



REGIONAL DISTRICT OF CENTRAL KOOTENAY

DEVELOPMENT PERMIT (REVISED)

D1603A (Walkers Landing – Crawford Bay Recreation and Development Limited)

Date: July 20th, 2016

Issued pursuant to Section 490 and 491 of the *Local Government Act*

1. This Development Permit is issued to Crawford Bay Recreation and Development Limited of Nelson, British Columbia as the registered owner (hereinafter called the “Permittee”) and shall only apply to those lands within the Regional District of Central Kootenay, in the Province of British Columbia legally described as Lot A District Lot 4595 Kootenay District Plan NEP81179 Except Plan NES3371 (PID 026-707-977) as shown on the attached Schedules 1 and 2, forming part of this Permit, referred to hereafter as the “said lands”.
2. This Development Permit is issued subject to compliance with all of the bylaws of the Regional District of Central Kootenay applicable thereto, except as specifically varied or supplemented by this Permit.
3. This Development Permit shall not have the effect of varying the use or density of land as specified in the applicable Zoning Bylaw of the Regional District of Central Kootenay, nor a Floodplain Specification under Section 524 of the *Local Government Act*.
4. The said lands have been designated ‘Suburban Residential’ and are located within a Development Permit Area pursuant to the *Electoral Area A Comprehensive Land Use Bylaw No. 2315, 2013* as amended.
5. The Permittee has applied to the Ministry of Transportation and Infrastructure for the purposes of subdivision approval and to use land and buildings situated on the said lands for this purpose. Pursuant to this Development Permit and subject to the terms and conditions herein contained, as well as all other applicable Regional District Bylaws, the Regional District of Central Kootenay hereby authorizes the use of the said lands for the purposes of subdivision approval.
6. The Permittee is required to obtain approval in writing from the Regional District of Central Kootenay prior to the construction of any new buildings, external additions to existing buildings, or for any deviation from the development authorized under Section 5.0 of this Development Permit. Furthermore, the Permittee is hereby advised of the following requirements:
 - 6.1 The Regional District of Central Kootenay Building Department requires that the Permittee obtain a demolition permit and/or building permit prior to the removal of any existing buildings and structures, the renovation, expansion or alteration of any existing building and the construction of any new building.
 - 6.2 Unless otherwise stated all development, with the exception of the existing boat launch, proposed waterworks, and/or pedestrian access to Kootenay Lake

shall be prohibited within 15.0 metres of the natural boundary (determined to be at approximately 534 metre elevation) of Kootenay Lake for proposed lots 12 to 17 and 19 and 20.0 metres of the natural boundary (determined to be at approximately 534 metre elevation) of Kootenay Lake for proposed lot 18.

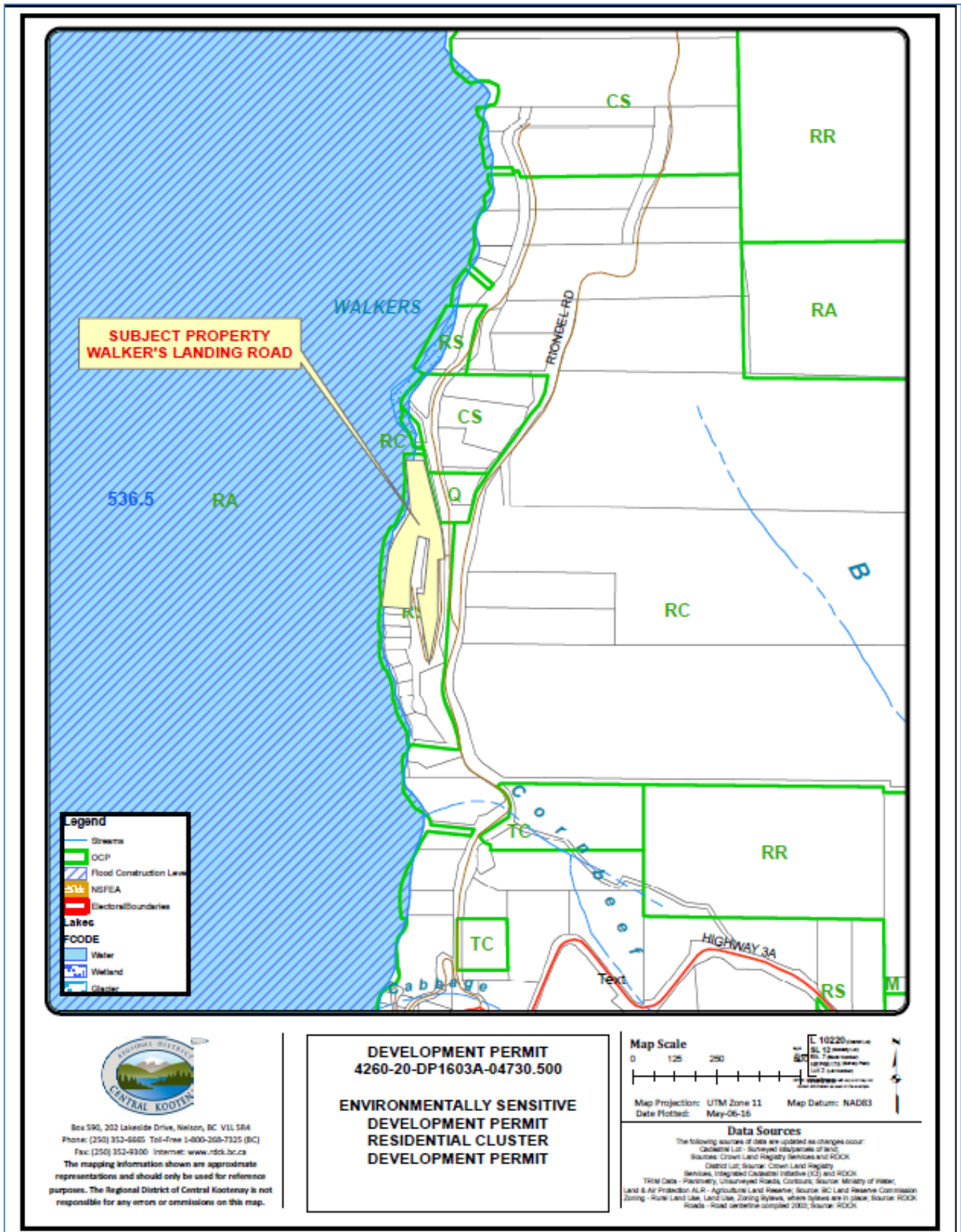
- 6.3 Unless otherwise stated, development activity and vegetation removal within 30.0 metres of the natural boundary (determined to be at approximately 534 metre elevation) of Kootenay Lake should be minimized.
- 6.4 Pedestrian access, stairs and decks within 30.0 metres of the natural boundary (determined to be at approximately 534 metre elevation) of Kootenay Lake should be designed to reduce erosion, allow light penetration and allow for wildlife movement.
- 6.5 A buffer of native vegetation around the rock outcrop identified on proposed lot 13 should be maintained.
- 6.6 Unless otherwise stated all development shall adhere to the recommendations contained within the *Declaration of Building Scheme* and Environmental Assessment prepared by Masse Environmental Consultants Ltd, Dated May 2016 and as attached to this Development Permit.
- 6.7 A building permit shall be required prior to any construction involving land in this location at which time the Permittee shall be required to address sewage disposal issues to the satisfaction of the Interior Health Authority and Regional District of Central Kootenay Senior Building Official.
7. The said lands shall be developed strictly in accordance with the terms and conditions of this Development Permit and the requirements of all applicable Regional District Bylaws as well as any plans and specifications which may, from time to time, be attached to this Permit shall form a part thereof.
8. In accordance with the Local Government Act, if the development authorized by this Development Permit is not commenced within two years of the date of this Permit, this Permit shall lapse.
9. In accordance with the Local Government Act, 'Notice' shall be filed in the Land Title Office that the said lands are subject to this Development Permit.
10. The terms of this Development Permit including subsequent amendments, are binding on all persons who acquire an interest in the said lands associated with this Permit.
11. It is understood and agreed that the Regional District has made no representations, covenants, warranties, guarantees, promises, or agreement (verbal or otherwise) with the Permittee other than those in this Development Permit. It is solely the responsibility of the Permittee to ensure that the requirements of all other applicable government agencies are satisfied.
12. This Development Permit does not constitute a building permit.
13. This Development Permit shall come into force and effect 14 days after the date of issuance unless a Waiver of Appeal is received from the Permittee at which time the Development Permit shall be deemed to be issued upon receipt of the Waiver of

Appeal. OR If a Notice of Appeal is received the Development Permit shall be suspended until such time as the Board of the Regional District of Central Kootenay has decided the Appeal.

Sangita Sudan, General Manager of Development Services

Date of Issuance

Schedule 1: Subject Property



Box 590, 202 Lakeside Drive, Nelson, BC V1L 5R4
 Phone: (250) 352-6605 Toll-Free 1-800-268-7325 (BC)
 Fax: (250) 352-4900 Internet: www.rdkc.bc.ca
 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.

DEVELOPMENT PERMIT
4260-20-DP1603A-04730.500

ENVIRONMENTALLY SENSITIVE
DEVELOPMENT PERMIT
RESIDENTIAL CLUSTER
DEVELOPMENT PERMIT

Map Scale

0 125 250

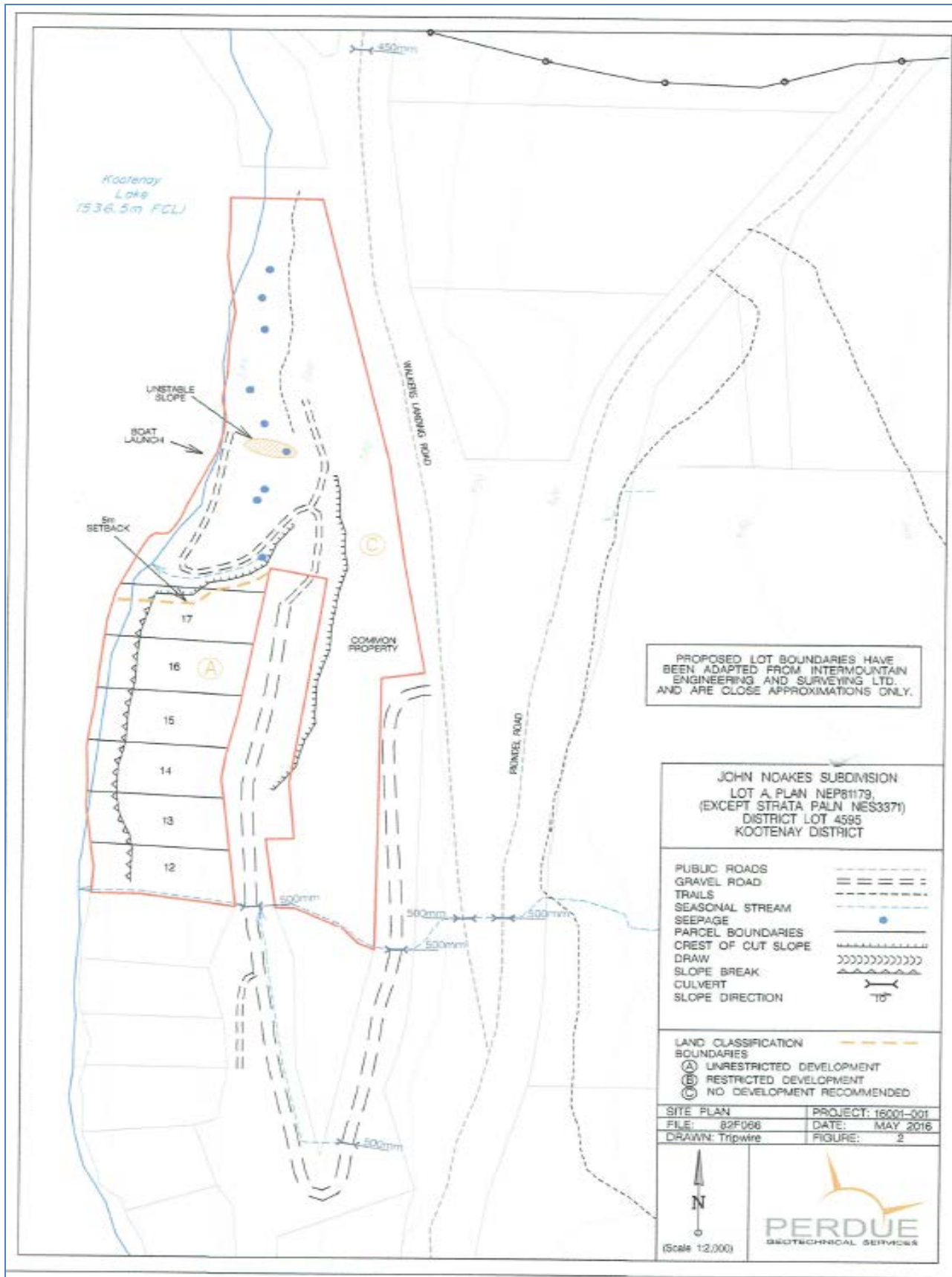
Map Projection: UTM Zone 11
Date Plotted: May-06-15

Map Datum: NAD83

Data Sources

The following sources of data are updated as changes occur:
 Cadastre Lot - Surveyed (duplicates of land)
 Sources: Crown Land Registry Services and ROKC
 District Lot: Source: Crown Land Registry Services, Integrated Cadastre Initiative (ICI) and ROKC
 TRIM Data - Priority, Unsurveyed Roads, Corridors, Source: Ministry of Water, Land & Air Protection (ALP - Agricultural Land Reserves), Source: BC Land Reserve Commission
 Zoning - Rural Land Use, Land Use, Zoning Bylaws, where shown are in place, Source: ROKC
 Roads - Road centreline compiled 2003, Source: ROKC

Schedule 2: Site Plan



Schedule 3: Declaration of Building Scheme and Environmental Assessment

Residential Development Cluster Permit

April 17, 2016

Meeri Durand
Planning Manager
Regional District Central Kootenay
202 Lakeside Drive
Nelson, BC
V1L 5R4

Proposed subdivision of PID 026-707-977, Lot A, DL 4595, KD Plan NEP81179 except Strata Plan NES3371 (ph.1) MOT FILE: 2015-02863
Residential Cluster Development Permit

Dear Meeri

Please find attached a Development Application and supporting documentation for consideration of the issuance of a Residential Cluster Development Permit.

The property is serviced by a gravel surfaced strata access route, finished approximately 6 meters in width throughout. Access location to Walkers Landing Road has been approved by the Ministry of Transportation and Infrastructure at the first phase of subdivision. The internal access route fronts all lots and access is viable on each lot frontage. Electrical power is available for connection to each lot.

There is a building scheme registered for the development (copy attached). The building scheme provides for a consistent building appearance that respects the environmental values of the site.

Riparian areas will be subject to the requirements of the Environmental Sensitive Development Permit area. In addition there will be no development within 15 meters of the natural boundary in accordance with the provisions of Flood Management Bylaw 2080. Access through the riparian area shall be minimized to the width of stairways and or trails. Domestic water shall be provided by individual licenses to the lake and will be installed with minimal disturbance to the riparian zone.

Please advise if you have any questions or concerns.



Peter Muirhead

Muirhead Land Development Solutions Ltd.

www.bcsubdivider.ca

Solutions@bcsubdivider.ca

250 354-9341

LAND TITLE ACT
FORM 35
(Section 220(1))

DECLARATION OF BUILDING SCHEME

NATURE OF INTEREST: CHARGE: BUILDING SCHEME

HEREWITH FEE OF: \$65.65

Address of person entitled to apply to register this building scheme:

Crawford Bay Recreation and Development Ltd., Inc #BC0271177
1021 Fell Street, Nelson, B.C. V1L 3N4

Full name, address and telephone number of person presenting application:

SIGNATURE OF APPLICANT OR SOLICITOR

I, Crawford Bay Recreation and Development Ltd. (the "Company") hereby declares that:

1. The Company is the registered owner in fee simple of the following land (hereinafter called "the Lots")
Strata Lots 1 - 11, District Lot 4595, Kootenay District, Plan NES3371
2. The Company hereby creates a building scheme relating to the Lots.
3. A sale of any of the Lots is subject to the restrictions enumerated in the schedule attached or annexed hereto.
4. The restrictions shall be for the benefit of all the Lots.

Officer's Signature

Execution Date

Party's Signature

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()	()	()

Crawford Bay Recreation and Development
Ltd. by its authorized signatory:

OFFICER CERTIFICATION:

Your signature constitutes a representation that you are a solicitor, notary public or other person authorized by the Evidence Act, R.S.B.C. 1996 c. 124, to take affidavits for use in British Columbia and certifies the matters set out in Part 5 of the Land Title Act as they pertain to the execution of this instrument.

SCHEDULE OF RESTRICTIONS

(a.m.B.C.Reg.34/92)

1. No building, structure, decks or other improvement or any addition, change or alteration shall be erected, undertaken, constructed, placed or maintained in , on or above the Lots unless and until proper plans and specifications showing:
 - (a) all elevations and specifications thereof;
 - (b) all materials to be used with details of quantities and qualities of materials;
 - (c) the location and elevation thereof in relation to the property lines and finished ground elevation; and
 - (d) drainage control

(hereinafter referred to as the "Plans and Specifications") have been submitted to and approved in writing by Crawford Bay and Recreation and Development Ltd. (hereinafter referred to as the "Developer"). The Developer shall within 21 days of receipt of the proper plans and specifications, provide its decision on the approval of same.
2. No dwellings shall be constructed on the Lots unless they conform with the National Building Code, the British Columbia provincial building code and the building by-laws of the Regional District of Central Kootenay in effect at the time of construction.
3. The exteriors of all buildings shall be made of natural materials with earth tone colours . No bright colors or white shall be permitted. Permitted exterior materials are wood or wood products, rock or stone. Permitted roof materials are shake, shingle or coloured metal. The Developer may approve other exterior materials or roof materials.
4. All building setbacks shall conform with the requirements specified by the Regional District of Central Kootenay when the building permit is granted provided that all buildings must be set back at least 5 metres from the side lot line and 8 metres from the common road unless written consent is obtained from the Developer prior to commencement of construction.
5. Construction on Lot 1 and Lot 11 is restricted by Covenant #LB150600 to the areas designated on Plan NEP85630.
6. All single storey dwellings must be at least 120 square metres (approx 1250 square feet) in size, excluding attached garages which shall not be included when calculating the size. Notwithstanding the foregoing, the Developer, may in its sole discretion, approve dwellings which are smaller than 120 square metres for Lots 2 and 3.
7. All single storey dwellings shall be no more than 330 square metres (approx 3500 square feet) in size, including attached garages, unless the interior lot line for two adjoining lots has been cancelled, in which event the maximum size for a single storey dwelling on any such consolidate lot shall be 430 square meters (approx 4500 square feet) .

8. The main floor level of a multi-level dwelling must be at least 85 square metres (approx 900 square feet) in size and the total square footage of all floors of a multi-level dwelling shall be no more than 380 square metres (approx 4000 square feet) in size, including attached garages. No dwelling shall have more than two and a half stories.
9. Fences are prohibited as the Developer is attempting to promote the natural settings and uninterrupted movement of wildlife. Dog runs may be permitted if unobtrusive, provided that the Developer approves in writing in advance.
10. The lots will draw power from the existing power poles. Overhead power lines are prohibited except in certain situations which must be approved in writing in advance by the Developer on a case by case basis. Unless prior written approval is obtained all power lines must be buried underground.
11. Once commenced all construction except for exterior finishing must be completed within two years. Exterior finishing must be completed within 12 months of the pouring of the footings.
12. The provisions hereof will be in addition to, but not in substitution for, any generally applicable laws, ordinances, rules, regulations or orders of governmental or municipal authorities.
13. The elevation of Kootenay Lake varies over the normal course of a year and because the maximum elevation of Kootenay Lake since 1975 has been 534.25 metres about sea level, the minimum building elevation of an buildings constructed on any of the Lots must be 536.5 metres above sea level.
14. No person carrying out any works upon any Lots shall damage roads, driveways, landscape elements, telephone lines, electrical distribution equipment or other utilities (the "Services") and if any damage occurs or is caused then the Developer may either:
 - (a) repair such damage and charge the owner of the Lot all costs incurred inclusive of an administration fee of 15% of such costs; or
 - (b) deliver written notice to the owner of the Lot to repair and replace the damaged Services but if the owner of the Lot refuses or neglects to repair or replace the Services then the Developer may undertake such repairs and replacement and the owner of the Lot shall indemnify the Developer against the cost of all repairs inclusive of an administration fee of 15% of such costs.
15. No mobile homes , tents, caravans or other temporary dwellings shall be permitted on any Lot at any time unless prior approval is obtained in writing from the Developer. It is the intention of the Developer to permit newer recreational vehicles to be parked on the Lots during the summer season for recreational use but this will be decided on a case by case basis. No roofs or additions shall be permitted to any recreational vehicles.
16. Septic disposal is provided to all lots except Lot 11 by a shared septic system (the "Septic System") and the following rules and restrictions shall apply with respect to sewage disposal:

- (a) no other septic system shall be constructed on any of the Lots except for Lot 11;
 - (b) a separate sewage disposal system may be constructed on Lot 11 if all necessary approvals are obtained from the Ministry of Health or any other governmental authority having jurisdiction over the construction and installation of sewage disposal systems;
 - (c) each owner, at their own expense, shall install a 1000 gallon approved septic tank and will be responsible for installing and managing a pump system to deliver septic effluent to the Septic System pursuant to the engineering requirements of the Developer;
 - (d) owners septic tanks will be serviced and emptied as required at the cost of the owner of the Lot;
 - (e) garburators shall not be permitted;
 - (f) low flow toilet systems are recommended; and
 - (g) no owner may discharge any hot tub, swimming pool, ornamental pool or similar reservoir of water into the Septic System and the owners should familiarize themselves with the other dangerous fluids and products that should not be discharged into the Septic System.
17. No improvements for commercial practices will be made on any Lot and no commercial businesses shall be operated on an any Lot without the prior written consent of the Developer.
 18. No improvement shall be used for any other purpose other than as a private residence or hobby area, except for arts, crafts and professional occupations engaged in solely by the residents of the Lot.
 19. Renting of the primary residence located on a Lot is permitted provided that any guest houses can only be rented in conjunction with the rental of the primary residence and provided that there is only one rental per Lot at any time. In this context, a "rental" includes any visitor or guest that is paying or offering other consideration for use of the Lot and/or any improvements on the Lot regardless of whether or not there is a written rental agreement in place with the owner to govern such arrangements.
 20. No improvements shall be occupied until such improvement is complete and final approval has been obtained from the applicable regulatory authority.
 21. No more than two domestic house pets shall be permitted on any Lot unless written consent is obtained from the Strata Council prior to bringing the additional house pets onto the property.
 22. No domestic house pet shall be kept for sale or shall be kept in a way which causes a nuisance or annoyance, or be allowed to cause a nuisance, and no domestic house pet shall be permitted to run loose outside its owner's Lot.
 23. No animals of any kind or description whatsoever other than domestic dogs or cats may be raised, kept or stored on any Lot, in particular but not limiting the foregoing, no exotic animals, no birds, farm animals or livestock are to be kept on any Lot.

24. No garden storage sheds or greenhouses shall be permitted on any Lots unless situated in yard areas with low visibility from the foreshore and any such sheds and greenhouses shall be built such that they are architecturally compatible with the main residence.
25. Trash cans used by the Owners on their Lots must be bear resistant and stored in enclosed or screened areas so that they remain undisturbed by wildlife or domestic animals. No garbage facilities or garbage collection services shall be provided by the Developer. Each owner is responsible for ensuring that all waste originating from its Lot, including but not limited to household garbage, is disposed of regularly and in a legal manner. With respect to household garbage, this means transporting it to government operated dump or other legally recognized waste disposal site of the development and disposing of it there, including incurring any costs for so doing.
26. Any docks constructed on the foreshore shall be secured by anchors and no pilings will be permitted unless prior approval is obtained in writing from the Developer.
27. Jet skis and noisy personal watercraft are discouraged as the Developer is trying to maintain a natural and peaceful setting.
28. No parking is permitted, nor may goods of any kind be stored on the driveways of the common property.
29. Parking of heavy trucks or machinery or other similar equipment on any Lot or on the Common Property is prohibited except for the purposes of construction of improvements on any of the Lots and then only until completion of the particular job for which the truck, machinery or equipment was required. In any such event, the truck, machinery or equipment must be removed promptly after the construction of the improvement has been completed.
30. In the event of the breach of any one or more of the restrictions contained herein, the Developer shall have the right, but not the obligation, to enter upon the Lot and take whatever steps are necessary to cure such breach at the expense of the owner of the Lot being in breach and any cost and expenses related thereto shall constitute a charge upon the owner's Lot and may be collected by the Developer as justly due and owing.
31. Nothing herein contained shall be construed or implied as imposing upon the Developer, its agents, directors or employees any liability in the event of non-compliance or non-fulfillment of any of the terms, restrictions and benefits set forth herein and no liability or responsibility whatsoever shall be incurred by the Developer, its agents, directors or employees in performance or non-performance of their rights and obligations herein.
32. No signs, billboards or advertising of any type is permitted without the Developer's prior written consent.
33. Nuisances or annoyances that disturb property owners or their guests, or that diminish or depreciate any land, building or occupant's recreational experience or comfort are not permitted. This includes pets, undue noise, unruly gatherings or loud use of radio, television, musical instruments or other devices.

- 34. In order to minimize the demands on the environment buyers should consider:
 - (a) instant hot water heating or high efficiency boilers, low water use appliances and energy-efficient fixtures and lighting;
 - (b) solar panel systems;
 - (c) locally supplied products and labour services;
 - (d) CSA ENERGYSTAR-rated appliances;
 - (e) geotechnical heating and cooling systems.

- 35. If any of the covenants contained herein are determined to be void or unenforceable in whole or in part then such invalidity or unenforceability of such covenant(s) shall not affect any other covenant and the remaining covenants shall be deemed to be separate and distinct covenants.

- 36. The provisions hereof have been instituted for the general benefit of all owners of all Lots and each such owner, in agreeing to buy any Lot or Lots acknowledges such general benefit and the personal benefit attaching to the Lot purchased and agrees that, notwithstanding the other provisions herein contained, the violation of any of the restrictions set out herein will constitute an injury and damage to the other owners and because the injury and damage would be difficult to measure monetarily the other owners shall have the right, in addition to all the remedies available to the owners at law or in equity, to seek a restraining order, injunction, decree or other remedy to ensure compliance with the provisions of this Statutory Building Scheme.

- 37. Any owner in breach of any of the provisions contained herein shall indemnify and save harmless the Developer or any owner of any of the other Lots who commences any proceedings to enforce the provisions hereof and such indemnity shall extend to all losses, costs, claims and damages including, without limitation, solicitors' costs as actually paid arising as a result of the breach of the provisions hereof or the enforcement of the same.

- 38. The Developer will not be liable for, and each of the owners of the Lots agrees to indemnify and save harmless the Developer, in respect of any loss, cost, claim or damage arising out of:
 - (a) the approval of any Plans and Specifications by the Developer ; or
 - (b) the failure to enforce any of the provisions contained herein;
 and any failure to enforce any provision in any one or more cases shall not in any way affect or preclude the ability of the Developer to enforce or not enforce any such provision in any other case or cases.

- 39. The provisions hereof will run with and bind all of the Lots and all successors in title to all of the Lots and every lessee or occupant of all of the Lots.

- 40. Once six or more of the Lots have been sold then all rights granted to the Developer herein shall be assigned and transferred to the Strata Council and all references to the "Developer" herein shall be replaced by the "Strata Council."



**WALKERS LANDING SUBDIVISION
RIONDEL, KOOTENAY LAKE
Environmental Assessment**



Prepared for:

Regional District of Central Kootenay

202 Lakeside Drive,
Nelson BC, V1L 5R4

Prepared by:

Masse Environmental Consultants Ltd.

812 Vernon St.
Nelson, BC, V1L 4G4

Revision, May 2016

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1 INTRODUCTION

Masse Environmental Consultants Ltd. (MEC) was retained by Crawford Bay Recreation and Development Ltd, owner of Walkers Landing Subdivision on Kootenay Lake (Appendix 1), to provide environmental consulting services in support of the proposed Phase 2 subdivision. The area proposed for development consists of 4.43 hectares, which the proponent proposes to subdivide into eight parcels varying from 0.25 to 1.0 hectare in size. The preliminary concept plan for this proposed development consists of single family residential, common property and parkland dedication. The proposed subdivision is located within the riparian area of Kootenay Lake triggering the requirement for an environmentally sensitive development permit area (ESDPA) application.

Site visits were conducted on November 19, 2015 and January 25, 2016 by Fiona Lau, Environmental Technician, Sylvie Masse, M.Sc., R.P.Bio. and Jennifer Ross, P.Chem., to assess the habitat values and potential impact of the proposed subdivision on the riparian and foreshore areas.

This assessment will evaluate the existing conditions of the foreshore and riparian areas, identify important habitat values, assess the existing environmental impacts and recommend measures to protect environmentally sensitive areas for future development. It is based on the following regulatory framework and best management practices documents:

- Electoral Area 'A' Comprehensive Land Use Bylaw No. 2315.
- Riparian Areas Regulation
- Provincial Water Act
- General BMPs and Standard Project Considerations (Ministry of Environment)
- On the Living Edge: Your Handbook for Waterfront Living
- Develop with Care. Environmental Guidelines for Urban and Rural Land Development in British Columbia

This report has been prepared by Fiona Lau and Sylvie Masse, M.Sc., R.P.Bio. We, Fiona Lau and Sylvie Masse, hereby certify that:

- a) We are qualified environmental professionals, as defined in the Riparian Areas Regulation made under the Fish Protection Act;
- b) We are qualified to carry out this part of the assessment of the development proposal made by the developer;
- c) We have carried out my assessment of the development proposal, and my assessment is set out in this Assessment Report; and

- d) In carrying out our assessment of the development proposal, we have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation.

1.1 Location

The subject property, 245 Walkers Landing Road (Lot A, District Lot 4595 Plan NEP 81179 except Strata Plan NES 3371) is located along the east shore of Kootenay Lake, south of the community of Riondel (Appendix 1). Phase 2 of the Walkers Landing Subdivision is bordered by Walkers Landing Subdivision Phase 1 to the south, the Ministry of Transportation Road Right of Way (ROW) along the east and north property boundaries and Kootenay Lake along the west.

The project area is within the Interior Cedar Hemlock dry warm variant 1 (ICHdw1) biogeoclimatic subzone (Ketchesen and Braumandl 1992). This moist climatic region is characterized by very hot, moist summers; and very mild winters with light snowfall. Soils generally dry out in late summer for varying extents of time ranging from insignificant to extensive. Snow packs are very shallow to shallow and of short duration and combined with the mild climate result in no significant soil freezing.

During our site visit, we determined the visible high water mark to be at ~534 m elevation based on the location of presence of terrestrial vegetation along the foreshore (see definition of Natural Boundary below). Based on the definition of natural boundary, the 534 m elevation will be used as the HWM from which the 30 m riparian setback will be measured.

“Natural Boundary” means the visible high water mark of any lake, river, stream or other body of water is 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.”

(MOE 2016)

1.2 Streamside Protection and Enhancement Area (SPEA)

To determine whether the development permit area (DPA) aligns with the criteria in the Riparian Area Regulation (RAR), a detailed assessment of the site was conducted to calculate the streamside protection and enhancement area (SPEA) for Kootenay Lake on the proposed subdivision site. Results for the Zones of Sensitivity (ZOS) and SPEA are presented in Table 3 below. The largest ZOS for Lots 12-17 and 19 was determined to be 15 m, and Lot 18 was determined to be up to 20 m.

Table 1. Results of detailed assessment.

Feature Type	Lot #	SPVT	Zones of Sensitivity			SPEA
			LWD	Litter fall	Shade	
Lake	12-17, 19	TR	15 m	15 m	15 m	15 m
	18	TR	15 m	15 m	20 m	20 m

SPVT- site potential vegetation type (TR-tree)

LWD- large woody debris

SPEA- streamside protection and enhancement area

2 HISTORICAL AND CURRENT LAND USES

2.1.1 Water Resources

Kootenay Lake flows in from the North (Lower Duncan River) and South (Kootenay River) into the main body of Kootenay Lake, where it then flows through the west arm into the Kootenay River. Existing homes in Phase 1 of the subdivision use Kootenay Lake as their water source. Water pipes are laid from the homes through the riparian area, drawing water from the lake.

A non-fish bearing, unnamed ephemeral stream flows in an east to west direction through the property between Phase 1 and Phase 2 (Photo 1). The stream is culverted under Riondel Road, Walkers Landing Road and has two crossings under the subdivision access road with 500 mm diameter pipes. The stream channel was excavated in 2005 through the property to minimize flood potential on surrounding land. The stream has an average gradient of 37% and a width of 2.0 to 2.5 m. Upstream of the property, located in an undeveloped area, the stream becomes braided with an undefined channel ~150 m upstream of Riondel Road (Photo 2). Using a topographic survey, the drainage area for the ephemeral watercourse was delineated to be ~0.5 km². According to the applicant, who resides on the property year round, the watercourse flows less than 6 months a year. On January 25th, during the second site visit the watercourse was flowing; however this is most likely due to the recent rainfall and snowmelt, since it is typically dry at this time of year.

According to the definition of a “watercourse” under the RDCK Floodplain Management Bylaw No. 2080 and/or the Electoral Area ‘A’, Comprehensive Land Use Bylaw No. 2315, this ephemeral stream does not meet the definition of a watercourse; therefore does not trigger the environmentally sensitive development permit area and or the assessment required under the riparian area regulation.

“Watercourse means any natural or man-made depression with well-defined banks and a bed 0.6 m (2.0 ft) or more below the surrounding land servicing 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.”

(RDCK 2013)

However, under the Provincial Water Act Regulation, this stream would be considered a watercourse and would require a Section 9 notification/application for any works proposed below the top of bank. To prohibit development in this area, the developer implemented a 6.0 m wide “no-build” covenant along this channel.

2.1.2 Timber Harvesting and Subdivision Clearing

Historically the property has been harvested for timber and old stumps and skid roads are visible throughout. A large portion of Phase 2 was cleared in 2005 in preparation for future development of the lots, common access to the beach and the septic disposal field. The foreshore area remains mostly natural (Photo 3) with the exception of the boat ramp area, beach access road and selective clearing activities between the 20 m and 30 m setback within Lots 12-18 (Photo 4).

2.1.3 Moorage Facilities

A common concrete boat ramp, 10 m wide and 19 m long with a total footprint of 190 m² is sited partially below the natural boundary and within crown land (Photo 5). In conjunction with the boat ramp construction an access road and parking area were completed adjacent to the boat ramp within the riparian area. The boat ramp and parking area was constructed between the years of 2009 to 2013. The boat ramp is sited ~168 m from the north property line and ~94 m from the east property line. Public access is maintained along the beach by walking around the boat ramp, through the parking lot area. Construction of the boat ramp and parking lot area consisted of the following activities:

- Placement and grading of fill material within the riparian area to an elevation of ~535.5 m;
- Placement and grading of fill material from the natural boundary at a gradient of ~22% down to an elevation of ~531.5 m for boat ramp facility;
- Armoured fill material along natural boundary and boat ramp with cobble and boulders (Photos 1 and 3);
- Installed no-post barriers along the north and south side of the boat ramp; and
- Capped boat ramp surface with cast in place concrete (Photo 2) and placed rock slabs below concrete bottom edge.

The fill material brought to site was relocated from a nearby slide location and salvaged blast rock from the south end of the property. The boat ramp was constructed using larger rock at

the base, topped with smaller rock. The applicant did not seek Section 9 approval at the time of construction; however a Specific Permission application has been recently submitted.

2.1.4 Historic Mining Activities

It appears that historic mining exploration activities within Lot 17/Lot 18 may have occurred in a small area along the top of bank above the foreshore. Observations include two excavated trenches with fractured rock and soil deposits below (Photo 6).

2.1.5 Services and Site Drainage

In 2005, a sewage disposal field was constructed above the road within Phase 2 providing septic disposal to Phase 1 properties and will provide future service to Phase 2 properties. A large section of bank was cut above the road to construct the septic field (Photo 8). The bank was left un-vegetated and evidence of erosion on the bank include:

- undercutting at the top of the bank,
- exposed tree roots (Photo 8),
- slumping, and
- rilling.

Although this area is not within the riparian area, it is recommended that mitigation measures to stabilize the bank be implemented as part of Phase 2 development.

There were no drainage issues observed within the riparian area of Phase 2; however drainage issues were observed on Lot 9, Phase 1, where subsurface water was observed to be flowing out of a cut bank onto the driveway and into the riparian area (Photo 9). Subsurface flows may also exist in Phase 2 of the subdivision area; therefore it will be important that during development of these lots, appropriate drainage during and post construction are implemented. It is recommended that drainage issues be mitigated in Lot 9 by installing ditching and diverting the water into the nearby stream.



Photo 1. Upstream view of unnamed ephemeral watercourse with defined channel.



Photo 2. Upstream view of undefined channel above Riindel Road.



Photo 3. Natural foreshore area in front of Lots 12-14.



Photo 4. Clearing completed within riparian area.



Photo 5. Boat ramp and common beach area.



Photo 6. Trench dug for potential mining exploration.



Photo 6. View of exposed cut bank above septic field.



Photo 8. View of undercut bank and exposed tree roots at top of bank.



Photo 9. View of surface drainage issues on Lot 9, Phase 1.

3 RESOURCES

3.1 Fish and Fish Habitat

Typically, Kootenay Lake experiences two seasonal water level increases annually. The first increase is observed in April during low elevation snowmelt followed by a more substantial secondary rise in water levels due to high elevation snowmelt in June. Lake levels can vary by up to 4 m throughout the year affecting the extent of exposed shoreline.

The foreshore consists of two distinct ecosystems: a rocky shoreline located directly south and in front of proposed building Lots 12-18 and a beach area located to the north in front of the common area, Lot 19 and proposed park dedication. The rocky shoreline consists predominantly of boulders and cobbles with some exposed bedrock with an average gradient of 23% (Photos 10 and 11). The rocky shoreline provides good rearing and cover habitat for juvenile fish. No aquatic vegetation was observed within this segment. The beach area consists predominantly of cobbles and gravel with a sandy area south of the boat ramp (Photos 12 and 13). The beach area has a gradient of 12%. There is emergent vegetation along the shallow waters north of the boat ramp. The shallow water along the beach area provides good rearing habitat for fry and juveniles. Directly to the north of the property, the foreshore area turns to a sandy beach, also known as “Power Line Beach”.

Kootenay Lake supports a variety of fish species (Table 1), including several species of regional interest, such as rainbow trout, bull trout, kokanee, white sturgeon, Westslope cutthroat trout, and burbot.

Table 2. Fish species present in Kootenay Lake.

Species	Scientific Name	Comments
Burbot	<i>Lota lota</i>	Kootenay Lake population is red listed
Bull Trout	<i>Salvelinus confluentus</i>	Blue-listed species
Brook Trout	<i>Salvelinus fontinalis</i>	Introduced species
Kokanee	<i>Oncorhynchus nerka</i>	
Largemouth Bass	<i>Micropterus salmoides</i>	Introduced species
Largescale Sucker	<i>Catostomus macrocheilus</i>	
Longnose Dace	<i>Rhinichthys cataractae</i>	
Longnose Sucker	<i>Catostomus catostomus</i>	
Lake Whitefish	<i>Coregonus clupeaformis</i>	
Mountain Whitefish	<i>Prosopium williamsoni</i>	
Northern Pikeminnow	<i>Ptychocheilus oregonensis</i>	
Peamouth Chub	<i>Mylocheilus caurinus</i>	
Pumpkinseed	<i>Lepomis gibbosus</i>	Introduced species
Prickly Sculpin	<i>Cottus asper</i>	
Pygmy Whitefish	<i>Prosopium coulteri</i>	
Rainbow Trout	<i>Oncorhynchus mykiss</i>	
Redside Shiner	<i>Richardsonius balteatus</i>	
Slimy Sculpin	<i>Cottus cognatus</i>	

Species	Scientific Name	Comments
Torrent Sculpin	<i>Cottus rhotheus</i>	
Westslope Cutthroat Trout	<i>Oncorhynchus clarki lewisi</i>	Blue-listed species
White Sturgeon	<i>Acipenser transmontanus</i>	Kootenay Lake population is red-listed
Yellow Perch	<i>Perca flavescens</i>	Introduced species

(Habitat Wizard, 2016)



Photo 10. View of rocky foreshore area in front of Lots 12-14.



Photo 11. View of exposed bedrock along foreshore.



Photo 12. View of beach area.



Photo 13. View of instream substrate in beach area.

3.2 Riparian Vegetation

The riparian area is considered habitat located within the 30 m setback from the HWM. The riparian area sited within proposed building Lots 12-18 have a western aspect and are rocky with limited vegetation existing within the first 15 to 20 m (Photo 14). The gradients are also quite steep within this section ranging from 45% to 53% with minimal top soil layers and exposed bedrock abundant throughout (Photos 15). There is a grade break which occurs at

~20 m from the HWM where the topography slightly levels to a gradient of 33% (Photo 16). The forest structure is mostly immature forest with early-seral forest occurring close to the 30 m setback where clearing occurred in 2005. The stand consists predominantly of coniferous tree species with low growing shrubs, herbs and mosses (Photo 17). Many of the trees within the 20 m setback may have shallow rooting system due to the lack of soils and available nutrients and may be susceptible to windthrow and erosion.



Photo 14. View of riparian area looking north in front of Lots 12 and 13.



Photo 15. View of exposed bedrock within riparian area.

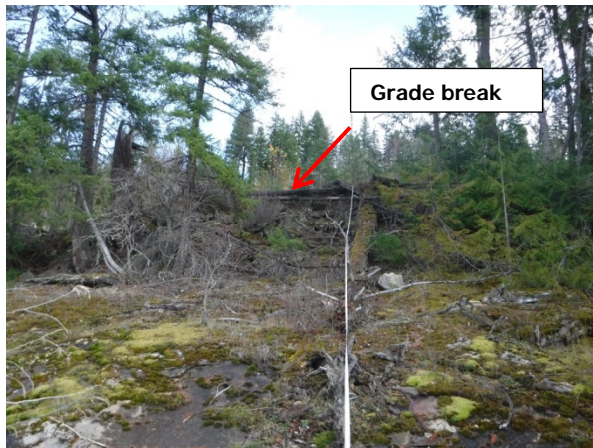


Photo 16. View of grade break within riparian area.



Photo 17. View of riparian area between 10 m and 25 m setback.

The riparian area located within the common property north of Lot 18 was historically disturbed by the removal of vegetation to construct the access road and moorage facilities. Deciduous tree and shrub species have re-established along some sections of the road edges; however some weed species have also established.

The riparian area located north of the boat ramp (Lot 19 and proposed parkland dedication) is relatively flat for 5 to 17 m with a gradient of ~10% (Photo 18), and then significantly steepens to ~70% (Photo 19). The forest structure within this area is a mixed coniferous and deciduous immature stand with some sporadic mature trees located throughout.



Photo 18. View of riparian area within Lot 19, north of boat ramp.



Photo 19. View of steep embankment within Lot 19 riparian area.

Table 3 provides a list of native plant and weed species encountered on the property within the riparian area.

Table 3. Native plant and weed species.

Species Name	Latin Name	Species Name	Common Name
Trees		Shrubs cont.	
Interior Douglas Fir	<i>Pseudotsuga menziesii</i>	Rose sp.	<i>Rosa sp.</i>
Western Red Cedar	<i>Thuja plicata</i>	Redstem Ceanothus	<i>Ceanothus sanguineus</i>
Engelmann Spruce	<i>Picea engelmannii</i>	Common Snowberry	<i>Symphoricarpos albus</i>
Ponderosa Pine	<i>Pinus ponderosa</i>	Herbaceous	
Lodgepole Pine	<i>Pinus contorta</i>	Prickly Lettuce	<i>Lactuca serriola</i>
Black Cottonwood	<i>Populus balsamifera</i>	Chicory	<i>Cichorium intybus</i>
Trembling Aspen	<i>Populus tremuloides</i>	Pearly Everlasting	<i>Anaphalis margaritacea</i>
Paper Birch	<i>Betula occidentalis</i>	Western Licorice Fern	<i>Polypodium hesperium</i>
Shrubs		Wild Strawberry	<i>Fragaria virginiana</i>
Thimbleberry	<i>Rubus parviflorus</i>	Bracken Fern	<i>Pteridium aquilinum</i>
Princes Pine	<i>Chimaphila umbellata</i>	Fringecup	<i>Tellima grandiflora</i>
Red Osier Dogwood	<i>Cornus stolonifera</i>	Common Horsetail	<i>Equisetum arvense</i>
Oregon Grape	<i>Mahonia aquifolium</i>	Brown-eyed Susan	<i>Gaillardia aristata</i>
Mountain Alder sp.	<i>Alnus incana</i>	Mosses sp.	
Willow sp.	<i>Salix sp.</i>	Lichens sp.	
Kinnikinnick	<i>Arctostaphylos var. uva-ursi</i>	Grasses sp.	
Falsebox	<i>Pachistima myrsinites</i>	Vetch	<i>Vicia sp.</i>
Saskatoon Berry	<i>Amelanchier alnifolia</i>	Weeds	
Soopollallie	<i>Shepherdia canadensis</i>	Spotted Knapweed	<i>Centaurea biebersteinii</i>

Species Name	Latin Name	Species Name	Common Name
Mock Orange	<i>Philadelphus lewisii</i>	Scotch Broom	<i>Cytisus scoparius</i>
Ocean Spray	<i>Holodiscus discolor</i>	Thistle sp.	<i>Cirsium sp.</i>

3.3 Wildlife

3.3.1 Methodology

Methodology consisted of a combination of background research, field surveys and professional knowledge of the area. Site visits were conducted on November 19, 2015 and January 25, 2016. Foot surveys were conducted through the riparian area to assess wildlife habitat quality and document incidental wildlife observations. The time of the assessment limited the potential of observing wildlife on site since some species are in hibernation and or in the case of birds would have migrated south.

3.3.2 Observations

3.3.2.1 Reptiles and Amphibians

The presence of herptiles on site could not be confirmed since they are currently in hibernation; however, a south-west facing rocky outcrop located within the 15 meter setback with multiple crevices was identified within Lot 13 (UTM 509347.56, 5504843.44), which has the potential to be used as a snake hibernaculum and/or good western skink habitat (Photos 20 and 21) (J. Dulisse, pers. comm., January 27, 2016). The western skink is a blue listed species in BC with one confirmed siting reported in Pilot Bay Provincial Park located ~6 km south of the subject property (CDC 2016). For the purpose of this report, further studies would not be required; however protection measures are recommended due the potential likelihood that it is used by reptiles.



Photo 20. Rocky outcropping with potential reptile habitat.



Photo 21. Close-up of crevice on rocky outcropping.

3.3.2.2 Birds

No bird species were detected during the site visits; however migrating birds would have left the site in late summer and fall and will return in the spring. The mixed conifer and deciduous forest with sporadic mature trees at the north end of the property favour species such as cavity dwellers, songbirds and raptors. A quick assessment was conducted to identify raptor nests and none were found.

3.3.2.3 Mammals

Heavy ungulate use was confirmed within the project area with visual observations of wildlife trails and droppings. Local residents have reported sightings of deer, elk, gray wolf and black bear within the project area. A small cave was identified in Lot 19 (UTM 509426.65, 5505148.65) measuring 3 m in depth and 1.5 -2.0 m in height (Photos 22 and 23). The potential for bat habitat was explored; however local consultation with a bat biologist concluded that the cave is unlikely used by bats due to the moisture observed within the cave (C. Lauson, pers. comm., January 26, 2016). The cave should be sporadically monitored by the Owner to confirm whether the cave is being used by bats.



Photo 22. View of cave located in Lot 19.



Photo 23. View of small cavern inside of cave.

3.3.2.4 Wildlife Habitat

The riparian area is mostly undisturbed and provides some valuable wildlife habitat including the rocky outcrop in Lot 13 and the forested area at the north end of the property where wildlife trees were identified. This end of the property is the only area where mature and dying deciduous trees were identified. These trees provide important nesting and foraging habitat for cavity dwelling bird species. Two significant wildlife trees were identified within Lot 19. A large, dying Douglas Fir (800 mm diameter breast height (DBH)) is sited on the steep bank ~25 m from the HWM (UTM 509441.5505182) (Photo 24). This tree provides good perch habitat for raptors, as well as habitat for cavity dwellers as the tree degrades. A second large Douglas Fir snag located just uphill provides important habitat for cavity dwelling birds and insects (Photo 25). A few Western Red Cedars located nearby had excavated holes constructed by woodpeckers or sapsuckers (Photo 26).



Photo 24. Identified potential perch tree.

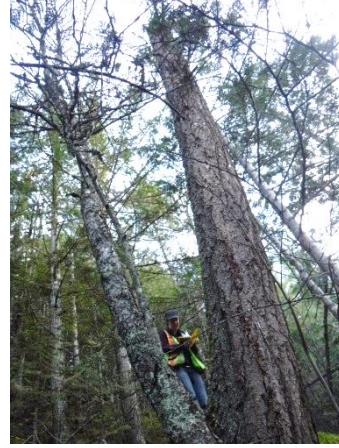


Photo 25. Douglas Fir snag.



Photo 26. Cavities excavated in cedar tree.

3.4 Species at Risk

3.4.1 *Wildlife Species at Risk*

Thirty three terrestrial vertebrate species at risk are known to occur within the ICH biogeoclimatic zone in the Kootenay Lake Forest District (CDC 2016). Of these, two species (western skink and grizzly bear) 'likely' occur on site, and eight species (great blue heron, short-eared owl, olive-sided fly catcher, black swift, bobolink, barn swallow, western screech owl, Lewis's woodpecker, eared grebe, and American badger) are estimated to 'possibly' occur on site.

3.4.2 *Vascular and Non-vascular Plant Species at Risk*

Twenty three vascular plant species at risk are known to occur within the ICH biogeoclimatic zone in the Kootenay Lake Forest District (CDC 2016). Of these, three 'possibly' occur on site (Nuttalls Waterweed, Orange Touch-me-not and Spurless Touch-me not). No non-vascular

species at risk are known to occur within the ICH biogeoclimatic zone in the Kootenay Lake Forest District (CDC 2016).

A species at risk inventory search was conducted using Habitat Wizard to identify any known occurrences within the project area. Blunt-sepaed starwort (*Stellaria obtusa*) was identified to be a potential blue listed plant species to occur within the local area; however due to the habitat conditions it is unlikely to occur on site.

4 POTENTIAL ENVIRONMENTAL HAZARDS

The riparian area was assessed for potential environmental hazards including: slope stability indicators and hazard trees. The QEP reviewed the field indicators as listed in Table 3.8 of the RAR while on site to identify the presence of any potential indicators. The steep section of bank located within Lot 19 and the proposed park dedication was observed to have potential instability indicators. There are no structures situated within this area. The potential instability indicators observed include:

- sweeping trees,
- curved depressions, and
- slumping.

However these observed indicators do not confirm the presence of unstable terrain and it is recommended that a geotechnical assessment of this area be completed by a P.Geo. or P.Eng.

Potential hazard trees were not assessed since there are currently no structures within the property and traffic use (both human and vehicle) is minimal. A Registered Professional Forester (RPF) was not retained to assess potential windthrow since no clearing activities are proposed at this time.

5 PROPOSED PARKLAND DEDICATION

Parkland dedication is proposed at the north end of the property measuring ~90 m x ~60 m with a total area of ~5400 m². The siting of the proposed parkland is within the riparian area of Kootenay Lake, next to a road right of way, and just south of a popular local beach area, "Power Line Beach". The riparian area is relatively flat for 17 m with a gradient of 10%, graduating to a steep slope with a gradient of ~70%. The steep slope makes this area not very conducive for residential development. A mixed conifer and deciduous forest ecosystem within this area provides valuable habitat for mammals and birds, including two wildlife trees identified and described in Section 3.3.2.4. Coarse woody debris (CWD) is abundant along the steep slope providing habitat for plants, animals and insects and a source of nutrients for soil structure and development. This area is considered one of the more valuable habitat areas

within the property and can be protected from future development by dedicating it as parkland. It also provides a potential opportunity for the flat area close to the foreshore to be used for future public recreation if desired.

6 IMPACTS AND RECOMMENDATIONS

The following section describes impacts to ecological values (fisheries, vegetation and wildlife) and recommends measures to protect the integrity of SPEA. SPEA was determined to be at setbacks of 15 m and 20 m from HWM; however since most of the riparian vegetation exists within the 15 m - 30 m setback from HWM and the bank gradient is steeper than 3:1 within most of this area, it is recommended that this area be protected from development, with the exception of foreshore access.

6.1 Fisheries Impacts

The elevated boat ramp is 19 m long and 10 m wide directly impacting ~190 m² of lakebed causing some loss of shallow water habitat during high lake levels. Fish movement parallel to the shore is only slightly likely impeded by ~3.5 m at the bottom of the ramp as water levels rise. Elevated boat ramps have the potential to affect current patterns and disrupt natural sediment transport along the lake foreshore. The boat ramp is a common facility for all property owners within the strata and therefore will minimize the potential for individual boat moorage facilities. This will reduce cumulative effects of in-water development along the foreshore. Pipes will be installed into the lake from each property to provide a source of water for new homes. These pipes are typically ≤3" in diameter and have fish screens at the intake to prevent fish from entering.

The riparian zone has numerous functions which benefit the aquatic ecosystem, which include bank stabilization, flood reduction, reduced sedimentation, enhancement of wildlife habitat, regulation of surface flows, and improved scenery.

Recommendations:

The following mitigation measures are recommended to reduce the impact of the proposed development on fisheries values:

- 30 m riparian buffer be maintained as a no- construction zone with the exception of foreshore access and any activities proposed within the 30 meter setback should be assessed by a Qualified Environmental Professional (QEP) prior to construction.
- Removal of riparian vegetation should be avoided. If vegetation removal is unavoidable (i.e. access stairs to foreshore) it should be limited to the footprint.

- Works in and about a watercourse should be completed within the in-stream work window.
- Revegetate exposed soils with native vegetation as soon as possible.
- Implement and maintain erosion and sediment control plans during construction.
- Concentrate shoreline alterations in one area and ensure shoreline accesses, structures and pathways are narrow.
- Minimize water pipe diameter and ensure that fish screens are placed at the intake.

6.2 Vegetation Impacts

Foreshore developments and public access have been concentrated in one area of the property through the construction of the common beach access road, boat ramp and parking, reducing the overall impact on riparian vegetation on the property. By creating a common access point to the foreshore, this should limit the construction of individual moorage facilities along the foreshore.

Clearing completed within Phase 2 potentially aided in the establishment of invasive weeds (Scotch Broom, Spotted Knapweed, Thistle sp.) identified throughout the site.

Recommendations

The following mitigation measures are recommended to reduce the impact of the proposed development on vegetation:

- Retain natural vegetation within the 30 m setback to maintain shoreline stability and habitat complexity.
- Revegetate exposed soils with native vegetation as soon as possible.
- Concentrate shoreline alterations in one area and ensure shoreline access, structures and pathways are narrow.
- Stairs and decks within the riparian area should be elevated from the ground to allow light penetration, promoting vegetation growth.
- Build stairs with landings instead of a path on steep slopes to access the waterfront to reduce erosion and habitat impact.
- Erect a snow fence along the 30 m setback to protect the riparian area during construction.
- Install permeable upland surfaces that permit rainwater infiltration, which moderates water volume, timing and velocity.
- Remove invasive weed species throughout the properties.
- Water pipes to be buried where possible.

6.3 Wildlife Impacts

Riparian zones allow wildlife to travel between habitat “islands” by providing migration corridors between upland areas and water, as well as along the foreshore. They also help circulate nutrients between terrestrial and aquatic ecosystems. The proposed subdivision will have an impact on habitat availability and quality, as well as potentially impede natural movement patterns of wildlife species.

Recommendations:

- A buffer of undisturbed native vegetation around the rock outcrop in Lot 13 should be maintained and human access to the immediate area should be discouraged.
- Live and dead trees, especially deciduous trees, over 30 cm DBH should be retained, unless considered a hazard.
- Particularly good habitat should be left in undeveloped patches or green spaces (such as proposed parkland dedication).
- To protect nesting bird species, clearing of trees and vegetation should be conducted outside of the songbird breeding season (April 1-July 30). If clearing is to occur during the songbird breeding season a Qualified Environmental Professional should assess presence of active nests within areas to be cleared.
- Design access to the foreshore to allow for wildlife movement across the riparian area.

7 CONCLUSION

The subject property proposed for development, referred to as Walkers Landing Subdivision, has been moderately disturbed through historic forest harvesting, mining exploration and subdivision clearing activities. Due to the historical disturbance throughout the portion of the property proposed for development, impacts from the proposed development will be of low magnitude. However, some sensitive habitats were identified on the property: rocky outcrop, riparian area, patches of deciduous trees and wildlife trees. It is recommended that the 15 m riparian buffer be maintained as a no- construction zone, with the exception of foreshore access and any activities proposed within the 30 m setback be assessed by a QEP prior to construction. The proposed parkland dedication at the north end of the property provides an opportunity for the RDCK to protect a parcel of land which is considered to have habitat values and the potential to be used as a recreational area if desired.

8 CLOSURE

We, Fiona Lau and Sylvie Masse, certify that we are qualified to carry out this assessment; and that the assessment methods under the Regulation have been followed; and that, in our professional opinion:

- (i) if the development is implemented as proposed, or
- (ii) if the streamside protection and enhancement areas identified in the report are protected from the development, and
- (iii) if the developer implements the measures identified in the report to protect the integrity of those areas from the effects of the development,

then there will be no harmful alteration, disruption or destruction of natural features, functions and conditions that support fish life processes in the riparian assessment area.

Prepared by:



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