



Development Permit Application

Referral Form – RDCK File DP2408E

Date: January 22, 2025

You are requested to comment on the attached DEVELOPMENT PERMIT for potential effect on your agency's interests. We would appreciate your response WITHIN 30 DAYS (PRIOR TO February 21, 2025). If no response is received within that time, it will be assumed that your agency's interests are unaffected.

LEGAL DESCRIPTION & GENERAL LOCATION:

5830 Longbeach Road, Electoral Area 'E'

LOT A DISTRICT LOT 4161 KOOTENAY DISTRICT PLAN EPP5103 (PID: 028-171-519)

PRESENT USE AND PURPOSE OF PERMIT REQUESTED:

The subject property has been improved with a single detached dwelling and is serviced with a surface water license and an on-site wastewater system for the portion of the property north of Highway 3A. This Development Permit Application is required to facilitate the subdivision of the 0.35 hectare portion of the lot between Kootenay Lake and Highway 3A (the proposed lot).

The proposed lot is currently vacant and the attached Riparian Assessment Report indicates that no development or disturbance will be occurring at this time. The purpose of the application is to fulfill the requirements of the Watercourse Development Permit Guidelines which indicates that Subdivision is a form of a development that triggers the requirement for a Development Permit.

AREA OF PROPERTY AFFECTED	ALR STATUS	ZONING	OCP
Total Lot Area: 2.4 ha Proposed Lot to subdivided: 0.35 ha	N/A	N/A	Country Residential (RC)

APPLICANT:

Ward Engineering and Land Surveying Ltd.

OTHER INFORMATION: ADVISORY PLANNING COMMISSION PLEASE NOTE:

If your Advisory Planning Commission plans to hold a meeting to discuss this Development Permit application, please note that the applicants must be provided with an opportunity to attend such meeting, in accordance with Section 461, subsection (8) of the *Local Government Act*, which reads as follows:

"If the commission is considering an amendment to a plan or bylaw, or the issue of a permit, the applicant for the amendment or permit is entitled to attend meetings of the commission and be heard."

Please fill out the Response Summary on the back of this form. If your agency's interests are 'Unaffected' no further information is necessary. In all other cases, we would appreciate receiving additional information to substantiate your position and, if necessary, outline any conditions related to your position. Please note any legislation or official government policy which would affect our consideration of this permit.

**ZACHARI GIACOMAZZO, PLANNER
REGIONAL DISTRICT OF CENTRAL KOOTENAY**

- ☒ MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE
- ☒ HABITAT BRANCH (Environment)
- ☒ FRONTCOUNTER BC (MFLNRORD)
- ☐ AGRICULTURAL LAND COMMISSION
- ☐ REGIONAL AGROLOGIST
- ☐ ENERGY & MINES

REGIONAL DISTRICT OF CENTRAL KOOTENAY

DIRECTORS FOR:

☐ A ☐ B ☐ C ☐ D ☒ E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ K

ALTERNATIVE DIRECTORS FOR:

☐ A ☐ B ☐ C ☐ D ☒ E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ K

☒ APHC AREA 'E'

☒ RDCK FIRE SERVICES

Nelson Office: Box 590, 202 Lakeside Drive, Nelson, BC. V1L 5R4

Phone: 250.352.6665 | Toll Free: 1.800.268.7325 (BC) | Email: info@rdck.ca | Fax: 250.352.9300

☐ MUNICIPAL AFFAIRS & HOUSING	☐ RDCK EMERGENCY SERVICES
☒ INTERIOR HEALTH, HBE TEAM	☒ RDCK BUILDING SERVICES
☐ SCHOOL DISTRICT NO.	☐ RDCK UTILITY SERVICES
☐ WATER SYSTEM OR IRRIGATION DISTRICT	☐ RDCK RESOURCE RECOVERY
☒ UTILITIES (FORTIS, NELSON HYDRO)	☐ RDCK REGIONAL PARKS
INSERT COMMENTS ON REVERSE . . .	

The personal information on this form is being collected pursuant to *Regional District of Central Kootenay Planning Procedures and Fees Bylaw No. 2457, 2015* for the purpose of determining whether the application will affect the interests of other agencies or adjacent property owners. The collection, use and disclosure of personal information are subject to the provisions of FIPPA. Any submissions made are considered a public record for the purposes of this application. Only personal contact information will be removed. If you have any questions about the collection of your personal information, contact the Regional District Privacy Officer at 250.352.6665 (toll free 1.800.268.7325), info@rdck.bc.ca, or RDCK Privacy Officer, Box 590, 202 Lakeside Drive, Nelson, BC V1L 5R4.

RESPONSE SUMMARY

FILE: DP2408E APPLICANT: Ward Engineering and Land Surveying Ltd.

Name:

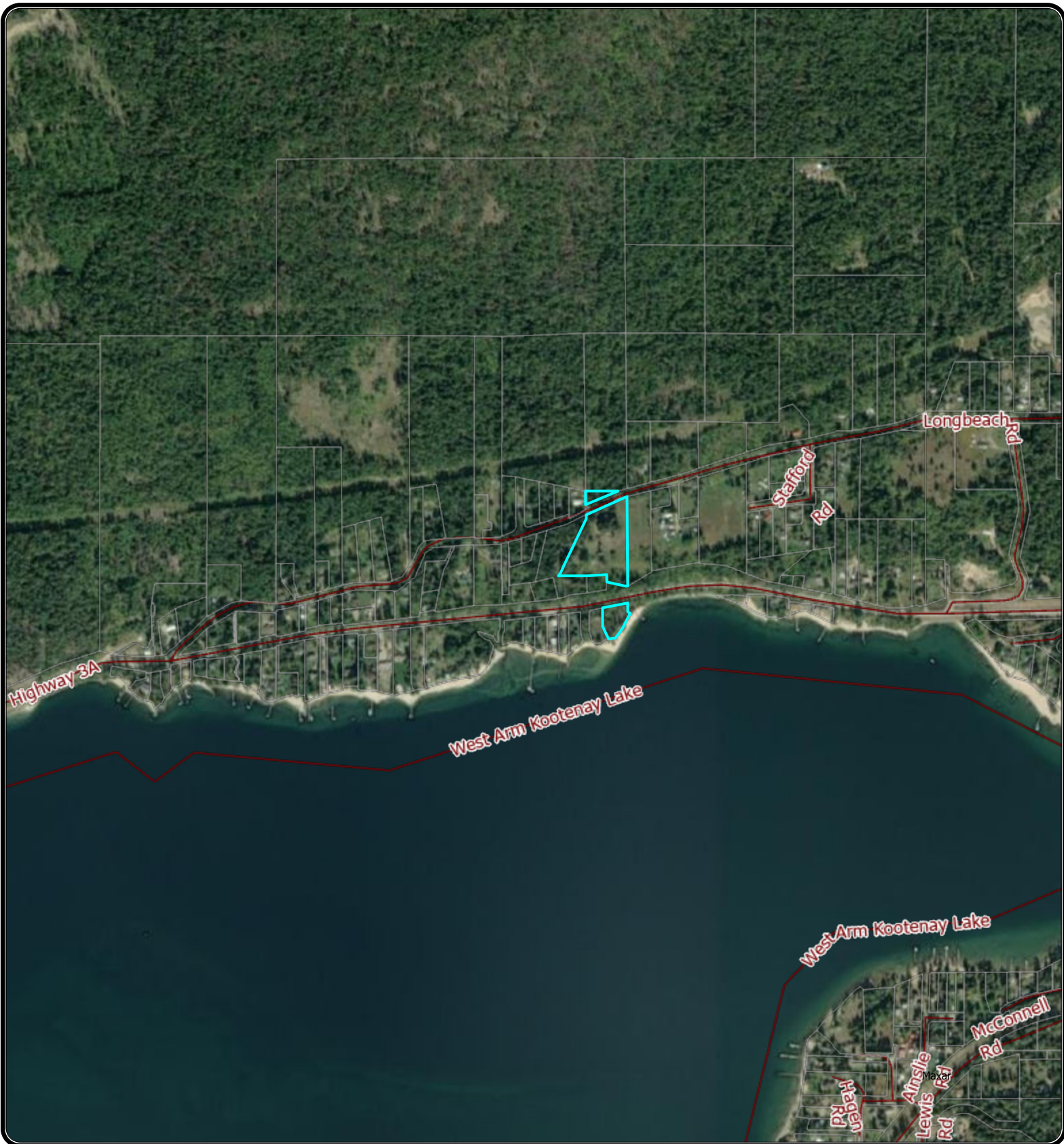
Date:

Agency:

Title:

RETURN TO: ZACHARI GIACOMAZZO, PLANNER
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RDCK Map



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maps@rdck.bc.ca

Legend

-  Electoral Areas
-  RDCK Streets
-  Cadastre - Property Lines

Map Scale:

1:18,056

Date: October 23, 2024



The mapping information shown are approximate representations and should only be used for reference purposes. The Regional District of Central Kootenay is not responsible for any errors or omissions on this map.

RDCK Map



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 Box 590, 202 Lakeside Drive,
 Nelson, BC V1L 5R4
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maps@rdck.bc.ca

Legend

- Electoral Areas
- RDCK Streets
- Cadastre - Property Lines
- Address Points

Map Scale:

1:4,514

Date: October 23, 2024



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RDCK Map



REGIONAL DISTRICT OF CENTRAL KOOTENAY
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maps@rdck.bc.ca

Official Community Plan

- Country Residential
- Resource Area
- Rural Residential

Legend

- Electoral Areas
- RDCK Streets
- Cadastre - Property Lines
- Address Points

Map Scale:

1:4,514

Date: October 23, 2024



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5830 Longbeach Road, Nelson B.C
Riparian Assessment



Prepared for:
Regional District of Central Kootenay
202 Lakeside Drive
Nelson, BC, V1L 5R4

May 23, 2024

Disclosure Statement

This report has been prepared by Heather Shaw B.I.T and reviewed by Fiona Lau B.Tech, ASCT.

I, Fiona Lau, hereby certify that:

- a) I am a qualified environmental professional (QEP), as defined in the Riparian Areas Regulation made under the Fish Protection Act;
- b) I am qualified to carry out this part of the assessment of the development proposal made by the developer;
- c) I have carried out my 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 assessment methods set out in the Schedule to the Riparian Areas Protection Regulation.

This report has been prepared by a QEP who has not acted for, or as an agent(s) of the RDCK and was at the expense of the property owner.

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1 INTRODUCTION

Masse Environmental Consultants Ltd. was retained by Paul Erlam (Owner) to conduct a riparian assessment to accompany an application for a Watercourse Development Permit (WDP) on his waterfront property at 5830 Longbeach Road, Balfour, BC (LOT A DISTRICT LOT 4161 KOOTENAY DISTRICT PLAN EPP5103; PID 028-171-519). The WDP has been triggered as the Owner is proposing the subdivision of the 2.51 hectare property into two parcels - Lot A (2.16 ha) and Lot 1 (0.35 ha).

A site visit was completed on April 16th, 2024, by Heather Shaw, B.I.T. and Fiona Lau B.Tech., ASCT., to conduct a riparian assessment on the property. The riparian assessment evaluates the existing conditions of the riparian area (up to 30 m from the natural boundary of Kootenay Lake), identifies habitat values, assesses potential environmental impacts, and recommends measures to mitigate or compensate for the alteration of the riparian area to maintain ecological values. It is based on the following regulatory framework and best management practices documents:

- Electoral Area 'E' Rural Official Community Plan Bylaw No. 2260, 2013
- RDCK Floodplain Management Bylaw No. 2080, 2009
- British Columbia Riparian Areas Protection Regulation
- Kootenay Lake Shoreline Management Guidelines
- British Columbia Water Sustainability Act
- British Columbia Wildlife Act
- Federal Migratory Birds Convention Act
- Natural Resources Best Management Practices
- Develop with Care. Environmental Guidelines for Urban and Rural Land Development in British Columbia
- On the Living Edge: Your Handbook for Waterfront Living

2 PROJECT OVERVIEW

2.1 Site Description

2.1.1 Location

The subject property is located ~ 8.2 km west of the community of Balfour, B.C on the West Arm of Kootenay Lake (see Appendix 1 for Location Map). The foreshore portion of the property (Lot 1) is bordered by private property to the west, crown land to the east; Highway 3A to the north and Kootenay Lake to the south. The upland portion of the property (Lot A) is bordered by private properties to the west and east, Hwy 3 A to the south and Longbeach Road to the north. The property (Lot 1) within the 30 m riparian assessment area (RAA) has a southern aspect, with elevations ranging from ~534-537 m above

sea level and ~ 80 m of frontage on the lake. The property is relatively flat with a gentle slope closer to the highway. Lower elevation areas within the RAA would have historically been an active floodplain prior to lake levels being regulated by dams. Evidence of historical flooding on the property includes very thin topsoil layer, dominant sand substrate and young forest stand present.

The area falls within the Very Dry Warm Interior Cedar Hemlock (ICHxw) biogeoclimatic subzone. The ICHxw is a relatively small subzone occurring at low elevations in the southernmost parts of the Columbia Basin in BC (MacKillop and Ehman 2016). The climate is characterized by very hot, very dry summers and mild dry winters (MacKillop and Ehman 2016). The ICHxw subzone contains forests with a diverse assemblage of tree and shrub species and a disproportionately large number of wildlife and plant species at risk (MacKillop and Ehman 2016).

2.1.2 Watercourses

Kootenay Lake

Kootenay Lake borders the property along the southern boundary; it is a long, narrow, and deep lake with a surface area of approximately 400 km². Kootenay Lake's main inflows are the Kootenay River to the south and the Duncan River to the north on the Main Arm of the lake. The lake drains through the West Arm into the Kootenay River. Lake levels can vary up to 4 m throughout the year, affecting the extent of the exposed shoreline (Fortis 2024).

The natural boundary is commonly referred to as the “high water mark” around a lake or wetland. Based on the definition of high-water mark¹, the natural boundary borders the southern property boundary, as shown on Parcel Map BC (2024) and the legal survey plan (Appendix 2) and will be used to delineate the 15 m WDP area and streamside protection and enhancement area (SPEA) setbacks in accordance with the Riparian Area Protection Regulation (RAPR).

2.1.3 Riparian Vegetation

The riparian area is relatively undisturbed and is characterized by dry, sandy soil with a very shallow topsoil layer that supports a mix of young native trees (<40 yrs old), shrubs, herbaceous species, and mosses (Photo 1 - 4). Tree species consist of Interior Douglas-fir (*Pseudotsuga menziesii*), lodgepole pine (*Pinus contorta*), grand fir (*Abies grandis*), Western redcedar (*Thuja plicata*), Engelmann spruce (*Picea engelmannii*), Western white pine (*Pinus monticola*) and black cottonwood (*Betula occidentalis*). The

¹ High water mark means the visible high water mark of a watercourse where the presence and action of the water are so common and usual, and so long continued in all ordinary years, as to mark on the soil of the bed of the watercourse a character distinct from that of its banks, in vegetation, as well as in the nature of the soil itself, and includes the active floodplain (RDCK 2013).

shrub community includes Oregon grape (*mahonia aquifolium*), common snowberry (*Symphoricarpos albus*), red-osier dogwood (*Cornus sericea*), soopalallie (*Shepardia canadensis*), black hawthorn (*Crataegus douglasii*), rose (*rose. sp.*), Douglas maple (*Acer glabrum*), and European mountain ash (*Sorbus acuparia*). The herb and moss community consist of scouring rush (*Equisetum hyemale*), Racemose pussytoes (*Antennaria racemose*), bunchgrasses (*Festuca idahoensis*), juniper haircap moss (*Polytrichum juniperinum*), shaggy yellow sand moss (*Racomitrium ericoides*), pasture sage (*Artemisia frigida*) and common dandelion (*Taraxacum officinale*). Large areas within the riparian area are void of trees and shrub species and are dominated by moss ground cover (Photo 1 , Photo 2 and Photo 4).



Photo 1. Lodgepole pine and moss within riparian area. April 16, 2024.



Photo 2. Mixed coniferous and deciduous forest. April 16, 2024.



Photo 3. Juniper haircap moss. April 16, 2024.



Photo 4. Transition from sandy shoreline to mixed forest. April 16, 2024.

2.1.4 Aquatic Habitat

Lakebed substrate along this section of foreshore consists of sand (Photo 5 and Photo 6). The foreshore has a gentle slope (5-16%) and provides shallow water habitat suitable for juvenile rearing. Several species

of regional interest reside in Kootenay Lake including Kokanee (*Oncorhynchus nerka*), Rainbow Trout (*O. mykiss*), Bull Trout (*Salvelinus confluentus*; BC-Blue-Listed; SARA Special Concern), White Sturgeon (*Acipenser transmontanus* pop.1; BC Red-Listed, SARA Endangered), Westslope Cutthroat Trout (*O. clarki lewisi*; BC Blue-Listed; SARA Special Concern), and Burbot (*Lota lota* pop.1; BC-Red-Listed).

Mussel beds have been identified along the shoreline of Kootenay Lake in multiple locations both on the West Arm and main body of the lake (p. comm K. Andrusak). Habitat along this section of shoreline may support mussels. A mussel survey was not conducted as part of this assessment as no in-water work is proposed.

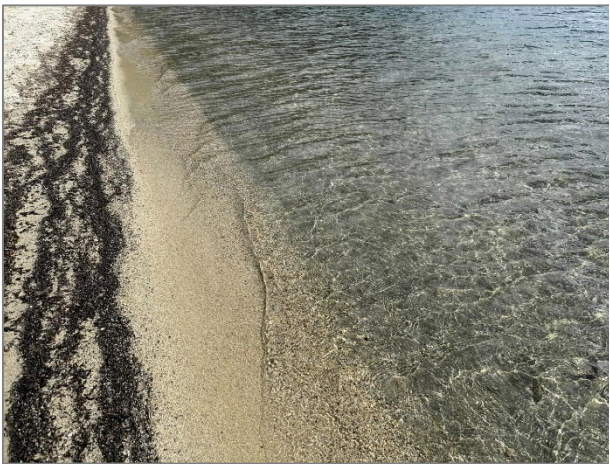


Photo 5. Shoreline substrate consisting of sand. April 16, 2024.



Photo 6. South view of foreshore aquatic area. April 16, 2024.

2.1.5 Wildlife Habitat

Riparian ecosystems offer important habitat features for wildlife, affording them essential resources like water, shelter, and food. These areas frequently serve as migration corridors connecting aquatic, riparian, and upland environments, playing a pivotal role in the life cycles of numerous species.

Wildlife features on the property include:

- Wildlife snags that offer nesting and feeding habitat for cavity dwelling species and bats (Photo 7; Refer to Appendix 2 for location of wildlife snags); and
- Dry open, warm sites with coarse woody debris (CWD; Photo 8), providing suitable habitat for reptiles such as garter snakes (*Thamnophis* sp.), Northern rubber boa (*Charina bottae*), Northern alligator lizard (*Elgaria coerulea*), and the Western skink (*Plestiodon skiltonianus*) property. CWD is defined as any logs on the ground with a diameter greater than 10 cm.



Photo 7. Wildlife snags that provide habitat for cavity dwellers and bats. April 16, 2024.



Photo 8. Open conifer forest with CWD. April 16, 2024.

2.1.6 Species at Risk

The BC Conservation Data Center (CDC) occurrence data and critical habitat for Federally listed species were queried within iMap BC, using a 10 km buffer around the center point of the property. In addition, the Wildlife Species Inventory and Survey Observation points within iMap BC (2024) and the Global Biodiversity Inventory Facility (GBIF) (2024) were also queried for nearby observations within a 10 km buffer around the property. The query results are presented in Appendix 3. Potential occurrence on the property was assessed as confirmed, likely, possible, unlikely, or unknown, according to known species habitat affinities, the habitat profile of the property, and on proximity to mapped occurrences. Based on these queries, eight species at risk were identified as either 'likely' or 'possible' to occur on the property (Table 1).

Table 1. Species at Risk confirmed within 10 km of the property location.

Species	Latin Name	BC List ¹	COSEWIC ² / SARA ³
Grizzly Bear	<i>Ursus arctos</i>	Blue	SC
Fringed Myotis	<i>Myotis thysanodes</i>	Blue	E
Hoary Bat	<i>Lasiurus cinereus</i>	Blue	DD ³
Little Brown Myotis	<i>Myotis lucifugus</i>	Blue	E
Northern Rubber Boa	<i>Charina bottae</i>	Yellow	SC
Western Skink	<i>Plestiodon skiltonianus</i>	Blue	SC
Banded Tigersnail	<i>Anguispira kochi</i>	Blue	
Western Bumble Bee	<i>Bombus occidentalis</i>	Yellow	

¹ BC Conservation Status (CDC): Red = extirpated, endangered, or threatened. Blue = special concern. Yellow = secure.

² COSEWIC/SARA: Endangered (E) = Facing imminent extirpation or extinction. Threatened (T) = Likely to become endangered. Special concern (SC) = May become a threatened or an endangered. Species listed on Schedule 1, SARA are legally protected.

³ DD = data deficient

Three bat species were identified within a 10 km buffer zone around the property. Bat roosting habitat consists of tall, live or dead trees with crevices, peeling bark, or cavities, while foraging habitat is present within the riparian and foreshore areas. The dry and open conifer forest could serve as habitat for reptiles like the Northern Rubber Boa and the Western Skink. The moist vegetation near the creek may provide suitable habitat for the banded tigersnail. The Grizzly bear and Western Bumble Bee occupy a range of habitats from grassland and shrub ecosystems to dry mixed forests. The property could provide suitable habitat for either species.

The property is within the Southern Mountain Caribou (*Rangifer tarandus*; BC Red listed; SARA Endangered) critical habitat polygon (Matrix Range 2; EC 2014). Matrix range is the area adjacent to core habitat that has periodic or low use by caribou but supports primary prey and associated predators that have the potential to affect the caribou subpopulation. Critical habitat attributes for matrix range are those that provide “ecological conditions that allow for low predation risk, defined as wolf population densities of < 3 wolves/1000km²” (EC 2014).

2.1.7 Invasive Species

Central Kootenay Invasive Species Society (CKISS) manages invasive species regionally using a prioritized approach. The management strategy for a specific species is based on a number of factors including the phase of invasion and the potential impacts of the species (CKISS 2023). Priority species lists can be found at <https://ckiss.ca/species/invasive-plant-priority-lists/>.

Based on the CKISS 2023 Priority List, there were no invasive species identified on the property.

2.2 Existing Development

The foreshore property (Lot 1) is currently undeveloped with all existing development occurring within Lot A above Hwy 3 A.

2.3 Proposed Development

The proposed development includes the subdivision of the 2.51 hectare property into two parcels - Lot A (2.16 ha) and Lot 1 (0.35 ha). Refer to Appendix 2 for Legal Survey showing subdivision plan.

Currently there are no plans to develop Lot 1. Any future development plans should occur outside of the 15 m WDP area and take measures to help protect the riparian area as per the recommendations outlined in Section 5.

3 REGULATORY OVERVIEW

3.1 Riparian Area Protection Regulation (RAPR) Review

The 15 m WDP setback from the boundary of Kootenay Lake was compared with the Riparian Area Protection Regulation (RAPR) criteria by conducting a detailed assessment of the property and determining the Streamside Protection and Enhancement Area (SPEA) setback. Results for the Zones of Sensitivity (ZOS) and SPEA are presented in Table 1 and Appendix 4.

As per the RAPR, the large woody debris (LWD) and litter ZOS were plotted 15 m inland from the HWM of Kootenay Lake with the shade ZOS plotted 0 m from the HWM of Kootenay Lake. The SPEA setback is determined based on the ZOS with the greatest width. Therefore, within the property, the SPEA from the HWM of Kootenay Lake was determined to be 15 m (Table 2), which matches the 15 m WDP setback.

Table 2. Results of detailed RAPR assessment for Kootenay Lake.

Feature Type	SPVT ¹	Zones of Sensitivity			SPEA ³
		LWD ²	Litter fall	Shade	
Kootenay Lake	TR	15 m	15 m	0 m	15 m

¹ SPVT: site potential vegetation type (TR-tree)

² LWD- large woody debris

³ SPEA- streamside protection and enhancement area

3.2 Kootenay Lake Shoreline Management Guidelines

The Kootenay Lake Foreshore Integrated Management Planning (FIMP; Schleppe and McPherson 2022), the Foreshore Inventory Mapping (FIM; KLP 2023) and the Kootenay Lake Shoreline Management Guidelines (KLP 2020) were used to help determine site-specific risks for riparian habitat, Ktunaxa Nation cultural values, and archaeological resources along the shoreline (Table 3). The property is located within FIM Segment 33. The aquatic habitat index rating was rated as moderate for this segment because of the high value juvenile rearing habitat. Based on the Ecological Activity Risk Matrix (Table 3b, KLP 2020), the subdivision is not considered a risk.

Table 3. Aquatic and archaeological risk results

Aquatic Habitat Index Rating (AHI)	Aquatic Sensitivity	Archaeological Risk	Enhanced Engagement Required (Work below HWM)
Moderate	Yes	Orange	No

According to the Archaeological Risk Matrix (Table 5a, KLP 2020), the proposed subdivision development does not have an archaeological risk. Further assessment of archaeological risk is beyond the scope of this report. For further information please consult the Kootenay Lake Shoreline Guidance Document (KLP 2020).

Kootenay Lake is part of the traditional territory of the Ktunaxa, Sinixt and Syilx (Okanagan) First Nations and archaeological evidence is documented at multiple sites along the shoreline and mountain sides of Kootenay Lake. Archaeological Chance Find Procedures are provided in Appendix 4 for guidance on which protocols to follow in the event of a chance archaeological find to ensure that archaeological sites are documented and protected as required for compliance with the BC Heritage Conservation Act.

4 POTENTIAL ECOLOGICAL IMPACTS

The proposed subdivision is expected to have no ecological impacts, as it does not include any current development activities (ie. construction of a house, vegetation clearing, landscaping, or services). Future development plans should refer to this report as a baseline, following measures to protect the SPEA.

Following the RAPR criteria, Section 5 outlines the measures to protect the integrity of the SPEA.

5 MEASURES TO PROTECT THE INTEGRITY OF THE SPEA

This section provides measures to protect the integrity of the SPEA as described in the RAPR, as well as recommended best management practices to minimize the potential effects of development.

5.1 Danger Trees

One potential danger tree was observed within the 30 m riparian area and may need to be removed to protect future development (Refer to Appendix 2 for location). Further assessment of potential danger trees is outside the scope of this report. Any proposed danger tree removal should be assessed by a certified arborist, prior to removal.

5.2 Windthrow

Based on the number of windfallen trees observed within the 30 m RAA, there is a risk of windthrow due to sparse number of trees, large open areas and loose sandy substrate. Clearing of trees is not proposed on the property at this time; however, prior to future development, a windthrow risk assessment should be led by a Registered Professional Forester (RPF). Further assessment is outside the scope of this report.

5.3 Slope Stability

The property has a low gradient (<3%), and no signs of slope instability were observed. Further assessment of geotechnical hazard is beyond the scope of this report, and any such assessment should be led by a P.Geo, or P.Eng.

5.4 Protection of Trees and Vegetation in the SPEA

An additional 3 m buffer should be added onto the SPEA for any future development proposal, to ensure that the root systems of trees within the SPEA are not disturbed or severed. Most root systems are found within the upper 12-15 inches of soil and are easily disturbed through development processes.

5.5 Encroachment

To prevent encroachment into the SPEA, the 15 m setback should be marked on the ground (wood stakes), to help with future development planning. Measures to reduce encroachment include educating potential new owners/developers about the SPEA boundary and being familiar with the following RDCK document: Environmentally Sensitive & Watercourse Development Permit Area Frequently Asked Questions (RDCK ND; Appendix 5).

5.6 Erosion and Sediment Control

No erosion and sediment control measures required at this time. Future development of the property shall incorporate erosion and sediment control measures as required, to protect riparian vegetation and water quality in Kootenay Lake.

5.7 Stormwater Management

No stormwater management required, at this time. Future development of the property shall incorporate best management practices for stormwater management.

5.8 Floodplain Concerns

Due to the low-lying elevations of the property and being located on the shoreline of Kootenay Lake, ensure that any future development meets the RDCK Floodplain Protection Bylaw No. 2080 (RDCK 2009). Additional assessments of floodplain concerns are beyond the scope of this assessment and further assessment by a P.Geo. is recommended before future development takes place.

5.9 Fish and Wildlife Protection

To minimize disturbance to fish, wildlife, and their habitat, the following measures are recommended for the property:

- Avoid any modifications to the foreshore substrate.

- Avoid removal of coarse woody debris (logs > 10 cm in diameter) and riparian area vegetation, including standing dead and wildlife trees, unless they are considered a hazard tree. Wildfire management activities including removal of dead, dry branches and small diameter logs (< 10 cm in diameter) is considered an acceptable activity within the riparian area.
- No barriers will be developed that will impact natural fish/wildlife movement along the shoreline.

5.10 Invasive Plant Management

Currently, there is no proposed invasive plant management. Future development shall incorporate best management practices for minimizing the introduction of invasive plant species.

6 CONCLUSION

There are currently no ecological impacts associated with the proposed subdivision of the property to the SPEA. By adhering to the outlined measures to protect the SPEA during future development, potential negative ecological impacts can be minimized.

Sincerely,

Heather Shaw

Heather Shaw, BSc. BiT

heather@masse-env.com

Reviewed by,

A handwritten signature in blue ink, appearing to read 'Fiona Lau'.

Fiona Lau, BTech. ASCT

Masse Environmental Consultants Ltd.

7 REFERENCES

- [BC]. 2019. Riparian Areas Protection Regulation. B.C. Reg. 178/2019, Last amended February 5, 2021 by B.C. Reg. 11/2021. Victoria, British Columbia, Canada.
- [BC]. 2024. iMap BC Mapping Application. Available online at:
<https://www2.gov.bc.ca/gov/content/data/geographic-data-services/web-based-mapping/imapbc>
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- [EC] Environment Canada. 2014. Recovery Strategy for the Woodland Caribou, Southern Mountain population (*Rangifer tarandus caribou*) in Canada. Species at Risk Act Recovery Strategy Series. Environment Canada, Ottawa. viii + 103 pp
- Fortis BC. 2024. Kootenay Lake Levels. Available online at:
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Schleppe, J.¹, and S. McPherson². 2022. Kootenay Lake Foreshore Integrated Management Planning. Prepared for Living Lakes Canada. Prepared by: Ecoscape Environmental Consultants Ltd.¹, and Lotic Environmental Ltd.²

APPENDIX 1. SITE LOCATION MAP



5830 Longbeach Road
Waterfront Development Permit Area Assessment

Subject Property Location



Subject Property



Cities



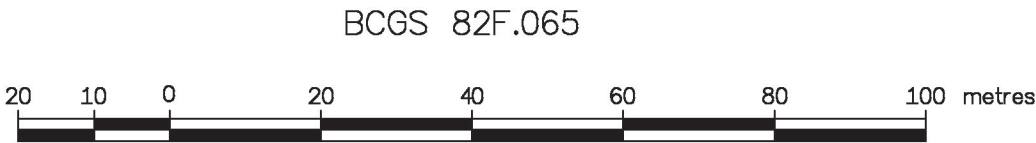
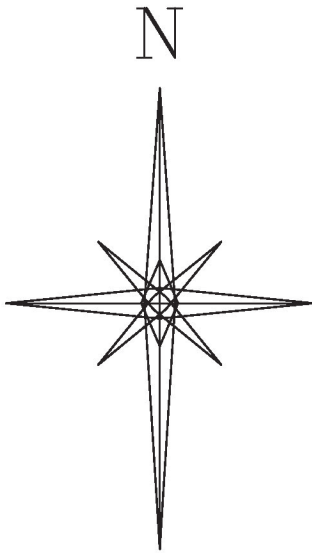
Map Date: 04/25/2024
Projection: NAD83 UTM Zone 11
Project: 2024-1124 Longbeach Rd
Scale: 1:130,000

APPENDIX 2. LEGAL SURVEY PLAN (SHOWING PROPOSED SUBDIVISION) AND SPEA MAP

SKETCH SHOWING PROPOSED
SUBDIVISION OF PART OF:

LOT A DISTRICT LOT 4161
KOOTENAY DISTRICT PLAN EPP5103

PLAN EPP5103

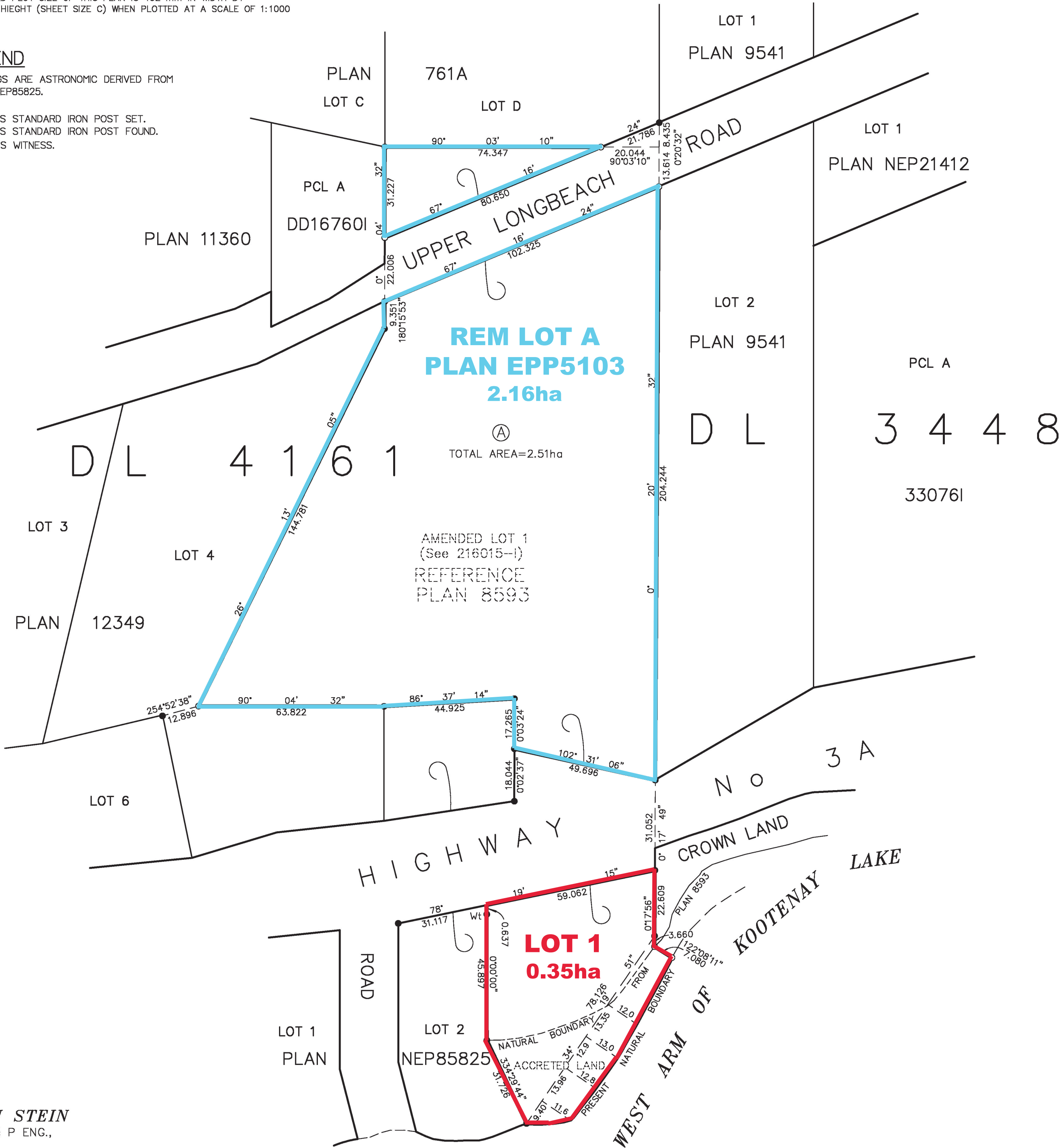


ALL DISTANCES ARE IN METRES AND DECIMALS
THEREOF UNLESS OTHERWISE INDICATED.

THE INTENDED PLOT SIZE OF THIS PLAN IS 432 mm IN WIDTH BY
559 mm IN HIEGHT (SHEET SIZE C) WHEN PLOTTED AT A SCALE OF 1:1000

LEGEND

- BEARINGS ARE ASTRONOMIC DERIVED FROM
PLAN NEP85825.
- DENOTES STANDARD IRON POST SET.
● DENOTES STANDARD IRON POST FOUND.
Wt DENOTES WITNESS.



PREPARED BY
GORDON STEIN
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PHONE OR FAX 250-352-7312
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THIS PLAN LIES WITHIN THE REGIONAL DISTRICT OF CENTRAL KOOTENAY.

The field survey represented by this plan was completed by
Gordon Stein, BCLS on the 30th day of September, 2009.

FILE #3536
COMP FILE ERLAM9ACPL



5830 Longbeach Road Waterfront Development Permit Area Assessment

Boundaries and Points

- Property Boundary
- Natural Boundary
- wildlife snag
- danger tree

Setbacks

- WDP/SPEA 15 m
- Riaprains Assessment Area 30 m
- LWD and Litterfall ZOS 15 m
- Shade ZOS 30 m



Map Date: 04/25/2024
 Projection: NAD83 UTM Zone 11
 Project: 2024-1124 Longbeach Rd
 Scale: 1:1,000

APPENDIX 3. SPECIES AT RISK – CONSERVATION DATA CENTRE

Confirmed Species and Species at Risk within the 10 km buffer area.

English Name	Scientific Name	BC List	COSEWIC	SARA
Mammals				
Fringed myotis	<i>Myotis thysanodes</i>	Blue	DD	3
Grizzly Bear	<i>Ursus arctos</i>	Blue	SC	1-SC
Hoary Bat	<i>Lasiurus cinereus</i>	Blue	E	
Little Brown Myotis	<i>Myotis lucifugus</i>	Blue	E	1-E
Fish				
White Sturgeon (Upper Kootenay River Population)	<i>Acipenser transmontanus pop. 1</i>	Red	E	1-E
Invertebrates				
Banded Tigersnail	<i>Anguispira kochi</i>	Blue	NAR	
Western Bumble Bee	<i>Bombus occidentalis</i>	Yellow	T	
Amphibians				
Western Skink	<i>Plestiodon skiltonianus</i>	Blue	SC	1-SC
Reptiles				
Northern Rubber Boa	<i>Charina bottae</i>	Yellow	SC	
Vascular Plants				
Whitebark pine	<i>Pinus albicaulis</i>	Blue	E	1-E
Critical Habitat				
American Badger (winter/summer suitability)	<i>Taxidea taxus</i>			
Southern Mountain Caribou	<i>Rangifer tarandus</i>	Red	E	
Whitebark pine	<i>Pinus albicaulis</i>	Blue	E	1-E
Ungulate Winter Range				
Mule Deer	<i>Odocoileus hemionus</i>	Yellow		
Southern Mountain Caribou	<i>Rangifer tarandus</i>	Red	E	
Wildlife Habitat Features				
Bald Eagle	<i>Haliaeetus leucocephalus</i>	Yellow		
Great Blue Heron	<i>Ardea herodias</i>	N/A		
Biogeoclimatic Zones				
Interior Cedar Hemlock very dry warm (ICHxw)				

Data is provided by the BC Conservation Data Centre (Mapped Locations) and IMAP BC provincial data layers

¹ BC Conservation Status (CDC): Red = extirpated, endangered, or threatened. Blue = special concern. Yellow = secure.

² COSEWIC/SARA: Endangered (E) = Facing imminent extirpation or extinction. Threatened (T) = Likely to become endangered. Special concern (SC) = May become a threatened or an endangered. Species listed on Schedule 1, SARA are legally protected.

³ DD = data deficient

APPENDIX 4. ARCHAEOLOGICAL CHANCE FIND PROCEDURES

Chance Find Procedures for Archaeological Material

This document provides information on how a developer and/or their contractor(s) can manage for potential archaeological material discoveries while undertaking construction and/or maintenance activities. This document can provide assistance to in-field contractors in the identification of archaeological remains and the procedures to follow if a discovery is made. The discovery of human remains initiates a different course of action and is outlined separately.

Under the provincial *Heritage Conservation Act (HCA)*, archaeological sites that pre-date 1846 are automatically protected whether on public or private land. Protected sites may not be damaged, altered or moved in any way without a Section 12 or 14 Permit as issued through the *HCA*. It is illegal to collect or remove any heritage object from an archaeological site unless authorized to do so under permit.

1. Activities occurring outside of known Archaeological Sites:

When archaeological material is encountered outside of known archaeological site areas work in the vicinity must stop immediately no matter what type of material or feature has been identified. Alteration to an archaeological site can only occur under a Section 12 (Site Alteration Permit) or Section 14 (Heritage Inspection Permit) *Heritage Conservation Act* permit. Such permit applications should be prepared by a professional archaeologist.

If archaeological material is discovered during the course of construction activities:

1.1 Stop Work: Halt all work in the area of the discovery and safely secure the area. Contact the project manager or site foreman.

1.2 Contact an Archaeologist: An archaeologist should be contacted as soon as possible. For a list of qualified archaeologists in the area, the proponent is directed to the BC Association of Professional Consulting Archaeologists website: www.bcapa.ca. The proponent may also wish to contact the Ktunaxa Nation Council's Archaeology Technician Nathalie Allard for direction (1-250-426-9549; nallard@ktunaxa.org).

1.3 Archaeologist provides guidance: The archaeologist will direct the proponent on the next courses of action, which will include notifying the Archaeology

Branch and First Nations with interest in the area.

2. Activities Occurring within Known Archaeological Site Boundaries:

Land altering activity within a previously recorded archaeological site must be conducted under a Section 12 HCA Site Alteration Permit (SAP), in some cases with an onsite archaeological monitor. It is common for additional archaeological material and features to be encountered during activities occurring within previously recorded archaeological sites. Minor finds (lithic flakes, diffuse charcoal or fire altered rock) may not require work to stop, however significant finds require a level of assessment by a professional archaeologist, and it is up to the onsite project manager to determine the level of significance based on criteria presented below.

2.1 Significant Cultural Finds that Require a Professional Archaeologist (described in detail in Section 4)

- Intact archaeological features, which can include but are not limited to hearths, cultural depressions (e.g. cache pits, house depressions) and rock alignments or forms (e.g. tipi rings, cairns, blinds)
- Significant archaeological materials, which include but are not limited to, the presence of formed lithic tools (e.g. projectile point, microblade core, scraper), a dense concentration of lithic waste flakes, or artistic items
- Human Remains (described in detail in Section 3)

2.2 Archaeological Site Management Options

- 2.2.1 **Site Avoidance:** If the boundaries of a site have been delineated, redesign the proposed development to avoid impacting the site. Avoidance is normally the fastest and most cost effective option for managing archaeological sites. Site avoidance could also be achieved through minimizing ground disturbance by looking for alternative constructive methods.
- 2.2.2 **Mitigation:** If it is not feasible to avoid the site through project redesign, it is necessary to conduct systematic data collection and analysis within the site prior to its loss. This could include surface collection and/or excavation. This work can be time-consuming and therefore expensive to conduct.
- 2.2.3 **Protection:** It may be possible to protect all or portions of the site which will be impacted through installation of barriers during the development period and possibly for a longer period of time. Methods for barrier construction could include fencing around site boundaries or applying

geotextile to the ground surface and capping it with fill. The exact method used would be site-specific.

3. Chance Find Procedures for Identified Human Remains

Procedures in the event of the discovery of human remains during construction are covered in depth by an Archaeology Branch Policy Statement, found on their website at www.for.gov.bc.ca/archaeology, and are summarized below.

- 3.1 Stop all construction activities immediately in the area of found or suspected human remains and contact the RCMP and/or Office of the Coroner.
- 3.2 The coroner must determine whether the remains are of contemporary forensic concern or archaeological/aboriginal.
- 3.3 If the remains are found to be of aboriginal ancestry then the next step involves the relevant First Nations collaboratively determining the appropriate treatment of those remains.

The key to respectfully dealing with ancient aboriginal remains is to involve the appropriate First Nations as early as possible in the process. However this must be done in a manner that does not interfere with the coroner's office ability to conduct their business in the manner that they see fit.

4. Site Identification Guide

The following are characteristics typical to site types found within the Ktunaxa Traditional Territory.

4.1 Artifact Scatters

Lithic (stone) scatters from the production and maintenance of stone tools are the most common type of archaeological site found in the region. Other materials that may be represented in artifact scatters are Fire Broken Rock (FBR), bone, antler and tooth.

Lithics: What to look for

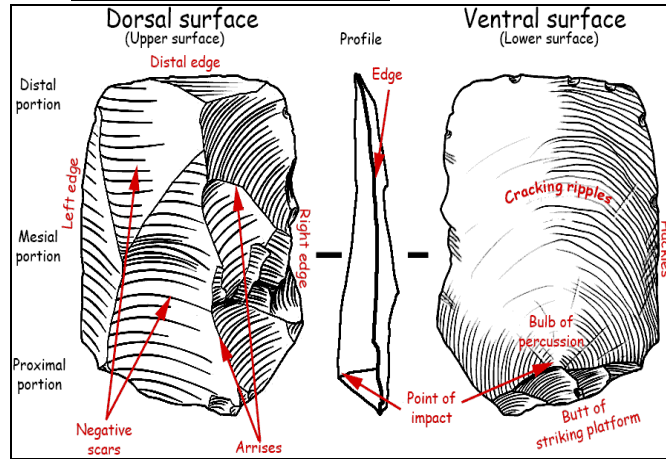


Image 1: Basic flake morphology



Image 2: Examples of lithic flakes

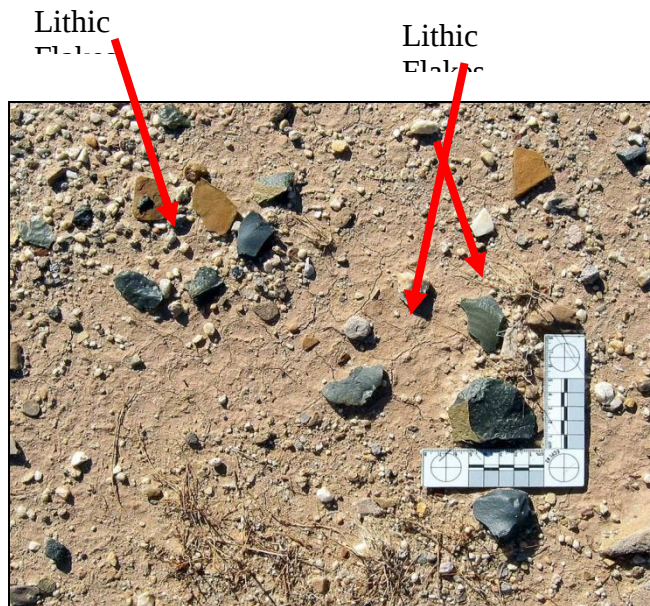


Image 3: Example of lithic scatter found on ground surface



Image 4: Example of formed lithic artifacts

Zakioqnuuk

Zaqam

Lower Kootenay

Tobacco Plains

Image 6: Bone and Antler artifacts

4.2 Fire Broken Rock and Hearths

Fire-broken rock (FBR) results from the use of fire during cooking, heating and processing activities. FBR is often associated with other features including hearths and cultural depressions, but can also be thinly scattered in concentrations away from the features with which they were first associated.

When looking for FBR, note concentrations of roughly fractured rock from rapid heating and cooling, rock showing signs of burning or oxidation and/or reddening or blackening of surrounding matrix.

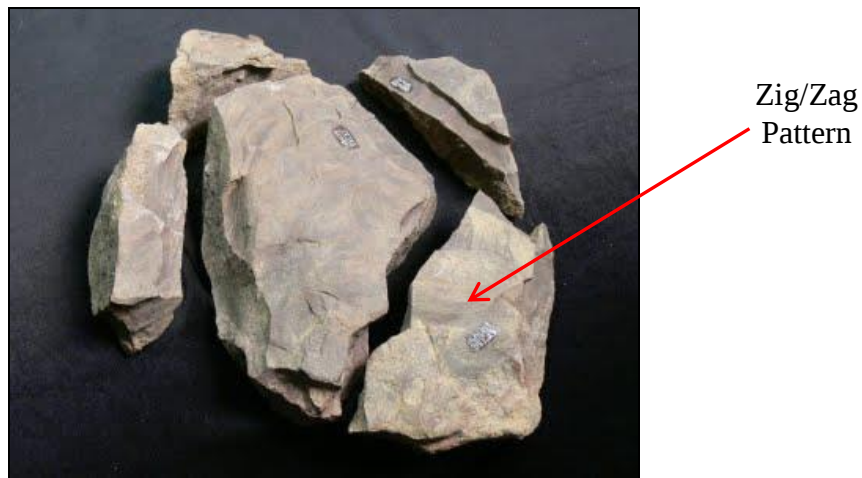


Image 7: Example of FBR; note the zig/zag pattern of breakage common to FBR. A hearth feature is evidence of a fire pit or other fireplace feature of any period. Hearths were used for cooking, heating, and processing of some stone, wood, faunal, and floral resources and may be either lined with a wide range of materials like stone or left unlined. Occasionally site formation processes (e.g., farming or excavation) deform or disperse hearth features, making them difficult to identify without careful study.

Hearths: What to look for

- FBR
- reddening or blackening of the associated soil/sediment
- charcoal
- layering of FBR and charcoal, and
- depressions in the earth associated with FBR, reddened or blackened matrix and charcoal.



Image 8: Example of a hearth uncovered along the wall of an excavation unit

4.3 Cultural Depressions

Any depression seen on the ground surface that appears to have been excavated by man can be a cultural depression and have archaeological significance. These “pits” were dug for a variety of reasons such as for food storage, cooking or as a base for a dwelling. They can range in size from 1m across to 7-10m across, and are usually found associated with other artifacts such as FBR and lithic scatters.

To identify a cultural depression, look for:

- Subtle to deep scours on the ground surface that are circular to rectilinear in shape
- A raised rim along the edge of a depression
- Depressions associated with artifacts and FBR
- Depressions associated with fire reddening and blackening of the matrix



Image 9: Example of a large cultural depression in a natural setting

4.6 Rock Alignments

There are several types of rock alignments that occur within the culture area, which include tipi rings, medicine wheels, cairns and blinds. When attempting to identify rock alignments, look for a group of rocks that look purposefully placed as in a circle, pile or line; isolated groups of rock that do not seem to belong to that landscape; and/or rocks which form a pattern.



Image 10: Example of a Cairn or piling of rocks



Image 11: Example of a tipi ring in a natural setting

Takisqnuuk

Taq'am

Lower Kootenay

Tobacco Plains

APPENDIX 5. ENVIRONMENTALLY SENSITIVE & WATERCOURSE DEVELOPMENT PERMIT AREA FREQUENTLY ASKED
QUESTIONS



Environmentally Sensitive & Watercourse

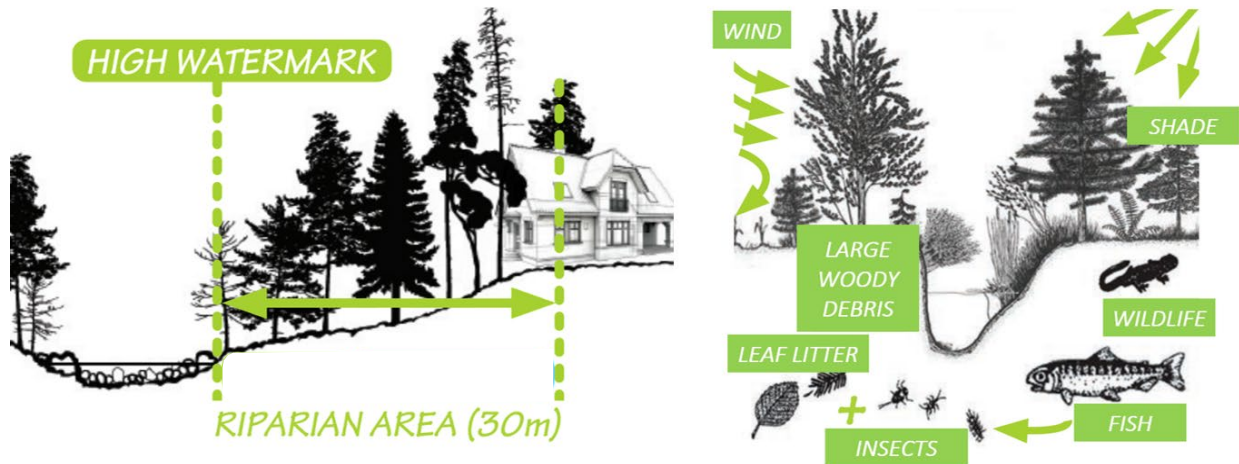
Development Permit Area
Frequently Asked Questions

DISCLAIMER: *The information contained in this document is meant for reference purposes only and is not intended to be a full representation of, or substitution for, Regional District of Central Kootenay (RDCK) land use policies and regulations. As this document summarizes Provincial requirements and biological best practices, which can be subject to change, the RDCK is not responsible for any errors or omissions in this document.*

WHAT ARE RIPARIAN AREAS AND WHY ARE THEY IMPORTANT?

Riparian areas border watercourses. They are the transition zones between water and upland areas. They provide the plants and wildlife habitat needed for the health of our aquatic environments (lakes, rivers, creeks, streams, ravines and wetlands).

The general location of a riparian area and what is commonly found in them is shown in the figure below.



Source: Adapted from BC Ministry of Forests.

The plants and wildlife habitat associated with riparian areas serve an important function in enhancing water quality and the natural environment. Trees, bushes and other plants that make up riparian area vegetation are some of the most important pieces of a healthy lake. Their major benefits are shown in the table below.

<i>Benefits of Riparian Area Vegetation</i>	
<i>Water Quality</i>	<i>Wildlife Habitat</i>
Stabilizes slopes and absorbs stormwater runoff, preventing erosion and sedimentation into watercourses	Provides shade, resulting in cooler water temperatures needed for fish health. Salmonids – like Trout, Kokanee, and Char – require cool, clear waters to survive
Naturally absorbs wave energy to protect the foreshore and upland property from erosion	Provides organic matter, which is a food source for the organisms that fish consume
Helps hold native gravels, fines, and minerals in place to filter rain and stormwater runoff and trap harmful pollutants and contaminants	Creates good fish habitat by reducing stormwater runoff and sedimentation that makes it difficult for fish to breathe
Absorbs water faster than bare soil to slow the impacts of runoff during the spring and early summer	Provides cover to protect fish from overconsumption by predators

WHY ARE NATIVE SOILS IMPORTANT FOR RIPARIAN AREAS?

Native soils serve many important functions like providing fish and wildlife habitat and cover, as well as ideal growing mediums that encourage natural plant regeneration, in turn anchoring against erosion.

When native upland soils (above high water mark) and instream substrate (below high water mark) are moved, covered, or removed, the important functions they serve can diminish. Generally, we see reductions in the natural regeneration of plants, increased instances and severity of erosion, difficulty maintaining existing native plants, and increased persistence of invasive species. These negative impacts can be detrimental to the health of riparian areas and their adjacent aquatic ecosystems. They can also be costly to address and restore balance.

Clearing rocks on the beach and creating rock piles into the water, like the ones shown in the picture, is known as a 'groyne'. Groynes force young fish to swim into deeper water where they are at greater risk of being preyed upon. Groynes and the removal or covering of native soils are some of the most prevalent disturbances, both of which have reduced the quality of fish and wildlife habitat along the shoreline.



WHAT IS A DEVELOPMENT PERMIT AREA?

Development Permit Areas (DPAs) are designated areas where a planning permit is required before construction or land alteration/disturbance can occur.

DPAs are designated for areas that require special treatment or consideration when they are developed. DPAs contain specific development policies and guidelines to ensure that new development in that area is consistent with the objectives outlined within the Official Community Plan (OCP).

DPAs can be created to support the OCP objectives of protecting the natural environment, including sensitive ecosystems and biodiversity, and protecting developments from hazardous conditions in the environment (such as flooding, erosion, land slip, rock falls, and fire hazards). Development permits can also be created to support other OCP objectives for industrial, commercial, and multi-family residential development.

If a property lies within a DPA, a Development Permit is required prior to a building permit being issued or development taking place, and all work must be completed in accordance with the conditions of the Development Permit (unless exempt).

Visit the following links from the RDCK's website for more information on Development Permit Area(s):

- [Development Permit Areas in the RDCK \(Video\)](#)
- [Development Permits \(Webpage\)](#)

WHAT IS AN OFFICIAL COMMUNITY PLAN?

An Official Community Plan (OCP) is a general statement of the long-term vision for an area and the broad objectives and policies of the local government respecting the character of existing and proposed land use and servicing requirements in the area covered by the Plan.

The purpose of an Official Community Plan is to provide policy directions to guide future land use decisions. They are developed closely with the communities that they apply to in order to understand and work towards the shared

vision for that area. OCPs are also the documents where Development Permit Areas are formally designated. When changes are made to a DPA in an area where there is already an OCP in place, it is done by amending the OCP.

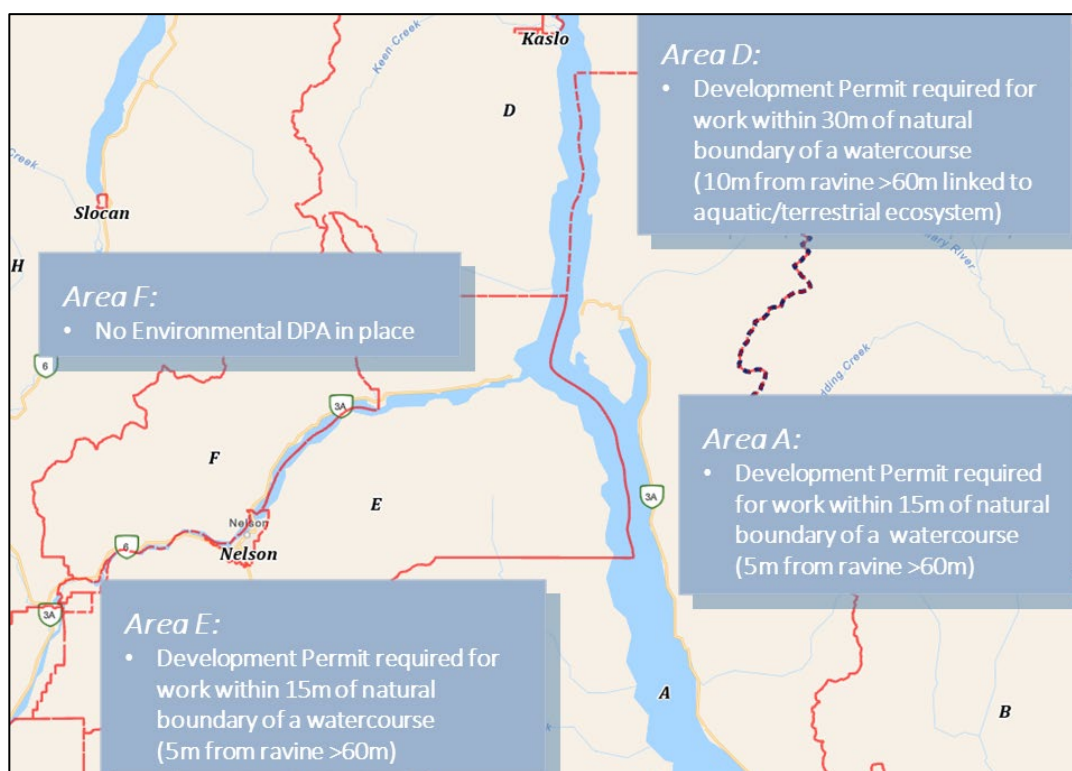
More information on OCPs can be found on the RDCK's [Community Planning Page](#).

WHAT IS AN ENVIRONMENTAL DPA?

Environmental DPAs are areas where development activity must follow certain guidelines to ensure it will not negatively impact the natural environment, including sensitive ecosystems and biodiversity.

A Development Permit is required in these areas prior to undertaking any development activities. A list of the development activities that trigger the requirement for a development permit, as well as exemptions, is included in the **“Do I need a Development Permit now?”** section below. An overview of Environmental DPA requirements on Kootenay Lake is also covered in [this YouTube video](#) (“RDCK Kootenay Lake Development Permit Areas”).

The Environmental DPAs for Kootenay Lake are illustrated in the image below:



Environmental DPAs along Kootenay Lake

WHAT IS THE PURPOSE OF ENVIRONMENTAL DPAs?

Environmental DPAs ensure that we understand habitat values present on a piece of land and mitigate any potential negative impacts before development activity takes place.

The intention of Environmental DPAs is to protect the natural areas surrounding Kootenay Lake in order to reduce the impacts of development on the lake. Ideally, riparian areas would be avoided altogether in development. However, this would be incredibly difficult to do because of how land near Kootenay Lake was developed in the past.

The Development Permit process balances the needs of individuals with the needs of the environment in recognition of this challenge. It encourages property owners to retain native riparian vegetation, avoid environmentally sensitive

areas, limit the amount of disturbance to riparian areas, restore damaged aquatic habitats where possible, and choose the most appropriate areas for constructing new buildings.

Development activity within an Environmental DPA, unless exempt (see **“Do I need a Development Permit now?”** below), must first be reviewed by a Qualified Environmental Professional or Registered Professional Biologist. The professional will evaluate the activity and propose a set of recommendations and mitigation options to ensure that development will take place in a way that is sensitive to the natural environment.

DOES AN ENVIRONMENTAL DPA PREVENT ME FROM BUILDING?

Environmental DPAs ensure development is completed according to a set of prescribed guidelines that ensure it is sensitive to the natural environment.

An Environmental DPA will not prevent you from building or completing other development activities. It may, however, require you to locate building sites away from sensitive areas and provide cautionary measures while developing, such as installing temporary silt or snow fencing next to sensitive areas, locating fill and overburden away from areas prone to erosion and sedimentation, and refuelling equipment a safe distance away from water. If development requires disturbance of a riparian area, it is common to have to restore that area, often through planting native riparian vegetation. Cautionary measures and restoration requirements are based on the recommendations and mitigation options contained within an environmental assessment prepared by a Qualified Environmental Professional or Registered Professional Biologist, which must be submitted with the Environmental DPA application.

DO I NEED A DEVELOPMENT PERMIT NOW?

A Development Permit is required for any development activity within an Environmental DPA.

Development activities that require a Development Permit include:

- Removal, alteration, disruption or destruction of vegetation
- Disturbance of soils
- Construction or erection of buildings and structures
- Creation of non-structural impervious or semi-impervious surfaces (such as patios or parking areas)
- Flood protection works
- Construction of roads, trails, docks, wharves and bridges
- Provision and maintenance of sewer and water services
- Development of drainage systems
- Development of utility corridors (such as water or power lines)
- Subdivision

Not all development activity, however, requires a permit. The following activities are exempt from a Development Permit:

- Existing construction, alteration, addition, repair, demolition and maintenance of farm buildings, and agricultural activities including clearing of land for agricultural purposes
- Existing institutional development containing no residential, commercial or industrial use
- Construction, renovation, or repair of a permanent structure if the structure remains on an existing foundation in the Development Permit Area. If the foundation is moved or extended a Development Permit is required.
- Where the conditions of the DPA have already been met
- When a Development Permit has already been issued for the project and addresses all proposed development activities in the DPA

WHEN DO I NEED A PERMIT FROM THE PROVINCE?

When work on your property extends below the “present natural boundary” of, or has an impact on, a watercourse (such as Kootenay Lake).

Local governments like the Regional District of Central Kootenay are responsible for all land above the “present natural boundary” of a watercourse and the Provincial and Federal governments are responsible for all land below it. The Province of BC defines the present natural boundary as:

“The visible high water mark of any lake, river, stream or other body of water where the presence and action of the water are so common and usual, and so long continued in all ordinary years, as to mark on the soil of the bed of the body of water a character distinct from that of its banks, in vegetation, as well as in the nature of the soil itself.”
(Province of BC Land Act)

The present natural boundary is usually identifiable by a change in vegetation but a professional should confirm its exact location before completing any work.

All work related to building a dock, placing a buoy, removing an old structure near the water’s edge or doing anything else that would disturb the shoreline may require a permit from the Province. The best starting point is to contact FrontCounter BC at 1-877-855-3222 or by email at FrontCounterBC@gov.bc.ca. They will determine whether a permit is required for the proposed work. More information can be found by visiting [the FrontCounter BC website](#).

Some activities near the water, such as the removal of old structures, requires disturbance both above and below the present natural boundary. In cases such as this, a permit from the Province as well as a Development Permit from the RDCK may be required.

18.0 DEVELOPMENT PERMIT AREAS

Background

The OCP may designate Development Permit Areas under the authority of local government legislation. Unless otherwise specified, a development permit must be approved by the Regional Board, or delegate of the Board, prior to any development or subdivision of land within a designated Development Permit Area.

Development Permit Areas allow for implementation of special guidelines for the protection of the natural environment, protection from hazardous conditions, for revitalization of designated areas, or to guide the form and character of development within the Plan area. Development Permit Areas can also be used to meet targets for carbon emission reductions and energy and water conservation.

Where land is subject to more than one Development Permit Area designation, a single development permit is required. The application will be subject to the requirements of all applicable Development Permit Areas, and any development permit issued will be in accordance with the guidelines of all such Areas.

Development Permit Area #1: Watercourse Development Permit (WDP) Area

Category

The WDP area is designated under Section 919.1(1) (a) of the *Local Government Act* for the protection of the natural environment, its ecosystems and biological diversity.

Justification

The primary objective of this Development Permit Area designation is to regulate development activities in watercourses, lakes and wetlands and their adjacent riparian areas so as to protect aquatic habitat; and to conserve, enhance and, where necessary, restore watercourses and their riparian areas.

Area

The WDP area is comprised of:

1. Riparian assessment areas (Figure 1) for fish and wildlife habitat and drinking water, including:
 - a. All areas within 15 metres of the high water mark of a watercourse, including the natural boundary of a lake;
 - b. within 15 metres of the top of the ravine bank in the case of a ravine less than 60 metres wide;

- c. within 5 metres of the top of the ravine bank in the case of a wider ravine that links aquatic to terrestrial ecosystems and includes both existing and potential riparian vegetation and existing and potential upland vegetation that exerts an influence on the watercourse; and
- d. all areas within 15 metres of the high water mark of a wetland.

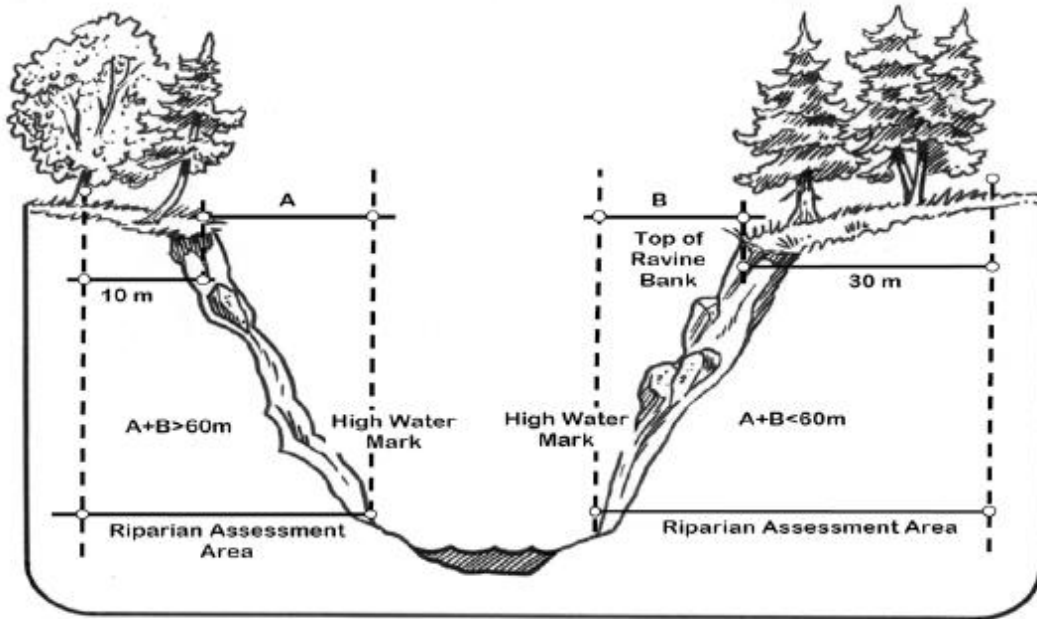


FIGURE 1: RIPARIAN ASSESSMENT AREA: means the area within 15 m of the high water mark of a watercourse; within 15 m of the top of the ravine bank in the case of a ravine less than 60 m wide; and within 5 m of the top of the ravine bank in the case of a wider ravine that link aquatic to terrestrial ecosystems and includes both existing and potential riparian vegetation and existing and potential upland vegetation that exerts an influence on the watercourse.

Source: British Columbia Ministry of Environment, *Riparian Areas Regulation Implementation Guidebook*, March 2005

Where the following definitions apply:

High water mark means the visible high water mark of a watercourse where the presence and action of the water are so common and usual, and so long continued in all ordinary years, as to mark on the soil of the bed of the watercourse a character distinct from that of its banks, in vegetation, as well as in the nature of the soil itself, and includes the active floodplain.

Lake means any area of year round open water covering a minimum of 1.0 hectares (2.47 acres) of area and possessing a maximum depth of at least 2.0 metres. Smaller and shallower areas of open water may be considered to meet the criteria of a wetland.

Top of ravine bank means the first significant break in a ravine slope where the break occurs such that the grade beyond the break is greater than 3:1 for a minimum distance of 15 m measured perpendicularly from the break, and the break does not include a bench within the ravine that could be developed.

Watercourse means any natural or man made depression with well-defined banks and a bed 0.6 metres (2.0 feet) or more below the surrounding land serving to give direction to a current of water at least six months of the year and/or having a drainage area of two square kilometres (0.8 square miles) or more upstream of the point of consideration.

Wetland means any areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas.

Guidelines

A development permit is required, except where specified under the exemptions section, for development or land alteration on land identified as a riparian assessment area within the WDP Area. Where not exempt, development requiring a development permit includes any of the following associated with or resulting from residential, commercial or industrial activities or ancillary activities to the extent that they are subject to local government powers under local government legislation:

- 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-impervious 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*;

Development shall be in accordance with the following guidelines:

2. All development proposals subject to this permit will be assessed by a Qualified Environmental Practitioner (QEP) or Registered Professional Biologist (RP Bio) in accordance with the Riparian Areas Regulation established by the Provincial and/or Federal governments as used elsewhere in the Province;

3. An WDP shall not be issued prior to the RDCK ensuring that a QEP or RP Bio has submitted a report certifying that they are qualified to carry out the assessment, that the assessment methods have been followed, and provides in their professional opinion that a lesser setback will not negatively affect the functioning of a watercourse or riparian area and that the criteria listed in the Riparian Areas Regulation has been fulfilled, and;
4. The Riparian Areas Regulation implemented through the WDP does not supersede other Federal, Provincial and or local government requirements, including that of other development permit areas, building permits, flood covenants, Federal or Provincial authorization. Land subject to more than one development permit area designation must ensure consistency with the guidelines of each development permit area, to provide comprehensive stewardship of both fish and wildlife habitat.

Exemptions

The WDP area does not apply to the following:

5. existing construction, alteration, addition, repair, demolition and maintenance of farm buildings and agricultural activities including clearing of land for agricultural purposes;
6. existing institutional development containing no residential, commercial or industrial aspect;
7. construction, renovation, or repair of a permanent structure if the structure remains on its existing foundation. Only if the existing foundation is moved or extended in to a riparian assessment area would a WDP be required, and;
8. an area where the applicant can demonstrate that the conditions of the ESDP Area have already been satisfied or a development permit for the same area has already been issued in the past and the conditions in the development permit have all been met, or the conditions addressed in the previous development permit will not be affected.