

Scope of Work for Gateway Pacific Terminal Vessel Traffic and Risk Assessment Study

Introduction

Pacific International Terminals, Inc. proposes to construct and operate the Gateway Pacific Terminal (GPT), a multi-modal dry bulk commodities terminal at Cherry Point Washington. A Vessel Traffic and Risk Assessment Study (VTS) is required before the terminal can be permitted, constructed or operated. This Scope of Work (SOW) includes the requirements to be included in the VTS to address the agreed upon elements identified in paragraph 2.10a of the 1999 Settlement Agreement, elements of Appendix G, and operational contingencies and constraints required to satisfy Appendix C for two wharf alignments. The SOW also addresses several specific issues that are outside the requirements of Appendix C and Appendix G of the Agreement including specific items presented to Pacific International Terminals by the Lummi Nation. Collectively, the VTS scope of work is expected to generate information that will be considered in the Gateway Pacific Terminal Environmental Impact Statement.

Assumptions

The VTS scope of work assumes the following:

Vessel Traffic – The GPT will introduce a new source of vessel traffic to the regional traffic flow. Therefore the study is designed to predict and analyze the risk posed by vessels bound to or departing from the GPT (GPT-calling vessels). The study will include tugs assisting with docking and undocking maneuvers at GPT, and such tugs are included in the definition of “GPT-calling vessels.” The study will include the potential interactions (accidents) between GPT-calling vessels and all other types of vessels presently operating in the region. It will also analyze potential future traffic that may be operating in the region. It would also include single vessel accidents (groundings and allisions) and impacts to tribal fishing activities from GPT-calling vessels.

It is not the intent of the GPT Vessel Traffic Study to evaluate the general risks of any and all potential future vessel movements throughout the region but rather to focus on the risks posed by the new GPT traffic.

Geographic Study Area – The geographic scope of the VTS or study area will include the designated Vessel Transit Lanes and the Local Maneuvering area as follows:

Vessel Transit Lanes – Commercial vessels of the size and type calling at the GPT will be required to operate within the United States Coast Guard’s (USCG) designated vessel traffic lanes (VTS transit lanes) until they reach the vicinity of the GPT where they will maneuver to moor at the GPT wharf or move to a local anchorage. Therefore, the “geographic study area” for the vessel traffic study would consist of the USCG VTS transit lanes to be used by GPT-calling vessels, the maneuvering area adjacent to the terminal, the local anchorage areas, and the local

transit routes for tugs that are required to assist in maneuvering and mooring. The study would not analyze the risk or impacts of vessel movements outside the above listed areas. The boundaries of the Vessel Transit Lanes are shown on Figure 1 - Study Area.

Local Maneuvering Area – The local maneuvering area initially considered in the VTS will be that area through which GPT bound vessels transit from the point of departure from the Transit Lanes to the GPT terminal, the routes taken by assist tugs from Bellingham, and the local anchorages at Alden Bank and Vendovi. The boundaries of the Local Maneuvering Area are shown in grey shading on Figure 1 – Study Area. The traffic study shall consider two alternative pier locations; the pier location defined in the project application and the pier location in Attachment A. The pier locations are approximately 1,000 feet apart.

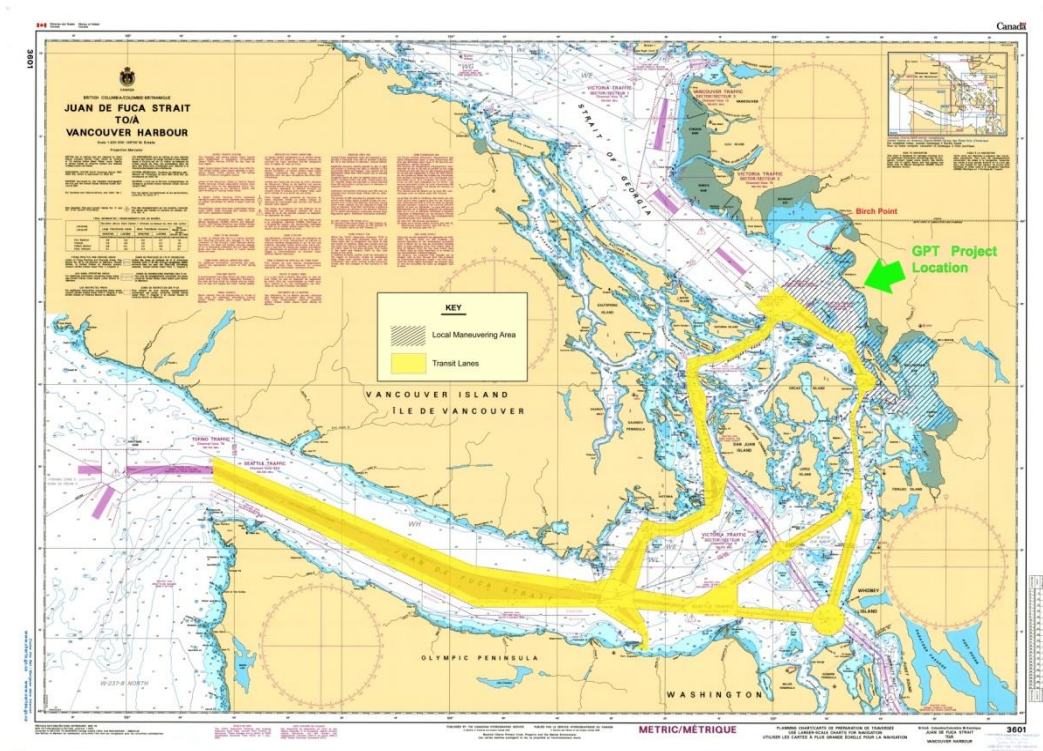


Figure 1 – Study Area

The contractor shall prepare a Vessel Traffic and Risk Study that meets the following objectives:

1. Determines most probable routing and use of temporary moorages for GPT-calling vessels. Most probable routing will be prepared for two wharf alignments as shown in the diagram at end of this document.
2. Analyzes projected Gateway Pacific Terminal traffic volumes at initial operation and at full capacity of the Gateway Pacific Terminal. The degree to which regional traffic patterns may vary as a result of different pier locations at Gateway Pacific Terminal will be analyzed.

3. Determines the risk of accident involving GPT-calling vessels that may result in contaminant release. Accidents shall include collision, allision, power groundings and drift groundings.

In evaluating these risks the study should consider all vessel traffic and reasonably foreseeable increases and decreases in vessel traffic along the entire pathway followed by vessels between Cherry Point and Buoy J, including but not limited to vessels calling in British Columbia, GPT-calling vessels, and vessels calling at the BP Cherry Point Refinery, Conoco Phillips Ferndale Refinery, Alcoa-Intalco Works, and any other reasonably foreseeable future marine terminal facilities in the Cherry Point area.

4. Determines the most likely geographic location where accidents, as defined in ¶ 3, may occur.
5. Determines the potential size of a contaminant release from an accident, as defined in ¶ 3.
6. Identifies traffic management, anchoring, vessel mooring and servicing, spill containment and cleanup, and any other relevant protocols to reduce or minimize identified risks of an accident, as defined in ¶ 3.
7. Reviews the adequacy of existing designated anchorages along the protected portion of the route and provide recommendations for risk reduction, such as enhancements to anchorage regulations, and establishment of additional anchorage capacity. The USCG Captain of the Port and the current Harbor Safety Plan will be relied upon as an authoritative source of collective anchorage usage and capacity.
 - a. This review shall include collection and reporting of anecdotal data from pilots, mariners, and Coast Guard incident reports (if available) on incidents of dragged anchors and shall consider: (1) seasonal prevailing weather to assess trends and patterns; and (2) berthing contingencies Nos. 1, 2, 4, 6 and 7 in Appendix C of the 1999 Settlement Agreement that may affect vessel movements for two alternative pier locations/configurations within the local maneuvering area. If, in the course of completing the VTS, the contractor determines that other facility operational constraints that would affect vessel traffic safety are likely, the review shall also consider those restrictions. However, any additional costs associated with review of those constraints, shall be subject to the approval of Pacific International Terminals Inc., which approval shall not be unreasonably withheld. It is acknowledged that anchorage grounds siting and approvals are the purview of the United States Coast Guard and outside the scope of this study. Therefore, while the study will assess and inform the need for additional anchorage capacity, the study will not include recommendations for siting of any additional anchorage grounds.
8. Provides an overview of current traffic separation and management schemes in force on the approaches to GPT and recommendations for alternative traffic control

mechanisms for reduction of the risk of an accident, as defined in ¶ 3. In conjunction with task 7, provide qualitative, relative assessment of the potential effectiveness of measures proposed in counteracting risks posed by increased traffic. This study should evaluate alternative schemes for vessel traffic management to mitigate risks. However, it is acknowledged that any such recommended protocols would need to be implemented through regulatory action involving multiple agencies of the federal, state, and local government. The study will specifically exclude discussion or opinion on the regulatory process or requirements. The study will limit discussion on alternative traffic control measures to the likelihood of reducing casualty risks rather than the achievement of “minimum risk.”

9. Estimates the additional annual demand for fuel oil in Puget Sound that could be caused by vessels calling at GPT. Summarizes the likely locations where such transfers could occur from information on historical bunkering activity provided by Washington State Department of Ecology. This scope item would provide information that could be used to evaluate the potential cumulative effects of GPT-calling vessels on bunkering activities in Puget Sound. It will be presumed that future increases in bunkering activities will occur at historically active locations because it remains difficult to predict the bunkering behavior of bulk carriers serving the spot markets, particularly when considering the prohibition on bunkering at the GPT.
10. Predicts the potential size and geographic impact of a contaminant release from a bunkering or cargo transfer accident. Consequences of a spill during bunkering operations may be moderated if it is reasonable to assume that transfer operations can be effectively boomed off prior to commencing operations.
11. Make key study team members available for orientation and review materials provided by Lummi Nation on tribal treaty rights to fishing.
12. Ensures the traffic study includes vessels, tug boats, and barges and smaller vessel movements including the Lummi fishing fleet (purse seiners, gill netters, skiffs) to the degree accurate small vessel traffic statistics exist. It is anticipated that Lummi Natural Resources Department will provide data regarding their existing fleet size, harvest timing, harvest areas, and volumes. The degree to which small vessel traffic is affected by the two alternative pier locations shall be assessed and discussed.
13. Evaluates impacts of GPT-calling vessels on tribal fishing fleet including gear loss, associated Homeland Security exclusion zones, and interference with fishing. The study shall assess the impact of increased vessel traffic on Lummi treaty rights to fish throughout the Lummi Nation’s Usual and Accustomed grounds and stations. The statistical measure of impact shall be the area from which the Lummis are temporarily excluded from fishing multiplied by the expected duration of the temporary exclusion. Any such exclusionary zones will include moving security zones imposed by the Department of Homeland Security around commercial vessels in transit to and from GPT. In addition, the study shall assess the impact of increased vessel usage of anchorages on Lummi treaty rights to fish using the same statistical measure: exclusionary area multiplied by duration. Any such exclusionary

zones will include security zones imposed by the Department of Homeland Security around commercial vessels at anchor, awaiting transit to or departure from GPT. Exclusionary zones may extend to the entire designated anchorage area, if the study finds that fishers are effectively excluded there from whenever the anchorage is occupied, as a matter of custom, practice, or regulation. These statistical measures will be created for two pier locations. It is anticipated that Lummi Natural Resources Department will provide data regarding current gear loss attributable to existing vessel traffic.

14. Evaluates increased risk of collision between GPT-calling vessels and tribal fishing vessels, vessels associated with the other industries along Cherry Point, and vessels from the Port of Vancouver (British Columbia) to the degree that accurate data exist for the movement of smaller vessels.
15. Reviews and reports on ballast water management plans associated with cargo loading or unloading operations at GPT and the level of compliance they will achieve with existing and future regulations and international treaties.
16. Assesses the impact of GPT-calling vessels on traditional cultural properties and underwater archaeology. The statistical measures of impact will be:
 - a. The additional energy arriving at the shoreline from the wakes of passing vessels bound for or departing from GPT compared to the total energy at background levels (i.e. without GPT traffic).
 - b. The energy arriving at the shoreline from the most extreme event of passing vessels compared to the extreme event of a winter storm.
 - c. If it is found that this statistic is measurably affected by pier location, separate statistics will be reported for both alternative pier locations.
17. In order to make efficient use of time for both study contractor personnel and Lummi tribal fishers, the contractor will provide questions to the Lummi Natural Resources Department Director in writing prior to any meeting with Lummi fishermen. Questions regarding fleet wide statistics, practices or information may be answered by the Lummi Natural Resources (LNR) Department Director without further consultation. The LNR Director will assist contractor with refining any questions seeking information from individual tribal fishers and with arranging meeting(s) with tribal fishers.
18. The contractor shall make its work products subject to peer review by an expert to be identified by the Lummi Nation. The contractor shall make its study plan available to the peer reviewer. The contractor and the peer reviewer shall jointly prepare a Peer Review Plan that describes the process and its expected impact on schedule and budget. The Peer Review Plan will identify the responsibilities of each party to the other with particular regard to:
 - a. Prompt review of submittals by the peer reviewer.
 - b. Action to be taken by the contractor in response to comments, questions, and requests for additional information from the peer reviewer.

- c. Protection and non-disclosure of intellectual property and proprietary analytical methods claimed by the contractor

The Lummi Nation peer review will be conducted concurrently with review of the VTS by parties to the 1999 Settlement Agreement.

Second Wharf Alignments to be Studied “Alternative #4”

