

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 January 24, 2024

I. Primary QEP Information

First Name	J. Alex	Middle Name		
Last Name	Sartori			
Designation	R.P. Bio.	Company: JAS Environmental Consulting		
Registration #	1811	Email: jasenvconsult@gmail.com		
Address	Unit 3508 – 1033 Marinaside Crescent			
City	Vancouver	Postal:	V6Z A3A	Phone #: 604-220-0199
Prov/state	BC	Country:	Canada	

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

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

III. Developer Information

First Name	Jaspreet	Middle Name		
Last Name	Johal			
Company	1044018 B.C. Ltd.			
Phone #	[REDACTED]	Email: [REDACTED]		
Address	[REDACTED]			
City	Surrey	Postal/Zip:	[REDACTED]	
Prov/state	BC	Country:	Canada	

IV. Development Information

Development Type	Removal of shed		
Area of Development (ha)	0.0026	Riparian Length (m)	52
Lot Area (ha)	0.15	Nature of Development	Removal
Proposed Start Date	15-02-24	Proposed End Date	30-06-24

V. Location of Proposed Development

Street Address (or nearest town)	318 Hot Springs Road, Harrison Hot Springs, BC		
Local Government	Village of Harrison Hot Springs		
Stream Name	Miami Creek		
Legal Description (PID)	017-217-601	Region: Lower Mainland	
Stream/River Type	Stream	DFO Area 29	
Watershed Code	110-232100		
Latitude	49	18'	4.43"
Longitude	121	47'	8.99"

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

(Provide as a minimum: Species present, type of fish habitat present, description of current riparian vegetation condition, connectivity to downstream habitats, nature of development, specific activities proposed, timelines)

Proposed Development:

The removal of an unauthorized shed structure has triggered this riparian assessment report. An accessory shed structure (approximately 5m x 4m) was constructed on-Site in 2020 on the south-west portion of the property within an area of existing human disturbance (asphalt parking area). No vegetation was removed for the installation of the shed. The shed is located 10.85m from the Top of Bank and is within the 30m Streamside Protection Enhancement Area (SPEA). Removal of the shed can be conducted without any impacts to adjacent vegetation and with no risk of erosion or sediment control requirements, or water quality impact risks. As the shed was constructed within an area of human disturbance (asphalt), no restoration is proposed.

Description of Fisheries Resource Values:

Miami Creek is a 9.2km watercourse that flows from Harrison Lake to Agassiz. The Site is located along the northern shore of the Creek, approximately 600m southeast of the river's egress from Harrison Lake. The Site's southern property line shares ~52m with the north bank of the Miami Creek. The Creek bifurcates at the Site, flowing south as the Miami Slough, and continuing east as Miami Creek. Miami Creek branches once more approximate 1,335m southeast of the Site, where the eastern branch forms Hot Spring Slough and the western branch remains Miami Creek.

Miami River's channel type is defined as Riffle-Pool and it has been classified as an endangered watercourse as per the Sensitive Habitat Inventory and Mapping Atlas (SHIM). Rainbow Trout, Coho Salmon, and Steelhead have all been observed within the river.

Under the definitions of RAPR, the potential vegetation type is tree. During the Site visit, sedges and Cattails (*Typha latifolia*) were identified between the high and low water mark. Western Red Cedar (*Thuja plicata*) and Bitter Cherry (*Prunus emarginata*) trees were located along the Top of Bank. Invasive Hogweed (*Heracleum mantegazzianum*) and Himalayan Blackberry (*Rubus armeniacus*) were also identified both on-Site and along the northern bank of the river.

Due to access/private property issues, transects could only be collected from the subject property and at downstream locations.

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.

2. Results of Detailed Riparian Assessment

Refer to Section 3 of Technical Manual

Date: Dec. 13, 2024

Description of Water bodies involved (number, type)

1

Stream

1

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	28.0		<p>I, J. Alex Sartori (<i>name of qualified environmental professional</i>), 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>1044018 BC Ltd. (<i>name of developer</i>)</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</p> <p>d) In carrying out my assessment of the development proposal, I have followed the technical manual to the Riparian Areas Protection Regulation.</p>
upstream	27.0		
	38.0		
	42.0		
downstream	28.0		
	38.0		
	41.0		
	33.0		
	35.0		
	32.0		
	33.0		
Total: minus high /low	306.0		
mean	34.0		
	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
			<p>I, J. Alex Sartori (<i>name of qualified environmental professional</i>), 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>1044018 BC Ltd. (<i>name of developer</i>)</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</p> <p>d) In carrying out my assessment of the development proposal, I have followed the technical manual to the Riparian Areas Protection Regulation.</p>
Polygon No:	1		Method employed if other than TR
	LC	SH	
SPVT Type			X
Polygon No:			Method employed if other than TR

SPVT Type	LC	SH	TR	
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Polygon No:		Method employed if other than TR
SPVT Type		

Zone of Sensitivity (ZOS) and resultant SPEA

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)	30					
Litter fall and insect drop ZOS (m)	15					
Shade ZOS (m) max	NA	South bank	Yes		No	X
Ditch	Justification description for classifying as a ditch (manmade, no significant headwaters or springs, seasonal flow)					
Ditch Fish Bearing	Yes		No		If non-fish bearing insert no fish bearing status report	
SPEA maximum	30	(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		No	
SPEA maximum		(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		No	
SPEA maximum		(For ditch use table3-7)				

I, J. Alex Sartori (*name of qualified environmental professional*), hereby certify that:

a) I am a qualified environmental professional, as defined in the Riparian Areas Protection Regulation made under the *Riparian Areas Protection Act*;

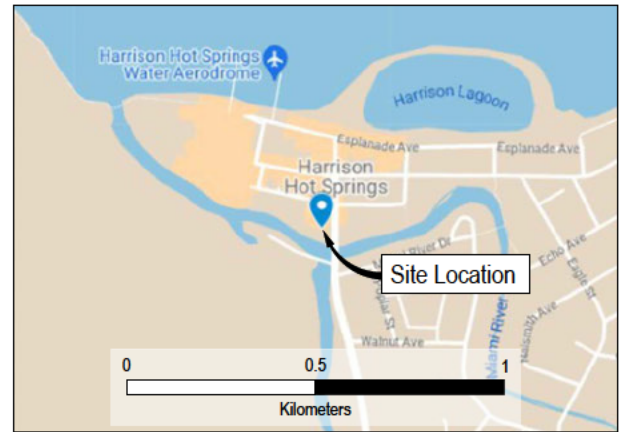
b) I am qualified to carry out this part of the assessment of the development proposal made by the developer 1044018 BC Ltd. (*name of developer*);

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

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- LEGEND**
- - - Site Boundary
 - 1 Approximate High Water Mark Transect
 - Approximate Top of Bank
 - Approximate High Water Mark
 - LWD, Bank and Channel Stability (30m)
 - Litter Fall and Insect Drop (15m)
 - Streamside Protection Enhancement Area (30m)
 - Riparian Assessment Area (30m)

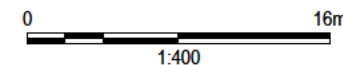


IMAGE SOURCES:

- Inset Map: Google Maps
- Aerial Image: Fraser Valley Regional District GIS

NOTE:
All locations are approximate unless otherwise noted.

DISCLAIMER:
This drawing is part of a NEXT Environmental Inc. report and its use is subject to the limitations expressed in the Compliance Statement of that report.

Client: Ms. Jaspreet Johal			
Project: Riparian Area Protection Regulations 318 Hot Springs Road, Harrison Hot Springs, BC			
Consultant: AS	Drawn by: BP Drawn date: January 22, 2024	Checked by:	Project No: 104120201
RAPR Setbacks			DWG: 104120201-002.dwg Figure: 01

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.

1. Danger Trees	There are no danger trees within the riparian area that require assessment or removal.
<p>I, J. Alex Sartori (<i>name of qualified environmental professional</i>), 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>1044018 BC Ltd. (name of developer)</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>	
2. Windthrow	As there are no requirements for tree removal, there are no windthrow issues that demand mitigation efforts.
<p>I, J. Alex Sartori (<i>name of qualified environmental professional</i>), 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>1044018 BC Ltd. (name of developer)</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>	
3. Slope Stability	The shed slated to be removed is currently on paved level ground, 10.85m away from the top of bank. Therefore, no slope stability assessment was deemed necessary.
<p>I, J. Alex Sartori (<i>name of qualified environmental professional</i>), 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>1044018 BC Ltd. (name of developer)</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>	
4. Protection of Trees	Removal of the shed from the paved surface will have no potential effect on trees. Construction debris from the shed will be placed on asphalt surface and not within the riparian area. Tree protection is not required for this development.
<p>I, J. Alex Sartori (<i>name of qualified environmental professional</i>), 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>1044018 BC Ltd. (name of developer)</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>	
5. Encroachment	The shed is currently within the 30m SPEA so encroachment is unavoidable. Measures will be taken to protect the SPEA during the tear-down and removal of the shed, including placing construction debris on asphalt areas, and sweeping the surface to ensure no construction debris runs off into the riparian area or adjacent catch basins.
<p>I, J. Alex Sartori (<i>name of qualified environmental professional</i>), 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 <u>1044018 BC Ltd. (name of developer)</u>;</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.	
6. Sediment and Erosion Control	The shed slated for removal has been constructed on top of an asphalt parking area. This removal is not expected to impact the surface soils and therefore a sediment and erosion control plan was not deemed necessary.
I, J. Alex Sartori (<i>name of qualified environmental professional</i>), 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>1044018 BC Ltd.</u> (<i>name of developer</i>);	
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.	
7. Stormwater Management	A stormwater management plan was not deemed necessary as there will be no increase to impermeable surfaces, and therefore no change to stormwater runoff.
I, J. Alex Sartori (<i>name of qualified environmental professional</i>), 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>1044018 BC Ltd.</u> (<i>name of developer</i>);	
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.	
8. Floodplain Concerns (highly mobile channel)	There are no floodplain concerns on Site.
I, J. Alex Sartori (<i>name of qualified environmental professional</i>), 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>1044018 BC Ltd.</u> (<i>name of developer</i>);	
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.	

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 documents 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.

A QEP must be notified 3 days in advance of any construction works on the subject property, with the following items to be discussed prior to construction:

1. Review work plan (all work to be conducted outside of vegetated area);
2. Ensure appropriate mitigation measures are/will be in place (covering of catch basins if works occur during a rain event);
3. Review all Measures to Protect the SPEA stated in this report and ensure appropriate equipment to satisfy the measures are on-site or available;
4. Set up a contact system should a Biologist or Qualified Environmental Professional (QEP) be required on site in the event of sediment/erosion issues or some other type of risk to aquatic habitats that may arise during construction.

Immediately upon completion of the construction work, the proponent is to contact a QEP for a post-construction site inspection. Any deficiencies noted by the QEP are to be addressed by the proponent. A final post-construction report is to be submitted by the QEP to the BC RAPR Notification System.

Section 6. Photos

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

Photograph 1: A view of the shed. Taken from the western portion of the Site, looking southwest. South of the hedges marks the Top of Bank boundary.



Photograph 2: A view of the Top of Bank boundary, taken from the southeast corner of the shed, looking south.



Photograph 3: A view of Miami Creek. Taken from the southern portion of the Site, looking west.



Photograph 4: A view of the shed taken from the High-Water Mark, taken directly south of the shed, looking north.



Photograph 5: A view of the Top of Bank. Taken from the southwest corner of the Site, looking east.



Photograph 6: A view of the Site, taken from High Water Mark transect location 5, looking west.



Photograph 7: A view of Miami Creek displaying the typical habitat conditions in front of the Site. Taken from transect point 1, looking south.



Photograph 8: A view of Miami Creek, taken at transect point 3, displaying the typical habitat conditions upstream of the Site.



Photograph 9: A view of the Site, taken from the Top of Bank near transect location 4., looking west.



Photograph 10: A view of the Site, taken at the Top of Bank near transect point 4, looking north.



Section 7. Professional Opinion

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

Date

1. I/We J. Alex Sartori

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 1044018 BC Ltd (*name of developer*), 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

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.]