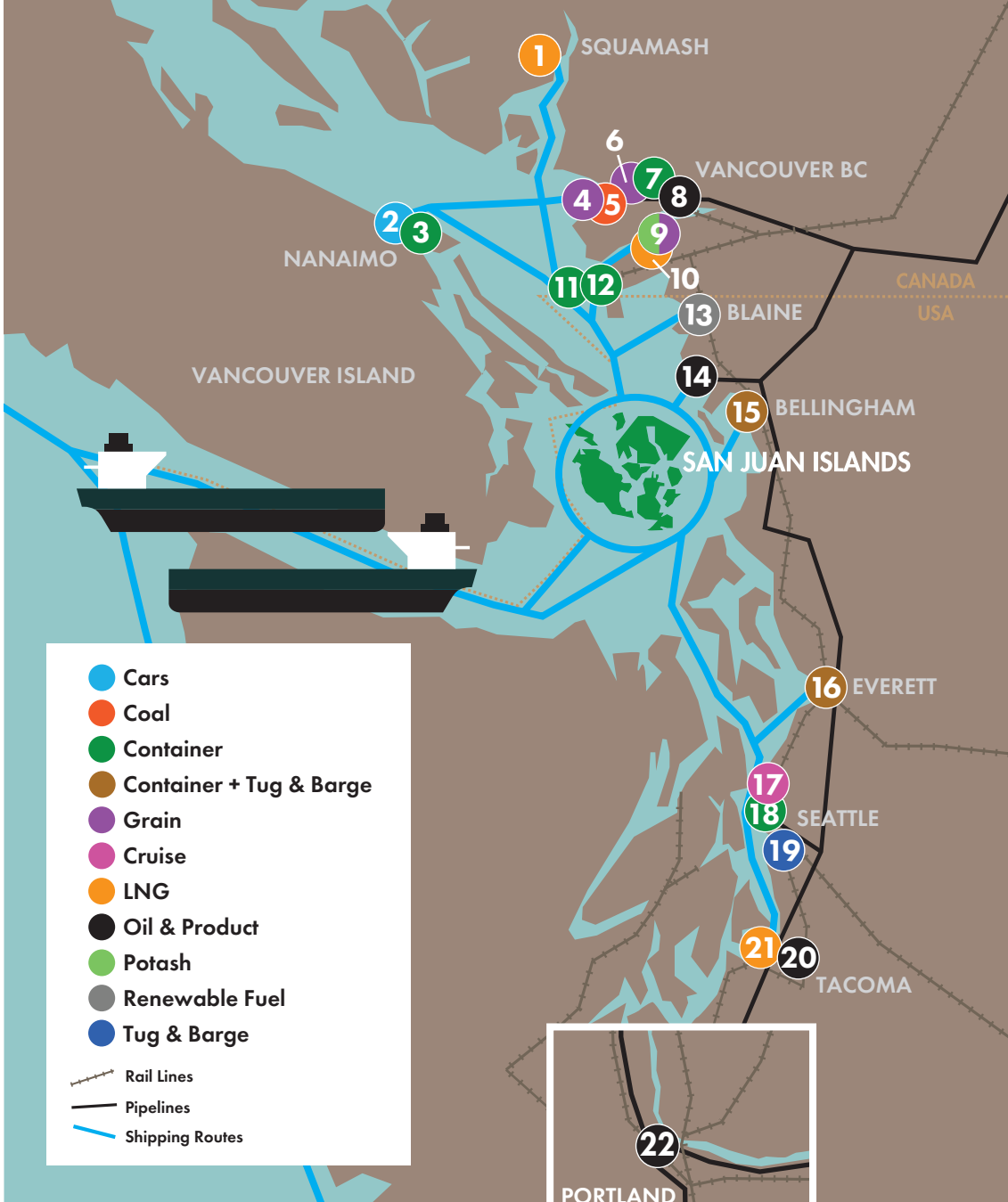


SALISH SEA VESSEL TRAFFIC PROJECTIONS



● Cars
● Coal
● Container
● Container + Tug & Barge
● Grain
● Cruise
● LNG
● Oil & Product
● Potash
● Renewable Fuel
● Tug & Barge

— Rail Lines
— Pipelines
— Shipping Routes



PROJECTED NEW ANNUAL VESSEL TRANSITS

1 Woodfibre LNG	80
2 Vehicle Processing Centre	171
3 DP World	TBD
4 Fibreco Export	18
5 Neptune Terminals	31
6 G3 Terminal	224
7 Centerm Container	130
8 Trans Mountain Pipeline Expansion	696
9 Fraser Surrey Docks	160
9 Fraser Surrey Docks	364
10 Tilbury Marine Jetty Project	136
11 Roberts Bank Terminal 2	520
12 GCT Deltaport	104
13 BP Refinery	TBD
14 Phillips 66 Refinery	TBD
15 M-5 Coastal Connector	TBD
16 Everett Terminals	TBD
17 Seattle Pier 46	TBD
18 Seattle Terminal 5	increase in vessel size
19 SeaTac Marine Services	TBD
20 Seaport Sound	TBD
21 Puget Sound Energy LNG	TBD
22 Zenith Energy	TBD

TOTAL PROJECTED NEW TRANSITS	2,634 + TBD
TOTAL 2020 TRANSITS	10,480
TOTAL 2020 + NEW TRANSITS	13,114 + TBD

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Salish Sea Vessel Traffic Projections: New and Expanding Terminals and Refineries		Proposed Approved & Recent Increase in Capacity/Year	Proposed Approved & Recent Increase in Transits/Year	Project Status Summary
1	Woodfibre LNG, Squamish BC	2.1 MTPA	80	Project due to be substantially started by October 26, 2025.
2	Nanaimo Port Authority and Western Stevedoring – Cars	38,000 EU car imports	152 – 190	Vehicle Processing Centre started in 2019. 12,000 vehicles per year expanding to 50,000 vehicles per year. 400-500 cars delivered per carrier.
3	Nanaimo Port Authority and DP World – Containers		TBD	Duke Point Expansion announced Feb. '21: Short-sea shipping between Nanaimo and Vancouver + international import/export directly with Asia.
4	PoV: Fibreco Export – Grain	1.8 MMTA	18 + vessel size increase	112 transits in '16 will increase to 130 transits/yr. at full buildout; increase in vessel size from Handymax to Panamax. Permit amended in 2020.
5	PoV: Neptune Terminals - Coal	6 MMTA	31	Permit issued Jan. 2020. 6 MMTA increase would add 1 coal unit train per day and approximately 0.3 additional ships loaded per week.
6	PoV: G3 Terminal – Grain	7,250,000 MT	224	Project completed July 2021. Increase from 112 to 336 transits per year.
7	PoV: Centerm Container Terminal	600,000 TEU	130	Increases capacity from 900,000 to 1,500,000 TEUs and from 470 to 600 annual transits. Construction expected to be completed by end of 2021.
8	PoV: Canada's Trans Mountain Pipeline Expansion – Crude Oil	590,000 BPD	696	Expansion from 300,000 BPD to 890,000 BPD and from 120 to 816 annual tank vessel transits. Construction as of 10-27-2021 is 38% complete.
9	PoV: Fraser Grain Terminal Ltd./Fraser Surrey Docks - Grain	3.5 MMT	160	Increase from 0.5 MMT to 4 MMT. Permit issued 2018. Some construction completed late 2020; more due to be completed late-'21 through mid-'22.
9	PoV: BHP Billiton /Fraser Surrey Docks – Potash	8 MTPA	312 – 416	2018 project application that would add 8-10 trains and 3-4 vessels per week is being revised with a reconfigured layout and will be resubmitted.
10	PoV: Tilbury Marine Jetty – LNG		136	LNG to be loaded on carriers for export plus 138 bunker barge transits/year.
11	PoV: Roberts Bank Terminal 2, Deltaport, BC – Containers	2,400,000 TEUs	520	New offshore overwater terminal construction proposed in critical habitat for migratory birds, Southern Resident killer whales, and Chinook salmon.
12	PoV: Global Container Terminals, Deltaport, BC	2,000,000 TEUs	104 + vessel size increase	Berth Four Project application is under review; would increase TEUs from 2,400,000 to 4,400,000 + vessel transits from 728 to 832 per year.
13	BP Refinery, Blaine WA–Renew.	4,350 BPD	TBD	New renewable diesel project includes shipping diesel on ocean tankers.
14	Phillips 66 Refinery – Oil		TBD	2019 MDNS issued for 380,000 bbl/10% increase in storage capacity.
15	Bellingham Shipping Terminal - M-5 Coastal Connector		TBD	New crane and barge loading facility rehabilitation for barge transport to/from Oregon and California plus cargo transport within the Salish Sea.
16	South Terminal and Norton Terminal, Everett, WA		TBD + vessel size increase	\$57M South Terminal Modernization completed Jan. 2021 will enable post-Panamax vessels and support Container on Barge short-sea shipping.
17	Pier 46, Seattle, WA – Cruise		TBD	New cruise terminal (\$200M construction for larger, 5,400 passenger ships) on hold. Port of Seattle cruise passengers: 2019 = 1.2 M; 2020 = 0.
18	Terminal 5, Seattle, WA – Containers	1,050,000 TEUs	Increase in vessel size	\$500M redevelopment project will open in two phases, one berth in 2021 and the other in 2023.
19	SeaTac Marine Services-Lumber		TBD	Terminal and tug & barge services will expand for Canadian coastal trade.
20	Seaport Sound, Tacoma, WA – Oil	Storage increase: 166,856 bbl	TBD	Project proposal to replace 3 fossil fuel storage tanks with 5, increasing storage capacity by 1,434%. Overall facility increase is 14%. EIS required.
21	Puget Sound Energy (PSE) LNG, Tacoma, WA – LNG	250,000-500,000 GPD	TBD	LNG facility would fuel vessels and load bunker barges for fueling ships which could include new OGVs that enter the Salish Sea for LNG bunkering. 250K GPD = 256 new LNG bunker barge transits per year; 500K GPD = 685 per year.
22	Zenith Energy, Portland, OR - Oil	Crude throughput (bbl): 2018: 351,673 2020: 5,592,015	TBD	New rail infrastructure built with claims of “no new throughput” has increased the offloading of crude oil from rail to tank vessels that could bunker in the Salish Sea.
<p>Transit totals by product or vessel type: Cars = 171, Coal = 31, Container = 946+TBD, Container + Tug & Barge = TBD, Fossil Fuel & Crude Oil = 696+TBD, Grain = 402, Cruise = TBD, LNG = 216+TBD, Potash = 364, Renewable Fuel = TBD, Tug & Barge = TBD</p>				
Total Projected New, Approved, & Proposed Ocean-Going Vessel Transit Increases			2,634 + TBD	25% + TBD Increase in Annual Vessel Traffic
2020 Total Ocean-Going Vessel Transits in the Salish Sea			10,480	
2020 Transits + Projected New, Approved, & Proposed Annual Ocean-Going Vessel Transits			13,114 + TBD	

Only Ocean-Going Vessel (OGV) traffic numbers included in totals. No OGV fishing-related transits included in 2020 total. No local barge traffic, anchoring, queuing, and/or bunkering transits included in 2020 total or the new, approved, and proposed increase in OGV transits.

Projects that also include an additional 1,090 to 1,519 + TBD non-OGV transits within the Salish Sea: 2, 3, 8, 10, 15, 16, 19, 21.

Abbreviations: bbl=barrels, BPD=barrels per day, bunkering=fueling, EIS=Environmental Impact Statement, EU=European Union, GPD=gallons per day, LNG=liquefied natural gas, M=million, MDNS= Mitigated Determination of Nonsignificance, MT=metric tonnes, MMT=million metric tonnes, MMTA=million metric tonnes per annum, MTPA=million tonnes per annum, PoV=Port of Vancouver, Renew.=Renewable Fuel, TBD=To Be Determined, TEU=twenty-foot equivalent unit