

FORM 1

Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

**Riparian Areas Protection Regulation: Assessment Report**

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

Date

**I. Primary QEP Information**

First Name	Brittany		Middle Name	May	
Last Name	Brooks				
Designation	R.P. Bio		Company	Brooks Environmental	
Registration #	4080		Email	b.brooksenvironmental@gmail.com	
Address	PO Box 1238				
City	Lake Cowichan	Postal/Zip	V0R2G0	Phone #	250-701-3092
Prov/state	BC	Country	Canada		

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

First Name	Robert		Middle Name		
Last Name	Crandall				
Designation	Environmental ASCT		Company	Swordfern Environmental	
Registration #	27767		Email	rcrandall007@yahoo.com	
Address	PO Box 1354				
City	Lake Cowichan	Postal/Zip	V0R2G0	Phone #	250-715-7074
Prov/state	BC	Country	Canda		

**III. Developer Information**

First Name	<input type="text" value="Section 22 - Disclosure harmful to personal privacy"/>		Middle Name		
Last Name	<input type="text" value="Section 22 - Disclosure harmful to personal privacy"/>				
Company					
Phone #	<input type="text" value="Section 22 - Disclosure harmful to personal privacy"/>		Email	<input type="text" value="Section 22 - Disclosure harmful to personal privacy"/>	
Address					
City	<input type="text" value="Section 22 - Disclosure harmful to personal privacy"/>	Postal/Zip	<input type="text" value="Section 22 - Disclosure harmful to personal privacy"/>		
Prov/state	<input type="text" value="Section 22 - Disclosure harmful to personal privacy"/>	Country	CANADA		

**IV. Development Information**

Development Type	Construction – Single Family Residential				
Area of Development (ha)	.03	Riparian Length (m)	58.3		
Lot Area (ha)	0.138	Nature of Development	New Construction		
Proposed Start Date	<input type="text" value="2025-06-01"/>	Proposed End Date	<input type="text" value="2026-12-30"/>		

**V. Location of Proposed Development**

Street Address (or nearest town)	<input type="text" value="279 Tal Rd."/>				
Local Government	Town of Lake Cowichan		City	Lake Cowichan	
Stream Name	Cowichan Lake				
Legal Description (PID)	028-497-121		Region	Vancouver Island	
Stream/River Type	Lake		DFO Area	South Island	
Watershed Code	920-257700				
Latitude	48°	49'	00"	Longitude	124° 04' 02"

Completion of Database Information includes the Form 2 for the Additional QEPs, if needed. Insert that form immediately after this page.

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

**Description of Fisheries Resources Values**

The Paul Watson Marsh is located above the property (off the property on the other side of Tal Rd.) It flows downhill through a series of culverts (culvert under Tal Rd., Culvert below property, Culvert under Point Ideal Rd.) and enters Cowichan Lake.

Cowichan Lake (Stream Code: 9202577) is a large, deep, oligotrophic coastal lake. It covers a surface area of 62,043,000 m<sup>2</sup> (576 Ha), has a volume of 3,109,138,000 m<sup>3</sup> and a perimeter of 102,740 m (102.74 km). The shore zone has been divided into 85 reaches and sub-reaches (Burns, 2002)

**Table 1: Cowichan Lake Physical Description**

Elevation	Area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Mean Depth (m)	Max. Depth (m)	Perimeter (m)	Reaches
160 -165	62,043,000	3,109,138,000	50.1	152	102,740	85

Cowichan Lake is utilized by rainbow trout (*Oncorhynchus mykiss*) and cutthroat trout (*Oncorhynchus clarki*), brown trout (*Salmo trutta*), Dolly Varden char (*Salvelinus malma*), Kokanee (*Oncorhynchus nerka*), Chinook salmon (*Oncorhynchus tshawytscha*), and Coho salmon (*Oncorhynchus kisutch*). Chum salmon (*Oncorhynchus keta*) also use the lake on a short-term basis. Threespine sticklebacks and sculpins are also present (*Cottus asper* and *Cottus aleuticus*). The Cowichan Lamprey (*Entosphenus macrostomus*) is also present (Table 2).

Three spine stickleback and Coho salmon are the most at risk from development adjacent to the lake because they depend most on the shore zone habitat.

All juvenile salmonids winter in the shore zone (the inland extent of riparian vegetation and, in most cases, seasonal wetting to the 6 m contour offshore). However, Coho and sticklebacks are present in all but the warmest weather periods when the water temperature exceeds 22°. They are not present in numbers in all habitats, being limited primarily to protected, well-vegetated Class 1 and 2 shores.

The SPEA vegetation consists of an overstory of Red Alder (Most of the trees have broken tops or rot), small Douglas fir, and Red cedar trees. The understory consists of Swordfern, sedge, and salmon berry. The property is heavily overgrown with invasive Scottish broom and Himalayan blackberry which will be removed when the excavation occurs, however an effort should be made to remove the invasive species from the SPEA manually.

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Species	Relative Abundance
Coho salmon	Very abundant in the shore zone between May and July but numbers fluctuate between years and between habitat types, distribution is by no means uniform.
Three – spine stickleback	Very abundant in the shore zone for most of the year
Kokanee	Very abundant but mainly in open water
Cutthroat trout	Abundant. At least two races or forms in the lake.
Rainbow trout	Abundant but slightly less so than cutthroats
Dolly Varden	Formally abundant especially in the west portion of the lake but have declined markedly of late. Now uncommon.
Chinook salmon	Scarce. Very abundant prior to 1950's in the form of early run (June) fish that held in the lake until fall rains then spawned in a number of tributaries.
Chum salmon	Not abundant, spawns in several tributaries in small numbers, total escapement to the lake tributaries is usually less than 1000. Very occasional beach spawning near Youbou. Young are in shore zone from late April to June.
Brown trout	Rare
Cowichan Lamprey	Abundant
Prickly Sculpin	Abundant in the shore zone
Aluetian Sculpin	Common

**Table 2: The fishes of Cowichan Lake and their relative abundance.**

***Description of the Development proposal***

A permeable driveway will be within the 30m RAA and so will the main areas of the house.

The main areas of the single-family residential construction are: main floor, lower floor, There is also a garage and a covered front entry. There is also a deck area. All measurements are found on the site plan and building plans.

There is a 1" clearance to the 7m geotechnical setback and a general 1' 6" from the hutch to the SRW.

The approximate location of the storm water infiltration pit is marked on the site plan as well as the storm drain clean out and sanitary clean out. These requirements are as far away from the watercourse as possible but within the setbacks of the property. A row of boulders is also marked on the site plan showing that the SPEA will be permanently demarcated to prevent encroachment.

***Section 2. Results of Riparian Assessment (SPEA width)***

Attach or insert the Form 3 or Form 4 assessment form(s). Use enough duplicates of the form to produce a complete riparian area assessment for the proposed development

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**2. Results of Detailed Riparian Assessment**

Refer to Section 3 of Technical Manual

Date: 01-29-2024

Description of Water bodies involved (number, type)

Stream, 1

Stream	X
Wetland	
Lake	
Ditch	
Number of reaches	1
Reach #	1

**Channel width and slope and Channel Type (use only if water body is a stream or a ditch, and only provide widths if a ditch)**

	Channel Width(m)	Gradient (%)	
starting point	3.2	29	I, <u>(Brittany Brooks)</u> , hereby certify that: a) I am a qualified environmental professional, as defined in the Riparian Areas Protection Regulation made under the <i>Riparian Areas Protection Act</i> ; b) I am qualified to carry out this part of the assessment of the development proposal made by the developer <u>(Dave Mykle)</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 technical manual to the Riparian Areas Protection Regulation.
upstream	3.1		
	3.3		
	2.5	28	
	2.1		
downstream	2.2		
	2.0		
	1.9		
	1.1		
	1.8	4	
	1.9		
Total: minus high /low mean	20.7		
	2.3		
	R/P	C/P	
Channel Type	x		

**Site Potential Vegetation Type (SPVT)**

	Yes	No	
SPVT Polygons	X		Tick yes only if multiple polygons, if No then fill in one set of SPVT data boxes  I, <u>(Brittany Brooks)</u> , hereby certify that: a) I am a qualified environmental professional, as defined in the Riparian Areas Protection Regulation made under the <i>Riparian Areas Protection Act</i> ; b) I am qualified to carry out this part of the assessment of the development proposal made by the developer <u>(Dave Mykle)</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 technical manual to the Riparian Areas Protection Regulation.
Polygon No:	1		Method employed if other than TR Historically no trees are present in this area because they were either logged or killed off due to seasonal flooding. There is only shrubbery along the length of the riparian
SPVT Type	LC	SH	
			X

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<p>Polygon No: <input style="width: 50px;" type="text"/></p> <p style="text-align: center;">LC      SH      TR</p> <p>SPVT Type <input style="width: 50px;" type="text"/></p> <p>Polygon No: <input style="width: 50px;" type="text"/></p> <p>SPVT Type <input style="width: 50px;" type="text"/></p>	<p>area and it is plentiful. The shrubbery is over 5m tall so the SPVT type remains TR.</p> <p>Method employed if other than TR</p> <p>Method employed if other than TR</p>						
<b>Zone of Sensitivity (ZOS) and resultant SPEA</b>							
Segment No:	1	If two sides of a stream involved, each side is a separate segment. For all water bodies multiple segments occur where there are multiple SPVT polygons					
LWD, Bank and Channel Stability ZOS (m)	7m						
Litter fall and insect drop ZOS (m)	7m						
Shade ZOS (m) max	7m	South bank	Yes	<input style="width: 50px;" type="text"/>	No	<input checked="" type="checkbox"/>	
Ditch	Justification description for classifying as a ditch (manmade, no significant headwaters or springs, seasonal flow)						
Ditch Fish Bearing	Yes	<input style="width: 50px;" type="text"/>	No	<input style="width: 50px;" type="text"/>	If non-fish bearing insert no fish bearing status report		
<b>SPEA maximum</b>	<b>7m</b>	(For ditch use table3-7)					
Segment No:		If two sides of a stream involved, each side is a separate segment. For all water bodies multiple segments occur where there are multiple SPVT polygons					
LWD, Bank and Channel Stability ZOS (m)							
Litter fall and insect drop ZOS (m)							
Shade ZOS (m) max		South bank	Yes	<input style="width: 50px;" type="text"/>	No	<input style="width: 50px;" type="text"/>	
<b>SPEA maximum</b>		(For ditch use table3-7)					
Segment No:		If two sides of a stream involved, each side is a separate segment. For all water bodies multiple segments occur where there are multiple SPVT polygons					
LWD, Bank and Channel Stability ZOS (m)							
Litter fall and insect drop ZOS (m)							
Shade ZOS (m) max		South bank	Yes	<input style="width: 50px;" type="text"/>	No	<input style="width: 50px;" type="text"/>	
<b>SPEA maximum</b>		(For ditch use table3-7)					
I, <u>(Brittany Brooks)</u> , hereby certify that:							
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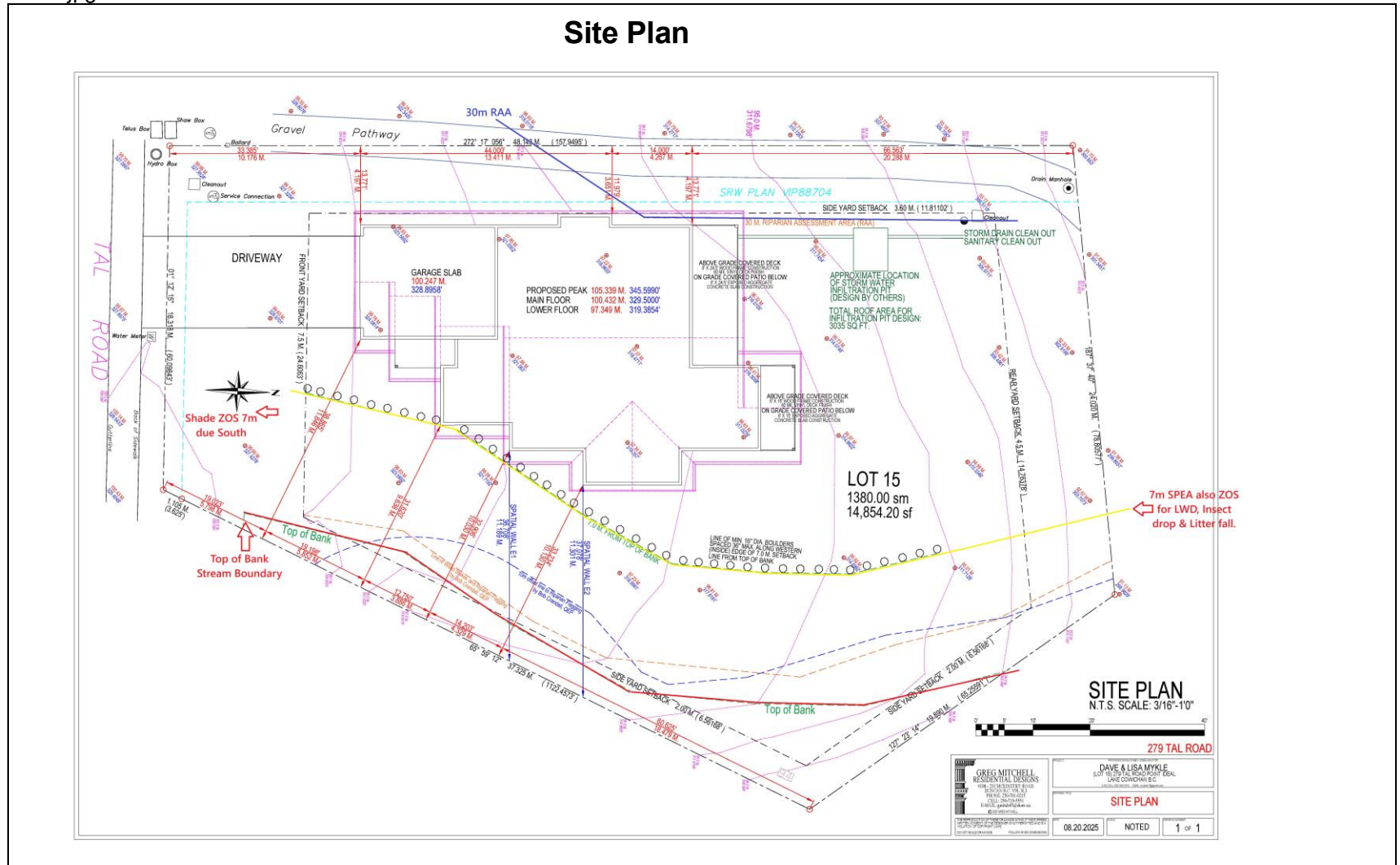
- b) I am qualified to carry out this part of the assessment of the development proposal made by the developer (Dave Mykle);
- c) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and
- d) In carrying out my assessment of the development proposal, I have followed the technical manual to the Riparian Areas Protection Regulation.

**Comments**

The SPEA has been determined to be 7m and lies west of the top of the bank. The stream boundary, TOB, was flagged and measured. Shade ZOS is 7m due south.

**Section 3. Site Plan**

Insert jpg file below





**Section 4. Measures to Protect and Maintain the SPEA**

This section is required for detailed assessments. Attach text or document files, as need, for each element discussed in Part 4 of the RAPR. It is suggested that documents be converted to PDF *before* inserting into the assessment report. Use your “return” button on your keyboard after each line. You must address and sign off each measure. If a specific measure is not being recommended a justification must be provided.

<p>1. Danger Trees</p>	<p>At the time of assessment, there are no danger trees present that would cause any damage to the proposed infrastructure because they are all small red alder and 10-year-old conifer trees. However, before construction begins, an RFP or Certified Arborist should assess the trees' health, as some appear broken and unhealthy.</p> <p>Any woody material generated from tree management measures should remain inside the SPEA. CWD provides potential coverage habitat for wildlife (amphibians). It is also important as it aids in maintaining soil moisture and adds nutrients as it decomposes.</p>
<p>I, <u>Brittany Brooks</u>, hereby certify that:</p> <p>e) I am a qualified environmental professional, as defined in the Riparian Areas Protection Regulation made under the <i>Riparian Areas Protection Act</i>;</p> <p>f) I am qualified to carry out this part of the assessment of the development proposal made by the developer (<u>Dave Mykle</u>);</p> <p>g) 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 Minister's technical manual to the Riparian Areas Protection Regulation.</p>	
<p>2. Windthrow</p>	<p>There is no potential for windthrow events because the property is already cleared of trees, and any remaining trees are within the SPEA. In addition, the trees present have been exposed to windthrow for several years, and there will be no changes to tree abundance or added exposure to winds.</p> <p>The trees are young deciduous saplings and small conifers; based on their age and height, they are less vulnerable to blowdown.</p>
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<p>3. Slope Stability</p>	<p>The site is stable, but there is a gradual slope of 15 - 20% from south to north downhill (see photos) and a slope of 15% from the SPEA line to the stream boundary (West to east downslope). Existing terrain characteristics within the riparian assessment area</p>

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	<p>(RAA) at the subject property are stable throughout, and materials must be excavated to reach bearing ground.</p> <p>At the time of assessment, there was no evidence of sloughing or sidewall slip. No pistol butt trees or erosion issues (rills or gullies).</p>
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<p>4. Protection of Trees</p>	<p>The SPEA flagging has been measured to 7 m from the top of bank. All tree root zones are protected within the SPEA because they are downslope and below the TOB and not within any striking distance from machinery. The property will be excavated and material outside the SPEA will be removed to reach bearing ground.</p> <p>Highly visible orange snow fencing will span the entire SPEA from the south to north property lines. This will prevent any disturbance within the SPEA. Also, a row of boulders will be used to permanently demarcated the SPEA.</p> <p>Given the size and location of the trees, it is highly unlikely a root will reach beyond 7m from the TOB. If a tree root is encountered, all work will be stopped, the incident will be documented, and an arborist will be called to determine if any impacts to the tree have occurred.</p> <p>The excavation will be outside of the SPEA and all roots will be protected within the SPEA boundary.</p> <p>The general principles of the SPEA tree protection will include:</p> <ul style="list-style-type: none"> <li>• The SPEA boundary needs to be clearly identified and designated using orange snow fencing before any construction activities begin.</li> </ul>

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	<ul style="list-style-type: none"> <li>• No materials can be removed from or deposited within the SPEA.</li> <li>• No trees or vegetation can be cut, trimmed, damaged or destroyed within the SPEA boundary.</li> <li>• Any construction activity occurring within the RAA needs to be reviewed and assessed by a QEP and an Arborist, Agronomist, or certified tree faller with up-to-date tree risk assessment certification.</li> </ul> <p>If a tree becomes a hazard tree that presents a threat to property, the owner may remove that tree, provided that the correct procedure is followed. The procedure for removing a dangerous tree is to complete a CVRD Hazardous Tree Removal Application, which needs to be prepared by both a QEP and an Arborist, Agrologist and or Certified Forester with up-to-date tree risk assessment credentials. Provincial Tree Replacement Criteria then must be followed for replacing/replanting of tree/s.</p> <p>There are no proposed activities within SPEA with this development.</p>
<p>I, <u>Brittany Brooks</u>, hereby certify that:</p> <ol style="list-style-type: none"> <li>a. I am a qualified environmental professional, as defined in the Riparian Areas Protection Regulation made under the <i>Riparian Areas Protection Act</i>;</li> <li>b. I am qualified to carry out this part of the assessment of the development proposal made by the developer <u>(Dave Mykle)</u>;</li> <li>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 Minister's technical manual to the Riparian Areas Protection Regulation.</li> </ol>	
<p>5. Encroachment</p>	<p>A sediment/silt fence and orange snow fence will be installed along the TOB line to ensure that existing riparian vegetation is not damaged during construction. All necessary mitigation measures will be implemented to ensure no contaminants are left within the 30m RAA, sediment erosion is not generated into the SPEA, and existing plants are protected inside the SPEA.</p> <p>Following construction, the upslope boundary of the SPEA will be designated, and , a row of boulders will be constructed along the SPEA boundary.</p>

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	<p>A property owner education program will be developed to ensure that any landscaping activity on the property does not adversely affect the SPEA. This will include a covenant on all lots disallowing the planting of commonly recognized noxious plants, invasive species, a strict prohibition on planting exotic plant species within the RAA, and the owners' responsibilities to routinely eradicate any noxious weeds growing on lots, particularly within the RAA.</p>
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<p>6. Sediment and Erosion Control</p>	<p>House construction activity could cause localized erosion at the building site during rain events. Site-specific best management practices and mitigation measures that will be put into place before construction include, but will not be limited to:</p> <ul style="list-style-type: none"> <li>• Surface water runoff will be effectively managed and diverted from the active work site to prevent erosion and potential sediment deposition.</li> <li>• On-site catchment swales will be constructed to collect, contain and filter any surface water that may</li> <li>• Sediment/silt fencing will be installed on the work site's lakeside as directed by the Environmental Monitor/QEP.</li> </ul> <p>All SPEA boundaries will be denoted/demarked with temporary snow fencing before any equipment is brought on-site.</p>
<p>I, <u>Brittany Brooks</u>, hereby certify that:</p> <p>a. I am a qualified environmental professional, as defined in the Riparian Areas Protection Regulation made under the <i>Riparian Areas Protection Act</i>;</p> <p>b. I am qualified to carry out this part of the assessment of the development proposal made by the developer <u>(Dave Mykle)</u>;</p> <p>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 Minister's technical manual to the Riparian Areas Protection Regulation.</p>	
<p>7. Stormwater Management</p>	<p>Soil conditions throughout Point Ideal are highly permeable and capable of stormwater infiltration. Stormwater will be returned to the ground:</p>

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	<ul style="list-style-type: none"> <li>Discharge all rooftop house perimeter drain water to permeable areas (infiltration pit) within property boundaries.</li> </ul> <p>Stormwater runoff from the proposed development activities is expected to be minimal. However, it is important to capture runoff from impervious surfaces. Stormwater management aims to return runoff from impervious surfaces (Rooftops/ paved driveways) to natural hydrological pathways. Managing stormwater and capturing small storm runoff is important to prevent erosion or sediment discharge.</p> <p>The proposed solution to capturing stormwater is to install a rock infiltration pit outside the 10m SPEA. Rain leaders from the rooftop will be directed to perimeter drains that flow to the rock infiltration pit, where water will be absorbed into the ground.</p>
<p>I, <u>Brittany Brooks</u>, hereby certify that:</p> <ol style="list-style-type: none"> <li>I am a qualified environmental professional, as defined in the Riparian Areas Protection Regulation made under the <i>Riparian Areas Protection Act</i>;</li> <li>I am qualified to carry out this part of the assessment of the development proposal made by the developer <u>(Dave Mykle)</u>;</li> <li>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 Minister's technical manual to the Riparian Areas Protection Regulation.</li> </ol>	
<p>8. Floodplain Concerns (highly mobile channel)</p>	<p>There are no floodplain concerns or highly mobile channels. The wetland above the subject property is a low magnitude system that is runoff fed, it also flows under Tal Rd through a culvert.</p>
<p>I, <u>Brittany Brooks</u>, hereby certify that:</p> <ol style="list-style-type: none"> <li>I am a qualified environmental professional, as defined in the Riparian Areas Protection Regulation made under the <i>Riparian Areas Protection Act</i>;</li> <li>I am qualified to carry out this part of the assessment of the development proposal made by the developer <u>(Dave Mykle)</u>;</li> <li>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 Minister's technical manual to the Riparian Areas Protection Regulation.</li> </ol>	

**Section 5. Environmental Monitoring**

Attach text or document files explaining the monitoring regimen Use your "return" button on your keyboard after each line. It is suggested that all document be converted to PDF *before* inserting into the PDF version of the assessment report. Include actions required, monitoring schedule, communications plan, and requirement for a post development report.

**Pre-Construction**  
 A pre-construction meeting will be held with all parties involved to finalize construction plans and confirm that no impacts will occur to protected areas. During this meeting:

- Erosion and Sediment Control (ESC) Best Management Practices (BMPs) will be reviewed.
- Spill Response procedures will be discussed, and a spill kit will be kept on site at all times.
- Installation of a high-visibility barrier fence (orange snow fence) will take place.
- The Streamside Protection and Enhancement Area (SPEA) boundary will be clearly flagged.

**Construction**

- A Qualified Environmental Professional (QEP) / Environmental Monitor (EM) will monitor the site periodically during construction.
- Straw bales will be available on site for supplemental ESC measures, if required.
- Concrete delivery trucks must be equipped with a self-contained washout system, or a designated washout area will be established outside of the SPEA and 30 m RAA, away from slopes and watercourses.
- Sediment fencing will be installed along the 10 m SPEA where feasible, ensuring minimal disturbance to tree roots to maintain bank stability and prevent sediment entry into the creek.

**Post-Construction**

- A post-construction report will be prepared by the QEP/EM, documenting SPEA protection compliance and recommending future actions, as required.
- Temporary ESC structures (sediment fencing, straw bales, barrier fencing, etc.) will be removed upon completion of construction.

**Site Visit & Work Meeting**

A site visit and work meeting with the QEP/EM and primary contractors will occur prior to construction. The objectives are to:

- Confirm that contractors are aware of the environmental protection measures, conditions, and requirements specified in this report.
- Develop a communications plan for responding to environmental incidents or emergencies.

At a minimum, the communications plan will include:

- Contact numbers for the Environmental Monitor.
- Provincial, federal, and municipal emergency contacts (e.g., hydrocarbon spills, water quality issues).

In the event of an emergency, the Environmental Monitor must be contacted immediately. Appropriate procedural responses will then follow.

**Post-Construction Site Visit**

As required under the Riparian Assessment Regulation, a QEP will conduct a post-development site visit and prepare a certification report confirming that all prescribed measures to protect the SPEA were properly implemented.

Submission of this post-development report is a CVRD requirement prior to issuance of an occupancy permit.

**Additional Site Visits**

The need for additional site visits will be discussed during the pre-construction meeting. The communications plan will provide the contact information for the Environmental Monitor, who must be notified in any environmental emergency. Potential triggers for additional site visits include:

- Hydrocarbon spills.
- Generation of sediment-laden runoff into a watercourse or SPEA.
- Damage to existing natural riparian vegetation within the SPEA.
- Precipitation events exceeding 40 mm.

**Monitoring & Reporting Requirements**

The following monitoring and reporting requirements have been established to ensure compliance with the Riparian Areas Protection Regulation (RAPR) and CVRD Development Permit conditions. A Qualified Environmental Professional (QEP) and Environmental Monitor (EM) will oversee implementation of all measures. The table below summarizes the timing, responsible parties, actions, and deliverables required for the project to confirm that all Streamside Protection and Enhancement Area (SPEA) measures are properly implemented, monitored, and documented.

<b>Timing</b>	<b>Responsible Party</b>	<b>Action / Requirement</b>	<b>Deliverable / Documentation</b>
<b>Pre-Construction</b>	QEP / EM & Contractor	Hold pre-construction meeting with all contractors to review construction plans, ESC BMPs, Spill Response, and SPEA protection. Install barrier fence and flag SPEA boundary.	Meeting record; photos of barrier fence & flagging.
<b>Pre-Construction</b>	Contractor	Ensure spill kit is on site. Designate concrete washout area outside SPEA/RAA and away from slopes.	Site plan noting washout location; photo verification.
<b>During Construction</b>	QEP / EM	Periodic monitoring of site to confirm compliance with ESC BMPs and SPEA protection.	Monitoring logs (site visit notes, photos).
<b>During Construction</b>	Contractor	Maintain ESC measures: install straw bales as required; maintain sediment fencing along 10 m SPEA without damaging tree roots.	ESC maintenance record; photo verification.
<b>During Construction</b>	Contractor	Use only self-contained concrete washout systems or designated washout area.	Photo verification; disposal record if applicable.

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<b>During Construction</b>	QEP / EM	Implement communications plan and respond immediately to environmental incidents (e.g., spills, sediment release).	Incident report and response log (if triggered).
<b>Post-Construction</b>	QEP	Conduct post-construction site visit; confirm SPEA measures were followed. Prepare post-development report certifying compliance.	Post-development report submitted to CVRD (required for occupancy permit).
<b>Post-Construction</b>	Contractor	Remove temporary ESC measures (sediment fencing, straw bales, barrier fencing).	Photo verification.
<b>As Needed (Triggers)</b>	Contractor / QEP / EM	Contact QEP/EM if any of the following occur: hydrocarbon spill, sediment-laden runoff, damage to riparian vegetation, precipitation > 40 mm.	Additional monitoring site visit report (if triggered).
<b>Conclusion</b>			
Implementation of the measures outlined above, combined with QEP monitoring and the preparation of a post-development certification report, will ensure that all conditions of this RAPR Assessment are properly implemented. This process will confirm SPEA protection compliance and provide the necessary documentation required by CVRD for issuance of the occupancy permit.			

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**Section 6. Photos**

Provide a description of what the photo is depicting, and where it is in relation to the site plan.



**Parcel (PID: ) 028-497-121**

**Admin Area:** TLC

**PID:**

**BC Assessment Roll Number:**53900919144 Lot area 1.38 ha.

**Legal Description:**

LOT 15 DISTRICT LOT 13 COWICHAN LAKE DISTRICT PLAN VIP88703

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Figure 1. Lot 15 - 279 Tal Rd.



Figure 2. Aerial photo of the property.

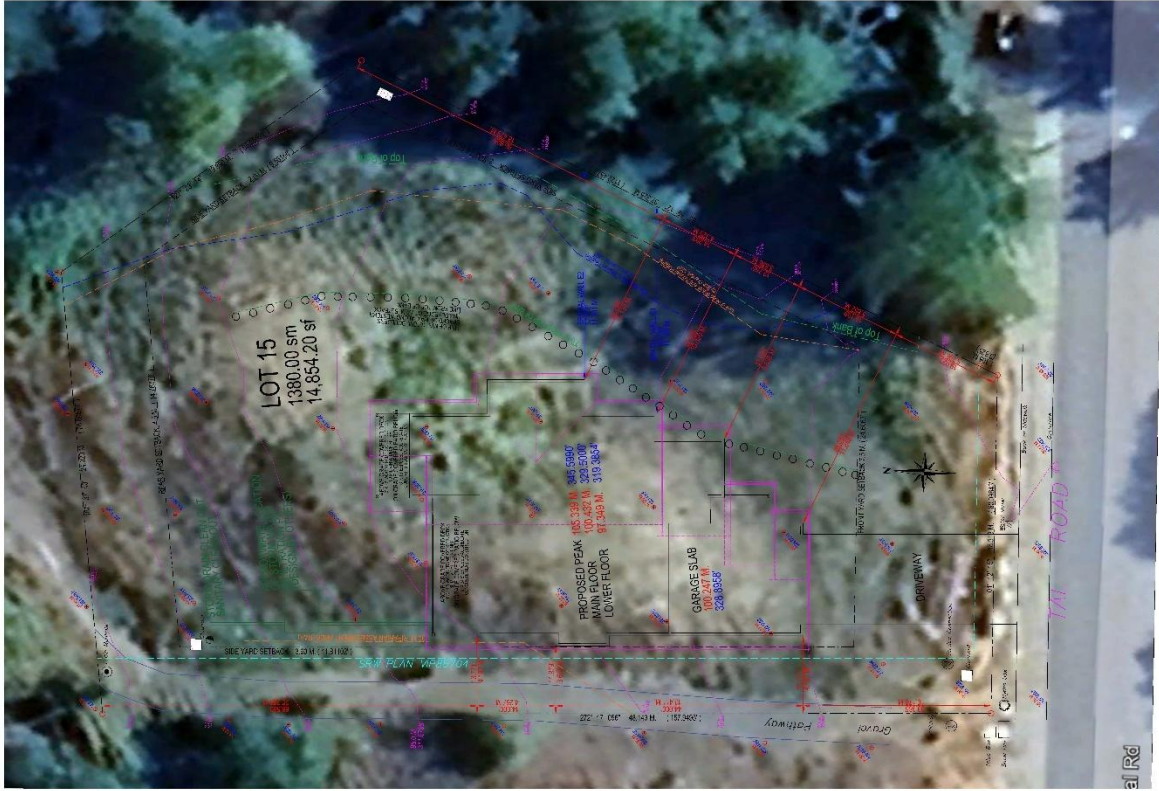


Figure 3. Aerial photo with google imaging a site plan overlay.

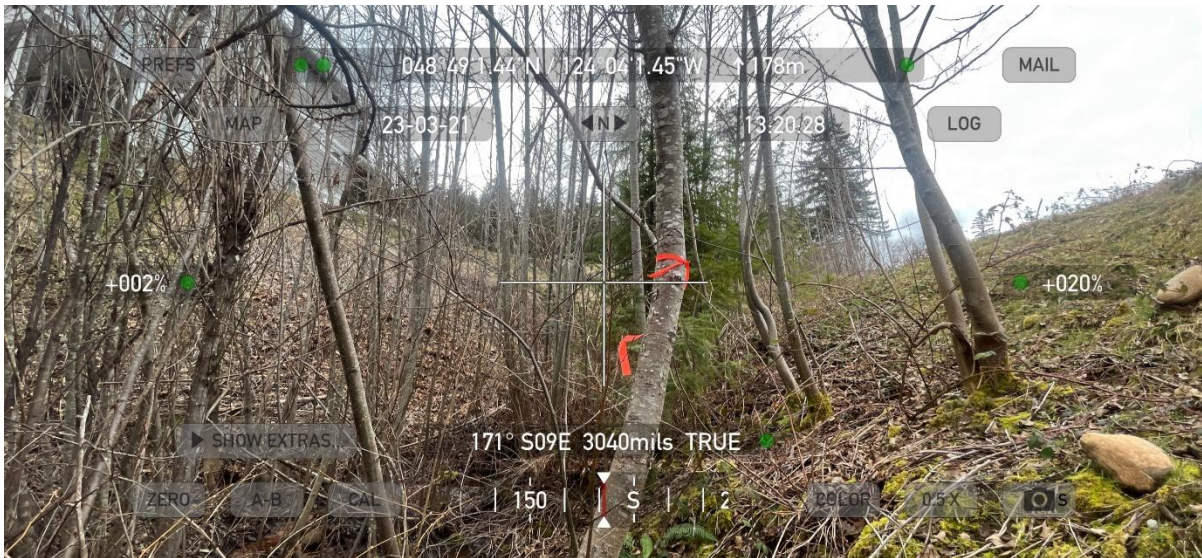


Figure 4. Stream boundary (that has been refreshed) flagged in orange, looking uphill south.

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Figure 5. Upper 24" concrete culvert.



Figure 6. Property peg

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Figure 7. A peg marking the corner of the park.



Figure 8. Green Culvert is below the subject property.

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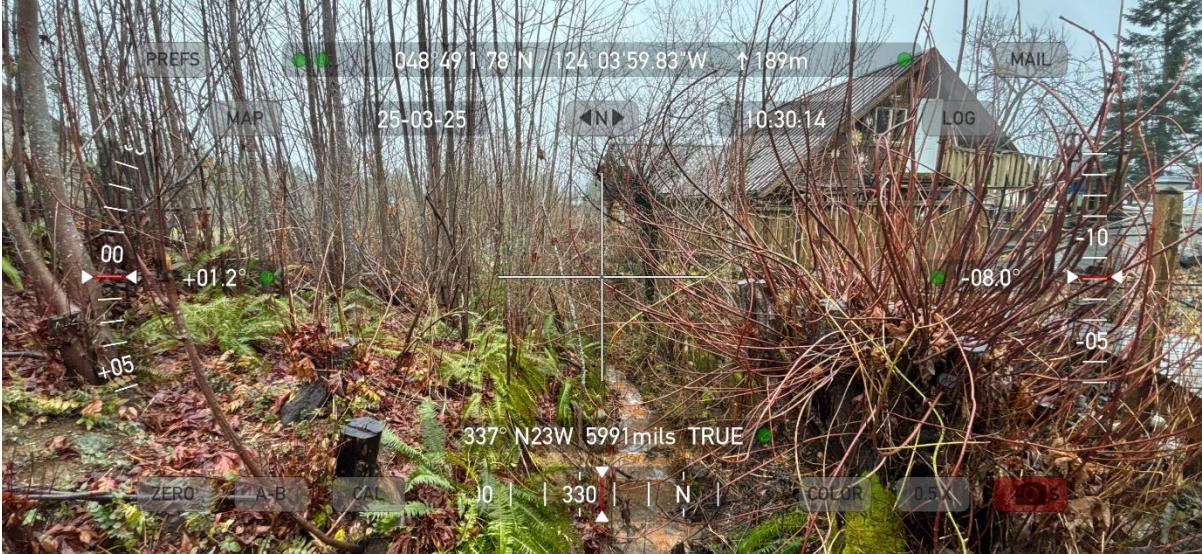


Figure 9. Creek below the subject property line (off property).



Figure 10. The creek flows towards Cowichan Lake, off the property. The slope is 0.5% which results in pooling water.

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Figure 11. Paul Watson Wetland (lower), not on the property.

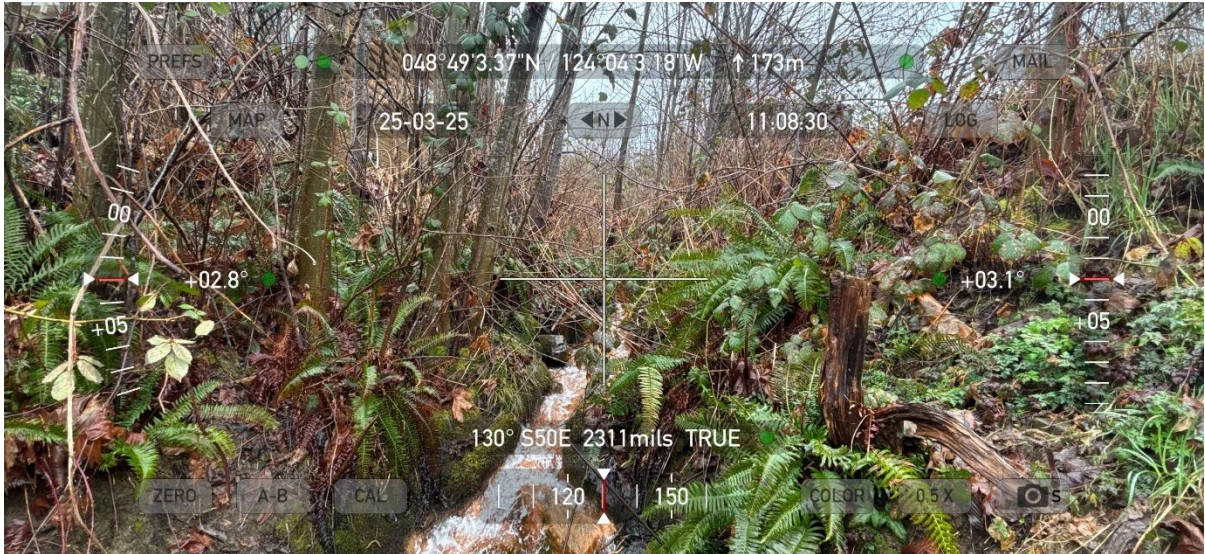


Figure 12. Off subject property, the Creek entering Cowichan Lake.

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Figure 13. Upper Paul Watson Wetland.



Figure 14. The property gets steep near the bottom, ~28% slope.

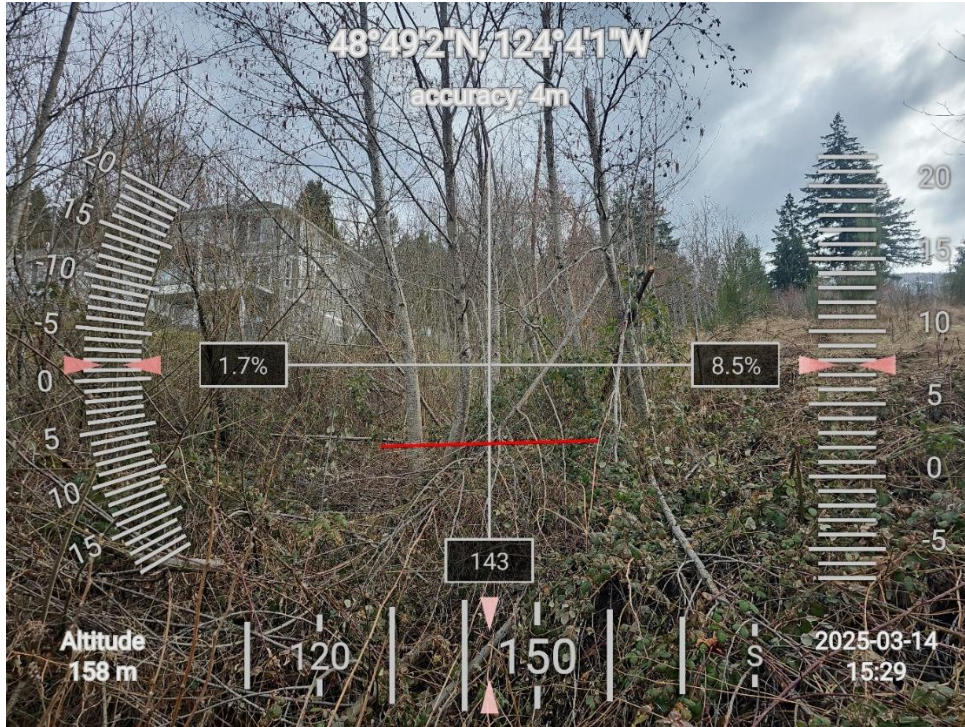


Figure 15. Looking south uphill towards Tal Rd.

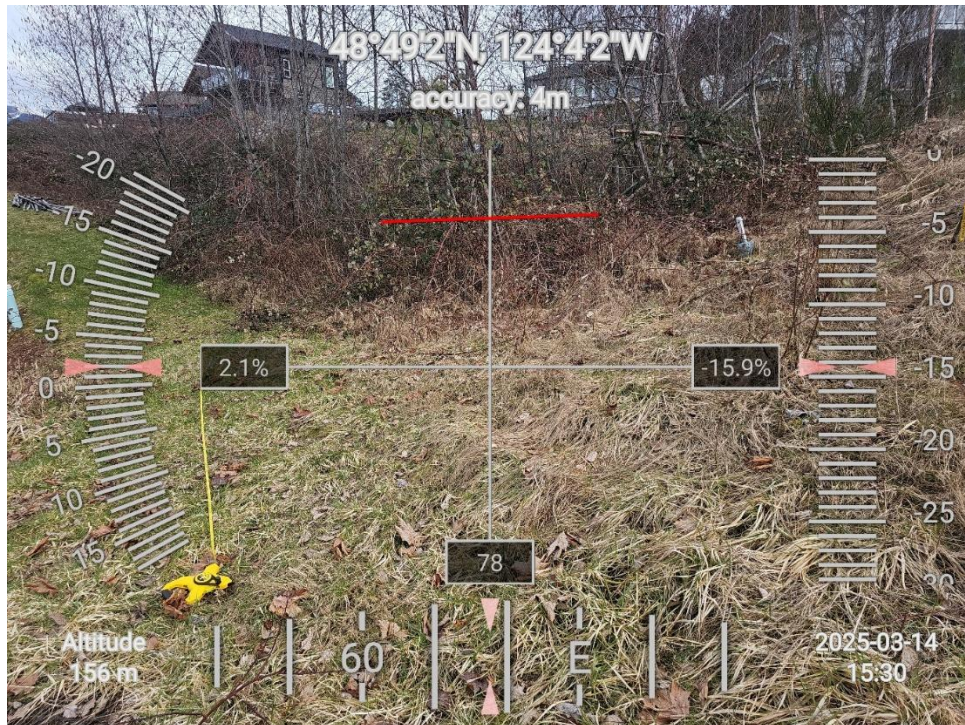


Figure 16. Measuring out the 7m SPEA from the SB.



Figure 17. The riparian area for the creek consists of unhealthy/live red alder trees and many invasive species.

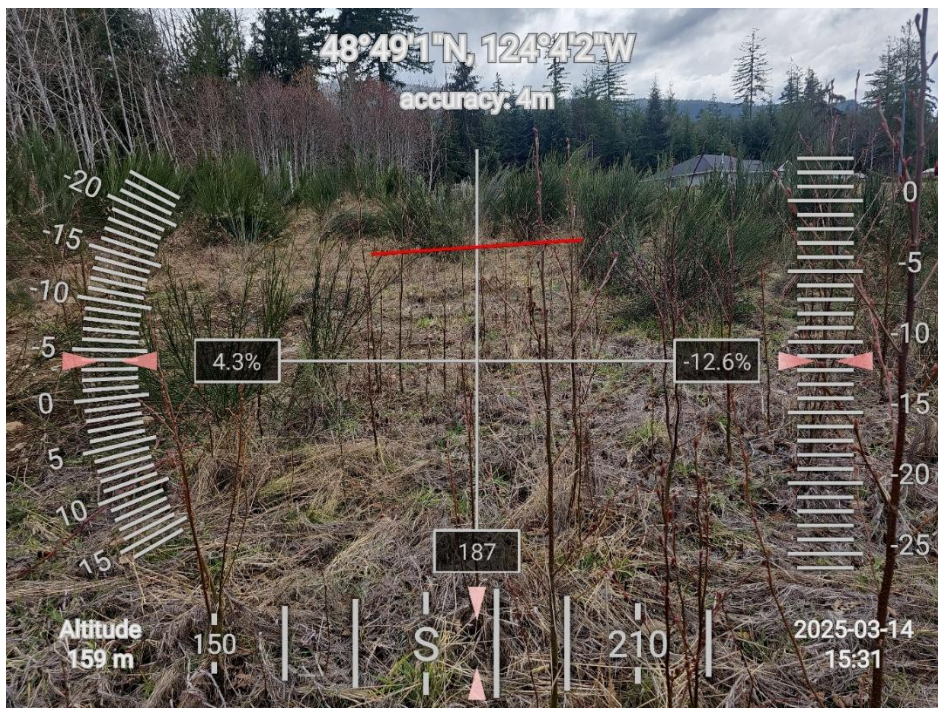


Figure 18. Photo of the site, covered in Scottish broom, Himalayan blackberry and small red alder trees.

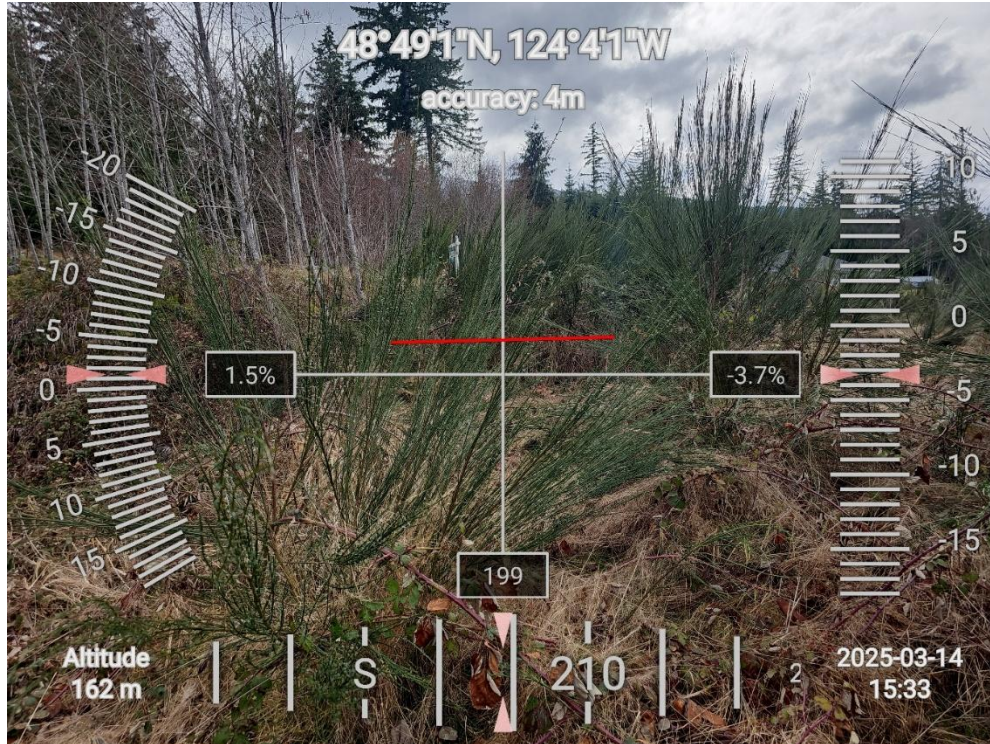


Figure 19. Looking along the SPEA line, through the broom to Tal Rd.

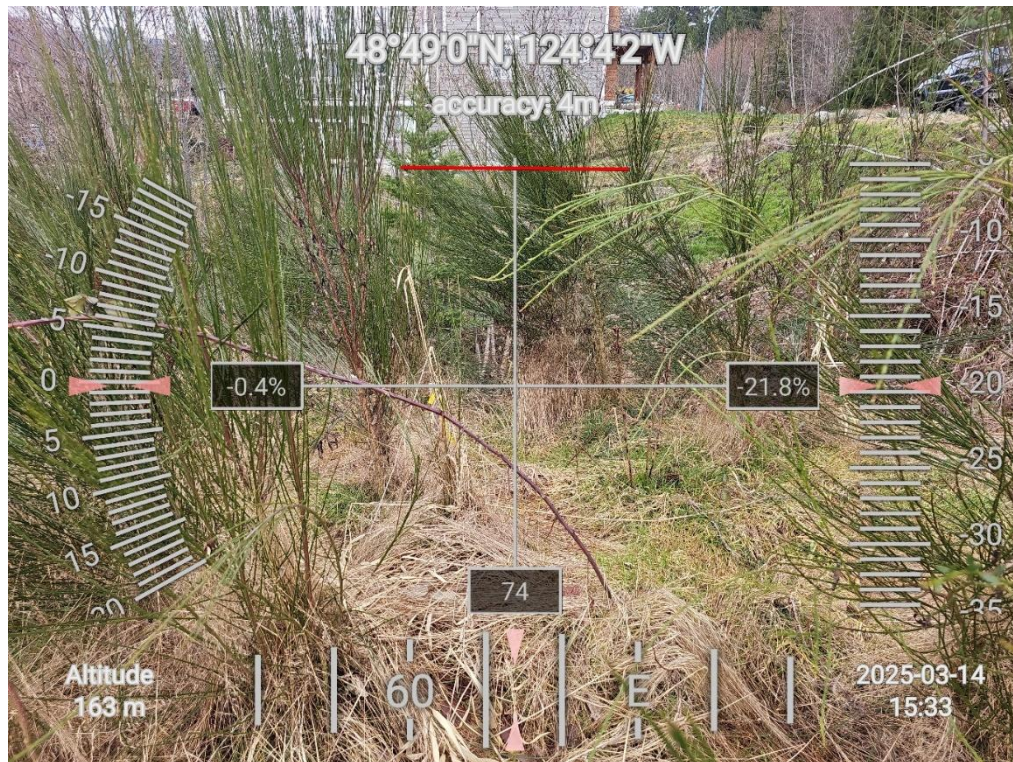


Figure 20. The yellow SPEA flagging and behind the Scottish broom the SB.

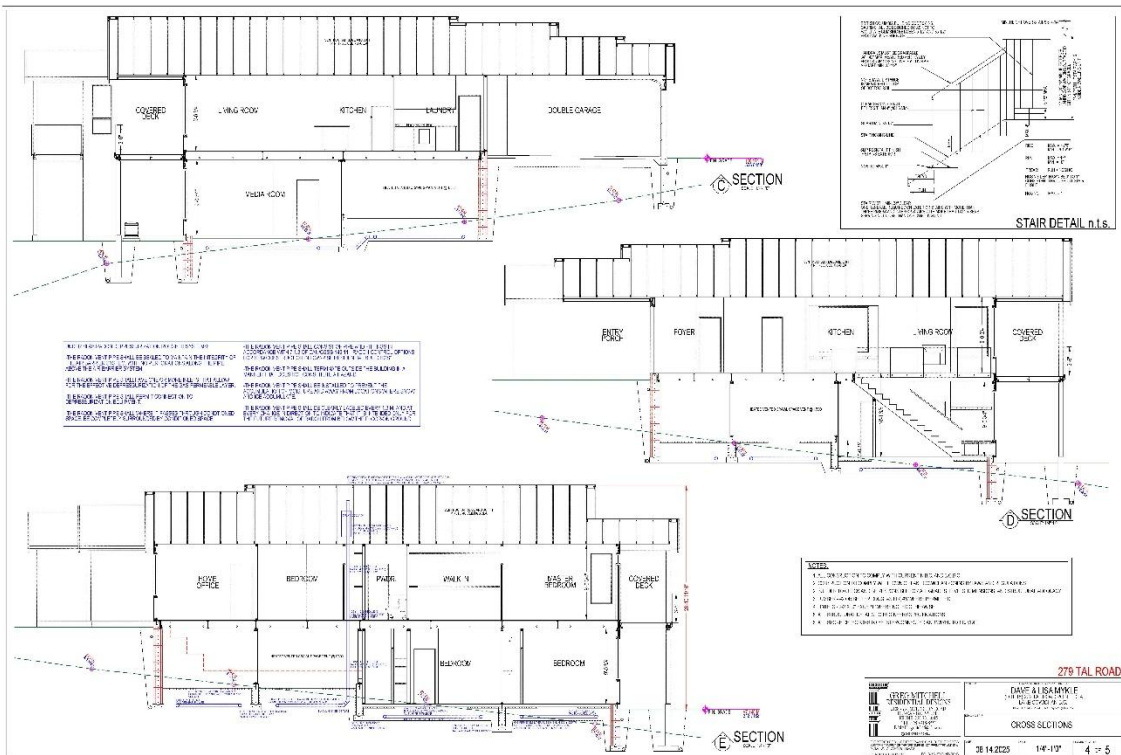
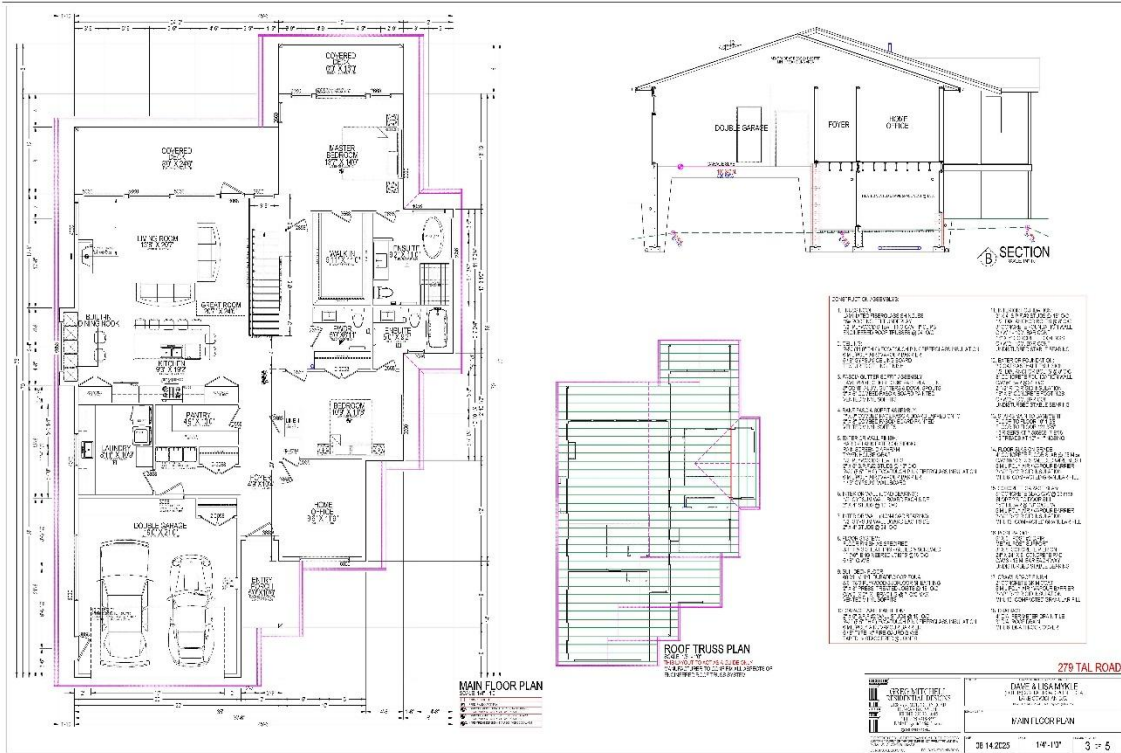


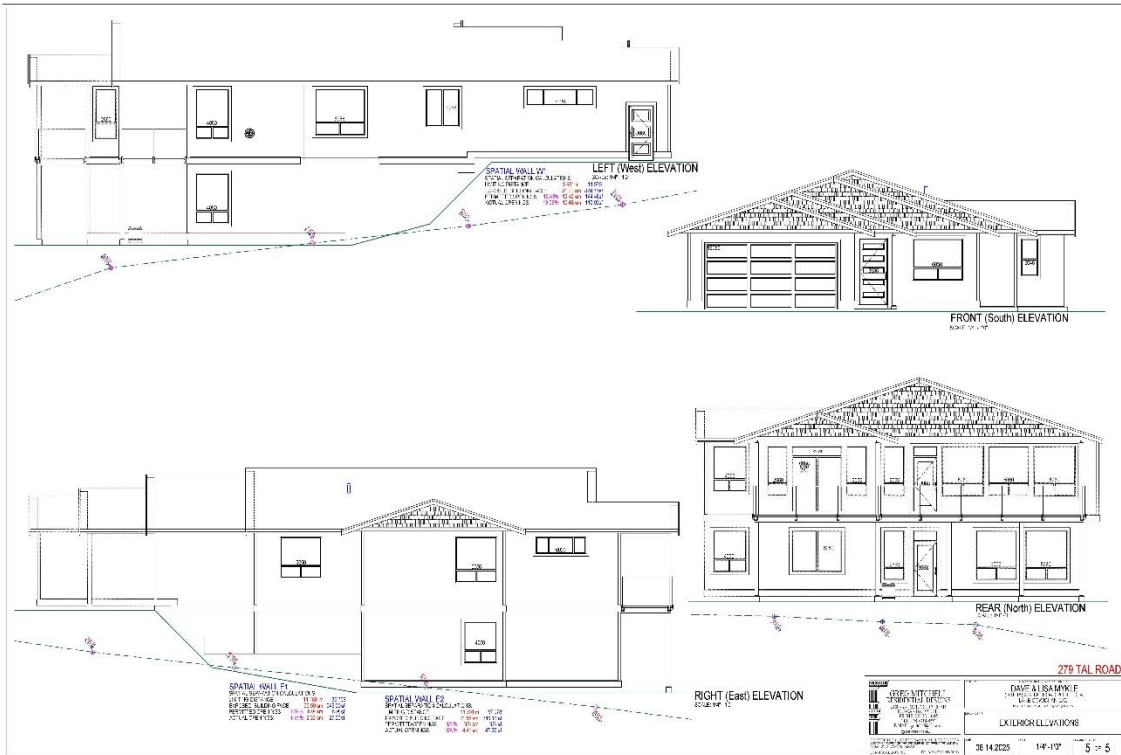
Figure 21. At the TOB looking towards the SB.



Figure 22. ~8.4% slope for the top property.







**Section 7. Professional Opinion**

**Qualified Environmental Professional opinion on the development proposal’s riparian assessment.**

Date

1. I/We Brittany Brooks

Please list name(s) of qualified environmental professional(s) and their professional designation that are involved in assessment.)

hereby certify that:

- a) I am/We are qualified environmental professional(s), as defined in the Riparian Areas Protection Regulation made under the *Riparian Areas Protection Act*;
- b) I am/We are qualified to carry out the assessment of the proposal made by the developer (Dave Mykle), which proposal is described in section 3 of this Assessment Report (the “development proposal”),
- c) I have/We have carried out an assessment of the development proposal and my/our assessment is set out in this Assessment Report; and
- d) In carrying out my/our assessment of the development proposal, I have/We have followed the specifications of the Riparian Areas Protection Regulation and assessment methodology set out in the minister’s manual; AND

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2. As qualified environmental professional(s), I/we hereby provide my/our professional opinion that:
- a)  the site of the proposed development is subject to undue hardship, (if **applicable, indicate N/A otherwise**) and
  - b)  the proposed development will meet the **riparian protection standard** if the development proceeds as proposed in the report and complies with the measures, if any, recommended in the report.

**[NOTE: "Qualified Environmental Professional" means an individual as described in section 21 of the Riparian Areas Protection Regulation.]**

## Submission Instructions

### Riparian Areas Protection Regulation – Qualified Environmental Professional – Assessment Report RAR-QEP-AR

**Forms you will need to complete are**

- Form 1 which has the database information, the description of the fisheries resources, development site plan, measures to protect and maintain the SPEA, and environmental monitoring.
- Form 2, if more QEPs are part of the project team.
- Either Form 3 the detailed assessment form(s) or Form 4 simple assessment form(s) which is for the results of the riparian assessment (SPEA width). Use enough copies of the form to complete the assessment of the site.
- Form 5 is the photo form(s). Duplicate for additional photos.

NB: Refer to Part 4 of the RAPR and the Technical Manual for detailed instructions on the information required for completing the Assessment Report.

A complete Riparian Assessment Report based on the template forms must be converted to a *single* Portable Document Format PDF file prior to uploading onto the Notification System.

The Assessment Report must be submitted complete with all information specified and posted to the notification system to be reviewed by the province. Upon approval notification will be provided to the local government.

**Tips for working with MS Word Template Forms**

## Using the forms

- Before beginning, print a hard copy of the form and the guidance files for reference
- Open the template
- Enter data into the shaded fields on the form
- Use TAB to move from one field to another; SHIFT-TAB to go in reverse
- Text and digital photos may be inserted from other applications
- The amount of text that can be entered in each box is limited and cannot be changed by the user; boxes with date information, for example, require input like: yyyy-mm-dd.

## Saving the completed form

- Assign name to the completed form
- Save a word document (\*.doc file)
- Do not overwrite the Template (\*.dot file) with your completed form
- If you do overwrite the template, you can download a new copy from this web site