



File No.: NP-DP-2016.9 (Lundie)

DATE OF MEETING: November 24, 2016
TO: North Pender Island Local Trust Committee
FROM: Phil Testemale, A/Planner 2
Victoria Office
SUBJECT: Development Permit Application
Applicant: Marc Brown
Location: 4858 Pirates Road

RECOMMENDATION

1. That the North Pender Island Local Trust Committee receive the report for information, and, pending receipt of a detailed cost estimate for planting and fencing and a security in the form of an irrevocable letter of credit, request staff prepare a resolution-without meeting that would approve issuance of Development Permit NP-DP-2016.9 (Lundie).

REPORT SUMMARY

This report is to provide background information, assessment and proposal details on a Development Permit (DP) application. Approval of issuance may be considered by a Resolution Without Meeting (RWM) pending provision of estimated restoration costs.

The proposed development is for a single family dwelling with a deck. The application is for measures for the protection of the sensitive riparian habitat and construction management for the proposed renovation sited within **Development Permit Area (DPA) Ten – Riparian and Aquatic**.

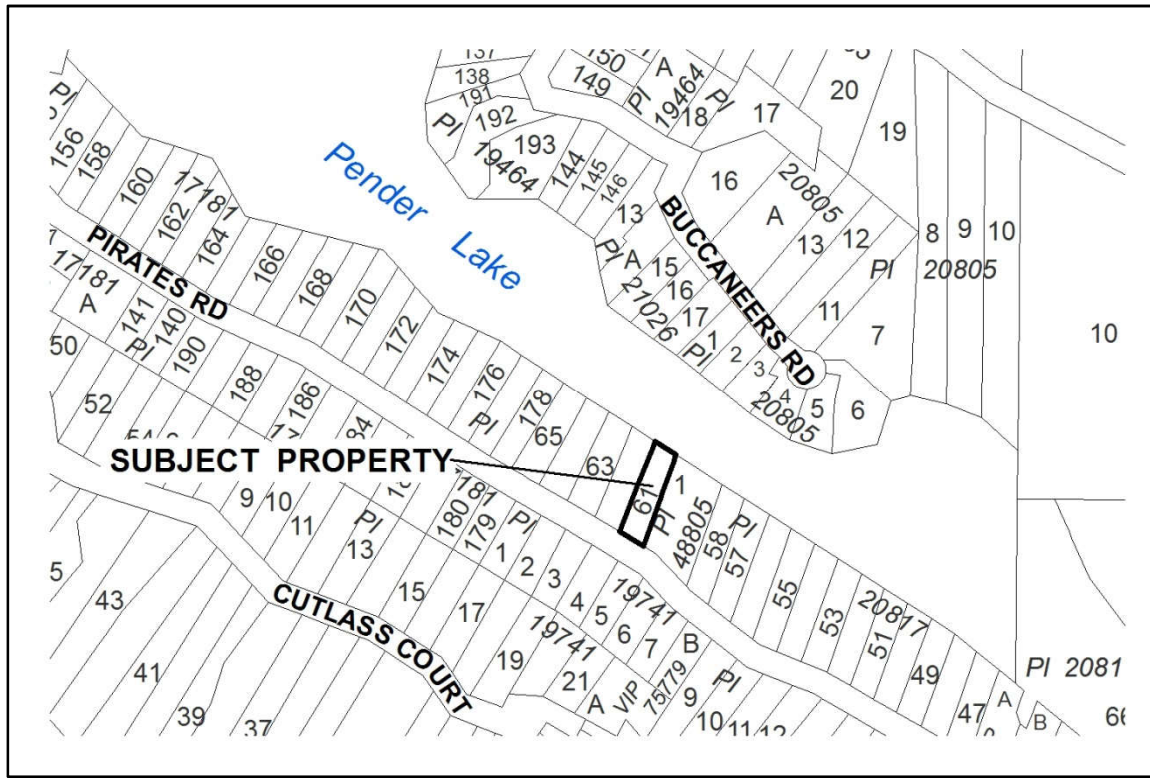
The specific objective of the designation of the DPA is:

To protect riparian areas from development so that the areas can provide natural features, functions and conditions that support fishlife processes.

Copies of the Development Permit Area Checklist and proposed Development Permit NP-DP-2016.9(Lundie) are attached. (Attachment 3 & 5)

In summary, the above recommendation for the proposal is supported as it allows the proposal to be reviewed and debated by the LTC and for future consideration of approval to be made by RWM upon receipt of further required information (an RWM is not debatable). The proposal meets the objectives and specific guidelines of the DPA, however it does not comply with RAR methodology. All recommendations of a Riparian Areas Regulation (RAR) Assessment Report have been incorporated into the proposed DP in addition to security to ensure that enhancement work is completed.

FIGURE 1: SUBJECT PROPERTY



BACKGROUND

The subject property is currently vacant and the applicant is proposing the construction of a 171m² (1846 ft²) house with a 61m² (654 ft²) deck with construction to begin this year. The proposed development is to be sited substantially within DPA 10. The owners and applicant were informed of the DPA requirements and those for the provincial *Riparian Areas Regulations (RAR)*. The owners accordingly hired Dave Gooding, P.Eng. who prepared and submitted a RAR Assessment Report ("assessment report," dated August 29, 2016 – Attachment 4) to the provincial Ministry of Forests, Lands and Natural Resources Operations (FLNRO). That report and two subsequent reports sent (most recently on November 14, 2016) did not comply with the RAR methodology. The non-compliance is based on a modified Streamside Protection and Enhancement Area (SPEA/reduced size) and encroachment into the SPEA prescribed by the QEP. This is discussed in 'Issues and Opportunities' (below).

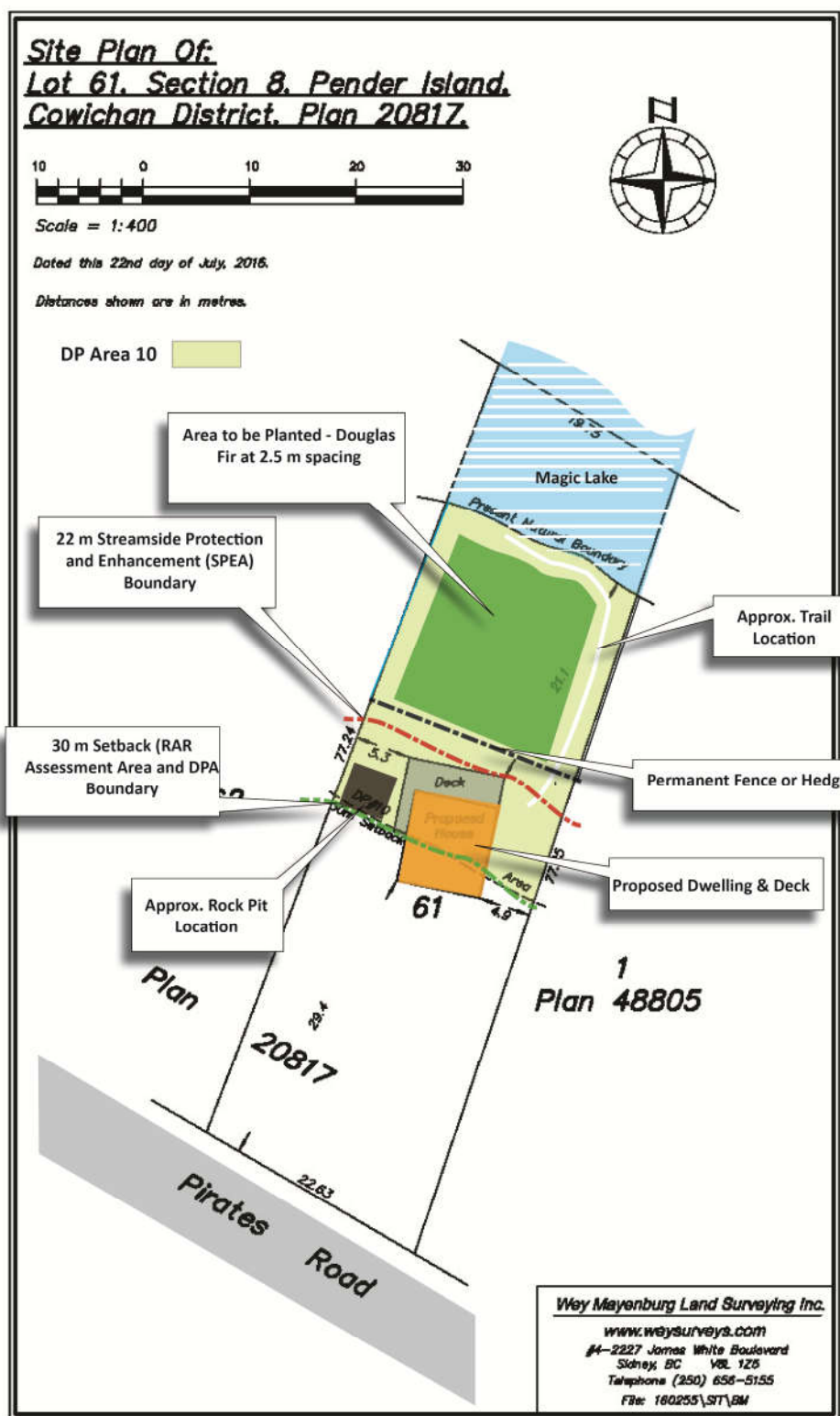
As an alternative to RAR, Dave Gooding pursued approval from Fisheries and Oceans Canada (DFO) and submitted the assessment report to the Fisheries Protection Program for review and approval on September 29, 2016. DFO responded by indicating that approval was not necessary under the *Fisheries Act*, however, that he (Dave Gooding/QEP) was responsible to meet other requirement of federal, provincial and municipal agencies (October 17, 2016 – Attachment 5).

Staff has had discussions with FLNRO, Dave Gooding and the applicant in order to reconcile the outstanding issue of non-compliance with the RAR methodology and to ensure that a DP can be legally issued by the LTC.

In an effort to assist the applicant's building schedule and avoid a two month delay until the January 2017 LTC regular meeting, staff added this report as a late agenda item for the LTC to review the application so that it may be considered at a later date by RWM after all requested information is received.

Staff visited the site on November 17, 2016.

FIGURE 2: SITE PLAN



ANALYSIS

Policy/Regulatory:

Islands Trust Policy Statement:

- 3.1.3 Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the identification and protection of the environmentally sensitive areas and significant natural sites, features and landforms in their planning area.
- 3.1.4 Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the planning, establishment, and maintenance of a network of protected areas that preserve the representative ecosystems of their planning area and maintain their ecological integrity.
- 3.3.2 Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address means to prevent further loss or degradation of freshwater bodies or watercourses, wetlands and riparian zones and to protect aquatic wildlife.

Official Community Plan

The subject property is designated as **Rural Residential - RR** in the North Pender Island Official Community Plan Bylaw No. 171, 2007.

Development Permit Area 10 (DPA) – Riparian and Aquatic is designated on the property as shown in Attachment 2.3.

Land Use Bylaw

The property is zoned as **Rural Residential (RR)** and **Water 6 (W6)** in the North Pender Island Land Use Bylaw No. 103, 1996 (Attachment 2.4).

Professional Report

The RAR Assessment report by Dave Gooding, P Eng. As well as his application to DFO is discussed in the following section.

Issues and Opportunities:

Development Permit Area Objectives & Guidelines and Objectives

The proposal is compliant with the overall objective of the DPA *“to protect riparian areas from development so that the areas can provide natural features, functions and conditions that support fishlife processes.”*

In addition, analysis of the proposal’s conformity with the guidelines of the DPAs is contained within ‘**DAI Checklist**’ (Attachment 3). Attention to Guideline 5.2.11.8 (b) is highlighted in the checklist and discussed below.

The proposal complies with the relevant guidelines in the DPA.

RAR Assessment Report

As a requirement of provincial *Riparian Areas Regulations*, a RAR Assessment Report was prepared and submitted to the FLNRO by Dave Gooding, P.Eng. (November 14, 2016 – most recent)

The assessment report undertook a site inventory and documented the habitat conditions primarily for Flora. The QEP made no comments on rare species or species at risk on the property. Islands Trust mapping indicates that there are none.

The assessment report established the SPEA at 22 metres perpendicular from the High Water Mark (HWM) of the lake (Figure Two and Attachment 2.1). The proposed house and deck are within the DPA but outside of the SPEA. Measures for the enhancement and protection of the area are recommended under *Windthrow, Slope Stability, Tree Protection, Encroachment, Sediment and Erosion Control, Stormwater Management, and Monitoring*.

The assessment report recommended planting with Douglas Fir (at 2.5 metre spacing) of the steeper grassed slope between 5 and 22 metres. The total number of trees is estimated at approximately 30. This will enhance an existing treed 3-5 metre strip along the lake and the thin strips of mature trees back from the lake along both side lot areas. The report recommended protection of the planted SPEA with permanent fencing. Staff has requested a detailed planting and construction scheme from the applicant as well as cost estimate upon which a security can be based.

All recommendations of the RAR assessment report have been incorporated into the proposed DP.

Adherence to the conditions of the DP and monitoring will mitigate impacts from the proposed development to the riparian areas within the SPEA. The QEP has provided the professional opinion that if the proposal is implemented there will be no harmful alteration, disruption or destruction of natural features, functions and conditions that support fish life processes in the riparian assessment area in which the development is proposed. (p. 12 of Attachment 4)

Designation of SPEA and RAR Methodology

In his RAR assessment report, the QEP applied the following rationale in setting the SPEA at 22 metres versus the 30 metres which would meet the RAR methodology:

If the category 2 maximum SPEA of 30 m is used, the development will all be outside of the RAR assessment area, and outside of the CRD (sic) 30 m Development Permit Area 10. The developer will then totally re-plan the development, supply a letter to the CRD (sic) stating all development is outside the 30 m DPA10, the RAR assessment will not be required, and the cleared and grassed area between 5 m and 30 m from the lake will continue to be used as a grandfathered lawn and camping area. To enable requiring planting of the steeper portion of the grassed area between the flattened planned building site and the thin continuous 5 m treed strip by the lake, SPEA is set at 22 m, ~2 m back from the brow of the slope, between the flat grassed area and the steeper slope to the lake. (p.5)

The argument that the QEP is making is that if a 30 m SPEA is applied, the applicants would have to build outside the DPA without the need for a RAR assessment or a DP, and, therefore, no enhancement to the riparian habitat would occur. Essentially an opportunity for enhancement would be lost with a strict application of RAR methodology. The large size of the SPEA required by RAR methodology is based on a calculation that establishes zones of sensitivity. As the property is on the southern shore of Magic Lake and has an open vegetated condition, the SPEA should be 30 metres. The review of the assessment report by FLNRO stated the following:

The report does not meet RAR assessment and reporting standards, due to a proposed modification to the SPEA boundary and encroachment into the SPEA. The ministry has concluded its review and reconfirms that once notified of this review, the local government has the required information from the ministry to proceed with their development review process.

In response to FLNRO's initial review, Dave Gooding sought approval in September from DFO as an alternative to the RAR process (Attachment 5). It is noted that the response by DFO is not an approval, therefore the QEP is still bound by RAR.

Staff have consulted with FLNRO and have been advised that, despite the fact that the proposal does not strictly meet RAR Methodology nor does it alternately have DFO approval, a DP can be legally be issued by the Local Trust Committee without liability or obligation with respect to the *Riparian Areas Protection Act* and or the *Fisheries Act*. As the RAR implementation process is a professional reliance model, all liability and obligations rest with the qualified environmental professional by signing and submitting RAR Assessment Report (p. 12 of Attachment 4).

The OCP guideline 5.2.11.8 (b) is as follows:

The development permit should not allow any development activities to take place within any Streamside Protection and Enhancement Area (SPEA) identified by the QEP, and the owner should be required to implement a plan for protecting the SPEA over the long term through measures that may be implemented as conditions of the development permit.

As the onus is with the QEP to identify the SPEA, staff is satisfied that this guideline has been complied with in addition to all other relevant guidelines for the DPA.

Security

As established in DP Guideline 5.2.11.8 (a), and upon consultation with FLNRO, the proposed DP contains a condition requiring a letter of credit as security for tree planting, fence construction and to ensure the protection of riparian areas and aquatic ecosystems consistent with the measures and recommendations of the assessment report. The amount is to be based on the estimated cost of the plantings and fencing prescribed by the QEP in a planting scheme multiplied by 1.25.

Consultation:

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

Rationale for Recommendation:

The above recommendation on page 1 is supported as it allows the proposal to be reviewed by the LTC and future consideration for approval by RWM upon receipt of further required information. The proposal meets the objectives and specific guidelines of the DPA. Although it does not comply with RAR methodology, the LTC is legally able to issue a DP. The QEP assumes all responsibility for any potential damage to fish habitat by signing and submitting a RAR Assessment Report to the province.

All recommendations of a Riparian Areas Regulation (RAR) Assessment Report have been incorporated into the proposed DP in addition to a condition for a security to ensure that enhancement and fencing work is completed.

ALTERNATIVE

1. Deny the application

The LTC may deny the application if a DP guideline has not been met. If this alternative is selected, the LTC should state the guideline(s) that has not been met.

Resolution:

That the North Pender Island Local Trust Committee deny application NP-DP-2016.9 (Lundie).

NEXT STEPS

Staff will provide the LTC with requested information as it is submitted, and, when complete, will initiate resolution-without-meeting to consider approval of NP-DP-2016.9 (Lundie).

Submitted By:	Phil Testemale A/Planner 2	November 18, 2016
Concurrence:	Robert Kojima, Regional Planning Manager	November 18, 2016

ATTACHMENTS

1. Site Context
2. Maps, Plans, Drawings, Photographs
3. DPA Checklist
4. RAR Assessment Report (Dave Gooding, P.Eng. - submitted November 14, 2016)
5. E-mail from DFO (October 17, 2016)
6. Draft Development Permit

LOCATION

Legal Description	Lot 61, Section 8, Pender Island, Cowichan District, Plan 20817
PID	003-600-661
Civic Address	4858 Pirates Road
Property Size	0.16 ha (0.4 ac)
Site Description	The subject property is located on the south shore of Pender (Magic) Lake. From Pirates Road, the property slopes gently toward a building site that was previously cleared in the centre of the property. From approximately 20 metres from the shoreline, the property slopes steeply down toward the lake. A continuous row (3-5m wide) of mainly alder abuts the shore, with a single row of Douglas Fir behind. Narrow strips (2-6 m wide) run along both side property lines up the slope and back approximately 30 m. The cleared of the slope and the building site are slope in the assessment are predominantly grass with little or no shrub or tree regeneration. There are no existing structures on the property. A driveway has been cleared and constructed from Pirates Road to the proposed building site. (Attachment 2.6 – Photos).

LAND USE

Current Land Use	Vacant land
Surrounding Land Use	Rural residential

HISTORICAL ACTIVITY

File No.	Purpose
NP-BP-2016.27	CRD Building Permit referral for subject development.

POLICY/REGULATORY

Official Community Plan Designations	North Pender Island Official Community Plan No.171, 2007: RR – Rural Residential designation & Development Permit Area 10 – Riparian and Aquatic Habitat
Land Use Bylaw	North Pender Island Land Use Bylaw No. 103, 1996: Rural Residential (RR) and Water 6 (W6)
Other Regulations	None
Covenants	None
Bylaw Enforcement	None

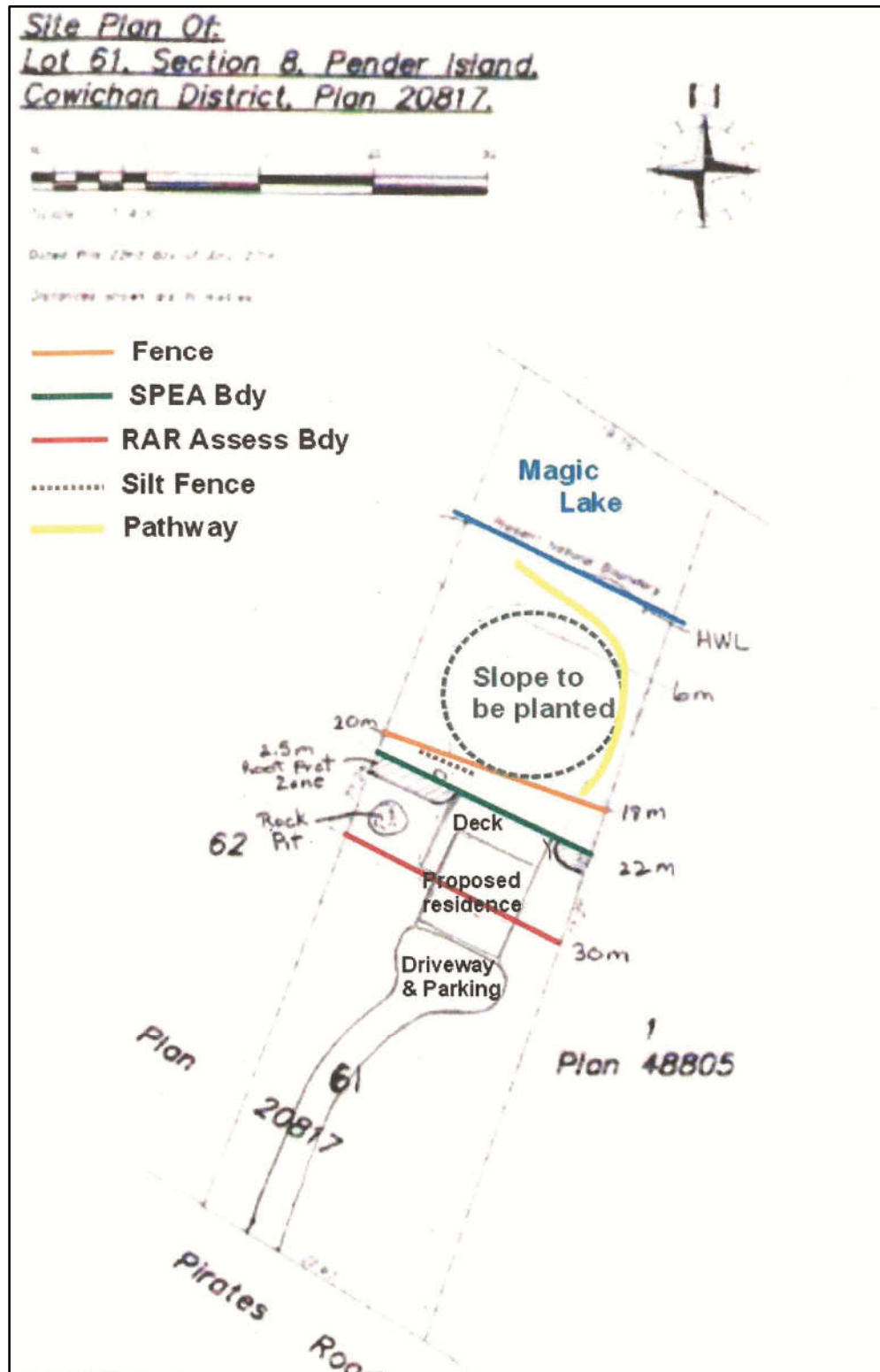
SITE INFLUENCES

Islands Trust Fund	There are no Trust Fund Board or Conservancy covenants or properties in the direct area; therefore no referral has been made to the Board
Regional Conservation Strategy	The proposal does not impact the objectives and priorities of the Islands Trust

	Fund Regional Conservation Plan.
Species at Risk	None identified through The Riparian Area Regulations (RAR) process.
Sensitive Ecosystems	The RAR Assessment Report (Biologist's report) assesses habitat values and provides recommendations for mitigation of impacts from the proposal on fish habitat, all of which are conditions in proposed NP-DP-2016. 9 (Lundie).
Hazard Areas	[Include any information on hazard areas or potential hazard areas, such as unstable slopes or flood areas.]
Archaeological Sites	There are no archaeological sites identified on the provincial RAAD site. 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> . This would most likely be indicated by the presence of areas of dark-stained soils containing conspicuous amounts of fire-stained or fire-broken rock, artifacts such as arrowheads or other stone tools, or even buried human remains. 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	The proposal is for new construction and establishing, enhancing and protecting the SPEA, particularly through substantial planting of the area which will help offset greenhouse gas emissions. The elevation of the property and general location minimizes potential impacts of climate change.
Shoreline Classification	Not Applicable
Shoreline Data in TAPIS	Not Applicable

ATTACHMENT 2: MAPPING & PHOTOGRAPHS

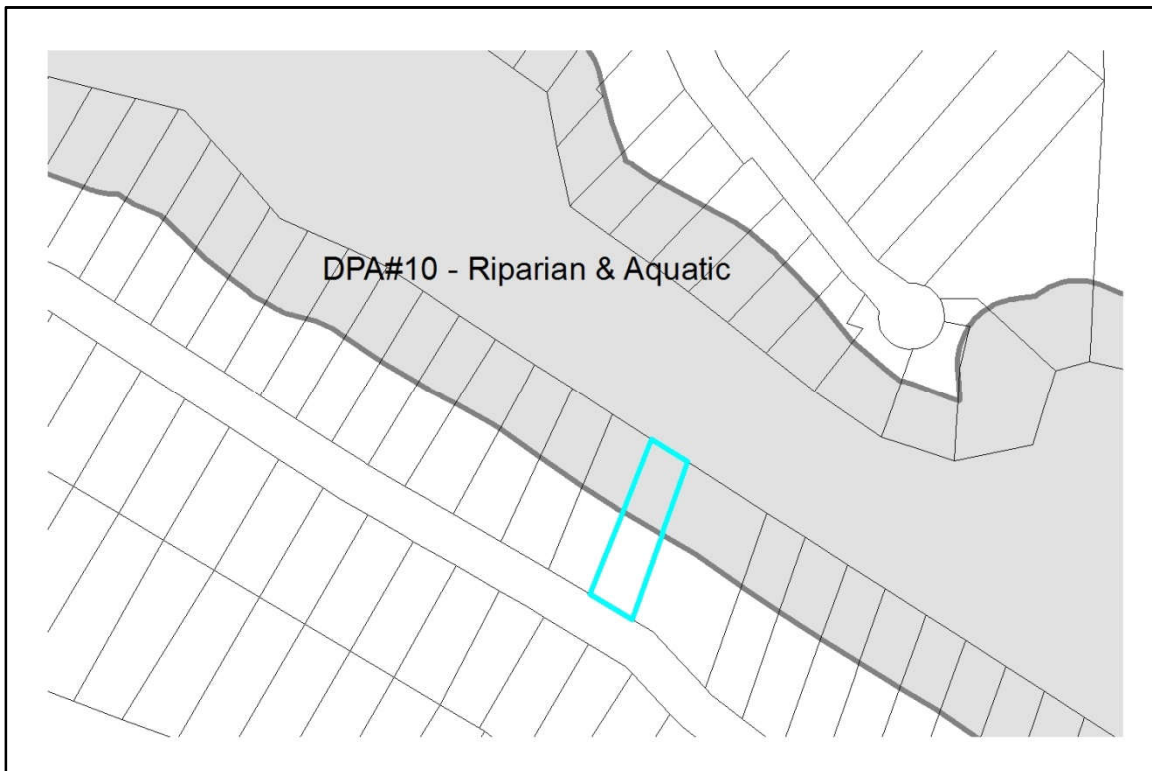
ATTACHMENT 2.1 BIOLOGIST'S SITE PLAN



ATTACHMENT 2.2 ORTHOPHOTO



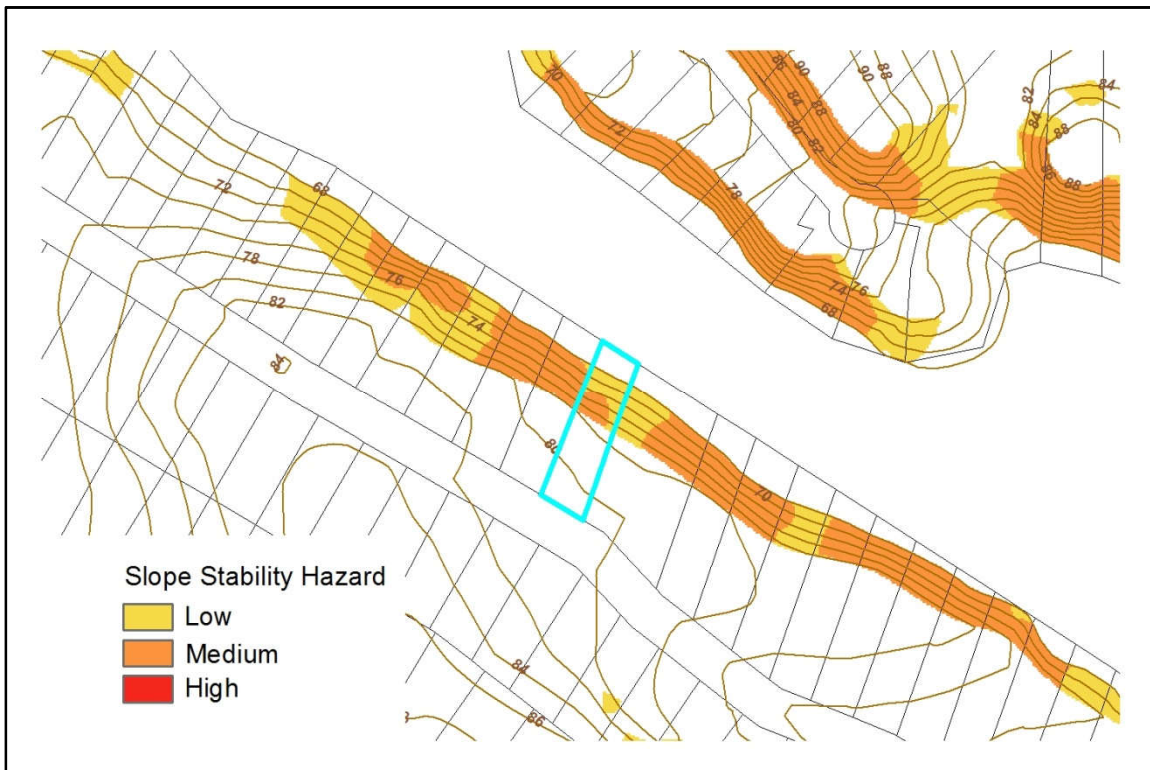
ATTACHMENT 2.3 DEVELOPMENT PERMIT AREA



ATTACHMENT 2.4 ZONING



ATTACHMENT 2.5 STEEP SLOPE MAPPING



ATTACHMENT 3: Riparian and Aquatic DPA Checklist: NP-DP-2016.9 (Lundie) -New Dwelling and Deck

Guidelines	Comments
1. In general, all development in this DPA should be undertaken in a manner that minimizes impacts on the riparian area and on aquatic ecosystems, including from the application of pesticides and other chemicals for non-essential cosmetic purposes. Where a QEP has made recommendations for mitigation measures, enhancement or restoration in order to lessen impacts on the riparian area and aquatic ecosystems, the LTC may impose permit conditions, including a requirement for security in the form of an irrevocable letter of credit, to ensure the protection of riparian areas and aquatic ecosystems, consistent with the measures and recommendations described in the report.	<i>Riparian Areas Regulations</i> (RAR) Assessment Report was prepared by Dave Gooding, P.Eng. of Caurinus Environmental and submitted to the province November 14, 2016). The provincial Ministry of Forests, Lands and Natural Resources Operations (FLNRO) confirmed that it does not comply with the RAR methodology on November 15, 2016. QEP has certified that following recommendations will safeguard damage to fish habitat. Conditions based on recommended measures in RAR Assessment Report have been placed in draft DP for <i>Planting, Tree Protection, Protection of SPEA Construction Management, Sediment, Erosion Control, Stormwater Management, Security and Monitoring.</i>
2. The development permit should not allow any development activities to take place within any Streamside Protection and Enhancement Area (SPEA) identified by the QEP, and the owner should be required to implement a plan for protecting the SPEA over the long term through measures that may be implemented as conditions of the development permit.	Complies – dwelling is outside of SPEA established by QEP.
3. Where the QEP report describes an area as suitable for development with special mitigating measures, the development permit should only allow the development to occur in compliance with the measures described in the report. Monitoring and regular reporting by a QEP at the applicant's expense may be required during construction and development phases, as specified in a development permit.	Conditions in draft DP.
4. The following guidelines are applicable to floats and associated structures within the development permit area:	N/A

Guidelines	Comments
i) floats should not be placed in areas identified as important to fish life processes where installation of a float would compromise the functioning of the feature; ii) a ramp or float should not rest on the bed of the water body; iii) the use of treated wood in the waterbody should be avoided; iv) floatation material should be contained within a durable shell to prevent disintegration; v) semi-transparent surfacing should be used on ramps and floats (e.g. grating or separated boards); vi) any areas disturbed during installation should be restored; vii) where a float is being replaced, all old materials should be removed.	
5. If the nature of the proposed project in a riparian assessment area or the surface of a waterbody changes after the QEP report has been prepared such that it is reasonable to assume that the QEP's assessment of the impact of the development may be affected, the LTC may require the applicant to have the QEP update the assessment at the applicant's expense and DP conditions may be revised accordingly.	N/A
6. The LTC may consider variances to subdivision or siting or size regulations where the variance may result in enhanced protection of the SPEA or aquatic ecosystem in compliance with recommendations of a QEP report.	N/A

FORM 1

Riparian Areas Regulation - Qualified Environmental Professional - Assessment Report

Riparian Areas Regulation: Assessment Report

Please refer to submission instructions and assessment report guidelines when completing this report.

Date 2016-09-23

I. Primary QEP Information

First Name	David	Middle Name	Douglas
Last Name	Gooding		
Designation	P.Eng.	Company	Gooding Hydrology
Registration #	22102	Email	dgooding@saltspring.com
Address	681 Rainbow Rd		
City	Saltspring Island	Postal/Zip	V8K 2M6
Prov/state	B.C.	Country	Canada
		Phone #	250 538-1869

II. Secondary QEP Information (use Form 2 for other QEPs)

First Name		Middle Name	
Last Name			
Designation		Company	
Registration #		Email	
Address			
City		Postal/Zip	
Prov/state		Country	
		Phone #	

III. Developer Information

First Name	Mark & June	Middle Name	
Last Name	Lundie		
Company			
Phone #	604 2778544	Email	markjune@shaw.ca
Address	1-4109 Garry St		
City	Richmond	Postal/Zip	V7E 2T9
Prov/state	BC	Country	Canada

IV. Development Information

Development Type	Construction, single residential		
Area of Development (ha)	0.01	Riparian Length (m)	19.6
Lot Area (ha)	0.162	Nature of Development	new
Proposed Start Date	2016-09-01	Proposed End Date	2016-12-31

V. Location of Proposed Development

Street Address (or nearest town)	4858 Pirates Road		
Local Government	Capitol Regional District	City	N Pender Island
Stream Name	Pender (Magic) Lake		
Legal Description (PID)	Lot 61 Sect 8 Pender Isl, Cowichan Dist Plan 20817 (PID 003-600-661)	Region	1
Stream/River Type	Lake	DFO Area	South Coast
Watershed Code	925-258000-88400 wtrbdy iden 00052VCT		
Latitude	48	45	40.1
Longitude	123	17	04.2

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Section 1. Description of Fisheries Resources Values and a Description of the Development proposal

Pender (Magic) Lake is an approximately 12.9 ha lake dammed at the outlet and used as a reservoir by Magic Lake Estates. It has a resident rainbow trout population according to FISS records giving observations from 1993 to 2006, and according to the Islands Trust's 2010 report "N & S Pender Island RAR Stream Identification" done by Madrone Environmental Services Ltd. The lot is located on the southwest shore of the narrower (approx 90 wide) central portion of the lake. There is a patch of lily pads along the eastern part of the shoreline, but no LWD shelter. (Photo 1).

The outlet from Magic Lake is through Swimming Hole Park Creek, running from the SE corner of the lake by the dam to the ocean. The Madrone report gives colloquial sources indicating that while there may be some spawning in the lower reach of a small inlet creek (Danny Martin Creek) at the NW corner of Magic Lake, most probably occurs in the upper 10% gradient reach of the outlet stream between the lake and Pirates Rd. This report states that while trout can move down from Magic Lake through the full stream length to the ocean, passage upstream is blocked by a 40% step pool reach which begins around 40 m from the ocean, and a series of waterfalls from 1.5 to 6 m high in the middle ravine reach.

Existing riparian vegetation consists of a continuous strip of mainly alder deciduous trees 2 to 3 m wide along the shore, (photo 1) with a single row of young (0.2 to 0.35 m diameter) Douglas Fir behind the deciduous, giving a combined deciduous/fir unbroken treed riparian width of between 3 to 5 m from the shoreline. These relatively young fir trees and a few cedar continue in a 2 to 6 m wide strip along both sides of the lot back to the 30 m assessment boundary. A driveway has been cleared and constructed (photo 2) from Pirates Rd down to a cleared and grassed 14 m wide opening, the planned building site, in approximately the center of the lot (photo 3). When the building site was cleared and levelled, a slight cut was made into the upslope hillside, and the material used to fill on the lake side, to bring the levelled area to within approximately 20 m of the shoreline. Some fill spilled down towards the shoreline, which was cleared of trees down to the single row of fir behind the lakeshore deciduous. While this slope and the building site have grassed in, there is no tree or shrub regeneration on this slope yet. (photo 4). This planned future building site has been used in the years since it was constructed as lawn, RV parking and camping. Access to the lake has been by random pathways down the grassed slope to a break in the deciduous shore growth near the west boundary.

Proposed development is an improvement of the driveway, (outside of the RAR assessment 30 m) and construction of a single residence as a vacation home on the existing cleared pad near the center of the lot. Proposed schedule is to begin construction in October 2016. Completing work by March 2017.

Permanent SPEA fencing, temporary tree/root protection fencing, and silt fencing will be constructed prior to residence construction or earth works. Planting of Douglas Fir (at 2.5 m spacing) on the grassed slope between the SPEA fence and the thin 3 to 5 m existing riparian vegetation along the lake will be done during the winter wet season, to allow some establishment before the next dry season. To protect this planting, and to prevent the past usage of this slope randomly for lake access, a permanent 0.6 m wide pathway will be established using permeable gravel. The least impact route for this path is through a gate near the east end of the fence, down slope through and by the existing trees along the east boundary for around 10 m, then angling down across the lower slope towards the west side, through and beside the fir trees already growing near the lake. This route is shown on the site plan.

Section 2. Results of Simple Riparian Assessment

Date: 2016-08-29

Stream	
Wetland	
Lake	X
Area	

Potential Riparian Width(m)

12	I, <u>David D Gooding P.Eng.</u> , hereby certify that: a) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the <i>Fish Protection Act</i> ; b) I am qualified to carry out this part of assessment of the development proposal made by the developer <u>Mark & June Lundie</u> ; c) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and d) In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation.
30	
30	
30	
22	
30	
24	
14	
23	
15	
23	
23	

Existing or Potential Vegetation Category 2

Fish bearing Yes No**

X

**If non fish-bearing, insert non-fish bearing status report

	I, <u>David D Gooding P.Eng.</u>, hereby certify that: a) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the <i>Fish Protection Act</i>; b) I am qualified to carry out this part of the assessment of the development proposal made by the developer <u>Mark & June Lundie</u> ; c) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and d) In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation.
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Stream Flow Permanent Non Permanent*

X

*If non permanent flow, indicate how this was determined?

	I, <u>David D Gooding P.Eng.</u>, hereby certify that: a) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the <i>Fish Protection Act</i>; b) I am qualified to carry out this part of the assessment of the development proposal made by the developer <u>Mark & June Lundie</u> ; c) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and d) In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation.
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SPEA Width (m) 22

Comments

At present the subject lot has only a 3 to 5 m wide continuous treed riparian strip along the lake, with thin strips along the sides to 30 to 35 m. It would be desirable to have trees planted behind this continuous strip lakeside 3 to 5 m to widen the continuous treed riparian area.

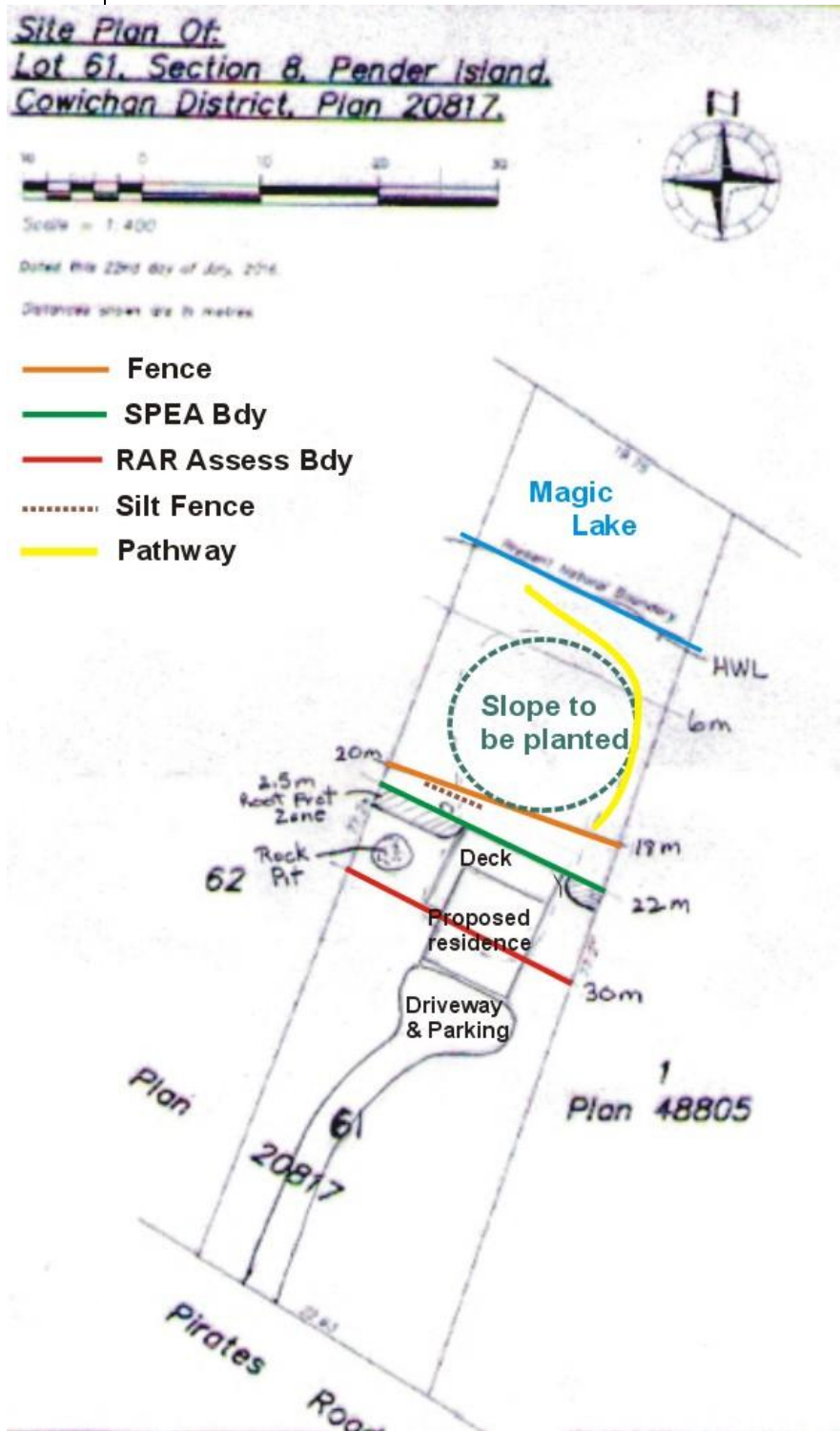
While the average potential riparian width, as calculated by the average of distances to permanent structures at 40 m intervals along 400 m is 23 m, most of the lots along the shore are cleared and developed to less than 10 m from the shore, with thin treed strips along the lots' sides going back 30 m. As homes are all built on these lots, and existing development grandfathered, this will be unlikely to change. By the written descriptions in table 2-4 of existing or potential streamside vegetation conditions, this indicates a vegetation category of between category 2 and category 3.

If the category 2 maximum SPEA of 30 m is used, the development will all be outside of the RAR assessment area, and outside of the CRD 30 m Development Permit Area 10. The developer will then totally re-plan the development, supply a letter to the CRD stating all development is outside the 30 m DPA10, the RAR assessment will not be required, and the cleared and grassed area between 5 m and 30 m from the lake will continue to be used as a grandfathered lawn and camping area. To enable requiring planting of the steeper portion of the grassed area between the flattened planned building site and the thin continuous 5 m treed strip by the lake, SPEA is set at 22 m, ~2 m back from the brow of the slope, between the flat grassed area and the steeper slope to the lake.

Orthophoto showing assessment area



Section 3. Site Plan



Section 4. Measures to Protect and Maintain the SPEA

1. Danger Trees	There are no Danger Trees within the 30 RAR assessment area.
I, <u>David D Gooding P.Eng.</u>, hereby certify that: a) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the <i>Fish Protection Act</i>; b) I am qualified to carry out this part of the assessment of the development proposal made by the developer <u>Mark & June Lundie</u> ; c) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation	
2. Windthrow	Many of the trees on the lot show some wind damage to the tops. This would indicate periodic exposure to high winds. Trees appear well rooted and able to withstand winds which are strong enough to damage tops. Partial clearing behind the SPEA will not increase significantly windthrow risk to the SPEA. Planting of trees on the steeper grassed slope between 5 and 22 m from the lake will eventually significantly reduce that windthrow risk.
I, <u>David D Gooding P.Eng.</u>, hereby certify that: a) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the <i>Fish Protection Act</i>; b) I am qualified to carry out this part of the assessment of the development proposal made by the developer <u>Mark & June Lundie</u> ; c) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation	
d. Slope Stability	There is some slow surface erosion on the steeper (~50%) grassed fill slope in front of the flattened planned building site, due to occasional foot traffic down to the lake, which follows no established path. Fencing off of this steeper slope, and planting of trees on this steeper grassed slope will reduce any surface disturbance and increase the overall stability of the fill slope.
I, <u>David D Gooding P.Eng.</u>, hereby certify that: a) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the <i>Fish Protection Act</i>; b) I am qualified to carry out this part of the assessment of the development proposal made by the developer <u>Mark & June Lundie</u> ; c) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation	
e. Protection of Trees	To protect the roots of the existing trees near the SPEA boundary, there will be no excavation within 2.5 m of trees in either of the strips of trees in the SPEA along the W and E sides of the property. Temporary fencing will be erected to prevent excavation or materials storage in that area.
I, <u>David D Gooding P.Eng.</u>, hereby certify that: a) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the <i>Fish Protection Act</i>; b) I am qualified to carry out this part of the assessment of the development proposal made by the developer <u>Mark & June Lundie</u> ; c) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation	
d. Encroachment	A permanent fence will be constructed across the lot between 20 m from the shoreline on the W side of the property to 18 m from the lake on the E side, as staked, at

Form 4 Simple Assessment Form
Riparian Areas Regulation - Qualified Environmental Professional - Assessment Report

	the brow of the steeper slope. The previously cleared area between the fence and the narrow treed riparian strip by the lake will be planted. The 2 to 4 m between the fence and the staked SPEA boundary at 22 m can continue to be used as grandfathered lawn.
I, <u>David D Gooding P.Eng.</u>, hereby certify that: a. I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the <i>Fish Protection Act</i>; b. I am qualified to carry out this part of the assessment of the development proposal made by the developer <u>Mark & June Lundie</u> ; c. I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation	
e. Sediment and Erosion Control	The slope and flattened area is well drained, so little overland flow should occur during rainfall. However, in case of an extreme event during construction a 3 m long silt fence should be placed, along the permanent fence, across the low point of the brow of the slope, as shown on the site plan, approx 8 to 10 m from the W property line.
I, <u>David D Gooding P.Eng.</u>, hereby certify that: a. I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the <i>Fish Protection Act</i>; b. I am qualified to carry out this part of the assessment of the development proposal made by the developer <u>Mark & June Lundie</u> ; c. I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation	
d. Stormwater Management	An infiltration rock pit for roof drainage should be located on the W side of the proposed building site, approximately 26 to 28 m from the lake, outside the SPEA and root protection zone.
I, <u>David D Gooding P.Eng.</u>, hereby certify that: a. I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the <i>Fish Protection Act</i>; b. I am qualified to carry out this part of the assessment of the development proposal made by the developer <u>Mark & June Lundie (name of developer)</u> ; c. I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation	
e. Floodplain Concerns (highly mobile channel)	There are no flooding concerns at the approx 10 m height of the foundations above HWL
I, <u>David D Gooding P.Eng.</u>, hereby certify that: f. I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the <i>Fish Protection Act</i>; g. I am qualified to carry out this part of the assessment of the development proposal made by the developer <u>Mark & June Lundie</u> ; h. I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation	

Section 5. Environmental Monitoring

Prior to residence construction and earth works, the permanent fence and the temporary root protection fences will be constructed, and the silt fence in place. Construction can proceed when the monitor confirms these are in place. Communication with the monitor will be made prior to pouring concrete, to confirm that no significant rainfall is forecast to occur within 48 hours after any concrete pour.

Monitor is to be contacted before the end of February to confirm that planting of DF on the slope has been done. Once all construction has been completed, a site visit and post-construction report by the monitor will be required to confirm that all RAR related measures have been completed.

Section 6. Photos

Photo 1: Shoreline of lot from near NW corner

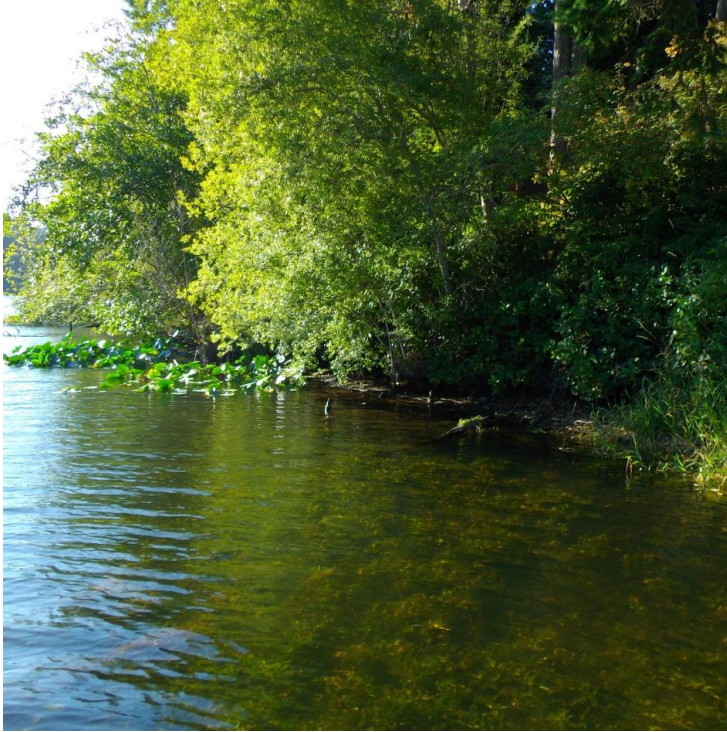


Photo 2: From top of driveway down to cleared flattened original planned building site



Photo 3: From driveway across flattened building site



Photo 4: From 22 m SPEA bdy down across grassed fill slope to thin treed riparian strip



Section 7. Professional Opinion

Assessment Report Professional Opinion on the Development Proposal's riparian area.

Date 2016-09-23

1. I/We David D Gooding P.Eng.

hereby certify that:

- e) I am/We are qualified environmental professional(s), as defined in the Riparian Areas Regulation made under the *Fish Protection Act*;
- f) I am/We are qualified to carry out the assessment of the proposal made by the developer Mark & June Lundie, which proposal is described in section 3 of this Assessment Report (the "development proposal"),
- g) I have/We have carried out an assessment of the development proposal and my/our assessment is set out in this Assessment Report; and
- h) In carrying out my/our assessment of the development proposal, I have/We have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation; AND

2. As qualified environmental professional(s), I/we hereby provide my/our professional opinion that:

- a) ☒ if the development is implemented as proposed by the development proposal there will be no harmful alteration, disruption or destruction of natural features, functions and conditions that support fish life processes in the riparian assessment area in which the development is proposed, **OR**

(Note: include local government flex letter, DFO Letter of Advice, or description of how DFO local variance protocol is being addressed)

- b) if the streamside protection and enhancement areas identified in this Assessment Report are protected from the development proposed by the development proposal and the measures identified in this Assessment Report as necessary to protect the integrity of those areas from the effects of the development are implemented by the developer, there will be no harmful alteration, disruption or destruction of natural features, functions and conditions that support fish life processes in the riparian assessment area in which the development is proposed.

Request for review has been submitted to Fisheries and Oceans Canada

ATTACHMENT 5 - DFO E-MAIL

Mark and June Lundie
1-4109 Garry Street
Richmond, BC

Dear Mr. and Mrs. Lundie:

Subject: Serious harm to fish can be avoided or mitigated

The Fisheries Protection Program (the Program) of Fisheries and Oceans Canada received your proposal on September 29, 2016.

Based on the information provided, your proposal has been identified as a project where a Fisheries Act authorization is not required given that serious harm to fish can be avoided by following standard measures.

Proposals in this category are not considered to need an authorization from the Program under the Fisheries Act in order to proceed. In order to comply with the Act, it is recommended that you follow our guidance tools which can be found at the following website (<http://www.dfo-mpo.gc.ca/pnw-ppe/measure-mesures/index-eng.html>). It remains your responsibility to meet the other requirements of federal, provincial and municipal agencies.

Should your plans change or if you have omitted some information in your proposal such that your proposal meets the criteria for a site specific review, as described on our website (<http://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html>), you should complete and submit the request for review form that is also available on the website.

Should you have any questions or concerns about the compliance of your proposal with the Fisheries Act (and/or those prohibitions of the Species at Risk Act that apply to listed aquatic species)*, you may wish to engage an environmental professional familiar with measures to avoid impacts to fish and fish habitat (<http://www.dfo-mpo.gc.ca/pnw-ppe/env-pro-eng.html>).

Sincerely,

Michael Engelsjord, B.Sc., R.P.Bio.

Team Leader, Fisheries Protection Program / Ecosystem Management Branch Fisheries and Oceans Canada /
Government of Canada Michael.Engelsjord@dfo-mpo.gc.ca / Tel. : 604-666-2365

Chef d'équipe, Programme de protection des pêches / Direction des écosystèmes Pêches et Océans Canada /
Gouvernement du Canada Michael.Engelsjord@dfo-mpo.gc.ca / Tél. : 604-666-2365



PROPOSED

NORTH PENDER ISLAND LOCAL TRUST COMMITTEE DEVELOPMENT PERMIT NP-DP-2016.9

To: Mark and June Lundie
c/o Marc Brown

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

Lot 61, Section 8, Pender Island, Cowichan District, Plan 20817
PID: 003-600-661

2. This Development Permit NP-DP-2016.9 authorizes the construction of a dwelling and a deck within Development Permit Area ("DPA") 10 – Riparian and Aquatic Development Permit Area, subject to the following requirements and conditions:

Planting

- a. Planting of Douglas Fir trees within the Streamside Protection and Enhancement Area (SPEA) in the area delineated as 'Planting Area on Schedule 'A' & 'B' shall be at a spacing of 2.5 metres and in accordance with Schedule 'C' 'Planting Schedule', attached to and forming part of this permit.
- b. The planting cited in a. (above) shall take place in the wet winter months to allow tree establishment, and shall be done under the supervision of the monitoring Qualified Environmental Professional (QEP).
- c. All trees shall be watered regularly for the first year after planting.
- d. Landscaping and restoration of natural areas within the DPA other than specified herein should include only native species.
- e. The on-going removal of invasive species, such as Scotch broom and spurge-laurel is recommended.

Tree Protection

- f. All trees shall be retained and native plant species shall remain undisturbed within the SPEA delineated on Schedules 'A' & 'B', attached to and forming part of this permit.
- g. The area delineated as 'Planting Area' on Schedule 'A' shall be protected by a continuous temporary fence enclosure of a height and design sufficient to protect the area from deer foraging.
- h. The fencing cited in g. shall remain in place until the plantings have matured.
- i. Any dead trees ("snags") shall be left in the SPEA to provide habitat.
- j. Required tree removal for the construction of the dwelling shall not be undertaken during the annual peak bird breeding season between April 1st and July 31st

Protection of SPEA

- k. A permanent barrier, or vegetated hedge using native plant species, is to be erected along the SPEA boundary in the location delineated on Schedules 'A' and 'B'.
- l. The fencing cited in k. (above) shall be installed under the supervision of the supervising QEP, and shall not incorporate untreated wood materials.
- m. For clarity, an unpaved footpath for access across the SPEA to the foreshore is to be developed to a maximum width of 0.8 m under the supervision of the monitoring QEP.

Construction Management

- n. All contractors and construction personnel are to be notified of the SPEA location and the conditions of this Development Permit.
- o. There must be no encroachment into the SPEA by heavy equipment or machinery.
- p. Prior to arrival, hired contractors should wash and inspect all vehicles and equipment to ensure invasive plant seeds are not transported onto the subject property.
- q. Prior to leaving, hired contractors should inspect all vehicles and equipment to ensure invasive plant seeds are not transported off of the subject property.
- r. There must be no deposition into the SPEA of any materials from the construction process such as rock, soil or vegetation.
- s. A spill control kit shall remain on site for the entire construction period.

Sediment and Erosion Control

- t. All necessary measures to protect the water quality and fish habitat must be used by the property owners and contractors through the construction process, specifically:
 - i. Prior to commencing construction, the area outside of the building footprint, to the north and for the width of the property, shall be delineated with temporary fencing and silt fencing shall be installed to the extent prescribed by the monitoring QEP and in accordance with Schedule 'D' , attached to and forming part of this permit.
 - ii. Any soils exposed or deposited for a period of greater than two (2) weeks shall covered and maintained by means of tarps in good repair and/or hydromulch (without seeds).

Stormwater Management

- u. During construction and when construction is completed, all stormwater drainage and rain water collection from the dwelling must be directed away from the SPEA to the rock pit identified on Schedules 'A' and 'B' or toward the Pirates Road.

Security

- v. Pursuant to Section 502 of the Local Government Act, the Local Trust requires security to ensure that any conditions respecting tree planting, fencing and/or restoration of habitat in the SPEA are satisfied:
 - i. Where the Local Trust Committee considers that a condition in the permit respecting tree planting, fencing or restoration of habitat in the SPEA has not been satisfied the Local Trust Committee may undertake and complete the works required to satisfy the restoration condition, at the cost of the permit holder, and may apply the security in payment of the cost of the works with any excess to be returned to the permit holder.
 - ii. Any interest earned on the security provided under Condition 2.v.iii shall accrue to the permit holder and be paid to them immediately on return of the security or, on default, become part of the amount of the security.

- iii. The security provided by the permit holder shall be in the form of:
 - a. An irrevocable letter of credit with a clause for automatic renewal, or cash equivalent;
 - b. Payable to the Islands Trust; And,
 - c. In the amount of 125% of the quoted landscaping cost totalling \$XXXX based upon the cost estimate provided by _____ received Date, 2016.
- iv. Where the development authorized by this permit has been completed or the permit has lapsed prior to commencement of any work pursuant to this permit, the security shall be returned to the permit holder, minus any funds still required to satisfy the Condition 2.v.i of this permit, provided that the conditions have been met.

Monitoring

- w. The monitoring QEP shall prepare and submit to the Islands Trust written confirmation of compliance with all conditions with this permit as issued within one (1) month of the development work being completed.
3. Any further development within designated Development Permit Areas will require a new Development Permit, or a Development Permit Amendment.
 4. This Permit does not remove any obligation on the Permittee to obtain other approvals or obligations necessary for the lawful completion of the proposed development.
 5. 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.
 6. This permit does not relieve the applicant from complying with the provisions of the North Pender Island Land Use Bylaw unless varied by this Permit.

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. 103, 1996 and to obtain other approvals necessary for completion of the proposed development.

AUTHORIZING RESOLUTION PASSED BY THE NORTH PENDER ISLAND LOCAL TRUST COMMITTEE, THIS rd DAY OF , 2016.

_____, 2016
 Deputy Secretary, Islands Trust Date Issued

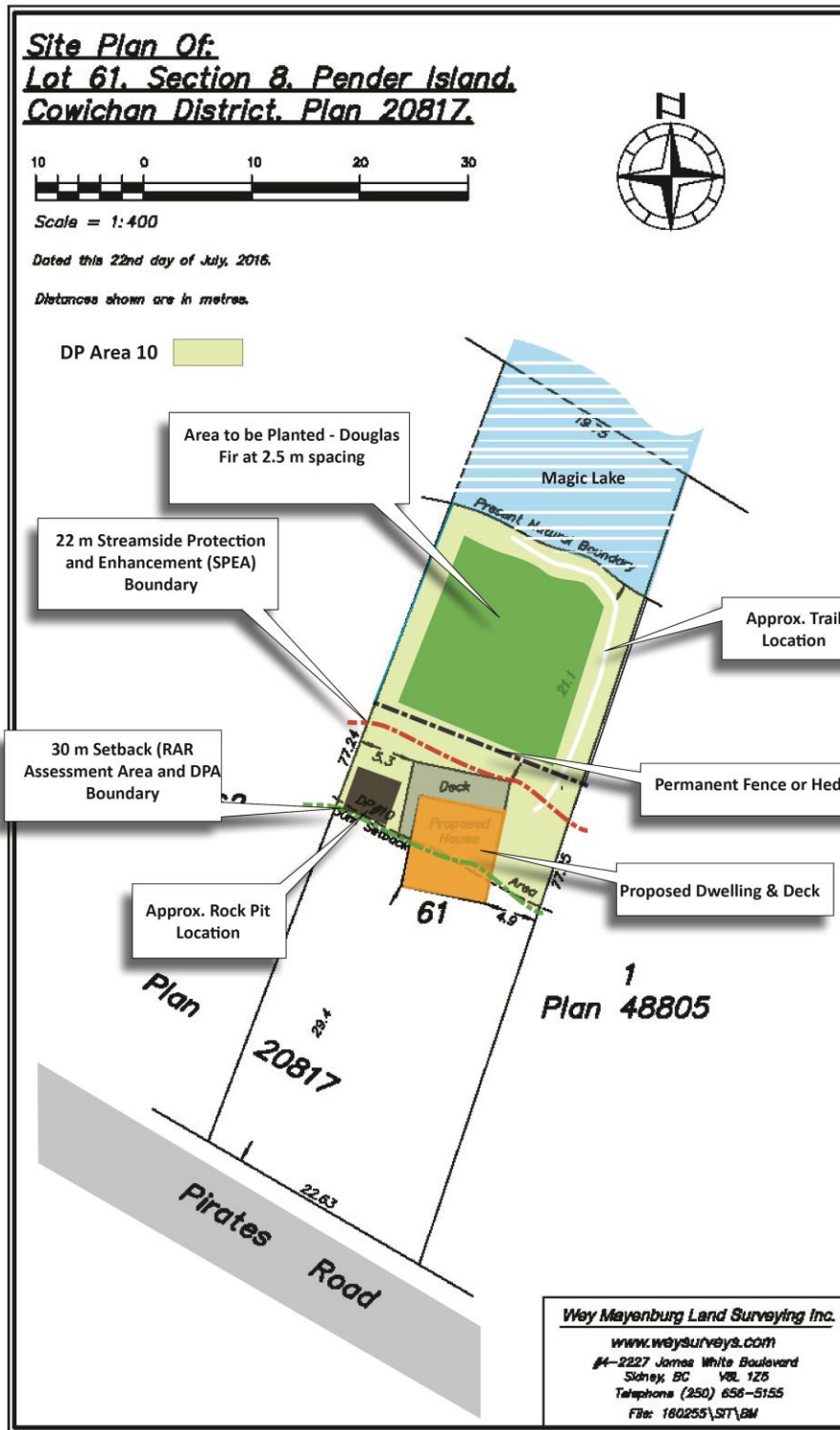
IF THE DEVELOPMENT HEREIN IS NOT COMMENCED BY THE ##th DAY OF MONTH, 201# THIS PERMIT AUTOMATICALLY LAPSES.

NORTH PENDER ISLAND LOCAL TRUST COMMITTEE

DEVELOPMENT PERMIT 2016.9

Schedule "A"

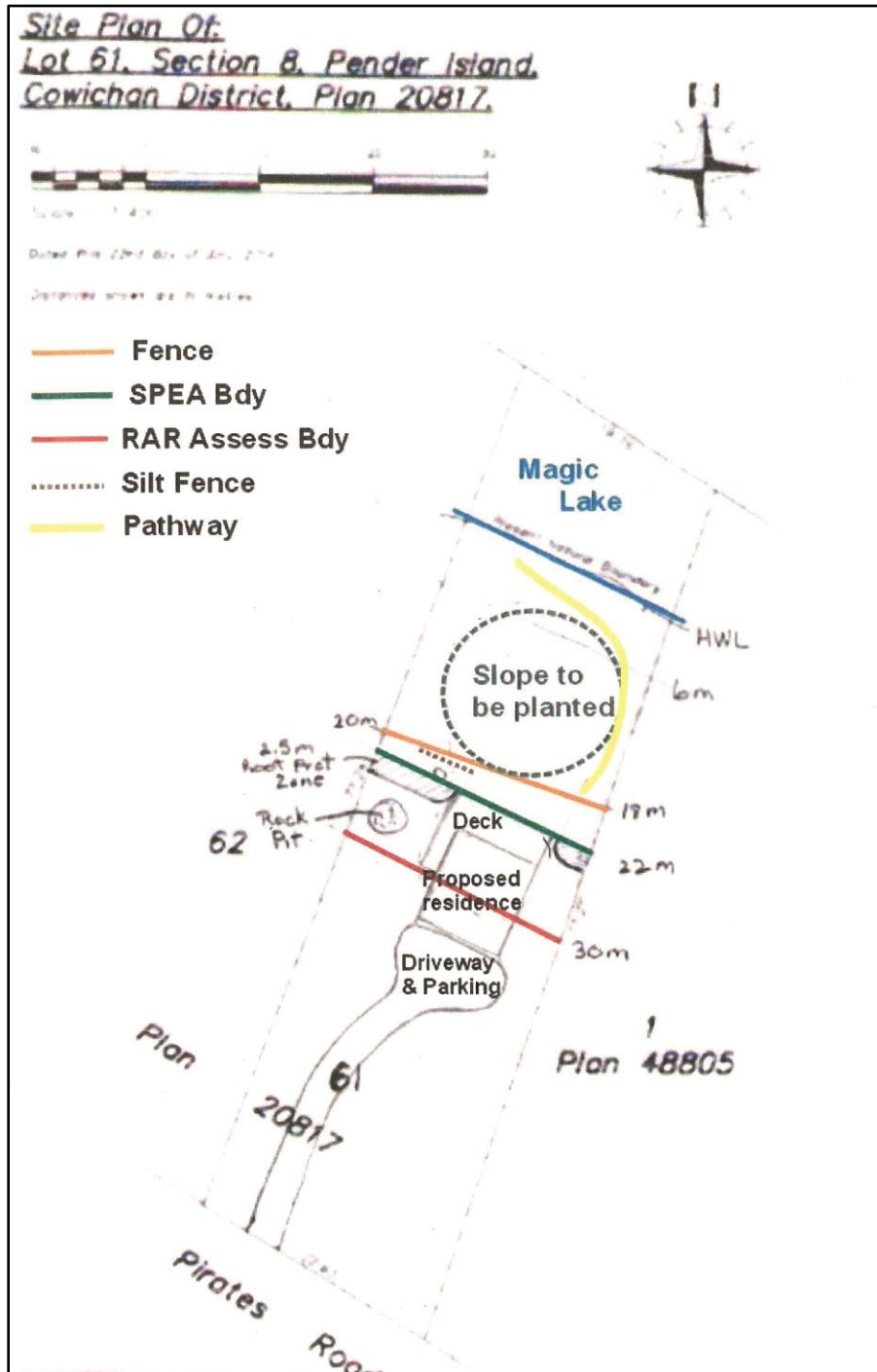
Site Plan



NORTH PENDER ISLAND LOCAL TRUST COMMITTEE

DEVELOPMENT PERMIT 2016.9
Schedule "B"

Biologist's RAR Map



NORTH PENDER ISLAND LOCAL TRUST COMMITTEE

**DEVELOPMENT PERMIT 2016.9
Schedule "C"**

Planting Schedule

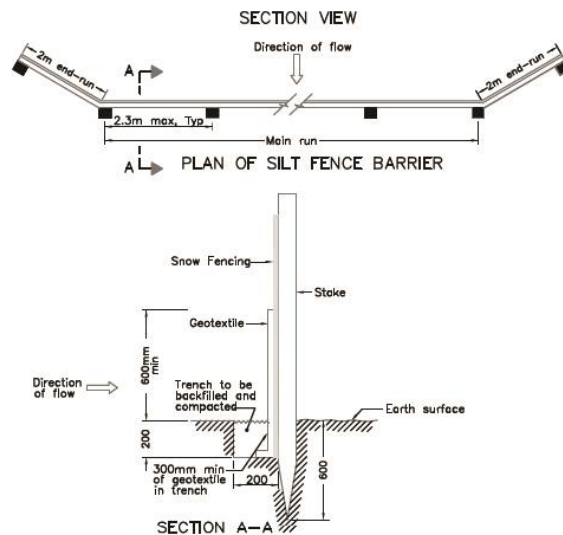
NORTH PENDER ISLAND LOCAL TRUST COMMITTEE

DEVELOPMENT PERMIT 2016.9 Schedule "D"

Erosion and Sedimentation Control Measures

EROSION AND SEDIMENTATION

- 1) PRE-STAKED SILT FENCE TO BE INSTALLED AS SHOWN PRIOR TO CONSTRUCTION AS DIRECTED BY THE ENGINEER.
- 2) TOPSOIL STRIPPED FOR REUSE TO BE STOCKPILED AWAY FROM WATER COURSES, DRAINAGE PATHS AND PROPERTY AND SHALL BE COVERED AND / OR SEEDED TO REDUCE EROSION.
- 3) ALL DISTURBED AREAS TO BE RESTORED AND LANDSCAPED AS SOON AS POSSIBLE FOLLOWING CONSTRUCTION.
- 4) ALL EROSION AND SEDIMENT CONTROL MEASURES TO BE INSPECTED AND MAINTAINED ON A REGULAR BASIS THROUGHOUT THE COURSE OF CONSTRUCTION BY THE CONTRACTOR. THE QUALIFIED ENVIRONMENTAL MONITOR (QEM) JOHN GRODS SHALL HALT PROGRESS OF ANY AND ALL WORK AND SHALL DIRECT CONTRACTOR TO REPAIR / ALTER CONSTRUCTION MITIGATION MEASURES IF THEY ARE NOT PERFORMING ADEQUATELY.



NOTE:

All dimensions are in millimetres or metres unless otherwise shown.

SILT FENCE WITH SNOW FENCE DETAIL

NTS