



File No.: MA-DP-2020.1 (CRD)

DATE OF MEETING: September 28, 2020

TO: Mayne Island Local Trust Committee

FROM: Phil Testemale  
Southern Team

COPY: Narissa Chadwick, Island Planner

SUBJECT: Development Permit Application – Anson Road Dock Facility  
Applicant: CRD, c/o Dale Puskas, P. Eng., Manager of Capital Projects  
Location: Water Lot DL 2027 – Anson Road

## RECOMMENDATION

1. That the Mayne Island Local Trust Committee approve issuance of Development Permit MA-DP-2020.1 (CRD – Anson Road Dock).

## REPORT SUMMARY

This report is to consider a Development Permit (DP) application.

The application is for measures for the protection of the sensitive marine habitat and construction management for proposed construction of a public dock facility seaward of the northern end of Anson Road and within the **Marine Development Permit Area (DPA)**.

Overall, the objectives of the designation of the DPA are to

*To plan and regulate new development in a manner that preserves and protects the long-term physical integrity and ecological values of marine areas and to maintain public access.*

In summary, the above recommendation for the proposal is supported as the objectives and specific guidelines of the DPA have been met; all relevant recommendations of professional technical reports have been incorporated into the conditions of the proposed DP; and, conditions in the draft DP will ensure the protection of the marine environment.

A copy of proposed Development Permit MA-DP-2019.1 (CRD - Anson Road Dock) is Attachment 5. A DP checklist is part of Table 1 (below).

## BACKGROUND

The proposal is to permit the construction of a new public dock facility over Water Lot DL 2027 at the terminus of Anson Road on Horton Bay (Figure 1 & 2). The Capital Regional District (CRD) operates a number of public dock facilities across the Southern Gulf Islands under the Southern Gulf Islands Harbours Commission service. Under this service, the CRD acquired a water lot lease fronting Anson Road in 2007.

The subject water lot was the subject of a rezoning and OCP amendment application in 2015 (MA-RZ-2015.1/Bylaws 168 [OCP] and 169 [LUB]):

- Bylaw 168 created the **Marine Development Permit Area**; designated the DPA on the subject water lot; and, redesignated the abutting, upland road right-of-way to **Public Service (PS)**.
- Bylaw 169 rezoned the abutting, upland road right-of-way to **Community Wharf Upland (CWU)** to allow for parking and other associated uses; and, rezoned the water lot to **Community Wharf W4(b)** zone.

There is currently no development on the subject water lot. There is currently driveway access, parking and stair access on the upland road right-of-way.

Completion of the dock facility will address a shortage of public dock facilities on Mayne Island and serve as a key facility for Mayne Island residents, emergency access and evacuation, and act as a portal allowing transportation between Mayne and the surrounding islands. This is intended to replace the existing, smaller public dock further east in Horton Bay which is often at capacity throughout the year. When the CRD obtained that facility from Fisheries and Oceans Small Craft Harbours, a condition of divestiture required completion of the new dock facility construction for Anson Road.

The proposed dock facility (Figures 2 and 3) would have a total area of (approx.) 558 m<sup>2</sup> and include:

- Upland abutment for dock approach.
- A timber dock approach (33.15 m X 3.20 m).
- Aluminum gangway/ramp (15.20 m X ~1.92 m).
- Two (2) main (central) floats (41.61 m X 2.74 m) and six (6) float fingers (18.29 m X 2.74 m each) constructed on treated wood combined with use of 'Mini Mesh' for light penetration at key locations impacting eelgrass.
- Anchoring by a combination of steel dolphins and piles.
- A planned total moorage length of 219 m, which will be afforded by the six float fingers with a capacity to support 30 boats, 5.5 m to 8.2 m long (18 to 27 feet)
- A reserved landing area for water ambulance and water taxi landing.
- Placement of shoreline protection consisting of granular fill berm (beach nourishment) extending approximately 10 metres from the Natural Boundary of the Sea (NBS) across the right-of-way frontage.

The applicant has provided the following technical reports and information in support of the application:

- 'Anson Road Dock Facility Aquatic Effects/Environmental Impact Assessment' ("AEA/EIA Report" - Archipelago Marine Research Ltd., July 2019)
- Supplemental e-mail from Archipelago reviewing shoreline protection assessment (Also Attachment 3 - "Supplemental E-mail" – Gina Lemieux, RP Bio., Archipelago Marine Research Ltd, August 17, 2020)
- 'Shoreline Stability Assessment' (Coastal and Ocean Resources, February, 2020)
- 'Marine Archaeological Overview Assessment for the Anson Road Public Wharf Construction Project, Mayne Island, BC' ("AOA" - Kleanza Consulting Ltd., May 10, 2019)
- 'Archaeological Impact Assessment for the Anson Road Public Wharf Construction Project, Mayne Island, BC' ("AIA" - Kleanza Consulting Ltd., January 28, 2020)
- Correspondence highlighting responses to staff requests for requirements and clarification (Attachment 4).

- CRD Technical Material Specification sheets.

Analysis, conclusions and recommendations of these documents are discussed in 'Issues and Opportunities' and 'First Nations' - below. Given the size of some of the documents, those not attached have been posted online under current applications:

<http://www.islandstrust.bc.ca/islands/local-trust-areas/mayne/current-applications/current-application-documents/>

The AOA and AIA reports are not attached or published due to the need to protect the sensitive and confidential information within.

**Figure 1 – Subject Water Lot**

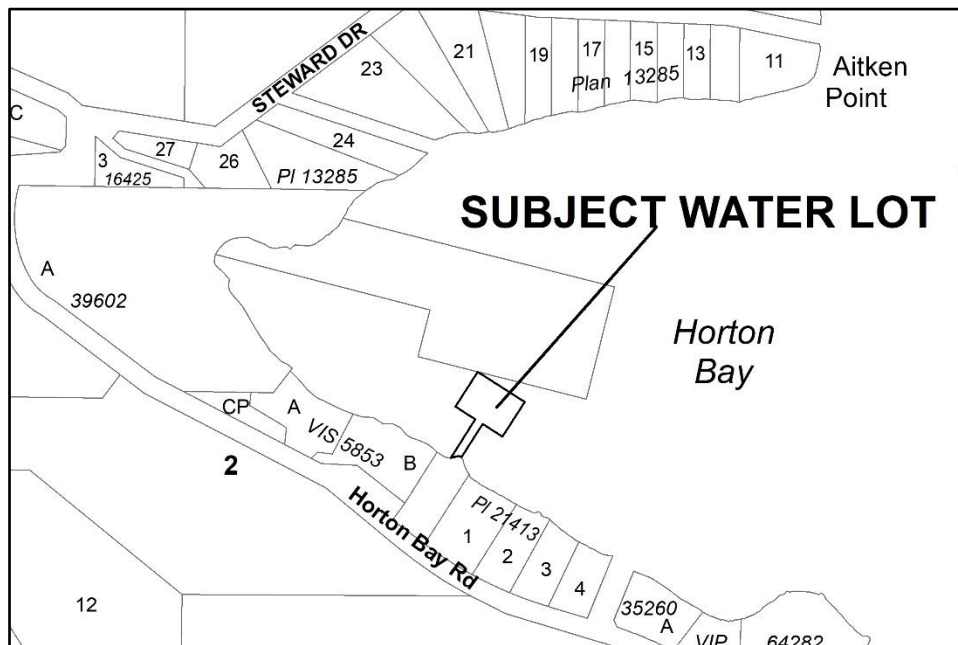


Figure 2 – Site Plan

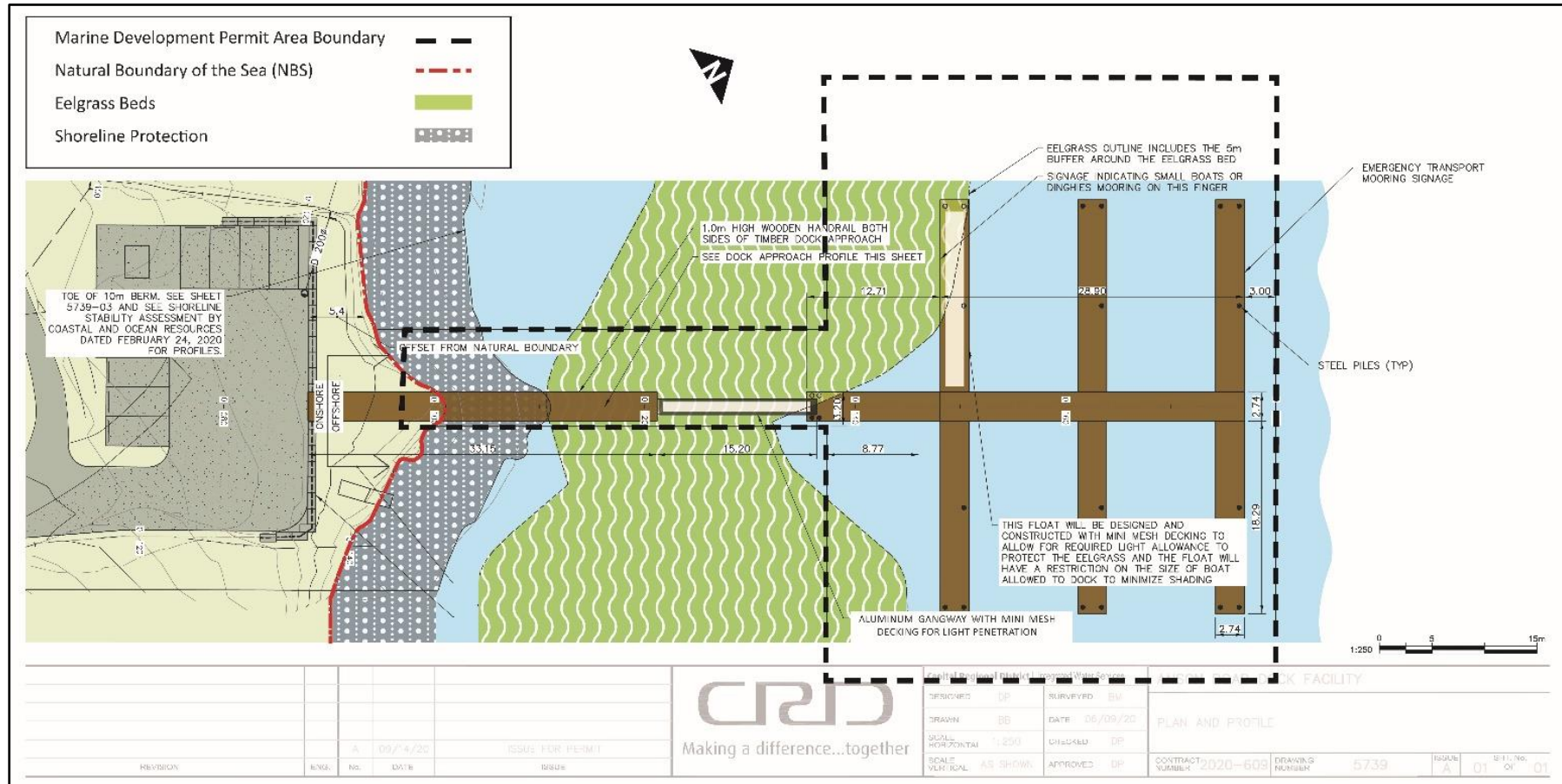
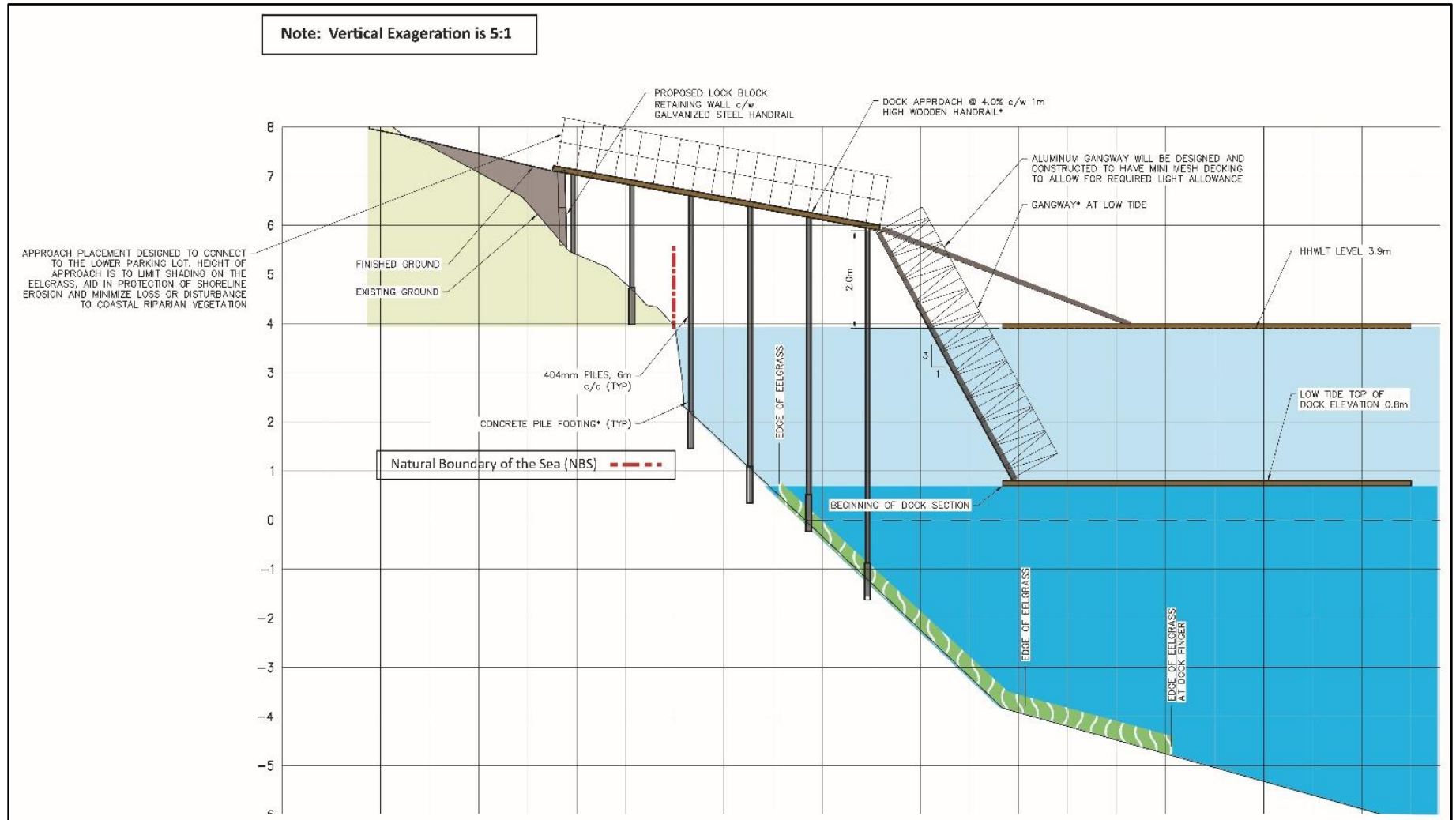


Figure 3 – Elevation (Profile)



## ANALYSIS

### Policy/Regulatory

#### ***Islands Trust Policy Statement:***

##### Islands Trust Policy Statement:

- 3.1.3 Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the identification and protection of the environmentally sensitive areas and significant natural sites, features and landforms in their planning area.
- 3.1.4 (“) address the planning, establishment, and maintenance of a network of protected areas that preserve the representative ecosystems of their planning area and maintain their ecological integrity.
- 3.4.4 (“) address policies related to the aesthetic, environmental and social impacts of development.
- 3.4.5 (“) address the planning for and regulation of development in coastal regions to protect natural coastal processes
- 4.5.10 (“) address the location of buildings and structures so as to protect public access to, from and along the marine shoreline and minimize impacts on sensitive coastal environments.

#### ***Official Community Plan:***

The **Marine Development Permit Area** is designated in the Mayne Island Official Community Plan No. 144 (OCP) for the subject water lot (Attachment 2.1). See ‘Issues and Opportunities’/ ‘DP Guidelines’ and Table 1 (below) for analysis of objectives and guidelines.

In summary, the proposal meets the applicable guidelines contained in the DPA.

#### ***Land Use Bylaw:***

The subject water lot is zoned **Community Wharf W4(b)**. The site-specific (b) zone allows all W4 uses with the added restriction of no buildings being permitted at this particular location.

The proposed uses conform to the zone.

### **Issues and Opportunities**

#### ***AEA/EIA Report***

The AEA/EIA Report provides a comprehensive biophysical analysis for the proposal and makes recommendations for mitigation of effects and to manage construction and residual impacts post construction. The report is subdivided into a Marine Aquatic Effects Assessment (AEA) and an Upland Environmental Impact Assessment (EIA) with each presenting: methodologies for surveying and analysis, biophysical characterization and inventory, assessment of potential project related effects, proposed mitigation and Best Management Practices (BMPs), and assessment of residual effects and summary.

The marine AEA describes the intertidal area as “...a moderately sloping beach comprised of sand and clay with a veneer of angular cobble, pebble and boulders supporting an infaunal community and a relatively low to moderate diversity and abundance of epifaunal invertebrates (i.e. gastropods, sea stars) and algal species.” (p.22). Further, it identifies the significance of erosion of the upland bank and the potential loss of riparian habitat without shoreline protection (see next section).

The subtidal area is characterized “...predominantly by soft bottom habitat with an infaunal community (i.e. tubeworms, bivalves, brittle stars) and a relatively low to moderate diversity and abundance of epifaunal invertebrates, fish and algal species.” (p.22) The significance of the eelgrass beds is emphasized as valuable and sensitive habitat that overlaps with portions of the dock facility, particularly the approach, ramp and portions of the main dock and fingers. The report underlines the importance of eelgrass beds as habitat structure that supports ecologically and economically important finfish and shellfish and their overall value assisting in the maintenance of estuarine and nearshore habitats (p. 28). Eelgrass habitat is sensitive to numerous impacts including anchoring, dredging and filling, shading from in-water structures and increased nutrient inputs (p. 28).

Comprehensive mapping of eelgrass is shown on pages 24-26 of the AEA/EIA Report (See also Attachment 2.3). A collated map using Mayne Island Conservancy data and Archipelago’s physical survey map is included as Figure 4. That prescribes a 5 metre “buffer” around the eelgrass beds to account for positional accuracy and methodology.

The potential occurrence of bull kelp sensitive habitat is assessed as low given substrate type. (p. 28). Assessment of the probability of occurrence for finfish and other listed and non-listed marine species are summarized on pages 29 and 30 of the report.

Assessment of effects or impacts from the proposed project are analysed in Section 6 of the AEA/EIA Report (pp. 31-37) and are identified as shading, physical disruption (barge spud placement and pile placement) and pile driving noise.

The report makes recommendations for mitigation measures and BMPs in Section 7 of the report (pp 38 – m47). Most design recommendations have been incorporated into the draft DP and are itemized in Table 1 in relative to applicable DPA guidelines. These are primarily physical considerations, whereas BMPs and construction management recommendations largely defer to the CRD’s own procurement specifications and implementation process in the draft DP. These (in addition to the physical components) are required to comply with Department of Fisheries and Oceans Canada, Workers Compensation Board, Ministry of Environment Regulations, Ministry of Forests, Lands, Natural Resource Operations, Transportation Canada and CRD standards. The dock facility is to be constructed on a performance contract basis by a one contractor with the contract submittals required to meet the foregoing specifications and to include an Environmental Management Plan (EMP) based on implementing the AEA/EIA report. Monitoring by a qualified environmental professional is required as part of that contract and a requirement for submission of a completion letter to the Islands Trust is a condition of the DP.

In response to a request from staff, the CRD requested Archipelago assess the recommended shoreline protection measures. That supplemental e-mail is Attachment 3 which endorses the methodology, provides specifications for beach berm fill type, and location and indicates the potential habitat benefit for forage fish.

Figure 4 – Compilation Eelgrass Mapping with Project Footprint



**Shoreline Stability Assessment**

The Shoreline Stability Assessment was submitted and that identifies the shoreline along the width of the road right-of-way and above the natural boundary as an actively eroding, near-vertical sea cliff. Given the lack of exposure to wave action, the occurrence of erosion is attributed to the composition of the cliff (fine sediment – p. 15).

The assessment indicates the need for some form of shoreline erosion mitigation to protect the proposed infrastructure and prevent instability, particularly, for the approach (landing) feature. Several options ranging from ‘hard’ to ‘soft’ (green shore) solutions were assessed and compared (Table 2, p.16).



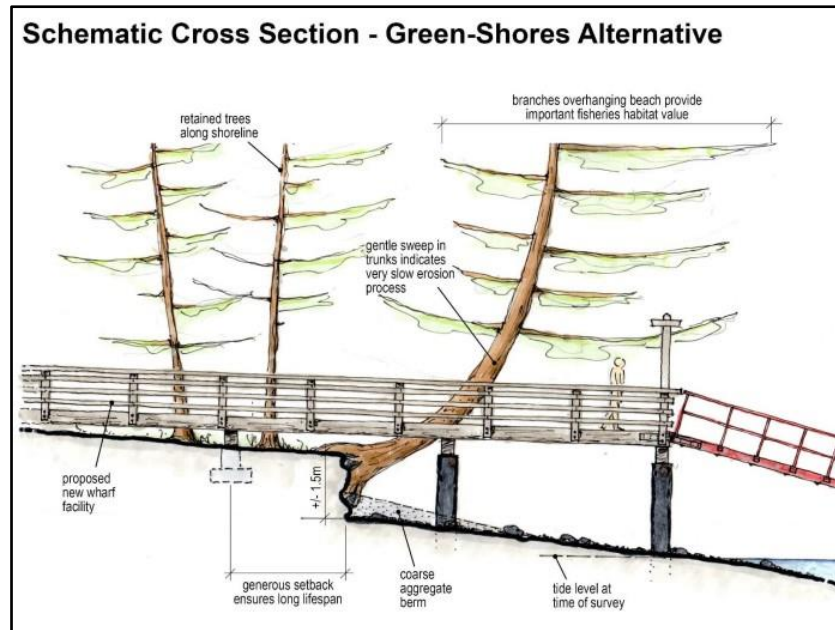
The assessment recommended the following approach which is illustrated on Figure 2 (above) and below in Figure 5). This includes the following elements:

1. A generous setback that minimizes the need for hard beach protection to totally arrest cliff erosion,
2. Use of beach nourishment to create a protective berm at the toe of the cliff; material should be sufficiently coarse so as (a) to minimize transport from the site and (b) to provide infiltration for waves action.
3. Working around existing trees as much as possible to preserve riparian overhang and to leave root systems to help bind cliff material.

This alternative is specified by the CRD and will consist of 19mm (3/4 inch – approx. material) have a thickness of 1 metre (at the natural boundary of the sea - NBS) that tapers to <0.1 metres, 10 metres seaward from the NBS (see Figure 2 and 3).

The design specifications from the report and from Archipelago supplement specifications have been incorporated into the conditions of the draft DP.

**Figure 5 – Concept Drawing ‘Green Shores’ (Recommended) Alternative**



### **DPA Objectives and Guidelines**

The objectives of that DPA are as follows:

1. *To plan and regulate new development in a manner that preserves and protects the long-term physical integrity and ecological values of marine areas.*
2. *To manage development to minimize disruption of natural processes and to retain, wherever possible, natural vegetation and natural features.*
3. *To balance development opportunities with the ecological conservation of the marine environment.*
4. *To maintain the public's use and access to these important recreation areas in a way that does not compromise the ecological integrity of the shoreline or put users at undue risk.*
5. *To adapt to the anticipated effects of climate change.* (pp.35)

See "A DPA checklist (Table 1) analyses each applicable guideline for the proposal's compliance. In addition, the checklist incorporates the key recommendations of the EIA/AEA report in cross-reference to the guidelines.

As above, the proposal meets the applicable guidelines contained in the DPA.

### **Upland Development**

Only a very small area of land at the point where the approach ramp "lands" is designated in the DPA (see Figure 2). The remainder of the upland portion of this proposal is not part of this application as it is appropriately zoned, and there is no development permit area designated, the applicant does not require any Islands Trust approvals for that area. The EIA portion of the AEA/AIA Report has an upland component which is required to be implemented by the contractor through an Environmental Management Plan.

Conditions from the EIA/AEA Report that are relevant to small designated upland area have been placed in the DP (2.r. (I to iii)).

Staff identified that the northern extent of the lower parking lot indicates lock-block retaining wall that would be within approx. 3 metres from the Natural Boundary of the Sea (NBS). The minimum bylaw setback for structures is 7.5 metres (Subsection 3.3(2) of the LUB) The CRD was made aware of this issue and given options to conform and have confirmed that they will likely apply for a variance.

**Table 1 - DPA Checklist: MA-DP 2020.1 (CRD – Anson Road Dock)**

Guideline ( <i>Section 2.8.6</i> )	✓	Applicant Comments	EIA/AEA Recommendations <sup>1</sup>	Staff Comments
1. Docks and wharves should be designed to ensure that public access along the shore is maintained except where such access is determined to be infeasible because of incompatible uses, safety, security, or harm to ecological functions.	✓	- The shore access will be maintained via a pathways located on either side of the lower parking lot, and the existing stairs will remain at the existing location. The height of the approach will allow for persons to walk underneath.	N/A	Conditions placed in Draft DP (including Schedules) to ensure a minimum clearance of 2 to 2.3 metres above highest high tide.
2. Docks and wharves should be sited to minimize impacts on sensitive ecosystems such as eelgrass beds, fish habitat and natural processes such as currents and littoral drift.	✓	- The EIA comments on impacts and mitigation measures, these have been used for the design of the facility. - Both inshore finger floats were intended for small water craft, primarily dinghies. Signage will be added to restrict this.	- Design and construct approaches to the waterbody such that they are perpendicular to the waterbody to minimize loss and disturbance to coastal riparian vegetation. - Minimize the footprint to only what is required to serve the purpose.	- Conditions in Draft DP
3. Docks should be constructed in a manner that permits the free flow of water beneath. Supports should be located on a hard substrate.	✓	- The dock floats are floating docks and will be anchored by pilings.	- Finger floats should not rest on the seabed at any time. The minimum clearance below the floats at the lowest low tide should be 1.5 m to prevent propeller wash from disturbing the seabed.	- Conditions in Draft DP
4. Docks should be constructed in a manner that minimizes shading of the seabed.	✓	- The EIA’s recommendations for reducing shading of the seabed have been used for design specifications. - The CRD Southern Gulf Islands Harbours service is primarily to provide community access	- Minimize the footprint to only what is required to serve the purpose. - Dock approach should be at least 2 to 2.3 m above the higher high water mark. - Dock approach and gangway/ramp should be less than 1 to 1.5 m wide.	- Conditions in Draft DP

<sup>1</sup> “Anson Road Dock Facility Aquatic Effects/Environmental Impact Assessment” (Archipelago Marine Research Ltd., July 2019, pp. 38 and 39)

Guideline (Section 2.8.6)	✓	Applicant Comments	EIA/AEA Recommendations <sup>1</sup>	Staff Comments
		<p>services such as ambulance water taxi and "school bus" water taxi access. As a stretcher is often required to move injured persons, the facility's approach, gangway, and floats have been designed to facilitate safe movement of a stretcher. This requires that the approach and gangway to be 1.5 m and wider for safe egress and access</p> <ul style="list-style-type: none"> <li>- Float length and width have been optimized based upon minimizing anchoring requirements, thereby limiting impact to the seabed and monitoring stability. The floats are narrower than the EIA's recommended 3 m maximum, but are longer than the 8 m recommendation in an effort to minimize anchoring requirements.</li> <li>- Grating for the float is based upon the EIA's comments regarding impacts to the eel grass currently located and depth which the eel grass can grow</li> </ul>	<ul style="list-style-type: none"> <li>- Floats should be limited to 3 m wide and 8 m long.</li> <li>- Use grating or space boards on all overwater structure surfaces (namely gangway/ramp, main float and float fingers) that allow greater than 50% light penetration or use grating on all overwater structure surfaces that results in a total open area of at least 30%, which can be achieved by using grating with 60% open area on at least 50% of the overwater structure.</li> </ul>	
<p>5. Floating docks should not rest on the sea bed at any time and a minimal, moveable ramp rather than a fixed wharf or pier should be utilized to connect the dock with the shore.</p>	✓	<ul style="list-style-type: none"> <li>- This is addressed with the high approach and long gangway, Fisheries and Oceans Canada do not allow floating docks to rest on the sea bed.</li> </ul>	<ul style="list-style-type: none"> <li>- Finger floats should not rest on the seabed at any time. The minimum clearance below the floats at the lowest low tide should be 1.5 m to prevent propeller wash from disturbing the seabed</li> </ul>	<ul style="list-style-type: none"> <li>- Conditions in Draft DP</li> </ul>
<p>6. Piers and pilings and floating docks are preferred over solid-core piers.</p>	✓	<ul style="list-style-type: none"> <li>- This is addressed in the EIA and design.</li> <li>- The anchoring for the floats are to be steel piles and not</li> </ul>		<ul style="list-style-type: none"> <li>- Overall design and Conditions in Draft DP.</li> </ul>

Guideline (Section 2.8.6)	✓	Applicant Comments	EIA/AEA Recommendations <sup>1</sup>	Staff Comments
		concrete anchors.		- CRD staff have confirmed that facility will only use pilings and 'dolphins' (twined+ pilings) not anchors
7. Docks should not use unenclosed plastic foam or other non-biodegradable materials that have the potential to degrade over time. Docks should be constructed of stable materials that will not degrade water quality. The use of creosote-treated pilings is discouraged.	✓	- Fisheries and Oceans Canada do not allow creosote-treated pilings, the design is to use steel piles. Flotation billets will be specified to meet current requirements as outlined in (7).		- Conditions in DP included for flotation materials, steel pilings dock material and prohibits use of creosote application or treated products.
8. Boat launch ramps are the least desirable of all water access structures and should be located on stable, non-erosional banks where a minimum amount of substrate disturbance or stabilization is necessary. Ramps should be kept flush with the slope of the foreshore to minimize interruption of natural geo-hydraulic processes.	N/A	- This dock facility does not include a boat launch.	N/A	N/A

## Consultation

There is no public or agency consultation regularly associated with a Development Permit application. In addition, there is no statutory notification required.

## First Nations

An Archaeological Overview Assessment (AOA) and a subsequent Archaeological Impact Assessment (AIA) completed under licence from the provincial Archaeology Branch were both submitted by the CRD. The AOA indicated concerns over potential marine cultural resources (i.e. clam gardens) and recommended the required AIA extend to the marine portion. The AIA surveyed the marine area and found no evidence of archaeological material and features.

The Senior Intergovernmental Policy Advisor has reviewed both documents, noted that the documents have been provided to the First Nations in the treaty and territories, that First Nations monitors were on site for the AIA, and that all Islands Trust concerns have been met.

## Rationale for Recommendation

The recommendation on page 1 are supported as:

- All applicable the objectives and specific guidelines of the DPA have been met;
- all relevant recommendations of an Aquatic Effects Assessment/Environmental Impact Assessment Report have been incorporated into the conditions of the proposed DP; and,
- the conditions placed in the draft DP will ensure the protection of the marine environment.

## ALTERNATIVES

### 1. Request further information

The LTC may request further information prior to making a decision. Staff advise that the implications of this alternative are a potential delay in construction and costs to the applicant. If selecting this alternative, the LTC should describe the specific information needed and the rationale for this request. Recommended wording for the resolution is as follows:

*That the Mayne Island Local Trust Committee request that the applicant submit to the Islands Trust \_\_\_\_\_.*

### 2. Deny the application

The LTC may deny the application. Note, if the this alternative is selected, the decision MUST be accompanied by specifying which guideline(s) the application does not comply with. Recommended wording for the resolution is as follows:

*That the Mayne Island Local Trust Committee deny application MA-DP-2020.1 (CRD – Anson Road Dock) as it does not comply with guideline\_\_\_\_\_.*

## NEXT STEPS

- Once the DP is approved and issued, the applicants can proceed with construction and will apply for a DVP for the upland portion.

Submitted By:	Phil Testemale, Planner 2	September 17, 2020
Concurrence:	Robert Kojima, Regional Planning Manager	September 18, 2020

**ATTACHMENTS**

1. Site Context
2. Maps, Plans, Photographs
3. Supplemental AEA Report submission from CRD (shoreline protection)
4. CRD Correspondence
5. Proposed Development Permit MA-DP-2020.1

## ATTACHMENT 1 – SITE CONTEXT

### LOCATION

Legal Description	Water Lot 2070, Mayne Island, Cowichan District
PID	
Civic Address	Water lease area Abutting Terminus of Anson Road

### LAND USE

Current Land Use	Vacant
Surrounding Land Use	Public access, parking and washroom (Anson Road); Residential

### HISTORICAL ACTIVITY

File No.	Purpose
MA-RZ-2015.1	To amend OCP and LUB to permit community wharf

### POLICY/REGULATORY

Official Community Plan Designations	The <b>Marine Development Permit Area</b> is designated for the lease area in the Mayne Island Official Community Plan No. 144, 2007 (OCP) – Attachment 2.1
Land Use Bylaw	The subject water lot is zoned <b>Community Wharf W4(b)</b> in the Mayne Island Land Use Bylaw No. 146, 2008 (LUB).
Other Regulations	All development shall conform to Department of Fisheries and Oceans Canada, Workers Compensation Board, Ministry of Environmental Regulations, Ministry of Forests, Lands, Natural Resource Operations, Transportation Canada and Capital Regional District standards for public dock facilities.
Covenants	
Bylaw Enforcement	

### SITE INFLUENCES

Islands Trust Conservancy	This application has no considerations for the Islands Trust Conservancy.
Regional Conservation Strategy	This application has no considerations for the Regional Conservation Plan.
Species at Risk	See body of report and linked AEA/EIA report for assessment.
Sensitive Ecosystems	Eelgrass beds - see body of report and linked AEA/EIA report for assessment.
Hazard Areas	A Shoreline Stability Assessment submitted – see body of report and linked.
Archaeological Sites	Archaeological Impact Assessment (AIA) and Archaeological Impact Assessment (AIA) under licence submitted as part of application.



Climate Change Adaptation and Mitigation	Materials and footprint designed to minimize GHG emissions. The location is protected from swell action, however risk from anticipated or possible climate change induced hazards from sea level rise, storm surge, etc. Design does address.
Shoreline Classification	Sediment Shoreline - Boulder/Cobble
Shoreline Data in TAPIS	Eelgrass: See Figure 4 in report body

# ATTACHMENT 2 – MAPS, PLANS, DRAWINGS, PHOTOGRAPHS

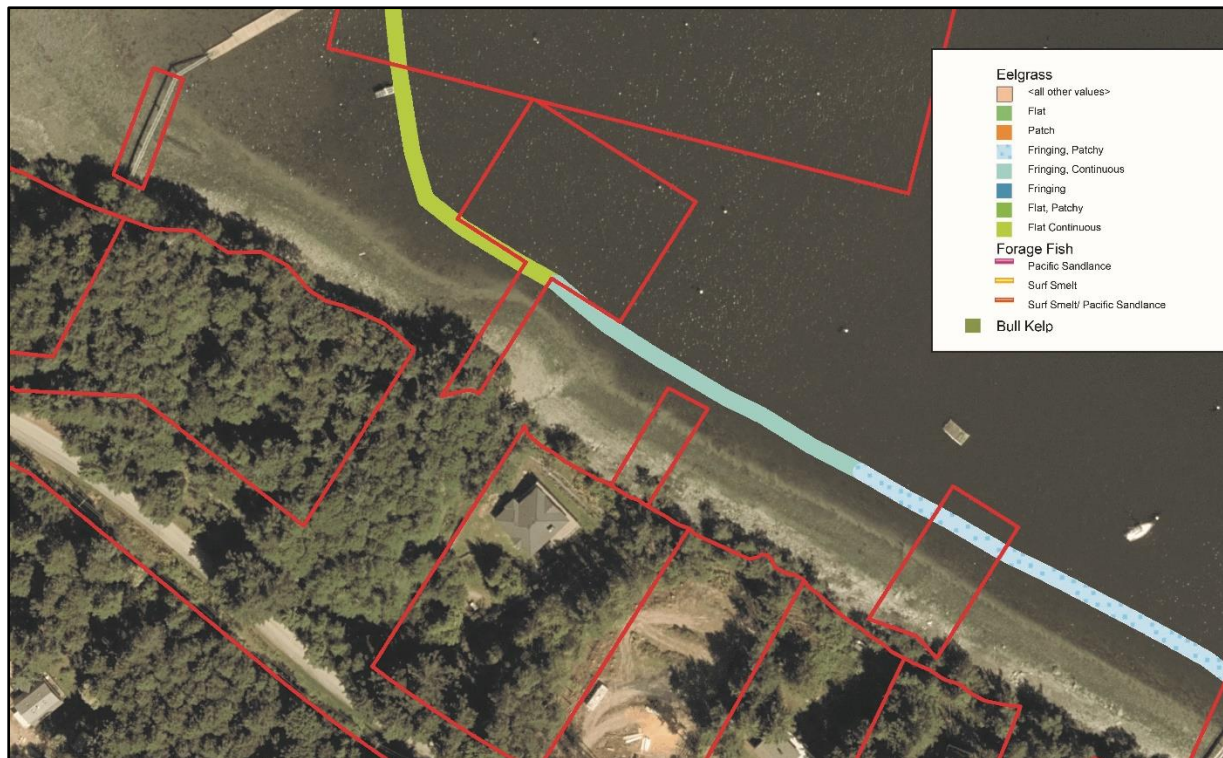
## 2.1 ORTHOZONING AND DPA



## 2.2 SHORELINE UNITS



## 2.3 MARINE ECOSYSTEMS



## Attachment 3

### Lani O'Dwyer

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**From:** Gina Lemieux <[REDACTED]>  
**Sent:** Monday, August 17, 2020 2:04 PM  
**To:** Lani O'Dwyer  
**Cc:** Dale Puskas  
**Subject:** Re: Development Permit for Anson Road

Hi Lani...one other element to add to my bulleted list, is maintaining the shoreline trees as much as possible to conserve the important riparian overhang function for nearshore fish/fish habitat.

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**From:** Gina Lemieux <[REDACTED]>  
**Sent:** August 17, 2020 2:00 PM  
**To:** Lani O'Dwyer <lodwyer@crd.bc.ca>  
**Cc:** Dale Puskas <dpuskas@crd.bc.ca>  
**Subject:** Re: Development Permit for Anson Road

Hello Lani,

I have reviewed the Shoreline Stability Assessment report (Coastal and Ocean Resources, 24 February, 2020 (noting footers indicate 30 May, 2020)) and talked with John Harper today about the preferred, protective beach berm (beach nourishment) as a soft shore solution for the shoreline erosion concerns at Anson Road.

I agree with this being the preferred option out of all the options identified in the report based on:

- The application of a soft shore solution is generally always preferred from an environmental perspective as it is more natural and my understanding is these solutions don't "transfer" the erosion issue further along shore like hard shore solutions can;
- The recommended fill material size (19 mm or 0.75") is within the range of the native substrate size within the tidal elevation range where fill material is recommended (up to 10 m out from natural boundary);
- As result of the previous bullet, the fill material toward and at the mid-intertidal area is anticipated to be colonized by similar biota as is currently present (i.e., *Fucus* sp. (rock weed), *Mastocarpus* sp. (a red foliose algae), *Littorina* spp. (periwinkle snail), *Balanus glandula* (acorn barnacle), *Tectura* spp. (limpet), *Hemigrapsus* sp. (shore crab));
- The toe of the fill material is recommended to 10 m out from the natural boundary, which is approximately +2.0 m (above chart datum). This provides a sufficient buffer to ensure there is no direct overlap with the subtidal eelgrass that was observed in 2019 during the dive surveys as shallow as ~-0.75 m (below chart datum);
- The combination of the fill material being coarse and well sorted (i.e., not mixed with fines) will help keep the fill material in place and prevent migration downslope and sedimentation effects on eelgrass;
- The fill material may provide habitat for forage fish such as sand lance and/or surf smelt (our EIA report notes that the estuary/tidal flat present north west of the Project site where Horton Brook drains provides spawning habitat for these forage fish species (Islands Trust 2019; data collected by the Mayne Island Conservancy) and that Pacific sand lance eggs were observed during a January 2010 survey in Horton Bay indicating historical presence/habitat use in the Project vicinity.

I presume the Shoreline Stability Assessment report will be provided to DFO for their review and comment, as part of the overall Project review.

The construction mitigation measures/BMPs that we outlined in our EIA report would be applicable to these shoreline erosion works. For example, confirming boundaries of eelgrass and marking at surface to avoid impacts by barges (spudding, anchoring, grounding) and tending vessels, selecting ideal tide state for fill material delivery etc.

I trust the above meets your requirements for Islands Trust; however, if you require additional information please let me know.

If you could confirm receipt as well, that would be appreciated as I know you were requiring my response as soon as possible so would like to ensure you have received it.

Regards  
Gina



**Gina Lemieux, R.P. Bio**  
Senior Marine Biologist/Project Manager  
Direct: [REDACTED]  
Email: [REDACTED]  
[www.archipelago.ca](http://www.archipelago.ca)



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**From:** Lani O'Dwyer <lodwyer@crd.bc.ca>  
**Sent:** August 12, 2020 2:04 PM  
**To:** Gina Lemieux <[REDACTED]>  
**Cc:** Dale Puskas <dpuskas@crd.bc.ca>  
**Subject:** Development Permit for Anson Road

Hi Gina,

As per my phone message I hope that you could give a response to the following question from Islands Trust, as a qualified marine biologist:

- In reference to the 'Shoreline Stability Assessment' (Coastal and Ocean Resources, February, 2020): the report recommends a 'Green Shores Alternative (summarized on pp. 15 – 17) that has design considerations. The drawings received (above) incorporate that alternative for a protective berm using beach nourishment. Can you confirm whether or not that proposal has been assessed for impacts and conformity with the recommendations in the AIA/EIA report by the reporting biologist or another qualified biologist? **With respect**

to archeological concerns, as per the attached AIA, there are no concerns within the intertidal area. With respect to the EIA, we will have Archipelago provide comment shortly, we do not anticipate any issues.

The question asked by Islands Trust is in black and our comments back to them are in red.

We have monies still available in your contract, if you could please respond as soon as possible that would be great. I have attached the Shoreline Stability Assessment and I have attached a copy of your EIA for your reference and a drawing showing the berm that we are proposing. If you have any questions please feel free to call me any time.

Thanks

Lani O'Dwyer  
Project Technologist  
CRD – Integrated Water Services  
479 Island Highway  
Victoria, BC V9B 1H7  
Phone: 250-360-3143  
Fax: 250-474-4012  
[lodwyer@crd.bc.ca](mailto:lodwyer@crd.bc.ca)

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September 15, 2020

File: 5220-20  
SGIHC Anson Road

Mr. Phil Testemale  
Islands Trust  
Victoria Office  
200 - 1627 Fort Street  
Victoria, BC V8R 1H8

Dear Mr. Testemale:

**RE: DEVELOPMENT PERMIT APPLICATION FOR NEW WHARF FACILITY LOCATED AT ANSON ROAD WITHIN DL 2070 ON MAYNE ISLAND**

Further to the CRD's letter dated August 20<sup>th</sup>, 2020, and our discussion September 10<sup>th</sup>, 2020 the following is in response to your request for confirmation and clarification on the noted project:

- Clarification has been added to the drawing to highlight that recommendations that were taken into account for design from the EIA such as the dock approach being higher than 2 m above the higher high water mark, and the minimum clearance below the floats at the lowest tide is 1.5m or greater.
- The CRD has retained an environmental consultant to assess the project and prepare the EIA. As previously noted, the contractor is retain an environmental consultant to prepare the EMP, provide monitoring and written confirmation of compliance. To ensure DP requirements are met, the CRD will require a deliverable from the contractor's environmental consultant provide a completion letter. Our environmental consultant will review and confirm the EMP and completion letter.
- The anchoring for the floats are to be steel piles and not concrete anchors.
- The CRD Southern Gulf Islands Harbours service is primarily to provide community access services such as ambulance water taxi and "school bus" water taxi access. As a stretcher is often required to move injured persons, the facility's approach, gangway, and floats have been designed to facilitate safe movement of a stretcher. This requires that the approach and gangway to be 1.5 m and wider for safe egress and access.
- Float length and width have been optimized based upon minimizing anchoring requirements, thereby limiting impact to the seabed and monitoring stability. The floats are narrower than the EIA's recommended 3 m maximum, but are longer than the 8 m recommendation in an effort to minimize anchoring requirements.
- Grating for the float is based upon the EIA's comments regarding impacts to the eel grass currently located and depth which the eel grass can grow.
- Currently, the facility is not going to have lighting. If lighting is to be added in the future, marine grade bollard style lighting is proposed to minimize the effects on marine and wild life and be maintainable.

**September 15, 2020 – Mr. Phil Testemale**  
**Development Permit Application – New Wharf Facility – Anson Road, Mayne Island2**

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- Both inshore finger floats were intended for small water craft, primarily dinghies. Signage will be added to restrict this. Also of note, is that there will be a section

Please find included the drawing with additional clarification as requested.

If there are any questions, please do not hesitate to contact the undersigned.

Regards,



Dale Puskas, P.Eng.  
Manager, Capital Projects  
Infrastructure Engineering  
Integrated Water Services

DP:

Attachments: 1. Anson Road drawing





Making a difference...together

**Integrated Water Services**  
479 Island Highway  
Victoria, BC, Canada V9B 1H7

T: 250.474.9600  
F: 250.474.4012  
www.crd.bc.ca

August 20, 2020

**BY EMAIL**

[ptestemale@islandstrust.bc.ca](mailto:ptestemale@islandstrust.bc.ca)

File: 5220-20  
SGIHC Anson Road

Mr. Phil Testemale  
Islands Trust  
Victoria Office  
200 - 1627 Fort Street  
Victoria, BC V8R 1H8

Dear Mr. Testemale:

**RE: DEVELOPMENT PERMIT APPLICATION FOR NEW WHARF FACILITY LOCATED AT ANSON ROAD WITHIN DL 2070 ON MAYNE ISLAND**

Further to our discussion on August 13, 2020, the Anson Road dock facility is being constructed on a performance contract basis, which will include the design and construction as per CRD (Capital Regional District) technical specifications to be completed by one contractor. The CRD Southern Gulf Islands and Harbours are previous Small Craft Harbour, Fisheries and Oceans Canada facilities and the intent is to remain consistent in construction methods and materials.

The technical specifications are based on Small Craft Harbour, Fisheries and Oceans for the invitation to tender. Requirements in the technical specifications are to meet Department of Fisheries and Oceans Canada, Workers Compensation Board, Ministry of Environmental Regulations, Ministry of Forests, Lands, Natural Resource Operations, and Transportation Canada, and are included in CRD specifications.

As discussed over the phone, timber floats are to be pressure treated with Chemonite ACZA Pressure Treated Wood, a non-creosote product, piles are to be steel, and flotation billets are to be Permafloat Dock Flotation by Cellofoam or approved equal.

The design drawing no. 5739 incorporates a high elevation for the approach, use of mini mesh surface on the gangway and one of the floats to allow for light penetration as recommended in the Aquatic Effects Assessment/Environmental Impact Assessment. Additionally, the five metres eelgrass buffer is already incorporated into the drawing for reference.

The mitigation measures, for both design and construction, are addressed in the required Best Management Practices (BMPs) and a project specific Environmental Management Plan (EMP). These are a requirement of the Contractor's submittals and are to be submitted to the CRD for review and approval prior to design or construction.

Please find included the senior marine biologist (R.P. Bio)'s comments on the soft shore solution attached as requested.

If there are any questions, please do not hesitate to contact the undersigned.

Regards,   


Dale Puskas, P.Eng.  
Manager, Capital Projects  
Infrastructure Engineering  
Integrated Water Services

DP:ad

- Attachments:
1. Email from Gina Lemieux, R.P. Bio, Senior Marine Biologist/Project Manager
  2. Specifications:
    - Division 3 - Concrete
    - Division 5 - Metals
    - Division 6 - Timber
    - Division 10 - Specialized Materials

June 15, 2020

**SENT BY EMAIL**

File: 5220-20  
SGIHC Anson Road

Islands Trust  
Victoria Office  
200 - 1627 Fort Street  
Victoria, BC V8R 1H8

Dear Sir/Madam:

**RE: DEVELOPMENT PERMIT APPLICATION FOR NEW WHARF FACILITY LOCATED AT ANSON ROAD WITHIN DL 2070 ON MAYNE ISLAND**

The Capital Regional District (CRD) Integrated Water Services hereby applies for a development permit to construct a new wharf facility within the limits of DL 2070, located at the end of Anson Road right-of-way under the jurisdiction of the Ministry of Transportation, British Columbia, in accordance with these attached particulars, plans and specifications. It is understood that this letter constitutes an application only and that the works applied for will not be commenced until a covering permit has been issued.

Currently, the water lot DL 2070 is unused and has no infrastructure on it, with an undeveloped access to the shoreline. The subject property is currently zoned W4 for Community Wharf, the planned use is within its current zoning. The proposed works within DL 2070 consist of:

- one 12.71m x 2.74m timber float,
- one 28.90m x 2.74m timber float,
- six 18.29m x 2.74m timber floats,
- one 15.20m long aluminum gangway,
- one 33.15m long timber approach, and
- a shoreline protection granular fill berm.

The works are located at end of Anson Road, Mayne Island, as shown on CRD Integrated Water Services drawing 5739. The floats will be constructed to Fisheries and Oceans Canada, Small Craft Harbours' typical specifications, similar to numerous facilities throughout the Southern Gulf Islands, including the Miners Bay and Montague facilities. The timber is to be pressure treated with a non-creosote based product, appropriate for the longevity, but environmentally safe, and billets used for flotation will meet current industry standards for not degrading, (they will not be unprotected Styrofoam).

In support of the application, the CRD is including the following supplemental information:

- The marine Archeological Overview Assessment

- The shoreline protection assessment, and
- The Aquatic Effects Assessment/Environmental Impact Assessment.

In addition to the works within DL 2070, the CRD will construct a parking facility with a pit toilet on the road right-of-way at the end of Anson Road. The configuration and design drawings are also included with this application for reference.

If there are any questions, please do not hesitate to contact the undersigned.

Regards,



Dale Puskas, P.Eng.  
Manager, Capital Projects  
Infrastructure Engineering  
Integrated Water Services

DP:ad

Attachment: Islands Trust Development Permit Review Application Package

cc: Ted Robson, General Manager, Integrated Water Services



Islands Trust

**MAYNE ISLAND LOCAL TRUST COMMITTEE  
DEVELOPMENT PERMIT MA-DP-2020.1**

To: Capital Regional District  
c/o Dale Puskas, P.Eng.

1. This Development Permit (the "Permit") applies the land described below and all buildings, structures and other developments therein:

Water Lot DL 2070, Mayne Island, Cowichan District  
PID: 000-000-000

2. This Development Permit MA-DP-2020.1 authorizes the construction of a dock facility including an access ramp (approach), aluminium ramp (gangway) and a main float dock with float fingers within the Marine Development Permit Area ("DPA"), subject to the following requirements and conditions:

***General***

- a. All development shall be substantially consistent with Schedules 'A' and 'B' which are attached to and form part of this permit.
- b. All development shall conform to Department of Fisheries and Oceans Canada, Workers Compensation Board, Ministry of Environmental Regulations, Ministry of Forests, Lands, Natural Resource Operations, Transportation Canada and Capital Regional District standards for public dock facilities.

***Placement of Fill (Beach Nourishment)***

- c. With the exception of the placement of the prescribed beach berm (beach nourishment) for shoreline erosion protection, there is to be no dredging or placement of fill below the Natural Boundary of the Sea.
- d. The placement of fill permitted in 2.b. (above) shall:
  - i. Be limited to an area within 10 metres (measured horizontally) from the Natural Boundary of the Sea as indicated on Schedule 'A', attached to and forming part of this permit.
  - ii. Not overlap with any existing subtidal eelgrass beds.
  - iii. Consist of coarse, well sorted aggregate (19mm or 3/4") material and shall not be mixed with fines.

***Dock Facility Siting, Size and Materials and Size on and Siting***

- e. To ensure the maintenance of public access along the shore, the elevation of the dock approach shall be constructed with a minimum 2 to 2.3m clearance above the higher high water mark as indicated on Schedule 'B', attached to and forming part of this permit.
- f. The siting and configuration and size of the dock facility shall be substantially consistent with Schedules 'A' and 'B', which are attached to and form part of this permit.
- g. To minimize shading of the seabed and of eelgrass habitat in particular:

- i. the dock approach and gangway/ramp should be the minimum width to facilitate operational requirements;
  - ii. the floating portion including the main dock and fingers shall not exceed 415 m<sup>2</sup> in area;
  - iii. Floats should be a maximum of 3 metres in width; and
  - iv. The gangway and northwest float finger (inner) shall incorporate 'mini mesh' grating material as shown on Schedule 'A', attached to and forming part of this permit for a minimum of 50% light penetration.
- h. Anchoring of the floating portion of the dock facility is to use pilings and dolphins only.
  - i. All pilings shall be steel construction.
- j. With the exception of piles and footings for the ramp, no other structures including floats shall rest on the seabed.
- k. With the exception of pilings, no portion of the dock facility shall rest on the seabed at any time, and the construction and siting of the floating dock shall incorporate a minimum clearance below the floats of 1.5 metres at the lowest low tide to prevent disturbance of the seabed.
- l. Timber used for the construction of the floats shall either be untreated lumber or Chemonite ACZA Pressure Treated Wood with the exception of areas specified for light penetration ('mini mesh' surfacing).
- m. There shall be no use of creosote treated wood or application of creosote on any portion of the dock facility.
- n. Floatation billets shall be Cellaphome Permafloat Dock Floatation, or equivalent, and shall in no case use unenclosed plastic foam or other non-biodegradable materials that have the potential to degrade over time.
- o. There should be no removal of natural woody debris, rocks, sand or other materials from the shoreline below the high water mark. If material is removed, it should be set aside and returned to the original location once construction activities are complete.

***Operational***

- p. The use of the inshore finger floats on the south sides shall be restricted for use by smaller boats to minimize shading on eelgrass habitat as well as potential effects from prop scour.
- q. Educational signage on eelgrass habitat and protection and boating practices is to be placed at the dock facility in cooperation with the local conservancy organization.

***Protection of the Coastal Riparian and Shoreline Area (Upland)***

- r. To minimize the 'downstream' impacts on the Development Permit Area, the following design considerations and procedures shall be followed for the upland portion of the DPA as shown on Schedule 'A' and 'B' attached to and forming part of this permit:
  - i. Minimize clearing of coastal riparian vegetation and avoid disturbance of soils where the dock approach is attached to land, as vegetation removal and soil disturbance can increase erosion and sedimentation of the intertidal zone and adjacent subtidal areas;
  - ii. Do not remove coastal riparian vegetation if the riparian area is identified as part of critical habitat of an aquatic listed species at risk; and,
  - iii. Immediately stabilize shoreline disturbed by any activity associated with the construction to prevent erosion and/or sedimentation, preferably through re-vegetation with native species suitable for the site; and

**Construction Management**

- s. Construction of the dock facility shall conform to all mitigation, best management practices and monitoring recommendations contained in the ‘Anson Road Dock Facility Aquatic Effects/Environmental Impact Assessment’ (Archipelago Marine Research Ltd., July 2019) and submitted to the Islands Trust, Victoria Office on August 7, 2020, in addition all other applicable provincial and federal requirements and guidance.

**Timing**

- t. The project works are to coincide with the least risk timing windows as prescribed by the Department of Fisheries and Oceans for the Project site to reduce the risk of harm to fish and fish habitat, specifically December 1 to February 15 (winter window) and July 1 to October 1 (summer window).

**Monitoring**

- u. The Environmental Monitor for the applicant shall prepare and submit to the Islands Trust written confirmation of compliance with all conditions with this permit as issued within one (1) months of the development work being completed.
3. The area described herein shall be developed in accordance with the terms, conditions and provisions of this Permit, and any plans and specifications attached to this Permit, which shall form a part thereof.
  4. Any further development within designated Development Permit Areas will require a new Development Permit, or a Development Permit Amendment.
  5. This permit is not a building permit and does not remove any obligation on the part of the permittee to comply with all other requirements of Mayne Island Land Use Bylaw No. 146, 2008 and to obtain other approvals necessary for the lawful completion of the proposed development.

AUTHORIZING RESOLUTION PASSED BY THE MAYNE ISLAND LOCAL TRUST COMMITTEE, THIS XX<sup>TH</sup> DAY OF ###, 2020.

\_\_\_\_\_  
Secretary, Islands Trust

\_\_\_\_\_  
Date Issued

IF THE DEVELOPMENT HEREIN IS NOT COMMENCED BY THE XX<sup>ST</sup> DAY OF ####, 2022 THIS PERMIT AUTOMATICALLY LAPSES.





MAYNE ISLAND LOCAL TRUST COMMITTEE

DEVELOPMENT PERMIT MA-DP-2020.1

Schedule "B" (Elevation)

Note: Vertical Exageration is 5:1

