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5 October 2022

Regional District of Okanagan-Similkameen (RDOS)
101 Martin Street
Penticton, BC V2A 5J9

Re: Environmental Assessment of 1108 Fish Lake Road, Summerland

The following report outlines the results of an environmental assessment on a parcel of private land located at 1108 Fish Lake Road, Summerland, BC. The legal description of the private property is Lot 4, Plan KAP25804, District Lot 4239, Osoyoos Div of Yale Land District. This lot will hereafter be referred to as the 'subject property'. This report is intended to address the **Ecological Assessment Phase**, as required in the Regional District of Okanagan Similkameen's (RDOS) Development Procedures Bylaw No. 2500, 2011.

1.0 BACKGROUND

The proponents (Kathi and Doug Penny) are proposing to subdivide 7 acres from the existing 38 acres. The proponents reside on the west side of Fish Lake Road, within the remaining 31 acres.

The subject property is currently designated as Resource Area (RA) under the Electoral Area "F" Official Community Plan (OCP) Bylaw No. 2790, 2018. The RA designation supports a minimum parcel size of 20 ha. The current proposal requires an amendment to the Electoral Area "F" OCP Bylaw No. 2790, 2018 and Zoning Bylaw No. 2461, in order for this subdivision proposal to proceed. These proposed changes include:

- amend the OCP designation of the subject property from Resource Area (RA) to Small Holdings (SH); and
- amend the zoning of the subject property from Resource Area (RA) to Small Holdings Two (SH2).

As the subject property is within an Environmentally Sensitive Development Permit (ESDP) Area pursuant to Electoral Area "F" Official Community Plan Bylaw No. 2790, 2018, an Environmental Assessment (EA) Report is required.

Eco-Matters Consulting (Eco-Matters) was retained by the proponent to fulfill the requirements of the EA report, as laid out within the RDOS Development Procedures Bylaw No. 2500, 2011. This includes, conducting a site investigation of the subject property to document the environmental values and present the findings in the EA report. The purpose of the EA was to assess biological conditions and physical conditions of the subject property and recommend a development footprint respectful of sensitive ecosystems.

2.0 METHODOLOGY

A background review was conducted to gather biological information regarding the subject property and surrounding parcels to help further define the fieldwork component. Eco-Matters consulted various governmental authorities and local experts regarding knowledge of rare and endangered species use within the general area through e-mail, telephone conversations and internet databases.

A review of Terrestrial Ecosystem (TEM) and Sensitive Ecosystem Inventory (SEI) mapping confirmed this has not been completed for the area. Environmentally valuable features were identified in the field. For the purposes of this report, an environmental feature was considered valuable if the loss of the feature would affect at-risk wildlife species, potentially occurring within an area.

The undersigned completed onsite assessments on August 9 and 26, 2022. The proponent, Doug Penny, provided a site orientation and accompanied the biologist on both dates.

These site visits provided opportunities to ground-truth the mapping, identify environmentally significant features and document wildlife or signs of wildlife observed on the subject property.

3.0 PROPERTY DESCRIPTION AND ENVIRONMENTAL SETTING

The 38-acre property is located in the Meadow Valley area of the RDOS (Area F), west of the District of Summerland. The parcel is bisected by Fish Lake Road, with 7 acres on the east side and 31 acres on the west side. The subject property is bordered by:

- provincial public land to the west, south and east; and
- a private parcel to the north.

Using the British Columbia Biogeoclimatic Ecosystem Classification (BEC) Classification System, the subject parcel is classified as mostly Cascade Dry Cool Interior Douglas-fir Variant (IDFdk2). On the east side of Fish Lake Road, the BEC classification is Thompson Dry Cool Interior Douglas-fir Variant (IDFdk1) and Okanagan Very Dry Hot Interior Douglas-fir Variant (IDFhx1). Elevation ranges from 835 along Darke Creek to 950 metres along the western boundary of the property.

On the western section of the subject property, the undersigned identified a mixture of 'Coniferous Woodland' and 'Riparian' as the prominent ecosystems. Mixed aged stands of predominantly Douglas fir and ponderosa pine occur on the property, with a shrub cover dominated by common Saskatoon and an understory of Oregon-grape, spirea, hawkweed, yarrow, kinickinick, pinegrass and a variety of other forbs and perennial bunchgrasses (Photo 1). Root rot and mistletoe were evident throughout the western section of the property.



Photo 1 – Mixed aged stands of ponderosa pine and Douglas fir occur on the property.



Darke Creek flows through the property, paralleling the west side of Fish Lake Road. Penny Creek flows onto the property at the southwest corner, and heads east until it joins with Darke Creek. Refer to Figure 1. The proponents have a water license on Penny Creek. The riparian vegetation bordering these waterways is dominated by trembling aspen, as well as black cottonwood, Douglas fir, paper birch, willow species and Douglas maple, with an understory of red-osier dogwood, snowberry, rose, and thimbleberry (Photo 2).

Photo 2 – The riparian habitat is dominant by trembling aspen.

A narrow band of vegetation was cleared for the driveway access off Fish Creek Road and a single-family dwelling was constructed in the 1970s. Limited areas of vegetation have been cleared for various outbuildings, storage sites, parking and gardening areas. Old skid trails were noted throughout the forest, and some of these have been turned into quad trails (Photo 3; Figure 1). Otherwise, there are limited disturbances. A very low abundance of invasive plants were noted on the property, namely cheatgrass.

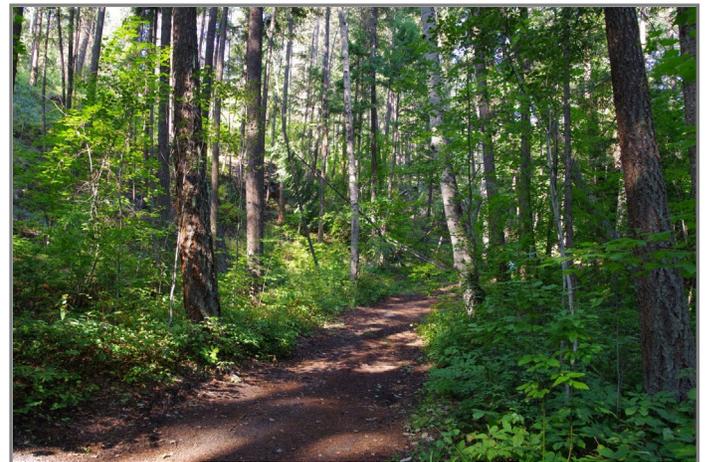


Photo 3 – Established quad trails occur in both the coniferous woodland and riparian areas.



The eastern section of the property, a coniferous forest, was burned in 2017 (hand ignition) as part of fuel modification efforts in response to the Eneas Wildfire. Much of the mixed aged stand of ponderosa pine and Douglas fir consists of standing dead (burnt) trees. The understory is dominated by common Saskatoon, Oregon grape, spirea, spreading dogbane, fireweed, common snowberry, kinickinick and perennial bunchgrasses.

Photo 4 – The eastern section of the property was burned five years ago as part of fuel modification.

While the RDOS mapping indicates a creek flows through the eastern section of the property, there was no evidence of current or historical overland flow. There was also no evidence of standing water. Fireguards and the subsequent rehabilitation with agronomic grasses were evident. A limited number of invasive plants were observed, including diffuse knapweed, bull thistle and cheatgrass.

Environmentally valuable features were confirmed on the subject property and their locations are indicated in Figure 1. Several wildlife trees (Douglas fir, ponderosa pine and black cottonwood) were recorded (Photo 5). There are likely additional wildlife trees within the riparian zone that were not recorded. One small area of rocky terrain was noted west of the family home. This habitat could support reptiles, in particular Western Skink (*Plestiodon skiltonianus*)^{1,2}. There were no environmentally valuable features notes on the eastern section of the property.



Photo 5 – Several wildlife trees were recorded on the property.

The subject property is located within ungulate winter range based on iMapBC. Game trails, deer and moose pellets were recorded on the subject property. The proponent mentioned that the upper western ridge of the property is a migration corridor for mule deer heading to Garnet Valley.

4.0 SPECIES AT RISK

A data search of the B.C. Conservation Data Centre (CDC) and Regional Sightings Database, Ministry of Forests (Penticton) did not reveal any at-risk species recorded on the subject property or within one km. However, there are occurrence records for Western Tiger Salamander (*Ambystoma mavortium*) and Western Screech-owl (*Otus kennicottii macfarlanei*)^{1,3} in the Meadow Valley area, within 3 – 4 km from the subject property (B.C. CDC 2022).

The subject property is considered low suitability habitat for tiger salamander. While there is aquatic breeding habitat available in the form of a stream pool on Penny Creek, the area is very limited in extent. The aquatic habitat is also not located near deep soiled grasslands or open forest with friable soils.

The onsite assessment revealed the western section of the subject property to be moderately suitable for Flammulated Owl (*Psilosops flammeolus*)^{1,2} and Western Screech-owl (*Otus kennicottii macfarlanei*)^{1,3}. The proponents have observed Barred Owl (*Strix varia*) on the property, a species believed to have precipitated the decline of Western Screech-owl from BC's south coast region, likely through direct predation (Cannings and Angell 2001).

¹ Provincially Blue-listed

² Federally Special Concern: A species of special concern because of characteristics that make it particularly sensitive to human activities or natural events.

³ Federally Threatened: A species that is likely to become endangered if limiting factors are not reversed.

Foraging, nesting and roosting habitat for Flammulated owl species were noted on the subject property and on adjacent provincial public land to the west and south. Flammulated Owls consistently select habitat that combines open forest stands with large trees and snags for nesting and foraging, nearby clusters of thick understory vegetation for roosting and calling (Howie and Ritcey 1987), and adjacent grassland openings that provide optimum edge habitat for foraging (McCallum 1994). Mistletoe provides shade and protection from predators.

The riparian habitat in combination with coniferous forest on the western section of the subject property provides suitable habitat for Western Screech-owl. This owl species is strongly associated with mature riparian woodland habitats dominated by water birch, black cottonwood or trembling aspen (Cannings 1997). Western Screech-owls are also known to forage in adjacent open forests of ponderosa pine and Douglas fir (Davis and Weir 2010). Cavities in large diameter coniferous and deciduous trees provide nesting and roost sites.

5.0 ENVIRONMENTALLY SENSITIVE AREAS

The subject property was stratified into four environmentally sensitive areas (ESA) based on information gleaned through the assessment (see Figure 1). The ESAs are defined as follows (as per the RDOS Development Procedures Bylaw No. 2500, 2011):

- ESA-1 (High), which shall be applied to occurrence-based Critical Habitat, locally and provincially significant ecosystems, extremely rare and/or of critical importance to rare wildlife species.
- ESA-2 (Moderate), which shall be applied to attribute-based Critical Habitat, locally or provincially significant ecosystems, uncommon and important to rare wildlife species.
- ESA-3 (Low), which shall be applied to ecosystems that may have low to moderate conservation values because of importance to wildlife (e.g. disturbed or fragmented ecosystems or habitat features).
- ESA-4 (Not Sensitive), which shall be applied to areas with little or no inherent ecological value or importance as wildlife habitat.

ESA evaluation is a key element in the planning process as it identifies area constraints and opportunities. The ESA criteria used in the evaluation of the subject property included: rarity; landscape context; habitat suitability for species at risk (i.e. Flammulated Owl and Western Screech-owl); presence of important environmentally valuable resources (e.g. wildlife trees); species diversity/habitat complexity; soil disturbance; presence of invasive plants; biological integrity; and surrounding land uses.

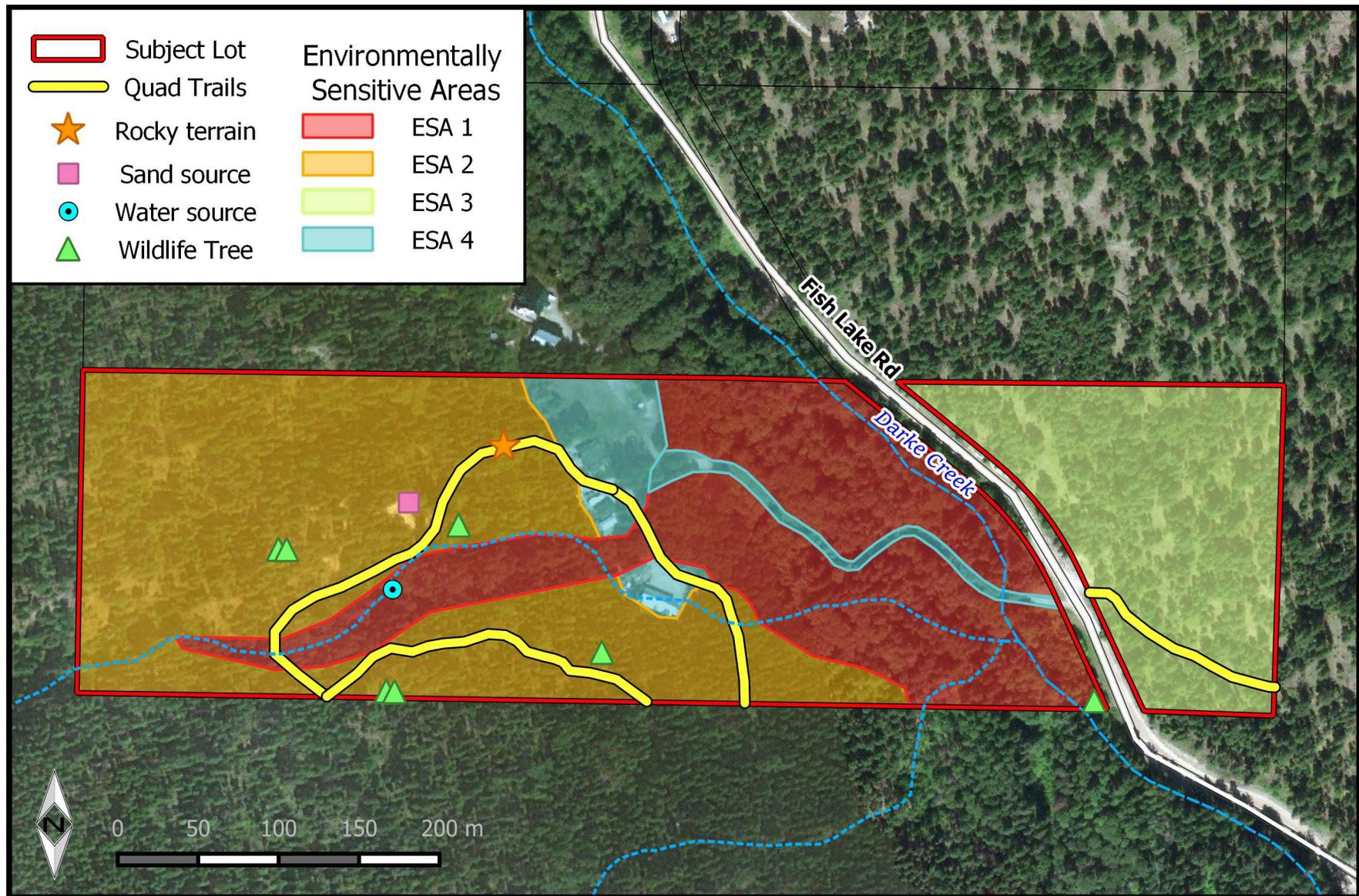


Figure 1 – A map of the subject property showing the environmentally valuable features and the ESA designations. Map produced by Allison Haney.

6.0 CONCLUSION AND RECOMMENDATIONS

Wildlife trees are a key environmentally valuable resource for a variety of wildlife. These trees may not be removed or modified without authorization.

The RDOS mapping needs to be updated to remove the Watercourse Development Permit (WDP) Area from the property for the unnamed watercourse that does not exist on the eastern section of the property.

If the proponents wish to proceed with a development application, an Impact Assessment Mitigation Phase will need to be prepared, in accordance with the RDOS Development Procedures Bylaw No. 2500, 2011.

Conclusions and recommendations presented in this EA report are based on visual observations of the subject property, personal interviews and other information that was available at the time of this assessment. This report is not intended to give absolute guarantees or categorically state that the proposed development guidelines, as outlined, will protect all elements of the surrounding environment but rather it is intended to help all stakeholders involved with the project assess the potential for environmental impact and limit any such identified impacts.

If you require any further clarification regarding this assessment, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read "Lisa Scott", with a long horizontal stroke extending to the right.

Lisa Scott, MSc., RPBio

REFERENCES

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