



North Pender Island Local Trust Committee

Special Meeting Agenda

Date: May 5, 2025
Time: 2:00 pm
Location: Electronic Meeting

Pages

1. CALL TO ORDER
2. TERRITORIAL ACKNOWLEDGEMENT
3. APPROVAL OF AGENDA
4. TOWN HALL AND QUESTIONS
5. MINUTES
 - 5.1 April 4, 2025 Local Trust Committee Minutes (for Adoption) 2 - 9
 - 5.2 April 12, 2025 Local Trust Committee Special Meeting Minutes (for Adoption) 10 - 13
6. BUSINESS ITEMS
7. APPLICATIONS AND REFERRALS
 - 7.1 PL-DVP-2024-0350 (Smith) - Staff Report (attached) 14 - 33
 - 7.2 PL-DP-2025-0141 (Kayne) - Staff Report (attached) 34 - 115
8. ADJOURNMENT

North Pender Island Local Trust Committee
Minutes of Regular Meeting

Date: April 4, 2025
Location: Anglican Parish Hall
4703 Canal Road, RR#1, North Pender Island, BC

Members Present: David Maude, Chair
Aaron Campbell, Local Trustee
Deb Morrison, Local Trustee (electronic)

Staff Present: Brad Smith, Island Planner
Bruce Belcher, Planner 2 (electronic)
Lisa Millard, Meeting Administrator/Recorder (electronic)

Others Present: There were 10 members of the public present.

1. CALL TO ORDER

Chair Maude called the meeting to order at 10:00 a.m.

2. TERRITORIAL ACKNOWLEDGEMENT

Chair Maude acknowledged that the meeting was being held in territory of the Coast Salish First Nations.

3. APPROVAL OF AGENDA

The following additions to the agenda were presented for consideration:

17.2 Intertidal Development Permit PLD20250141

By general consent, the agenda was adopted as amended.

4. TRUSTEE REPORT

Trustee Campbell reported electronic attendance at one Local Trust Committee meeting and March Trust Council while in Mexico.

Trustee Morrison arrived to the meeting at 10:05 a.m.

Trustee Morrison reported the following:

- Attended Trust Council and highlighted the election of Salt Spring Trustee Laura Patrick as Chair of Trust Council
- Will be co-presenting a discussion on climate at the upcoming Association of Vancouver Island and Coastal Community conference
- Addressed concerns about helicopters at a Southern Gulf Islands Forum meeting

5. CHAIR'S REPORT

Chair Maude reported attendance at the March Trust Council quarterly meeting and highlighted adoption of the 2025/26 budget, finalization of the Strategic Plan, and noted discussions on the draft Trust Policy Statement have been moved to Trust Area Services with intention of First Reading in June to enable the public consultation process.

6. ELECTORAL AREA DIRECTOR'S REPORT - None

7. TOWN HALL AND QUESTIONS

A member of the public asked if there was still intention to send a mailout to the community regarding the Trust Policy Statement and requested an update on the Dark Skies Initiative.

Island Planner Smith indicated the mailout will be developed by Trust Area Services and Trustee Morrison stated the Dark Skies Initiative was discussed at Trust Council and it has received general support.

A member of the public stated the following:

- Their term on the Advisory Planning Commission has ended and they acknowledged the work of the group, minute taker Carly Bilney, and Island Planner Smith
- The Local Trust Committee should not encourage massive homes but allow more supply through planned benefits to residents and not speculators, investors, or wealthy individuals
- The provincial speculation tax needs to be applicable to North Pender Island
- The Trust has a unique and overriding responsibility to protect the natural environment and character of the Trust Area and is not meant to be a conventional form of local government
- Development needs to be approved with assessments of environmental impacts, precautionary principles, and the cumulative impact of said assessments need to be applied in decision making
- They ask the Local Trust Committee to change focus back to the mandate of preserve and protect.

8. COMMUNITY INFORMATION MEETING - None

9. PUBLIC HEARING - None

10. MINUTES

10.1 Local Trust Committee Minutes Dated January 31, 2025 (for Adoption)

By general consent the North Pender Island Local Trust committee meeting minutes of January 31, 2025 were adopted.

10.2 Section 26 Resolutions-without-meeting Report - None

10.3 Advisory Planning Commission Minutes Dated March 4, 2025 (for Receipt)

Received for information.

11. BUSINESS ARISING FROM THE MINUTES

11.1 Follow-up Action List Dated Mar 2025

Received for information.

12. DELEGATIONS - None

13. CORRESPONDENCE

Correspondence received concerning current applications or projects is posted to the LTC webpage

14. APPLICATIONS AND REFERRALS

14.1 PL-DVP-2024-0330 (Keay) - Staff Report

Island Planner Smith summarized the staff report and highlighted the following:

- The application seeks a Development Variance Permit on the siting of an existing dock structure and associated walkway
- The dock has been in place since the 1980's and no new construction is required
- A Federal Licence of Occupation is in place for the structure as a portion of it is located in the National Park Reserve Marine Area
- The variances do no impact neighbours or the natural environment
- No concerns were received during the notification period

The Local Trust Committee has no questions regarding the application.

NP-2025-010

It was MOVED and SECONDED,

that North Pender Island Local Trust Committee approve issuance of Development Variance Permit application NP-PL-DVP-2024-0330 (Keay).

CARRIED

14.2 PL-DVP-2024-0350 (Smith) - Staff Report

Planner Belcher summarized the staff report and highlighted the following:

- The application seeks a Development Variance Permit to vary the maximum height and number of storeys for the conversion of an agricultural building to an accessory building
- The applicant wishes to save and repurpose the existing barn and use the building as a shop, office, and storage space
- The sum total of the floor area of all buildings on the property, and the total lot coverage, are significantly less than the maximum allowed
- The variance would not allow residential use as a dwelling

Discussion ensued and the following comments were recorded:

- Rural large lot zoning permits 3000 square metres of total floor coverage for all structures as this can include agricultural buildings

- The house under construction is approximately 150 square metres which is under the permitted maximum size
- The current use of the building is equipment storage and the intended use is storage and office space
- A neighbour's correspondence to the Local Trust Committee requested further time for residents to consider if they are affected
- Statutory notification requirements were completed
- Home occupation is permitted, but not commercial operations
- The Local Trust Committee generally supports the application; however, the community is requesting further consultation

The applicant was in attendance and stated no commercial use is intended, they have spoken to neighbours, the property had been used for business purposes for many years under previous ownership and included a non-permitted suite, new activity is primarily to store equipment with office use above, and the original building was a two-story barn.

Planner Belcher clarified the following:

- The building could be restored as a barn; however, a variance is required to change the use to non-agricultural and this results in the structure becoming an accessory building which allows for one story only
- Correspondence from neighbours was received prior to the agenda being published and the staff report provides clarifications regarding the application
- The neighbour was notified that the staff report was published, the notice period was still open, and the Planner did not hear further from the correspondent
- The neighbour expressed concerns about height and use and potential noise and light intrusion; however, noise and light are allowable within the existing agricultural building
- The height of the building already exists
- The accessory use is more restricted than agricultural use

The neighbour was in attendance and indicated they would have a better understanding of the application if more time was provided. The Local Trust Committee determined that deferring consideration of the application would provide members of the public more time to consider the affects of the application.

NP-2025-011

It was MOVED and SECONDED,

that North Pender Island Local Trust Committee direct staff to schedule an electronic special meeting for consideration of PLDVP20240350.

CARRIED

A member of the public stated they arrived prior to the scheduled time of the Town Hall; however, Town Hall had ended earlier than the published start time. Chair Maude allowed them to speak and their comments are recorded in the Town Hall section of the minutes.

The meeting was recessed for a break at 11:16 a.m. and reconvened at 11:25 p.m.

14.3 PL-DP-2025-0033 (Lansdowne) - Staff Report

Island Planner Smith summarized the staff report and highlighted the following:

- The application seeks a Development Permit for the construction of a new dwelling and retroactive land restoration and mitigation resulting from land clearing for a utilities corridor and access stairway construction
- The land clearing and building of the stairway were done without a permit
- A report provided by a qualified environmental professional provides an assessment of the impacts of the development
- A retroactive Development Permit will impose conditions for site restoration and protection of the sensitive ecosystem downslope of the development

Discussion ensued and the following comments were noted:

- There is no legal ability to deny an application based on circumstances that have already happened and the Local Trust Committee has to look at each application based on its own merit
- Damage has already occurred within the Development Permit Area and approving the permit will ensure restoration

The applicant and their representative were in attendance and provided the following comments:

- The stairway is temporary and was sited on the rocks to minimize damage
- The house was designed to protect the tree and the third-party doing excavation work removed it without authorization
- The owner is willing to do the restoration work and intends to plant more trees than recommended
- They allowed the contractor to proceed and presumed the workers knew the regulations

NP-2025-012

It was MOVED and SECONDED,

that North Pender Island Local Trust Committee approve issuance of Development Permit NPPLDP20250033 (Lansdowne).

CARRIED

15. LOCAL TRUST COMMITTEE PROJECTS

15.1 Housing Access and Affordability Project - Staff Report

Island Planner Smith summarized the staff report and indicated a draft Housing Action Plan has been provided with identified goals, actions, and timelines.

Discussion ensued about the inclusion of recreational vehicles (RVs) as dwelling units in light of safety concerns about living in an RV on a long-term basis and the following comments were recorded:

- Consideration of RVs ranked high in survey responses
- There is a standing resolution to not enforce on RVs being used as a dwelling unit due to the current housing crisis; but this does not mean that living in RVs is suitable long-term

- The Advisory Planning Commission had taken this matter under consideration and noted that concerns might be alleviated by addressing the issues of water, septic, and fire safety protections
- There is possibility to allow RVs by a Temporary Use Permit provided an inspection is undertaken and approved
- In addition to water and septic requirements the issue of mould and condensation should be addressed

Discussion continued and the following comments were noted:

- Exploration of a communication strategy can be undertaken during the project phase and might include providing examples of the experiences of community members that have built secondary suites
- Suitable Land Analysis and Build-Out Analysis work is being done and can inform the project going forward

NP-2025-013

It was MOVED and SECONDED,

that North Pender Island Local Trust Committee endorses the proposed Goals, Objectives and Actions of the attached draft Housing Action Plan dated March 11, 2025, and directs staff to proceed with further community consultation prior to final endorsement of the Plan.

CARRIED

15.2 Raptor Nest Development Permit Area (DPA) Review Project Update - Staff Memo

Island Planner Smith provided an update on the project and reported the following:

- Data collection and mapping update work continues and will be presented at the upcoming Community Information Meeting on April 12
- Letters to property owners will be sent out once updated mapping is received

16. REPORTS

16.1 Work Program Report

16.1.1 Active Projects Report Dated Mar 2025

Received for information.

16.1.2 Future Projects Report Dated Mar 2025

Received for information.

16.2 Applications Report Dated Mar 2025

The Planner provided a verbal update.

16.3 Trustee and Local Expense Report Dated Jan 2025

Received for information.

16.4 Adopted Policies and Standing Resolutions

Received for information.

16.5 Local Trust Committee Webpage

No updates required at this time.

16.6 Islands Trust Conservancy Report Dated Feb 2025

Received for information.

17. NEW BUSINESS

17.1 6601 Razor Point Road Covenant Update

No update provided at this time. Item to be kept on agenda for the next meeting.

17.2 Intertidal Development Permit PLD20250141

Island Planner Smith advised that an application for an Intertidal development permit for Green Shores/Bioengineering stabilization work had been received and the applicant is seeking approval as soon as possible to facilitate work to be done in the spring planting window prior to Department of Fisheries and Oceans fisheries closures beginning June 1.

NP-2025-014

It was MOVED and SECONDED,

that North Pender Local Trust Committee direct staff to schedule a special meeting to be held electronically to consider Development Permit application PLDP20250141.

CARRIED

18. UPCOMING MEETINGS

18.1 Special Community Information Meeting Scheduled for April 12, 2025 at the Pender Island Community Hall

18.2 Next Regular Meeting Scheduled for May 30, 2025 at the St Peter's Anglican Church Hall, Pender Island

19. TOWN HALL

No members of the public spoke.

20. CLOSED MEETING (Distributed Under Separate Cover)

20.1 Motion to Close Meeting

NP-2025-015

It was MOVED and SECONDED,

that the meeting be closed to the public in accordance with the Community Charter, Part 4, Division 3, s. 90(1)(a):

(a) personal information about an identifiable individual who holds or is being considered for a position as an officer, employee or agent of the municipality or another position appointed by the municipality;

AND that the recorder and staff attend the meeting.

CARRIED

The regular meeting was closed to the public at 12:25 p.m.

20.2 Recall to Order

The meeting was recalled to order at 12:29 p.m.

20.3 Rise and Report

Chair Maude rose and reported adoption of the January 31, 2025 *in-camera* meeting minutes and the appointments of Andrew MacLean, Bert Hol, and Jon Spalding to the North Pender Board of Variance, commencing immediately for a term ending April 4, 2028.

21. ADJOURNMENT

By general consent the meeting was adjourned at 12:30 p.m.

David Maude, Chair

Certified Correct:

Lisa Millard, Meeting Administrator/Recorder

North Pender Island Local Trust Committee Minutes of Special Meeting

Date: April 12, 2025
Location: Pender Island Community Hall
4418 Bedwell Harbour Road, North Pender Island, BC

Members Present: David Maude, Chair
Aaron Campbell, Local Trustee
Deb Morrison, Local Trustee (electronic)

Staff Present: Brad Smith, Island Planner
Lisa Millard, Meeting Administrator/Recorder (electronic)

Others Present: There were 10 members of the public present.

1. CALL TO ORDER

Chair Maude called the meeting to order at 12:00 p.m.

2. TERRITORIAL ACKNOWLEDGEMENT

Chair Maude acknowledged that the meeting was being held in territory of the Coast Salish First Nations.

3. APPROVAL OF AGENDA

By general consent, the agenda was approved as presented.

4. BUSINESS ITEMS

4.1 Raptor Nest DPA Project - Staff Presentation - Q/A

Island Planner Smith provided a presentation and highlighted the following:

- The current Development Permit Area for raptors was adopted in 2008 based on a survey done by local volunteers and a Riparian Biologist
- The Local Trust Committee has updated the data set and Development Permit Area guidelines to reflect updated provincial guidelines
- If development is to occur within a Development Permit Area, specific guidelines are required to be met
- Development Permit Area 7 on North Pender includes provisions for the protection of the habitat used by bald eagles and raptors and generally applies to any subdivision of land and any development or construction or alteration of structures and includes a number of exemptions to the requirement for a permit
- To date a referral letter has been sent to First Nations, the study has been completed, updated mapping done, one letter has been sent to property

owners, a bylaw drafted, and a second letter to property owners will be forthcoming

- The first letter identified potential nest trees on specific properties and described provisions of the proposed bylaw
- The second letter will go out to those that own property within the proposed buffer zone
- There are approximately 20-25 new nest sites since mapping was last done
- The biggest proposed change is to increase the buffer area from 30-50 metres to a 60-metre radius with an additional seasonal buffer area
- The goal is to take into consideration options that might provide protections and not to sterilize lots or create an unbuildable environment
- Existing structures are not affected; however, new construction or alteration of an existing building within the Development Permit Area would require a permit

Members of the public asked questions and the Local Trust Committee provided responses as follows:

What is driving the proposed change?

There have been issues of cutting trees down within a Development Permit Area and it is difficult to enforce Development Permit Area guidelines if they are outside of provincial guidelines. Raptors are important species that require special protections.

What is driving the expansion of the buffer zone?

The Local Trust Committee wanted to update bylaws to reflect updated mapping and new provincial guidelines of best practices for protection.

There are examples of property owners who have stated an identified tree has not been occupied in several years or that the nest has fallen down, yet those trees are still mapped as viable inventory.

The intent is to work with property owners to continue to update the maps to get them as accurate as possible. If a property owner disagrees with mapping information, they can make a written submission and request further assessment.

If a nest is no longer present in a tree, why would it still be considered viable? This would encompass most trees on the island.

Most trees are not suited to raptors nests, the inventory of viable trees is not huge, and if a tree is viable, it should be protected.

It is important to get public acceptance because this will affect a large number of lots and additional public education might be required.

The Local Trust Committee has intentionally not rushed the bylaw amendment process as the matter requires community conversation and time to allow property owners to identify and report inventory that might be inaccurate.

It is important for Trustees to understand the Development Area Permit project is affecting many properties and there is evidence that shows eagles are thriving and live well amongst people.

The bylaw will be put into place as a check and balance system and enable conversation about the effects of development on the environment in respect of raptor nest trees.

Property owners fear extra costs, time, and limitations imposed by the bylaw and the language should be softened.

The Development Permit Area guidelines language can be influenced by community input; however, the guidelines do strive to retain, restore, and enhance key habitat features for raptors so that no net loss of habitat occurs. The intention is not to prevent any development being done but reflects the need to be cautious and meet the broader community goals of protecting the environmental components of the area.

Do real estate agent have to tell prospective buyers or sellers the property is located within a Development Permit Area.

The seller has a duty to disclose any restrictions to development. DPAs however are not declared on title.

The meeting recessed for a break at 1:20 p.m. and reconvened at 1:30 p.m.

4.2 Housing Access and Affordability Project

4.2.1 Housing Action Plan Presentation - Q/A

4.2.2 Community Discussion and Next Steps

The Planner provided an overview of Islands Trust wide housing review projects and processes and highlighted the following:

- Trust Council has prioritized a broad housing strategy, the Regional Planning Committee is implementing a wide range of housing project tools, and Local Trust Committees are working on individual housing projects
- A Housing Took Kit has been developed and is designed to help focus Local Trust Committee discussions
- The project looks at all of the Official Community Plan policies with respect to housing to broaden or create new policy
- A draft action plan has been informed by the housing needs assessment
- Next steps include continued community engagement, a mail out to all households, completion of the land suitability analysis and build out analysis, and First Nations Engagement
- The goals of the Action Plan include updating and using available data to inform projects, diversifying housing options through zoning, increasing opportunities for not-for-profit housing, community education and outreach, and incorporating First Nations interests in decision making

Discussion ensued and the following comments, questions, and clarifications were noted:

- Provincial or Federal affordable housing grant funding can not typically be applied for unless zoning is in place
- The Local Trust Committee would like to zone areas that would allow different housing options such as zoning a portion of land to provide for affordable housing to ensure it is project ready when funds become available
- There is intention to create flexibility on maximum floor coverage to permit the potential for an increased options within the floor coverage permitted
- There are provincial and federal initiatives for large project funding; however, there are barriers to doing small projects that are more suited to rural islands
- Islands Trust has been advocating for regulating tiny homes that are certified for year-round use
- There is limited uptake on secondary suite opportunities
- North Pender can be proactive and provide opportunity through zoning to increase housing options
- The intent of the moratorium on enforcement on illegal use of recreational vehicles (RVs) as dwelling units was to support workers and residents already living in RVs and the Local Trust Committee can direct staff to enforce if there are water, septic, or other concerns
- There are problems associated with living in an RV year-round due to circulation and mould issues and it is important to find ways to ensure that whatever is permitted will address health and safety issues
- There is potential to regulate RVs using the Temporary Use Permit which allows the Local Trust Committee to specify conditions that need to be met
- The goals of the planned actions are to explore opportunities to permit flexible housing and create a broad set of options

5. ADJOURNMENT

By general consent the meeting was adjourned at 2:35 p.m.

David Maude, Chair

Certified Correct:

Lisa Millard, Meeting Administrator/Recorder



File No.: PL-DVP-2024-0350

DATE OF MEETING: April 4, 2025

TO: North Pender Island Local Trust Committee

FROM: Bruce Belcher, Planner 2
Southern Team

COPY: Robert Kojima, Regional Planning Manager

SUBJECT: PL-DVP-2024-0350
Applicant: Doug Smith
Location: 5410 Hooson Road, North Pender Island

RECOMMENDATION

1. That the North Pender Island Local Trust Committee approve issuance of PL-DVP-2025-0350.

REPORT SUMMARY

The purpose of this report is to consider a Development Variance Permit (DVP) to vary the maximum height and number of storeys for an accessory building from 4.6 metres and one storey, to 8.61 metres and two storeys for an existing agricultural building to be converted to an accessory building.

RATIONALE FOR VARIANCE

The applicant's rationale for the variance is to save and repurpose the existing barn and use the building as a shop, office, and storage space. The barn is a long-standing structure with no additions proposed that would create any new impacts on neighbours, and predates the current owners purchase of the property.

BACKGROUND

The variance application is following an Islands Trust Preliminary Plan Review for proposed alterations and a change of use for the existing barn on the property. Staff identified that since the building was changing its use from an agriculture building to an accessory building its current height and storeys would be non-conforming with the North Pender Land Use Bylaw No. 224, 2022 (LUB).

The specific variance to the LUB is as follows:

- a) Subsection 3.4 (3) which states that *an accessory building or structure may not exceed 4.6 metres in height and one storey* is varied to permit the conversion of an existing barn to an accessory building (workshop, office, and storage) with a maximum height of 8.61 metres and two storeys.

The subject lot is located at 5410 Hooson Road on North Pender Island. The parcel is zoned as Rural (R) and is 4.19 ha (10.348 ac) in area. The existing barn is sited lawfully on the property 7.73 metres from the interior side lot line which has a minimum required setback of 6.10 metres.

Additional to the existing barn, the property has a principal dwelling currently under construction, and an accessory carport under construction, as well as an existing greenhouse. The converted building would have a floor area of 183.54 m², bringing the estimated total floor area of all buildings on the lot to 325m² and well under the maximum permitted floor area of 3000m² for a parcel of this size. The existing lot coverage is also well below the maximum permitted coverage of 25% which would equal 10,475m².

A copy of the notice and proposed permit PL-DVP-2024-0350 are included with this report as Attachment 4 and 5. The applicant has provided a letter explaining their rationale for the variance application included as Attachment 3. Staff completed a site visit on the property on March 24th, photos of the site are included as Attachment 2.

If the application is denied, the owners could apply to the Board of Variance or alter the plans to conform with the LUB.

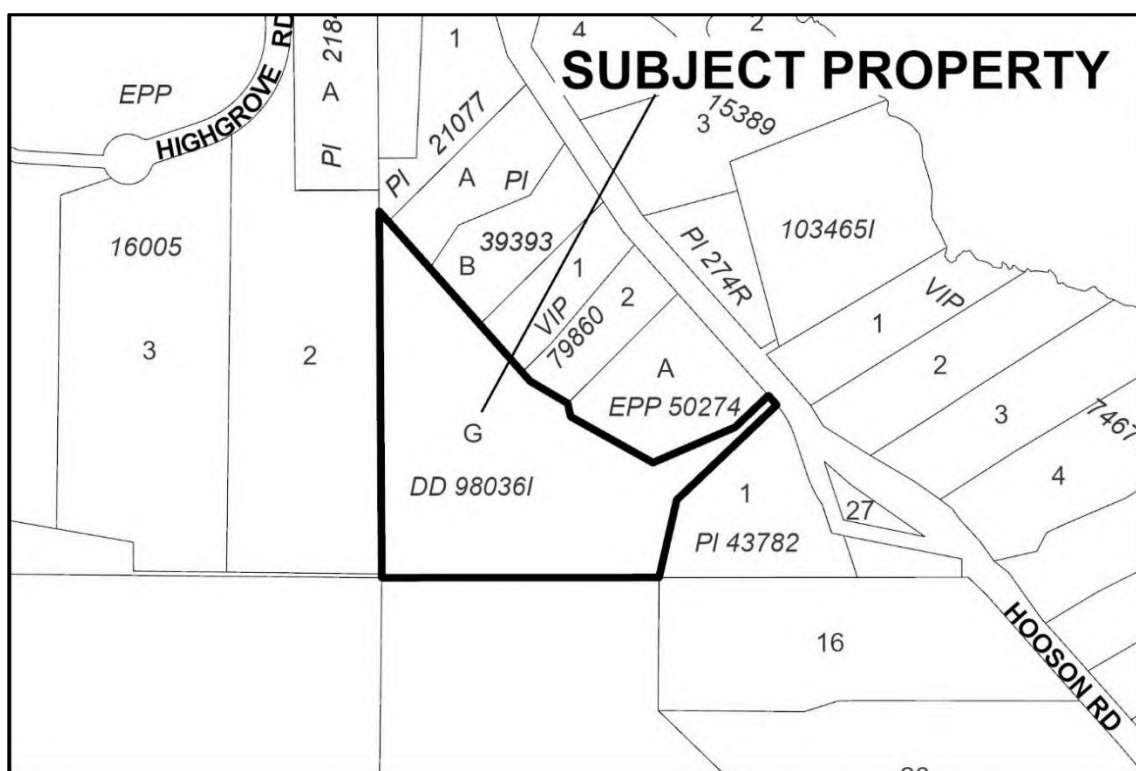


Figure 1 - Subject Property Location

ANALYSIS

Intent of Regulations being varied

The overall purpose of the maximum height and storey regulations are to minimize impacts on adjacent properties related to:

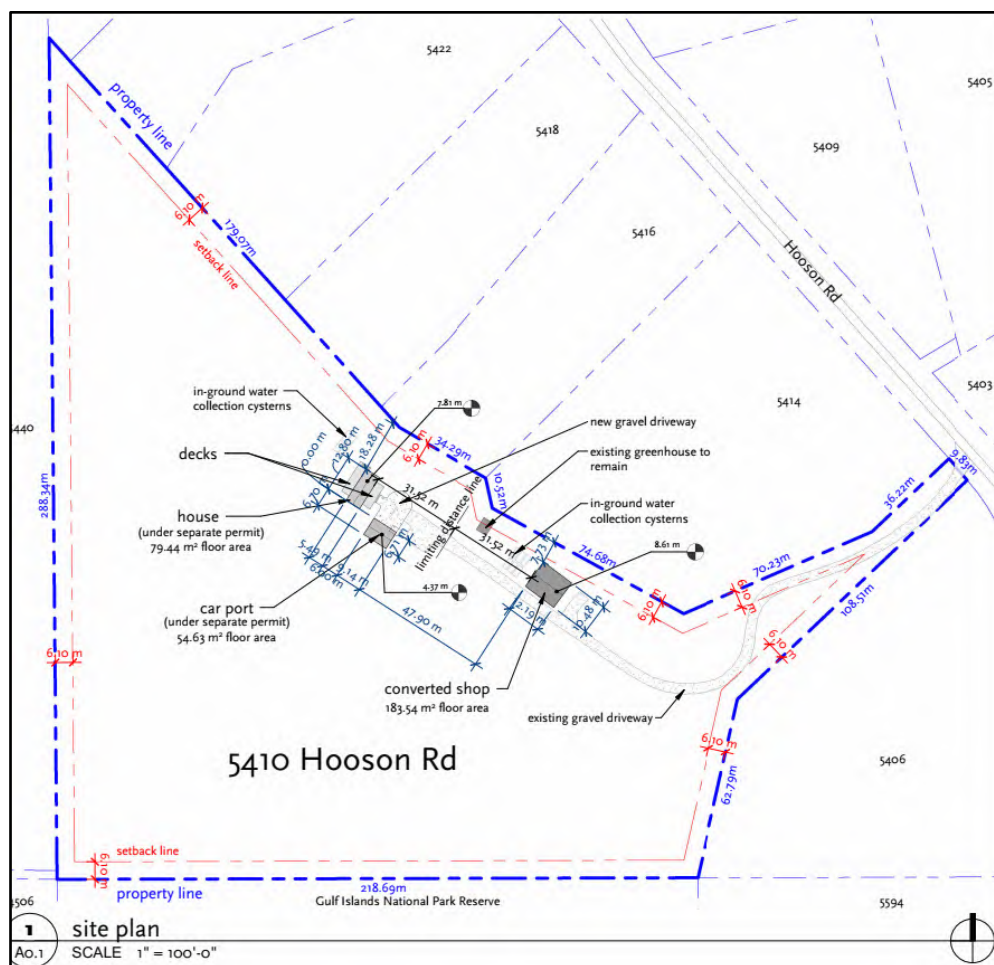
- Limiting the visual impact of development on adjacent properties;
- Establishing consistent development patterns within a local area;
- Protecting view, scenic areas, and distinctive features contributing to the overall visual quality and scenic value of the Trust Area;
- Maintaining rural character;
- Establishing certainty with respect to development by maintaining consistent height regulations.

Land Use Bylaw

The parcel is zoned Rural in the LUB. Among other permitted uses this zoning permits agriculture uses and accessory uses, buildings and structures.

- Agriculture is defined as the use of land, buildings or structures for a farm operation.
- Accessory is defined as, in relation to a use, building or structure means incidental, secondary and exclusively devoted to a principal use, building or structure expressly permitted by this Bylaw on the same lot or.

Granting a variance does not exempt an owner from complying with the permitted uses within the property's zone.



Potential impacts of granting to variance

Granting a variance can potentially create an expectation in the community with regard to future applications. As variances consider the unique circumstances pertaining to a particular situation that may warrant the relaxation of a specific zoning regulation, each application should be evaluate on its own merits.

If the variance is approved the anticipated impacts on neighbouring properties are minimal since it is a long-standing building with no proposed additions or expansion to the building. The existing building is not sited near any buildings on neighbouring properties and is shielded from the road and neighbouring properties by trees.

Circulation

The draft permit was circulated to surrounding property owners and residents on March 14, 2025. The notification period will end on March 26, 2025.

At the time of writing, staff have received one letter of objection to the application. Any comments received subsequently will be forwarded to the Local Trust Committee and reported at the meeting.

First Nations

The Islands Trust reviews all applications to ensure the preservation and protection of cultural heritage, archaeological sites, and ancestral places. As reviewed, the application is consistent with respect to LTC Standing Resolutions on reconciliation. Notwithstanding, to provide applicants with awareness regarding unknown archaeological areas, staff forwarded the Islands Trust Chance Find Protocol and the provincial Archaeological Branch guidelines on Heritage Act directly to the applicants with the initial application.

Rationale for Recommendation

Staff is recommending that the resolution on page 1 be supported for the following reasons:

- Repurposing an existing building rather than building a new accessory building is considered a reasonable rationale for a variance;
- The proposed variance would not challenge the intent of the regulations due to no new impacts created on neighbouring property’s views nor any additional land alteration;
- The building is consistent with the lot coverage, siting, and total floor area regulations;
- Granting the variance would not exempt the building from complying with the permitted uses associated with the property’s zoning, specifically the building could not be used for human habitation.

ALTERNATIVES

The LTC may consider the following alternatives to the staff recommendation:

1. Request further information

The LTC may request further information prior to making a decision. 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 North Pender Island Local Trust Committee request that the applicant submit to the Islands Trust

2. Deny the application

The LTC may deny the application. Recommended wording for the resolution is as follows:

That the North Pender Island Local Trust Committee refuse application PL-DVP-2024-0350.

Submitted By:	Bruce Belcher, Planner 2	March 26, 2025
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Concurrence:	Robert Kojima, Regional Planning Manager	March 26, 2025
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ATTACHMENTS

1. Site Context
2. Plans, Photographs
3. Applicant Letter
4. Notice
5. Draft Development Variance Permit

ATTACHMENT 1 – SITE CONTEXT

LOCATION

Legal Description	PARCEL "G" (DD 98036-I) OF THE SOUTH EAST 1/4 OF SECTION 19, PENDER ISLAND, COWICHAN DISTRICT, EXCEPT THOSE PARTS IN PLANS 12147, 20226, 21077, 23416, 43782, VIP53926 AND EPP50274
PID	004-097-858
Civic Address	5410 Hooson Road, North Pender Island
Property Size	4.18 ha

LAND USE

Current Land Use	Residential
Surrounding Land Use	Residential, National Park

HISTORICAL ACTIVITY

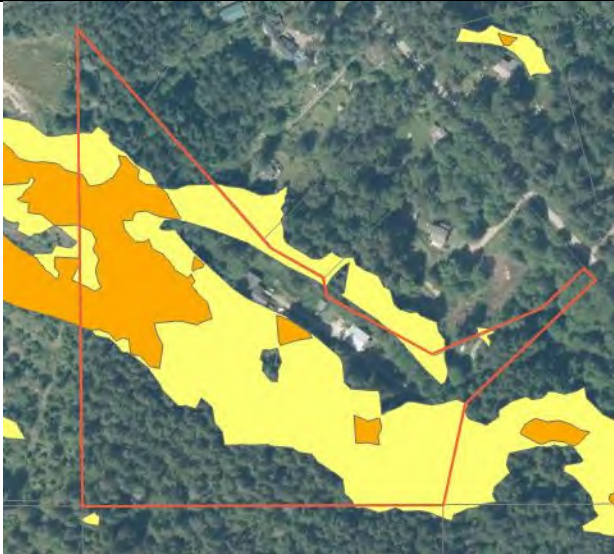
File No.	Purpose
NP-DVP-2014.2	Variance for split zoning subdivision
NP-SUB-2014.3	Boundary line adjustment subdivision
PLBP20240131	New single-family dwelling, carport

POLICY/REGULATORY

Official Community Plan Designations	Rural Land Use
Land Use Bylaw	Rural
Covenants	N/A
Bylaw Enforcement	N/A

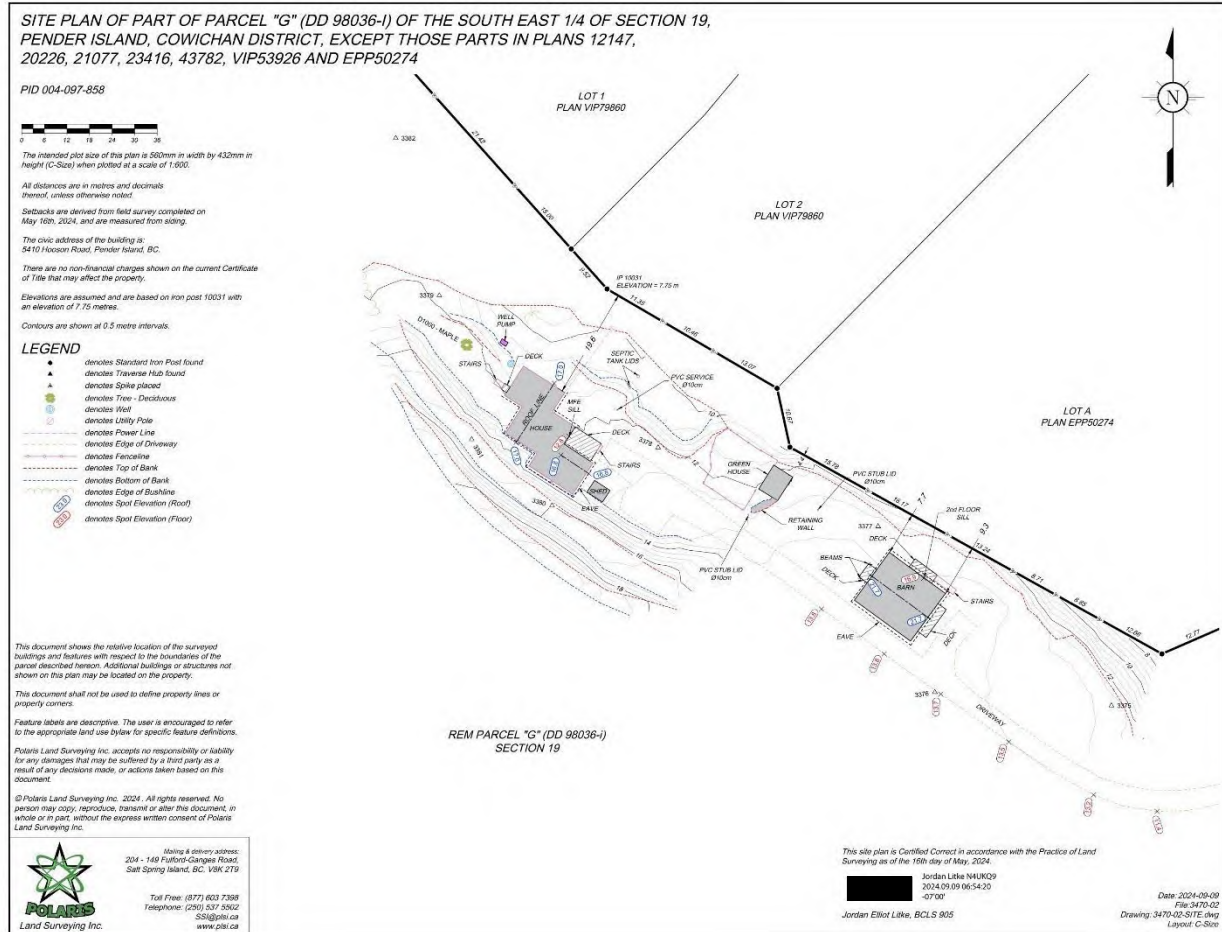
SITE INFLUENCES

Species at Risk	Douglas-fir / dull Oregon-grape ecological community
Sensitive Ecosystems	The subject property is identified within Sensitive Ecosystem Inventory mapping as Mature Forest Ecosystems. For additional details regarding the Mature Ecosystems, please refer to page 16 of the Islands Trust Sensitive Ecosystem Guide.
Hazard Areas	Moderate, Low-risk steep slopes

		
Archaeological Sites	Notwithstanding the foregoing, and by copy of this report, the owners and applicant should be aware that there is still a chance that the lot may contain previously unrecorded archaeological material that is protected under the <i>Heritage Conservation Act</i>. If such material is encountered during development, all work should cease and Archaeology Branch should be contacted immediately as a <i>Heritage Conservation Act</i> permit may be needed before further development is undertaken. This may involve the need to hire a qualified archaeologist to monitor the work.	
Climate Change Adaptation and Mitigation	No anticipated impacts associated with proposed variance.	

ATTACHMENT 2 – PLANS AND PHOTOS

2.1 SURVEY PLAN



2.2 PHOTOS



EXISTING BARN, LOOKING NORTH-WEST



EXISTING BARN, LOOKING SOUTH-EAST

2.2 PHOTOS, CONTINUED



PROPERTY LINE MARKER ADJACENT TO EXISTING BARN, LOOKING EAST



PROPERTY LINE MARKERS, LOOKING EAST

2.2 PHOTOS, CONTINUED



PROPERTY LINE MARKER ADJACENT TO EXISTING BARN, LOOKING NORTH-EAST



EXISTING BARN, LOOKING WEST

2.2 PHOTOS, CONTINUED



EXISTING BARN, VIEW FROM DRIVEWAY LOOKING NORTH-WEST



EXISTING BARN, VIEW FROM DRIVEWAY AND PROPERTY LINE LOOKING WEST

2024-12-09

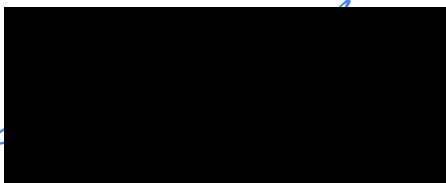
Re: 5410 Hooson Rd, Pender Island BC

Attention Island Trust Planning Department:

The home owners at 5410 Hooson Road are hoping to save and repropose the barn on their property into a shop with some storage & office space. This would include repairing the building and updating the exterior; however, this will also require changing the use from a farm building to an accessory building, and the existing structure is over the maximum height allowance for accessory buildings per the zoning bylaw. Due to this, we are seeking a variance for an accessory building height of 8.61m to save and reuse the existing building. As the barn is a long-standing structure there will be no changes to the visual or other (if any) impacts on the neighbors.

If you have any questions about any of this, please don't hesitate to reach out.

Sincerely,



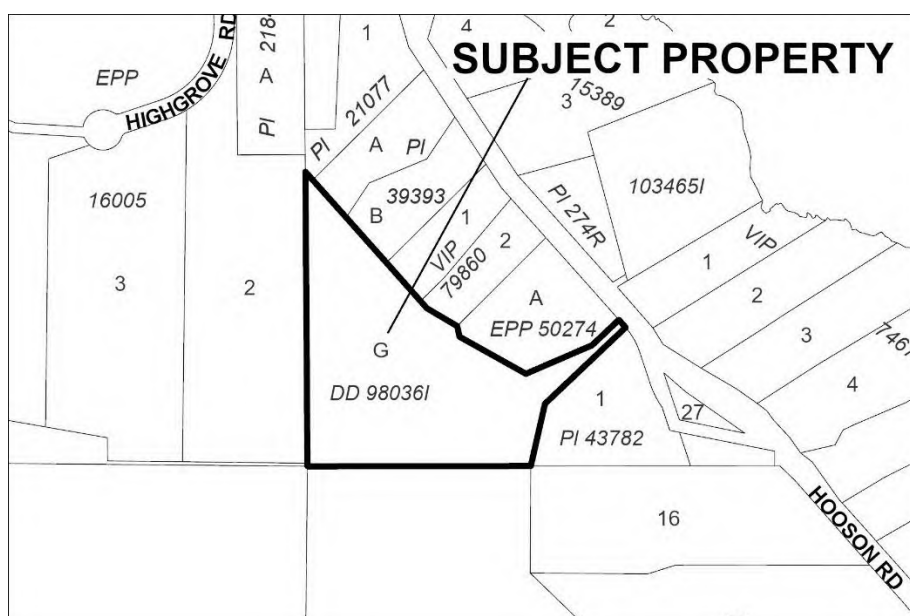
Doug Smith
Third Axis Design Ltd.
dsmith@thirdaxis.ca

NOTICE is hereby given pursuant to Section 499 of the *Local Government Act* that the North Pender Island Local Trust Committee will be considering a resolution allowing for the issuance of a Development Variance Permit, the proposed permit would vary the North Pender Island Land Use Bylaw No. 224, 2022 by:

- Increasing the maximum height regulations from 4.6 to 8.61 metres and from one to two storeys for the conversion of an existing barn to an accessory building (workshop, office, and storage).

The property is located at **5410 Hooson Road** and is legally described as PARCEL "G" (DD 98036-I) OF THE SOUTH EAST 1/4 OF SECTION 19, PENDER ISLAND, COWICHAN DISTRICT, EXCEPT THOSE PARTS IN PLANS 12147, 20226, 21077, 23416, 43782, VIP53926 AND EPP50274 (PID: 004-097-858).

The general location of the subject property is shown on the following sketch:



A copy of the proposed permit may be inspected at the Islands Trust Office, 200 - 1627 Fort Street, Victoria, B.C. V8R 1H8 between the hours of 8:30 a.m. to 4:30 p.m. Monday to Friday inclusive, excluding statutory holidays, commencing **March 14, 2025** and continuing up to and including **March 26, 2025**.

For the convenience of the public only, and not to satisfy Section 499 (2) (c) of the *Local Government Act*, additional copies of the Proposed Permit may be inspected at various Notice Boards on North Pender Island.

Enquiries or comments should be directed to Bruce Belcher at (250) 405-5179, for Toll Free Access, request a transfer via Enquiry BC: In Vancouver 660-2421 and elsewhere in BC 1-800-663-7867; or by fax (250) 405-5155; or by email to: southinfo@islandstrust.bc.ca before 4:30 pm, **March 26, 2025**.

The North Pender Island Local Trust Committee may consider a resolution allowing for the issuance of the permit during the regular meeting starting at **10:00 a.m. on April 4, 2025**, to be held at the **St. Peter's Anglican Church Hall**, 4703 Canal Rd, North Pender Island.

All applications are available for review by the public with prior appointment. Written comments made in response to this notice will also be available for public review.

Jas Chonk, Deputy Secretary



Islands Trust

**NORTH PENDER ISLAND LOCAL TRUST COMMITTEE
DEVELOPMENT VARIANCE PERMIT
PLDVP20240350**

To: Kevin Phillips and Tanya Prestay
c/o Doug Smith, Third Axis Design

1. This Development Variance Permit applies to the land described below:

PARCEL "G" (DD 98036-I) OF THE SOUTH EAST 1/4 OF SECTION 19, PENDER ISLAND, COWICHAN DISTRICT, EXCEPT THOSE PARTS IN PLANS 12147, 20226, 21077, 23416, 43782, VIP53926 AND EPP50274 (PID: 004-097-858)

2. North Pender Island Land Use Bylaw No. 224, 2022 is varied as follows:

- a) Subsection 3.4 (3) which states that *an accessory building or structure may not exceed 4.6 metres in height and one storey* is varied to permit the conversion of an existing barn to an accessory building (workshop, office, and storage) with a maximum height of 8.61 metres and two storeys.

The development shall be consistent with Schedule 'A', 'B' and 'C' attached to and forming part of this permit.

3. 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 "North Pender Island Land Use Bylaw No. 224, 2022" and to obtain other approvals necessary for completion of the proposed development, including approval of the Capital Regional District and Ministry of Transportation and Infrastructure.

AUTHORIZING RESOLUTION PASSED BY THE NORTH PENDER ISLAND LOCAL TRUST COMMITTEE THIS TH DAY OF , 2025.

Deputy Secretary, Islands Trust

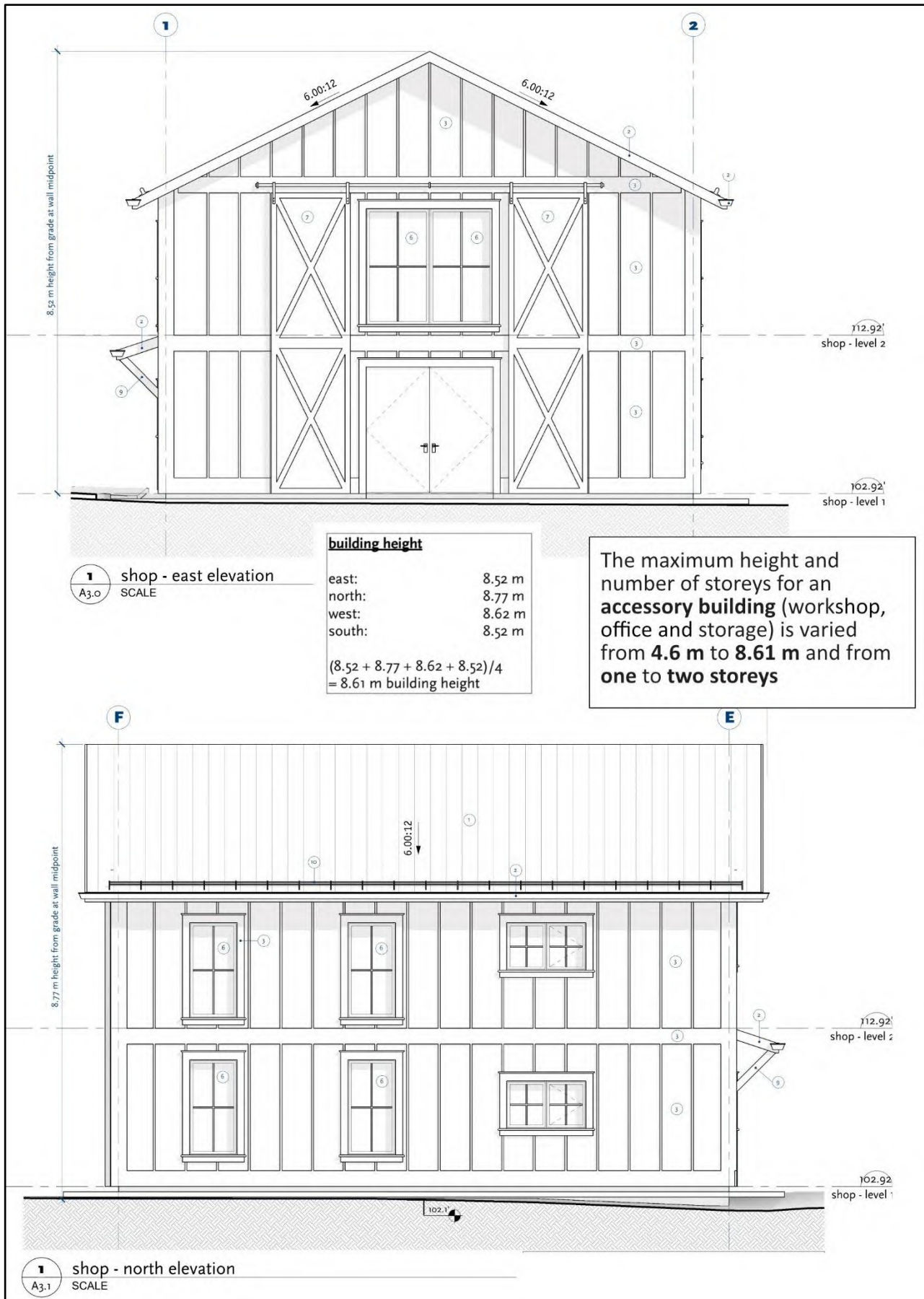
Date of Issuance

IF THE DEVELOPMENT DESCRIBED HEREIN IS NOT COMMENCED BY THE ##TH DAY OF MONTH, 2027 THIS PERMIT AUTOMATICALLY LAPSES.

NORTH PENDER ISLAND LOCAL TRUST COMMITTEE

PLDVP20240350

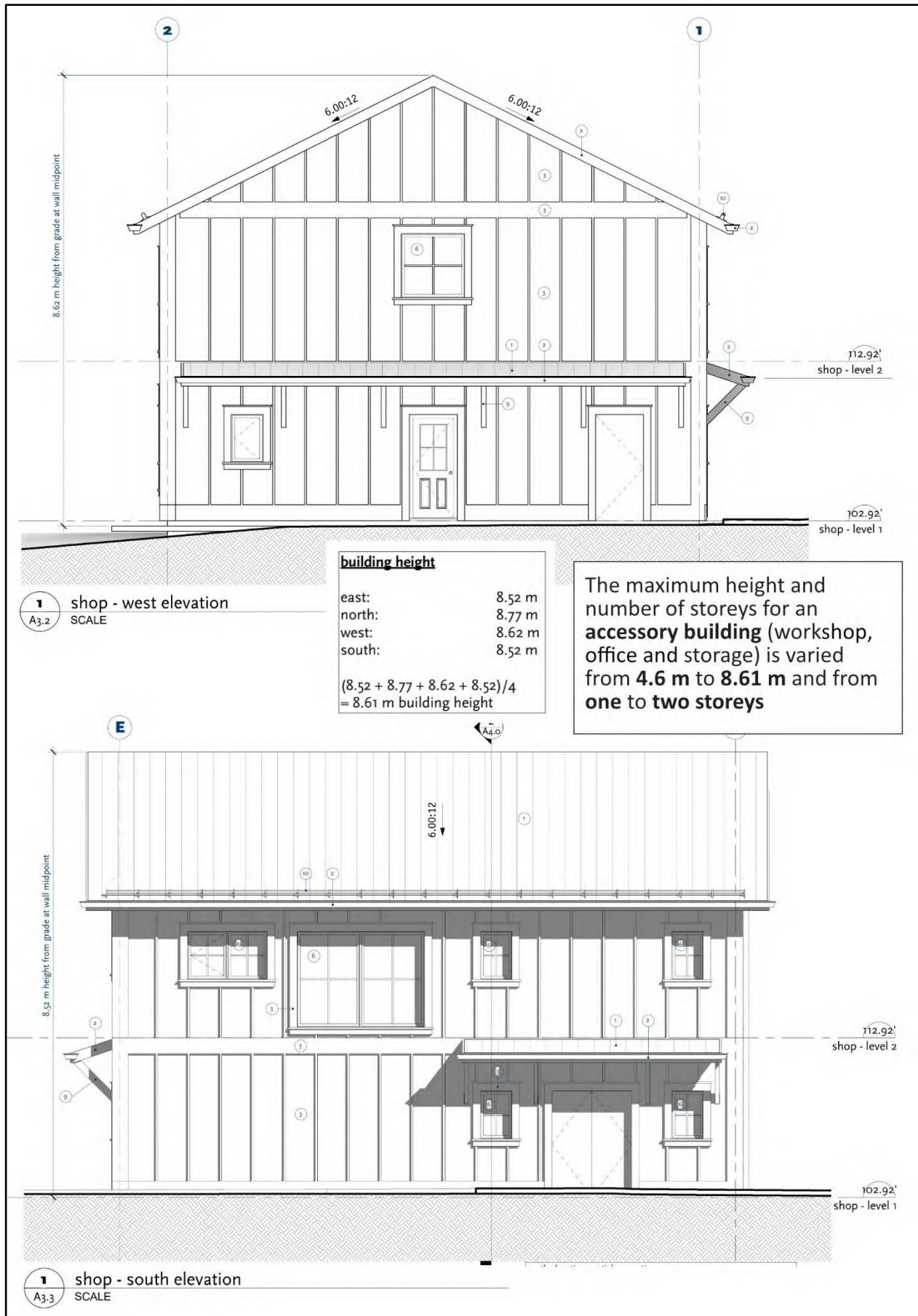
SCHEDULE 'A' (1 of 2)



NORTH PENDER ISLAND LOCAL TRUST COMMITTEE

PLDVP20240350

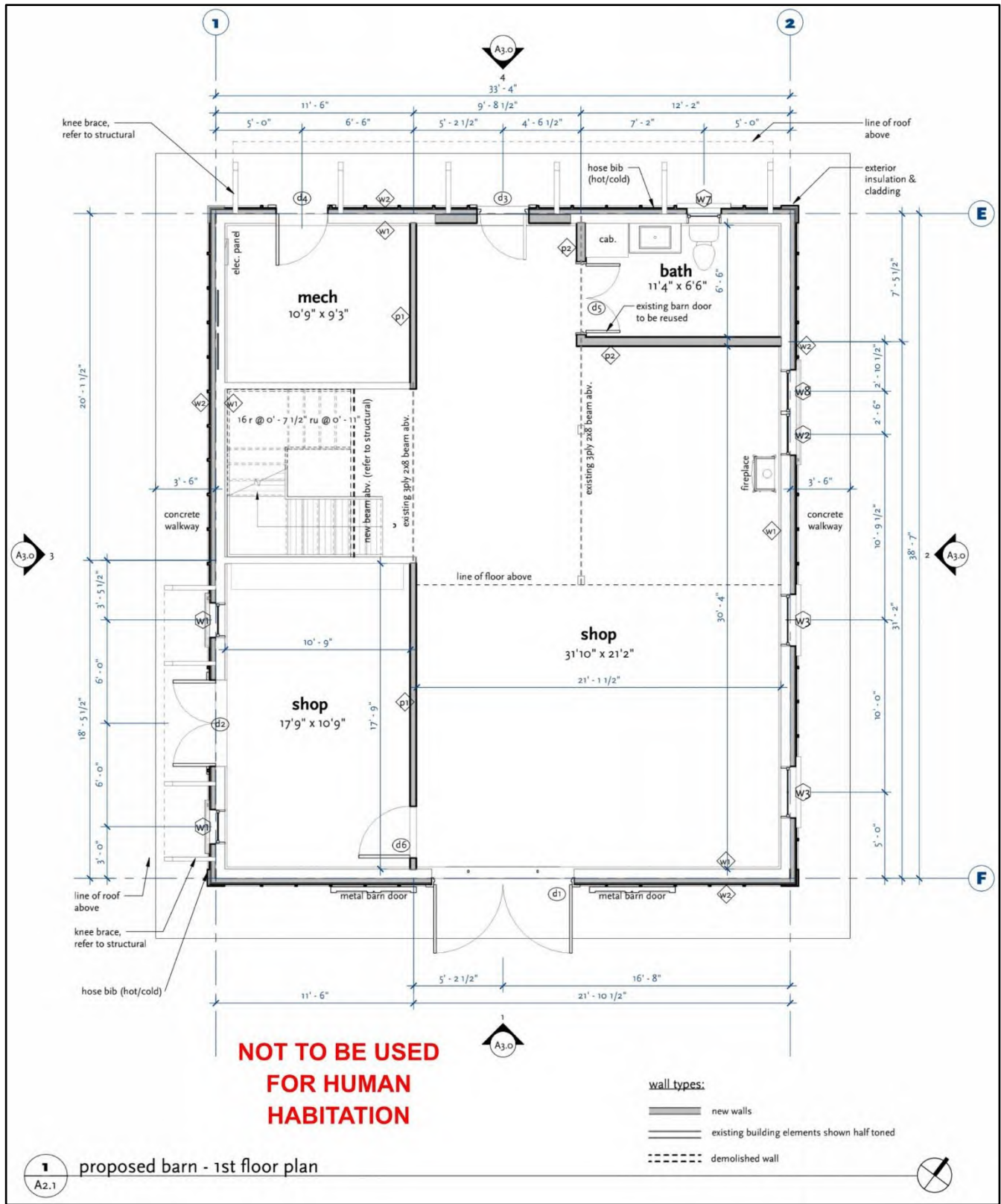
SCHEDULE 'A' (2 of 2)



NORTH PENDER ISLAND LOCAL TRUST COMMITTEE

PLDVP20240350

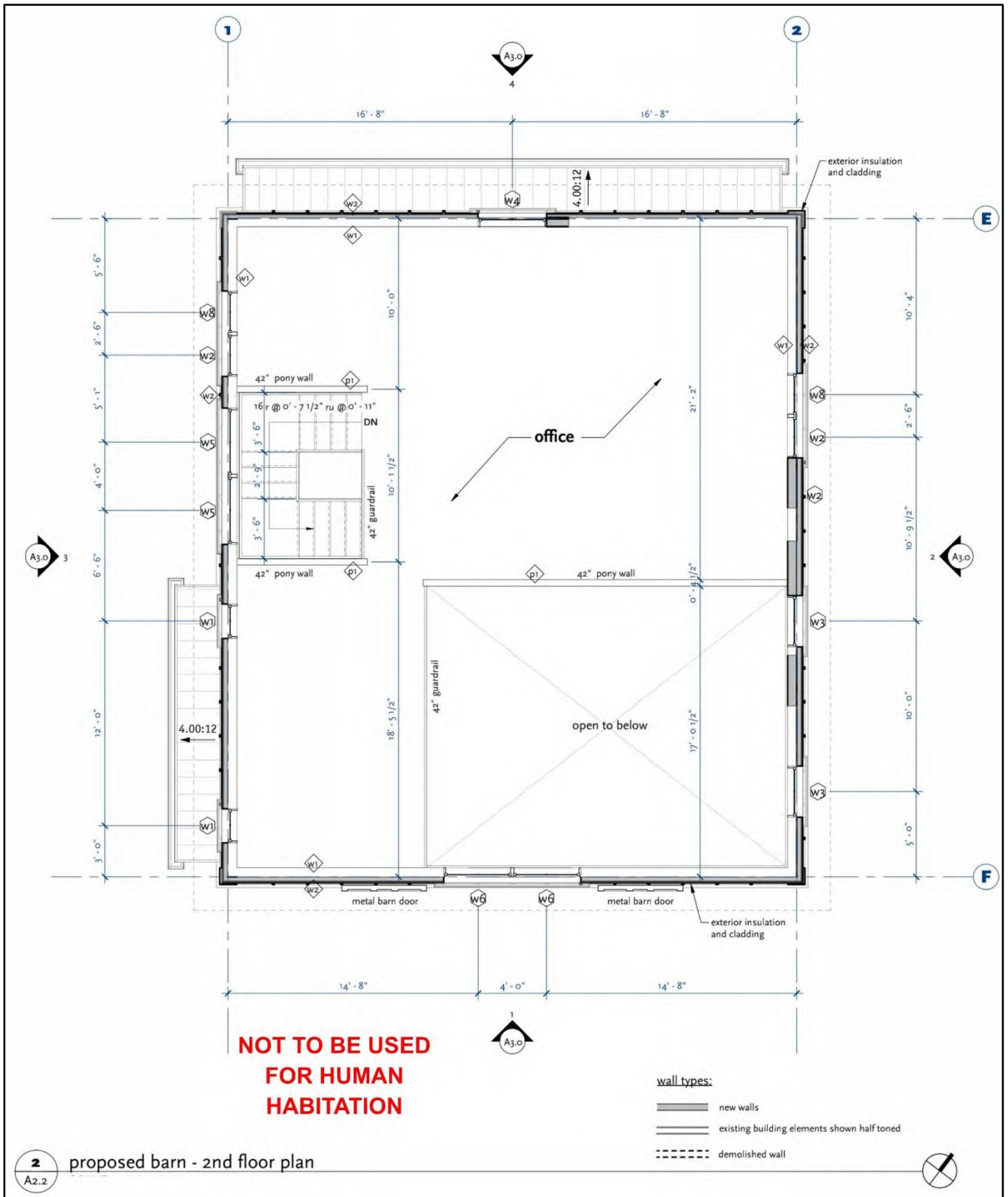
SCHEDULE 'B' (1 of 2)



NORTH PENDER ISLAND LOCAL TRUST COMMITTEE

PLDVP20240350

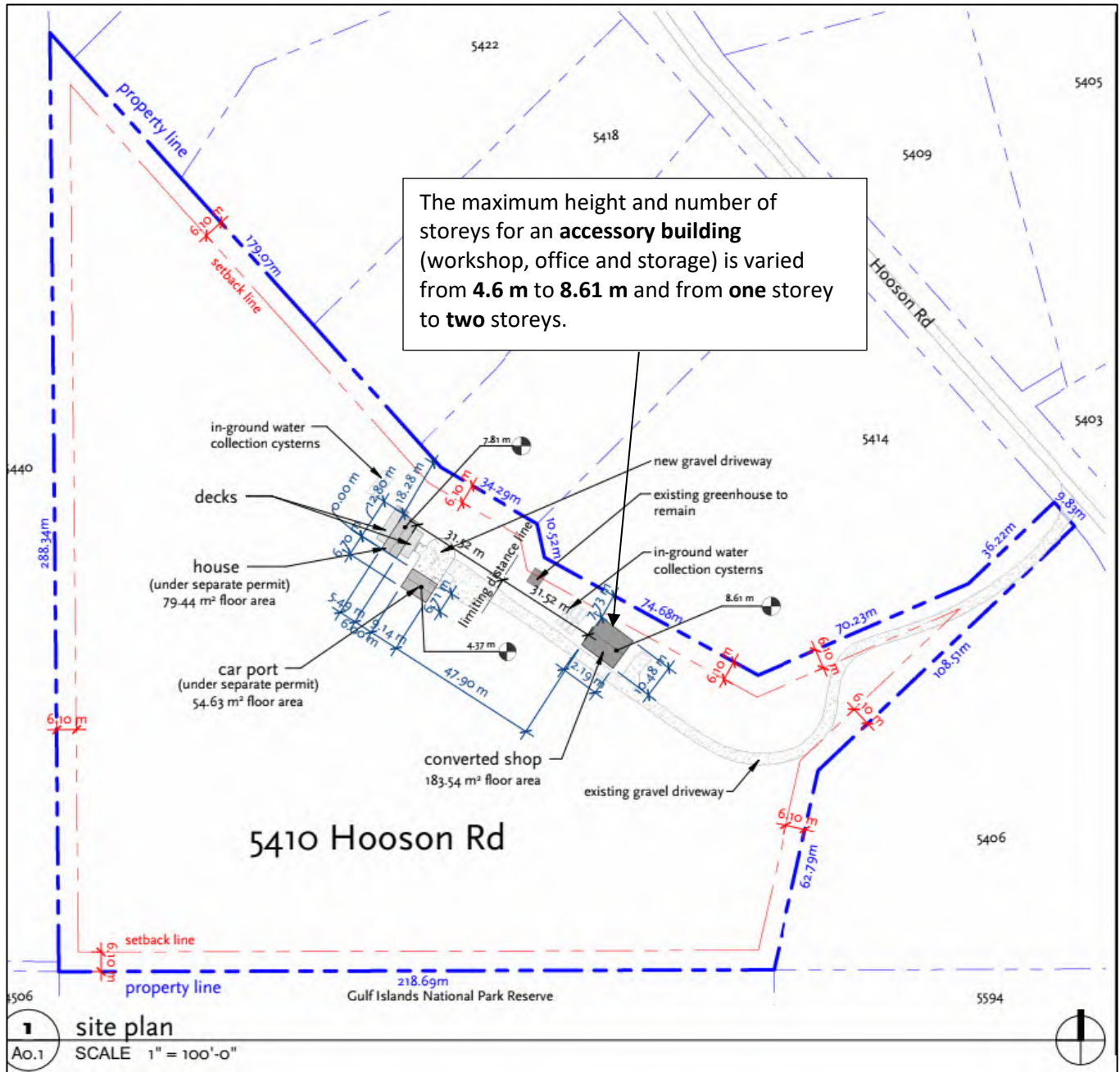
SCHEDULE 'B' (2 of 2)



NORTH PENDER ISLAND LOCAL TRUST COMMITTEE

PLDVP20240350

SCHEDULE 'C'



DATE OF MEETING: May 5, 2025

TO: North Pender Island Local Trust Committee

FROM: Brad Smith, Island Planner
Southern Team

COPY: Robert Kojima, Regional Planning Manager

SUBJECT: Development Permit Application – Shoreline Stabilization
Applicant: Don and Lee Kayne
Location: 37149 Schooner Way

RECOMMENDATION

1. That the North Pender Island Local Trust Committee approve issuance of Development Permit PL-DP-2025-0141 (Kayne).

REPORT SUMMARY

This report is to consider a Development Permit (DP) application. The purpose of the proposed DP is to authorize the construction of Green Shores/Bioengineering stabilization work on the shoreline slope of the subject property that is located within **Development Permit Area 6 (DPA 2) – Intertidal Sensitive Ecosystems**.

The recommendation above is supported as:

- The objectives and guidelines of the DPA have been met;
- The conditions within the draft DP are based on an assessment report completed by a professional biologist and are supported by staff;
- There is significant erosion occurring that needs to be addressed and restoration via bioengineering and other Green Shores techniques provides a more natural and minimal approach than boulder stacking;
- Implementation, restoration and monitoring conditions in the DP will ensure the protection of the natural environment.

BACKGROUND

The applicant has submitted a development permit application for proposed Green Shores/Bioengineering stabilization work on the shoreline slope of the subject property located at 37149 Schooner Way (figure 1). The lot is built-out with a dwelling, garage and accessory stairs accessing the foreshore as shown in the site plan (Figure 2.).

Figure 1 – Subject Property

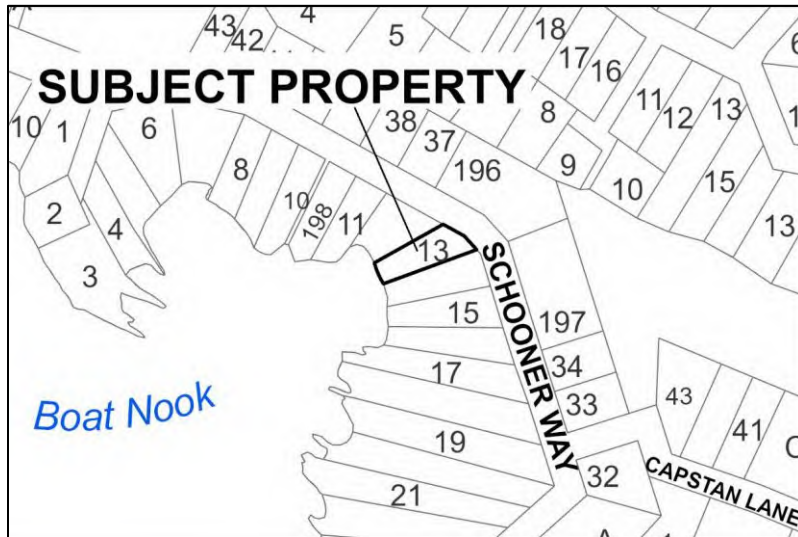
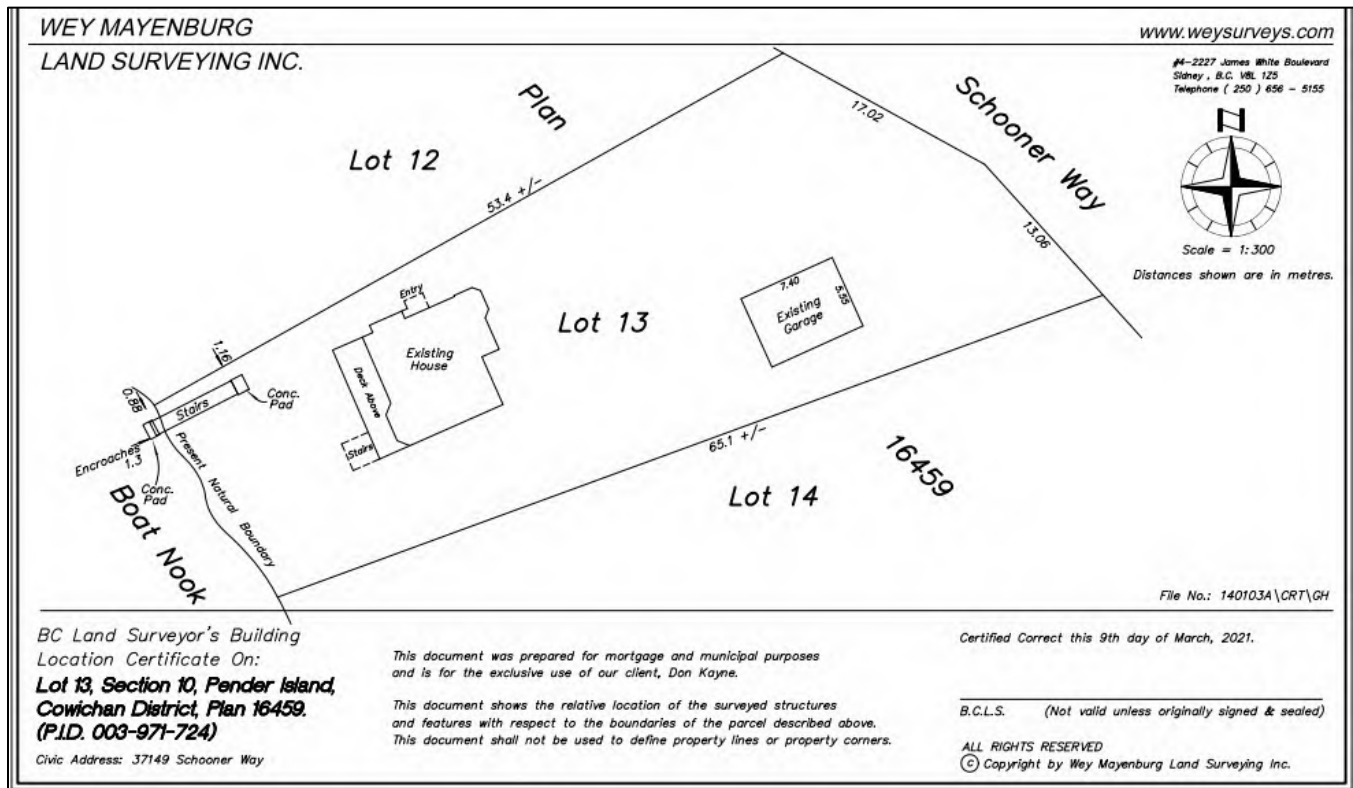
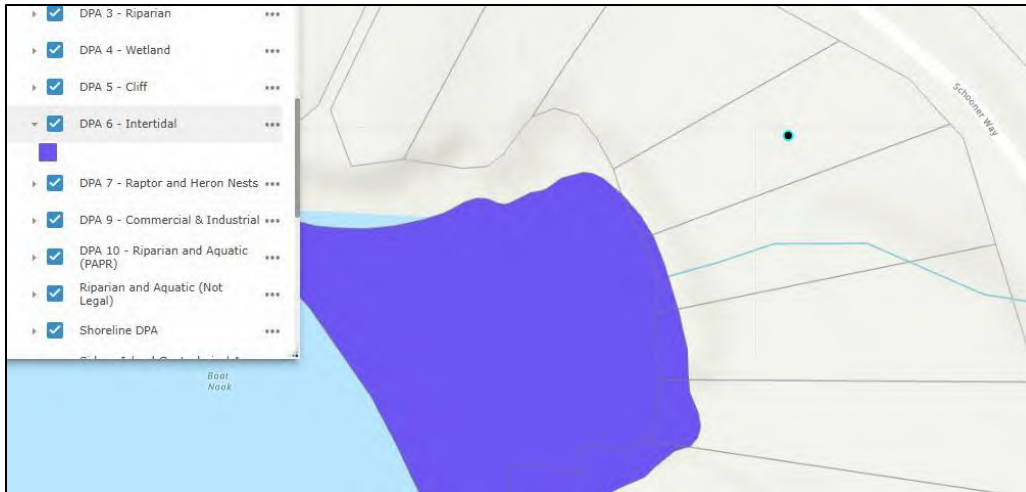


Figure 2. Site Plan



The parcel and adjacent foreshore contains DPA 6 as shown below:



Slope restoration work proposed in DPA 6 includes the anchoring of logs, planting of willow wattles, and dune grass plantings in the area shown in Figures 3, 4 and 5.

Figure 3. Proposed Restoration Area

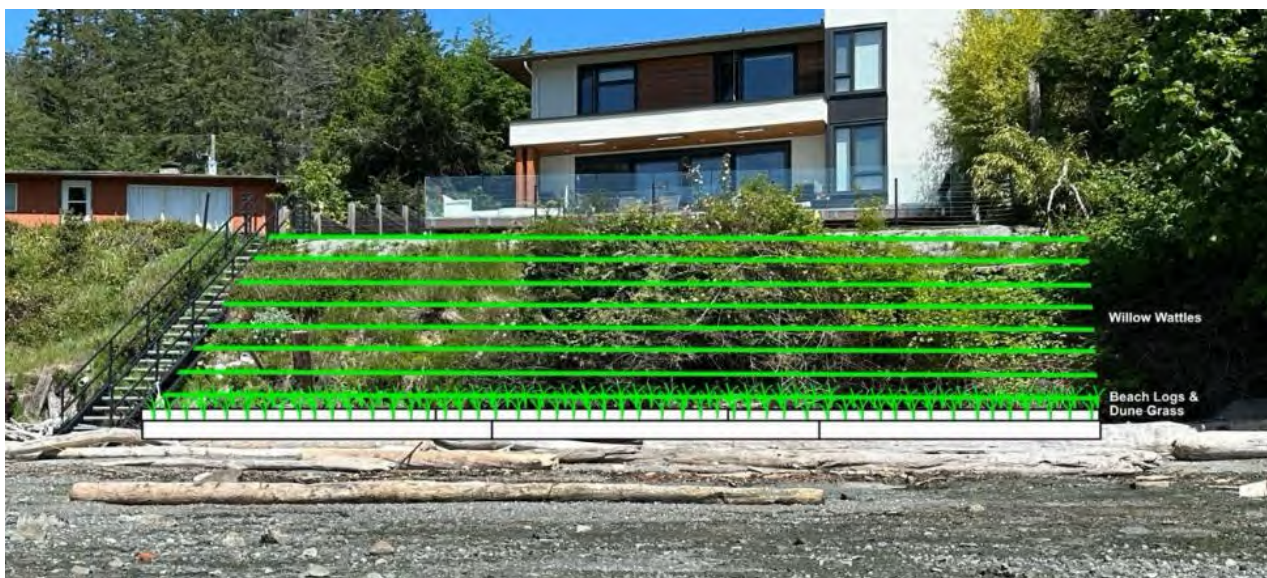
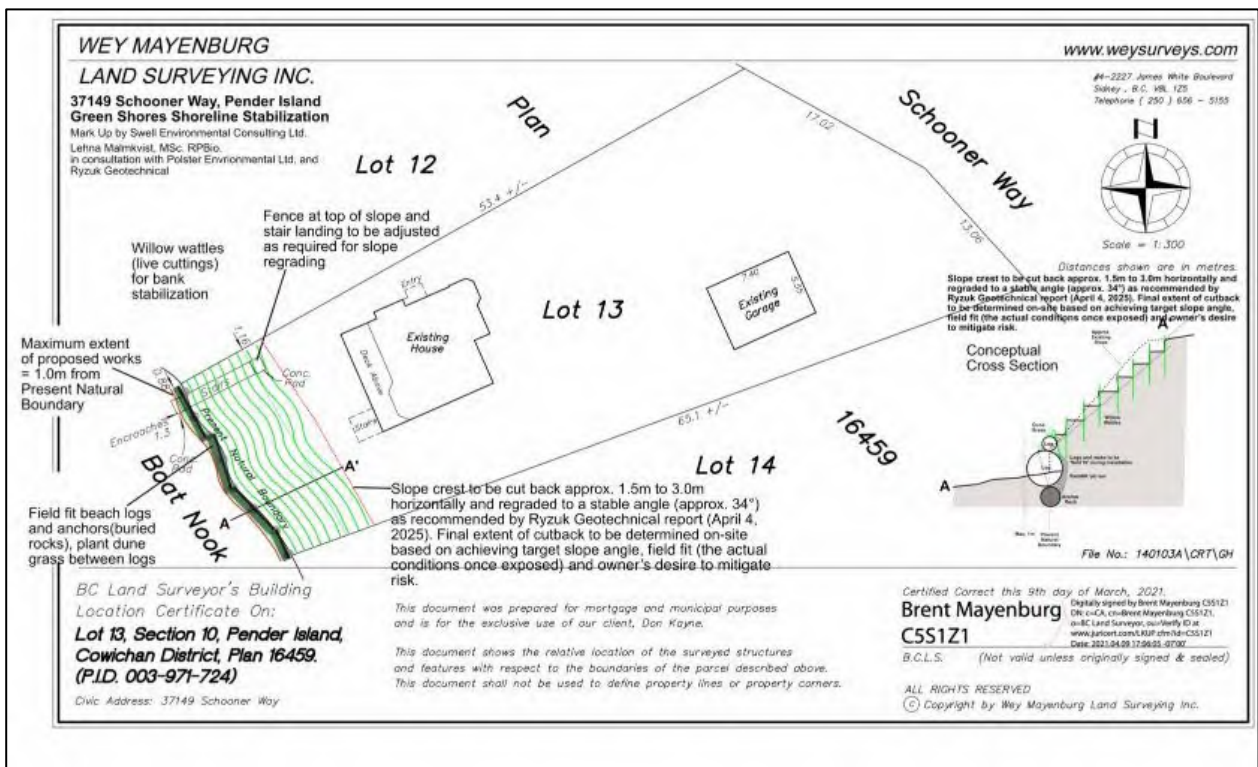


Figure 4. Proposed Restoration Plan



Figure 5. Site Restoration Prescription



Draft permit PLDP2025014 is included as Attachment 1. Professional reports from the RP. Bio, geotechnical engineer and bioengineer are included as Attachments 2, 3 and 4. Staff conducted a site visit on April 12, 2025 and met with the property owner.

ANALYSIS

Policy/Regulatory

Official Community Plan

The property is designated **Rural** in the North Pender Island Official Community Plan No. 171, 2007.

The rear portion of the parcel and adjacent foreshore contains DPA 6 – Intertidal Ecosystems.

Intertidal ecosystems include the island’s marine ecosystems where total vegetated coverage of the surface areas is less than 5%. Intertidal ecosystems are valued for their important habitats for marine and estuarine organisms. Areas such as salt marshes, eelgrass or kelp beds provide habitat for sensitive and ecologically important fish. These ecosystems are an important regional resource, supporting economic activities ranging from fisheries and kelp harvesting to tourism and recreational activities.

The objective of DPA 6 is to preserve and protect remaining sensitive intertidal ecosystems. DPA 6 specific guidelines include:

5.2.7.3 Intertidal Ecosystem Guidelines

In addition to the overall and subdivision guidelines, the following specific guidelines are applicable to Development Permit Area Six (Intertidal ecosystems):

1. Stairs, walkways and other access within a sensitive intertidal ecosystem should be limited to that required for safe access, with shared access where feasible. Stairs should incorporate landings, follow the existing contours of the site, utilize small concrete pilings and have gaps between boards.
2. Docks should be sited to avoid impacts on sensitive ecosystems such as eelgrass beds, fish habitat and natural processes such as currents and littoral drift.
3. Docks should be constructed in a manner which allows free flow of water beneath the dock and supports should be located on a hard substrate.
4. Floating docks that do not rest on the bottom at any time and a minimal ramp should be utilized rather than fixed wharves.
5. Piers on pilings and floating docks are preferred over solid-core piers.
6. Docks should not incorporate unenclosed plastic foam or other non-biodegradable materials and should be constructed of stable materials that will not degrade water quality.
7. Boat launch ramps should only be located on stable, non-erosional banks where a minimum amount of substrate disturbance or stabilization is required.

Land Use Bylaw

The property is zoned Rural Residential 1 (RR1) in the North Pender Island Land Use Bylaw No. 224, 2022. The current uses and density meet the requirements of the LUB.

Issues and Opportunities

QEP Assessment Reports

The applicant has submitted a professional report from Swell Environmental, updated April 10, 2025 (to replace original report submitted with application in March 2025). The QEP report summarizes the observations of the ecological conditions, potential impacts from the proposed development on the property, and recommendations for environmental protection and restoration following construction.

The report concludes that *“In summary, provided the environmental protection measures are implemented, no permanent impacts are expected to the marine environment, and the terrestrial habitat will be restored with the native planting area increased over the existing, and will include invasive species removal. Temporary impacts will be minimized through implementation of the Environmental Protection Measures.”*

The proposed restoration plan has been developed by the QEP in collaboration with Ryzuk Engineering for geotechnical and Polster Environmental Services for bioengineering. Additional site assessment and restoration recommendations are included in their reports (Attachments 3 and 4).

Having visited the site and reviewed the professional reports, staff are of the view that the proposed restoration project is well considered, will have minimal impacts to the marine environment, and when completed will improve the ecological integrity and function of DPA 6 located on the parcel and adjacent foreshore.

Draft Development Permit

In accordance with the recommendations of the QEPs, the draft DP (Attachment 6) includes site specific conditions with respect to the following for the proposed work:

- Construction Management
- Erosion & Sediment Control
- Spill Prevention and Response
- Site Restoration
- Post-Construction Maintenance
- Monitoring.

The schedules attached to the DP provide further detail and guidance. A review of the DPA 6 guideline checklist is included within the Swell ecological report. It concludes that all of the applicable guidelines have been met. There are also several photos in the assessment report for additional reference.

Staff are of the view that, with the proposed DP conditions, impacts of the proposed development within DPA 6 can be minimized as much as possible, and overall the project will enhance the protection of DPA 6.

DFO Approval

Approval has been received to conduct the project by DFO. A letter has been provided (Attachment 5) with recommendations to avoid and mitigate the potential for prohibited effects to fish and fish habitat. The draft DP addresses the recommendations to ensure impacts to marine habitat is mitigated as much as possible.

Consultation

There is no public or agency consultation regularly associated with a DP application or amendment, nor any requirement for statutory notification.

Archaeological Potential

There is significant archaeological potential identified on the subject property. The applicant should be aware that the lot may contain previously unrecorded archaeological material that is protected under the *Heritage Conservation Act*. Given the nature of the development on the foreshore, the applicant should be aware that a *Heritage Conservation Act* permit may be needed before work is undertaken. This may involve the need to hire a qualified archaeologist to monitor the work.

Rationale for Recommendation

The recommendation on page 1 is supported as:

- The objectives and guidelines of the DPA have been met;
- The conditions within the draft DP are based on an assessment report completed by a professional biologist and are supported by staff;
- There is significant erosion occurring that needs to be addressed and restoration via bioengineering and other Green Shores techniques provides a more natural and minimal approach than boulder stacking;
- Implementation, restoration and monitoring conditions in the DP will ensure the protection of the natural environment.

Alternatives

The LTC may consider the following alternatives to the staff recommendation:

1. Request further information

The LTC may request further information prior to making a decision. 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 North Pender Island Local Trust Committee request that the applicant submit to the Islands Trust _____.

2. Determine that the DPA guidelines are not being met

The LTC may determine that the application as presented does not meet one or more guidelines of DPA 2. If this is the case, the LTC may request that the applicant amend the proposal to more closely align with DPA guidelines. The LTC should indicate which guidelines are not being met and the reasons for this. Recommended wording for the resolution is as follows:

That the North Pender Island Local Trust Committee has determined that application NP-PLDP20250141 as presented on May 5, 2025 does not meet guideline(s) _____ for the following reasons: _____.

Submitted By:	Brad Smith, Island Planner	April 24, 2025
Concurrence:	Robert Kojima, Regional Planning Manager	April 24, 2025

ATTACHMENTS

1. Draft Permit NP-PLDP20250141
2. Biologist's report
3. Bioengineers report
4. Geotechnical Engineers Report
5. DFO Letter



**NORTH PENDER ISLAND LOCAL TRUST COMMITTEE
DEVELOPMENT PERMIT
PLDP20250141**

To: Don and Lee Kayne

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

LOT 13, SECTION 10, PENDER ISLAND, COWICHAN DISTRICT, PLAN 16459
003-971-724

2. This Development Permit PLDP20250141 authorizes the construction of proposed Green Shores/Bioengineering stabilization work on the shoreline slope of the subject property that is located within Development Permit Area 6 (DPA 2) – Intertidal Sensitive Ecosystems., subject to the following requirements and conditions:

General

- a. All construction and site restoration shall be substantively consistent with Schedules 'A', 'B' and 'C', attached to and forming part of this permit.

Construction Management

- b. The work shall start in May-June, outside of the reduced risk fisheries window for marine shorelines (July 1 to October 1), to allow for installation of the willow wattles.
- c. Because of lack of land-based access, some works shall be carried out by barge and beach access by excavator.
- d. Where feasible, native plants shall be salvaged for re-use in shoreline plantings.
- e. Existing invasive species (Himalayan blackberry, yellow archangel, tansy ragwort, St. John's wort, and oxeye daisy, grasses, etc.) shall be removed during construction and prior to planting native species.
- f. Excavated soils shall be properly disposed of offsite via barge.
- g. Work shall be scheduled to avoid wet, windy and rainy periods (and heed weather advisories) that may result increased erosion and sedimentation.
- h. Conducting any works, undertakings and activities in water shall be avoided. The excavator and trucks shall be located above the water level at all times.
- i. Works shall be conducted when the site is dewatered by a low or falling tide.
- j. Access corridors below the high water mark shall be identified and clearly marked to minimize machinery disturbance in the intertidal zone.
- k. Construction works, undertakings and activities shall not result in the trapping or stranding of fish.
- l. Ruts generated from equipment access/operation shall be smoothed before tidal inundation to remove areas that have the potential to trap or strand fish.

- m. If tides and site conditions permit, the excavator shall remain on site overnight on log bunks or it will be removed by barge each day if needed (as determined by the Environmental Monitor). If remaining on site, it shall be surrounded by a floating absorbent boom.
- n. Excavator activity on the beach shall be limited to the clear path of beach below the log line, minimizing heavy equipment activity on the beach, and ensuring that the excavator pathway does not result in equipment being bogged down in the beach.
- o. Exposed soils or materials stockpiles shall not occur on the beach to be subjected to tides or waves.
- p. Hydraulic line joints shall be wrapped with adsorbent spill pads and zip ties or use environmentally friendly hydraulic fluid.

Erosion & Sediment Control

- q. Sediment fence or curtain or other measures shall be installed, as needed, to prevent sediment from migrating into the marine environment.
- r. Direct water runoff from the site or dewatering from excavations directly into the marine environment shall not occur. If dewatering of excavations is required, the Environmental Monitor must be consulted to determine where runoff can be directed.
- s. Exposed soils shall be covered during storage (e.g. poly, tarps, mulch, seeding, 'rough and loose' treatment).
- t. Ensure soil and debris stockpiles are placed away from the shoreline and sediment-laden water cannot flow into the waterbodies.
- u. Planting of exposed soils with native species shall occur immediately after project completion.

Spill Prevention and Response

- v. Maintain all machinery in a clean condition and free of fluid leaks. Equipment shall be inspected for leaks prior to beginning work.
- w. Spill response kits capable of addressing the volume of fuel/oils/chemicals on site shall be on site when any heavy machinery is working, and operators shall be trained in their use.
- x. Equipment refueling shall be at a designated location and at least 30 m from marine ecosystems and stormdrains.
- y. Fuel generators shall be placed in a spill-proof container capable of addressing the maximum volume of fuel involved (e.g. plastic bin, or impermeable containment area, eg. poly-lined bermed depression).
- z. Fuel cans shall be stored in spill-proof containers (e.g. as above).
- aa. No concrete work is proposed, if this changes, the following environmental protection is required:
 - i. Concrete wash-water and wet concrete is highly alkaline and toxic to fish and other aquatic organisms. If any concrete work is required (e.g. mortar), all concrete wash-water from equipment, trucks and/or hand tools needs to be directed to a settling area away from runoff paths to the waterbodies.
 - ii. Freshly poured concrete shall be covered when rain is forecasted or runoff needs to be isolated from waterbodies and tides during the curing process.
- bb. In case of spills, the following general steps shall be implemented:
 - i. Stop source of spill/prevent further spillage (turn off valves, right overturned containers)
 - ii. Block spill from reaching aquatic environment or pathways to waterbodies
 - iii. Block spill from spreading
 - iv. Call Environmental Monitors

- v. Clean up spilled materials prior to commencing work.

Site Restoration

- cc. Following completion of construction, the beach shall be raked of all ruts and impacts from excavator tracks. Beach logs (other than added anchored logs) shall be placed back into as near their original position as possible.
- dd. Shoreline slope shall be revegetated with willow wattle fencing using native willows and native riparian vegetation plantings.
- ee. Drainage to the shoreline shall be re-installed to reduce soil moisture accumulation on the slope.

Post-Construction Maintenance

- ff. Site Preparation and Planting Medium: Appropriate organic matter/compost will be incorporated into the planting areas behind the wattles and for the dune grass plugs to improve soil structure, moisture retention, and provide nutrients for plant establishment, only if site assessment indicates the existing soil requires amendment. If suitable, existing site soil will be utilized.
- gg. Mulching will be added to planting areas to help retain moisture as necessary.
- hh. Irrigation: A targeted, water-efficient automated irrigation system (such as drip or soaker lines) will be installed by a qualified professional following the primary bioengineering installation and planting.
- ii. Irrigation will primarily occur in the early morning hours to minimize water loss due to evaporation.
 - i. Years 1-2: Regular, targeted watering will be provided to ensure consistent and adequate moisture levels for the installed vegetation throughout the growing season, particularly during dry periods. This vegetation includes coastal native Salix species used for the willow wattles, approximately 100 Dune Ryegrass plugs, and 100 assorted native shrubs (specifically Nootka Rose, Snowberry, Thimbleberry, Ocean Spray, and Red Flowering Currant). The automated system will allow for adjustments to frequency and duration based on prevailing weather conditions and soil moisture, aiming for deep watering to encourage robust root development.
 - ii. Years 3 onwards: Irrigation will be gradually reduced as the vegetation becomes established and less reliant on supplemental water. Supplemental watering will transition to an as-needed basis during prolonged dry periods to support continued growth and resilience.
- jj. Invasive Species Removal: Active management and removal of invasive species within the restoration area are critical for the success of the native plantings. Invasive species removal will be conducted a minimum of four (4) times per growing season, with initial efforts focused in the spring to address early growth. This intensive invasive species control program will continue for a minimum of three (3) full growing seasons. Following this initial period, monitoring and control efforts will continue annually as needed to prevent the re-establishment of invasive species
- kk. Plant Monitoring and Replacement: The restoration area will be monitored periodically to assess overall plant survival and establishment. Should a significant proportion of plantings exhibit mortality or poor establishment resulting in large areas of low growth, a targeted replacement plan will be developed. This plan will require client approval and will focus on replanting affected areas with appropriate native stock during the suitable planting window

- (typically fall or spring) to facilitate successful re-establishment and contribute to achieving the project's desired coverage and ecological function
- II. Temporary Fencing: Temporary deer protection fencing will be installed around the planted areas to prevent browsing damage by deer during the critical establishment phase. This fencing will remain in place for a minimum of two (2) years, or until the planted vegetation (especially the shrubs) is deemed sufficiently established with woody growth to withstand typical browsing pressure without significant impact.

Environmental Monitoring

- mm. Monitoring and guidance shall be conducted by a registered professional biologist (R.P. Bio.) to ensure that all construction management and restoration conditions herein have been met to the satisfaction of the R.P. Bio.
- nn. Owner must notify the Swell Environmental Consulting Ltd. a minimum of 4 weeks prior to the initiation of the works.
- oo. Pre-construction meeting shall be held with owner, contractor, Polster Environmental, Swell Environmental Consulting Ltd., and Ryzuk Geotechnical to review Project Tasks, Environmental Protection Measures and Permit Requirements
- pp. A QEP shall survey areas for the presence of forage fish spawning prior to construction.
- qq. Barge operator shall provide a spotter on board to watch for Killer Whales, other whales, and porpoises.
- rr. Site visits and/or monitoring communications and photographs periodically during key phases, as determined by the RPBio, including to:
- i. Inspect Erosion & Sediment Control measures once they are installed
 - ii. During excavation
 - iii. During installation shoreline stabilization works
 - iv. During excavation within the 15m shoreline area
 - v. During invasive species removal and native species planting
 - vi. During heavy rainfall (>10mm/24 hours) until the QEP is satisfied that erosion and sediment control measures are preventing sediment laden water from entering the marine environment
 - vii. To assess completion of the project
- ss. Monitoring during construction shall also consist of photos to be sent by the owner or contractor to the RPBio periodically throughout the construction period to show protection of native vegetation and functioning of ESC measures. If needed, due to uncertainty or changes to the construction process, the RPBio will schedule site visits as needed.
- tt. The monitoring QEP(s) shall prepare and submit to the Islands Trust written confirmation of compliance with all conditions with this permit as issued within three months (3) 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 the designated Development Permit Area 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 North Pender Island Land Use Bylaw No.

224, 2022 and to obtain other approvals necessary for the lawful completion of the proposed development.

AUTHORIZING RESOLUTION PASSED BY THE NORTH PENDER ISLAND LOCAL TRUST COMMITTEE THIS DAY OF , 2025.

Deputy Secretary, Islands Trust

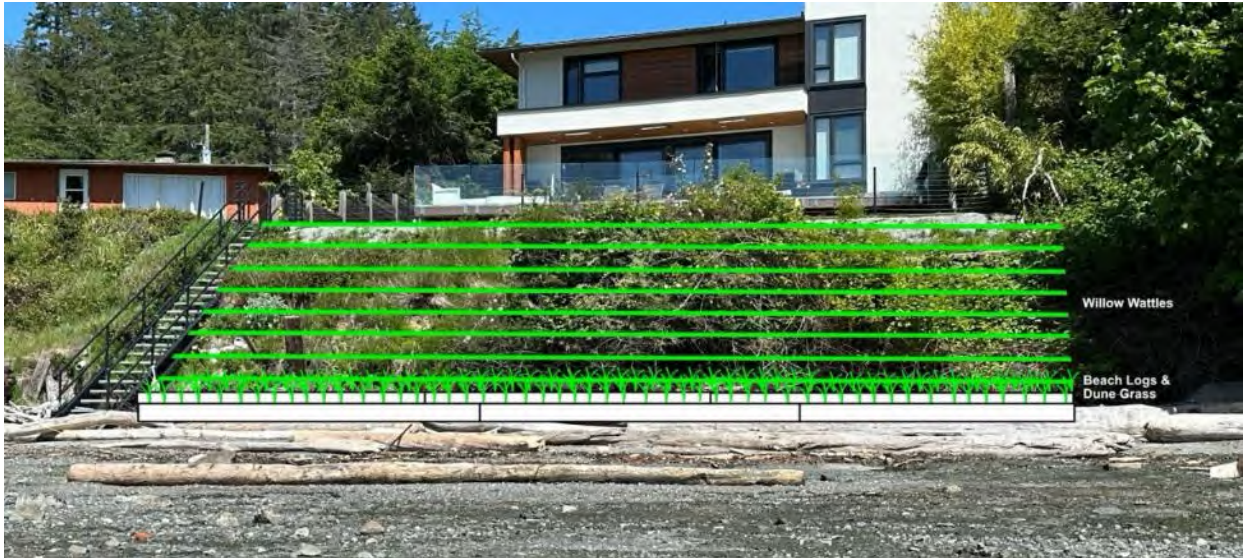
Date of Issuance

IF THE DEVELOPMENT DESCRIBED HEREIN IS NOT COMMENCED BY THE 9TH DAY OF APRIL, 2027, THIS PERMIT AUTOMATICALLY LAPSES.

NORTH PENDER ISLAND LOCAL TRUST COMMITTEE

DEVELOPMENT PERMIT PLDP20250141

Schedule "C" – Restoration Area – Side Profile



RE: Intertidal Sensitive Ecosystem Development Permit Area #6 – Review and Environmental Management Plan for Green Shores / Bioengineering Shoreline Stabilization at 37149 Schooner Way Road, Galiano Island

Updates in red text.

Lehna Malmkvist, M.Sc., R.P. Bio. visited the site on May 23, 2024 with Nathan Polster, Polster Environmental Services to evaluate the existing condition of 37149 Schooner Way, North Pender Island (Figures 1-5) in reference to Green Shores / Bioengineering shoreline stabilization works proposed along the shoreline slope and within the Development Permit Area 6 – Intertidal Sensitive Ecosystem, which is the area shown on Schedule N of the Official Community Plan (OCP). This report summarizes the observations of the ecological conditions, potential impacts from development on the property, and recommendations for environmental protection and restoration following construction.

DPA #6 - Intertidal Sensitive Ecosystem

The objective of this development permit area is as follows:

1. To preserve and protect remaining sensitive intertidal ecosystems.



Figure 1. Location of 37149 Schooner Way, North Pender Island.



Figure 2. DPA #6 – Intertidal Sensitive Ecosystem from OCP Schedule N, 37149 Schooner Way outlined in yellow.



Figure 3. Proposed Green Shores/Bioengineering stabilization work on the shoreline slope at 37149 Schooner Way, and proposed work in DPA #6 – Intertidal Sensitive Ecosystem from OCP Schedule N: anchored logs, willow wattles, and dune grass plantings; and temporary access and temporary disturbance area for small barge, heavy equipment and materials.

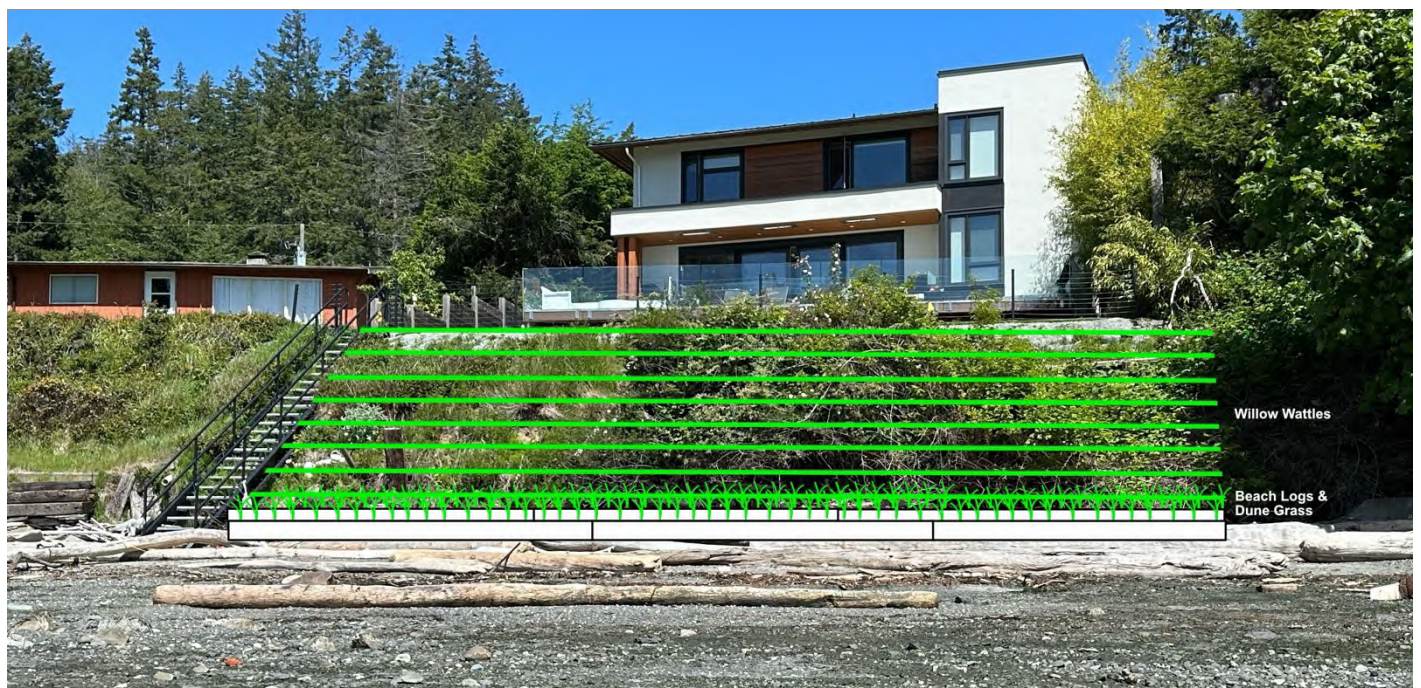


Figure 4. Proposed Green Shores/Bioengineering stabilization work on the shoreline slope at 37149 Schooner Way.

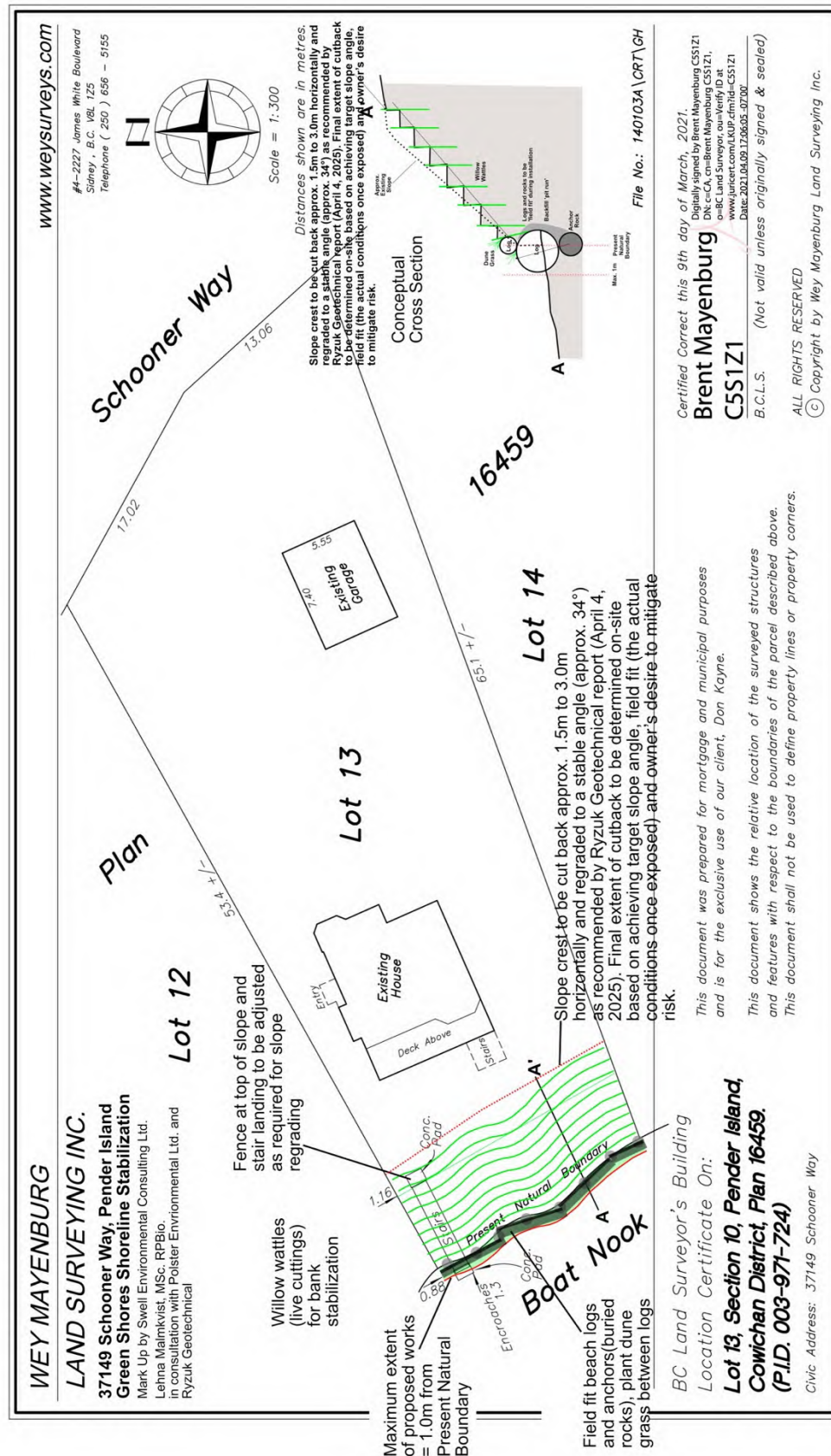
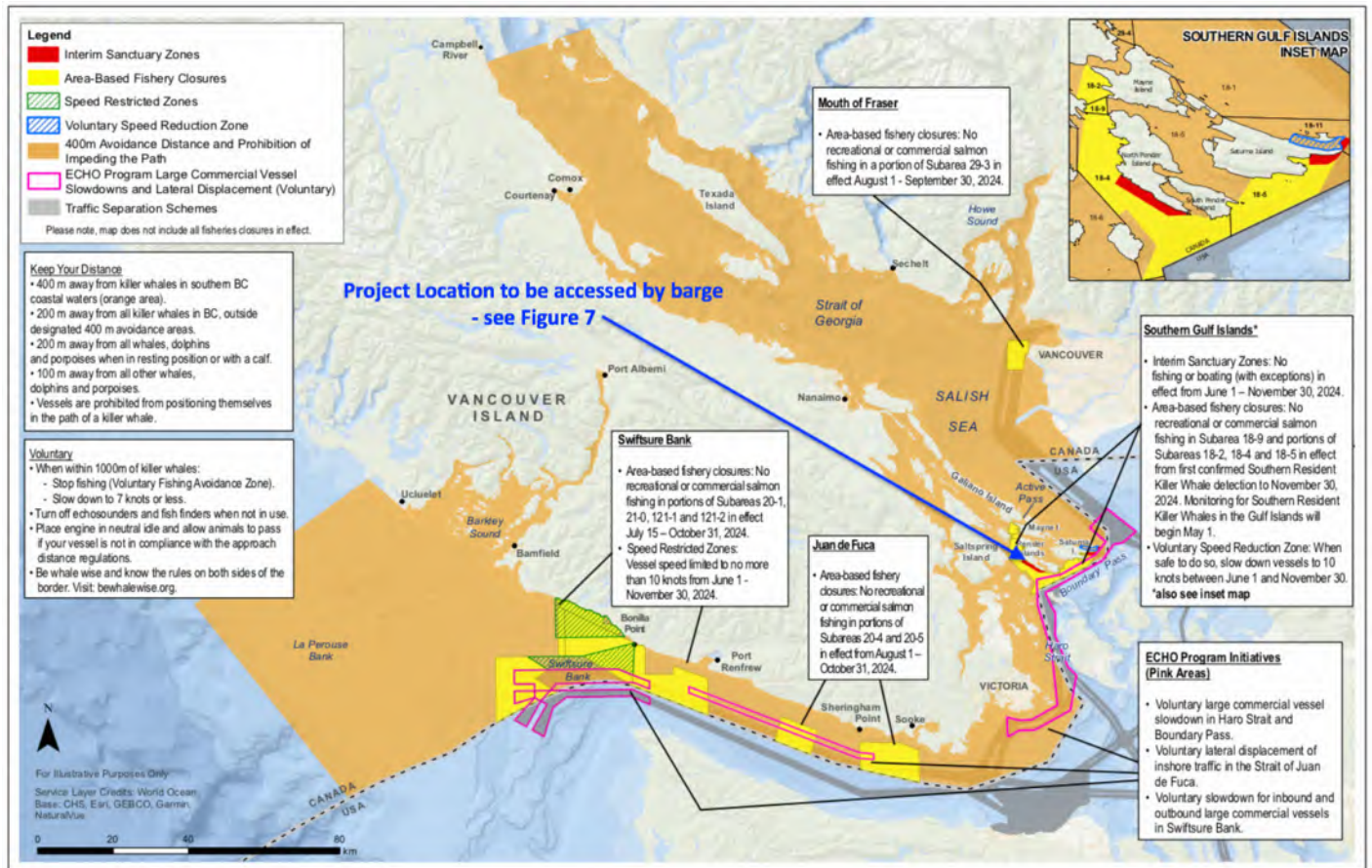


Figure 5. Proposed Green Shores and Bioengineering Shoreline Stabilization at 37149 Schooner Way.



Overview of 2024 management measures to protect Southern Resident Killer Whales

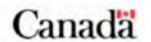
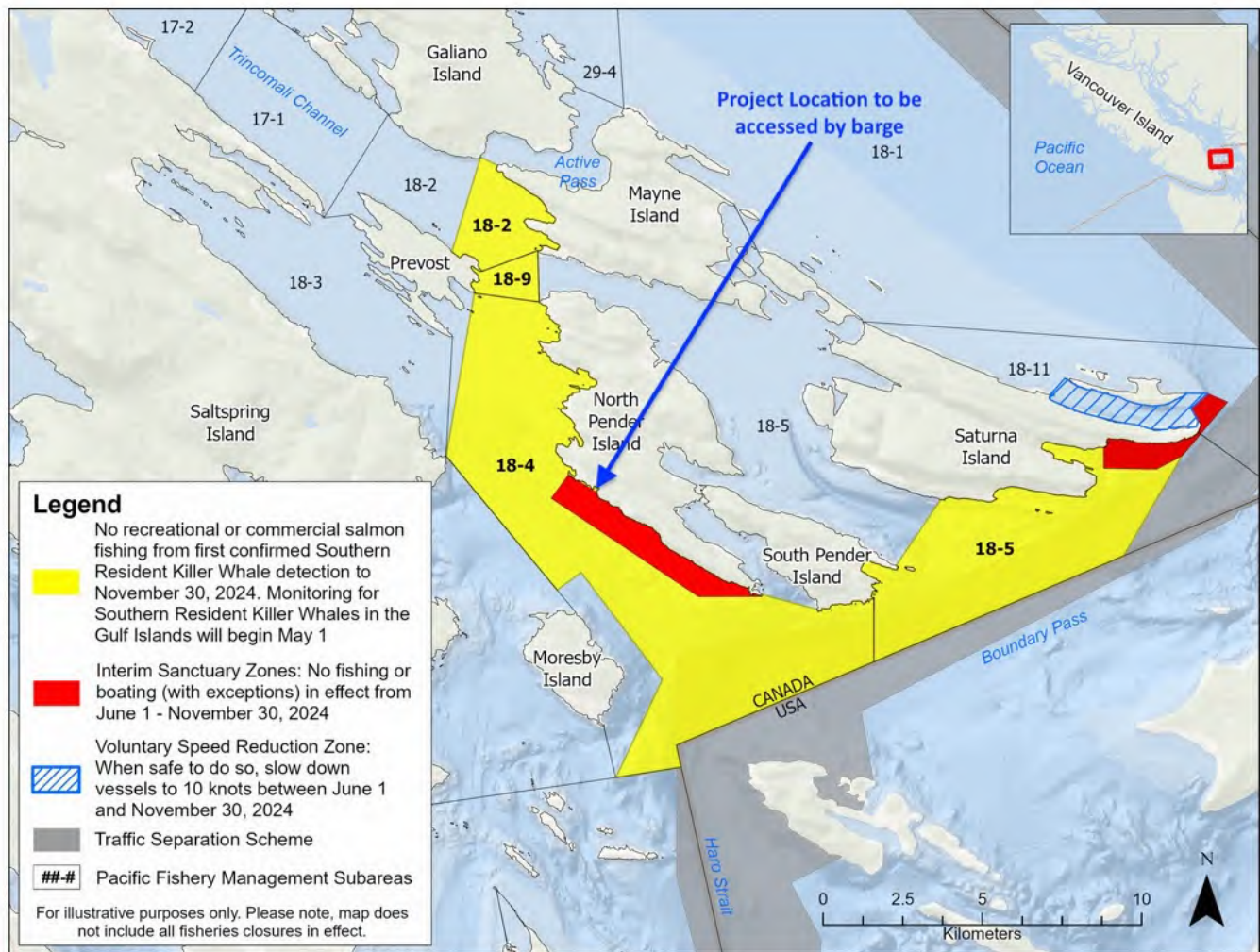


Figure 6. Fisheries Notice for 2024 boating restrictions for Southern Resident Killer Whale Critical Habitat. Notices for 2025 (if any) have not yet been posted.



2024 Gulf Islands management measures

Canada

Figure 7. Pender Island inset for Fisheries Notice for 2024 boating restrictions for Southern Resident Killer Whale Critical Habitat. Notices for 2025 (if any) have not yet been posted.

Existing Condition

The property is on the southwestern shoreline of North Pender Island, located within Boat Nook. The proposed work will be on the southwestern side of the property, where soil is slipping on the shoreline slope, towards the marine shoreline (Photos 1-12).

The existing condition of the shoreline slope at 37149 Schooner Way is:

- Top of Bank: artificial turf yard area adjacent to the house
- Slope:
 - Soil slippage in sections along the bank
 - **Additional soil slippage has occurred in winter 2024-2025 (photos 10-12), creating an urgent situation to treat before winter 2025-2026**
 - Exposed drainage pipes
 - Existing staircase to shoreline
 - Buried wooden retaining wall (failing)
 - Vegetation dominated by: non-native agricultural grasses, invasive Himalayan blackberry (*Rubus armeniacus*), with a patch of native snowberry (*Symphoricarpos albus*), salmonberry (*Rubus spectabilis*), and horsetail (*Equisetum arvense*), with a small amount of shoreline

vegetation at the shoreline, primarily seashore saltgrass (*Distichlis spicata*). Additional non-native, invasive species on the slope include: yellow archangel (*Lamiastrum galeobdolon*), tansy ragwort (*Senecio jacobaeae*), St. John's Wort (*Hypericum perforatum*), and oxeye daisy (*Leucanthemum* sp.)

- Intertidal Sensitive Ecosystem (DPA #6): the beach adjacent to the property is a mix of sand, gravel and cobble (Photo16), with many beach logs (Photo 15), and has been identified as potential forage fish habitat (Sarah Cook, R.P.Bio, Coastal and Ocean Resources, 2018)
- Southern Resident Killer Whale critical habitat is located along the southwest coastline of North Pender Island. Figures 6 & 7 indicate special boating restrictions for 2024 adjacent to the project site, as per Fisheries Notice FN0469. Notices for the 2025 season (if any) are not posted.

Proposed Work

The proposed Green Shores/Bioengineering Shoreline Stabilization is (Figures 3-5):

- Slope crest to be cut back approx. 1.5m to 3.0m horizontally and regraded to a stable angle (approx. 34°) as recommended by Ryzuk Geotechnical report (April 4, 2025). Final extent of cutback to be determined on-site based on achieving target slope angle, field fit (the actual conditions once exposed) and owner's desire to mitigate risk.
- Reinstate artificial turf at top of slope after regrading.
- Beach logs anchored by buried boulders, with dunegrass plantings (within DPA #6)
- Temporary heavy equipment access and materials storage on the beach during construction (within DPA #6)
- Willow wattles (on the marine shoreline slope outside DPA #6)
- Native riparian plantings (on the marine shoreline slope outside DPA #6)
 - Native shrubs (100 total: Nootka Rose, Snowberry, Thimbleberry, Ocean Spray, Red Flowering Currant) will be planted on the benches created by the wattle fencing.

The site is not accessible from the top of bank, therefore equipment will access the site via a small, self-propelled barge (Photo 18). The barge will land on the beach (Photos 13-15) on a suitable tide, and an excavator and truck with materials will offload to the beach area, within the identified temporary disturbance footprint. This temporary disturbance area will have been surveyed for forage fish eggs and cleared to proceed, within 7 days prior to start up of the work.

The work process will be:

- Excavator and trucked in materials:
 - Excavator and trucks with materials will be brought to the location by a small self-propelled aluminum barge (12.3 m x 4.3 m x 0.9 m)
 - <https://www.nauticapedia.ca/dbase/Query/Shiplist4.php?&name=Moving%20Experience&id=43062>
 - Materials – excavated soils, imported logs, rock, and clean backfill material (eg. clean pit run), to be stockpiled at the top of the slope or contained on the beach (e.g. on a tarp)
 - Remove vegetation and failing wooden retaining wall from the slope with the excavator
 - Regrade slope and cut slope crest back 1.5 to 3.0m, slope materials will be removed from the top of slope, or via trucks on the barge.
 - Install rock anchors and logs along toe of the slope (within 1 m of the Present Natural Boundary)
 - Backfill behind logs with pit run (for drainage)
 - Maximum of 10 barge trips is expected for moving equipment and materials
 - Heavy equipment work will occur during low tides, and the work is estimated to take 2-4 days
 - The excavator and any other heavy equipment will be removed by barge at the end of each day, if needed (as determined by the Environmental Monitor). If tides and site conditions do not

permit removal, the excavator will remain on site overnight on log bunks above the high water level (example Photo 17)

- If remaining on site, it will be surrounded by a floating absorbent boom

- Manual installation:

- Install drainage on the slope
- Plant dune grasses within the logs
- Install willow wattles and riparian plantings on the slope to the top of bank

Detailed installation of the logs, willow wattles, and plantings is described in the Polster Environmental Services Report, March 2025 (Appendix 1).

If possible, work will proceed outside the reduced-risk fisheries window (July 1 to Oct 1), in May or early June (with permission from DFO and Islands Trust permit) to allow for installation of the willow wattles (they are less likely to be successful if installed during the hot summer months), and to allow growth of their roots through the summer to stabilize the bank during the following rainy season. **It is essential to conduct the slope stabilisation as soon as possible, as additional soil slippage on the bank has progressed during the winter 2024/2025 season (Photos 10-12).**

Environmental Protection Measures will be followed, including erosion and sediment control and spill prevention and response, to minimize the potential for release of deleterious substances to the marine environment.

Swell and Polster Environmental have developed a Green Shore/Bioengineering solution to the soil slippage on the bank, which will implement soft shoreline stabilization methods.

Potential Impact of Proposed Development on Shoreline

The potential impacts of the project are:

- Approximately 110 m² of shoreline vegetation (mostly invasive, with some ornamental and non-native, invasive species) will be cleared within the DPA to accommodate the construction
- Potential for sediment laden runoff from the site
- Potential for spills from equipment working on site
- Disruption to Southern Resident Killer Whales from barge

The work is proposed to be a maximum of 1 m beyond the present natural boundary, permissible by Crown Land Authorizations, Ministry of Water, Land and Resource Stewardship (Appendix 3).

Provided the environmental protection measures are implemented, no permanent impacts are expected to the marine environment, and the terrestrial habitat will be restored with the native planting area increased over the existing condition, and will include invasive species removal. Temporary impacts will be minimized through the Environmental Protection Measures Described in the next section.

Environmental Protection Measures

A DFO Project Review will be submitted for the project.

The following are recommended to meet the Fisheries and Oceans Canada requirement: Measures to Protect Fish & Fish Habitat (<https://www.dfo-mpo.gc.ca/pnw-ppe/measures-mesures-eng.html>):

- Maintain riparian vegetation (note: shoreline slope will be replanted with native species)
- Carry out works, undertakings and activities on land (because of lack of land-based access, some works will be carried out by barge and beach access by excavator)
- Maintain fish passage
- Ensure proper sediment control

- Prevent entry of deleterious substances in water

Environmental Protection Measures During Construction

The contractor must implement environmental protection measures to ensure that the project has the minimum impact and no contaminants, such as sediment-laden water or spills, enter the marine environment.

- The work is proposed to start in June, outside of the reduced risk fisheries window for marine shorelines (July 1 to October 1), to allow for installation of the willow wattles (with permission from DFO and Islands Trust permit). The live willow stakes are less likely to be successful if installed during the hot summer months, and earlier installation will allow growth of their roots through the summer to stabilize the bank during the following rainy season.
- Because of lack of land-based access, some works will be carried out by barge and beach access by excavator. Excavator time on the beach will be minimized as much as possible.
- If possible, salvage native plants for re-use in shoreline plantings.
- Remove invasive species (Himalayan blackberry, yellow archangel, tansy ragwort, St. John's wort, and oxeye daisy, grasses, etc.)
 - Most will be removed during construction
 - Any remaining should be removed prior to planting native species
 - Maintenance will be required to control invasive species
- Properly dispose of excavated soils (by barge)

To avoid and mitigate the potential for prohibited effects to fish and fish habitat:

- A Qualified Environmental Professional (QEP) will be onsite to conduct environmental monitoring during all project activities that may result in potential adverse effects to fish and fish habitat.
- Schedule work to avoid wet, windy and rainy periods (and heed weather advisories) that may result in increased erosion and sedimentation.
- Avoid conducting any works, undertakings and activities in water. The excavator and trucks will be located above the water level at all times.
- Conduct works during an appropriate tidal cycle to allow working in the dry (i.e., when the site is dewatered by a low or falling tide).
- Identify and clearly mark access corridors below the high water mark to minimize machinery disturbance in the intertidal zone.
- Avoid introducing sediments (e.g., silts, clays and sand) into the marine environment.
- Construction works, undertakings and activities are not to result in the trapping or stranding of fish. Smooth ruts generated from equipment access/operation before tidal inundation to remove areas that have the potential to trap or strand fish.
- **Southern Resident Killer Whales**
 - Check for 2025 updates to Fisheries Notice FN0469 boating restrictions
 - Barge operator must provide a spotter on board watching for Killer Whales, other whales and porpoises.
 - Stay more than 400m away from any Killer Whales and 100m away from any other whales or porpoises
 - Turn engines to neutral idle and allow animals to pass if your vessel is <400m from a Killer Whale or <100m from any other whale or porpoise.
 - Do not position vessel in the path of any whales or porpoises.
 - Reduce speed to less than 7 knots when within 1,000 metres of a killer whale.
 - Reduce noise by turning echo sounders and fish finders off when not in use.
- **Forage Fish:** Retain a QEP to survey areas for the presence of forage fish spawning prior to construction. Use accepted methods for surveying for intertidal spawning forage fish.

- Survey to be conducted no more than 7 days prior to equipment presence on beach. Methodology as per Moulton & Penttila (2006) and Washington Coastal Training Program (2018).
- No intertidal works to be conducted without a clear survey (i.e. no eggs detected)
- If evidence of forage fish spawning is detected, temporarily suspend work until a subsequent survey indicates that no incubating embryos are present.
- **Invasive Species:** Inspect the project area for the presence of European green crab prior to starting work.
 - Immediately report any aquatic invasive species (AIS) to DFO at: AISPACIFIC@dfo23-mpo.gc.ca. Take the following precautionary measures to avoid the introduction and/or transportation of AIS into other waters by:
 - Inspect and clean plants, animals, mud and sediment from all equipment used below the high water mark.
 - Drain all water from equipment used below the high water mark.
 - Dry all parts of equipment completely before leaving the site.
 - All organic matter and wash water generated during cleaning must be disposed of on land.

Barge and Heavy Equipment, in addition to above:

- Ensure Proper Sediment Control (see Erosion & Sediment Control section)
- Prevent entry of deleterious substances into water (see Spill Prevention & Response section)
- Maintain all machinery in a clean condition and free of fluid leaks.
- Spill response kits (capable of addressing the volume of fuel/oils/chemicals on site) are on site when any heavy machinery is working, and operators are trained in their use.
- If tides and site conditions permit, the excavator will remain on site overnight on log bunks (example Photo 17), or it will be removed by barge each day if needed (as determined by the Environmental Monitor)
 - If remaining on site, it will be surrounded by a floating absorbent boom
- Excavator activity on the beach should be limited to the clear path of beach below the log line, minimizing heavy equipment activity on the beach, and ensuring that the excavator pathway does not result in equipment being bogged down in the beach.
- Do not leave exposed soils or materials stockpiles on the beach to be subjected to tides or waves
- **Wrap hydraulic line joints with adsorbent spill pads and zip ties or use environmentally friendly hydraulic fluid.**

Erosion & Sediment Control

- Minimize vegetation removal
- Schedule excavation and construction activities during dry weather if possible. Light rain acceptable for constrained timetable (forage fish sampling window and daytime low tide).
- Work below the High Water Mark will be conducted during low tide
- Sediment fence or curtain or other measures will be installed, as needed, to prevent sediment from migrating into the marine environment.
- Do not direct water runoff from the site or dewatering from excavations directly into the marine environment. If dewatering of excavations is required, the Environmental Monitor must be consulted to determine where runoff can be directed.
- Cover exposed soils, if needed (e.g. poly, tarps, mulch, seeding, 'rough and loose' treatment)
- Ensure soil and debris stockpiles are placed away from the shoreline and sediment-laden water cannot flow into the waterbodies.
- Immediate planting of exposed soils after project completion
- Contact Environmental Monitor immediately with any concerns.

Spill Prevention and Response

- Equipment is inspected for leaks prior to beginning work.
- Spill response kits (capable of addressing the volume of fuel/oils/chemicals on site) are on site when any heavy machinery is working, and operators are trained in their use.
- Equipment refueling is at a designated location and >30 m from marine ecosystems and stormdrain
- Fuel generators must be placed in a spill-proof container capable of addressing the maximum volume of fuel involved (e.g. plastic bin, or impermeable containment area, eg. poly-lined bermed depression).
- Store all fuel cans in spill-proof containers (e.g. as above).
- No concrete work is proposed, if this is changes, the following environmental protection is required:
 - Concrete wash-water and wet concrete is highly alkaline and toxic to fish and other aquatic organisms. If any concrete work is required (e.g. mortar), all concrete wash-water from equipment, trucks and/or hand tools needs to be directed to a settling area away from runoff paths to the waterbodies. Freshly poured concrete needs to be covered when rain is forecasted or runoff needs to be isolated from waterbodies and tides during the curing process.
- In case of spills, the following general steps are recommended:
 - Stop source of spill/prevent further spillage (turn off valves, right overturned containers)
 - Block spill from reaching aquatic environment or pathways to waterbodies
 - Block spill from spreading
 - Call Environmental Monitors
 - Clean up spilled materials

Site Restoration

- Following completion of construction, the beach will be raked of all ruts and impacts from the excavator tracks. Beach logs (other than added anchored logs) will be placed back into as near their original position as possible.
- Shoreline slope will be revegetated with willow wattle fencing using native willows and native riparian vegetation plantings. Vegetation to be maintained (irrigation, invasive species removal) as per the recommendations from Polster Environmental Services.
- Drainage to the shoreline will be re-installed to reduce soil moisture accumulation on the slope.

Environmental Monitoring

The following environmental monitoring protocol is recommended to ensure that environmental protection measures are properly implemented and maintained, and to meet regulatory reporting requirements:

- **Owner must notify the Swell Environmental Consulting Ltd. a minimum of 4 weeks prior to the initiation of the works.**
- Pre-construction meeting with owner, contractor, Polster Environmental, Swell Environmental Consulting Ltd., and Ryzuk Geotechnical to review Project Tasks, Environmental Protection Measures and Permit Requirements
- A QEP will survey areas for the presence of forage fish spawning prior to construction. Use accepted methods for surveying for intertidal spawning forage fish.
- **Barge operator must provide a spotter on board to watch for Killer Whales, other whales, and porpoises. See cautions detailed in Figures 6 & 7, and listed previously.**
- Site visits and/or monitoring communications and photographs periodically during key phases, as determined by the RPBio, such as:
 - Inspect Erosion & Sediment Control measures once they are installed
 - During excavation
 - During installation shoreline stabilization works
 - During excavation within the 15m shoreline area
 - During invasive species removal and native species planting
 - Heavy rainfall (>10mm/24 hours) until the QEP is satisfied that erosion and sediment control measures are preventing sediment laden water from entering the marine environment

- Emergencies, such as spills
- To assess completion of the project
- Monitoring during construction will also consist of photos to be sent by the owner or contractor to the RPBio periodically throughout the construction period to show protection of native vegetation and functioning of ESC measures. If needed, due to uncertainty or changes to the construction process, the RPBio will schedule site visits as needed.
- Preparation of a completion report to be provided to Islands Trust and Fisheries & Oceans Canada to ensure all Variance Permit and DFO Project Review requirements are completed.

Development Permit Guidelines

From the North Pender Island Official Community Plan (OCP) Bylaw No. 171 (2007, consolidated December 14, 2023), the following guidelines are applicable to Development Permit Areas One, Two, Three, Four, Five and Six:

1. Where lots are not subject to further subdivision, applicable guidelines should be considered to the extent reasonable within the constraints of the site and the lot.
 - Not Applicable
2. Avoid locating development in areas containing important, rare or fragile sensitive ecosystems or habitat where reasonable alternative sites exist.
 - Slope is eroding and soil slipping, and the site is not accessible for the equipment needed from the top of bank, therefore access is required to do the work in the intertidal area, DPA#6.
3. The area cleared and disturbed for development should be minimized.
 - The slope will be cleared to remove invasive species and failing retaining structures, will be replaced with native willow wattles and native riparian plantings.
4. Fewer, but larger, undisturbed areas should be retained, rather than small or isolated undisturbed areas.
 - The slope will be replanted with native willow wattles and native riparian plantings.
5. Buildings and associated infrastructure should be sited with sufficient undisturbed space around significant mature or established trees to protect root systems.
 - Not Applicable
6. Undeveloped buffer areas should be retained around sensitive ecosystems, features or habitat where feasible. Buffer areas should be of sufficient width to limit access by invasive plants.
 - Not Applicable
7. Natural features should be retained through incorporation into the design of the development. In particular, unique or special natural features such as native grasses, rare plants, unique land forms, rock outcroppings, mature trees, spits and dunes should be protected.
 - No rare species or special natural features were observed, the slope will be replanted with native willow wattles and native riparian plantings, replacing existing invasive species with some native plants.
8. Connections and corridors should be maintained to provide continuity between sensitive ecosystems and important habitat.
 - The slope will be replanted with native willow wattles and native riparian plantings, replacing existing invasive species with some native plants.
9. Use of drought resistant and native plants in landscaping should be encouraged. The planting or introduction of non-native plants should be avoided.
 - The slope will be replanted with native willow wattles and native riparian plantings, replacing existing invasive species with some native plants.
10. Soil removal and deposit within or adjacent to a sensitive ecosystems or habitat should be avoided.
 - No soil is proposed to be removed or deposited for the project, a small amount of clean pit run gravel will be used to backfill behind the logs, and soil will be moved on the slope to create the willow wattles.
11. Alteration of natural drainage systems in ways that increase or decrease the amount of water available to a sensitive ecosystem should be avoided.

- Current drainage system will be replaced to ensure that the slope is subject to excessive moisture that could cause soil movement.
12. Septic fields should be located in such a manner that the possibility of pollution of sensitive ecosystems or habitat is avoided.
- Not Applicable (no septic field on site)
13. Driveways and other accesses should be limited to the number required for safe access, with shared driveway access where feasible. Driveway lengths and widths should be limited to the minimum necessary. The use of impervious surfaces should be discouraged.
- Not Applicable
14. Shoreline structural modifications should be limited in number and extent and should be necessary to support or protect a permitted or existing use or structure.
- Shoreline slope stabilization to be implemented will be a Green Shores/Bioengineering solution to protect the bank and existing uses above, while improving shoreline habitat.
15. Preference should be given to shoreline structures that have a lesser impact or enhance ecological functions, including vegetation enhancement, drainage control, beach enhancement, anchor trees, gravel placement. Harder construction measures should be avoided where possible.
- Shoreline slope stabilization to be implemented will be a Green Shores/Bioengineering solution to protect the bank and existing uses above, while improving shoreline habitat.
16. Shoreline stabilization should not interrupt natural processes solely to reduce erosion of undeveloped land, except for agriculture. Vegetation which helps stabilise banks, reduce erosion and provides habitat should be retained or enhanced.
- Shoreline slope stabilization to be implemented will be a Green Shores/Bioengineering solution to protect the bank and existing uses above, while improving shoreline habitat.
17. The permit conditions may include:
- a) the construction of permanent or temporary fencing around sensitive features;
 - b) fencing, flagging and posting of notices during construction;
 - c) limits on blasting in sensitive areas;
 - d) limits on construction timing;
 - e) provision of works to maintain or restore the quantity or quality of water reaching environmentally sensitive areas or habitat;
 - f) restoration or enhancement of disturbed sensitive ecosystems and habitat;
- Shoreline slope stabilization to be implemented will be a Green Shores/Bioengineering solution to protect the bank and existing uses above, while improving shoreline habitat. Temporary deer browse fencing will be implemented to allow establishment of the native vegetation.
18. The LTC may consider variances to siting or size regulations where the variance could result in enhanced protection of an environmentally sensitive area.
- Shoreline slope stabilization to be implemented will be a Green Shores/Bioengineering solution to protect the bank and existing uses above, while improving shoreline habitat.

DPA #6 - Intertidal Sensitive Ecosystem

The objective of this development permit area is as follows:

1. To preserve and protect remaining sensitive intertidal ecosystems.

5.2.7.3 Intertidal Ecosystem Guidelines

In addition to the overall and subdivision guidelines, the following specific guidelines are applicable to Development Permit Area Six (Intertidal ecosystems):

1. Stairs, walkways and other access within a sensitive intertidal ecosystem should be limited to that required for safe access, with shared access where feasible. Stairs should incorporate landings, follow the existing contours of the site, utilize small concrete pilings and have gaps between boards.

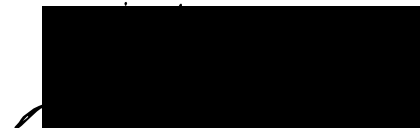
- Existing stairs will be maintained and integrated into the shoreline slope stabilization. Which will be a Green Shores/Bioengineering solution to protect the bank and existing uses above, while improving shoreline habitat.
2. Docks should be sited to avoid impacts on sensitive ecosystems such as eelgrass beds, fish habitat and natural processes such as currents and littoral drift.
 - Not Applicable
 3. Docks should be constructed in a manner which allows free flow of water beneath the dock and supports should be located on a hard substrate.
 - Not Applicable
 4. Floating docks that do not rest on the bottom at any time and a minimal ramp should be utilized rather than fixed wharves.
 - Not Applicable
 5. Piers on pilings and floating docks are preferred over solid-core piers.
 - Not Applicable
 6. Docks should not incorporate unenclosed plastic foam or other non-biodegradable materials and should be constructed of stable materials that will not degrade water quality.
 - Not Applicable
 7. Boat launch ramps should only be located on stable, non-erosional banks where a minimum amount of substrate disturbance or stabilization is required.
 - Not Applicable

SUMMARY

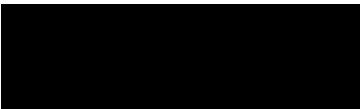
In summary, provided the environmental protection measures are implemented, no permanent impacts are expected to the marine environment, and the terrestrial habitat will be restored with the native planting area increased over the existing, and will include invasive species removal. Temporary impacts will be minimized through implementation of the Environmental Protection Measures.

Please do not hesitate to contact me with any questions you may have.

Sincerely,



Lehna Malmkvist, MSc, RPBio (#1613)



Sára Stallard, BSc, AScT

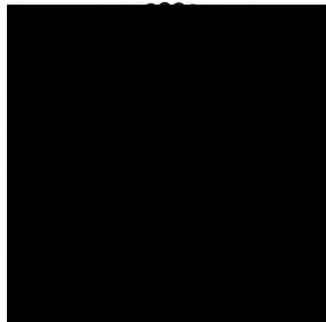




Photo 1. Looking northeast from the beach at the shoreline and eroding slope of 37149 Schooner Way (May 2024). Additional soil slippage has occurred in winter 2024/2025 – see Photos 10-12.



Photo 2. Looking north along the beach at the shoreline and base of eroding slope (May 2024). Additional soil slippage has occurred in winter 2024/2025 – see Photos 10-12.



Photo 3. Looking south along the beach at the shoreline and base of eroding slope (May 2024). Additional soil slippage has occurred in winter 2024/2025 – see Photos 10-12.



Photo 4. Looking at the shoreline and base of eroding slope (May 2024). Additional soil slippage has occurred in winter 2024/2025 – see Photos 10-12.



Photo 5. Erosion at base slope (May 2024). Additional soil slippage has occurred in winter 2024/2025 – see Photos 10-12.



Photo 6. Historic wooden retaining wall on slope (May 2024).



Photo 7. Historic wooden retaining wall on slope (May 2024).



Photo 8. Mid-slope, primarily agricultural grasses and non-native species, top of slope gravel and artificial grass.



Photo 9. Mid-slope, primarily agricultural grasses and non-native species, top of slope gravel and artificial grass.



Photo 10. Eroding slope - additional soil slippage has occurred in winter 2024/2025 (March 2025).



Photo 11. Eroding slope - additional soil slippage has occurred in winter 2024/2025 (March 2025).



Photo 12. Eroding slope - additional soil slippage has occurred in winter 2024/2025 (March 2025), near Photo 5 location.



Photo 13. Beach access to the site for barge landing and equipment access.



Photo 14. Beach access to the site for barge landing and equipment access (stitched photo from 3 photos)



Photos 15a, b, c. Beach from north (top photo) to south (bottom photo)



Photos 16a and b. Beach substrates, potential for forage fish spawning.



Photo 17. Excavator to be stored above wave action, if needed, on bunked logs, with floating spill boom around.



Photo 18. Small self-propelled barge with ramp for bringing equipment and materials to the site.

Appendix 1.

Polster Environmental Services Ltd. – Site Reclamation Project Proposal



Site Reclamation Project Proposal - Pender Island

Green Shores Restoration for 37149 Schooner Way

UPDATED MARCH 2025

ISSUED BY

Polster Environmental Services Ltd.
Swell Environmental Consulting Ltd.

REPRESENTATIVE

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Introduction & Background

This document outlines the proposed plan and associated costs for the Green Shores reclamation project for 37149 Schooner Way, Pender Island, British Columbia. The project aims to address coastal erosion, remove invasive species, enhance ecological value, and improve shoreline stability using nature-based solutions. Located in the Salish Sea, Pender Island faces challenges common to many Gulf Islands, including sea-level rise and increased storm intensity due to climate change.

The proposed restoration encompasses several key components:

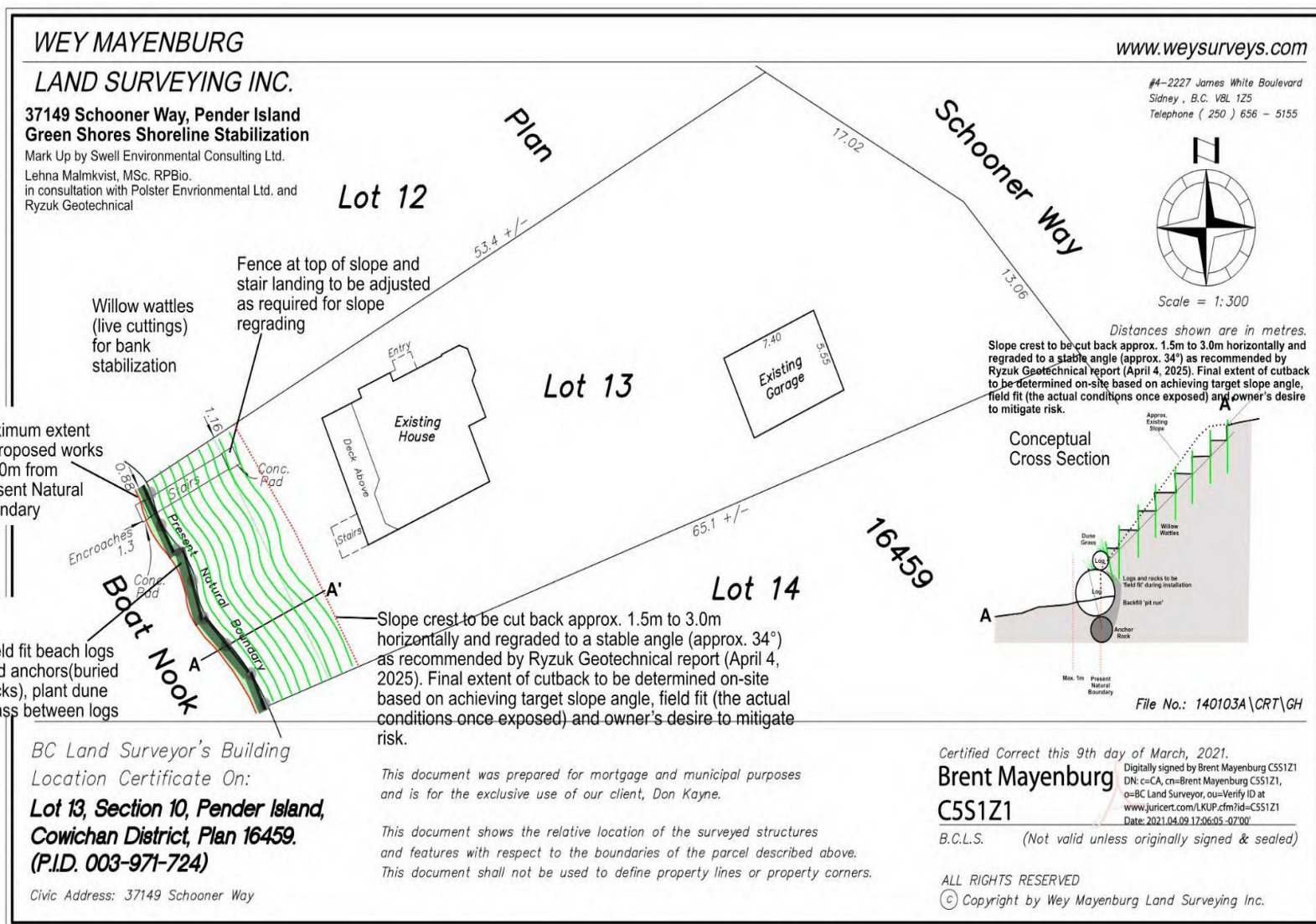
- Installation of large-diameter beach logs to create a natural barrier against wave action, utilizing heavy machinery for precise placement and securing them with rock anchors.
- Planting of native dune ryegrass (*Leymus mollis*) to stabilize the shoreline and enhance habitat.
- Implementation of wattle fencing on the slope to prevent erosion.
- Removal of invasive species to promote native plant growth.
- Extension of drainage pipes to manage water flow effectively.
- Installation of fencing to prevent herbivory browse.
- Slope crest to be cut back approx. 1.5m to 3.0m horizontally and regraded to a stable angle (approx. 34°) as recommended by Ryzuk Geotechnical report dated April 4, 2025. Final extent of cutback to be determined on-site based on achieving target slope angle.

This comprehensive approach aligns with Green Shores principles, emphasizing soft shore techniques to create a more resilient and ecologically valuable coastline. The project aims to protect the immediate shoreline and serve as a model for sustainable coastal management in the region.

Site Measurements

Table 1: Site Dimensions

Measurement	Value
Slope Width	17.4 m
Slope Height	4.5 m





Example of shoreline wattle fencing.



Project Components and Costs

Green Shores Portion

The Green Shores approach involves placing beach logs along the high-water mark to secure the slope toe, ensuring that no log extends more than 1 meter past the present natural boundary (to meet Crown Lands requirements) in compliance with recent regulatory changes. Installation will be performed using heavy-duty equipment to achieve precise placement. The logs will be laid horizontally and embedded approximately one-third in the sand to mimic naturally occurring beach logs on the shore. Appropriate anchoring methods—such as duckbill earth anchors or equivalent systems—will be used, and a 1-foot terrace will be created behind each log for planting native dune ryegrass (*Leymus mollis*) in 1-gallon pots at a density of one pot per 30 centimeters.

The contractor for the heavy equipment work is Braedon's Big Dig Em Trucking & Excavating from Pender Island. The excavator and trucks with materials will be brought to the location by a small self-propelled aluminum barge (12.3m x 4.3m x 0.9m), a maximum of 10 barge trips is expected for moving equipment and materials. The heavy equipment work will occur during low tides, and the work is estimated to take 2-4 days.

<https://www.nauticapedia.ca/dbase/Query/Shiplist4.php?&name=Moving%20Experience&id=43062>

This method offers several benefits:

- Stabilizes the slope toe and reduces erosion
- Creates a natural barrier against wave action
- Provides a suitable environment for vegetation establishment
- Enhances the ecological value of the shoreline

Table 2: Green Shores Costs

Item	Measurement	Total Cost
Green Shores Installation	17.4 Linear meters	\$6,960
Rye Grass Planting	100 pots	included

Wattle Fencing

Wattle Fencing is proposed as an effective soil bioengineering technique for slope stabilization. The installation process involves driving willow stakes (approximately 1–1.5 m in length) vertically into the slope using an earth auger, with heavy-duty equipment ensuring precision. Long willow stems—trimmed of side branches—will be placed horizontally on the uphill side of the stakes and backfilled with soil to form a series of 30-cm terraces. This method reduces surface runoff velocity, traps sediment, and provides a stable platform for native vegetation establishment. To maintain the metabolic energy and viability of the live plant material for a summer installation, cold storage is required during the holding period. Additionally, the transportation of the live plant material to and from the designated cold storage facility and the construction site will be carefully managed to minimize handling stress and ensure optimal performance at the time of installation.

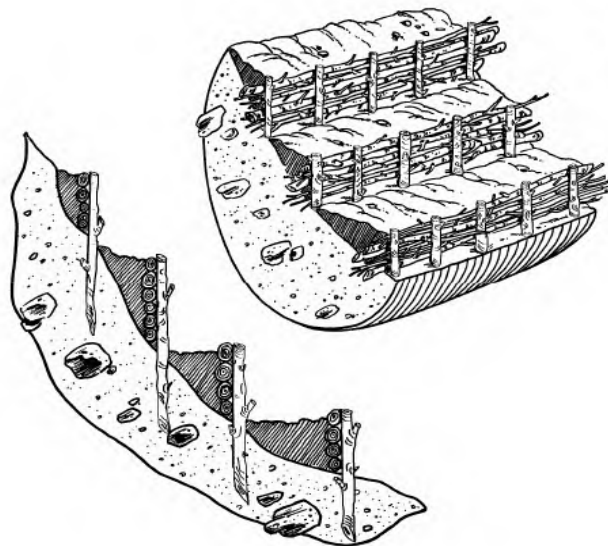


Figure 1.

Furthermore, ornamental nursery stock will be strategically planted on the wattle fence benches to create an ecologically diverse display of native species. This integration will foster a robust environmental framework by attracting birds and pollinators, while also enhancing the aesthetic appeal of the willow wattle fencing. The nursery stock will include 25 Nootka Rose, 25 Snowberry, 25 Thimbleberry, 15 Ocean Spray, and 10 Red Flowering Currant.

Table 3: Wattle Fencing Costs

Item	Measurement	Total Cost
Wattle Fencing	300 Linear meters	\$48,000
Nursery Stock	25 Nootka Rose, 25 Snowberry, 25 Thimbleberry, 15 Ocean Spray, 10 Red Flowering Currant.	Included

Invasive Species Removal and Pipe Extension

This component involves the removal of invasive plant species from an area of approximately 65.25 m², with safe disposal at an approved location. Additionally, the existing drainage system will be modified by replacing the current perforated pipe with a hard, non-perforated pipe. The new drainpipe will be securely installed and extended to the bottom of the slope, and a rock basin will be constructed to manage water runoff effectively, thereby preventing excess water from destabilizing the slope.

Table 4: Invasive Removal and Pipe Extension Costs

Item	Measurement	Total Cost
Slope Preparation, Invasive Removal, and pipe extension	65.25 m ²	\$3,262.50

Safety considerations

The successful installation of the proposed soil bioengineering treatments is contingent on safe site access and working conditions. The Contractor shall maintain current liability insurance and Workers' Compensation Board (WCB) coverage, ensure a fully stocked first aid kit is available onsite, and implement a comprehensive safe work plan that includes regular tailgate meetings. If any unsafe conditions or practices are observed, work will immediately cease until the identified risks are mitigated.



Surveys and Permits

- Swell Environmental will survey forage fish before the initiation of installation to prevent fish habitat loss on the beach
- Permits will be required before any work can be conducted.
- The costs for the survey and permits are additional and outside of these estimates.
- The permits required are:
 - DFO Project Review
 - DFO Forage fish sampling permit
 - Islands Trust Development Permit



Installation Cost Summary

Item	Cost
Green Shores Portion	\$6,960
Wattle Fencing	\$48,000
Invasive Species Removal and Pipe Extension	\$3,262.50
Perimeter Fencing Installation	\$1,500
Total Estimated Installation Cost Before GST	\$59,722.50

All prices listed above represent a fixed-rate installation cost. The attached Independent Contractor Agreement from Polster Environmental Services (PES) constitutes the legally binding document that confirms these pricing terms. The installation cost shall not exceed the stated maximum except as modified through a formal Change Order process as provided in the attached contract.



Consultation, Permitting, Forage Fish, and Monitoring Cost Summary

In addition to the primary installation costs, the following additional services are required and will be contracted separately:

- **Environmental Consulting and Permitting Support (Swell Environmental):** This includes assistance with all necessary permit applications and documentation, as well as the coordination of forage fish surveys and site monitoring to ensure compliance with environmental regulations.
- **Geotechnical Services:** Professional assessments (e.g., by Ryzuk Geotechnical or equivalent) will be conducted to evaluate site conditions and fulfill regulatory requirements.
- **Heavy Machinery and Barge Mobilization:** Costs associated with the use of heavy-duty equipment, including transportation and mobilization for site preparation and other specialized tasks, are not included in the primary installation cost.
- **Additional Specialized Services:** Other services such as irrigation specialist input, detailed environmental monitoring, and any related disbursements will also be billed separately.
- **Slope crest to be cut back approx. 1.5m to 3.0m horizontally and regraded to a stable angle (approx. 34°) as recommended by Ryzuk Geotechnical report (April 4, 2025). Final extent of cutback to be determined on-site based on achieving target slope angle.**

Detailed estimates for these supplemental services—including supporting spreadsheets and a complete scope breakdown—will be provided for the Client’s review and final approval by the respective contractors. Any additional costs will be communicated in advance by the contractors. This document, along with the attached contract, outlines the agreed relationship and terms between Polster Environmental Services (PES) and the Client.



Next Steps

Review and Approval

1. Review this proposal document thoroughly.

- If the proposed costs and project scope are acceptable, proceed to the next phases.

2. Surveys and Consultations

- Consult with Swell Environmental regarding all permit application requirements, including discussions with Islands Trust staff and BC Crown Lands officials regarding the necessary permits.
- Engage with geotechnical engineers (e.g., Ryzuk Geotechnical) to assess the site and prepare any required technical reports.
- Schedule discussions with heavy machinery and specialized service providers as needed to confirm mobilization logistics and additional service requirements.

3. Permit Acquisition

- Work with Swell Environmental to secure all required permits, including, but not limited to:
- DFO Project Review
- Islands Trust Development Permit or Development Variance Permit
- Green Shores Certification Application (if desired)
- Any additional permits identified during consultations (e.g., regarding heavy machinery operations)

4. Project Initiation

- Once all necessary permits are secured and the forage fish survey is completed by Swell Environmental, Polster Environmental Services will be notified to proceed with the installation phase of the project.



Conclusion

This proposal outlines a comprehensive approach to shoreline restoration, integrating multiple ecological engineering techniques—including the strategic use of heavy machinery for the precise placement of large logs and anchor rocks—to create a more resilient and biodiverse coastal environment.

The Green Shores approach, combining beach log installation with native plantings, offers a sustainable solution that mimics natural coastal processes. This method is environmentally beneficial and often required to obtain the necessary permits for work in ecologically sensitive shoreline regions. The extensive use of wattle fencing provides crucial slope stabilization, while the removal of invasive species and improved drainage further support the long-term health of the restored ecosystem.

It is important to note that while this estimate is comprehensive, it does not include the costs for the forage fish survey or required permits, which will need to be factored into the overall project budget. Furthermore, ongoing monitoring and potential maintenance should be considered to ensure the long-term success of the restoration efforts.

By implementing this project, the property owner will be contributing to the broader ecological health of Pender Island and the Gulf Islands region. This initiative demonstrates the effectiveness of nature-based solutions in addressing climate change impacts on our shorelines. It not only protects valuable coastal property but also enhances habitat for marine and terrestrial species, thereby contributing to the overall ecological integrity of the Salish Sea.

Choosing to proceed with this Green Shores project aligns with best practices for coastal management and facilitates the permitting process. It represents a commitment to responsible stewardship of the shoreline—balancing the protection of property with environmental conservation—and serves as a model for other coastal property owners, showcasing how individual actions can lead to significant environmental benefits throughout sensitive coastal areas.

Appendix 2.

Ryzuk Geotechnical Report

April 4, 2025
Project #: 10065-1

Don & Lee Kayne
37149 Schooner Way – Pender, Island, BC
Attention: Don Kayne (don.kayne@canfor.com)

PROPOSED SHORELINE RESTORATION
37149 Schooner Way – Pender Island, BC

1. PROJECT DESCRIPTION

As requested, we have completed a geotechnical review of the site and proposed foreshore restoration. Our associated observations, comments, and recommendations are summarized herein. Our work has been completed in accordance with and is subject to the previously accepted proposal submitted by Polster Environmental Service Ltd. and Swell Environmental Consulting Ltd. dated July 2024, as well as the attached Terms of Engagement.

The project site is a waterfront residential property located along the southwest shoreline of North Pender Island. The property is bounded to the northwest and southeast by neighbouring residential lots, to the northeast by Schooner Way, and to the southwest by Swanson Channel and the active marine intertidal foreshore area of Boat Nook.

The seaward facing slope is approximately 4.5 to 6 m in height and is inclined around 40 to 50 degrees, with some steeper and flatter sections. An existing metal staircase provides access to the beach. Upon the slope are vegetation, exposed soils from past and recent slippage, an older wooden retaining wall, and miscellaneous debris. The toe of slope is unprotected over a majority of the width except where a large log is present.

We previously visited the site in 2020 and provided a geotechnical report dated December 14, 2020, outlining recommendations for engineered armouring solutions. We understand that hard armouring is not permitted in this location and that a nature-based solution aligning with Green Shores principles is instead proposed. Green Shores is an initiative of the Stewardship Centre of BC focused on minimizing impacts of development to the foreshore and restoring the natural shoreline ecosystem.

We have reviewed the recent report of March 27, 2025, by Swell Environmental Consulting which describes the project and has been submitted to Islands Trust for permitting in accordance with the requirements of Development Permit Area 6 – Intertidal Sensitive Ecosystem (reference: North Pender Island OCP Bylaw No. 171, 2007, Schedule N). The report describes that the proposed work will consist of construction of a base course of beach logs anchored to buried boulders, with dune grass plantings, above which willow wattles will be constructed in a tiered manner to the crest of slope.

Native riparian plantings will be planted on the benches created by the wattle fencing. Prior to the installation, existing sloughed soil, vegetation, and failing wooden retaining wall(s) will be removed from the slope by excavator.

2. GEOTECHNICAL REVIEW

2.1 GEOTECHNICAL CONDITIONS

At the time of our recent site visit of March 31, 2025, we observed the soil stratigraphy on the slope (where visible due to erosion and slippage) to consist of a surficial layer of organic soil and vegetation over historical fill. The fill consisted of predominantly clay, sand, and organic soil with some gravel and debris such as a tire, bricks, and broken rock. Potentially native soils were observed in one area of the erosional scarp approximately halfway up the bank next to the stairs, and consisted of saturated, loosened grey/mottled brown sandy clay. A shallow hole approximately 0.2 m deep was advanced by hand auger in these soils and encountered firmer soils with depth. Select photos taken during our site visit are attached at the end of this report for reference.

The recent slip is located beneath and south of the stairs. A white perforated PVC pipe with a capped end was exposed within the slough area and no water was observed to be exiting the perforations. An older-looking black corrugated pipe was also visible. PVC pipes are also located north of the stairs (dry at the time of our attendance) and south of the stairs (two, both conveying water at the time of our attendance). The top of the sloughed soil, located half way up the slope south of the stairs, forms an area where water can pond, and it appears either slow seepage or runoff is originating from the slope above in this area.

Based on our previous visit in 2020 it is anticipated that native undisturbed very dense silty sand and gravel is present beneath the slope fills, atop an erratic bedrock profile. The bedrock does not outcrop along the shoreline of the subject property but is visible along the shoreline approximately 2 properties away either direction.

Atop the slope, an artificial turf putting green is present which we understand was installed approximately 2 years ago. Such was constructed atop imported road base fill, which is visible beyond the edge of the green and fence, forming the crest of slope. We understand the fill was compacted at the time of placement. Toward the south end of the yard, separation of approximately 25 to 50 mm (horizontal) has occurred between the main turf and border piece, as well as some subsidence near the slope crest resulting in a slanted surface. Probing with a steel rod through the exposed road base fill between turf pieces indicated tension cracks or loose soil extend a depth of 0.3 m, 0.6 m, and 0.9 m at 3 locations advancing south.

2.2 GEOTECHNICAL ASSESSMENT

Based on our observations we consider several factors have contributed to the erosion and sloughing observed on the slope. These include wave impacts and sea spray, particularly during winter storm

events in combination with high tide, which act to remove soil from the toe of the slope; presence of unconsolidated fills upon the slope; precipitation events and associated saturation of the surficial slope soils due to runoff, including drainage discharge; and oversteepened slope angle at the toe and above.

With regard to the horizontal movement atop the slope near the crest, such is indicative of soil movement below the surface in a horizontal direction. Such may be due to movement of the road base down the crest of the slope, alone or in combination with movement of older slope fills below.

3. RECOMMENDATIONS AND COMMENTARY

Based on our review and observations, we have recommended that remedial works be carried out to mitigate the potential for ongoing erosion and slope movement. From a geotechnical perspective, key aspects of protection include toe protection, and overall slope angle with regard to stable angle of repose of the soils. The proposed works have been designed by the environmental consultants and contractor with regard for regulatory guidelines and our commentary is provided as follows.

Regarding toe protection, this will be addressed by the anchored logs, which are intended to function as a barrier to wave impacts and direct erosion from wave action. Regarding overall slope angle, a stable angle for the existing fills has not been confirmed but is likely in the range of 27 to 34 degrees. The current slope angle from toe to crest is approximately 40 to 50 degrees. Where willow wattle stabilization will be installed into fills, we recommend considering flattening the overall slope angle to increase the likelihood of long-term success of the proposed remediation. Where the slope is approximately 40 degrees and 4.5 m high, a reduction to 34 degree angle would involve cutting the crest of slope back approximately 1.5 m. Where the slope is higher/steeper, this could involve taking the crest up to 3 m back. The selected approach and location of final slope crest could be determined on site with the clients, consultants and contractor on a risk tolerance basis.

Regardless of whether the slope inclination is flattened, the presence of fills on the slope and the dynamic nature of the coastal foreshore environment pose ongoing risk that additional slope movements could occur in the future. It is our opinion that the proposed restoration will provide stabilizing benefit to the slope; however, such will not entirely mitigate potential future slope instability.

We recommend that the 'posts' of the proposed wattle fencing be partially embedded into the slope soils and ideally into native, undisturbed soils for best support. Following willow wattle installation, slope stability will be promoted by the soil retaining properties of the terraces. Plantings on the terraces will have a permeable matrix and the terraced surface will aid in mitigating surface water runoff and associated erosion.

We recommend that the twinned drainage pipes be extended as necessary such that they do not discharge water on the slope itself, and consideration be given to replacing them with tight pipe rather than perforated pipe. The capped PVC pipe below the stairs should be scoped and repaired/replaced as necessary to convey drainage beyond the slope and the black corrugated pipe should be investigated for any upslope drainage connection before being repaired or removed. All drainage pipes should discharge onto a non-erodible surface such as a splash pad. Grading should be such that surface water runoff is not directed onto adjacent lots.

We note that the coastal sea level rise scenario for BC (Flood Hazard Area Land Use Management Guidelines, January 2018) considers 0.5 m by 2050 and 1.0 m by 2100. Sea level rise is anticipated

to be accompanied by more frequent and potentially larger storms. These changes have the potential to impact the slope and proposed works in the future.

Given the above and the biological nature of the project materials, we cannot confirm or provide assurance regarding the effective lifespan of the proposed remediation methods, nor give metrics of performance. Future maintenance will be required and should be anticipated in order to replant any unsuccessful vegetation, reinstall/repair any areas of willow wattle that may shift in the future and potentially to replace beach logs in the longer term.

4. CLOSURE

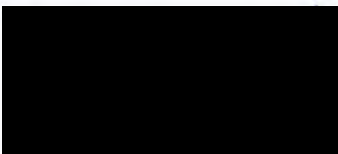
In summary, we consider the proposed restoration measures to be appropriate provided our commentary herein is considered. We do not expect that the proposed remediation measures will have any negative physical effect (i.e. erosion) to the intertidal area of Boat Nook, nor to that of the surrounding properties.

We trust the preceding is suitable for your purposes at present. If you have any questions, or require anything further, please contact us.

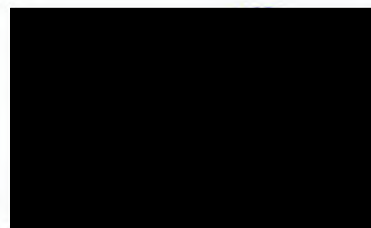
We look forward to working with you on your project and appreciate the opportunity to be of service to you.

Sincerely,

Ryzuk Geotechnical



Laura Lessingham, P.Geo.
Lead Geoscientist



Scott Currie, P.Eng.
Senior Geotechnical Engineer

Permit to Practice Number: 1002996

Attachment(s):

- Terms of Engagement
- Site Photos, March 31, 2025

Distribution:

Owner - Lee Kayne – lee.kayne@telus.net

Swell Environmental – Lehna Malmkvist – lehna@swell.ca

Current Environmental – Jeremiah Bain – jeremiah@currentenv.ca

Polster Environmental – Nathan Polster – nathan@polsterenvironmental.com

Swell Environmental – Sara Stallard – sara@swell.ca

Big Dig-Em Trucking & Excavating – Braedon Bigham – bdeltd@shaw.ca



Photo 1. Overall view of shoreline, house above.



Photo 2. Twinned perforated drainage pipes south of stairs.



Photo 3. Stairs and recent slipped soil material and scarp.



Photo 4. Soil scarp and slipped soil next to stairs. Hand auger at right indicating location of potential native sandy clay soil.



Photo 5. Looking south along crest of slope. Curvature at crest visible in distance.



Photo 6. Probe embedded approximately 0.3 m into road base at separation.

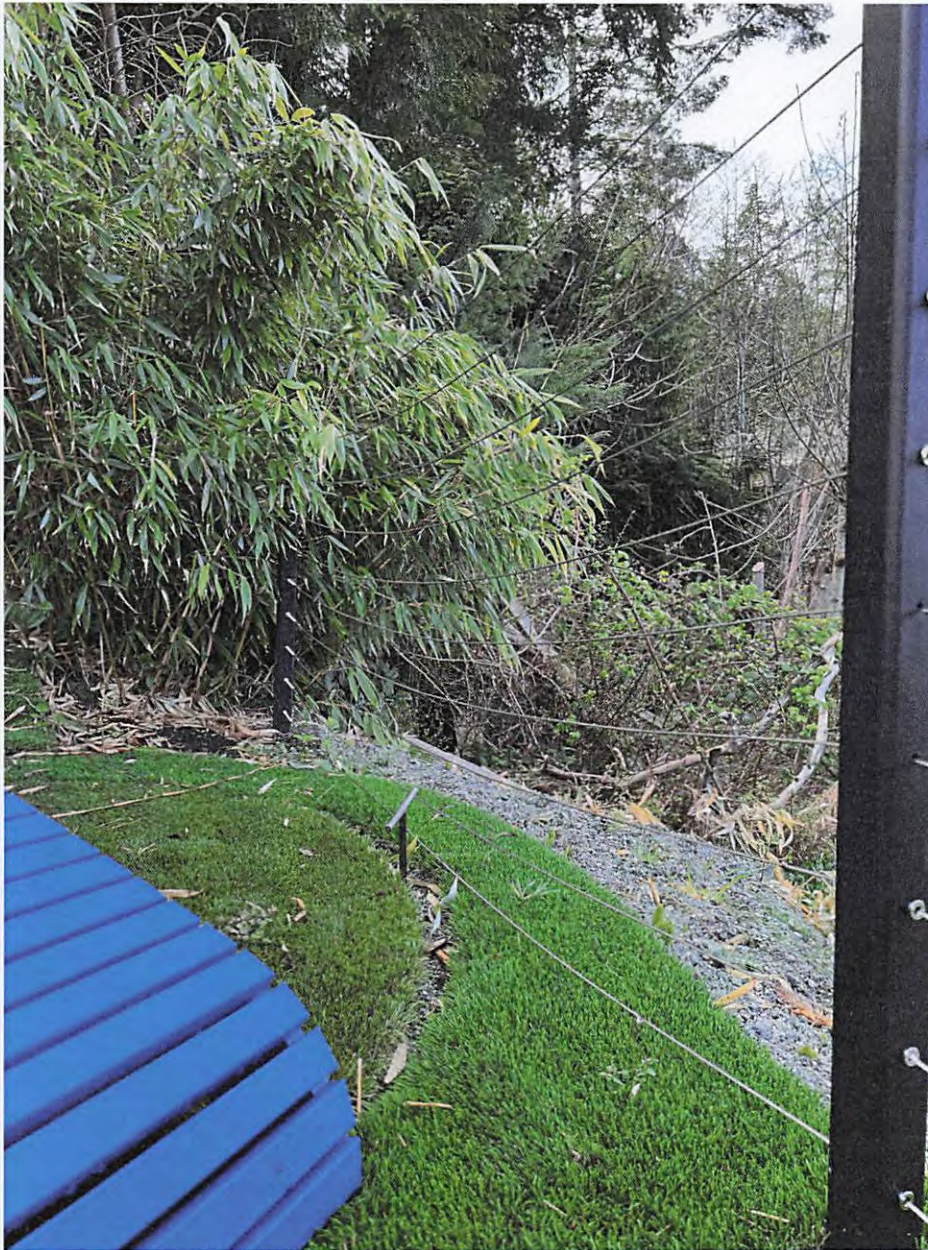


Photo 7. Probe embedded nearly 0.9 m into road base at separation.

TERMS OF ENGAGEMENT

1. GENERAL

- 1.1. Ryzuk Geotechnical Ltd., its principals and employees (collectively the "Consultant") shall render the Services to the Client for the Project in accordance with the following terms of engagement (the "Engagement").
- 1.2. The Services, and any other associated documents, records or data, shall be carried out and/or prepared in accordance with generally accepted engineering practices commensurate with the timing and location in which the Services are performed. No other representations or warranties, expressed or implied, are made by the Consultant.
- 1.3. The Consultant may, at its discretion and at any stage, engage sub-consultants to perform all or any part of the Services.

2. COMPENSATION

- 2.1. The Consultant's rates and fees are generally based on the hourly rates of our employees. The Consultant maintains accurate records of the time we devote to the Engagement. For certain well-defined services we will be able to quote a fixed fee.
- 2.2. The Consultant's rates and fees are adjusted annually to reflect current levels of geotechnical experience, changes in market conditions and other factors.
- 2.3. All fees billed to the Client by the Consultant are payable in Canadian dollars. Invoices are due and payable by the Client on receipt of the invoice, without holdback. Interest on overdue accounts is 24% per annum.

3. REPRESENTATIVES

- 3.1. Each party must designate a representative who is authorized to act on behalf of that party and receive notices under this Engagement.

4. TERMINATION

- 4.1. Either party may terminate this Engagement without cause upon providing 30 days' written notice to the other party. On termination by either party under this section, the Client shall forthwith pay to the Consultant all fees invoiced by the Consultant for the Services performed, including all expenses and other charges incurred by the Consultant in respect of the Consultant's Engagement by the Client.
- 4.2. If either party is in breach of any term of this Engagement, the non-defaulting party may give written notice of the breach to the other party and thereafter terminate this Engagement forthwith if the defaulting party does not remedy said breach within 7 days' of being provided written notice of the breach. On termination by the Consultant under this section, the Client shall forthwith pay to the Consultant all fees invoiced for the Services performed to the date of termination, including all expenses and other charges incurred by the Consultant in respect of the Consultant's Engagement by the Client.

5. ENVIRONMENTAL

- 5.1. The Consultant's field investigation, laboratory testing and engineering recommendations will not address or evaluate contamination or pollution of soil or groundwater. The Consultant will cooperate with any environmental consultant retained by the Client during the field work phase of the investigation.

6. PROFESSIONAL RESPONSIBILITY

- 6.1. The Consultant will provide the Services in accordance with the standard of care, skill and diligence required of a geotechnical consulting firm providing similar services at the same time in the same geographic location and circumstances in British Columbia. The Services will be provided in accordance with procedures customarily provided in similar circumstances by similar professionals.

7. INSURANCE

- 7.1 Ryzuk Geotechnical maintains Professional Indemnity Insurance as follows:

7.1.1 \$2,000,000 each and every claim

7.1.2 \$2,000,000 in the aggregate

7.1.3 \$5,000,000 commercial/general liability coverage.

8. LIMITATION OF LIABILITY

- 8.1. The Consultant shall not be responsible for:

8.1.1. the negligence or failure of any contractor or other professional retained by the Client to perform work or provide services in respect of the Project in accordance with the applicable contract documents and/or advice provided by the Consultant;

8.1.2. the design of or defects in equipment or materials supplied or provided by the Client or its contractors for incorporation into the Project;

8.1.3. any cross-contamination resulting from subsurface investigations;

8.1.4. any Project decisions made by the Client if such decisions are made without the Client first seeking advice from the Consultant and/or decisions contrary to or inconsistent with advice provided by the Consultant;

8.1.5. any consequential loss, injury or damages suffered by the Client or its agents and contractors, including but not limited to loss of use, earnings and business interruption;

8.1.6. the unauthorized distribution of any confidential document or reports prepared by or on behalf of the Consultant for the exclusive use of the Client;

8.1.7. damage to subsurface structures and utilities.

- 8.2. The Consultant will make all reasonable efforts prior to and during subsurface site investigations to minimize the risk of damaging any subsurface utilities/mains. If, in the unlikely event that damage is incurred where utilities are unmarked and/or undetected, the Consultant will not be held responsible for damages to the Project site or surrounding areas, utilities/mains or drilling equipment or the cost of any repairs thereto.

- 8.3. The Consultant's total liability to the Client for any errors, omissions, breaches of contract and/or negligence arising in connection with the Services is limited to the amount of the Consultant's fees for the Services and shall not exceed that amount under any circumstances. For greater clarity, this means that if the Client makes any claim, including any claim for contribution or indemnity, or brings any claims against the Consultant, then any damages for which the Consultant may be liable cannot exceed the total amount of fees paid to the Consultant by the Client.
- 8.4. The Client agrees to indemnify and to save and hold harmless the Consultant from any claim, demand, litigation, expense, legal fees, liability, damage, award or cost, of any form or type whatsoever, in respect of any claim for property damage, loss, or personal injury brought by any party including the Client's contractors, other professionals, or any third party, resulting from the Consultant's provision of the Services, except for such property damage, loss or personal injury that results directly from the gross negligence of the Consultant or its employees.
- 8.5. No claim may be brought against the Consultant in respect of the Consultant's provision of the Services, in contract, negligence or other civil wrong more than 2 years after any claim is discoverable.

9. DOCUMENTS AND REPORTING

- 9.1. All of the documents prepared by or on behalf of the Consultant in connection with the Project are instruments of service for execution of the Project and the Services. The Consultant retains the property and copyright in these documents, whether the Project is executed or not. These documents may not be used on any other project without the prior written agreement of the Consultant.
- 9.2. Documents that have been prepared specifically for the Project are applicable and may be relied upon only in the case where there has been no physical alteration to, or deviation from any of the information or plans provided to the Consultant by the Client or the Client's agents. If the Client makes any changes or deviations from original plans for the Project, the Client may request that the Consultant review and revise Project documents accordingly.
- 9.3. Identification and classification in respect of the extent, properties, or type of soils or other materials at the Project site will be based upon investigation and interpretation of results in a manner consistent with customarily accepted standard geotechnical consulting practices in the location where the Services were performed. Due to the nature of geotechnical consulting, there is an inherent risk that all potential conditions will not be detected at the Project site and that actual subsurface conditions may vary considerably from investigation points. The Client and any other party making use of any documents prepared by the Consultant in respect of the Project acknowledges and accepts this risk.
- 9.4. Any conclusions and recommendations provided within any document prepared by the Consultant for the Client will be based on the scope of investigation by the Consultant and any additional information provided to the Consultant by the Client or the Client's agents. The Consultant disclaims responsibility for any deficiency or inaccuracy resulting from the Consultant being provided with inaccurate or fraudulent information by the Client or the Client's agents.

10. JOBSITE SAFETY AND CONTROL

- 10.1. The Client acknowledges that control of the Project site remains solely with the Client, and/or the Client's agents and/or contractors. The presence of the Consultant's personnel on the Project site does not relieve the Client, the Client's agents and/or contractors from their responsibilities for Project site safety. The Client must inform the Consultant of all hazardous or otherwise dangerous conditions at the Project site of which the Client, its agents, and/or contractors are aware.

10.2. The Client acknowledges that during the course of a geotechnical investigation a previously unknown hazard or contaminant may be discovered. Discovery and/or identification of a hazard/contaminant may necessitate procedures to ensure the safety and protection of persons and/or the environment being undertaken. The Client shall be responsible for payment of any additional expenses incurred as a result of discovery of a hazard/contaminant. The Client acknowledges that certain circumstances require government and/or regulatory authorities to be notified of hazardous conditions and/or contaminants. The Client shall not make any claim or bring any action against the Consultant in the event the Consultant provides any required notification of a hazard and/or contaminant to a government and/or regulatory authority.

11. FIELD SERVICES

11.1. If the Consultant is requested or required to provide field review Services for the Project and the Client declines to authorize or otherwise limits the scope of same in a manner inconsistent with the Consultant's advice or recommendations, the Consultant may provide qualified certifications in respect of any work completed by the Client and/or its contractors that was not overseen by the Consultant.

12. DISPUTE RESOLUTION

12.1. If requested in writing by either the Client or the Consultant, the Client and the Consultant shall attempt to resolve any dispute between them arising out of or in connection with this Engagement by entering into structured non-binding negotiations with the assistance of a mediator on a without prejudice basis. The mediator shall be appointed by agreement of the parties. If a dispute cannot be settled within a period of thirty (30) calendar days with assistance of a mediator, the dispute shall be referred to and finally resolved by a British Columbia Court.

13. CONFIDENTIALITY

13.1. During the term of the Engagement, the Consultant shall not use or disclose any of the Client's confidential information to any third party other than the Consultants legal and/or financial advisors without authorization from the Client. The Consultant will use any confidential information for the sole purpose of carrying out the Services. The Consultant may share photos of the Project so long as such photos do not disclose any information not otherwise available or readily visible by the public. Unless already made public, the Consultant will not share Client or Project site address information on social media or with third parties.

Appendix 3. Crown Authorizations Email Discussion

From: Engels, Simone WLRS:EX
Sent: Thursday, March 20, 2025 9:14 AM
To: Thompson, Kimberly WLRS:EX <Kimberly.Thompson@gov.bc.ca>; Swell Environmental Consulting Ltd. <lehna@swell.ca>
Subject: RE: Green Shores Project Enquiry - 37149 Schooner Way

Thank you for providing a response to Lehna, Kim.

Lehna, I can confirm what Kim mentioned in her email to you.

Regards,
Simone

.....
Simone Engels, M.Sc., P.Ag.

Section Head
Crown Land Authorizations
Ministry of Water, Land and Resource Stewardship
Phone: 250-739-8383

Email: simone.engels@gov.bc.ca

From: Thompson, Kimberly WLRS:EX <Kimberly.Thompson@gov.bc.ca>
Sent: Thursday, March 20, 2025 8:12 AM
To: Swell Environmental Consulting Ltd. <lehna@swell.ca>; Engels, Simone WLRS:EX <Simone.Engels@gov.bc.ca>
Subject: RE: Green Shores Project Enquiry - 37149 Schooner Way

Hi Lehna,

I see that you copied Simone on this message so I will let her weigh in if she wants, but that's correct, Simone stated that "Crown Lands will not require an application for Crown land authorization to be submitted, as long as the extend of the work will be contained within 1m from the present natural boundary".

Based on the revised plans that you provided, the infrastructure will remain within approximately one metre of the present natural boundary and therefore no application for Crown land authorization is needed. We understand that the project would still meet any applicable requirements from Islands Trust and DFO.

Thank you,

Kim Thompson (she/her)
Natural Resource Specialist
FrontCounter BC
Ministry of Water, Land & Resource Stewardship
2080 Labieux Road | Nanaimo, BC
Tel: 250-739-8612 | Fax: 250-751-7234

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[Freedom of Information Disclaimer](#)

From: Swell Environmental Consulting Ltd. <lehna@swell.ca>
Sent: Wednesday, March 19, 2025 5:57 PM
To: Engels, Simone WLRS:EX <Simone.Engels@gov.bc.ca>
Cc: Thompson, Kimberly WLRS:EX <Kimberly.Thompson@gov.bc.ca>
Subject: Re: Green Shores Project Enquiry - 37149 Schooner Way

Hi Simon and Kimberly, we are in the process of moving forward with the applications for this Green Shores bioengineering shoreline stabilization project, and the contractor recommends buried rock for anchors rather than duckbill earth anchors that were included in my previous email.

I have attached a mark up with the concept. The work would still appear the same (logs with buried anchors), and I wanted to confirm with you that Crown Lands will not require an application for Crown land authorization to be submitted, as long as the extend of the work will be contained within 1m from the present natural boundary?

Thank you,
Lehna

Lehna Malmkvist, M.Sc., R.P. Bio.
She/Her
Swell Environmental Consulting Ltd.
Victoria, BC | ləkʷəŋən Traditional Territory

p: (250) 217-9190
e: lehna@swell.ca

On Oct 16, 2024, at 8:53 AM, Engels, Simone WLRS:EX <Simone.Engels@gov.bc.ca> wrote:

Hi Lehna,

Thank you for forwarding your proposal to us for review and comment.

I echo Kim's comments and can confirm that at this time, Crown Lands will not require an application for Crown land authorization to be submitted, as long as the extend of the work will be contained within 1m from the present natural boundary, as per the submitted proposal. We may still require an authorization for any works placed on the foreshore in the future though.

I hope this answers your question.

Regards,
Simone

Simone Engels, M.Sc., P.Ag.
Section Head
Crown Land Authorizations
Ministry of Water, Land and Resource Stewardship
Phone: 250-739-8383
Email: simone.engels@gov.bc.ca

From: Swell Environmental Consulting Ltd. <lehna@swell.ca>
Sent: October 15, 2024 10:03 PM
To: Thompson, Kimberly WLRS:EX <Kimberly.Thompson@gov.bc.ca>
Cc: Sara Stallard <sara@swell.ca>; Engels, Simone WLRS:EX <Simone.Engels@gov.bc.ca>
Subject: Re: Green Shores Project Enquiry - 37149 Schooner Way

Hi Kim, thank you very much, we look forward to hearing back from the Crown Land Authorizations staff after their review. Please let me know if they have any questions.
I will also let the owner and contractor know that as-built drawings and information may be required to ensure the works are completed as described.

Thanks,
Lehna

Lehna Malmkvist, M.Sc., R.P. Bio.
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e: lehna@swell.ca

On Oct 15, 2024, at 5:35 PM, Thompson, Kimberly WLRS:EX <Kimberly.Thompson@gov.bc.ca> wrote:
Hello Lehna,
Thank you for the additional information – I will run this by Crown Land Authorizations to confirm the approach for this project.

Yes, it is possible to have Crown Land Authorizations review erosion protection projects with minor foreshore encroachments ($\leq 1\text{m}$) to determine whether or not a Crown land tenure application is required. This is done on a case-by-case basis and is not mentioned on the public-facing website.

For projects where a Crown land tenure is not required, we request that you keep the encroachment of any improvements onto Crown foreshore as minimal as possible and that you proceed with the DFO Project Review.

We may request as-built drawings and information once the works have been completed to ensure the placement of improvements did occur according to the submitted drawing.

Thanks,

<image002.png>

Kim Thompson (she/her)
Natural Resource Specialist
FrontCounter BC
Ministry of Water, Land & Resource Stewardship
2080 Labieux Road | Nanaimo, BC
Tel: 250-739-8612 | Fax: 250-751-7234

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From: Swell Environmental Consulting Ltd. <lehna@swell.ca>
Sent: Friday, October 11, 2024 9:59 PM
To: Thompson, Kimberly WLRS:EX <Kimberly.Thompson@gov.bc.ca>
Cc: Sara Stallard <sara@swell.ca>; Engels, Simone WLRS:EX <Simone.Engels@gov.bc.ca>
Subject: Re: Green Shores Project Enquiry - 37149 Schooner Way

Hi Kimberly, thank you for your email to Sara about the project on Pender Island. We have discussed the project with Polster Environmental Services, the bioengineering designer and installer, and they have confirmed they can complete the work within 1m of the Present Natural Boundary. I have attached the updated report and a site plan with the proposed extent of the proposed Green Shores work.

Is it possible to have Crown Land Authorizations review erosion protection projects, with a minor encroachments and determine if the project can go ahead under a “risk management” approach, keeping the encroachment to $\leq 1\text{m}$ (with natural materials - relocating logs on the beach and dune grass). Attached is a plan showing the Present Natural Boundary (PNB) with the footprint of the erosion protection works superimposed along the PNB.

Once we know how to proceed with Crown Lands portion, we will be submitting for a DFO Project Review and Islands Trust Development Permit, we would be happy to provide those as well for Crown Lands records when we receive the responses.

Thank you,
Lehna

Lehna Malmkvist, M.Sc., R.P. Bio.
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Swell Environmental Consulting Ltd.
Victoria, BC | ləkʷəŋən Traditional Territory

p: (250) 217-9190
e: lehna@swell.ca

On Sep 16, 2024, at 6:05 PM, Thompson, Kimberly WLRS:EX <Kimberly.Thompson@gov.bc.ca> wrote:
Hi Sara,
Thank you for forwarding the information about the proposed Green Shores project on Pender Island.

Crown Land Authorizations can review erosion protection projects with minor encroachments (up to about one metre) on a case-by-case basis and determine if the project can go ahead under a “risk management” approach. If you are able to keep the encroachment to $\leq 1\text{m}$ and want to pursue this option, please provide a plan showing the Present Natural Boundary (PNB) with the footprint of the erosion protection works superimposed over the PNB and the encroachment distance indicated at several intervals along the shoreline.

Based on the information that the encroachment distance for this project is up to approximately three metres, this project would require an application. The usual form of tenure for erosion protection projects is a Licence of Occupation rather than a Lease.

Although Green Shores projects are a priority, the approval process still takes several months (it's difficult to provide a precise timeline). The application needs to be received by FrontCounter and assigned to a Natural Resource Specialist for preliminary review. After being accepted by FrontCounter, it will be assigned to someone in Crown Land Authorizations for technical review and decision-making. The approval process includes referrals to local government and other agencies, consultation with First Nations, advertising and staking, and a public comment period. All of these take time.

The review process can be sped up by:

- Ensuring that the application includes all items on the [Green Shores Checklist](#)
- Confirming with Islands Trust that the proposed project is allowed under local zoning and bylaws, and applying for a permit from Islands Trust if required
- [Consulting with local First Nations](#) and keeping a communication log
- Submitting a [Request for Review](#) to Fisheries & Oceans Canada

Please let me know if you have any other questions.

Thank you,

<image003.png>

Kim Thompson (she/her)
Natural Resource Specialist

FrontCounter BC
Ministry of Water, Land & Resource Stewardship
2080 Labieux Road | Nanaimo, BC
Tel: 250-739-8612 | Fax: 250-751-7234

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From: Sara Stallard <sara@swell.ca>

Sent: Friday, September 13, 2024 3:51 PM

To: Thompson, Kimberly WLRs:EX <Kimberly.Thompson@gov.bc.ca>

Cc: Lehna Malmkvist <lehna@swell.ca>

Subject: Re: Green Shores Project Enquiry

Hi Kimberly,

Thank you for your email. I am copying Lehna's email to Simone, with the attachment below.

Is this something you can assist us with? I am available at the numbers below or by email.

Thank you!

Sara

Sara Stallard, BSc, AScT, Envr. Tech.
Swell Environmental Consulting Ltd.

250.480.7272 home office
250.885.7275 mobile
sara@swell.ca

From: "Swell Environmental Consulting Ltd." <lehna@swell.ca>

Subject: Question re: Natural Shore Expedited Permit - Crown Foreshore Lease - Pender Island - 37149 Schooner Way**Date:** September 6, 2024 at 1:05:26 AM GMT+2**To:** Simone.Engels@gov.bc.ca

Hi Simone, to follow up on my phone call, I am reaching out to determine if this green shores project would require a Natural Shore Expedited Permit - Crown Foreshore Lease? I have attached the a document with the proposed work.

The work in the crown land area will entail moving existing beach logs up towards the toe of the slope, anchoring them, and planting with dune grass between them.

The work will be approximately 1-3m beyond the Present Natural Boundary (into the foreshore) at the property - 37149 Schooner Way.

And, if it does require a Natural Shore Expedited Permit - Crown Foreshore Lease - approximately how long does it take for the approval once an application is received?

Thank you,
Lehna

Lehna Malmkvist, M.Sc., R.P. Bio.
She/Her
Swell Environmental Consulting Ltd.
Victoria, BC | ləkʷəŋən Traditional Territory

p: (250) 217-9190
e: lehna@swell.ca

On Sep 11, 2024, at 10:57 AM, Thompson, Kimberly WLRS:EX <Kimberly.Thompson@gov.bc.ca> wrote:

Hello Lehna,

I'm responding to the voice mail that you left for Simone Engels regarding provincial requirements for a Green Shores project. Apologies for the delayed response as Simone has been out of office. I called back but I understand that you will be away until early November.

I've copied Sara on this message in case this is a time-sensitive project. Sara, please feel free to contact me with any questions about Green Shores project.

Thank you,

<image002.png>

Kim Thompson (she/her)
Natural Resource Specialist
FrontCounter BC
Ministry of Water, Land & Resource Stewardship
2080 Labieux Road | Nanaimo, BC
Tel: 250-739-8612 | Fax: 250-751-7234

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Fisheries and Oceans
Canada

Pacific Region
Ecosystem Management Branch
3190 Hammond Bay Road
Nanaimo, BC
V9T 6N7

Pêches et Océans
Canada

Région du Pacifique
Direction de la gestion des écosystèmes
3190, rue Hammond Bay
Nanaimo, (C.-B.)
V9T 6N7

April 24, 2025

Our file Notre référence
25-HPAC-00318

Don & Lee Kayne
37149 Schooner Way
North Pender Island, BC
V0N 2M2

Via email: Don.Kayne@canfor.com

Subject: Shoreline Stabilization, Swanson Channel, North Pender Island – Implementation of Measures to Avoid and Mitigate the Potential for Prohibited Effects to Fish and Fish Habitat

Dear Don & Lee Kayne:

The Fish and Fish Habitat Protection Program (the Program) of Fisheries and Oceans Canada (DFO) received your proposal on March 27, 2025. We understand that you propose to stabilize a failing bank on the seaward side of your residential property located at 37149 Schooner Way On North Pender Island, BC. Works to repair and secure the failing bank include the following:

- Barge access to the upper intertidal zone at high tide to deliver machinery and materials;
- Temporary machinery access to upper intertidal habitat to complete bank stabilization works, totaling 207 m²;
- Vegetation clearing and excavation within the proposed bank stabilization footprint, totaling 110 m²;
- Installation of a terraced bench wall with log base and rock anchors, totaling 150 m²; and
- Installation of willow stem wadding by hand within the terraced slope and native species planting.

Our review considered the following information:

- *Request for Review (RFR)* package prepared by Swell Environmental Consulting (Swell), submitted by email on March 27, 2025, including:
 - *RFR form* prepared by Swell;
 - *Intertidal Sensitive Ecosystem Development Permit Area #6 – Review and Environmental Management Plan for Green Shores / Bioengineering Shoreline*

Stabilization at 37149 Schooner Way, prepared by Swell, dated March 27, 2025; and

- *Site Reclamation Project Proposal – Pender Island, Green Shores Restoration for 17149 Schooner Way*, dated March 2025.
- *Phone Conversation* between Lehna Malmkvist (Swell) and Sean Hollis (the Program) to discuss additional project details on April 23, 2025.

Your proposal has been reviewed to determine whether it is likely to result in:

- the death of fish by means other than fishing and the harmful alteration, disruption or destruction of fish habitat which are prohibited under subsections 34.4(1) and 35(1) of the *Fisheries Act*;
- effects to listed aquatic species at risk, any part of their critical habitat or the residences of their individuals in a manner which is prohibited under sections 32, 33 and subsection 58(1) of the *Species at Risk Act*; and
- the introduction of aquatic species into regions or bodies of water frequented by fish where they are not indigenous, which is prohibited under section 10 of the *Aquatic Invasive Species Regulations*.

The aforementioned outcomes are prohibited unless authorized under their respective legislation and regulations.

We understand the following aquatic species listed under the *Species at Risk Act* may use the area in the vicinity of where your proposal is to be located:

- Basking Shark, Northern Abalone, Northeast Pacific Southern Resident Killer Whale, and Leatherback Sea Turtle, all listed as Endangered;
- Killer Whale (Northeast Pacific Offshore Population), listed as Threatened; and
- Bluntnose Sixgill Shark, Eastern North Pacific Grey Whale, Pacific Harbour Porpoise, North Pacific Humpback Whale, Longspine Thornyhead, Yelloweye Rockfish (Pacific Ocean Inside Waters Population), Rougheye Rockfish (Type I & II), Steller Sea Lion, and Tope, all listed as Special Concern.

To avoid and mitigate the potential for prohibited effects to fish and fish habitat (as listed above), we recommend implementing the measures listed below:

- A qualified environmental professional (QEP) is to conduct environmental monitoring during all project activities that may result in potential negative effects to fish and fish habitat.
- Prior to construction, salvage any motile invertebrate species from the work area and place them in nearby areas with similar habitat characteristics, outside of the project footprint.
- Large woody debris pieces are to be retained within adjacent areas of the beach during construction. Place all pieces back onto the beach in a similar configuration once works are complete.

- Construction is not to result in the trapping or stranding of fish. Smooth any ruts created within the temporary work area daily before tidal inundation.
- All rock used for permanent and/or temporary installations is to be non-acid generating, clean and free of fine sediment and debris.
- Clearly delineate work areas and sensitive habitats to avoid unintentional encroachment beyond planned footprints.
- Conduct barge operations in good weather conditions and during daylight hours that permit visual observations of marine mammals.
- If there is a risk of harm to a marine mammal from direct contact, temporarily suspend works until there is no longer a risk of harm from direct contact.
- Ensure vessels are not under power in shallow water causing direct physical disturbance to the seabed/habitat from prop scour, which can also lead to sediment resuspension/turbidity and sedimentation of sensitive habitat, algae and sessile organisms.
- Minimize movement/repositioning of the barge and minimize physical disturbance to the seabed by utilizing the same landing footprint each time.
- Develop and implement a response plan to avoid a spill of deleterious substances into the marine environment.
- Develop and implement an erosion and sediment control plan to avoid the introduction of sediment into any waterbody during all phases of the works, undertakings, or activities.
- Ensure equipment is in good working condition, and free of leaks prior to conducting works in or near fish habitat.
- Storage of materials and machinery below the top of bank is not to result in negative impacts to fish and fish habitat.
- Develop and implement a debris management plan that includes removal and disposal of all construction debris (i.e., existing wood retaining wall, etc.) at a suitable upland facility.
- Complete forage fish spawning assessments no more than seven days prior to initiating works. Works are only to proceed once a negative sample is obtained. Temporarily suspend works in the event of a positive assessment and until a subsequent negative sample is obtained from the work area.
- Survey and flag the temporary access areas, Present Natural Boundary, and footprints prior to initializing works in order to avoid encroaching outside of the proposed work zone.
- Machinery and equipment are to be free of leaks and in good working condition.
- Barge access is to be completed during higher tides.
- The barge operator is to implement all relevant avoid and mitigate measures while navigating in Critical Habitat for Southern Resident Killer Whale. A designated spotter/marine mammal observer is to be onboard to communicate sightings to the boat operator.
- Logs used for the bank stabilization works are not to be sourced from the beach.

Provided that you incorporate these measures into your plans, the Program is of the view that your proposal is not likely to result in the contravention of the above-mentioned prohibitions and requirements.

Should your plans change or if you have omitted some information in your proposal, further review by the Program may be required. Consult our website (<http://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html>) or consult with a qualified environmental consultant to determine if further review may be necessary. It remains your responsibility to remain in compliance with the *Fisheries Act*, the *Species at Risk Act* and the *Aquatic Invasive Species Regulations*.

It is also your Duty to Notify DFO if you have caused, or are about to cause, the death of fish by means other than fishing and/or the harmful alteration, disruption or destruction of fish habitat. Such notifications should be directed to the DFO-Pacific Observe, Record and Report phone line at 1-800-465-4336 or by email at DFO.ORR-ONS.MPO@dfo-mpo.gc.ca.

Please notify the Program by email at Sean.Hollis@dfo-mpo.gc.ca at least 10 days before starting works, ensuring your file number and appropriate on-site contact information is included. We recommend that a copy of this letter be kept on site while the work is in progress. It remains your responsibility to meet all other federal, provincial and municipal requirements that apply to your proposal.

Please note that this Letter of Advice does not provide relief from the obligations set out in the government of British Columbia's *Riparian Areas Protection Regulations* (RAPR) and cannot be construed to provide authorization pursuant to section 3(2) of the RAPR, for any work, undertaking or activity within the Riparian Assessment Area. For more information on the RAPR, including contacts, please visit: <https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/fish/aquatic-habitat-management/riparian-areas-regulation>.

Please note that the advice provided in this letter will remain valid for a period of one year from the date of issuance. If you plan to execute your proposal after the expiry of this letter, we recommend that you contact the Program to ensure that the advice remains up-to-date and accurate. Furthermore, the validity of the advice is also subject to there being no change in the relevant aquatic environment, including any legal protection orders or designations, during the one-year period.

If you have any questions with the content of this letter, please contact Sean Hollis at our Nanaimo office at 604-679-8145, or by email at Sean.Hollis@dfo-mpo.gc.ca. Please refer to the file number referenced above when corresponding with the Program.

Yours sincerely,

Michael Lockhart
Senior Biologist, Coastal Watershed Regulatory Operations
Fish and Fish Habitat Protection Program

c.c.: Lehna Malmkvist, Swell Environmental Consulting, lehna@swell.ca
Sara Stallard, Swell Environmental Consulting, sara@swell.ca