

## Proposed Tsawwassen Eelgrass Project: Public consultation

This Consideration Report provides the Tsawwassen Eelgrass Project (TEP) team's response to input received as part of the Public Consultation period, which took place from March 20 to April 7, 2017. Input provided will be considered as part of the port authority's Project and Environmental Review process. For more information about the port authority's Project and Environmental Review, please visit: <https://www.portvancouver.com/development-and-permits/project-and-environmental-reviews/>. A separate but parallel consultation process with Aboriginal groups is being led by the project team.

## PROJECT OVERVIEW

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Guided by a working agreement with Fisheries and Oceans Canada, the port authority's Habitat Enhancement Program proactively creates and enhances habitat for fish and wildlife. The program consists of habitat enhancement projects around the Lower Mainland, and the working agreement allows the port authority to offset the effects of future projects with proven functioning habitat, with approval from Fisheries and Oceans Canada. The program helps balance the need for infrastructure development with a healthy environment.

The proposed Tsawwassen Eelgrass Project consists of two sites located south of the Tsawwassen Ferry Terminal, near Delta, British Columbia. The subtidal sites are bordered to the north by a recreational navigation channel and are surrounded by eelgrass meadows to the south and east. The sites currently consist of subtidal depressions that were likely created as a result of maintenance activities in the adjacent recreational navigation channel. These depressions are too deep to be naturally colonized by eelgrass. The proposed project would result in the conversion of lower-value subtidal areas into higher-value eelgrass habitat. Creation of these eelgrass beds would be accomplished by constructing subtidal rock containment berms followed by the placement of suitable substrate material and transplanting of eelgrass. The total area of habitat enhancement is approximately four hectares.

The proposed project is currently in the design, permitting and approvals stage. Completion of the regulatory review of the project is anticipated by summer 2017.

### Public consultation included:

- A discussion guide and feedback form
- An online feedback form
- An open house on April 5, 2017 at the Port of Vancouver Delta Community Office

**Consultation topics included:**

- Potential effects and proposed mitigation measures:
  - Feedback was sought regarding potential project and construction effects and the proposed mitigation measures.
- Notification of project updates:
  - Feedback was sought regarding methods to receive information regarding important construction milestones for the proposed project.

**Notification of opportunities to participate in consultation included:**

- An email to approximately 1,150 stakeholders on the first day of the consultation period
- Follow up phone calls to stakeholders
- A localized postcard mail drop sent out to approximately 2,500 residences and businesses at the beginning of the consultation period
- A newspaper advertisement, which ran in the *Delta Optimist* on March 22, 2017, inviting members of the public to participate in consultation
- Notification posters placed in public spaces/community boards in several locations throughout the communities of Tsawwassen and Ladner
- Social media:
  - Seven tweets from @PortVancouver to approximately 10,500 followers
  - One targeted Facebook ad from Port of Vancouver

## CONSIDERATION OF INPUT FROM PUBLIC CONSULTATION

Public consultation was held from March 20 to April 7, 2017. The purpose of this consultation was to provide the public and stakeholders with information about the proposed Tsawwassen Eelgrass Project and to seek input regarding potential project and construction-related effects, proposed mitigation measures, and notification methods for project updates.

There were a total of 27 interactions with participants as part of public consultation:

- 22 people attended the public open house on April 5, 2017
- Three written submissions were received (two emails, one hard copy)
- Two feedback forms were received (one online, one hard copy)

More information regarding the public consultation period can be found in the Tsawwassen Eelgrass Project Consultation Summary Report at <https://www.portvancouver.com/tep>.

The following summarizes input received during the consultation period and the project team's response:

Summary of Issue or Interest	Source of Input	Tsawwassen Eelgrass Project Team Response
<p><b>1. Environment</b></p> <ul style="list-style-type: none"> <li>• Interest in what kind of environmental benefits eelgrass provides and why this location is a good spot for eelgrass restoration</li> <li>• Concern regarding proposed transplanting of eelgrass as dead eelgrass currently washes up on the beach (near Tsatsu Shores residences), impacting the shoreline ecosystem and making beach access difficult for nearby residents, including a request for improved monitoring of the dead eelgrass on the beach.</li> <li>• Concern regarding the BC Ferries and Roberts Bank causeways, in particular their</li> </ul>	<ul style="list-style-type: none"> <li>• Written submissions</li> <li>• Feedback forms</li> <li>• Open house</li> </ul>	<ul style="list-style-type: none"> <li>• Eelgrass provides important habitat for fish and wildlife including juvenile salmon, Pacific herring, Dungeness crab, migrating Brant geese, bivalves, shrimp, and sea stars. In addition to providing refuge and nurseries for juvenile fish and invertebrates, eelgrass beds also support a number of other critical ecological functions including nutrient cycling, protection of shorelines from storms, export of organic matter, and carbon storage. The proposed rock containment berms also provide attachment sites for various kelp species, which would contribute to an increase in the diversity of fish and wildlife at the project sites.</li> <li>• The proposed sites were selected for eelgrass restoration because of their current relatively low habitat values. Consistent with the broader understanding of eelgrass habitats in the Pacific Northwest, local studies suggest that fish communities within eelgrass habitats are more diverse and abundant than fish communities within areas devoid of eelgrass.</li> </ul>

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<p>impact on the formation of new sandbars and other effects on sedimentation in the area</p> <ul style="list-style-type: none"> <li>• Comment that the Tsawwassen Eelgrass Project may temporarily boost habitat for juvenile salmon but long-term impacts on the environment may be negative</li> <li>• Comment that salmon are very important to this area</li> </ul>		<ul style="list-style-type: none"> <li>• Detailed mapping in 2003 documented 139 hectares of eelgrass meadow that extends from the BC Ferries causeway south to the United States border.</li> <li>• This proposed project would result in the restoration of approximately four hectares of eelgrass habitat. Only this project area would be subject to post-construction monitoring as part of the project scope.</li> <li>• Eelgrass sequesters a large amount of carbon; in the summer, new leaves are produced every couple of weeks, as they break off from older leaves, which are then carried away by the tides. The dead leaves, called detritus, support many food webs at great distances from where they grew.</li> <li>• The project team includes coastal engineers who designed this project considering the existing environmental conditions, such as wind, waves and currents. This project is not anticipated to change existing sedimentation to the surrounding environment.</li> <li>• As part of the project design process, a detailed hydrodynamic analysis was conducted and showed that the construction of the eelgrass beds will have negligible impact to the tidal currents in the existing channel.</li> <li>• Standard mitigation measures will be addressed in a Construction Environmental Management Plan, including (but not limited to) application of the appropriate least risk work window for high risk activities (i.e. fisheries protection), implementing environmental monitoring requirements, erosion and sediment control measures, spill prevention planning and oversight by an Environmental Monitor.</li> </ul>
<p><b>2. Project Design and Monitoring</b></p> <ul style="list-style-type: none"> <li>• Interest in the design of how the eelgrass beds will be created</li> </ul>	<ul style="list-style-type: none"> <li>• Written submissions</li> <li>• Feedback forms</li> <li>• Open house</li> </ul>	<ul style="list-style-type: none"> <li>• The proposed project involves the conversion of existing lower-value subtidal areas, associated with historic dredge depressions, into higher-value eelgrass beds. Proposed activities include the construction of two separate rock containment berms adjacent to the</li> </ul>

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<ul style="list-style-type: none"> <li>Interest in the how the project will be monitored post-construction</li> </ul>		<p>southern edge of the recreational navigation channel, followed by the placement of suitable fill material. The rock containment berm's purpose is to contain the sand fill and reduce erosion of the outer edges of the eelgrass beds.</p> <ul style="list-style-type: none"> <li>Approximately 23,000 cubic metres of rock material is expected to be required for the establishment of the rock containment berms at the sites.</li> <li>The existing elevation of the depressions will be raised, with approximately 135,000 cubic metres of sand. The sides of the resultant beds will be blended to match the adjacent eelgrass beds/seabed elevation, with reasonably even and uniform substrate surfaces.</li> <li>A survey to confirm the proper establishment of the sites will be conducted after the final placement of sand fill to confirm that design elevations have been achieved. The sand material is approved to be sourced from the lower reaches of the south arm of the Fraser River.</li> <li>Following placement of substrate to an elevation suitable for the establishment of eelgrass, transplanting of donor stock eelgrass will be undertaken at the sites using scuba divers and support barges.</li> <li>Upon completion, the estimated area of eelgrass beds is anticipated to be 43,000 square metres: 26,000 square metres at Site 1 and 17,000 square metres at Site 2.</li> <li>Work will be undertaken using heavy equipment, with access for construction equipment and materials from the water, by ship and barge, via the existing recreational navigation channel under the appropriate tidal conditions.</li> <li>Post-construction monitoring will occur to assess the establishment and survival of transplanted eelgrass, in accordance with the Post-Construction Monitoring Plan for the Vancouver Fraser Port Authority's Habitat Enhancement Program. The monitoring plan, a working document that was developed with input and feedback</li> </ul>

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		from Fisheries and Oceans Canada, outlines protocols for assessing various habitat types, including eelgrass habitat.
<b>3. Educational Opportunities</b> <ul style="list-style-type: none"> <li>Enquiries regarding the science around eelgrass transplanting and if there would be opportunities for educational institutions (universities) to participate in these processes</li> </ul>	<ul style="list-style-type: none"> <li>Open house</li> </ul>	<ul style="list-style-type: none"> <li>On a case-by-case basis, the project team will consider research and educational opportunities proposed by interested parties that are consistent with the ecological objectives of the project.</li> <li>The project team invites interested parties to submit proposals regarding potential research and educational opportunities. Please contact <a href="mailto:habitat.enhancement@portvancouver.com">habitat.enhancement@portvancouver.com</a>.</li> </ul>
<b>4. Recreational Boating</b> <ul style="list-style-type: none"> <li>Interest in potential impacts to boaters who utilize the recreational boating channel</li> <li>Comment regarding vessel anchorages and that some recreational vessels would likely anchor in another area</li> </ul>	<ul style="list-style-type: none"> <li>Written submissions</li> <li>Feedback forms</li> <li>Open house</li> </ul>	<ul style="list-style-type: none"> <li>The project team has and will engage with Transport Canada, the recreational boating community and Aboriginal groups to further inform the design of marine markers and appropriate signage. Proper communication and marine marker signage will be installed, as required.</li> <li>The project will be reviewed by the port authority, as the sites are under port authority navigational jurisdiction. The project aims to minimize any impacts on boat traffic during and following the construction phase.</li> <li>Efforts will be made to ensure construction does not conflict with fisheries (i.e. during the fisheries least-risk work window (August 16 – February 28 annually)).</li> <li>The eelgrass beds have been designed to maximize the created habitat area while maintaining the minimum width of the existing recreational navigation channel.</li> </ul>
<b>5. Wildlife Habitat</b> <ul style="list-style-type: none"> <li>Support for efforts to improve and protect wildlife habitat</li> </ul>	<ul style="list-style-type: none"> <li>Feedback forms</li> <li>Open house</li> </ul>	<ul style="list-style-type: none"> <li>The proposed sites were selected for eelgrass restoration because of their current relatively low habitat values. Consistent with the broader understanding of eelgrass habitats in the Pacific Northwest, local studies suggest that fish communities within eelgrass habitats are more diverse and abundant than fish communities within areas devoid of eelgrass.</li> <li>Standard mitigation measures will be addressed in a Construction Environmental Management Plan, including (but not limited to) application of the appropriate least</li> </ul>

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		<p>risk work window for high risk activities (i.e. fisheries protection), implementing environmental monitoring requirements, erosion and sediment control measures, spill prevention planning and oversight by an Environmental Monitor. The construction contractor will be required to develop an Occupational Health and Safety Plan, which will include measures that comply with WorkSafe BC standards, to ensure safe work and avoid any impacts on workers (or the public, in particular recreational boaters).</p>
<p><b>6. General support for the project</b></p> <ul style="list-style-type: none"> <li>• Comment that the project is ambitious and positive</li> </ul>	<ul style="list-style-type: none"> <li>• Feedback forms</li> <li>• Open house</li> </ul>	<ul style="list-style-type: none"> <li>• The project team undertook one round of public consultation in spring 2017. Expressions of support for the project were received through public consultation and stakeholder group feedback, and were publicly reported in the Tsawwassen Eelgrass Project Consultation Summary Report, which can be found at <a href="https://www.portvancouver.com/tep">https://www.portvancouver.com/tep</a>.</li> <li>• The Vancouver Fraser Port Authority Habitat Enhancement Program proactively creates and enhances habitat for fish and wildlife, supporting the port authority's approach to sustainability. Since 2012, the Habitat Enhancement Program has constructed or restored eight hectares of functioning habitat.</li> <li>• For more information, please visit <a href="https://www.portvancouver.com/habitatenhancement">https://www.portvancouver.com/habitatenhancement</a>.</li> </ul>