



## MEMORANDUM

**DATE:** March 15, 2021  
**TO:** Bruce Van Mook, Sanctuary Pemberton Townhomes Ltd.  
**FROM:** Adrien Baudouin, R.P.Bio., Cascade Environmental Resource Group Ltd.  
**RE:** Preliminary RAR Assessment for the Sanctuary, Pemberton, B.C.  
**FILE #:** 372-03-01

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Sanctuary Pemberton Townhomes Ltd. wishes to clarify the development potential of a property located along Pemberton Meadows Road in Pemberton, BC (PID: 025-641-620). The property is bounded by two unnamed ditches on the north and east side of the property, and a pond on the north side of property. Due to the presence of these watercourses on and around the subject property, a Riparian Areas Protection Regulation (RAPR) assessment is required in order to determine the riparian setbacks that will be used for the planning of the Sanctuary development.

Sanctuary Pemberton Townhomes Ltd. retained Cascade Environmental Resource Group Ltd. (Cascade) to conduct a riparian assessment as per the BC Riparian Areas Protection Regulation (RAPR). The intent of this memo is to provide a preliminary assessment of the riparian setback area as per the RAPR, and determine associated implications provided by the regulation to assist with the development process. Upon the completion and finalization of the development plans for the subject property, the information described herein is required to be submitted electronically to the BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development (FLNRORD) RAPR Notification System. This memo **should not** be considered an approval from any government agency including the Village of Pemberton, FLNRORD or Fisheries and Oceans Canada (DFO).

### Statement of Limitations

This Document was prepared by **Cascade Environmental Resource Group Ltd.** for Sanctuary Pemberton Townhomes Ltd..

Should this report contain an error or omission then the liability, if any, of Cascade Environmental Resource Group Ltd. should be limited to the fee received by Cascade Environmental Resource Group Ltd. for the preparation of this document. Recommendations contained in this report reflect Cascade Environmental Resource Group Ltd.'s judgment in light of information available at the time of study. The accuracy of information provided to Cascade Environmental Resource Group Ltd. is not guaranteed.

Neither all nor part of the contents of this report should be used by any party, other than the client, without the express written consent of Cascade Environmental Resource Group Ltd. This report was prepared for the client's own information and for presentation to the approving government agencies. The report may not be used or relied upon by any other person unless that person is specifically named by Cascade Environmental Resource Group Ltd. as a beneficiary of the report, in which case the report may be used by the additional beneficiary Cascade Environmental Resource Group Ltd. has named. If such consent is granted, a surcharge may be rendered. The client agrees to maintain the confidentiality of the report and reasonably protect the report from distribution to any other person. If the client directly or indirectly causes the report to be distributed to any other person, the client shall indemnify, defend and hold Cascade Environmental Resource Group Ltd. harmless if any third party brings a claim against Cascade Environmental Resource Group Ltd. relating to the report.



This document should not be construed to be:

- A Phase 1 - Environmental Site Assessment;
- A Stage 1 – Preliminary Site Investigation (as per the Contaminated Sites Regulation of the Environmental Management Act);
- An Environmental Impact Assessment.

## **1.0 APPLICABLE LEGISLATION**

In British Columbia, the RAPR of the *Fish Protection Act* is the governing legislation to determine setbacks on watercourses. The purpose of the RAPR is “to establish directives to protect riparian areas from development so that the areas can provide natural features, functions and conditions that support life processes.” Essentially, the RAPR provides a mechanism for allowing site specific determination of setback areas. It should also be noted that the Federal *Fisheries Act* may supersede the RAPR and in some cases approval may be required under Section 35(2) of the Act.

## **2.0 ASSESSMENT METHODOLOGY**

The legislation provides two separate assessment methodologies to determine the setback area (Streamside Protection and Enhancement Area – SPEA) for a property. The Simple Assessment considers whether the stream is fish bearing, the nature of stream flows and the status of streamside vegetation. A Detailed Assessment requires the evaluation of stream width, reach breaks, potential vegetation type, channel type and channel slope. For the purpose of this RAPR assessment, the Detailed Assessment methodology was employed to determine resulting setbacks.

## **3.0 RIPARIAN AREA ASSESSMENT**

### **3.1 Detailed Assessment**

The Detailed Assessment methodology was employed to determine the setback and resulting SPEA (Streamside Protection and Enhancement Area) for Ditch #1, Ditch #2 and the Pond relative to the subject property.

#### **Ditch #1**

Ditch #1 is potentially fish bearing as it is connected to the Arn Canal via 2 Mile Creek, and the Site Potential Vegetation Type (SPVT) is tree (TR). Based on this information the following “Zones of Sensitivity” (ZOSs) can be determined for Ditch #1:

- *Large Woody Debris*: **6.1 m**;
- *Litter Fall and Insect Drop*: **6.1 m**;
- *Shade*: **6.1m**.

The resultant **setback for Ditch #1 relative to the subject property is 6.1 m** from the top of ditch bank (Photo 1 and Photo 2).

#### **Ditch #2**

Ditch #2 is potentially fish bearing as it is connected to the Arn Canal via 2 Mile Creek and the Site Potential Vegetation Type (SPVT) is tree (TR). Based on this information the following “Zones of Sensitivity” (ZOSs) can be determined for Ditch #2:

- *Large Woody Debris*: **5 m**;



- *Litter Fall and Insect Drop: 5 m;*
- *Shade: 5 m.*

The resultant **setback for Ditch #2 relative to the subject property is 5 m** from the top of ditch bank (**Photo 3**).

### **Pond**

The pond is potentially fish bearing as it is connected to the Arn Canal via Ditch #1 and 2 Mile Creek. The Site Potential Vegetation Type (SPVT) is tree (TR). Based on this information the following “Zones of Sensitivity” (ZOSs) can be determined for the pond:

- *Large Woody Debris: 15 m;*
- *Litter Fall and Insect Drop: 15 m;*
- *Shade: 30 m*

The resultant **setback for the pond relative to the subject property ranges from 15 m to 30 m** from the high-water mark, as determined by the orientation of the Shade ZOS (Photo 4).



#### **4.0 CONSTRAINTS TO DEVELOPMENT**

The RAPR (SPEA setback) applies to all new development. Existing permanent structures, roads and other development within riparian protection areas are “grand parented”. Landowners can continue to use their property as they always have even if a streamside protection and enhancement area is designated on it. The Regulation also has no effect on any repair, renovation, or reconstruction of a permanent structure on its existing foundation. Only if the existing foundation is moved or extended into a streamside protection and enhancement area (SPEA) would the Regulation apply.

The Riparian Area Protection Regulation prohibits development within the prescribed SPEA. According to the regulation, “development” means:

- a) removal, alteration, disruption or destruction of vegetation;
- b) disturbance of soils;
- c) construction or erection of buildings and structures;
- d) creation of non-structural impervious or semi-pervious surfaces;
- e) flood protection works;
- f) construction of roads, trails, docks, wharves and bridges;
- g) provision and maintenance of sewer and water services;
- h) development of drainage systems;
- i) development of utility corridors and;
- j) subdivision as defined in section 872 of the *Local Government Act*.

5.0

#### **6.0 SITE SPECIFIC BUILDING OPPORTUNITIES**

Development can occur on this property. Municipal zoning will determine the maximum allowable size, and architecture will determine if the size is achievable. Development opportunities include the following: development conforming to municipal and zoning requirements that occurs outside of the SPEA and riparian setbacks.

#### **7.0 RIPARIAN AREA ASSESSMENT REPORTING**

Upon the completion and finalization of the development plans for the subject property, the information described herein and additional information regarding the watercourses is required to be submitted electronically to the FLNRORD RAPR Notification System. The system is used to notify local governments, BC Ministry of Environment and the Department of Fisheries and Oceans that the assessment has been completed and facilitate the development application process.

The Assessment Report is required to include a description of the fisheries resources and riparian condition, the results of the riparian assessment methods, site plan, measures to protect and maintain the setback area (detailed methodology only), environmental monitoring requirements, photos and sign-off from a qualified environmental professional (QEP). A QEP is an applied scientist or technologist, registered and in good standing in British Columbia with an appropriate professional organization.

Typical monitoring requirements will include a site visit at the start of the construction phase of the project to ensure that there are no construction impacts to the SPEA. Additional site visits will be made by the QEP (qualified environmental professional) periodically throughout construction to ensure that the measures to protect the SPEA have been implemented and maintained. A follow-up visit will also be



made at the completion of construction so that the QEP can prepare a report to submit to the FNLNRORD RAPR website database.

## **8.0 CONCLUSION**

As per the Riparian Areas Protection Regulation methodology, a 5 m setback from the top of ditch bank along Ditch #1, a 6.1 m setback from the top of ditch bank along Ditch #2 and a 15 to 30 m setback from the high water mark along the pond are required on the subject property. The proposed development complies with the RAPR setbacks. However, a Section 11 Notification under the *Water Sustainability Act* will be required for the installation of the road crossing culvert. In addition, a submission must be made to the FNLNRORD RAPR Notification System, in order to receive applicable building or development permits from the Village of Pemberton. The electronic submission must include the information described herein and additional information to satisfy the application requirements.

Please do not hesitate to contact the Whistler office, should you have any questions regarding the information contained herein.

Sincerely,

Written by:

Adrien Baudouin, M.Sc., R.P.Bio.  
Senior Biologist

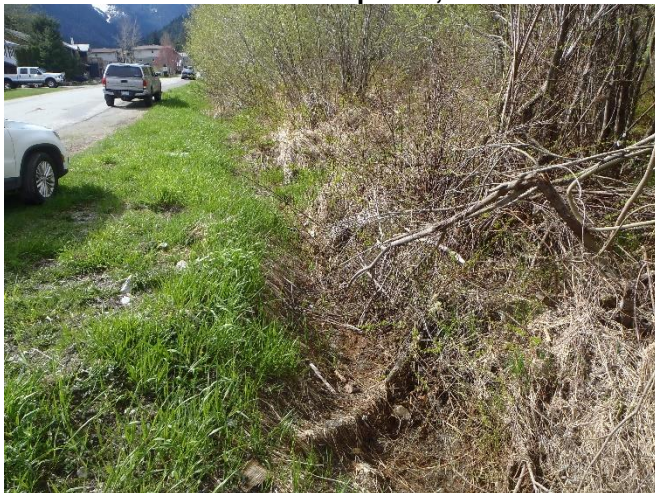




**Photo 1: View of Ditch #1. April 26, 2017**



**Photo 2: View of Ditch #1. April 26, 2017**

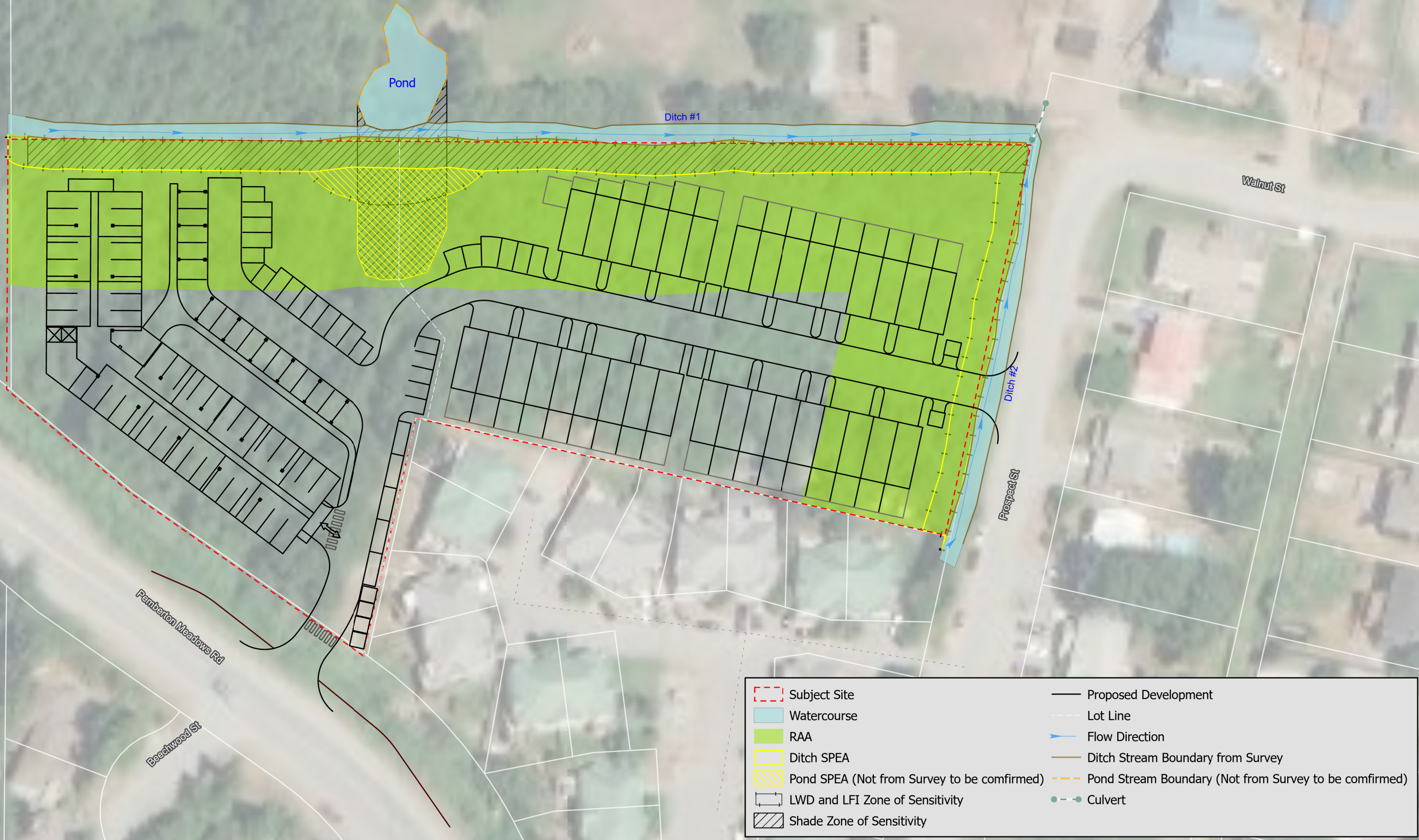


**Photo 3: View of Ditch #2. April 26, 2017**



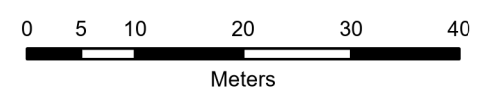
**Photo 4: View of the Pond. April 26, 2017**





Subject Site	Proposed Development
Watercourse	Lot Line
RAA	Flow Direction
Ditch SPEA	Ditch Stream Boundary from Survey
Pond SPEA (Not from Survey to be confirmed)	Pond Stream Boundary (Not from Survey to be confirmed)
LWD and LFI Zone of Sensitivity	Culvert
Shade Zone of Sensitivity	

GIS Cartographer: Nicola Church  
 Date: 2021-03-15  
 CERG File #: 372-03-01  
 Projection: NAD 1983 UTM Zone 10N



**Map 1 - Riparian Area Protection Assessment**

Signal Hill Homes  
 Pemberton Meadows  
 British Columbia