

The Vancouver Fraser Port Authority is developing a new Active Vessel Traffic Management Program, in cooperation with the Canadian Coast Guard (CCG) and the Pacific Pilotage Authority (PPA).

The port authority will be a steward in managing prioritization and sequencing of vessels to improve transparency, efficiency, and reliability for all port users, and increase throughput for trade-enabling vessels through the Port of Vancouver.

What is active vessel traffic management?

Active vessel traffic management will apply prioritization and optimization principles to dictate tier 1 vessel movement within the port authority's jurisdiction to ensure vessel safety and environmental protection while increasing efficiency and throughput. It will complement the safety and navigation services currently provided by the Canadian Coast Guard's Marine Communications and Traffic Services (MCTS). Marine pilots will continue to play an important role in ensuring safety through tactical navigation while following this new gateway sequencing.

As outlined in the port authority's **Port Information Guide**, tier 1 vessels include:

- All piloted vessels and tug and barge combinations when piloted, regardless of tonnage
- All non-piloted tug and barge combinations with a barge of 10,000 tonnes or more carrying capacity
- All non-piloted vessels including barges and articulated tugs and barges (ATBs) when in product

Traffic Control Zones

The initial focus for the program will be the Second Narrows Traffic Control Zone (TCZ-2) due to the complexity and importance of this multipurpose intersection for many port users. Subsequent phases will expand the program to other traffic control zones within the port authority's jurisdiction, as shown on the map to the right.

Traffic Control Zone Overview



Trade through the Port of Vancouver is growing. Why is management of vessels important?

The Port of Vancouver is Canada's largest port, about the same size as the next five largest Canadian ports combined. Home to 29 major terminals, the port is able to handle the most diversified range of cargo in North America: bulk, containers, breakbulk, liquid bulk, automobiles, and cruise. Over 3,000 vessels call at the port each year, and with demand for trade predicted to grow, traffic through the country's gateway is predicted to increase.

With growth comes increased complexity and challenges in managing the efficient movement of vessels. It will be important to undertake advanced planning and scheduling to address potential conflicts between a variety of vessel types serving different commodity sectors, and other modes of transportation that place demand on waterways, such as trains crossing rail bridges. This includes accounting for increasing demand, larger vessel sizes, tidal windows, and transit times to and from port terminals.

The port authority's role is to ensure goods are moved safely, efficiently, and sustainably. This is done through maintaining and building the land on which terminals are located and the roadways throughout the port, ensuring navigation channels and anchorages are safe and available, and setting traffic control measures, all of which are monitored by a 24/7 Operations Centre and on-water harbour patrol fleet. Through this program, the port authority is taking steps to ensure that vessels and their cargo continue to be safely and efficiently handled through the port.

Upcoming industry engagement: building on input to date

In 2020, the port authority undertook an options and feasibility analysis of active vessel traffic management which included stakeholder outreach. Feedback from past outreach has highlighted several opportunities from the development of an active vessel traffic management program, which includes:

- Reducing inefficiencies in the gateway and associated loss of productivity or costs to users
- Providing a safe, more fluid and consistent traffic flow
- Building cooperation between the port authority, CCG, and PPA given shared responsibilities in some areas
- Using real-time information to make traffic scheduling decisions to meet existing demands and provide an agile traffic management pattern

Through the development of this program, the port authority will engage with stakeholders involved in marine transportation, terminal operators, cargo owners, associations and other marine users.

Current and planned activities

2021	Work between port authority, CCG, PPA, and engagement with key stakeholders to move forward with program development, including exploration of potential technology solutions
2022	Implementation of the program with initial focus on TCZ-2 (anticipated by end of 2022)
2023	Expansion of both areas of use and ability to provide enhanced services and transparency to broader port users

For more information

Sign up for program updates [here](#).