

Combined Meeting

Puget Sound Harbor Safety Committee and Puget Sound Partnership Oil Spill Work Group

Vessel Traffic Risk Assessment (VTRA)

Steering Committee

Draft Estimates, Notes and Decisions on Future Scenarios

April 10, 2013 – 10am to 2pm (\*estimates revised 5/1)

In attendance: Todd Hass (Puget Sound Partnership), John Veentjer (Marine Exchange), Tom Ehrlichman (consultant for Swinomish Tribe), Bob McFarland (USCG-D13), Del Mackenzie and Jostein Kalvoy (Puget Sound Pilots), Fred Felleman (consultant for Makah Tribe), John Neel (Ecology), Mike Moore (Pacific Merchant Shipping Association)

Decision: Use 2025 as end of Steering Committee’s VTRA planning horizon.

Future Scenario 1 – Gateway Pacific Terminal

Bulk carrier = +487 ships/yr

Derivation: Maximum described in permit.

Oil barge = +228 ops/yr<sup>CR</sup>

Derivation: John Veentjer determined average percentage of bulk carriers that took bunkers from 2010-2012 to be 0.468. Therefore 487 bulk carriers \* 0.468 results in 228 additional bunker operations.<sup>CR</sup>

Future Scenario 2 – Trans Mountain Expansion Project

Oil tanker = +358 ships/yr

Derivation: Maximum tankers at completion = 34/month, currently 5 tankers/mo; therefore 408/yr minus 60/yr = 358/yr

Bunkering = +100 ops/year<sup>CR</sup> = therefore, if 60 transits for ALL BC ops, then 100ops/723ops = 14% of 60 transits = 8 transits

Derivation: John Veentjer determined “Georgia Basin bunkering trend.” Marine Exchange data from 2010-2012 showed that 28% of Puget Sound tankers bunker locally.

Future Scenario 3 – BC Projects grouped into 3A and 3B

Deltaport (3A)

Container ship = +15/yr

Derivation: Port Metro Vancouver Environmental Assessment Report, November 2012; Table 2-6, 260 ships/yr (in 2025) – 245 ships year (2010) = 15

administrator 4/26/13 3:21 PM
Comment: Conversion required: how many bunker barge transits per operation? Will refer to this comment with superscript “CR” hereafter....

administrator 5/1/13 12:22 PM
Comment: From JV: combining ALL BC<sup>CR</sup> projects yields 2-3 barge voyages, or 4-6 transits/mo. 5 transits/mo \*12mo/yr=60/yr

Bunkering = **+6 ops/year**<sup>CR</sup> = 1 transit

*Derivation:* John Veentjer determined "Georgia Basin bunkering trend." Marine Exchange data from 2010-2012 showed that 41% of Puget Sound containers bunker locally.

administrator 4/26/13 3:22 PM

**Comment:** Todd's TOTAL for Canadian container bunker ops here is 2 higher than JV's spreadsheet (164 vs 162, respectively) due to rounding decision.

#### Westshore (3A)

Coal (bulk) ship = **+104/yr**

*Derivation:* Table 2-6, 350 ships/yr (in 2025) – 246 ships year (2010)  
= 104

Bunkering = **+49 ops/year**<sup>CR</sup> = 9 transits

*Derivation:* John Veentjer determined "Georgia Basin bunkering trend." Marine Exchange data from 2010-2012 showed that 47% of Puget Sound bulkers bunker here.

#### Neptune (3A)

Bulk = **+176/yr**

*Derivation:* John Veentjer and Mike Moore were provided with this estimate from Tony Nardi of Neptune, and corroborated by Stephen Brown, President of the Chamber of Shipping of British Columbia. This more than triples the estimate of "approximately one additional ship per week" (or 52/year) described in Port Metro Vancouver permit.

administrator 4/26/13 8:14 AM

**Comment:** Note: 3\*x previous estimate.

Bunkering = **+83 ops/year**<sup>CR</sup> = 15 transits

*Derivation:* John Veentjer determined "Georgia Basin bunkering trend." Marine Exchange data from 2010-2012 showed that 47% of Puget Sound bulkers bunker here.

#### Fraser Surrey Docks/Texada (3A)

Coal (bulk) ship = **+40/yr**

*Derivation:* Port Metro Vancouver is reviewing permit for 4 million metric tones of coal per year. 4 million metric tones = 4.4 US Tons. Using ratios from Gateway Pacific Terminal, 53 million US tons/974 movements per year is roughly one movement for every 54,415 US tons. 4.4 million US tons divided by 54,415 = 80.9 movements. If each ship call is two movements, then 80.9 divided by two is 40.45 ships per year, and rounding down makes estimate equal to 40/yr.

administrator 5/2/13 1:08 PM

**Comment:** CB: what is transit route?

Bunkering = **+19 ops/year**<sup>CR</sup> = 3 transits

*Derivation:* John Veentjer determined "Georgia Basin bunkering trend." Marine Exchange data from 2010-2012 showed that 47% of Puget Sound bulkers bunker here; so 40 ships \* 0.47 bunkers/ship = 19 bunker op.

#### Richardson Grain (3A)

Bulk = **+28/yr**

*Derivation:* 2013 application to Port Metro Vancouver for expansion of grain shipping from about 3 million metric tonnes/year currently to more than 5 MMT/year.

The U.S. Army Corps of Engineers calculates one small cape size vessel will hold 70,000 metric tonnes of grain.

Increase in export from 3 MMT/year to 5MMT/year = 2 MMT/year; 2 MMT/year divided by 70,000 = 56 movements = and 56/2 = 28 vessels/year.

Bunkering = +13 ops/year<sup>CR</sup> = 2 transits

*Derivation:* John Veentjer determined "Georgia Basin bunkering trend." Marine Exchange data from 2010-2012 showed that 47% of Puget Sound bulkers bunker here.

Sum of 3A Projects numbers in bold

= **363** ships

= + 463 operations<sup>CR</sup> = **38** total bunkering transits

administrator 5/1/13 12:56 PM

**Comment:** Up 124 due to revised Neptune estimate

Terminal 2 (3B)

Container = 260 ships

*Derivation:* Estimate of ship calls for 2025 is in Table 8-4 of the Deltaport Environmental Assessment Report from November 2012. It describes the reduction in Deltaport calls from 312 to 260 between 2020-2025 would result from the increased throughput capacity of adding Terminal 2; so for our 2025 VTRA time horizon, inclusion of Terminal 2 in 3B appears warranted, as Port Metro Vancouver is already accounting for it in their other projects seeking permits.

administrator 4/26/13 1:59 PM

**Comment:** JV and MM still (4/26) working on net change in TEUs and vessels, derived from Port Metro Vancouver 2025 projections.

Table 8-4 Actual (2010) and Projected (2014 Onwards) Annual Ship Calls

	Deltaport (including DTRRIP starting in 2014)	Roberts Bank Terminal 2	Westshore	Vancouver Airport Fuel Delivery Project
2010	245	na	246	na
2014	260	na	250	36-60
2017	312	na	280	36-60
2020	312	156	310	36-60
2025	260	260	350	36-60

Bunkering = +107 ops/year<sup>CR</sup> = **22** transits

*Derivation:* John Veentjer determined "Georgia Basin bunkering trend." Marine Exchange data from 2010-2012 showed that 41% of Puget Sound containers bunker locally; 260 ships/year\*0.41bunkers/ship= 107operations.

Sum of 3B Projects = Sum of 3A plus Terminal 2 total

**Future Scenario 4 – WA trends**

*Decision: Dismiss/omit outer coast projects*

Note: The Center for Salish Community Strategies shared a story from 4/24 on plans for Port of Vancouver and Tesoro working to transfer oil-by-rail (Bakken) at Vancouver, onto vessels going out the Columbia and potentially up to refineries in Anacortes, Alaska and California.

<http://earthfix.opb.org/energy/article/sw-washington-port-announces-crude-oil-deal/>

**Decision: On BP traffic:** Rene van Dorp reviewed SC recommendation, and suggests alternative: use the corresponding shipping estimates provided by BP for 2008 VTRA in Appendix F, Table F2. The low, medium and high estimates are 15, 177.5 and 185 crude tanker visits respectively; and 155, 177.5 and 300 for product vessel visits, respectively. Todd Hass made request to Olivia Romano, US Army Corps of Engineers, for the current estimates being used in the EIS for BP. If that estimate is not shared, the SC will need to make final decision on which Appendix F numbers to use.

Concerning that forecast, note that Scott McCreery of BP provided additional perspective on future trends in an email to Todd: "As for the Most Probable future vessel traffic scenario associated with BP Cherry Point vessels, the Medium case presented in the 2008 VTRA reflects a scenario where future vessel traffic out to 2025 sustain levels similar to those characterized by current operations as they were in 2005. Operations at the Cherry Point Refinery and our Marine Terminal have not changed appreciably between 2005 and 2012. As such, the Medium case is the most representative for the majority of the first half of the 20-year projection."

Furthermore, Scott described:

"The Low case presented in the 2008 VTRA reflected a decrease in future vessel traffic brought on by increased crude oil deliveries by pipeline. That future Low scenario is increasingly likely, as the TransMountain Pipeline Expansion project has gone into the full permitting process since that scenario and its associated vessel traffic projection were developed in 2006. What the Low future scenario did not include - and what was not even imagined at the time that scenario was developed - was the availability of domestically-produced Bakken crude oil by rail. Cherry Point is in the final stages of permitting a Rail Logistics Project that is scheduled to be completed by June 2014. That project will accommodate rail delivery of crude oil to the BP Cherry Point Refinery which will displace some crude deliveries off the water once completed. Those crude-by-rail volumes are additive to any additional reduction in vessel traffic brought about by increased crude oil deliveries by pipeline associated with expansion of the TransMountain Pipe Line. As such, given that BP Cherry Point crude tanker numbers having held relatively steady over an extended period of time and given the impending decrease in vessel-borne crude deliveries associated with crude-by-rail, the Medium case reflects - and likely somewhat overstates - the Most Probable future vessel traffic case."

Scott expects to attend on May 2, as we discuss and determine the numbers.

Frank Holmes also suggests "we keep the tank vessel numbers flat in the baseline and not try to speculate on future trends. The market will be the determining factor on any changes and we are not in a position today to guess what that will be. By using the current numbers we will be using conservative (high) numbers which will be the worst case option when comparing the new projects."

**Decision: On Tacoma projects**

Center for Salish Community Strategies provided two documents on the Targa oil rail facility. The documents do not show an increase to the capacity of the facility.

*Ecology still determining –*

- (1) document source used in their program map of “emerging risks;” specifically changes in oil movements to/through Port of Tacoma by rail*
- (2) ask US Oil if crude delivery to affect tanker calls (SC later made Decision: that likely “no significant net change we can predict”)*
- (3) ask Targa for train frequency, confirm volume and vessel calls (i.e., “what is mix?”)*

*Decision:* Because the market is especially dynamic now (and to limit “speculation” that might undermine confidence in the rest of the modeling effort), hold all other trends flat. We will review with Rene van Dorp and Jason Merrick whether addition of Targa, US Oil and BP can be done without adding undue complexity (and time invested) in analysis and reporting.