

MEMO - PEER REVIEW – ENVIRONMENTAL REPORT

Appendix G

Wendy Cooper
Planner
City of White Rock

REFERENCE: 14205 Malabar Avenue, White Rock, BC

1 INTRODUCTION

Active Earth is pleased to provide this Peer Review of an Environmental Report (ESC & Environmental Letter) dated January 23, 2023 by All-Terrain Consulting Ltd. further to your request by email dated March 14, 2025 and our March 26, 2025 cost proposal.

The All-Terrain Consulting Ltd. (ATC) letter report addresses a stream on the south side of Malabar Avenue across from the subject Site at 14205 Malabar Avenue. The upper extent of the stream that drains south into a large ravine is aligned with property boundaries between 14210 and 14220 Malabar Avenue. The subject Site is within 30 m of the stream. The ATC report has indicated a streamside setback for the stream.

This Peer Review has been conducted by Ken Lambertsen, R.P.Bio., Senior Biologist at Active Earth.

2 METHODS

To complete this Peer Review, Active Earth (Ken Lambertsen R.P.Bio.) has:

- Reviewed the All-Terrain Consulting ESC & Environmental Letter (Environmental Report) for 14205 Malabar Ave. dated January 2023
- Reviewed the Preliminary Geotechnical Exploration Report by Braun Geotechnical Ltd. for 14205 Malabar Ave. dated June, 2024
- Reviewed the Tree Evaluation Report for 14205 Malabar Ave. prepared by Mike Fadum & Associates Ltd. dated January 2023
- Reviewed the topographic survey for 14205 Malabar Ave. by Target Land Surveying dated September 2022
- Reviewed available information on the White Rock Online Mapping System (WROMS) including drainage infrastructure and topographic contours.
- Reviewed the City's Official Community Plan with respect to section 23.5 Environmental (Watercourse) Development Permit Area requirements
- Conducted a field assessment of the Site and stream south of the Site, including observations of the stream at the street ends of Magdalen Ave. and Wheatley Avenue.

- Determined the probable Streamside Protection and Enhancement Area (SPEA) based on Detailed Assessment methods under the Riparian Areas Protection Regulation (RAPR).
- Prepared this memo presenting the Peer Review findings.

3 RESULTS

Active Earth conducted a field assessment on April 14, 2025, during clear, dry weather conditions. The subject Site at 14205 Malabar Ave. comprises a single-family residential lot occupied by one dwelling with attached garage, a large patio and landscaping between the house and the street and is accessed by an asphalt driveway. Active Earth was not able to access the rear north portion of the Site; however aerial imagery on the White Rock Online Mapping System (WROMS) indicates a large rear lawn area extends to the north Site boundary where several mature trees are situated along the lot boundary. Aerial imagery and topographic contours on WROMS do not exhibit indications of any streams, ponds or aquatic habitat within the Site boundary; nor does the geotechnical report, the arborist report, or the topographic survey indicate the presence of a stream within the Site.

The All-Terrain ESC & Environmental Letter (Environmental Report) refers to a man-made stream being situated near the south side of Malabar Ave. and the geotechnical report notes that the southeast corner of the Site is included in an Environmental Development Permit Area. WROMS has identified the stream as Collingwood (presumably Collingwood Creek) and displays a 30-m stream buffer, which defines the extent of the Environmental (Watercourse) Development Permit Area that intersects the subject Site. The All-Terrain Environmental Report notes that streamside protection bylaws and building setbacks in the City of White Rock follow the Province of BC's Riparian Area Regulation (RAR) guidelines. The 30-m stream buffer coincides with the Riparian Assessment Area (RAA) under the Riparian Areas Protection Regulation. The All-Terrain Environmental Report states that by using the detailed RAR guidelines, the streamside protection and enhancement area (SPEA) would result in a 10-metre setback from the stream's high water mark (HWM) and that the 10-m SPEA measured from the upstream extent of the stream at the south side of Malabar Ave. does not extend into the Site.

Active Earth notes that, while the stream and SPEA measurements were made by All-Terrain in May 2018, the RAR has been replaced in 2019 with the Riparian Areas Protection Regulation (RAPR). Active Earth also notes that the All-Terrain report does not describe how the stream measurements were made, nor the length of stream over which measurements were made, nor what stream measurement results were obtained, nor how the 10-m SPEA for the stream had been determined "using the detailed RAR guidelines".

Active Earth has conducted a field assessment of the Collingwood stream following the assessment methods for a Detailed Assessment under the RAPR. During the April 14, 2025 field assessment, Active Earth traversed the Collingwood stream from the stream's upper extent at a

storm sewer outfall adjacent to Malabar Ave. to downstream at a point adjacent to the street end for Wheatley Avenue, which is about a distance of 125 m. The RAPR Detailed Assessment methods call for 11 measurements of the bank-full width at 10 m intervals to enable calculation of the mean channel width within a reach of the stream. Streams measurements are also to include stream gradient and channel type (e.g. riffle-pool, cascade-pool, step pool) and determining the Site Potential Vegetation Type (i.e. almost always “Treed”). Through these field measurements, the Zones of Sensitivity are determined; the largest of which is used to calculate the mandatory no-disturbance streamside setback (SPEA). In addition, the RAPR Detailed Assessment needs to take into account Measures to protect the SPEA and its integrity such as danger trees, windthrow, slope stability, tree protection, preventing encroachment, erosion and sediment control, and floodplain concerns. The foregoing details are absent from the All-Terrain Environmental Report.

The Collingwood stream flows south through a ravine down the escarpment leading to Semiahmoo Bay with culverts used to cross Marine Drive and the BNSF railway before the stream meets the ocean. WROMS shows that large storm sewers follow the alignment of the stream along the base of the ravine. Active Earth observed significant flows (+3 L/s) within the stream and that the stream bed comprises a concrete U-shaped channel imbedded with large cobbles over the length of the reach assessed by Active Earth. Refer to the Photographs appended to this memo for additional details. Bank-full width measurements ranged from 1.2 m at the upstream extent, to 1.3 m at Magdalen Ave. with a 1.9 m wide pool at a debris jam at that location, to as wide as 3.1 m at the Wheatley Ave. street end. While 3 times the average channel width is used to calculate the SPEA for the prevailing stream gradient over the reach of Collingwood stream from Malabar Ave. to Wheatley Ave., the minimum RAPR SPEA width is 10 m for a stream. Under the RAPR, the SPEA is measured from the Stream Boundary (5-year active floodplain). As previously noted, “Measures” to protect the SPEA (SPEA Protection Zone) also need to be taken into account. Active Earth observed numerous residential dwellings at or near the ravine top of bank which may not comply with RAPR streamside protection requirements but are “grandparented” under the RAPR, as are permanent roads (e.g. Malabar Avenue).

The City of White Rock Environmental (Watercourse) Development Permit Area guidelines stipulate several (8) conditions that apply to proposed development within the DPA. The 1st condition is that applicants must submit a (now) Riparian Areas Protection Regulation (RAPR) Assessment prepared by a Qualified Environmental Professional (QEP) and that confirmation be obtained that the Assessment Report has been received and accepted by the Provincial Ministry (currently Water, Lands and Resource Stewardship). The ALL-Terrain Environmental Report does not meet the reporting requirements of a RAPR Assessment Report.

4 CONCLUSIONS

The All-Terrain Environmental Report does not address the RAPR assessment methods set out in the Technical Assessment Manual, and does not meet the RAPR reporting requirements. However,

the 10-m SPEA noted by All-Terrain Consulting as being applicable to the stream south of Malabar Ave. is correct, as is the statement that the SPEA does not enter the subject Site at 14205 Malabar Avenue.

5 CLOSURE

I trust that this provides you with the information you currently require.

Please contact me if you require any clarification or additional information regarding this Peer Review.

Yours truly,

ACTIVE EARTH ENGINEERING LTD.



Ken Lambertsen, R.P.Bio.

Senior Biologist, Director, Biology Division

ATTACHMENTS:

Photographs

PHOTOGRAPHS

Photo 1: Upper extent of the stream looking north at the storm sewer outfall on the south side of Malabar Ave.



Photo 2: Looking south and downstream at the Collingwood stream adjacent to the residence at 14220 Malabar



Client Name	Site Location	Project No.	Date
City of White Rock	14205 Malabar Ave.	4530	Apr. 14, 2025

PHOTOGRAPHS

Photo 3: View upstream at the Collingwood stream adjacent to the west of the Magdalen Ave. street end



Photo 4: Bank full width measurement of the stream west of the Magdalen Ave. street end



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PHOTOGRAPHS

Photo 5: View downstream at the stream adjacent to the west of the Magdalen Ave. street end



Photo 6: View downstream at the stream adjacent to the east street end of Wheatley Avenue



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