

Date:	October 8, 2020	File:	2020-8717
To:	Dallas Isaac, Operations Manager at Westridge Quarries Ltd.	Page:	Page 1 of 3
From:	Melanie Piorecky, P.Ag.		
Project:	Westridge Quarries EA, Joe Rich		
Subject:	Site Overview Assessment PID 008-801-266		

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Associated Environmental (Associated) was retained by Westridge Quarries Ltd. to do an environmental overview assessment of the property located on Highway 33 (Lot 1, Plan KAP38841, Section 10&11&14, Township 27, Osoyoos Division of Yale Land District, & SEC 15 (PID 008-801-266)) in the community of Joe Rich, Kelowna, BC. This memo is a summary of findings to help inform purchase.

### Background

The intention is to build a gravel quarry on the site, if purchased. The size and timelines for quarry development will be dependant on approvals and market demand. The client will require regulatory approval or pit development from the Regional District of the Central Okanagan (RDCO), as the property is zoned as a Rural Acreage (RA) and has been mapped as having Sensitive Terrestrial Ecosystem, Sensitive Aquatic Ecosystem and Slope Stability and Rural Hillside Development Permit (DP) Areas. Development would start in the approximate centre on a benched area, against a cliff.

### Methods

Associated reviewed the site in the context of Sensitive Ecosystem Inventory (SEI) and the DP triggers. Prior to the site visit, Associated reviewed available information on the RDCO SEI Mapping, BC Species and Ecosystem Explorer, iMap for Critical Habitat and Species at Risk, the Species at Risk Public Registry and Google Earth online imagery.

For the site investigation on Oct. 6<sup>th</sup>, 2020, Melanie Piorecky, P.Ag. and Gisele Rehe, P.Ag., B.I.T. of Associated met with Fred Thiessen of Westridge Quarries on site to discuss the quarry plan. Associated the traversed the area to identify the following in context of mapping results:

- Dominant vegetation by community types;
- Unique habitat features; and
- Wildlife habitat potential.

### Results

The property is located within the Okanagan Very Dry Hot Interior Douglas Fir biogeoclimatic variant (IDFxh1) and comprises of mature dry forests, burnt forest and grassland. It is mostly south facing with thin soils and shallow bedrock. Cliff and bedrock outcrops are interspersed with grasslands, burned forest and a mature conifer forest. Based on the available iMap BC dataset and the site characteristics, species at risk that have potential to use the site (Table 1). Ungulate winter range is also mapped as occurring on the property.

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Table 1 Wildlife species at risk with potential to occur in the area

Name	Provincial <sup>1</sup> and Federal <sup>2</sup> Status	Mapping intersects the property	Typical habitat
American badger ( <i>Taxidea taxus</i> )	Red; Endangered	No, but within 5 km	Shrub-steppe and open stands of ponderosa pine or Douglas-fir.
Spotted bat ( <i>Euderma maculatum</i> )	Blue; Special Concern	No, but within 10 km	Open and dense coniferous forests and dry shrub-steppe grasslands. Day roosts found in crevices of high steep cliff faces.
Desert Nightsnake ( <i>Hypsiglena chlorophaea</i> )	Red; Endangered	Yes	Arid grasslands and sagebrush habitats with rocky areas and talus slopes.
Great basin gopher snake ( <i>Pituophis catenifer deserticola</i> )	Blue; Threatened	Yes	Open areas with bunchgrass, sagebrush and ponderosa pine.
Western rattlesnake ( <i>Crotalus oreganus</i> )	Blue; Threatened	Yes	Open, rocky areas, crevices and open basking areas (includes grasslands).
Lewis's woodpecker ( <i>Melanerpes lewis</i> )	Blue; Threatened	No, but within 10 km	Dry open ponderosa pine or Douglas-fir forests or open grasslands scattered with trees.

1 iMapBC. 2020. BC Conservation and Data Centre. Available at: <http://maps.gov.bc.ca/ess/sv/imapbc/> Accessed September 30, 2020. BC Species and Ecosystems Explorer Ministry of Environment. <http://a100.gov.bc.ca/pub/eswp/jsp/results.jsp?pager.offset=0>. Accessed Sept 30, 2020.

2 Government of Canada. 2020. Species at risk public registry. Available at: <https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html>. Accessed Sept 30, 2020.

Based on the site investigation, we noted the following key points:

- There is no aquatic DP area (in the site mapped as a waterbody, there is only dryland vegetation and no evidence of surface flow);
- Extensive invasive species present, and although the vegetation communities align with the SEI mapping, the quality is degraded because of weed infestation. Noxious weeds are prolific in open grassland areas.
- There are several wildlife trees that are used by woodpeckers, particularly in areas where wildfire has left large burnt standing trees.
- There is good snake habitat based on the extensive rock outcrops for basking and denning, presence of rodents as evident from rodent holes, and decent vegetation cover
- There is good bat habitat based on rocky cliffs, crevices and scree, and the large wildlife trees with cavities and thick bark to roost under.
- There is evidence of elk grazing and movement through the property, and the habitat would support winter range for ungulates.

From a vegetation perspective, the property is categorized as low value because of the extensive weed species present. However, from a wildlife perspective, the site is potentially valuable for reptiles and bats. Although not all species identified in Table 1 would use the site (based on typical range and records of occurrence), it is likely that one or more reptile and potentially a bat Species at Risk could utilize the area. The site also provides range for ungulates. In other



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words, there are valuable environmental features on the property, so careful planning and mitigations will be required as part of a DP application for development. This planning and mitigation would be outlined in an Environmental Assessment (EA) to be submitted as part of a Sensitive Terrestrial Ecosystem DP application.

#### Recommendations

If the property is purchased and Westridge decides to move forward with development, Associated would complete an EA of the property, which would include categorizing the distinct habitat types based on vegetation cover and features, mapping to site series used based on Terrestrial Ecosystem Mapping (TEM) and SEI. We would provide an environmentally sensitive area (ESA) map to demonstrate valuable site characteristics and to direct development (and to meet RDCO requirements). In the EA we would outline mitigation measures that would likely include the following, in consultation with Westridge:

- Snake and bat surveys to be conducted by a Qualified Environmental Professional (QEP) prior to development;
- Blasting only occur outside of snake hibernation (roughly late fall to early spring) and/or snake survey results imply that there is not a snake hibernacula (den) in the proposed blast area;
- Identification of important wildlife trees that could be retained;
- Guidance for quarry development relative to ESAs of high value, and reptile and ungulate movement through the landscape;
- Timing for vegetation clearing outside of the migratory bird nest window (April 1 to August 15) and/or a QEP completing pre-clearing nest surveys;
- A wildlife management plan for the pit operators that directs what to do if wildlife is encountered, and ways to keep from attracting wildlife to the site;
- Ongoing environmental monitoring throughout the project when sensitive features are being cleared; and
- Reclamation efforts required to restore native ecosystems.