



Consultation Summary Report

November 2018

Vancouver Fraser Port Authority
Habitat Enhancement Program
Proposed Maplewood Marine Restoration Project
September 24 – October 12, 2018

PREPARED BY
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The views represented in this report reflect the priorities and concerns of respondents. They may not be representative of the views of the public and other stakeholders as a whole because respondents self-selected into the public consultation, and therefore do not reflect a random sample. The data used in this report has been provided to Kirk & Co. by the Vancouver Fraser Port Authority.

1. Background

From September 24 to October 12, 2018, the Vancouver Fraser Port Authority's Habitat Enhancement Program consulted with stakeholders and the public regarding the proposed Maplewood Marine Restoration Project (MMRP). The proposed MMRP is currently in the design development and permitting and approvals phases, and completion of all regulatory reviews of this proposed project are anticipated by mid-2019.

The proposed MMRP is being developed and delivered by the Habitat Enhancement Program (HEP). Guided by a working agreement with Fisheries and Oceans Canada, the HEP is a port authority initiative focused on creating, restoring and enhancing fish and wildlife habitat. The HEP was developed by the port authority as a part of a broader strategy around gateway growth, acknowledging that habitat sites may be required to offset effects from port infrastructure development.

2. Project Overview, Preliminary Engagement and Work to Date

The port authority is proposing to develop the proposed MMRP for use as a fisheries habitat offsetting site for the proposed Centerm Expansion Project, pending regulatory approval, and to proactively create functioning habitat to provide a balance between a healthy environment and future development that may be required for port operations. The proposed MMRP consists of one site located on the north shore of Burrard Inlet, approximately two kilometres east of the Ironworkers Memorial Bridge, in the District of North Vancouver. This marine site was identified as a restoration priority for the Tsleil-Waututh Nation, and was selected for habitat enhancement because of its current relatively low habitat values, and based on input from Aboriginal groups.

The proposed MMRP would enhance approximately seven hectares of low-value marine habitat into higher-value intertidal, eelgrass and subtidal rock reef habitat. The enhanced marine habitat is anticipated to provide long-term benefits for fish and invertebrates that depend on marine vegetation for rearing habitat, along with other fish and wildlife species such as waterfowl and wading birds.

Early engagement with key stakeholders took place from November 8 to 27, 2017, to review the proposed Project at a conceptual design stage. Four in-person meetings, which included a presentation from the Project team and feedback received from stakeholders, were held with the following groups (listed in order of meetings):

- District of North Vancouver
- Environment and Climate Change Canada's Pacific Environmental Science Centre
- Wild Bird Trust of British Columbia
 - Included three SFU/BCIT research and ecological restoration students, and a representative from Tsleil-Waututh Nation

On November 23, 2017, the Project team presented details of the proposed MMRP to the North Shore Waterfront Liaison Committee, which is made up of six local community members and eight representatives from municipalities, industry and the port authority. Additionally, an informational email was sent to the following individuals and groups:

- Jonathan Wilkinson, MP, North Vancouver
- Jane Thornthwaite, MLA, North Vancouver-Seymour

- Bowinn Ma, MLA, North Vancouver-Lonsdale
- Trevor Davis, Southcoast Area Manager, West Coast Marine Response Corporation
- North Shore Streamkeepers
- Save our Shores Society (North Vancouver)
- North Shore Wetland Partners Society
- North Shore Fish and Game Club

Feedback gathered at the above stakeholder meetings was incorporated into the discussion guide that was used for the fall 2018 public consultation process.

Further, the following technical studies have been undertaken by the MMRP team as part of project development:

- Environmental Site Assessments (desktop and field assessments) in 2017 and 2018
- Archaeological Overview Assessment and Preliminary Field Reconnaissance Assessment in spring 2018
- Sediment Characterization and Geotechnical Investigation in spring 2018
- Biophysical Surveys, Assessments and other Ecological Studies in spring 2018
- Noise Assessment in 2018

3. Public Consultation

3.1 Purpose and Consultation Topics

From September 24 to October 12, 2018, the MMRP team consulted stakeholders and the public regarding the proposed Project. Prior to the start of this public consultation period, a second presentation was made by the Project team to the North Shore Waterfront Liaison Committee, to update and inform the Committee of the upcoming consultation period. Engagement with MMRP key stakeholders was also completed before, during and after the consultation period, in the form of detailed response letters that answered technical, project-related questions submitted by the Wild Bird Trust of B.C. and the District of North Vancouver. A separate but parallel consultation process with Aboriginal groups continues and is being led by the Project team.

The purpose of the public consultation period was to provide information about the proposed Project and to seek input regarding the following discussion topics:

- Notification methods for construction and project updates
- A proposed ecological or cultural feature

How Input Will Be Used

The Project team will apply feedback from this public consultation period to refine notification methods for construction and project updates, and in considering a proposed ecological or cultural feature. This project is subject to review and approval under the port authority's Project and Environmental Review process and input provided will be considered as part of this process.

3.2 Consultation Participation

There were a total of **48 participant interactions** as part of the public consultation:

- **42** people attended the public open house on October 2, 2018
- **Five** feedback forms were received (four online and one sent via email)
- **One** letter was received via email

3.3 Consultation Methods

The consultation included:

- A discussion guide and feedback form (Appendix 1)
- An online feedback form (<http://porttalk.ca/maplewood>)
- A public open house in the District of North Vancouver:
 - October 2, 2018
5:00 p.m. – 8:00 p.m.
Corrigan Nature House
Maplewood Flats Conservation Area
2645 Dollarton Highway, North Vancouver, B.C.

3.4 Notification

Notification of opportunities to participate in public consultation included:

- **Postcards:** distributed to approximately 60 residents along Dollarton Highway, northeast of the marine project site
- **Posters:** posted on the bulletin board adjacent to Corrigan Nature House, placed at the foot of the pedestrian bridge and along the walking trails in the Maplewood Flats Conservation Area
- **Newspaper advertisements:** two newspaper ads in the *North Shore News*; Wednesday, September 19 and Friday, September 28, 2018
- **Key stakeholder emails:** Personalized emails to 11 Project key stakeholders, in advance of the three-week public consultation period, including the Wild Bird Trust of B.C., District of North Vancouver and Environment and Climate Change Canada's Pacific Environmental Science Centre
- **General email:** An email to approximately 1,150 stakeholders who have registered to receive Habitat Enhancement Program-related emails, on the first day of the three-week public consultation period
- **Social media posts:** Eight tweets were sent from @PortVancouver to 12,121 Twitter followers. This resulted in 31 clicks to the PortTalk website page and 12,526 impressions. Two targeted Facebook ads were sent from @Portofvancouver to 34,681 Facebook followers. This resulted in 583 clicks to the PortTalk website page and 28,265 impressions.

Notification materials can be found in Appendix 2.

4. Key Results

4.1 Open House

42 people attended the open house

Copies of the discussion guide and feedback form were distributed to all attendees at the open house, and display boards summarizing the consultation materials were placed around the room. Project team members circulated the room and engaged attendees in one-on-one and small group discussions.

The following are key themes from verbal feedback received at the open house:

- Support for the proposed MMRP and general interest in Project details
- Interest in the project design and proposed construction activities, including potential noise and light impacts, and the preliminary construction timeline
- Interest in the environmental benefits of intertidal flat, eelgrass and rock reef habitat, and why the proposed location is suitable for each type of habitat
- Questions regarding past industrial use of the site, including what debris may remain
- Questions regarding if a proposed development by Darwin Construction that's located on the north side of Dollarton Highway may affect the proposed MMRP via water flowing through the barge channel
- Questions regarding if/how fresh water flow from the upland areas will be affected
- Interest in learning more about the port authority (e.g. other HEP projects)

4.2 Feedback Forms

The following are summary results from the **five** feedback forms received:

Note that the number of mentions may vary from the total number of respondents as participants may have commented on or selected more than one topic.

1. Notification methods for construction and project updates

How would you like to receive updates regarding important construction and project milestones for the proposed Maplewood Marine Restoration Project? Please select all that apply.

(Five respondents)

Options:	Number of times selected
Information signage or posters (e.g. posted on the bulletin board adjacent to Corrigan Nature House, placed at the foot of the pedestrian bridge and along the trails of the conservation area)	2
Web updates	0
Email updates	4
Community notices delivered door-to-door to residents in the immediate area	1

2. Proposed ecological or cultural feature

Are you in favour of a proposed ecological or cultural feature in the general Project site area, and if so, what ideas do you have? (Five respondents)

Key themes:	Number of mentions
Yes, I'm in favour of a proposed ecological or cultural feature	4
If yes, what ideas do you have?	
• A feature that explains or represents the historic ecological wealth of Burrard Inlet and what it means for the Tsleil-Waututh Nation	1
• I believe this should be determined by the Tsleil-Waututh Nation	1
No, I'm not in favour of a proposed ecological or cultural feature	1

3. Additional comments

Please provide any additional comments you may have regarding any aspect of the proposed Project. (Three respondents)

Key theme:	Number of mentions
Support for efforts to enhance marine and wildlife habitat, and consult First Nations	1
Suggestions regarding the technical design of the proposed MMRP	1
Comments regarding potential Project effects and long-term recreational use around the marine site	1

4.3 Written Submissions

One written submission was received by email. The following is a summary of the feedback received:

Key themes:	Number of mentions
General support for the proposed MMRP	1
Questions and comments regarding a proposed ecological or cultural feature, specifically, and the Maplewood marine area, generally	1

The Project team will apply feedback from this public consultation period to refine notification methods for construction and project updates, and in considering a proposed ecological or cultural feature. This project is subject to review and approval under the port authority's Project and Environmental Review process and input provided will be considered as part of this process.

Vancouver Fraser Port Authority Habitat Enhancement Program

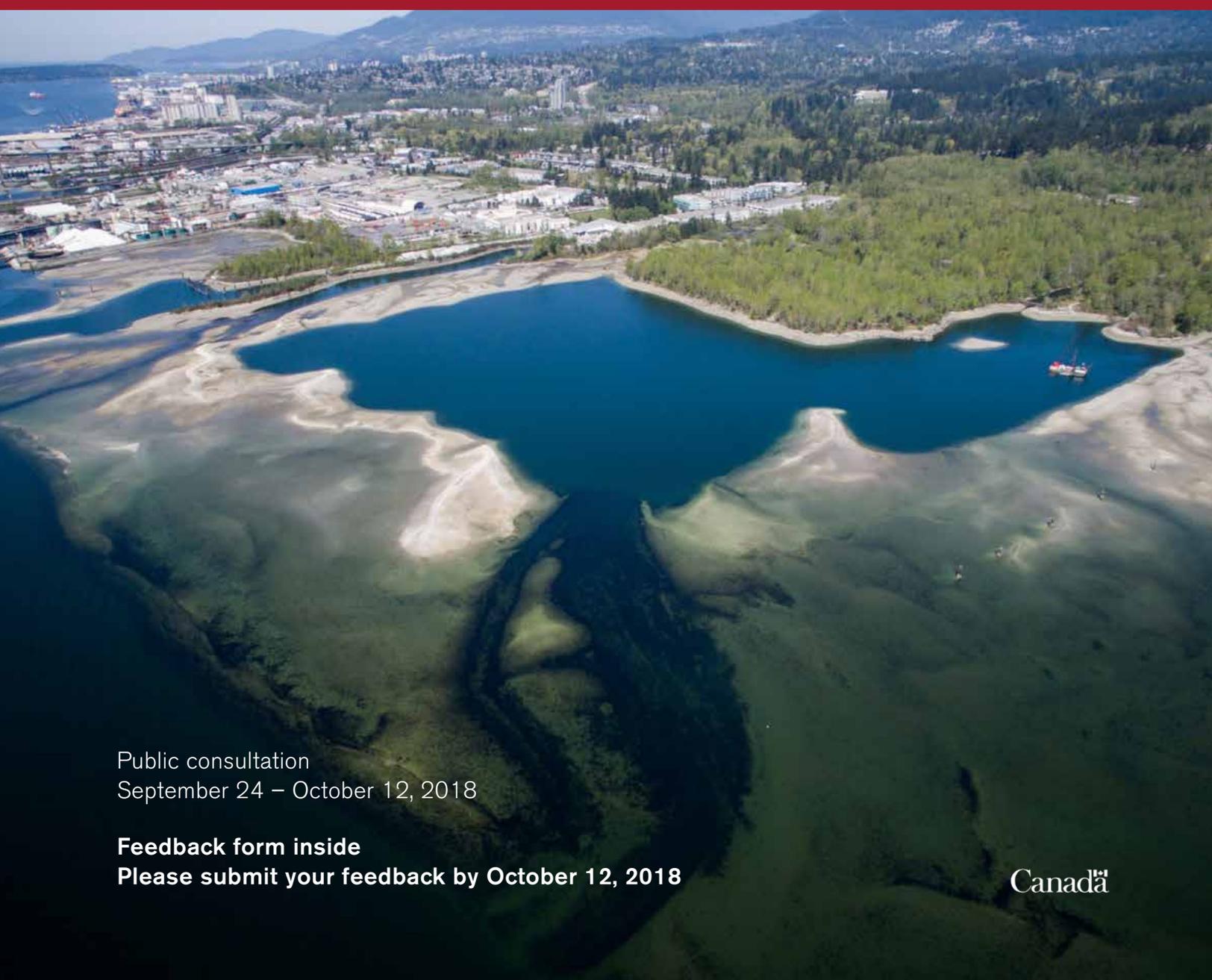
Proposed Maplewood Marine Restoration Project

Appendix 1 – Discussion Guide and Feedback Form

Vancouver Fraser Port Authority Habitat Enhancement Program

Proposed Maplewood Marine Restoration Project

Discussion guide and feedback form



Public consultation
September 24 – October 12, 2018

Feedback form inside
Please submit your feedback by October 12, 2018

Public consultation: September 24 – October 12, 2018

From September 24 – October 12, 2018, the Vancouver Fraser Port Authority's Habitat Enhancement Program is consulting with communities, stakeholders and the public regarding the proposed Maplewood Marine Restoration Project. A separate but parallel consultation process with Aboriginal groups is being led by the port authority, and will continue throughout project development.

This consultation includes:

- Discussion guide and feedback form
- Online feedback form
- Public open house in the District of North Vancouver

Discussion topics:

- Notification methods for construction and Project updates
- Proposed ecological or cultural feature

The purpose of this discussion guide is to provide information about the proposed Maplewood Marine Restoration Project and to seek your input regarding the discussion topics above. Input provided will be considered as part of the port authority's Project and Environmental Review (PER) process.

How to participate

<p>Attend the public open house</p>	<p>Date: Tuesday, October 2, 2018 Time: 5:00 p.m. – 8:00 p.m. Location: Corrigan Nature House Maplewood Flats Conservation Area 2645 Dollarton Highway, North Vancouver, B.C. V7H 1B1</p>
<p>Read the discussion guide and submit your feedback form</p>	<p>Online at http://porttalk.ca/maplewood or in person at the public open house at Corrigan Nature House located at the Maplewood Flats Conservation Area</p>
<p>Provide a written submission</p>	<p>By email: habitat.enhancement@portvancouver.com By mail: Attn: Maplewood Marine Restoration Project Vancouver Fraser Port Authority, 100 The Pointe 999 Canada Place, Vancouver, B.C. V6C 3T4</p>
<p>Call for information</p>	<p>778.988.6180</p>

Please email habitat.enhancement@portvancouver.com for additional information.

Proposed Project overview

The proposed Maplewood Marine Restoration Project consists of one site located on the north shore of Burrard Inlet, approximately two kilometres east of the Ironworkers Memorial Bridge in the District of North Vancouver, B.C. (Figure 1). The marine site is immediately south of Maplewood Flats, a conservation area within Vancouver Fraser Port Authority jurisdiction, leased to Environment Canada and managed by the Wild Bird Trust of British Columbia. The proposed Project would enhance approximately seven hectares of low-value marine habitat into higher-value intertidal, eelgrass and subtidal rock reef habitat.

The port authority's Habitat Enhancement Program is proposing to develop the Maplewood Marine Restoration Project for two purposes:

1. For use as a fisheries habitat offsetting site for the proposed Centerm Expansion Project, pending approval from Fisheries and Oceans Canada (DFO); and,
2. To proactively create functioning habitat to provide a balance between a healthy environment and future development that may be required for port operations.

The proposed Maplewood Marine Restoration Project will be developed and delivered by the Habitat Enhancement Program, a port authority initiative focused on creating, restoring and enhancing fish and wildlife habitat.



FIGURE 1 Approximate location of the proposed Maplewood Marine Restoration Project. The proposed Project includes the creation of a channel (Southwest Channel) that includes rock reef habitat, and habitat enhancement within the Northeast Basin area (i.e. creation of intertidal flat habitat, eelgrass habitat and rock reef habitat).

Proposed Project schedule

Construction of the proposed Project is forecast to begin in late summer/early fall 2019, with an anticipated construction period of approximately eight months. The majority of the construction work is scheduled to occur during the annual fisheries least-risk timing window for Burrard Inlet. The least-risk window to mitigate risk of negative effects to juvenile salmonids is August 16 to February 28. For any work conducted outside of the window, appropriate mitigation measures will be in place.

Planting of donor eelgrass stock is expected to occur during the summer of 2020 or 2021, pending construction completion. The construction schedule will be refined as the Project advances to a procurement-ready stage.

Proposed Maplewood Marine Restoration Project phases



A separate but parallel consultation process with Aboriginal groups has been undertaken by the Vancouver Fraser Port Authority. Port authority-led consultation with Aboriginal groups will continue throughout Project development.

Permitting and approvals

Vancouver Fraser Port Authority Project and Environmental Review Process

The proposed Project is subject to review and approval under the port authority's Project and Environmental Review (PER) process. Input provided will be considered as part of this review process. For more information on PER, please visit <http://www.portvancouver.com/development-and-permits/project-and-environmental-reviews/>



Proposed Project rationale and benefits

The proposed marine site was identified as a restoration priority for the Tsleil-Waututh Nation. The site was selected for habitat enhancement because of its existing relatively low habitat values and based on input from Aboriginal groups. The proposed enhanced marine habitat is anticipated to provide long-term benefits for fish, invertebrates and wildlife, such as salmon, Dungeness crab, waterfowl and wading birds. For example, eelgrass provides important refuge and nursery habitat for juvenile fish; rock reef habitat will support various kelp species, which will contribute to an increase in the diversity of fish and wildlife at the proposed Project site; and intertidal flat habitat will support a variety of shellfish and other marine invertebrates.

Site history

The Maplewood Flats area has been used by Aboriginal groups since time immemorial. In the late 1800s, tidal flats bordered the northern shore of Burrard Inlet's Central Harbour, providing productive habitat for waterfowl, fish, and shellfish. Logging in upland areas of Maplewood began around the turn of the 20th century. Over a period of almost 100 years, logging, land "reclamation" and industry shaped the upland and intertidal portions of the area.

The Maplewood Basin was previously intertidal flats similar to the existing Maplewood Flats to the east of the Project site. A review of historic aerial photographs

suggest that Maplewood Basin was dredged between the 1940s and 1960s, and it has largely remained in its present form since that time (Figure 2).

The dredged areas were formerly used for log sorting and storage operations—from the early 1940s to early 1980s—and gravel extraction operations via barge in the early 1940s to 1961. The partial infilling of dredged areas between 1969 and 1979 on the north side of the Maplewood Basin resulted in the reinstatement of upland areas that were used for a wide range of industrial operations until the late-1980s (Figure 3).

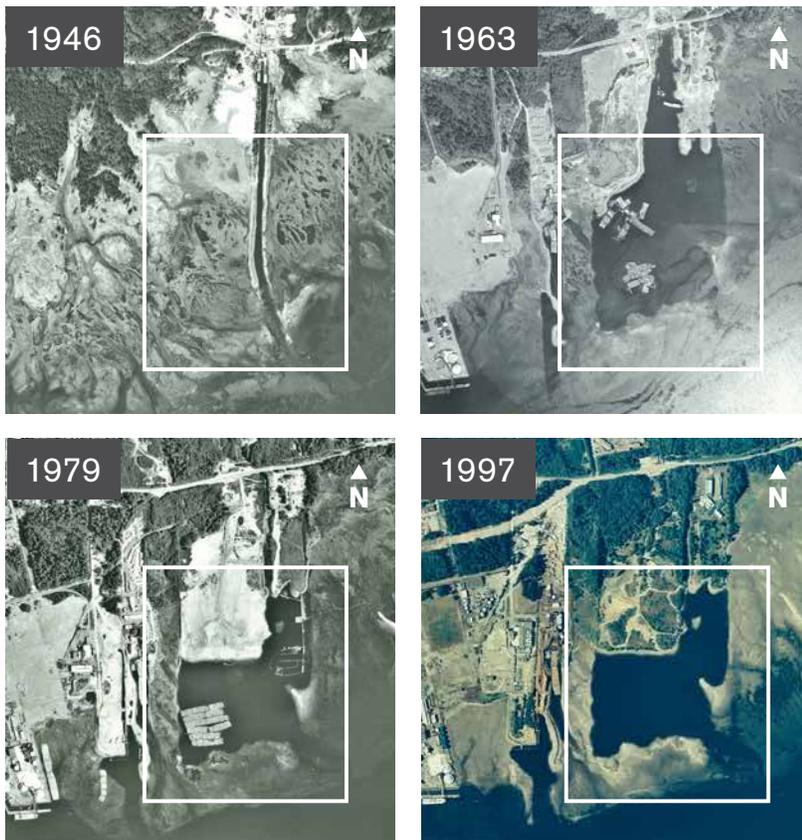


FIGURE 2 Historical aerial photos of the Maplewood site (1946-1963). The photo from 1946 shows a barge channel created from Burrard Inlet to the modern-day Dollarton Highway.

FIGURE 3 Historical aerial photos of the Maplewood site (1979-1997). The photo from 1979 shows the Maplewood Basin being used as a log storage area.

The upland Maplewood Flats became a conservation area in the 1990s. Currently under Vancouver Fraser Port Authority jurisdiction, the area is leased to Environment Canada and managed by the Wild Bird Trust of British Columbia. The marine site adjacent to this conservation area was selected for habitat enhancement because of its current relatively low habitat values and based on input from Aboriginal groups. The site was identified as a priority restoration site by the Tsleil-Waututh Nation.

Proposed Project design

The proposed Project would create three types of habitat: subtidal rock reef habitat, eelgrass habitat and intertidal flat habitat (Figure 4). Dredging, material placement and slope protection work will be required to create the three habitat types.

Habitat in the Northeast Basin (Figure 1) will be created using approximately 87,000 m³ of dredged material from the Southern Intertidal Area—resulting from the creation of the proposed Southwest Channel—and approximately 95,000 m³ of imported clean fill material that is anticipated to be sourced from the Fraser River, to raise the elevation of the existing seafloor.

The proposed intertidal flat habitat and shallow subtidal eelgrass habitat in the Northeast Basin will be constructed between approximately +2.0 m and -2.0 m chart datum* (CD). Subtidal rock reef habitat at the southernmost end of the Northeast Basin will be constructed by placing appropriately-sized rock material between approximately -3.0 m and -4.0 m CD. A total of approximately 8,500 m³ of rock material is anticipated to be placed in the Northeast Basin to create the rock reef habitat and support overall habitat enhancement of the area.

Rock reef habitat in the proposed Southwest Channel will be created in the Southern Intertidal Area. The creation of the Southwest Channel is anticipated to improve tidal flushing in the Maplewood Basin as well as enhance nutrient transport and improve water quality, among other benefits. A total of approximately 14,000 m³ of rock material will be placed in the Southwest Channel to both protect the channel against scour from tidal currents, and to also function as rock reef habitat. The rock in the Southwest Channel will be placed between approximately +2.0 m and -4.0 m CD.

*A chart datum (CD) is the level of water that charted depths displayed on a nautical chart are measured from.

FIGURE 4 Artist's cross-section illustration of the proposed Maplewood Marine Restoration Project.

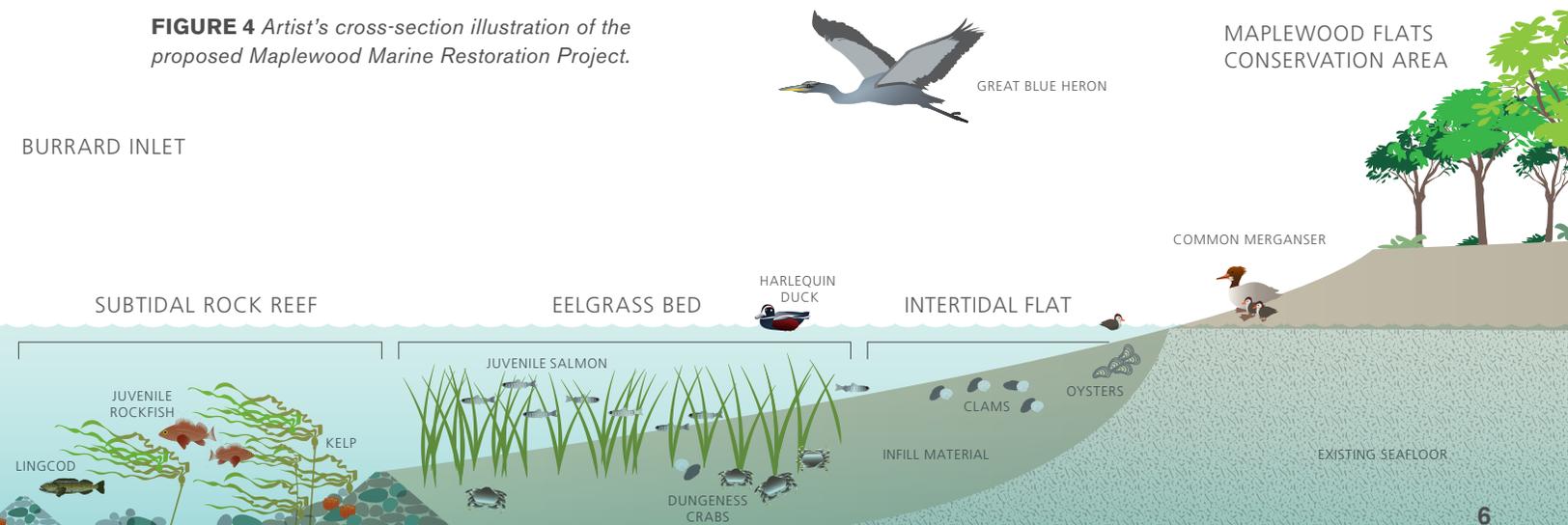




FIGURE 5 Example of barge-mounted clamshell dredging equipment, noted below.

Construction

All habitat construction will be completed by marine access. Barge-mounted construction equipment will be required to cross over the shallow Southern Intertidal Area during a high tide before the start of dredging. It is anticipated that the Southwest Channel will be dredged using a barge-mounted clam-shell dredge. Once the Southwest Channel is dredged to design grade, it is anticipated that loaded material scows will be able to enter and exit the proposed Project site during low tides through the Southwest Channel. Construction methodology details will be refined as the proposed Project advances to a procurement-ready stage.

Following construction, stabilization and a final survey of the eelgrass bed location, native eelgrass from suitable donor beds will be transplanted into the Northeast Basin.

Post-construction, the site would be monitored in accordance with regulatory requirements to ensure its biophysical objectives were met. As is the case with all Habitat Enhancement Program projects, the port authority will undertake annual monitoring guided by biologists and coastal engineers to ensure the enhanced habitat continues to function well.

Environmental and technical studies

The following studies have been undertaken by the Project team as part of proposed Project development.

Environmental Site Assessments

Desktop and field assessments were undertaken to identify upland areas of potential environmental concern adjacent to the proposed Project site. This included Environmental Site Assessments, conducted in the upland areas, to determine if groundwater flow from the upland areas was transporting potential contaminants of concern to the Northeast Basin. Groundwater samples taken from these upland areas met Canadian guidelines for the protection of marine aquatic life. The report concluded that potential groundwater flow from relevant areas on the upland property do not pose a risk to this proposed habitat Project.



FIGURE 6 Biophysical assessments conducted for the proposed Project included crew members from the Tsleil-Waututh Nation.

Sediment Characterization and Assessments

Additional sediment will be required to raise the elevation of the existing seafloor in the Northeast Basin to establish the proposed high-value habitats. Sediment is proposed to be sourced from creation of the Southwest Channel in the Southern Intertidal Area. Additional sediment is anticipated to be sourced from routine maintenance dredging operations in the navigation channel of the Fraser River (South Arm).

Sampling of sediments in the proposed Southwest Channel footprint and the Northeast Basin was undertaken in April 2018 to analyze and characterize the physical and chemical suitability of the sediments for beneficial use and habitat creation. Available physical and chemical data for the Fraser River sediments were also analyzed. The results of the analysis suggest that the sediment quality of the Southwest Channel material and Fraser River material meets the necessary sediment quality criteria for beneficial use in local habitat projects, such as this proposed Project.

Environment and Climate Change Canada will conduct a review to ensure the beneficial use activities and sediment quality of materials proposed for use are acceptable for building habitat.



FIGURE 7 Sediment assessments were conducted in and around the Maplewood Basin in spring 2018.

Archaeological Assessments

An Archaeological Overview Assessment and a Preliminary Field Reconnaissance Assessment were undertaken in May 2018 to determine the archaeological potential within or near the proposed Project site. These assessments concluded that the proposed works within the Northeast Basin and Southwest Channel have a low potential to affect unknown archaeological resources. Some archaeological values were identified outside of the proposed Project boundary that may be vulnerable to the infilling activities in the Northeast Basin. With the implementation of archeological resource management recommendations there is low potential to negatively affect identified archaeological values.

Noise Assessment

The proposed Project site is located near shipping areas in Burrard Inlet, the Ironworkers Memorial Bridge and industrial operations along the Central Harbour shoreline, where ambient noise levels can be classified as moderately high. The proposed Project location is relatively far away (greater than 500 metres) from residential areas. A preliminary assessment of how construction of the proposed Project may affect noise levels was undertaken in accordance with the port authority's PER guidelines, and in general, construction activities are anticipated to create moderate noise levels as a result of the operation of marine-based equipment and machinery. No high-energy impulsive noises (e.g. from pile driving) are proposed or anticipated to occur as part of the proposed Project.

It is expected that high tides will be required for equipment to access the marine site during some phases of the proposed Project, and to avoid grounding equipment in marine habitat. Suitable high tides do occur outside the port authority's standard regular work hours (i.e. Monday to Saturday between 7:00 a.m. and 8:00 p.m., excluding holidays). To complete the marine construction work associated with the proposed Project, and in as short a duration possible, it is anticipated that construction will be completed on a 24-hour operation, as required. Completion of the marine works based on a 24-hour operation will reduce the overall duration of the work program, thus reducing the potential for noise disturbance and ensuring work is completed in the most efficient manner by taking advantage of optimal tides.

Biophysical Surveys

Biophysical surveys, assessments and studies were also completed as part of the proposed Project, with Aboriginal group involvement and participation of others (e.g. Wild Bird Trust of British Columbia). This work included information gathering related to existing ecological conditions in the proposed Project area, including species abundance and distribution, dominant habitat types and bird usage.

The proposed Project site has existing wildlife habitat values, such as foraging areas for waterbirds, and although the proposed Project is expected to benefit wildlife by replacing lower value aquatic habitat with higher value aquatic habitat, there is still a risk of disturbance to wildlife species during construction. To mitigate potential effects to nesting birds, the majority of the proposed Project construction is anticipated to occur outside the general nesting bird window, considered to fall between mid-March and mid-August annually.

Potential effects and proposed mitigation measures

The following table describes potential Project and construction effects, and the corresponding proposed mitigation measures.

Topic	Potential effects	Proposed mitigation measures
Noise	<ul style="list-style-type: none"> Construction activities could result in minor noise effects to residents near the Maplewood Flats Conservation Area. Construction-generated noises may affect fish and wildlife and result in temporary avoidance of affected habitats. 	<ul style="list-style-type: none"> The nearest residences are situated greater than 500 metres from the proposed Project site. Nearby residents will be notified in advance of potential noise resulting from night or weekend project work. To mitigate potential negative effects to fish and birds, the majority of work is scheduled to occur during the least-risk timing window* for fish (August 16 – February 28 annually), and is anticipated to mostly occur outside the general nesting bird window (March 15 – August 15 annually).
Light	<ul style="list-style-type: none"> During construction, specifically night work, lights from contractors' vessels may be visible to residents near the Maplewood Flats Conservation Area. There is potential for light generated during construction to affect fish and wildlife and result in temporary avoidance of affected habitats. 	<ul style="list-style-type: none"> Light mitigation measures will be developed and crews will be instructed to point lights down, not toward land. To mitigate potential negative effects to fish and birds, the majority of work is scheduled to occur during the least-risk timing window* for fish, and is anticipated to mostly occur outside the general nesting bird window (March 15 – August 15 annually).
Safety	<ul style="list-style-type: none"> Construction activities with heavy equipment represent some health and safety risks, primarily to construction workers. 	<ul style="list-style-type: none"> The contractor will be responsible for developing an Occupational Health and Safety Plan, which will include measures that comply with WorkSafe BC standards, to ensure safe practices are implemented for the protection of workers and the public.
Environment	<ul style="list-style-type: none"> The habitat enhancement as part of the proposed Project will convert existing low-value marine habitat into higher-value subtidal rock reef, eelgrass and intertidal flat habitat. Construction activities could directly or indirectly affect aquatic life and wildlife. 	<ul style="list-style-type: none"> There will be an overall gain in the habitat values and fisheries productivity at the proposed Project site by implementing this proposed Project. A Construction Environmental Management Plan will ensure that any potential construction-related effects are minimized. Construction will be undertaken with appropriate mitigation measures, such as spill prevention planning. To mitigate potential negative effects to fish and birds, the majority of work is scheduled to occur during the least-risk timing window* for fish, and is anticipated to mostly occur outside the general nesting bird window (March 15 – August 15 annually).

*Least-risk timing windows are designed to protect fish and wildlife species, and are often based on avoiding periods when fish are spawning or wildlife are breeding and/or raising their young.

CONSULTATION TOPIC #1

Notification methods for construction and project updates

The Project team recognizes that the upland area around the proposed Project site is well-used among recreational users and is considering several options for communicating with users, stakeholders, local residents and the public regarding construction updates and milestones during construction, in order to minimize disruption from construction-related activities.

The Project team would like your feedback on the following information-sharing methods regarding construction and general Project updates during the proposed construction period:

- Informational signage or posters (e.g. posted on the bulletin board adjacent to Corrigan Nature House, placed at the foot of the pedestrian bridge and/or along the trails of the conservation area)
- Website updates
- Community notices delivered door-to-door to residents in the immediate area
- Email updates (requires sign-up)

CONSULTATION TOPIC #2

Proposed ecological or cultural feature

By taking current low-value marine habitat and enhancing it into higher-value marine habitat, the proposed Project is anticipated to provide long-term benefits for fish and invertebrates that depend on marine vegetation for rearing habitat, along with other fish and wildlife species such as waterfowl and wading birds.

The proposed Project also presents a potential opportunity to share the ecological benefits of these types of habitat enhancement/restoration works, in addition to acknowledging the cultural importance of the area to Aboriginal groups. Therefore, we are looking into a potential ecological or cultural feature in the proposed Project area.

The Project team would like to know if you are in favour of a proposed ecological or cultural feature, and if so, what ideas you have.



FIGURE 7 Eelgrass provides important habitat for fish and wildlife, including Dungeness crab.

Feedback questions

1. Notification methods for construction and project updates

How would you like to receive updates regarding important construction and project milestones for the proposed Maplewood Marine Restoration Project? *Please select all that apply*

- Information signage or posters (e.g. posted on the bulletin board adjacent to Corrigan Nature House, placed at the foot of the pedestrian bridge and along the trails of the conservation area)
- Web updates
- Email updates
- Community notices delivered door-to-door to residents in the immediate area

2. Proposed ecological or cultural feature

Are you in favour of a proposed ecological or cultural feature in the general Project site area, and if so, what ideas do you have?

- Yes, I'm in favour of a proposed ecological or cultural feature and the following are suggested options:

- No, I'm not in favour of a proposed ecological or cultural feature

How input will be used

The input gathered during this consultation, along with technical and financial information, and information provided by Aboriginal groups and stakeholders, will be considered to inform further project design and will be reviewed as part of the Vancouver Fraser Port Authority's Project and Environmental Review process for the proposed Project.

Receive Project updates

To receive email updates about this proposed Project and the Habitat Enhancement Program, please provide your contact information (optional):

Name:

Mailing Address:

Postal Code:

Phone:

Email:

**Vancouver Fraser Port Authority
Habitat Enhancement Program**

Proposed Maplewood Marine Restoration Project

Appendix 2 – Notification Materials

Postcard (front)



**Proposed Maplewood
Marine Restoration Project**
Public Consultation

**You're invited to a public open house to learn more about the
proposed Maplewood Marine Restoration Project.**

Open house

Tuesday, October 2, 2018
5:00 p.m. – 8:00 p.m.
Corrigan Nature House
Maplewood Flats
Conservation Area
2645 Dollarton Highway,
North Vancouver, B.C. V7H 1B1

**The open house is a drop-in format
and there is no need to pre-register.*

About the proposed Project

The Vancouver Fraser Port Authority's Habitat Enhancement Program is working to enhance fish and wildlife habitat at a marine site immediately south of the Maplewood Flats Conservation Area in the District of North Vancouver, B.C. The proposed Maplewood Marine Restoration Project would enhance approximately seven hectares of lower-value marine habitat into higher-value intertidal, eelgrass and subtidal rock reef habitat.

How to participate

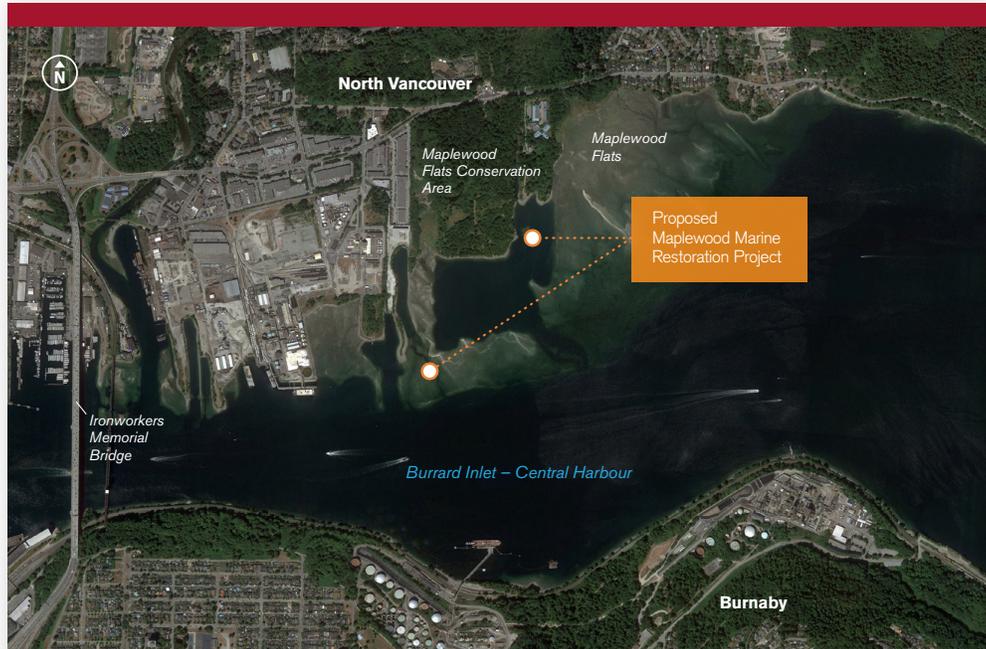
If you cannot attend the public open house, there are other ways you can participate in this public consultation:

1. Read the discussion guide online <http://porttalk.ca/maplewood> and complete an online feedback form
2. Provide written feedback
 - **By email** at habitat.enhancement@portvancouver.com
 - **By mail**
Attn: Maplewood Marine Restoration Project
Vancouver Fraser Port Authority,
100 The Pointe,
999 Canada Place,
Vancouver, B.C. V6C 3T4

**Please submit your feedback by
Friday, October 12, 2018.**

Canada

Postcard (back)



Timeline

This proposed Project is currently in the design development and permitting and approvals stages. Completion of regulatory reviews of the proposed Project are anticipated by early 2019. Following completion of these regulatory reviews, the earliest Project construction could start is anticipated to be late summer or early fall 2019, for a period of approximately eight months. To mitigate potential impacts to fish and fish habitat from construction, most work would be scheduled to occur within the annual least-risk timing window for Burrard Inlet (August 16 to February 28). For any work that occurs outside of this least-risk window, appropriate mitigation measures would be put in place.

Contact Us

Enquiries

Phone: 778.988.6180
Email: habitat.enhancement@portvancouver.com

More information about the Project

Web: www.portvancouver.com/maplewood

Register for Project updates

Email: habitat.enhancement@portvancouver.com

Canada



Proposed Maplewood Marine Restoration Project Public Consultation

You're invited to a public open house to learn more about the proposed Maplewood Marine Restoration Project.

Tuesday, October 2, 2018

5:00 p.m. – 8:00 p.m.

Corrigan Nature House

Maplewood Flats Conservation Area

2645 Dollarton Highway, North Vancouver, B.C. V7H 1B1

**The open house is a drop-in format and there is no need to pre-register.*

About the proposed Project

The Vancouver Fraser Port Authority's Habitat Enhancement Program is working to enhance fish and wildlife habitat at a marine site immediately south of the Maplewood Flats Conservation Area in the District of North Vancouver, B.C. The proposed Maplewood Marine Restoration Project would enhance approximately seven hectares of lower-value marine habitat into higher-value intertidal, eelgrass and subtidal rock reef habitat.

Public consultation

If you cannot attend the public open house, there are other ways you can participate in this public consultation:

1. Read the discussion guide online at <http://porttalk.ca/maplewood> and complete the online feedback form
2. Provide written feedback
 - **By email** at habitat.enhancement@portvancouver.com
 - **By mail** Attn: Maplewood Marine Restoration Project
Vancouver Fraser Port Authority, 100 The Pointe
999 Canada Place, Vancouver, B.C. V6C 3T4

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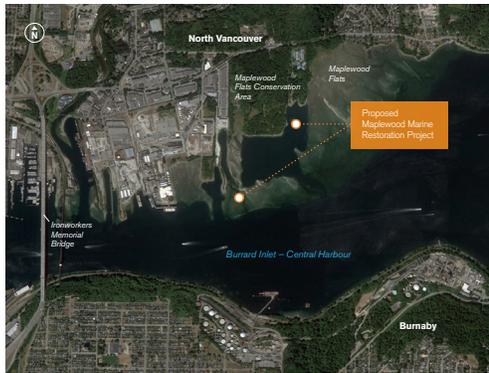




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Public consultation

There are many ways you can participate in this public consultation, including the following:

1. Read the discussion guide **online** at <http://porttalk.ca/maplewood> and complete an online feedback form, or in hard-copy at the public open house (see below)
2. Attend the **public open house**
Tuesday, October 2, 2018
5:00 p.m. – 8:00 p.m.
Corrigan Nature House
Maplewood Flats Conservation Area
2645 Dollarton Highway,
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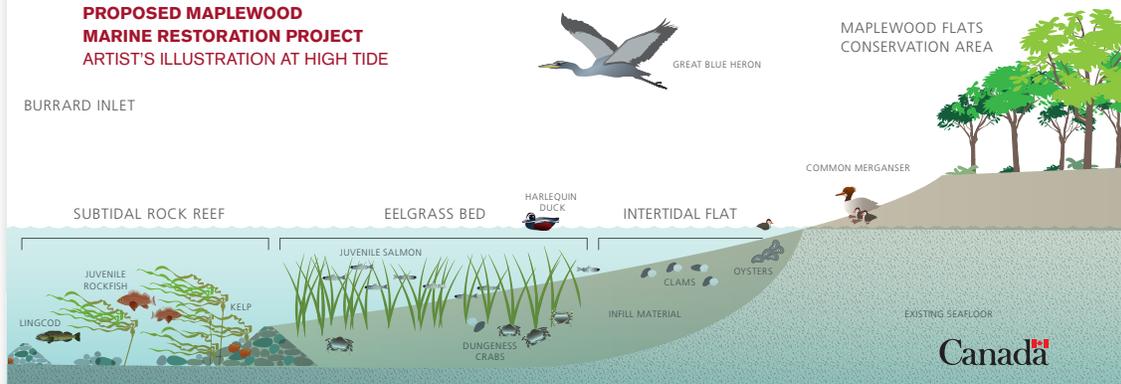
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PROPOSED MAPLEWOOD MARINE RESTORATION PROJECT ARTIST'S ILLUSTRATION AT HIGH TIDE



Social Media Samples

Facebook

 **Port of Vancouver**
September 19 · 🌐

You're invited to attend an open house on Tuesday, October 2 in North Vancouver to learn about the proposed Maplewood Marine Restoration Project. Public consultation runs from September 24 to October 12: <http://porttalk.ca/maplewood>



PORTTALK.CA

Proposed Maplewood Marine Restoration Project
The Project team will be consulting with the public and stakeholders...

Twitter

 **Port of Vancouver** ✓
@PortVancouver Follow ▾

Let us know what you think! The port authority is working to enhance fish and wildlife habitat at a site near the Maplewood Flats Conservation Area. Learn about the project and provide feedback by Oct 12: porttalk.ca/maplewood #NorthVan #MaplewoodRestoration



9:45 AM - 7 Oct 2018

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