

## **Proposed Westham Island Canoe Pass Tidal Marsh Project**

### **PURPOSE**

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This Input Consideration Memo provides Port Metro Vancouver's response to input received as part of the proposed Westham Island Canoe Pass Tidal Marsh Project public engagement process, which took place from March 3 to March 14, 2014.

### **PROJECT OVERVIEW**

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The proposed Westham Island Canoe Pass Tidal Marsh Project overlaps with an intertidal sand-flat within Canoe Passage on the south shore of Westham Island. The proposed habitat enhancement project will result in the creation of approximately 4.0 hectares of high quality marsh habitat, enhancing the existing adjacent mudflat. This will be achieved through the construction of a rock containment berm and infilling with sands and silts to establish a marsh bench. The creation of new intertidal marsh habitat at this prime Fraser River estuarine location will provide high quality habitat for rearing juvenile Pacific salmon and other fish and wildlife.

Port Metro Vancouver proposed the project:

- to improve the overall ecological productivity of this portion of the Fraser River Estuary, providing high-quality habitat for rearing juvenile salmon and other fish and wildlife; and
- to expand and enhance the existing habitat by converting an un-vegetated area into a more productive brackish marsh.

Existing biophysical conditions including physical characteristics, habitat types, and fish and wildlife species is included in an ecological conditions report that has been prepared for this proposed project and is available at [www.porttalk.ca/habitatenhancement](http://www.porttalk.ca/habitatenhancement).



*Current state at low tide*

*Proposed project at low tide*

Additional information on the proposed Westham Island Canoe Pass Tidal Marsh Project can be found in the Discussion Paper available at [www.porttalk.ca/habitatenhancement](http://www.porttalk.ca/habitatenhancement).

## **ENGAGEMENT OVERVIEW – HIGHLIGHTS**

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In March 2014, Port Metro Vancouver engaged with the public and stakeholders about opportunities for bird nesting and bird observation features, as well as possible educational opportunities for the public related to the proposed Westham Island Canoe Pass Tidal Marsh Project. The engagement period was from March 3 – 14, 2014.

### **The engagement included:**

- A Discussion Paper and Feedback Form, including an online feedback form available at [www.porttalk.ca/habitatenhancement](http://www.porttalk.ca/habitatenhancement)
- Meetings with community members at the residence of a nearby community member, the Delta Heritage Advisory Commission and the Delta Farmers' Institute

**Engagement topics included:**

- Potential incorporation of bird nest boxes and nesting structures within or adjacent to the new marsh habitat
- Potential installation of observation equipment (wildlife webcams) that would allow viewers to observe osprey online
- Potential for educational opportunities about the value and function of tidal marsh habitat.

**Notification included:**

- An email to approximately 280 stakeholders
- Follow-up calls and emails to approximately 65 stakeholders
- Two reminder emails to approximately 280 stakeholders
- Newspaper advertisements in the Delta Optimist on February 28, March 5 and March 12 and in the South Delta Leader on February 28, March 7 and March 14
- Two tweets from @portmetrovan to approximately 5,000 followers

Additional information regarding the proposed Westham Island Canoe Pass Tidal Marsh Project engagement can be found in the Engagement Summary Memo available at [www.porttalk.ca/habitatenhancement](http://www.porttalk.ca/habitatenhancement).

**INPUT CONSIDERATION AND PORT METRO VANCOUVER RESPONSES**

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Input received through the engagement will help inform the Project Team's plans regarding the potential incorporation of bird nest boxes and nesting structures and observation equipment, and potential educational opportunities relating to the proposed Project. The Project Team is working to consider and appropriately address the input provided through the public and stakeholder engagement program.

Input was received from the following sources:

- 32 feedback forms completed either online, by email, phone interview or in hardcopy
- 9 open submissions received via mail, email and telephone call
- 3 stakeholder meetings at the residence of a nearby community member, the Delta Heritage Advisory Commission and the Delta Farmers' Institute
- Musqueam Indian Band – through participation in the project's Aboriginal Consultation Program

Additional information regarding feedback on the proposed Westham Island Canoe Pass Tidal Marsh Project can be found in the Engagement Summary Memo available at [www.porttalk.ca/habitatenhancement](http://www.porttalk.ca/habitatenhancement).

The following table provides a comprehensive response to input received through the engagement.

<b>THEME</b>	<b>ENGAGEMENT INPUT</b>	<b>PMV RESPONSE AND ACTION</b>
<i>Installation of bird nesting features</i>	<p>Approximately 50% of respondents to this question agreed with the installation of bird nesting features; Approximately 25% were neutral and 25% disagreed.</p> <ul style="list-style-type: none"> <li>• Would benefit bird watchers, increase public awareness and encourage wildlife tourism</li> <li>• Concern that proposed features will attract too many people to the area, accessing private property and potentially negatively impacting local agricultural land</li> </ul>	<p>PMV will continue to pursue potential appropriate nest enhancement opportunities at the proposed project site, subject to further discussion with private landowners. PMV will seek to further engage with private land owners about potential ways to address concerns regarding public access to private property. There is not currently public access to this area, and PMV is not proposing to create public access to the area.</p>
<i>Installation of webcam</i>	<p>Approximately 35% of respondents agreed with the installation of a webcam for viewing the nesting activity of osprey; Approximately 26% were neutral, and 39% disagreed.</p> <ul style="list-style-type: none"> <li>• Observation feature is an unobtrusive, good educational tool; beneficial to bird watchers and encourages public viewing</li> <li>• Concerns about cost of operating and maintaining webcam</li> <li>• Concerns about webcam being invasive or disturbing natural behavior of birds</li> </ul>	<p>PMV will continue to pursue the opportunity to implement a webcam at the proposed project site.</p> <p>If implemented, PMV would fund the operation and maintenance of the proposed webcam through its capital funding program. As PMV is not a taxpayer-funded organization, this will not result in an additional cost to taxpayers.</p> <p>Webcams have been successfully implemented to observe raptor nests, including osprey, without notable negative effects. Care will be taken to ensure that webcam placement and operation do not disturb nesting osprey.</p>

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<i>Educational opportunities</i>	<p>Approximately 48% of respondents agreed with Port Metro Vancouver exploring opportunities to work with local organizations to support educational opportunities for the public; Approximately 26% were neutral, and 26% disagreed.</p> <ul style="list-style-type: none"> <li>• Should include some incentives/benefits for local residents (e.g. recreational trails, viewing platforms)</li> <li>• Should work with local organizations, schools and First Nations to invite suggestions and identify any concerns about such initiatives</li> <li>• Some support for educational/informative signage (e.g. types of fauna, marsh habitat environment)</li> </ul>	<p>PMV will continue to explore opportunities to support local educational opportunities. PMV invites interested organizations to submit proposals regarding potential educational opportunities and will evaluate potential opportunities on a case-by-case basis. Please contact <a href="mailto:Habitat.Enhancement@portmetrovancover.com">Habitat.Enhancement@portmetrovancover.com</a>.</p> <p>Recreational trails and viewing platforms will not be considered at this site, due to concerns about increased public access to private property. PMV will consider proposals for educational/informative signage at other sites, where public access is not a concern.</p>

THEME	ENGAGEMENT INPUT	PMV RESPONSE AND ACTION
<i>Bird and fish wildlife habitat</i>	<ul style="list-style-type: none"> <li>• Questions about the effectiveness of the proposed project for improving fish and bird habitat</li> <li>• Positive support for environmental and ecological mitigation measures</li> <li>• Project is not necessary; natural habitat does not require human intervention</li> <li>• Project is a waste of money; cannot mitigate past habitat destruction</li> <li>• Concerns about the potential impact the project will have on habitats downstream</li> </ul>	<p>PMV engaged a multi-disciplinary team of qualified professional engineers and biologists in project design. The design for the proposed project is based on a standard design approach for marsh habitat, which has been successfully used at other sites in the Lower Fraser River over the past several decades.</p> <p>PMV acknowledges the importance of environmental enhancement projects, including the Westham Island Canoe Pass Tidal Marsh Project, in providing broad ecological benefits for fish and wildlife. PMV will continue to pursue similar opportunities for habitat enhancement.</p> <p>Significant historic losses of tidal wetland habitat in the Lower Fraser have resulted in PMV's focus on habitat enhancement projects that create or restore this type of habitat. PMV is committed to helping re-establish a healthier estuary, through the creation and enhancement of tidal marsh habitat.</p> <p>In the design of the proposed project, PMV retained the services of engineering firm Moffatt &amp; Nichol, which has extensive experience designing estuarine habitat and expertise in how river processes affect landforms. Moffatt &amp; Nichol has confirmed that the proposed project is not anticipated to modify local river flow behaviour or have impacts on erosion or deposition patterns that could result in impacts to adjacent habitat.</p>

<b>THEME</b>	<b>ENGAGEMENT INPUT</b>	<b>PMV RESPONSE AND ACTION</b>
<i>Site access</i>	<ul style="list-style-type: none"> <li>• Concerns that bird features/enhanced habitat would attract too many people to the area</li> <li>• Concerns about people accessing private property and negatively impacting agricultural land</li> <li>• Questions about the type of access that would be required for construction of the proposed project, and whether permission has been granted by adjacent landowners</li> </ul>	<p>PMV recognizes concerns related to unauthorized access to private property. PMV is committed to engaging in further discussion with private landowners prior to the finalization of proposed project features that could potentially result in increased access to private land.</p> <p>The majority of access to the project site necessary for project construction would be from the water. PMV will obtain landowner permission prior to accessing any private property that may be required for project construction.</p>
<i>Drainage/ sediment accumulation</i>	<ul style="list-style-type: none"> <li>• Concerns about whether the proposed project may alter flow patterns in the channel and whether this could have an effect on sediment deposition and the dikes</li> <li>• Concerns about further impacts to flood boxes due to sedimentation; requests for assurance that flood boxes would be maintained</li> </ul>	<p>In the design of the proposed project, PMV retained the services of engineering firm Moffatt &amp; Nichol, which has extensive experience designing estuarine habitat and expertise in how river processes affect landforms. Moffatt &amp; Nichol has confirmed that the proposed project is not anticipated to modify local river flow behaviour or have impacts on erosion or deposition patterns. As a result, it is not anticipated the proposed project will have any effect on sedimentation rates impacting flood boxes.</p>
<i>Farming/ agriculture</i>	<ul style="list-style-type: none"> <li>• Concern about drainage impacts to farmland on Westham Island as a result of the proposed project</li> <li>• Importance of the swing bridge to Westham Island; Closures of the bridge due to project construction would result in severe economic impacts to farmers</li> </ul>	<p>In the design of the proposed project, PMV retained the services of engineering firm Moffatt &amp; Nichol, which has extensive experience designing estuarine habitat and expertise in how river processes affect landforms. Moffatt &amp; Nichol has confirmed that the proposed project is not anticipated to modify local river flow behaviour or have impacts on erosion or deposition patterns.</p>

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		<p>PMV recognizes the importance of the swing bridge to farmers and local economy. PMV will work to minimize any effects on bridge operations resulting from project construction.</p>
<i>Dredging/ use of dredgeate</i>	<ul style="list-style-type: none"> <li>• Suggestions for locations to dredge, types of material to use and avoid in construction</li> <li>• Support for the project, highlighting the need for dredging and a nearby location for relocating dredged fill materials</li> <li>• Concern about the effects of placing contaminated dredged material on existing habitat</li> <li>• Port is only using this project to dispose of dredged material</li> </ul>	<p>The primary objective of the proposed project is the creation of tidal marsh habitat. As an added community benefit, Port Metro Vancouver is planning to use locally dredged material for the fill required for the project. This material would otherwise have been dredged and disposed of at the expense of the Local Channel Dredging Contribution Program, thereby leaving more funds available under that program.</p> <p>Any dredgeate proposed for beneficial use (i.e. to construct proposed tidal marsh) must meet regulatory standards specified by Environment Canada related to sediment quality and physical suitability.</p>
<i>Monitoring</i>	<ul style="list-style-type: none"> <li>• Need for pre-construction monitoring of the site to understand the current value of environmental service the area provides</li> <li>• Questions about the length of monitoring and management activities related to native plants and potential invasive species, as well as the long-term performance of the proposed project site</li> <li>• Musqueam Indian Band indicated that they would like to be involved in monitoring the wildlife habitat and/or</li> </ul>	<p>PMV engaged professional biologists to compile an ecological conditions report about the proposed project site, which includes physical characteristics, habitat types, and fish and wildlife species. PMV will monitor new habitat to ensure that it establishes successfully. This monitoring will also include potential work necessary for management of invasive plants.</p> <p>PMV has completed overwintering bird surveys and plans to complete bird surveys through</p>

THEME	ENGAGEMENT INPUT	PMV RESPONSE AND ACTION
	<p>habitat viewing stations at the proposed project, should viewing stations be included in the project</p>	<p>construction of the proposed project, to confirm understanding of existing bird habitat values at the proposed project site.</p> <p>Each proposed habitat site is subject to pre-construction, construction and post-construction monitoring provisions as specified in the "Working Agreement Concerning Procedures for Development and Operation of the Port Metro Vancouver Habitat Bank, July 2012" between PMV and Fisheries and Oceans Canada (DFO). This document is available online at <a href="http://porttalk.ca/document/show/355">http://porttalk.ca/document/show/355</a>.</p> <p>PMV will work with Musqueam Indian Band to explore opportunities for involvement in monitoring the wildlife habitat.</p>
<p><i>Other considerations/opportunities</i></p>	<ul style="list-style-type: none"> <li>• Concern about decreased water levels at Canoe Pass due to development on the Fraser River</li> <li>• Should look at opportunity to create habitat on "back side" of Westham Island</li> <li>• Suggestion as to how dikes might be constructed, with a series of open-ended sloughs and surge dike, in order to increase productivity of the wetland and floodplain and benefit the local wildlife</li> <li>• Suggestion that Port Metro Vancouver explore the possibility of enhancing sloughs to pump water from farmland or measures to address contamination on Mitchell Island</li> </ul>	<p>In the design of the proposed project, PMV retained the services of engineering firm Moffatt &amp; Nichol, which has extensive experience designing estuarine habitat and expertise in how river processes affect landforms. Moffatt &amp; Nichol have confirmed that the proposed project is not anticipated to modify local river flow behaviour, or have impacts on erosion or deposition patterns.</p> <p>Site selection is a key component of PMV's Habitat Enhancement Program, and we continue to welcome input on potential opportunities to enhance or restore habitat and will evaluate the viability of proposed projects.</p>

THEME	ENGAGEMENT INPUT	PMV RESPONSE AND ACTION
<i>Land ownership</i>	<ul style="list-style-type: none"> <li>• Question about involvement of Corporation of Delta</li> <li>• Question about ownership of the site including the streambed and tidal portions of Westham Island</li> </ul>	<p>PMV is actively engaging with the Corporation of Delta on the proposed project, and will continue to do so as the project develops.</p> <p>The proposed project site is located on provincial Crown land. PMV continues to actively engage with the Ministry of Forests, Lands and Natural Resource Operations on land tenure.</p>
<i>Timing of project</i>	<ul style="list-style-type: none"> <li>• Questions about timing of the project, asking if the project would be completed before the return of spawning salmon</li> </ul>	<p>The construction schedule for the proposed project has not yet been finalized. The timing of project works will be scheduled in accordance with key environmentally-sensitive periods (e.g. the migration period of sea-bound juvenile salmon).</p>
<i>Further information needed</i>	<ul style="list-style-type: none"> <li>• Require further information (ecological baseline information, site, purpose, rationale and benefits) before being able to provide feedback</li> <li>• Question about Fisheries and Oceans Canada's perspective on the project</li> <li>• Questions regarding baseline studies, including studies evaluating potential project impacts on river flow and erosion, and on biofilm at Roberts Bank</li> </ul>	<p>Information is posted to <a href="http://www.porttalk.ca/habitatenhancement">www.porttalk.ca/habitatenhancement</a> as it becomes available, including the <a href="#">ecological conditions report</a>, which provides a summary of existing and future site conditions.</p> <p>PMV also encourages stakeholders and community members to submit questions through <a href="http://PortTalk.ca">PortTalk.ca</a>, or to contact the Habitat Enhancement Program directly at <a href="mailto:habitat.enhancement@portmetrovanancouver.com">habitat.enhancement@portmetrovanancouver.com</a></p> <p>Fisheries and Oceans Canada is involved in all stages of project development, from conception to completion.</p>

THEME	ENGAGEMENT INPUT	PMV RESPONSE AND ACTION
		<p>All PMV proposed habitat enhancement projects are advanced under the conditions specified in the <i>“Working Agreement Concerning Procedures for Development and Operation of the Port Metro Vancouver Habitat Bank, July 2012”</i> between PMV and Fisheries and Oceans Canada (DFO). This document is publicly available on PMV’s website.</p> <p>In the design of the proposed project, PMV retained the services of engineering firm Moffatt &amp; Nichol, which has extensive experience designing estuarine habitat and expertise in how river processes affect landforms. Moffatt &amp; Nichol have confirmed that the proposed project is not anticipated to modify local river flow behaviour, or have impacts on erosion or deposition patterns.</p> <p>The proposed project design addresses any potential for near or off-site effects. No adverse impacts to Canoe Pass or areas downstream are anticipated to occur as a result of the proposed project design. As well, due to the geographic distance and separation from Roberts Bank, this habitat enhancement project is not anticipated to impact conditions, including biofilm, in that area.</p>

<b>THEME</b>	<b>ENGAGEMENT INPUT</b>	<b>PMV RESPONSE AND ACTION</b>
<i>Engagement/ Consultation process</i>	<ul style="list-style-type: none"> <li>• Negative comments regarding survey questions and consultation</li> <li>• Interest in being updated on the results of the engagement</li> </ul>	<p>PMV conducted pre-engagement for this project, beginning in 2013, to identify stakeholders and topics of interest. The formal consultation period was informed by what PMV heard during pre-consultation. PMV will continue to provide stakeholders and the public with project updates as they are available.</p> <p>A Summary Report, detailing input received during the consultation, is available on <a href="http://PortTalk.ca">PortTalk.ca</a>.</p>