

Request for Quotation – Economic Impact Analysis of Proposed Voluntary Vessel Slow Down Trial (#Q170127-05)

Background Context

The Vancouver Fraser Port Authority (VFPA) is requesting cost quotations for the development of an Economic Impact Analysis with regards to a proposed voluntary vessel slow down trial in the summer of 2017 under VFPA's Enhancing Cetacean Habitat and Observation (ECHO) Program. www.portvancouver.com/echo

The ECHO Program is a Vancouver Fraser Port Authority-led initiative, managed by VFPA's Environmental Programs Department, aimed at better understanding and managing the impact of shipping activities on at-risk whales throughout the southern coast of British Columbia. Some of the key threats to whales in this region include: acoustic disturbance (underwater noise), physical disturbance (ship collisions), environmental contaminants, and the availability of prey. The long-term goal of the ECHO Program is to develop mitigation measures that will lead to a quantifiable reduction in potential threats to whales as a result of shipping activities.

Consideration of Vessel Noise reduction options

A range of potential vessel noise reduction options has been under consideration by the ECHO program over the last 18 months, particularly focusing on vessel operations in the geographic area between the pilot station off Victoria and Vancouver. A number of the options under consideration have been deemed not feasible due to existing constraints within and near to traffic separation scheme and shipping lanes. As a result of this initial feedback, the vessel slow down option has been explored and advanced in more detail than other potential mitigation options to date.

Scientific evidence dating back to 1970s (and being further validated by data from Strait of Georgia listening station) indicates that slowing a fixed pitch propeller vessel down reduces vessel noise output (typically a relationship of at least 1db reduction with 1kn speed reduction). Because decibels are measured on a logarithmic scale, small reductions in dB can give rise to significant reductions in sound intensity (e.g. 3dB reduction can give rise to 50% reduction in acoustic power).

10 years of southern resident killer whale (SRKW) sightings data indicates that the highest density of whales within SRKW critical habitat occurs in Haro Strait between the months of May and Sept. Behavioural response modeling indicates that the majority of anticipated behavioural response effects as a result of vessel noise (i.e. lost foraging opportunities) also take place within this Haro Strait area.

Proposed voluntary slow down trial

The ECHO Program team proposed the concept of a voluntary vessel slow down trial (11 knots through Haro St for July and August 2017) to the ECHO Advisory Working Group

(AWG) in October 2016 ('The trial'). The goal of the proposed trial is to gather data to determine if voluntarily slowing vessels through a known sensitive area is a viable solution for reducing vessel noise impacts on SRKW. This trial will require a total of approximately 800 inbound and outbound deep-sea vessels to slow to 11kn through Haro Strait for a distance of approximately 16 nautical miles resulting in increased transit times of up to 40 minutes.

Scope for Economic Impact Analysis

Before plans for the trial are finalized, AWG members advised that an economic analysis should be undertaken to assess the potential impacts (negative and positive) of these increased transit times to the marine transportation industry. This analysis will at a minimum consider factors such as:

- additional pilotage costs, factoring in extra minutes on the water and the potential for additional shifts where transit times exceed 8hrs;
- additional vessel operating costs, factoring in extra minutes on the water, vessel service speed by type, size and weight, flag of registration;
- changes in fuel consumption, including additional use of low sulfur fuel in emission control areas, and the potential for fuel cost savings;
- commercial impacts of delayed or late arrivals to anchorage or berth due to increased transit times, reduced tidal windows; e.g. additional intermodal costs, onshore services;
- impacts on other maritime operators in Haro Strait such as ferry, fishing and whale watching organizations;
- impacts on Canadian and US ferry services and government vessels;
- economic impact relative to the value of maritime trade and relative to overall maritime freight charges;
- the reputational risk and financial impact of any additional costs and delays resulting in the diversion of traffic to other ports;
- other potential social and cultural impacts and benefits; and,
- potential impacts and benefits of pursuing an alternate option of 'doing nothing'.

The final report should outline methodology as well as results.

The successful consultant is expected to conduct its own primary and secondary research and will have access to the ECHO Program team for relevant data, including an analysis of the 2015 BC Coast Pilot vessel transit time dataset which calculates the number of different vessel types potentially affected by the slow down and the number of anticipated extra minutes on the water as a result of the slow down. Other relevant background materials will be made available to the consultant, as necessary.

Schedule

Activity	Date
Receipt of quotations	January 27 th , 2017
Project award	on or before February 3 rd , 2017
Project start-up meeting	on or before February 10 th , 2017
Receipt of draft report	March 24 th , 2017
Presentation to ECHO Advisory Working Group	on or before April 14 th , 2017

Submission

The consultant shall provide a quotation which includes the following:

- Approach to meeting the scope of work described above
- Total, not-to-exceed cost for the analysis and final report
- Hourly rates, and any other associated costs, for provision of additional services per the proposed schedule outlined in Section 3
- A summary of similar or relevant economic analyses conducted in the last 5 years
- Company background
- Confirmation of resource availability per the proposed schedule outlined in Section 3
- No longer than 10 pages

The successful consultant will enter into a consulting services agreement with VFPA, the terms of which shall be determined at the time of project award.

Any questions in the interim, shall be submitted by email to Orla Robinson, ECHO Program Manager at: Orla.Robinson@portvancouver.com and Chris Hall, ECHO Project Manager, Vessel Operators Committee Chris.Hall@portvancouver.com.

The Quotation should be submitted to Marion Wynnyk, Procurement Administrator (marion.wynnyk@portvancouver.com) by 3pm at the latest on Friday January 27th with copies to Orla.Robinson@portvancouver.com and Chris.Hall@portvancouver.com.