid (in general)
- Depreciation expense is normal and customary
- Unrecorded Liabilities (Note 10)

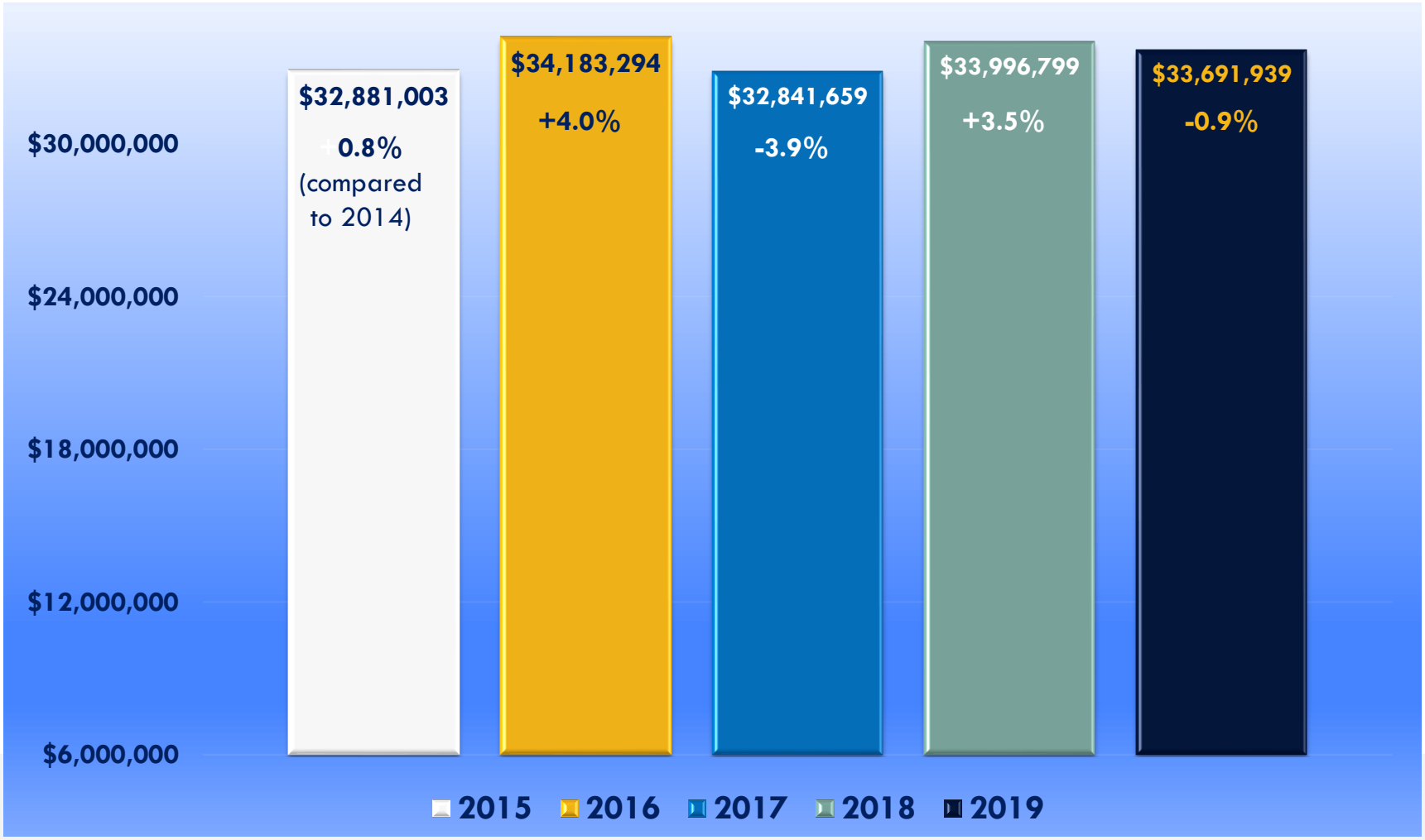
Pilots' Equity

- Total Pilot's Equity – page 6 of Financial Statements

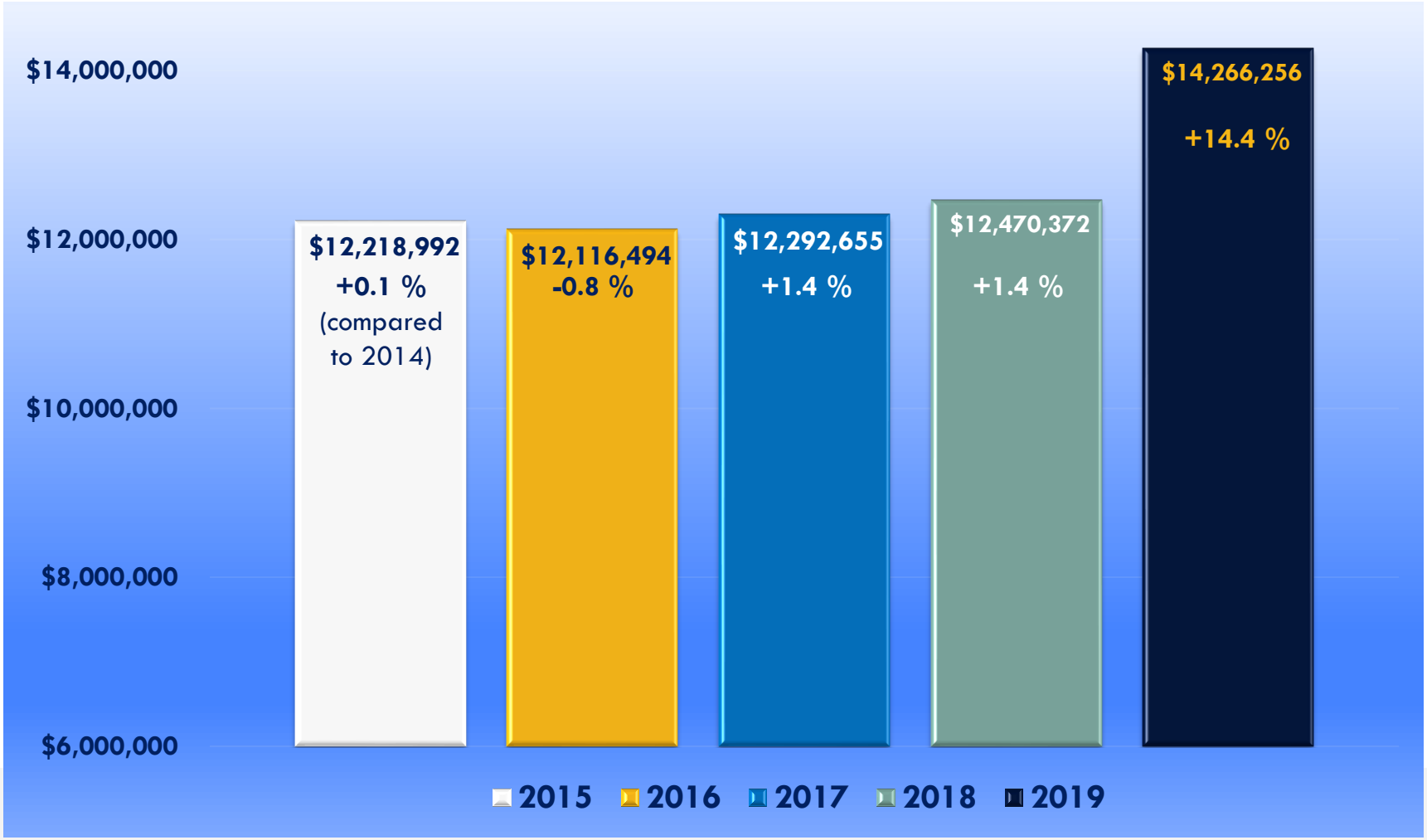
Page 6	PILOTS' EQUITY	2019	2018	Increase (Decrease)
27.	Total Pilots' Equity	3,302,113	4,360,798	(1,058,685)

- Less Unrecorded Liabilities (Note 10) creates a negative equity balance.

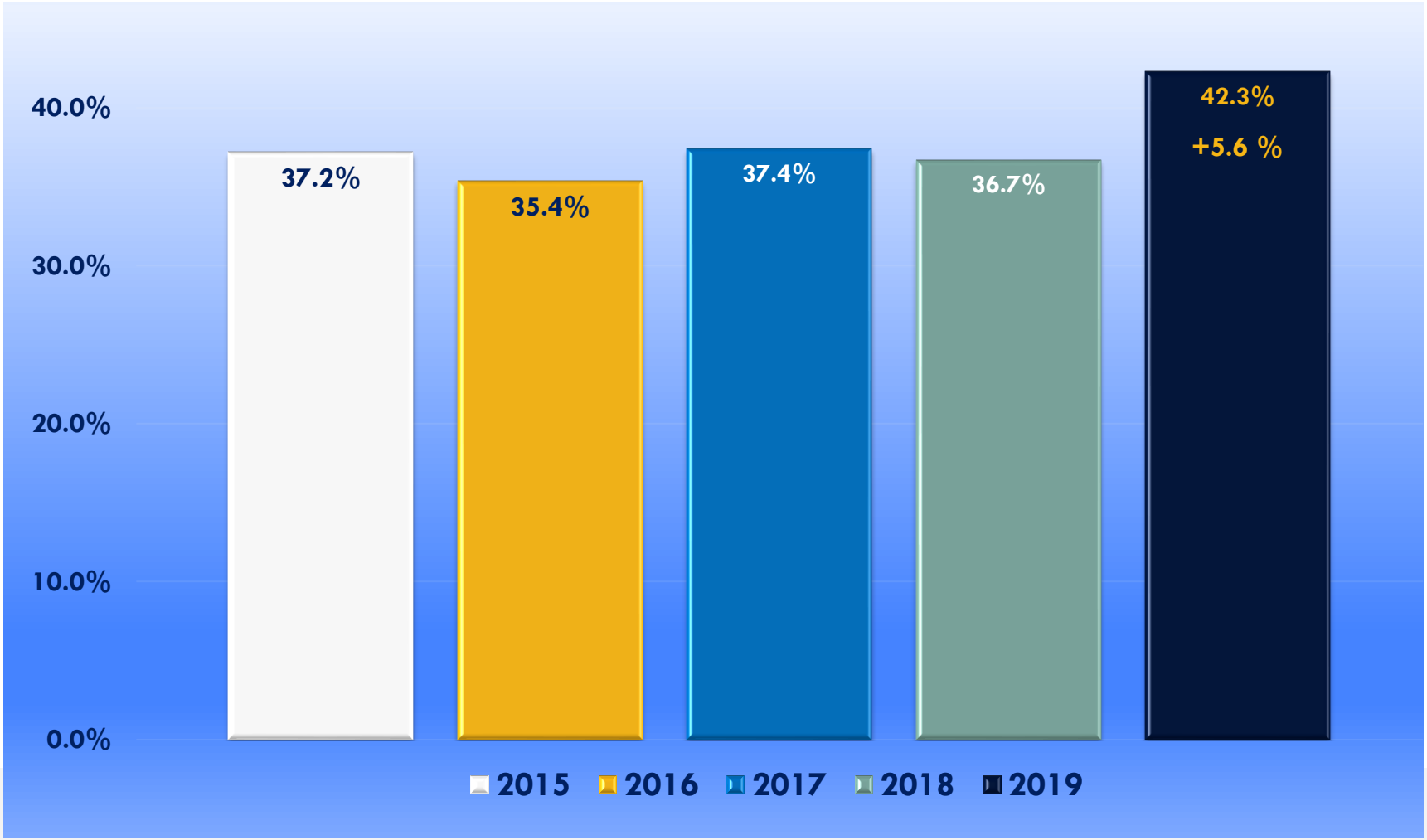
Pilotage Revenue



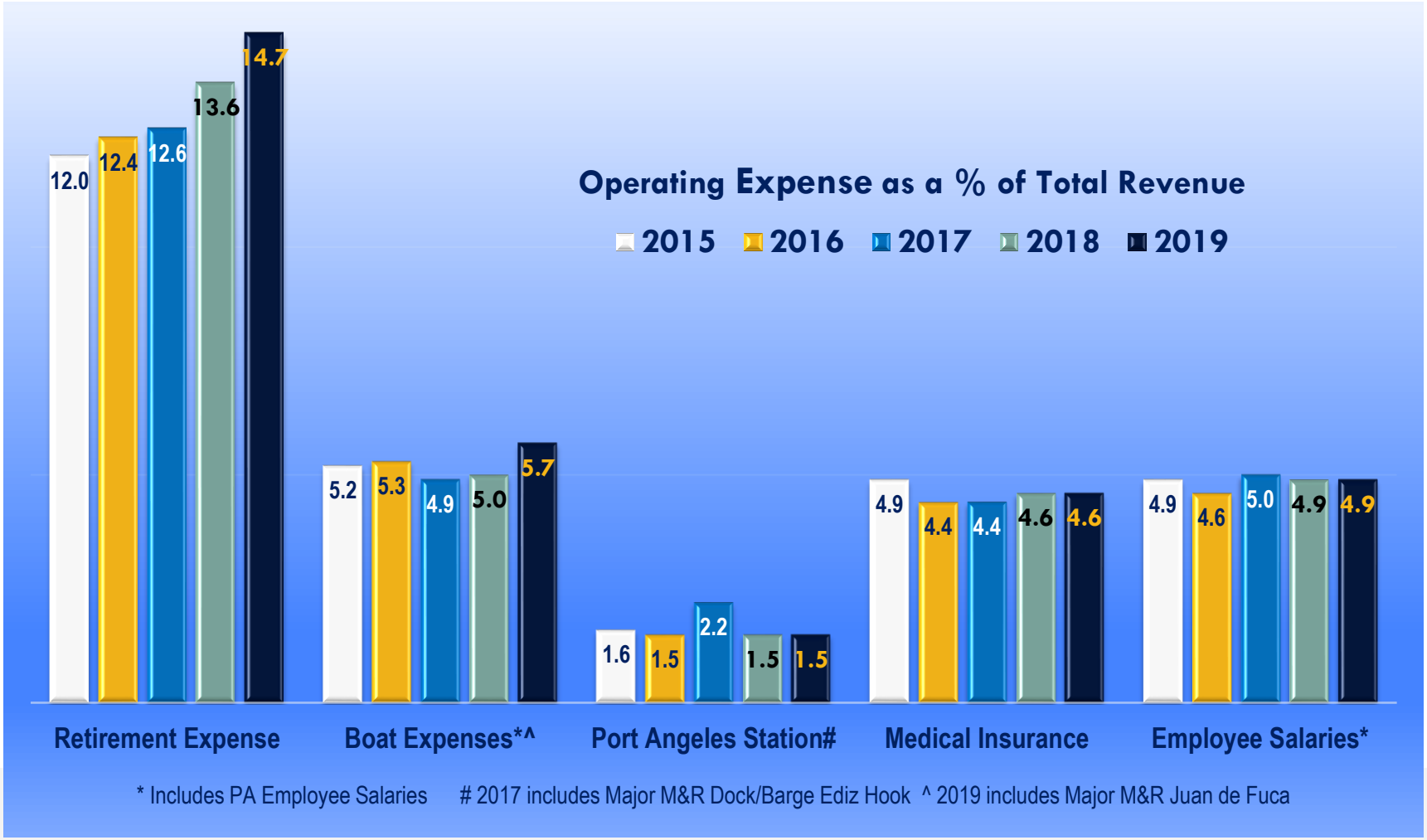
Total Operating Expenses



Total Operating Expenses % of Revenue



Comparative Operating Expenses



* Includes PA Employee Salaries # 2017 includes Major M&R Dock/Barge Ediz Hook ^ 2019 includes Major M&R Juan de Fuca

Understanding Distribution of Pilotage Revenue and Expense

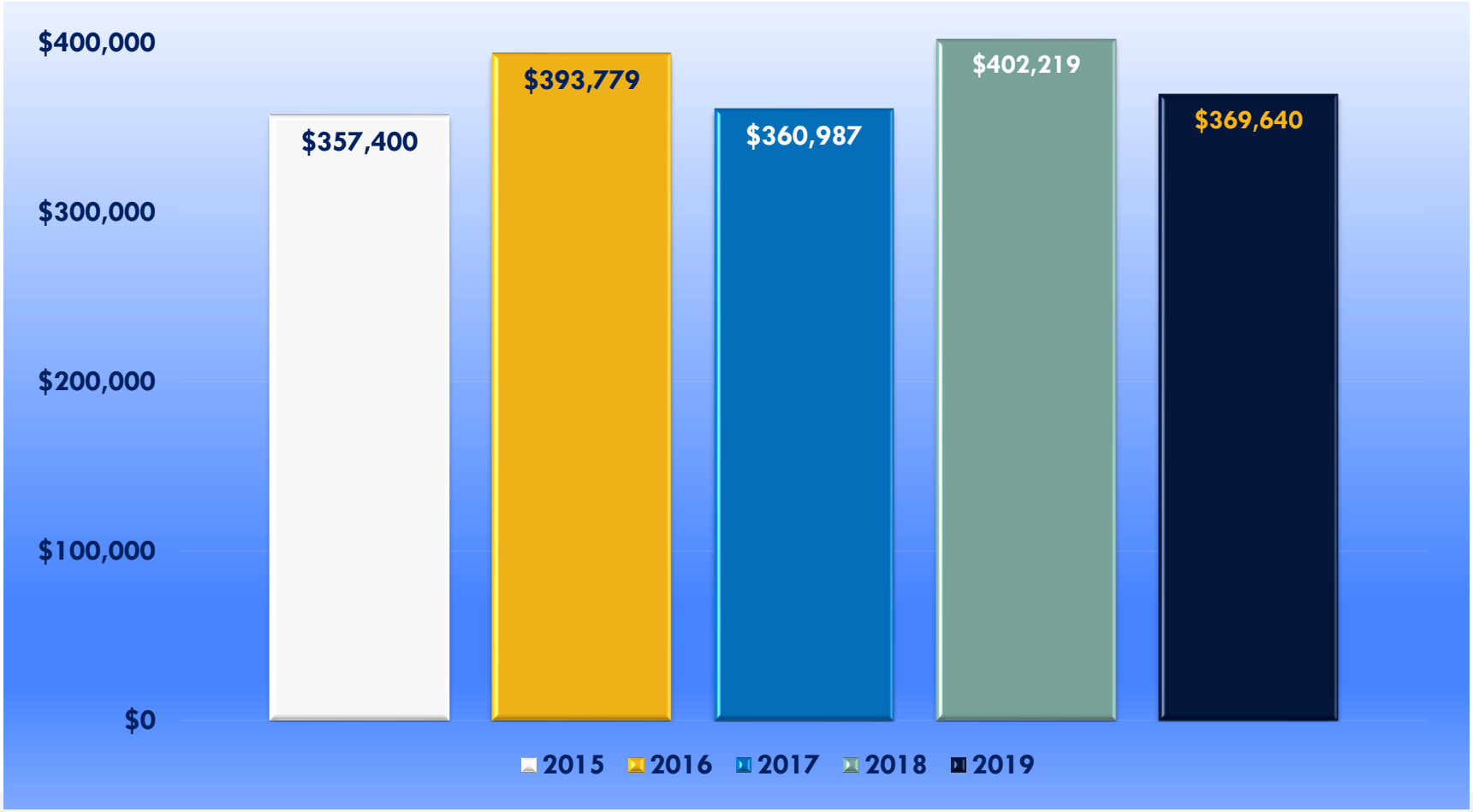
Column	Source	Total
(1) Days of Service	Calculated as total days in a year for each individual pilot. If a pilot is new or retires during a year his days of service will be less	18,222
(2) Credit for Pilotage Revenue	Page 7 of Financial Statements, Line 1	33,691,939
(3) Charge for Operating Expense	Page 7 of Financial Statements, Line 6	14,266,258
(4) Charge for Other Expense	Page 7 of Financial Statements, Line 7 plus IBE (see next slide)	971,993
(5) Share of Balance of Pilotage Revenue Pooled	Column (2) minus (3) minus (4)	369,640*

* For pilots with 365 days of service. Column (5) total Annual Earnings After Deductions for all pilots = 18,453,688
Does not include individual income and social security taxes; does not include Port Angeles transportation payments

Calculating Pilot Income (Pool Share)

Description	Reference	Amount
Share of Balance of Pilotage Revenue Pooled	Schedule of Days of Service and Distribution of Pilotage Revenue and Expense total Column (5)	$18,453,688
Total Duty Days	Schedule of Days of Service and Distribution of Pilotage Revenue and Expense total Column (1)	18,222
Days in Year	Schedule of Days of Service and Distribution of Pilotage Revenue and Expense Column (1)	365
Rounded Working Pilot Roster	Duty Days / Days in Year	49.9 (rounded)
Net Distributable Income Per Pilot	Share of Balance of Pilotage Revenue Pooled / Working Pilot Roster	$369,641

Income Per Pilot*



* Net Distributable Income Per Pilot = Share of Balance of Pilotage Revenue Pooled divided by Working Pilot Roster; Does not include individual income and social security taxes; does not include Port Angeles transportation payments

Capital Plan Outlook 2020-2024

Capital Projects *(dollars in millions)*	2020	2021	2022	2023	2024	Total
Pilot Boat Replacement Puget Sound (MY 1999)			3 - 7			3 - 7
Pilot Boat Replacement Juan de Fuca (MY 2001)				4 - 8		4 - 8
Total Capital Projects			3- 7	4- 8		7 - 15

The 5-Year Capital Plan prospectus dollars for 2020-2024 is the same as reported last year for 2019-2023 however, the timing of the investments have been deferred one year.

Major Maintenance & Repair Projects *(dollars in thousands)*			
Pilot Boat Engine Rebuild	350	***	350***

***Pilot boat, Juan de Fuca, engine block rebuild planned in 2019 occurred. Note there is also risk an emergency rebuild may be required for the Puget Sound in 2020-21 potentially adding 350K expense.

DIVERSITY PROGRAM

Our vision: Establish a pilot corps that reflects the people of Washington State by increasing diversity of state licensed pilots

Introduction

The Washington State Board of Pilotage Commissioners (BPC/Board) strongly supports inclusion and diversity among pilot trainees and pilots licensed by the Board. This is the sixth year of including a report on diversity initiatives in the BPC's Annual Report.

During 2019, the BPC continued to implement the new and more clearly defined trainee evaluation process described in the training section of this report.

The Joint Diversity Committee (JDC), described further below, continues to implement measures and examine barriers to attract a diverse pool of candidates toward a career as a Washington State licensed marine pilot.

Overview

Over the past decade, there have been between 50-54 licensed pilots in the Puget Sound Pilotage District and 2 in the Grays Harbor Pilotage District. The number of pilots is periodically reviewed by the Board to optimize the number of pilots appropriate to maintain safety based on the average number of pilotage assignments per pilot. All Washington State marine pilots hold federal pilot licensure, which may be earned as they train for Washington State licensure. From 2009-2019, 29 pilots have been licensed and 39 have retired, giving an annual turnover of just over one pilot per year.

The BPC is committed to ensuring qualified pilotage in Washington State. Throughout the history of pilotage, the seafaring profession has been comprised primarily of white males. As with many male dominated professions, the prevailing assumption is that women and people of color do not wish to enter the field.

The BPC is also committed to shifting this perspective and attracting a more diverse workforce of qualified candidates beginning at the pipeline to professional mariner careers.

The BPC's Joint Diversity Committee (JDC) with Puget Sound Pilots (PSP), in partnership with committee members, has developed an increased understanding of potential barriers to becoming a marine pilot.

The Committee is using a two-pronged approach focusing on women and people of color already in the mariner pipeline, and raising awareness to influence youth to consider pathways leading to careers as mariners.

Diversity in the Pilotage Pipeline

A Joint Transportation Committee (JTC) study of pilotage best practices commissioned by the Washington State Legislature in 2017 identified a lack of diversity as a national challenge.

Despite the global merchant marine industry being one of the most culturally and ethnically diverse industries in the world, a very small percentage of people rise through the ranks to licensed marine officer or pilot positions.

A look at gender diversity in leadership positions reveals a similar issue. Today, women represent only 2% of the world's 1.2 million seafarers with 94% of female seafarers working in the passenger cruise industry, generally in staff roles.[1]

At the time of the JTC study, 37 of the 1,200 state licensed pilots across the U.S. were female, representing just 3% of the more than 1,200 licensed pilots in the U.S.[2]

Although the JTC report was helpful in identifying districts where there has been some success in recruiting female trainees and pilots, it fell short in its ability to identify ethnic diversity in pilotage districts.

In addition to cultural and gender diversity, the industry also struggles with age diversity as it fights attrition of licensed mariners due to an aging workforce.

Washington State's Office of Maritime, Office of Economic Development and Competitiveness, reported that in 2013 the average age of mariners in the state was 54 years old, calling on industry stakeholders to focus on recruitment pipelines for youth in its 2017-2019 strategic plan to call.[3]

While the industry data is daunting, there is reason for optimism in creating a more diverse and inclusive pilotage corps. The candidate pool for pilotage depends on the pipeline of mariners working their way up the ladder of responsibility.

It is in the BPC's best interest to do what it can to contribute to increasing diversity in the pipeline. The JDC spends time raising awareness among K-12 including youth groups such as YMTA, Sea Scouts, and school visits. Also, junior high school/middle school is a critical phase where kids can off-tract and end up with a criminal record which would harm the possibility of a mariner career. The JDC also spends time reaching out to high schools, maritime academies, and to employers to attract candidates to take the pilot exam.

Diversity in Washington State Pilotage

Washington State has licensed marine pilots since 1935. While Washington State pilotage has had some success attracting cultural diversity in its history, until 2018 there had not been a female pilot licensed in Washington State. In April 2016, a female candidate earned her exam scores that placed her at the top of the trainee waiting list. She began training as a Puget Sound pilot in May 2017 and received a state license to pilot in the Puget Sound Pilotage District in September 2018. You can read her story here.

Washington State Pilot Exam and Pilot Training Program

The Washington State pilotage exam is offered at least every four years and more often if the list of potential trainees the pipeline needs replenishing.

Successful applicants who meet the Washington State pilotage qualifications and pass both written and simulator examination are placed on a waiting list to enter the pilot training program.

In 2008, there were 14 candidates placed on the waiting list for training, 16 in 2012, 12 in 2016, and 16 in 2018.

Trainees are called up from the list of anticipation of future pilotage needs. On average, it takes trainees 18 to 24 months to complete the Pilot Training Program and to be issued a license.

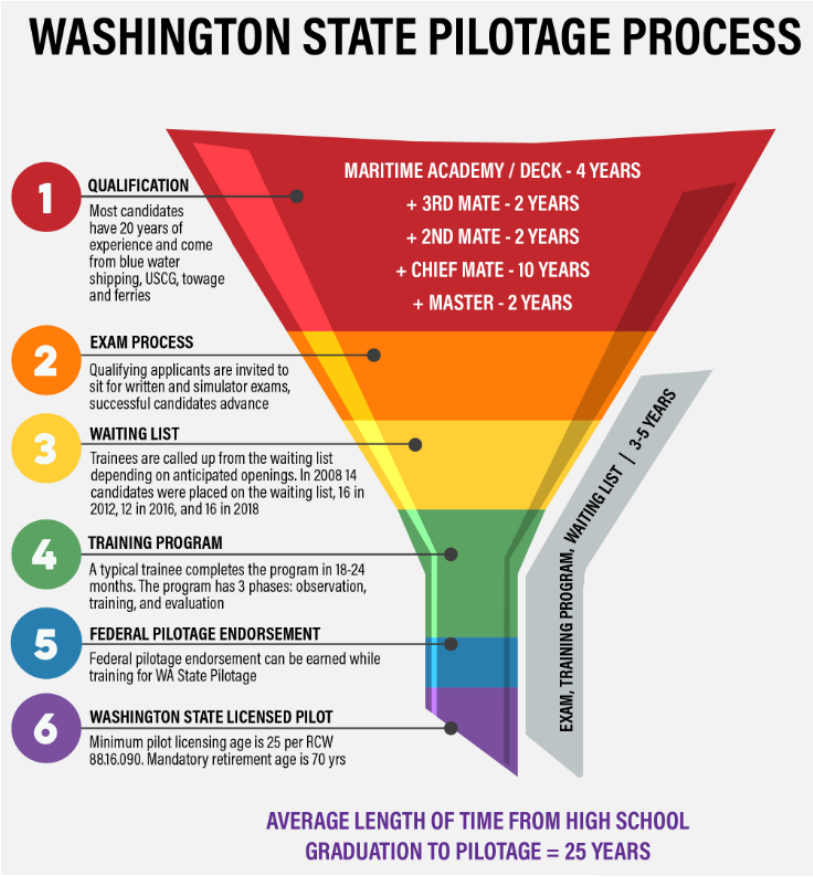


Figure 1: The Process to Become a Pilot in Washington State

Protecting Against Bias

To protect against bias, once the examination and evaluation process begins, applicants are identified only by a number which is set by an independent contractor. This ensures that, information about individual applicants revealed to the BPC (and the public). Even then, personally identifying information is ethnicity and gender, if voluntarily provided, as well as applicant scores are not associated with a person's name. Only after the list of successful applicants is published is any an intervention and has established the maximum number of interventions at which time a trainee is terminated from training.

limited to what can be garnered by an individual's name.

The BPC has taken numerous steps since 2008 to adjust and improve its training program to be as objective and consistent as possible.

- In 2016 the Pilot Training Program used new criteria for training and evaluation. These criteria are linked to the job functions of pilots.
- During the evaluation phase of training, the pilot training program remains "hands off" unless a significant problem is developing. During the Evaluation Phase, if the Supervising Pilot has to take over a maneuver from a "trainee", this action is called an intervention. The BPC now has developed a definition for
- In 2016, the BPC hired a psychometrician to provide psychometric validation of the pilot training program components using a criterion based evaluation system ensuring equal opportunity among trainees.
- In the 2018 application process, the BPC offered Train-the-Trainer courses to pilots who complete trip evaluations forms on the trainees and collected Observation, Training, and Evaluation Documents, as well as trainees who are in the program.

The Board will continue to monitor and implement measures to ensure that all of the processes it uses to ultimately license pilots are free from bias and discrimination.

Recruiting for Diversity

A shorter timespan between the 2016 and 2018 exam cycles created an opportunity to widen the net to attract new applicants. The BPC engaged a professional maritime recruiter to expand visibility of Washington's pilotage districts to potential candidates.

A host of proactive recruitment method, including professional recruitment efforts, website/social media, digital advertising, job fair participation, and active outreach resulted in 31 applications for the Puget Sound/Grays Harbor 2018 exam. Of the 31 applicants, 28 were eligible for the written exam with 20 advancing to the simulator test. In the end, there were 16 eligible candidates placed on the waiting list for the pilot training program. Various organizations within the maritime industry have recognized the dearth of young people (particularly women) who seek careers in the industry and have launched recruiting efforts with the objective to turn that situation around. For example, the theme of the World Maritime Day in 2019 was "empowering women in the maritime industry and the International Maritime Organization (IMO) launched a project with WISTA, the Women's International Shipping and Trading Association to study the issue.

The Maritime Administration (MARAD) has supported "Women on the Water Conferences" for the past nine years. Held at maritime academies, these conferences are designed to support women in maritime careers.

Figure 2: Demographics of the 2018 Pilot Candidate Pool

	Gender		Ethnicity		Age			Experience				
2018 Candidate Pool	Male	Female	Caucasian	Other	50 - 59	40 - 49	30 - 39	Tug	Offshore	Government	Cargo	Fishing
Applicants	30	1	30	1	6	16	9	14	3	3	8	3
Successful candidates	16	0	16	0	0	9	7	10	1	1	0	0

The 6 state academies and the U.S. Merchant Marine Academy at Kings Point, NY provide about 95% of all licensed merchant mariner officers. Academies report a new generation is enrolling – with students who were born in the late 1990's and are more diverse and inclusive.

The president of the State University of New York Maritime College describes students as "high caliber intellectually, more capable of working in an inclusive team environment, more comfortable with technology, and capable of adapting…" He also points out that "there are 45 maritime and marine science high schools across the country, with more opening each year."

It is a goal of the BPC to have a more diverse group of pilots in the coming years. This includes a desire to see more cultural, ethnic, and gender diversity and inclusion. But as stated above, anyone who becomes licensed must meet stringent qualifications to achieve and maintain state pilotage standards.

Conclusion

The BPC believes that one of the most critical of its tasks is to ensure the process used to select, train, and ultimately license mariners to be pilots is inclusive, fair and objective.

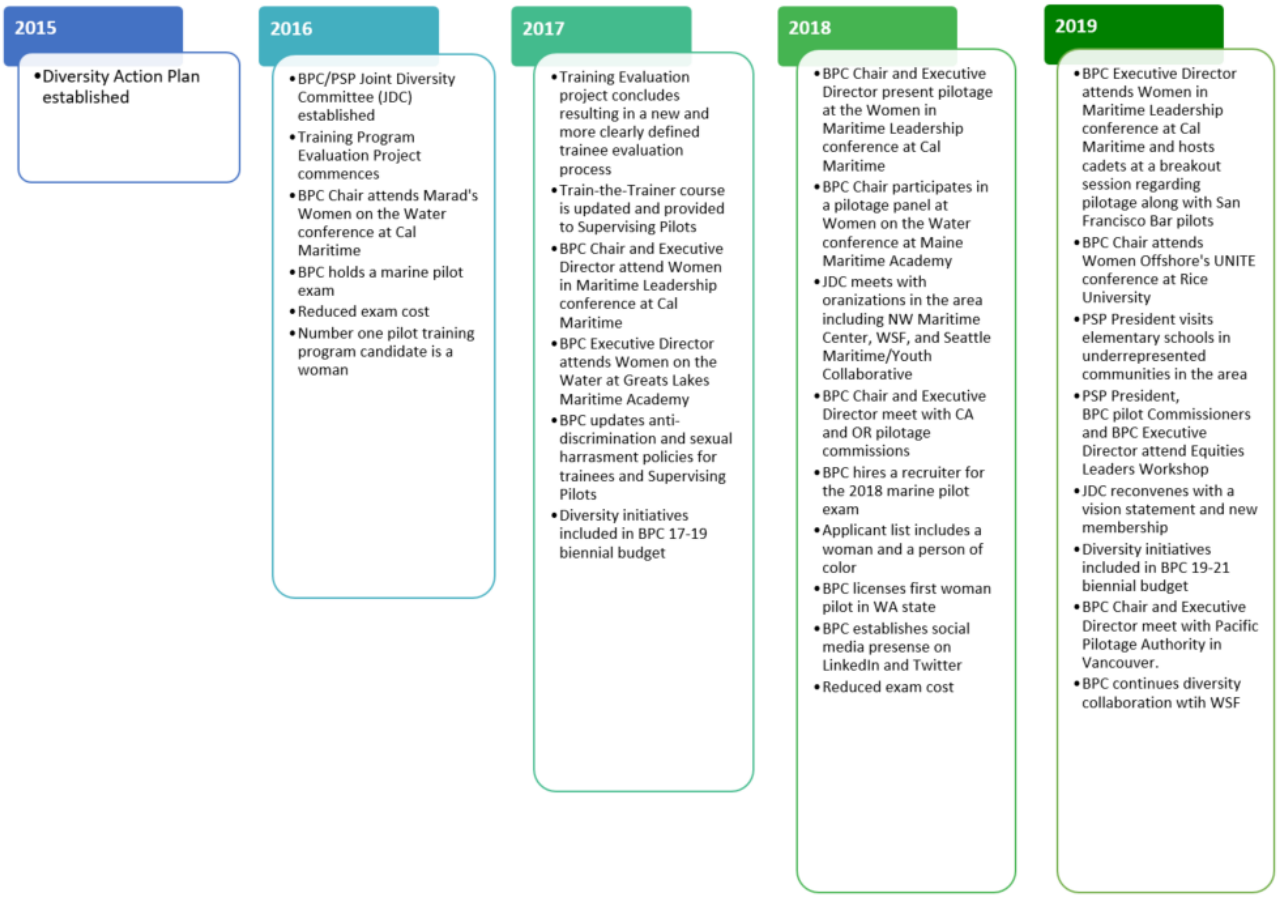
We use the Diversity Action Plan as a template to make a wide spectrum of applicants aware of our upcoming exams; encourage the maritime industry to continue efforts to broaden the diversity of mariners; support school programs that introduce young people to a seafaring career as a professional mariner; and ensure there is no bias involved in the training program and ultimate licensing of pilots.

The BPC will continue to make its training program as objective as possible and will encourage qualified diverse candidates to apply to its training program.

2019 JDC Roster

- Co-Chair – Sheri Tonn, Chair, BPC
- Co-Chair – Linda Styrk, Executive Director, PSP
- Captain Eric vonBrandenfels, President, PSP
- Jaimie Bever, Executive Director, BPC
- Sara Thompson, Commissioner, BPC
- Captain Deb Dempsey, Retired Pilot, Columbia River Bar Pilots
- Amy Scarton, Assistant Secretary, WSF
- Nicole McIntosh, Chief of Staff, WSF
  Emily Reiter, Director of Marketing & Communications, Saltchuk
- Mark Gleason, Property & Casualty Producer, USI Insurance

Actions and Initiatives – *the <u>past</u> 5 years*



Actions and Initiatives – *the <u>next</u> 5 years*

GOAL: Expand outreach to develop a diverse pool of applicants with required qualifications for pilotage

Improve notifications to mariners of upcoming exams and qualifications	•maritime publications •maritime acadmeny alumni boards •recruiters •social media publications •organizations such as Women Offshore and Sea Sisters
Participate in conferences groups	•Women in Maritime Leadership annual conference •Women on the Water annual conference •Women Offshore's UNITE annual conference •WISTA gatherings •Maritime Blue
Monitor and support activities of government and industry organizations	•broaden JDC membership and/or guest speakers to include these organizations •continue to build relationship with Washington State Ferries •track national and international trends in pilotage diversity

GOAL: Minimize subjectivity and eliminate bias in the application, training, and licensing process

Monitor and adjust exam application process	•revise the exam application to include voluntary questions regarding experience •track voluntary gender and ethnic information from exam applicants •indentify and reduce barriers •review exam qualifications •broaden BPC Exam Committee membership
Monitor and adjust training program as needed for continued equity and inclusion	•broaden JDC membership and/or guest speakers to include these organizations •continue to build relationship with Washington State Ferries
Improve diversity training in the Training Program and Train-the-Trainer	•look for LMS trainings that could be included in the training program •consider hiring a speaker to present to supervising pilots and trainees

GOAL: Support/participate in educational activities that develop youth interest in maritime careers

Support school programs to introduce maritime careers to young people	•continue attending career days at local schools •continue meeting with/supporting local youth outreach organizations and events such as Youth Maritime Collaborative and Maritime Blue
Ensure legislators are aware of such programs and encourage support where appropriate	•continue including diversity inititative funds in biennial budget requests

GOAL: Continue to Improve this Diversity

Seek review of this plan by other state agencies experienced with diversity action planning	•continue to develop relationship with WSF •contact other agencies such as WSDOT or Department of Licensing, or other transportation agency
Coordinate with other state pilotage commissions	•continue developing relationships with CA and OR •develop relationship with other Pacific States •consider a conference for Pacific States pilotage with diversity as a key topic
Review and update Diversity Action Plan annually	•this work contintues
Monitor the results of this plan and modify as needed	•committee vision and key cocepts of this plan will be revisted regularly at JDC meetings

Measurable Improvements = Diversity of Applicant Pool for the 2021 and 2023/2024 Exams

Citations

1. Seafarer Women - Perception of the Seafaring Career, http://www.wseas.us/e-library/conferences/2013/Brasov/EPLS/EPLS-01.pdf
2. Washington State Pilotage Final Report and Recommendations - http://leg.wa.gov/JTC/Meetings/Documents/Agendas/2017%20Agendas/Dec%202017%20Meeting/Pilotage_FinalReportExecSumDRAFT.pdf
3. PROPOSED STRATEGIC PLAN FOR WASHINGTON STATE MARITIME SECTOR 2017 – 2019 http://www.commerce.wa.gov/wp-content/uploads/2017/01/Sector-Leads-Maritime-Strategy-2016.pdf

STATE OF WASHINGTON
BOARD OF PILOTAGE COMMISSIONERS
2901 Third Avenue, Suite 500 | Seattle, Washington 98121 | (206) 515-3904 | www.pilotage.wa.gov

Meeting Minutes – Oil Transportation Safety Committee (OTSC)
May 6, 2020, 10:00am – 12:00pm
Conference Call/Skype

Attendees via Skype: Jaimie Bever (Chair/BPC), Sara Thompson (Ecology Alternate/BPC), Blair Bouma (Pilot/PSP), Eleanor Kirtley (Marine Environment/BPC), Charlie Costanzo (Tug Industry/AWO), JD Leahy (Ecology Alternate), Brian Kirk (Ecology Alternate), Sheri Tonn (Ex-officio/BPC), Bettina Maki (Staff/BPC),)
Attendees via Phone: Jason Hamilton (Other/BPC), Bob Poole (Oil Industry/WSPA), Fred Felleman (Environment/Friends of the Earth), Mark Homeyer (Tug Industry Alternate/Crowley), Blair Englebrecht (Environment Alternate/Puget Soundkeeper), Keith Kridler (Pilot Alternate/PSP)

1. **Welcome**
   Chair Bever welcomed everyone. She prefaced the meeting by reminding the group that this was the last meeting before the Board would meet to consider the OTSC's recommendations for the Interpretive Statement.

2. **Review and Approval of April 21, 2020 Meeting Minutes**
   The OTSC received a draft of the April 21, 2020 meeting minutes prior to the meeting. Chair Bever acknowledged minor adjustments to grammar/spelling pointed out by OTSC members via email. She then asked for additional input from those present at the meeting. Blair Bouma (Pilot/PSP) had no additional comments. Bob Poole (Oil Industry/WSPA) had no comments. He added that he had offered to research the transits of fuel product, but has not completed that task. Charlie Costanzo (Tug Industry/AWO) had no specific amendments. Fred Felleman (Environment/Friends of the Earth) pointed out some typos and requested some language clarification regarding his statements. Sheri Tonn (Ex-officio/BPC) had no comments. Sara Thompson (Ecology Alternate/BPC) had no comments. JD Leahy (Ecology Alternate/BPC) had no comments. Brian Kirk (Ecology Alternate/BPC) had no comments. Eleanor Kirtley (Marine Environment/BPC) had no additional comments. Jason Hamilton (Other/BPC) had no further comments. Keith Kridler (Pilot Alternate/PSP) had no comments. Mark Homeyer (Tug Industry Alternate/Crowley) had no comments. Blair Englebrecht (Environment Alternate/Puget Soundkeeper) had nothing to add.

Chair Bever will make the requested changes and finalize the minutes, making them available to the public on the website and providing them to the Board for the May meeting as a part of the OTSC update.

3. Finalize Interpretive Statement for Recommendation to BPC

Chair Bever reminded everyone that this meeting was the final consideration of the Interpretive Statement by the OTSC before it goes before the Board at the May 21, 2020 Board meeting. She added that if any OTSC members wanted to speak to the Board about the Interpretive Statement, they would be given time on the agenda to do so. She added that the Board will be making their final decision at the June 18, 2020 meeting, giving them the opportunity to spend some time reflecting on the proposals before making a decision. Sheri Tonn (Ex-officio/BPC) clarified that there would be opportunity for OTSC and public comment at the May 21, 2020 Board meeting. Chair Bever also recognized that there may not be full consensus from the OTSC on the definitions and that it will ultimately be up to the Board to make the final decision based on the information provided. Bob Poole (Oil Industry/WSPA) asked if a draft Interpretive Statement would be provided prior to the May meeting in order for input from his members, which Chair Bever confirmed.

Chair Bever spoke to the final draft Interpretive Statement provided to the OTSC. She added references to several of the definitions per prior OTSC recommendations and had previously asked for input regarding citation revisions, if necessary. She heard nothing back and confirmed at the meeting that there were no comments or suggested changes. Jason Hamilton (Other/BPC) voiced that the footnote format was appropriate and said he would review the citations closer before the May 21, 2020 Board meeting.

Intro/Disclaimer

This section was previously approved and considered complete with full OTSC consensus.

"Under the Escort of a Tug or Tugs"

This section was previously approved and considered complete with full OTSC consensus.

"Rosario Strait"

This section was previously approved and considered complete with full OTSC consensus.

"Connected Waterways East"

This section was previously approved and considered complete with full OTSC consensus.

"Oil"

This section was previously approved and considered complete with full OTSC consensus, with the minor revision of changing the word "dilbit" to "diluted bitumen".

"Laden/Unladen (In Ballast)"

Chair Bever informed the group that Blair Bouma (Pilot/PSP) pointed out that the Pilotage Act, Chapter 88.16 RCW, states that gas carriers should be treated the same as oil tankers per

88.16.190. Blair Bouma suggested that the OTSC keep the language referencing gas carriers, which was previously removed, in this definition to be consistent with the statute. He added that the existing RCW 88.16.200 makes it clear that gas carriers are to be treated the same as oil tankers. Mark Homeyer (Tug Industry Alternate/Crowley) had no questions, but pointed out that the pilots use the term "in-ballast" not laden/unladen. Blair Bouma (Pilot/PSP) responded that that was why "in ballast" was added in parenthesis to the title, adding that combining terms covered all the scenarios. Chair Bever added that both terms are in the statute and that the terms were combined in this particular definition to avoid redundancy of multiple definitions in the Interpretive Statement all saying the same thing.

Charlie Costanzo (Tug Industry/AWO) suggested that it made sense but that it was the central crux around operator concern regarding this particular definition as it applies to those vessels below 40K, that was very important. Chair Bever reminded the group that in the previous meeting there was a suggestion to break up this definition to capture two categories: vessels 40,000 deadweight tons or greater would continue to be subject to the proposed language while vessels below 40,000 deadweight tons would have different description and potentially a different percentage. She inquired about Charlie Costanzo's suggestion at the last meeting that he provide industry feedback and suggested language at this meeting. Charlie responded that he has spoken with his members and suggested that there were some general parameters around where the percentage could exist, but that he did not have that number to share. He asked for the opportunity to connect with Bob Poole (Oil Industry/WSPA) to align thinking due to the concern that while the "3,000 barrels" language works, the "0.5% or whichever is less" language was problematic for barges. There was also interest in the California definition of long tons, which is a different metric, but perhaps more appropriate. Chair Bever reminded Charlie of the May 21, 2020 Board meeting deadline and wondered what to put in front of the Board regarding this definition. Bob Poole (Oil Industry/WSPA) offered to meet with Charlie ASAP, but wasn't sure how that would work if the OTSC couldn't meet again before the Board meeting. Bob asked if there was an opportunity for OTSC to provide comments by email. Chair Bever asked the OTSC for their thoughts on an email response. Sheri Tonn (Ex-officio/BPC) was not in favor of that approach. She asked Charlie Costanzo how far apart the opinions of his members were. He responded that they were not far apart at all. Fred Felleman (Environment/Friends of the Earth) vocalized that he thought the conversation was going to start with the California definition. Charlie Costanzo (Tug Industry/AWO) responded to Fred by stating that his members would feel very content with California's definition and that it would work for them. Chair Bever expressed concern over using "long tons" like California because it is not a metric referenced in any part of the Pilotage Act. Charlie Costanzo (Tug Industry/AWO) brought up the addendum in the Standards of Care in the pilotage guidelines in that they use a certain amount of discretion in definitions. Fred Felleman (Environment/Friends of the Earth) asked if long tons could be converted to metric tons, suggesting that they were the same number, or pretty close to the same number. Both Blair Bouma (Pilot/PSP) and Sheri Tonn (Ex-officio/BPC) responded no. Sheri Tonn added that there was a 35lb difference between long tons and metric tons. Metric tons are based on kilograms and long tons are 2,240 pounds. That was the difference, 2,240 pounds vs. 2,205 pounds. It seemed to

her that the group needed to stick to metrics and that it was too late in the process to try switching to long tons. Blair Bouma (Pilot/PSP) suggested that it was a consequential difference. The proposed definition has a maximum number of barrels at 3,000. The California regulation is 5,000 tons, not barrels. 5,000 tons is in the 30,000-barrel range. It is a significantly different way of looking at it. He added that he was not advocating one way or the other; he just wanted to make sure everyone understood the difference in philosophy of which vessels require an escort.

Chair Bever reiterated that this was the last opportunity for the OTSC to provide real time input as a group on the Interpretive Statement before it went to the Board. Mark Homeyer (Tug Industry Alternate/Crowley) wondered if it was possible to increase the percentage to a number that would give the tug and barge operators some flexibility. Charlie Costanzo (Tug Industry/AWO) agreed with Mark Homeyer's suggestion and added a higher percentage for just the under 40,000 deadweight ton vessels and that 2% would satisfy operator's concerns. Mark Homeyer (Tug Industry Alternate/Crowley) reminded everyone that the underlying issue is that the barge operators don't have the necessary equipment to pump like tankers. Chair Bever proposed, based on this conversation, that the definition would read "any tank vessel below 40,000 deadweight tons whose clingage, residue, or other applicable cargo on board is greater than 2% of the vessel's maximum cargo carrying capacity, or 3,000 barrels, whichever figure is less, shall be considered laden and therefore not in ballast".

Chair Bever then went around the table for consensus regarding the proposed definition. Blair Bouma (Pilot/PSP) was okay with that, adding that the volume difference on a small vessel was minimal, thus there was no significant downside to that approach. Bob Poole (Oil Industry/WSPA) said he would go along with the definition and that if there were any concerns from his members he could add them as part of comments to the Board. Charlie Costanzo (Tug Industry/AWO) was on board with it, reserving the right to recognize WSPA member's concerns. Fred Felleman (Environment/Friends of the Earth) asked for clarification of the language and was fine with it as long as the 3,000 barrels or less wording was included. Sara Thompson (Ecology Alternate/BPC) thought the 2% made sense. She suggested some rationale regarding the pump capacity between the larger and smaller vessels to explain the two definitions. She also wanted to make sure that including the LPG language would not lead to a potential expansion of ESHB 1578 by including gas carriers. Fred Felleman asked for clarification that LPG was currently being escorted, to which Blair Bouma replied yes. Eleanor Kirtley (Marine Environment/BPC) was fine with the proposed definition. Jason Hamilton (Other/BPC) had no concerns. Keith Kridler (Pilot Alternate/PSP) had not concerns. Sheri Tonn (Ex-officio/BPC) was okay with the proposed language. JD Leahy (Ecology Alternate/BPC) was okay with the definition. Brian Kirk (Ecology Alternate/BPC) had no concerns but noted that in California, the requirements vary by port. tank barges in San Diego, they use 5%. Fred Felleman (Environment/Friends of the Earth) responded that he was wondering about San Francisco. Brian Kirk (Ecology Alternate/BPC) read the language, that "vessels carrying 5,000 long tons of oil shall be required to comply with the requirements in this sub-chapter", which are the escort requirements. Fred wondered if they could do the math to determine the different in volume between the numbers. Blair Bouma (Pilot/PSP) answered that

5,000 long tons was somewhere in the 30,000 barrel range, reiterating that it was an entirely different way of looking at it. At this point Chair Bever suggested the group had a good approach for moving forward and asked Fred Felleman if it was okay to move on. He suggested that it would be informative to know what they were agreeing to. He then asked for confirmation that if a vessel had 3,000 barrels on board or less, the vessel would be considered unladen regardless of the size of the vessel. This was confirmed and he agreed to move on. Mark Homeyer (Tug Industry Alternate/Crowley) was good with the language. Blair Englebrecht (Environment Alternate/Puget Soundkeeper Alliance) asked for confirmation that the language would read "2% or 3,000 barrels, whichever figure is less". This was confirmed and she was okay with the language.

"A Vessel Providing Bunkering or Refueling Services"

Chair Bever, based on the conversation at the last meeting, looked for an existing state definition of bunkering. She proposed language found in a WAC, which was specific to the bunkering operation. She added that the majority consensus at the last meeting was that bunkering service would include both the transfer and the transit. She asked for OTSC perspectives regarding this approach.

Blair Bouma (Pilot/PSP) suggested keeping the heading the same as what was initially proposed, including the term "vessel". He had no other suggestions at that time. Bob Poole (Oil Industry/WSPA) concurred with the proposed language and Blair Bouma's suggestion. Charlie Costanzo (Tug Industry/AWO) had nothing further to add. Fred Felleman (Environment/Friends of the Earth) wondered if a vessel was capable of carrying fuel during one transit and another product during a different transit, suggesting that bunker barges may not only carry bunkers. Mark Homeyer (Tug Industry/Crowley) responded that operators engaging in the business of bunkering don't go back and forth between products being transported on the barges. He added that it was possible that an operator could leave the bunkering business and choose to transport something else entirely, but they do not go back and forth because they have to be able to clean their tanks effectively, which is costly. Fred Felleman (Environment/Friends of the Earth) responded that he was trying to distinguish between the vessel and the service. He asked if, regardless of what they are doing, this type of vessel would be exempt from the escort requirement. Blair Bouma (Pilot/PSP) responded that a literal reading of the proposed definition of a vessel providing bunkering points to the action of the vessel taking bunkers to or from a ship. Fred suggested that the vagueness about the location of the exemption was separate from what the exemption actually is. He also wanted to see a discussion regarding enforcement and how enforcement will be used, as the majority of the smaller vessels are unpiloted, removing the eyes of the pilots. He suggested that the way the proposed language would work was that a vessel bunkering in Rosario Strait would be escorted, but a vessel transiting through Rosario Strait to bunker a cruise ship in Elliott Bay would not. He didn't understand how the BPC was going to confirm compliance with such an untenable interpretation of a rule that is supposed to protect the waterway. Sheri Tonn (Ex-officio/BPC) asked Sara Thompson (Ecology Alternate/BPC) if Advanced Notice of Transfer (ANT) would provide useful notification in terms of where the barge was going and what it was doing. Sara responded that it could be helpful, but that she assumes

the Board will make some decisions regarding the Interpretive Statement and once that's done, the Board and BPC staff will have to discuss enforcement with their Assistant Attorney General. She acknowledged that there were many ideas of how that might be done including spot-checking using existing resources (include ANT). She did not necessarily see how the OTSC had a major role in that process. Chair Bever agreed with Sara's statement. Fred Felleman (Environment/Friends of the Earth) responded that the OTSC did have some responsibility if they are putting forth a recommendation that is arbitrary. He also returned to the question of the number vessels this would apply to. He suggested again that Ecology's spreadsheet, which separated out Rosario Strait transits, points to the necessity to considering the bunkering transits in Rosario Strait separately. The other column regarding Bellingham transits coming from the north, do not apply. Sara Thompson (Ecology Alternate/BPC) answered that they do apply and are part of what the OTSC is describing as Rosario Strait and connected waterways east. Fred then when back to his question of why, if all bunkering transits are exempted, were Rosario Strait bunker transits separated out. Chair Bever answered that the column was broken out due to an early request from an OTSC member. Fred responded that he would write a minority opinion regarding this definition for the Board if the OTSC decided to proceed with the definition as proposed. Chair Bever asked that the minority opinion be submitted to Board staff by May 14th for distribution to the Board in preparation for the May 21, 2020 meeting. Sara Thompson (Ecology Alternate/BPC) wondered if there was a time limitation for OTSC comments at the Board meeting. Sheri Tonn (Ex-officio/BPC) answered 10-15 minutes.

Chair Bever continued to check with OTSC members regarding the proposed language. Sheri Tonn (Ex-officio/BPC) was fine with the language. Sara Thompson (Ecology Alternate/BPC) agreed with Blair Bouma's edits and the proposed language. JD Leahy (Ecology Alternate/BPC) wondered if anyone was concerned about the 300 gross tons language regarding vessel size, which was added by referencing the WAC. Sara Thompson (Ecology Alternate/BPC) confirmed that 300 gross tons was the cutoff for much of Ecology's work. Fred Felleman (Environment/Friends of the Earth) didn't see any reason to limit the size of the vessel based on Ecology's jurisdiction. Sara suggested the language "self-propelled vessel with bunkers used to propel the vessel", and to take out the 300 gross tons. Eleanor Kirtley (Marine Environment/BPC) suggested referencing the WAC, as with other references in the document, and then put in the language the OTSC wants to see. She also expressed concern with leaving too much room for interpretation in the definition. Jason Hamilton (Other/BPC) concurred that language could be revised to remove the quotations and including the language the OTSC would like to see with a footnote reference. Brian Kirk (Ecology Alternate/BPC) proposed "It is also the interpretation of the Board that vessels providing bunkering or refueling services means tank vessels that are conducting bunkering which includes the transit of the tank vessel to the bunker location, the oil transfer operation, and the return transit of the tank vessel" to follow the first sentence referencing the WAC and footnote citation. Mark Homeyer (Tug Industry Alternate/Crowley) suggested adding for "propulsion and ship services" to the first sentence. Chair Bever then read the full-proposed definition. Fred Felleman (Environment/Friends of the Earth) again brought up his concern about bunker barges carrying cargo other than bunkers being exempted by the proposed language. Mark Homeyer (Tug

Industry Alternate/Crowley) explained that there were thousands of different grades of petroleum, all of which required special handling. The operators were not going to load product without preparing the tank. In the bunker trade, they are loading bunkers. The tanks are designated for bunkers. He also added that the cost to clean a bunker tank in order to carry different cargo would be enormous. Blair Bouma (Pilot/PSP) suggested that a likely case would be a barge might load at the refinery or the tank farm and maybe have three different parcels for different ships. They might go fuel one ship and then anchor the barge for a day, then go to another ship, then maybe to a dock in Seattle for a day, then go to the last ship. That would be the most likely scenario where the barge would not be empty when leaving a vessel. At this point, Fred Felleman (Environment/Friends of the Earth) suggested moving on.

Chair Bever continued checking with OTSC members regarding the proposed language. Brian Kirk (Ecology Alternate/BPC) had no additional comments. Eleanor Kirtley (Marine Environment/BPC) was good with the latest version. Jason Hamilton (Other/BPC) agreed that the language looked good. Mark Homeyer (Tug Industry Alternate/Crowley) was good with the language as written. Blair Englebrecht (Environment Alternate/Puget Soundkeeper Alliance) explained that Puget Soundkeeper felt the exemption was against the original intent of the law and that Ecology had gone behind their backs at the time the language was being developed to cut a deal with industry. However, they recognize that the way the language is written makes the current conversations very difficult. She had no changes, but was generally disappointed with how it turned out.

Hearing no other comments, Chair Bever informed the OTSC that she would make the requested changes to the Interpretive Statement and redistribute the final draft to the committee as information. She thanked the committee for the thoughtful conversations and the hard work that went into developing the document. She also recognized that the process had been difficult at times but felt they had done good work and looked forward to presenting it to the Board.

4. Identification of Geographic Zones

Chair Bever, previously sent additional chartlets for Haro Strait, Boundary Pass, and the Strait of Georgia, as well as the subzones, all prepared by Blair Bouma (Pilot/PSP). She explained that the chartlets for the entire Puget Sound area would be available to the committee by the June meeting. The zones will be combined into one document for final OTSC review and comment before they are presented to the Board. Fred Felleman (Environment/Friends of the Earth) wanted to provide a contrast to the areas proposed by Blair Bouma. Fred then emailed to the committee a visual depiction of the areas he verbally proposed earlier to the OTSC. Unfortunately, the email did not come through instantly. Blair Bouma (Pilot/PSP) proceeded to explain his proposed zones while the group waited for Fred's email. He started from the Rosario zone heading north, pointing out the Ferndale refineries and the open area, as well as the traffic lanes that continue up to Vancouver, B.C. He pointed to a few hazards in that area with Matia Island, Puffin Island, etc. He suggested those were control points that could be relevant for vessels on that route. He suggested that North of Patos Island was mostly open water. He did point out that the NW section of the zone followed the international border.

Moving to Haro Strait and Boundary Pass, it was the same process looking at distances from hazards and traffic density. He added that Haro is generally more open with a few challenging spots, like Turn Point, which can be tricky due to traffic and current rips. The area transitioning out of Boundary Pass into the Strait of Georgia has similar challenges. He suggested those areas would be the major control points in that zone to determine tug escorting requirements. The other peculiarity in Haro and Boundary is the same international border issue. In practicality, the pilots have a functional relationship between Americans and Canadians in that waterway. He established the zone and the subzones on both sides of the border with the understanding that the Board can't regulate the Canadian side but functionally, the entire waterway has to be considered. He acknowledged that he didn't know how that would play out in future rulemaking, but that for this particular exercise it was important to consider both.

Chair Bever inquired if the Department of Ecology needed further explanation of how the zones or subzones were being established other than the visual provided by Blair Bouma. Brian Kirk (Ecology Alternate/BPC) responded that the visuals were a good start but it would be more helpful to be able to export the actual points. Blair Bouma (Pilot/PSP) offered to add written definitions as well, which could then be plugged into Ecology's model. Chair Bever suggested that the final document for OTSC review could contain both the visual of the zones and subzones, as well as the written description of each. Blair Bouma also offered to do some zoomed-in visuals of the subzones.

Fred Felleman (Environment/Friends of the Earth) suggested that points and waterways could be found in notices to mariners, for the sake of reference. He asked about two boxes before the Turn Point and what they referred to. Blair Bouma (Pilot/PSP) prefaced his answer by stating that there is a difference in hazards depending on which way the vessel is traveling, adding that the box at Kellett Bluff is a close point approach when transiting, particularly northbound, indicating that that area might end up driving the type of escort in that zone. The box above Kellett Bluff indicates concern with reefs on the west side, suggesting a control point for vessels southbound. Fred Felleman (Environment/Friends of the Earth) said this was one of the reasons why, when he was looking at the waterways, the north half of Haro Strait was distinct from the wider waters to the south. He expressed concern regarding overtaking in this area and suggested that it was perhaps beyond an escort question. He added that the shape of the subzone at Turn Point was of interest and wanted to more info about it. Blair Bouma (Pilot/PSP) replied that the official Special Area, which was part of the cooperative vessel traffic services between the U.S. and Canada, can be seen within the zone and is pretty small, which he did not feel was adequate for escort considerations. Therefore, the subzone is shaped the way it is because it includes the approaches from both directions at Turn Point. Fred Felleman added that there were three zones pretty close together and for the purposes of the model, it's more or less the north half of Haro Strait. It seemed to him that the line could be drawn further south to include Kelp Reef Light. Blair Bouma (Pilot/PSP) suggested that the subzones probably wouldn't come back into play until rulemaking, when the Board/OTSC takes the analysis from the model and applies it to tug escort zones. Ultimately, the subzones are just a tool for pilots, masters,

or rule makers to help identify the part of the transit that will end up controlling how the vessels are escorted. Fred Felleman then asked to hear from Ecology.

Sara Thompson (Ecology Alternate/BPC) responded that the model was currently in development, therefore there were no specifics to share at that time. But that it would be a higher fidelity than what was being depicted, believing that Blair Bouma's proposed zones would work really well for that purpose. She added that the idea of subzones for additional info will be very helpful as they build the model. Brian Kirk (Ecology Alternate/BPC) reiterated that the actual coding and development of the model, as well as outreach and communication, were still in planning. They do anticipate the model to be no closer than half a nautical mile, which seemed reasonable to him in order to do the work it needs to do, adding that the subzones were good information from an operational standpoint but that the model was going to look at what risk reduction benefits tug escorts provide and whether or not those benefits vary geographically across the areas. The model will be able to provide info on those questions. Fred Felleman (Environment/Friends of the Earth) responded by stating that there were two different questions: characterizing the traffic in the waterway and characterizing how effective a tug escort would be. He concluded that he was glad to see that Blair Bouma could break it down to the resolution presented and thought the model exercise sounded good.

5. Next Steps

Next Meeting

The next meeting is targeted for the first couple weeks of June in order to prepare for the June 18, 2020 Board meeting. Jolene Hamel from the BPC will be sending out a Doodle Poll. The meeting will likely continue through Skype/Conference Call.

Interpretive Statement

Chair Bever will make the suggested revisions and send the document to the OTSC via email prior to the May 21, 2020 Board meeting.

Geographic Zones

Chair Bever and Blair Bouma will work to finalize a document containing visual depictions and verbiage of the all the zones in Puget Sound for consideration at the June OTSC meeting.

STATE OF WASHINGTON

BOARD OF PILOTAGE COMMISSIONERS

INTERPRETIVE STATEMENT

REGARDING: ESHB 1578 Terms

It is the policy of the Board to use the following definitions when interpreting terms as they relate to ESHB 1578 *Reducing threats to southern resident killer whales by improving the safety of oil transportation* and RCW 88.16.190[1]. For the sake of consistency, justification, and efficiency; the Board sought and relied on published references to inform, adapt, or adopt definitions for this specific interpretation of RCW 88.16.190, Section 2, Rosario Strait and Connected Waterways East Tug Escort Implementation.

1. **Under the Escort of a Tug or Tugs**
   It is the interpretation of the Board that, as per 33 CFR 168.05[2], "escort vessel means any tug that is assigned and dedicated to a tank vessel during the escort transit". It is further the interpretation of the Board that, as per the Puget Sound Harbor Safety Plan Tanker Escort Section B[3], "all escorts must be in close proximity for timely and effective response taking into consideration" the proximity to hazards, "ambient sea and weather conditions, escort configuration, maneuvering characteristics of the vessels, emergency connection procedures, surrounding vessel traffic and other factors that may affect response capability".

2. **Rosario Strait**
   It is the interpretation of the Board that "Rosario Strait" is defined as the waters connecting the Strait of Juan de Fuca and the Strait of Georgia bounded on the West by Lopez Island, Decatur Island, Blakeley Island and Orcas Island, and on the East by Fidalgo Island, Cypress Island, Sinclair Island and Lummi Island. The northern entrance to Rosario Strait, as defined

[1] Pilotage Act, 88.16, R.C.W § 190 (2019)
[2] 33 C.F.R. § 168.05 (2013)
[3] *Puget Sound Harbor Safety Plan*, PUGET SOUND HARBOR SAFETY COMMITTEE, (April 28, 2020, 1:35PM) https://pshsc.org/puget-sound-harbor-safety-plan.

by the USGS[4], is bounded by a line from Pt. Thompson on Orcas Island to Puffin Island light and then to Point Migley on Lummi Island. The southern entrance to Rosario Strait is bounded by a line from Davidson Rock light, Southeast to position Lat. 48° 24.0'N, Long. 122° 47.15'W then East to the shore of Whidbey Island at Lat. 48° 24.0'N, Long. 122° 39.9'W (near W. Point). See Figure 1. *Note: this definition is different from the VTS Special Area as defined in 33 CFR 161.55.*[5]

3. Connected Waterways East

It is the interpretation of the Board that "connected waterways east" is defined as all connected channels, waterways, bays and anchorages East of Rosario Strait and north of 48° 30.0' N Latitude. These waters include but are not limited to Guemes Channel, Bellingham Channel, the channels around Sinclair, Vendovi and Saddlebag islands as well as Bellingham Bay, Samish Bay, Padilla Bay and Fidalgo Bay. *Note: this definition is different from the VTS Special Area as defined in 33 CFR 161.55.*

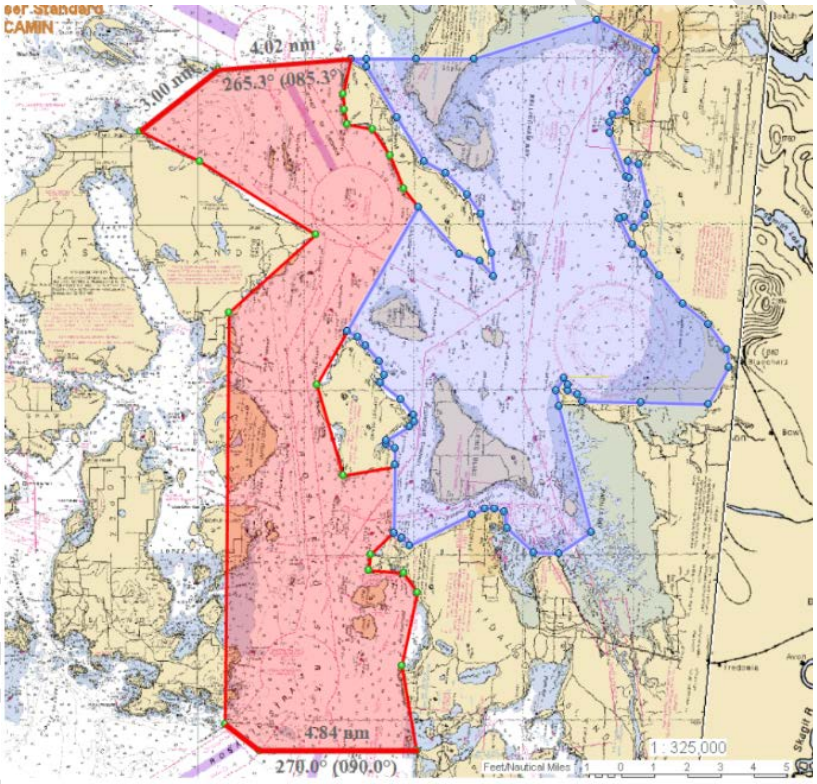


Figure 1 Rosario Strait (red) and Connected Waterways East (blue)

4. Oil

It is the interpretation of the Board that, as per RCW 90.56.010 (19)[6], the definition of "oil" or oils "means oil of any kind that is liquid at twenty-five degrees Celsius and one atmosphere of pressure and any fractionation thereof, including, but not limited to, crude oil, bitumen,

[4] *Feature Detail Report for: Rosario Strait*, U.S. GEOLOGICAL SURVEY (April 28, 2020, 1:50pm) https://geonames.usgs.gov/apex/f?p=gnispq:3:0::NO::P3_FID:1507915.
[5] 33 C.F.R. § 161.55 (2019)
[6] Oil and Hazardous Substance Spill Prevention and Response, 90.56, R.C.W. § 010 (2015)

synthetic crude oil, natural gas well condensate, petroleum, gasoline, fuel oil, diesel oil, biological oils and blends, oil sludge, oil refuse, and oil mixed with wastes other than dredged spoil. Oil does not include any substance listed in Table 302.4 of 40 CFR 302 adopted August 14, 1989, under section 102(a) of the federal comprehensive environmental response, compensation, and liability act of 1980, as amended by P.L. 99-499." *Note: The Board considers diluted bitumen to be a part of this definition.*

5. Laden/Unladen (In Ballast)

It is the interpretation of the Board that, as per the Board's existing Statement of Policy,[7] "any tank vessels 40,000 deadweights tons or more whose clingage, residue, or other applicable cargo onboard is greater than 0.5% of the vessel's maximum cargo carrying capacity or 3,000 barrels, whichever figure is less, shall be considered laden and therefore not in ballast. The term "Tank Vessel" in this interpretation refers to oil tankers, articulated tug and barge units and towed barges designed to carry oil in bulk".

It is further the interpretation of the Board that any tank vessels below 40,000 deadweight tons whose clingage, residue, or other applicable cargo onboard is greater than 2% of the vessel's maximum cargo carrying capacity or 3,000 barrels, whichever figure is less, shall be considered laden and therefore not in ballast.
Note: This interpretation was developed to acknowledge most tank vessels are capable of pumping their tanker down to 0.5% of their capacity. However, some 5,000 – 40,000 deadweight ton bunker barges to not have the pumping capacity to reach the 0.5% threshold in order to be considered unladen.

In addition, that "for the purpose of interpreting the above referenced RCW and WAC section, "in ballast" is defined when an LPG carrier is deemed to be in a ballast condition if the vessel has retained on board only the minimum cargo necessary plus a safety factor to arrive at its next load port in a cold condition. This quantity is not to exceed 1.5% of the cargo carrying capacity".[8]

6. Vessels Providing Bunkering or Refueling Services.

It is the interpretation of the Board that bunkering means an oil transfer operation to replenish a self-propelled vessel with fuel or bunkers used for ship services or propulsion of the vessel.[9]
It is further the interpretation of the Board that "vessels providing bunkering or refueling services" means tank vessels that are conducting bunkering, which includes the transit of the tank vessel to the bunker location, the oil transfer operation, and the return transit of the tank vessel.

[7] *Statement of Policy Regarding Interpretation of the Term "In Ballast" used in RCW 88.16.190 and WAC 363-116-500.* BOARD OF PILOTAGE COMMISSIONERS, (May 1, 2020) https://pilotage.wa.gov/policystatements.html.
[8] *Statement of Policy Regarding Interpretation of the Term "In Ballast" used in RCW 88.16.190 and WAC 363-116-500.* BOARD OF PILOTAGE COMMISSIONERS, (May 1, 2020) https://pilotage.wa.gov/policystatements.html
[9] Bunkering Operations, 317-40, W.A.C. § 030 (1994)

STATE OF WASHINGTON
BOARD OF PILOTAGE COMMISSIONERS
2901 Third Avenue, Suite 500 | Seattle, Washington 98121 | (206) 515-3904 | www.pilotage.wa.gov

INCIDENT INVESTIGATION PROCEDURES

The purpose of the investigative procedures described below shall be to determine the facts relating to a marine incident, as defined in WAC 363-116-200(1)(a), involving a Washington State licensed pilot and to generate a report to the Board of Pilotage Commissioners (BPC/Board) regarding the pilot's performance in relation to any incident. The investigation shall lead to a finding by the Board regarding whether an occurrence or incident took place, and if an incident, whether pilot error caused or contributed to the incident, and whether any corrective action should be taken with regard to the pilot's actions.

Upon notification of a marine incident involving a Washington State licensed pilot, the Board Chair or the Executive Director of the Board shall begin the investigation by notifying the Commission Investigative Committee (CIC) to immediately conduct a preliminary investigation. The CIC shall be a three-person committee comprised of a flag representative commissioner, a pilot commissioner (should the pilot commissioner be involved in the incident or otherwise unavailable, the Board Chair will appoint a replacement), and a public or agency commissioner.

The CIC shall confer and investigate as soon as possible. If at any time during this investigation, it becomes apparent that:

- a pilot may have been acting under the influence of drugs and/or alcohol; or
- a pilot's actions may have contributed to: death or serious personal injury; substantial environmental damage or substantial damage to land-based structures; loss of a vessel or damage to a vessel such that the seaworthiness or maneuverability of the vessel has been materially impaired; or
- other factors exist that make outside expertise in investigating the incident prudent.

the CIC shall immediately report same to the Board Chair. The Board Chair, in consultation with the CIC, shall then determine whether to engage a professional investigator (see procedure and qualifications below). If an investigator is obtained, the investigator shall then take complete charge of the investigation. The CIC shall, at that point, cease its investigation and act as a resource for the independent investigator. The BPC Executive Director shall establish a contract with the professional investigator per Washington State Contracting and Procurement Rules and guidance from the Washington State Office of

Risk Management. The investigator shall work under the direction of the Board and shall report directly to the Board Chair. The BPC Executive Director shall manage the contract and associated costs. The Board Chair shall, upon conclusion of the investigation, convene the CIC to evaluate the investigator's report and to report with recommendations to the full Board.

Should the conditions listed above not be in evidence, therefore not requiring an independent investigator, the CIC shall continue the investigation and develop an investigation report with recommendations to the full Board.

The BPC Executive Director shall assign BPC support staff to assist the CIC investigators. Support includes, but is not limited to, report preparation and final publication. CIC Board members involved in an investigation shall be paid standard BPC per diem and reimbursed for expenses in accordance with RCW 43.03.240, RCW 43.03.050, and RCW 43.03.060.

Investigation Report Guidelines for the CIC:

(1) The CIC may call witnesses and obtain additional information as it considers necessary to complete its investigation. In performing their duties, the members of the CIC and the professional investigators shall act fairly and impartially.

(2) The members of the CIC, and any professional investigators retained by the Board, shall not discuss any investigation with the Board or any member of the Board who is not on the committee until the results of the investigation are reported to the full Board. The members of the CIC, and any professional investigators retained by the Board, shall refrain from making public comment on the matter under investigation, except as provided under these Procedures.

(3) The CIC shall cooperate with the United States Coast Guard (USCG) and/or the National Transportation Safety Board (NTSB) if either or both are conducting their own investigations of the incident.

(3) The written report developed by the CIC relating to the incident, misconduct or other matter shall include, but is not limited to:

- (a) The name of the vessel, time, date and location of the incident and identification of the pilot.
- (b) A description of the weather and sea conditions.
- (c) An illustration and description of the incident, misconduct or other matter under investigation.
- (d) An estimate of physical damage to property, if any.
- (e) The names of witnesses providing information relating to the incident, misconduct or other matter under investigation.
- (f) The nature and extent of any injuries.
- (g) A summary of prior investigations of any alleged incidents involving or misconduct by the said pilot, or other matters involving the pilot.
- (h) A summary of prior investigations, incidents, and MSO's of the vessel involved.

(i) When investigating reports of suspected pilot ladder or pilot hoist safety violations, a summary of prior investigations of any other pilot ladder or pilot hoist safety violations involving the same vessel, vessel owner or operator.

(j) Any relevant correspondence or records from the USCG relating to the incident, misconduct or other matter under investigation.

(k) A summary of the factual background of the incident, misconduct or other matter under investigation.

(4) Following the conclusion of the investigation, the CIC shall report its findings and recommendations to the Board at the Board's next regular meeting. The written report shall be presented within 90 days of the date of the incident, misconduct or other matter being investigated, unless an extension is granted by the Board.

(5) Upon presentation of the written report of the CIC at the Board meeting, and after the Board's full consideration of the evidence, including any additional evidence presented by the pilot and the CIC, the Board shall take one or more of the following actions:

(a) Order a notice of intended discipline to be prepared, filed and served pursuant to RCW 88.16.100(5).

(b) Provide counseling for the pilot relating to his or her duties and obligations.

(c) Take any other action, as provided in the guidelines in this section.

(d) Remand the matter to the CIC for further investigation on such terms as the Board may direct.

(e) Close the matter without further action.

(6) Action shall be taken by the Board under subsection (5)(c) of this regulation by a majority of those members present and voting, provided that a quorum of the Board as defined by RCW 88.16.010(3) shall exist prior to any such vote.

(7) Concerning any corrective action both the CIC, in making its recommendation, and the Board, in making its determination, may consider factors including, but not limited to:

(a) The severity of the misconduct.

(b) The danger to the public.

(c) The number and frequency of prior incidents involving pilot error.

(d) The nature and extent of any injuries, property damage or harm to the environment resulting from the incident.

(e) The length of time the pilot has been licensed.

(f) Prior corrective action imposed upon the pilot.

(g) The degree to which the proposed action is likely to prevent recurrence.

(h) Corrective action already taken by the pilot relative to the incident under consideration.

(i) Corrective action taken by the vessel involved.

(j) The degree of negligence, if any, of the pilot.

(k) Any other mitigating or aggravating circumstances deemed pertinent by the CIC or the Board.

The CIC shall use the following classifications in making its investigative report:

- Classification or reclassification as marine occurrence or other non-incident; or
- Insignificant incident with or without placement in pilot's file, no further action to be taken; or
- Incident, with or without injury or damages and without pilot error; or
- Incident, with or without injury or damages where reasonable cause exists to find that pilot error has occurred.

The CIC, when reporting to the Board, may also make recommendations for corrective action such as, but not limited to:

- Corrective actions required for pilot involved.
- Suggested corrective actions to Puget Sound Pilots or the Port of Grays Harbor.
- Corrective actions suggested for vessels transiting Washington state waters.

The Board shall review the investigation report, make findings based upon this report and any other evidence presented to it, and take appropriate action(s) based thereon, consistent with the provisions of RCW 88.16.100.

Procedure and Qualifications for a Professional Investigator

The CIC shall compile a list of unbiased and experienced professional investigators. Investigators shall have at least one of the following minimum qualifications:

A. Marine Investigator: A person with substantial experience in investigating the causes of major marine incidents involving navigational and ship handling issues, including but not limited to the following:
   - Two years-service as a master with a U.S. master's license for ocean steam or motor vessels not greater than 1600 GT, and at least two years experience investigating marine accidents; or
   - Two years-experience as a marine surveyor and/or marine insurance adjuster with experience in major marine incident investigations; or
   - Four years experience as a senior investigator with the United States Coast Guard, NTSB, or other maritime governmental organization investigating marine accidents, but who is no longer actively employed by such organization.

B. Other Expert:
   - In the event that an expert is needed to investigate issues of a non-maritime nature, such other expertise that is specifically related to the matter to be investigated.

Data for Board of Pilotage Commissioners Meeting June 18, 2020

Exam Applicants/Trainees Outcomes and Status

Two charts looking at the 133 applicants for the four most recent exams, their backgrounds, and how they have fared.

Of note, 119 distinct individuals applied for the four exams, but 12 of them applied for more than one exam, resulting in 133 total applications. (Half of the repeat applicants succeeded on a repeat attempt.)

- Applicants by industry source

  This chart shows the 133 applicants for the four most recent exams organized by qualifying work background and showing how many from each industry category and each exam year have successfully entered the training program and become licensed.

- Proportion of applicants who are female and/or racial/ethnic minority

  This chart shows all 133 applicants for the four most recent exams, and their outcomes at each stage of the application, testing and training process, and also highlights how many applicants are female or racial/ethnic minority

Pilotage Data

Puget Sound and Grays Harbor Districts:

- Quarterly moves by vessel type

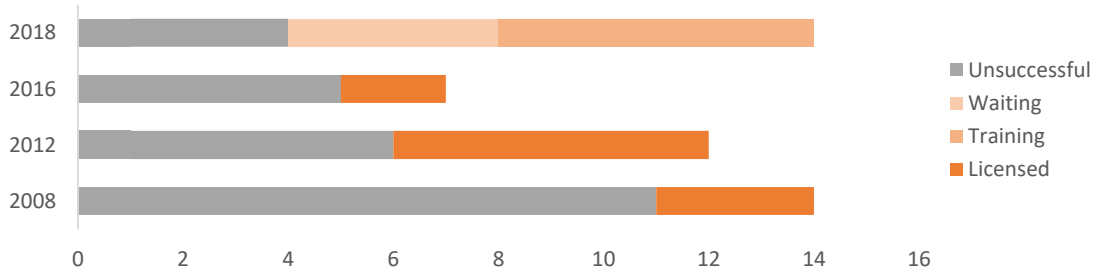
Puget Sound District:

- Monthly Cancellations, Two-Pilot Jobs, and Pilot Repositions 2016-2020

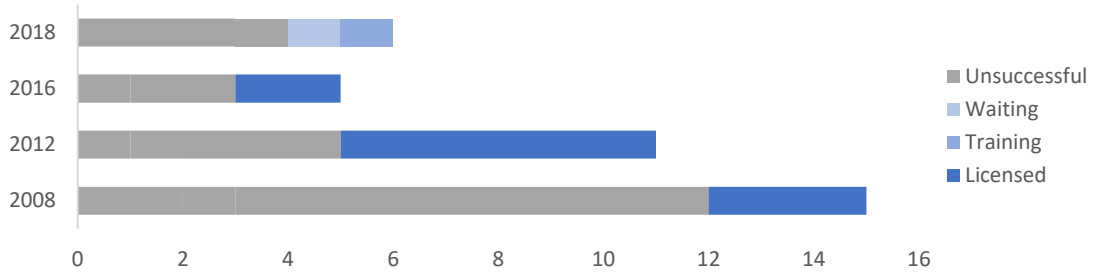
- Monthly moves by Zone 2016-2020

Applicants by source (industry), by exam date, with outcomes

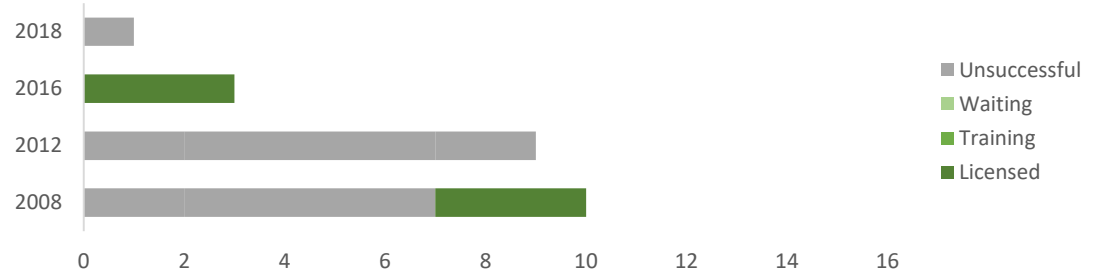
Tugs/Towing
47 Applicants, 21 Successful (11 Licensed, 10 Training/Waiting)



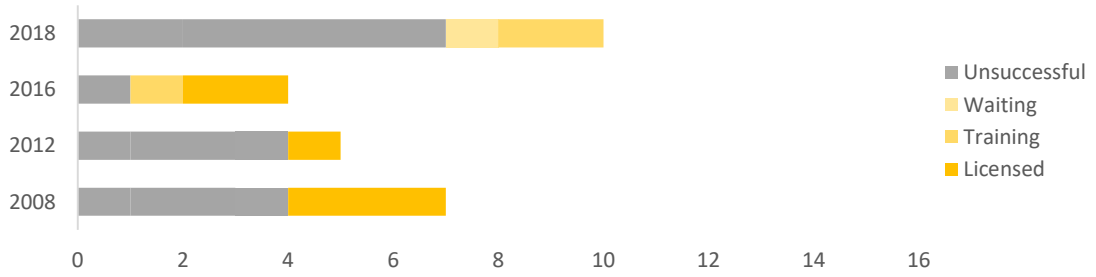
Cargo/Tanker
37 Applicants, 13 Successful (11 Licensed, 2 Training/Waiting)



RoRo/Passenger
23 Applicants, 6 Successful (6 Licensed, 0 Training/Waiting)



Others *(Govt/Military, Pilot, Offshore, Fishing, Research, Dredging)*
26 Applicants, 10 Successful (6 Licensed, 4 Training/Waiting)



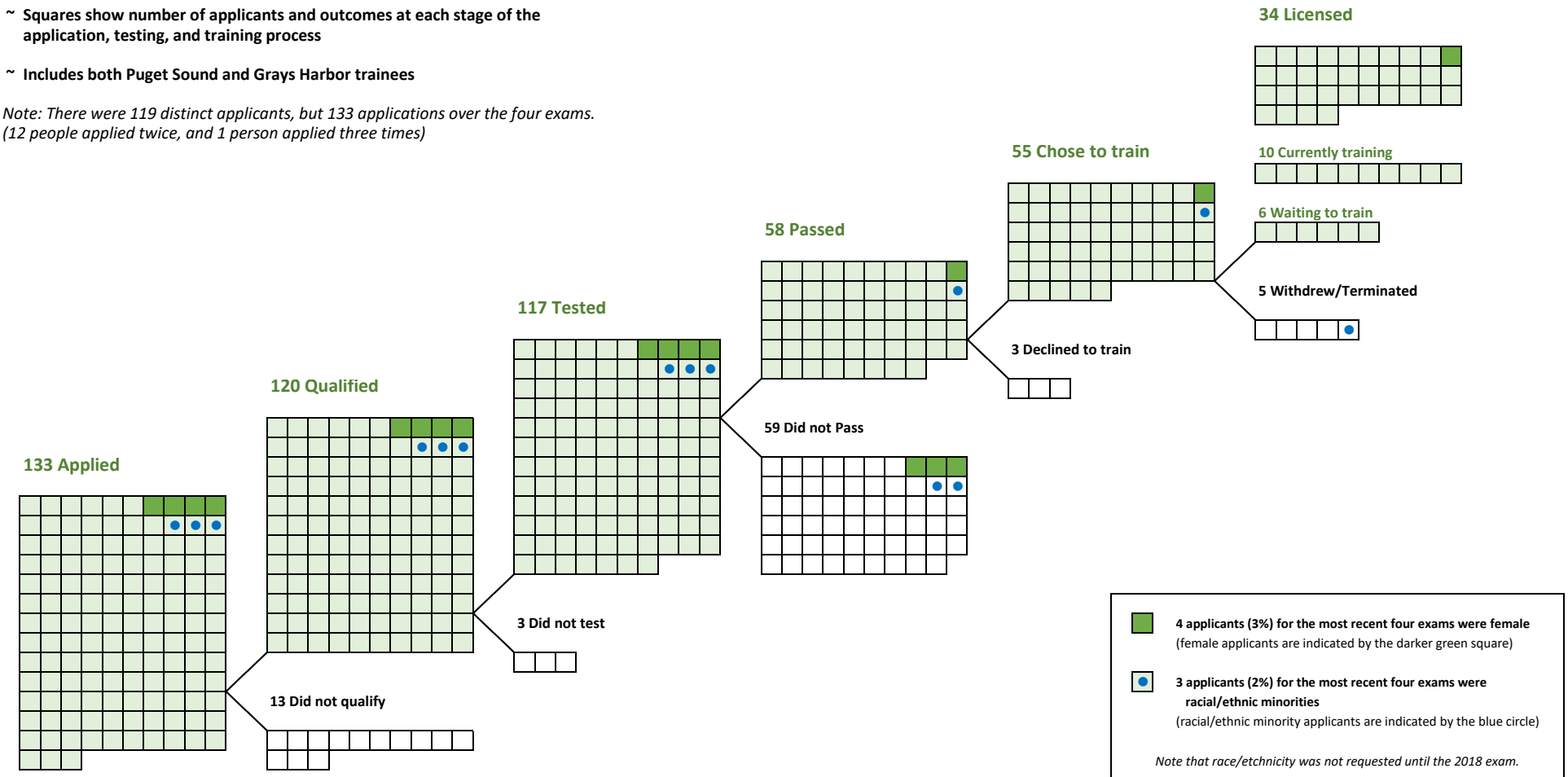
June 8, 2020

Washington State Board of Pilotage Commissioners

Applicants for the 2008, 2012, 2016 and 2018 Exams

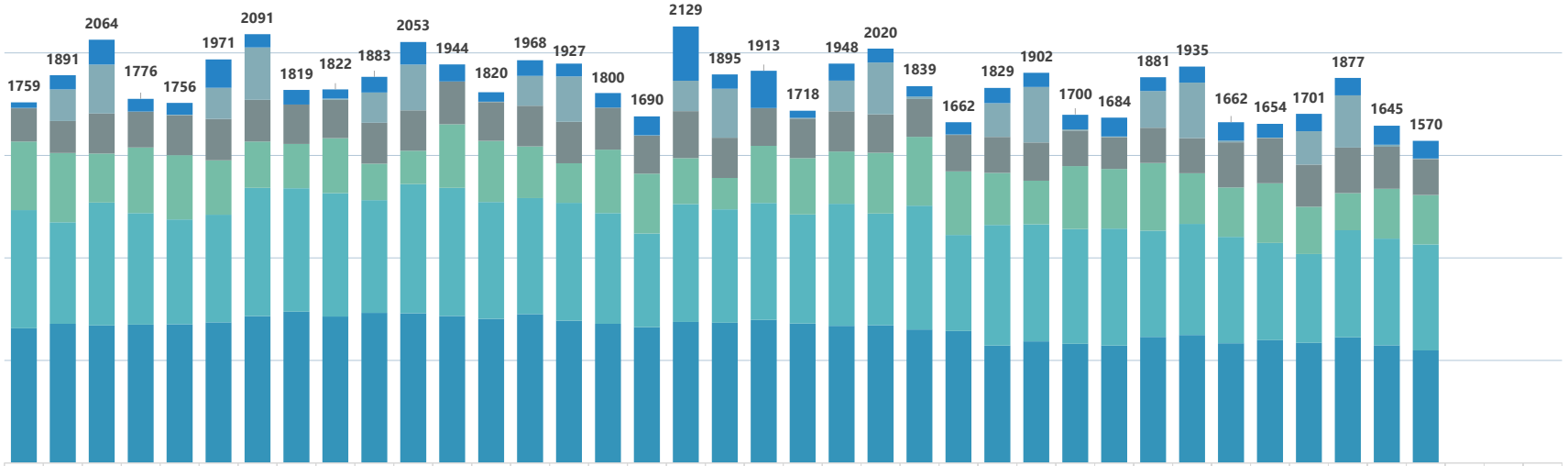
- **Squares show number of applicants and outcomes at each stage of the application, testing, and training process**
- **Includes both Puget Sound and Grays Harbor trainees**

Note: There were 119 distinct applicants, but 133 applications over the four exams. (12 people applied twice, and 1 person applied three times)



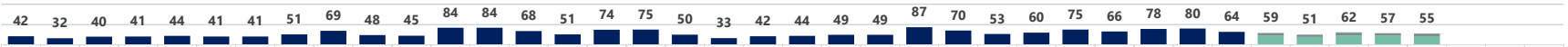
June 18, 2020

Puget Sound Moves 2011-2020, by Quarter, with vessel type

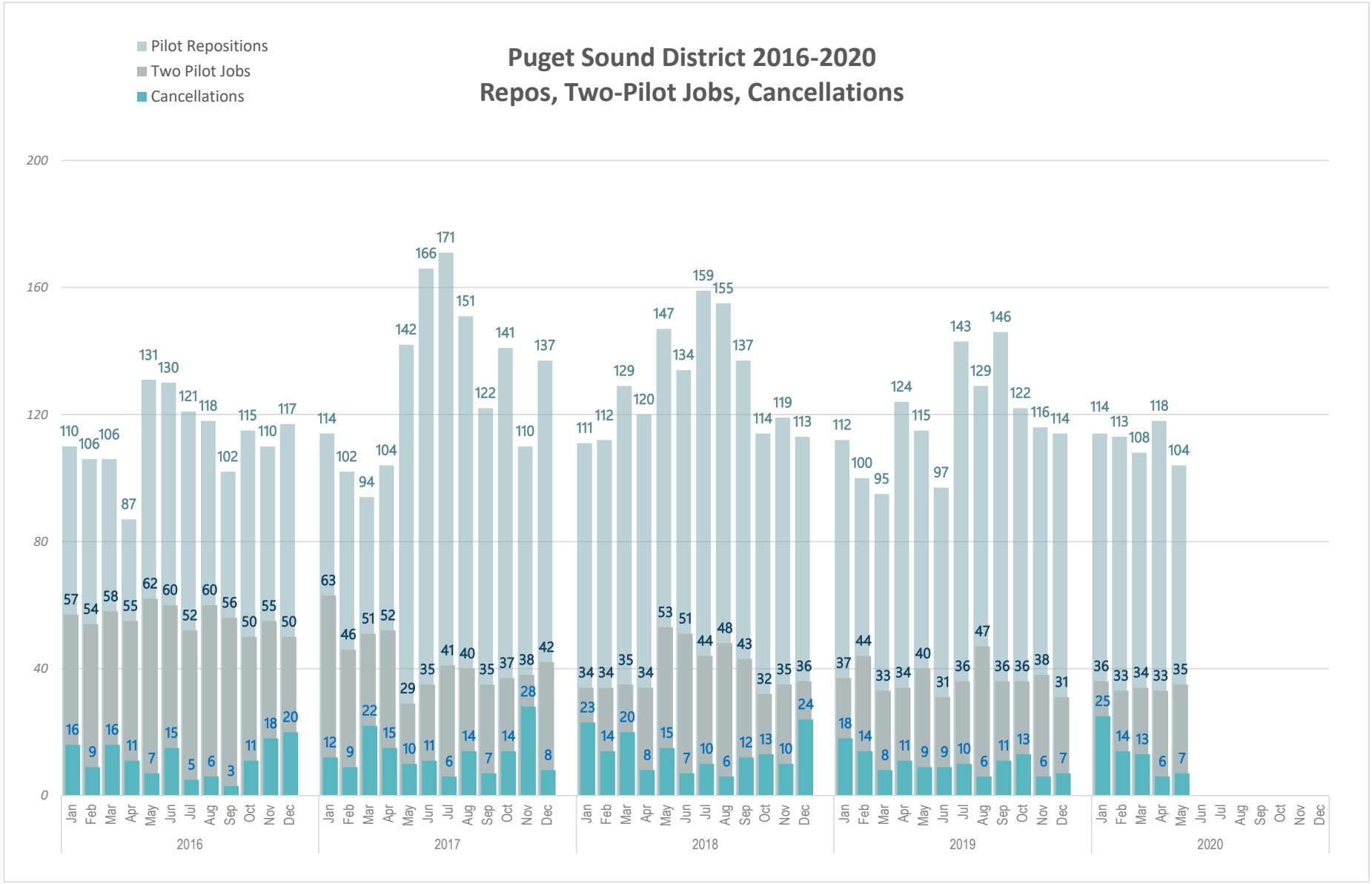


	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	2011				2012				2013				2014				2015				2016				2017				2018				2019				2020			
6 Other	27	69	121	62	58	138	64	71	45	76	110	83	46	76	63	71	92	265	70	182	35	83	68	51	60	74	69	71	92	67	78	90	67	85	85	93	86			
5 Passenger	2	154	239	0	2	152	256	0	6	148	223	0	2	146	221	0	2	148	239	0	3	150	253	12	2	165	271	6	3	179	271	8	2	163	255	10	3			
4 Carrier/RoRo	162	156	195	175	195	202	203	192	187	199	197	209	189	198	202	205	185	229	196	184	193	196	187	184	178	175	186	173	155	172	171	220	221	205	222	205	175			
3 Bulker	335	338	239	320	313	265	226	216	268	178	163	310	298	252	193	309	292	224	153	279	275	255	296	336	310	254	213	307	291	330	247	241	291	231	181	243	241			
2 Tanker	576	495	599	544	511	525	626	602	602	550	630	625	570	566	575	540	457	575	553	570	532	595	545	604	468	588	571	560	570	518	542	519	474	433	522	520	517			
1 Container	657	679	671	675	677	686	716	738	714	732	730	717	703	726	694	679	662	688	684	698	680	669	672	651	644	573	593	581	573	615	624	584	599	586	613	574	549			
Total	1759	1891	2064	1776	1756	1971	2091	1819	1822	1883	2053	1944	1820	1968	1927	1800	1690	2129	1895	1913	1718	1948	2020	1839	1662	1829	1902	1700	1684	1881	1935	1662	1654	1701	1877	1645	1570			

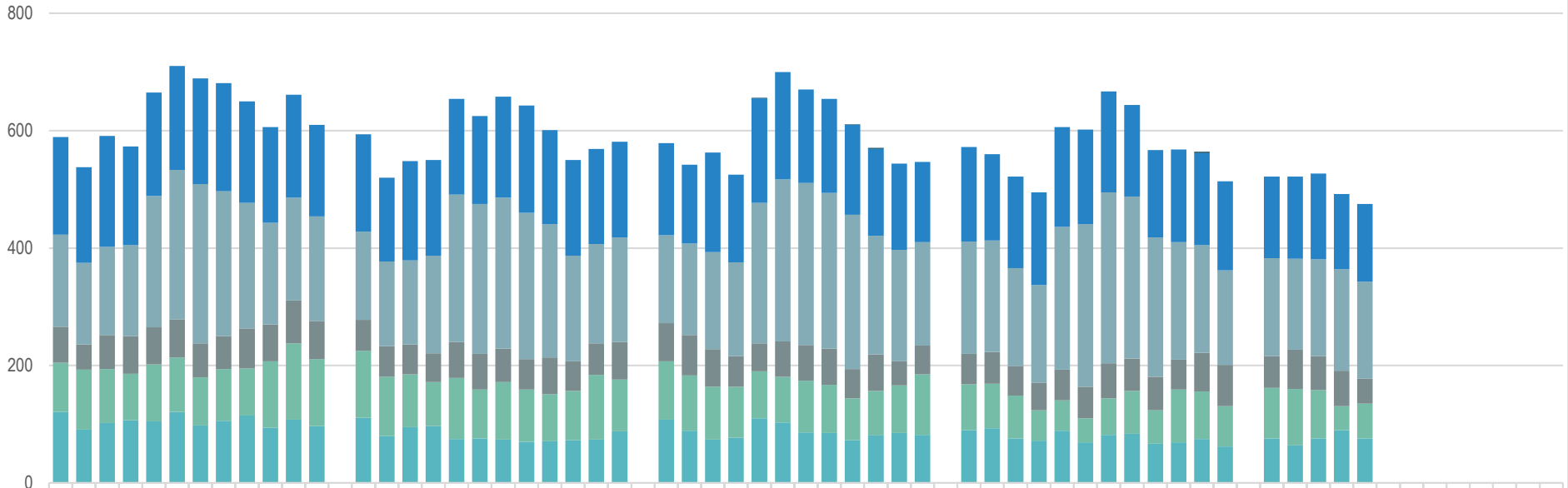
Grays Harbor Moves 2011-2020, by Quarter, with vessel type as available



	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	2011				2012				2013				2014				2015				2016				2017				2018				2019				2020			
GH Tanker																																	2	2	2	0	0			
GH Ro-Ro																																	12	10	14	12	12			
GH Bulker																																	45	39	46	45	43			
GH All Types	42	32	40	41	44	41	41	51	69	48	45	84	84	68	51	74	75	50	33	42	44	49	49	87	70	53	60	75	66	78	80	64								
Total	42	32	40	41	44	41	41	51	69	48	45	84	84	68	51	74	75	50	33	42	44	49	49	87	70	53	60	75	66	78	80	64	59	51	62	57	55			


Pilot Repositions
Two Pilot Jobs
Cancellations
Puget Sound District 2016-2020
Repos, Two-Pilot Jobs, Cancellations
200
160
120
80
40
0
2016
2017
2018
2019
2020

Puget Sound District 2016-2020
Monthly Moves, by Zone



	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
	2016												2017												2018												2019												2020											
Zone 6 (101+ mi)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0							
Zone 5 (≤100 mi)	166	163	189	168	176	177	180	184	173	163	175	156	166	143	169	163	163	150	172	183	160	163	162	163	157	134	170	149	178	183	159	160	153	148	147	137	161	147	156	158	170	161	172	156	149	158	157	152	139	140	146	128	132							
Zone 4 (≤75 mi)	157	139	150	155	224	254	271	247	214	173	175	178	150	144	143	166	251	255	257	249	227	180	169	178	150	156	165	160	239	276	276	265	263	202	190	176	191	190	167	166	243	277	291	276	237	200	183	161	167	155	165	173	165							
Zone 3 (≤50 mi)	61	43	58	64	63	65	58	56	68	63	73	65	53	52	51	49	61	61	57	52	63	50	54	64	65	69	64	52	48	60	61	62	50	62	41	49	52	54	50	47	52	54	60	55	57	51	66	70	54	67	58	60	43							
Zone 2 (≤ 30 mi)	84	102	92	79	97	93	82	88	80	113	130	114	114	101	90	75	104	83	98	89	80	84	110	88	99	94	90	87	80	78	88	82	71	76	81	103	78	76	73	52	52	41	62	73	57	90	81	69	86	96	82	41	59							
Zone 1 (Intra Harbor)	121	91	102	107	105	121	98	106	115	94	108	97	111	80	95	97	75	76	74	70	71	73	74	88	108	89	74	77	110	103	86	85	73	81	85	82	90	93	76	72	89	69	82	84	67	69	75	62	76	64	76	90	76							
Total	589	538	591	573	665	710	689	681	650	606	661	610	594	520	548	550	654	625	658	643	601	550	569	581	579	542	563	525	656	700	670	654	611	571	544	547	572	560	522	495	606	602	667	644	567	568	564	514	522	522	527	492	475							