



Development Permit Application

Referral Form – RDCK File DP2604D

Date: April 21, 2026

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 MAY 22, 2026). If no response is received within that time, it will be assumed that your agency's interests are unaffected.

LEGAL DESCRIPTION & GENERAL LOCATION:

1339 Hamill Lane, Johnson's Landing, BC, Electoral Area 'D'
 STRATA LOT 8 DISTRICT LOT 7827 KOOTENAY DISTRICT STRATA PLAN NES3603 TOGETHER WITH AN INTEREST IN THE COMMON PROPERTY IN PROPORTION TO THE UNIT ENTITLEMENT OF THE STRATA LOT AS SHOWN ON FORM V (PID: 027-792-935)

PRESENT USE AND PURPOSE OF PERMIT REQUESTED:

The subject property is located in the Bulmers Pointe residential community south of Argenta and north of Johnson's Landing on the east side of Kootenay Lake. The lots within the Bulmers Pointe subdivision are serviced by a community water and a community wastewater system. There are currently accessory buildings and structures on the property and the site has been prepped for the construction of a single detached dwelling.

During the review of the Building Permit application (BP029084) for the proposed dwelling it was recognized that there had been unauthorized disturbance to portions of the property that were intended to remain free and clear of any vegetation removal or development activity through the registration of no-disturb covenants and by the Watercourse Development Permit (WDP) Area guidelines in the Area 'D' OCP. This unauthorized disturbance is detailed in the Riparian Assessment Report that forms part of the Development Permit application.

This WDP application has been submitted to retroactively seek approval for the disturbance that has occurred within the Riparian Areas/WDP Areas of Kootenay Lake and Bulmer Creek and also to consider the siting and construction of the proposed single detached dwelling which is located partially within the WDP Area of both Kootenay Lake and Bulmer Creek.

AREA OF PROPERTY AFFECTED	ALR STATUS	ZONING	OCP
0.38 ha (0.95 acres)	n/a	n/a	Country Residential (RC) in Comprehensive Land Use Bylaw No. 2435, 2016

APPLICANT: Hamill Creek Timber Homes c/o Dwight Smith

Please provide your response via email.

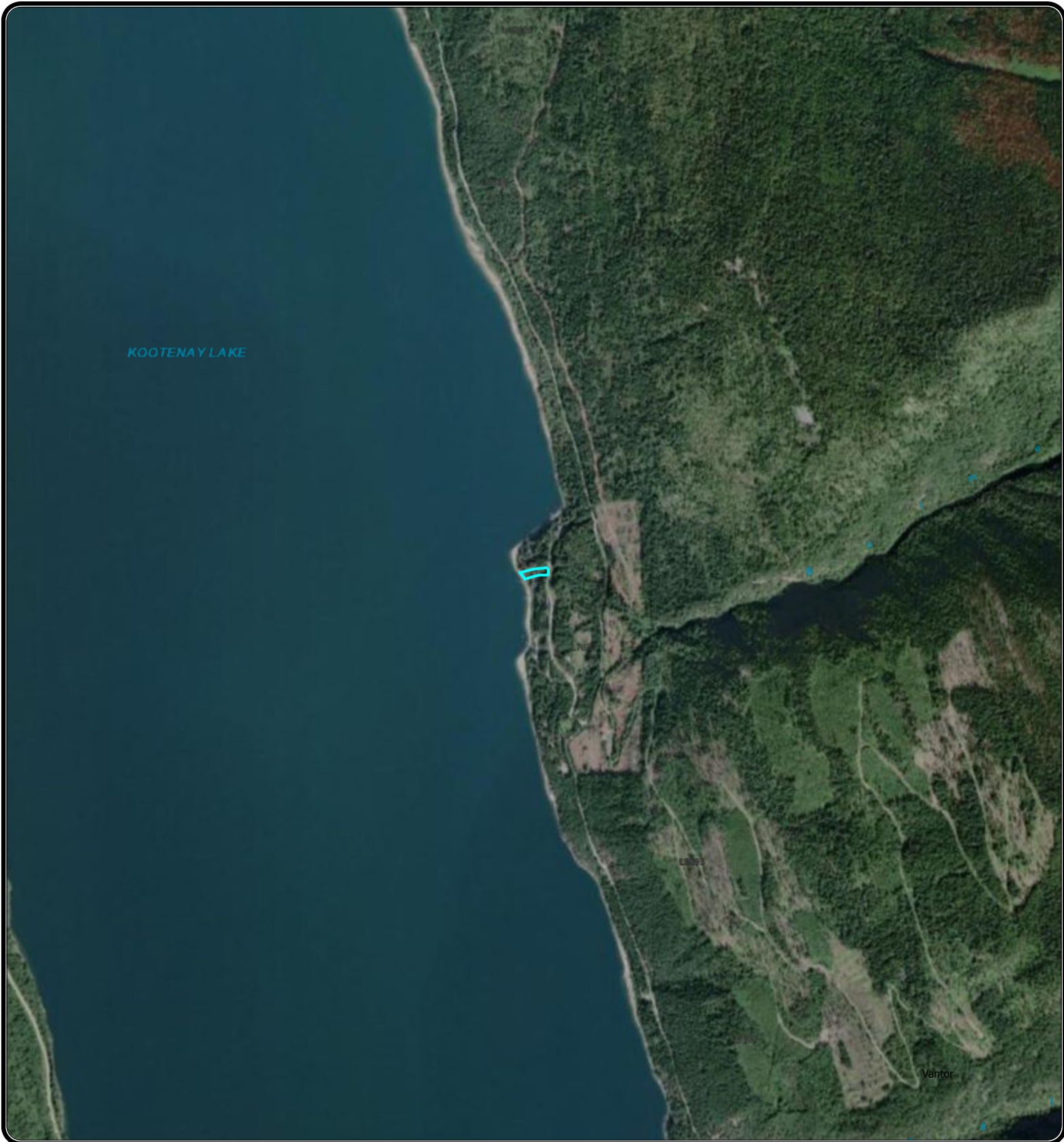
If your agency's interests are 'Unaffected' no further information is necessary. In all other cases, we would appreciate receiving additional information to substantiate your position and, if necessary, outline any conditions related to your position. Please note any legislation or official government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

<input checked="" type="checkbox"/> MINISTRY OF TRANSPORTATION AND TRANSIT <input checked="" type="checkbox"/> HABITAT BRANCH <input checked="" type="checkbox"/> FRONTCOUNTER BC <input checked="" type="checkbox"/> ARCHAEOLOGY BRANCH <input type="checkbox"/> AGRICULTURAL LAND COMMISSION <input type="checkbox"/> REGIONAL AGROLOGIST	REGIONAL DISTRICT OF CENTRAL KOOTENAY DIRECTORS FOR: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input checked="" type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/> F <input type="checkbox"/> G <input type="checkbox"/> H <input type="checkbox"/> I <input type="checkbox"/> J <input type="checkbox"/> K ALTERNATIVE DIRECTORS FOR: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input checked="" type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/> F <input type="checkbox"/> G <input type="checkbox"/> H <input type="checkbox"/> I <input type="checkbox"/> J <input type="checkbox"/> K <input checked="" type="checkbox"/> APHC AREA 'D' <input checked="" type="checkbox"/> RDCK FIRE SERVICES
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<input type="checkbox"/> ENERGY & MINES <input type="checkbox"/> MUNICIPAL AFFAIRS & HOUSING <input checked="" type="checkbox"/> INTERIOR HEALTH, HBE TEAM <input type="checkbox"/> SCHOOL DISTRICT NO. <input type="checkbox"/> WATER SYSTEM OR IRRIGATION DISTRICT <input checked="" type="checkbox"/> UTILITIES (FORTIS, BC HYDRO, NELSON HYDRO, COLUMBIA POWER)	<input checked="" type="checkbox"/> RDCK EMERGENCY SERVICES <input checked="" type="checkbox"/> RDCK BUILDING SERVICES <input type="checkbox"/> RDCK UTILITY SERVICES <input type="checkbox"/> RDCK RESOURCE RECOVERY <input type="checkbox"/> RDCK REGIONAL PARKS FIRST NATIONS <input checked="" type="checkbox"/> KTUNAXA NATION COUNCIL YAQAN NU?KIY (LOWER KOOTENAY) ?AKINK'UM?ASNUQ?I?IT (TOBACCO PLAINS) ?AKISQNUK (COLUMBIA LAKE) ?AQ'AM (ST. MARY'S)
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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.

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

Map Scale:

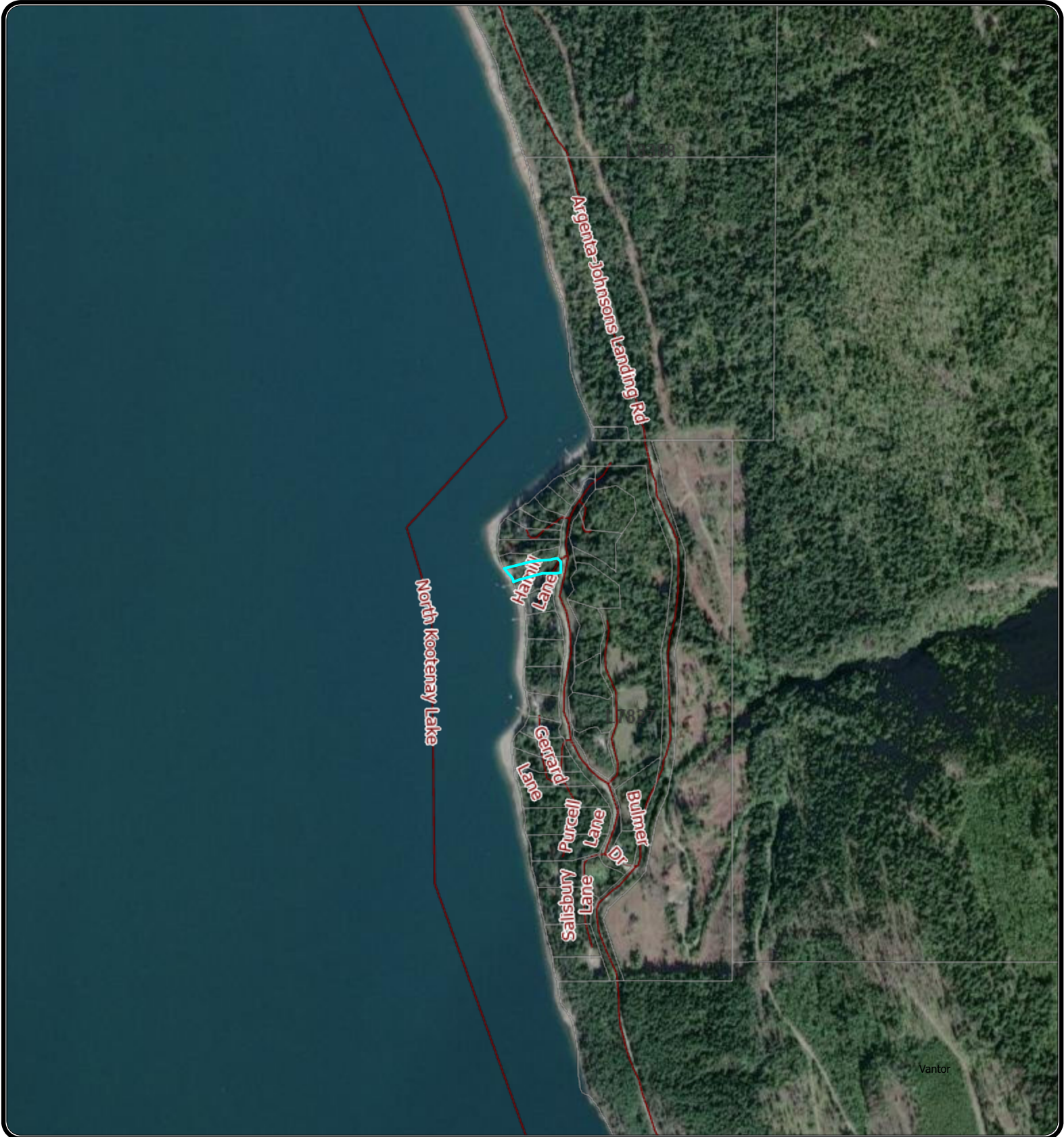
1:36,112

Date: April 10, 2026






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.

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Legend

-  Electoral Areas
-  RDCK Streets
-  Cadastre - Property Lines

Map Scale:

1:18,056

Date: April 10, 2026







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Legend

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

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1:4,514

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Legend

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

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1:1,128

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Official Community Plan

- Country Residential
- Resource Area

Legend

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

Map Scale:

1:2,257

Date: April 10, 2026



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Legend

- | | |
|------------------------------------|---------------------------|
| Non Standard Flooding Erosion Area | Electoral Areas |
| Flood Construction Levels - 1990 | RDCK Streets |
| Lakes and Rivers | Cadastre - Property Lines |
| Streams and Shorelines | Address Points |

Map Scale:

1:2,257

Date: April 10, 2026



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19.0 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 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 Kootenay Lake and the Lardeau Valley 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 488 (1) (a) of the *Local Government Act* for the protection of the natural environment, its ecosystems and biological diversity.

Area

The WDP area is comprised of:

1. Riparian assessment areas (Figure 1) for fish and wildlife habitat and drinking water, which include all watercourses and adjacent land:
 - a. within 30 m of the high water mark of a watercourse;
 - b. within 30 m of the top of the ravine bank in the case of a ravine less than 60 m wide; and
 - c. within 10 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; and as identified in Schedule 'A.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;

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.

Justification

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

The impact of development on watercourses can be minimized by carefully examining the proposed development and taking appropriate measures in relation to the environmentally sensitive riparian area.

Determining whether development falls within the WDP Area

To confirm whether a proposed development is within land identified as a riparian assessment area in the WDP area for which a development permit application is required, the following applies:

2. Any area located within 30 m of the high water mark of a watercourse; within 30 m of the top of the ravine bank in the case of a ravine less than 60 m wide; and within 10 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;
3. Unless the proposed development or alteration of land is clearly outside the riparian assessment area the location of the development shall be determined accurately by survey in relation to the WDP Area to determine whether a development permit application is required.

Guidelines

4. 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 (with the exception of those constructed during emergency events);
- 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 under Section 455 of the *Local Government Act*.

Development shall be in accordance with the following guidelines:

- 5. All development proposals subject to this permit will be assessed by a Qualified Environmental Practitioner (QEP) in accordance with the Riparian Areas Regulation established by the Provincial and/or Federal governments as used elsewhere in the Province.
- 6. A WDP shall not be issued prior to the RDCK ensuring that a QEP 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.
- 7. 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:

- 1. existing construction, alteration, addition, repair, demolition and maintenance of farm buildings and agricultural activities including clearing of land for agricultural purposes;
- 2. existing institutional development containing no residential, commercial or industrial aspect;
- 3. 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

- an area where the applicant can demonstrate that the conditions of the WDP 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.

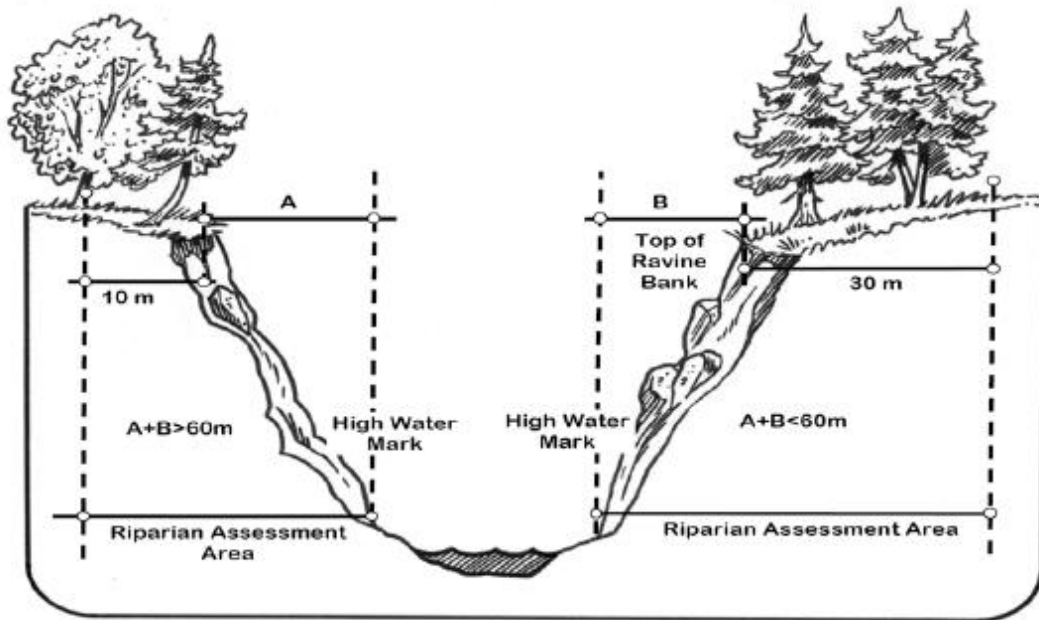


FIGURE 1: RIPARIAN ASSESSMENT AREA: means the area within 30 m of the high water mark of a watercourse; within 30 m of the top of the ravine bank in the case of a ravine less than 60 m wide; and within 10 m of the top of the ravine bank in the case of a wider ravine that link aquatic to terrestrial ecosystems 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

Development Permit Area #2: Industrial Development Permit (IDP) Area

Category

The IDP area is designated under Section 488 (1) (a) and (f) of the *Local Government Act* for the establishment of objectives for the protection of the natural environment and form and character of industrial uses within the Plan area.

Area

- The IDP area is comprised of all privately owned or leased lands designated as Industrial (M) on Schedule 'A.1'.

Justification

April 9/2026

Proposal Summary for RE: BP#29084 - Watercourse DP information - 1339 Hamill Lane (PID: 027-792-935) a water Development Permit

1. Riparian assessment at Lot 8 Bulmer Point Drive Watercourse Development Permit (WDP) application.

· Disturbance that has occurred within the covenanted area along Kootenay Lake as described in the Section 219 Covenant (CA7000667) that is registered on title for the subject property (Lot 8)

· Disturbance that has occurred within the 30-meter Development Permit Area associated with Bulmer Creek, which flows through the common strata property between Lot 7 and Lot 8

The scope of work that a QEP included the following:

· Background review of site (site plans, site history, aerial photos, species at risk, environmentally sensitive areas);

· Completed riparian assessment of the property in accordance with the RDCK North Kootenay Lake Electoral Area D Rural Official Community Plan Bylaw No. 2345 and the Riparian Area Protection Regulation (RAPR);

· riparian assessment report including description of terrestrial and aquatic environments and recommendations relating to protection of sensitive habitats;

· Preparation of a mitigation plan to address site impacts

· implement and meet all requirements as per QEP report for mitigation to address the disturbances within riparian area

2. Building Permit Application BP#29084 –

Application of Building was sent on November 04 2025

Owner is proposing a house outside of the covenant areas shown in (CA7000667 and CA000671 which complies with the report conditions. (allowable setbacks from both Kootenay lake and Bulmer's creek as verified by Riparian assessment Report (attached)

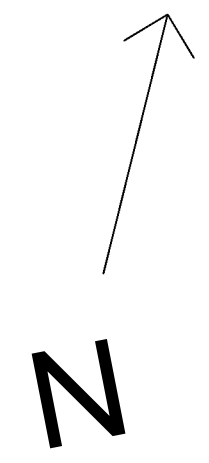
The location of the proposed house also complies with

“Debris Flood Hazard Assessment – Bulmer's Pointe” dated March 2008 by Skmana Creek Consulting Ltd covenant set back review was completed in January 2026 by Skmana Geo Tech Engineers which states “Based on their field review and understanding of the proposed site development, the proposed building is located outside of the minimum allowed swale offset and can reasonably conclude that the building location satisfies the requirements of the covenant registered on Title. Full Geo Tech report is with BP 29084

3. We are respectfully requesting that since the siting of the house complies within the allowable building area in respect to **all covenants** on the property that the building permit application be allowed to be processed at the same time as this WDP application.

Thank you Dwight Smith

ADDRESS: 1339 HAMILL LANE, JOHNSON'S LANDING B.C.
 FOLIO: 786.08836.280
 PID: 027-792-935
 PLAN#: NES3603
 STRATA LOT: 8



LOT 7

BULMER'S CREEK

COMMON STRATA
PROPERTY

COMMON STRATA
PROPERTY

BULMER'S DRIVE

KOOTENAY LAKE
BEACH

EXISTING GAZEBO
EXISTING PATH TO BEACH
RIPARIAN SET BACK LINE FROM COVENANT

BASEMENT ELEVATION 541.6m
MAIN FLOOR ELEVATION 545m

LOT 8

HAMILL LANE
ACCESS ROAD EASEMENT

EXISTING 8 x 12 BUNKHOUSE
EXISTING SEPTIC LINE
EXISTING 8 x 12 SHED

TOP OF GULLY/SWALE
NATURAL GULLY/SWALE See Debris Flood Assessment Covenant
COVENANT NO BUILD ZONE

LOT 9

1 Site Plan
1 : 250

DATE	ISSUE
20251104	PERMIT SET
20251219	TO ENG V3
20260105	RDCK REVIEW
20260114	GEOTECH REVIEW/ENG V4
20260127	CONSTRUCTION DRAWINGS

NO	DATE	ISSUE
01	260316	MASSE SITE PLAN REQUEST
02	260408	WDP

PROJ. NO.: BROW0925BC
 DRAWN BY: KH
 CHECKED BY: DS
 ISSUE DATE: 2026.04.09

DRAWING TITLE
SITE PLAN

SCALE 1:250

DRAWING NO.
A2



1339 Hamill Lane, Bulmer Pointe Subdivision,
Johnsons Landing BC
Riparian Assessment V1.0



Prepared for:

Patricia Brown

3658 2nd Street SW

Calgary, Alberta

April 2, 2026

Prepared by:
Masse Environmental Consultants
812 Vernon Street
Nelson, BC, V1L 4G4

Project Number 2026-1265

Riparian Assessment Report Revision History

Name	Date	Version
Sylvie Masse, RPBio and Fiona Lau, ASCT.	April 2, 2026	1.0

Disclosure Statement

This report has been prepared by Sylvie Masse, RP Bio and Fiona Lau, ASCT.

1. The authors are Qualified Environmental Professionals as defined under Section 21(2) of the Riparian Areas Protection Regulation,
2. The content of, and all associated statements in, this report are consistent with:
 - a. The Riparian Areas Protection Regulation methodology.
 - b. Provincial and federally recognised best management practises.
 - c. Relevant Species at Risk management Plans under the Species at Risk Act.
 - d. The habitat protection provisions of the Fisheries Act.
3. This report has been prepared for the property owner to support a development permit approval.
4. The report has been prepared for the owner at their expense. The RDCK may rely upon the information and recommendations in this report for the purposes of a Watercourse Development Permit Area application.

Limitations

This report has been prepared by the authors solely for the client, Patricia Brown. The content reflects the authors' professional judgment based on the information available at the time of preparation. Any use, reliance, or decisions made by third parties based on this report are solely at their own risk. The authors assume no liability for any damages, losses, or consequences arising from actions or decisions taken by third parties in reliance on this report. A record copy of this report is maintained at Masse Environmental and is considered the official version, superseding any copies or reproductions of the report.

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1 INTRODUCTION

Masse Environmental Consultants Ltd. was retained by Patricia Brown (Owner) to conduct a riparian assessment on the Property at 1339 Hamill Lane, Bulmer Point Subdivision, Johnsons Landing (STRATA LOT 8, PLAN NES3603, DISTRICT LOT 7827, KOOTENAY LAND DISTRICT, PID: 027-792-935). The RDCK has determined that a Watercourse Development Permit (WDP) application is required to address disturbance within the Riparian Zone of Kootenay Lake (Covenant Area 8), and the 30 m Development Permit Area associated with nearby Bulmer Creek, located within the Common Property immediately to the north of Lot 8.

A site visit was completed on February 26, 2026 by Sylvie Masse, MSc, RPBio and Fiona Lau, ASCT to conduct a riparian assessment on the Property. The assessment evaluates the current condition within 30 m of the high water mark (HWM) of a watercourse (RDCK Area D), calculates a Streamside Protection and Enhancement Area (SPEA) setback following the methodology of the Riparian Area Protection Regulation (RAPR; BC 2019), identifies potential environmental impacts from the development, and provides recommendations to mitigate for the alteration of the riparian area. It is based on the following regulatory framework and best management practices:

- Electoral Area 'D' Comprehensive Land Use Bylaw 2435, 2016
- RDCK Floodplain Management Bylaw No. 2080, 2009
- British Columbia Riparian Areas Protection Regulation
- British Columbia Water Sustainability Act
- British Columbia Wildlife Act
- Federal Migratory Birds Convention Act
- Kootenay Lake Shoreline Management Guidelines.

2 PROJECT OVERVIEW

2.1 Site Description

2.1.1 Location

The subject Property is located at 1339 Hamill Lane, Johnson's Landing, BC, along the eastern shore of Kootenay Lake and is within the Bulmer Pointe Subdivision. The Property is 0.95 acres in size with 37.2 m water frontage, has a western aspect and slopes up from the lake with an average gradient of 18%. There is a short steep bank 9-10 m from the HWM ~ 2 m high and 5 m wide. The property is bordered by Kootenay Lake to the west, Bulmer Drive to the east and private property to the south (Lot 9; Figure 1). North of the property there is a narrow band of Common Property owned by the Bulmer Pointe Strata Corporation, which was designed to provide a riparian buffer along Bulmer Creek.

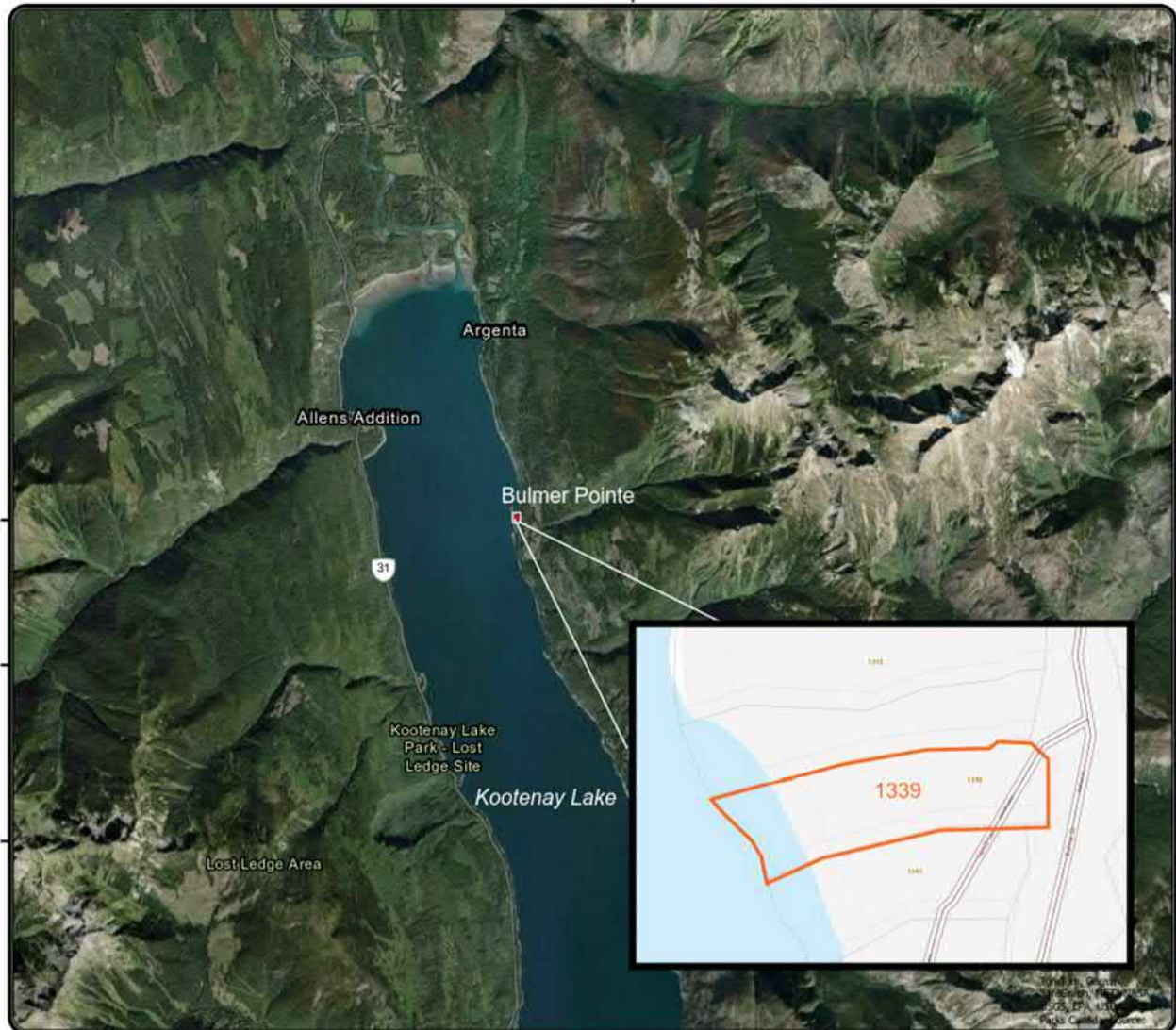


Figure 1. Location Map.

2.1.2 Existing Site Conditions

2.1.2.1 Permitting

In early May 2016, an accidental fire started in the Kootenay Lake riparian area of Lot 8. The fire rapidly increased in severity due to the presence of buried old wood materials such as pilings, fencing, and dock parts as well as large woody debris (LWD), and required the use of large equipment to extinguish the fire, causing disturbance to the foreshore. A Change Approval and Notification application was submitted soon after, on June 13, 2016, under Section 11 of the Water Sustainability Act and Part 3 of the Water Sustainability Regulations by the Owner to conduct further repairs to the area. Permit A4-6831 was issued

on February 17, 2017 and approved the works as per the plans and specifications contained in the Change Approval and Notification application as per the following:

- Removal of 4 piles of debris, which were created during the containment of the fire, using an excavator.
- Removal of any other household waste encountered during reclamation works.
- Stabilization of slope below the large, mature western red cedar to protect exposed root systems (due to the fire) and prevent future beach erosion. Large rocks found on the property was to be used and back fill placed as necessary.
- Blending in and smoothing tracks created by excavator during fire suppression.
- Planting small Douglas fir trees, willow trees and some native deciduous trees mixed throughout.
- Preparing an ~ 3.5 m wide footpath, within the riparian area using the existing excavator track within the 0-15 m area and gravel to stabilize the sloped footpath at 15-30 m.

Further recommendations were provided by the Provincial Habitat Officer and included in the permit:

- The piles of cobbles and wood located below the high water mark are to be dispersed evenly around the lands below the high water mark;
- Permission is provided to keep up to 15% of the area below the high water mark free of cobbles to be used as a coarse beach; and
- Cobbles must not be placed with the intention of being used for bank protection.

It is important to note that this permit does not supersede Local Government requirements for a Watercourse Development Permit and have any disturbance (other than a 1.5 m wide foot path) within the Kootenay Lake Riparian Covenant and Bulmer Creek WDP area is assessed by a Qualified Environmental Professional.

2.1.2.2 Works Completed

Works conducted under Permit A4-6831 included as observed during site visit on February 27, 2026:

- The access road that was created along the steep bank during fire suppression efforts providing access to the fire suppression equipment is still in place (Photo 1).
- Removal of 4 piles of debris created during fire suppression efforts. No piles were observed.
- All wastes encountered were removed. No wastes were observed.
- Slope stabilization using large rocks in two areas (north and south of access road (Photo 2 and Photo 3). Note that the permit application included slope stabilization in one area below a large cedar tree.

- Smoothing of excavator tracks (none were observed).
- One planted deciduous tree was observed at the north end of bench.

In addition to the approved works the following features were created within the Kootenay Lake Riparian Covenant and Bulmer Creek WDP area:

- Creation of flat bench south of access road within Lot 8 Covenant (Photo 4). Area measures ~ 8 m wide by 15 m long and up to ~1 m high along the west side. Imported crush rock was spread over the bench and angular rocks (such as those found on the foreshore) were used for armouring the bench. This bench has been used as a seating area. The bench appears to extend into Lot 9 Covenant to the south.
- In addition to the access road that was planned to be converted to a footpath, concrete steps were installed along the steep bank from the south bench connecting to the upper property (Photo 5). The concrete footsteps appear to extend into Lot 9 Covenant to the south.
- Creation of flat bench north of access road within Lot 8 Covenant (Photo 6). Area measures ~ 4.5 m wide by 20.4 m long and ~1.5 m high. One deciduous planting was observed at north end of bench as well as invasive species.
- Access road used during fire suppression activities is still in place and goes up steep bank on a diagonal (Photo 1). The road appears to have been smoothed out and was intended to be used as a footpath to access the beach. The road is 3.5 m wide and is wide enough to allow vehicle access, however the RDCK as well as the Covenant restrictions only allows for 1.5 m wide foot path and therefore will need to be altered.
- Rock wall (~20 m long) within Common Property and Bulmer Creek WDP area creating a flat area with gazebo (~2.5 m x 4 m; Photo 7). Rock wall is 14.8 m from Bulmer Creek and gazebo is 1.7 m from the rock wall. Written authorization from the Strata Corporation was given for the use of the Common Property for the rock retaining wall to remain, according to Ryan O' Connor from the Strata Corporation.
- Excavation with concrete footings for new house within the Bulmer Creek 30 m WDP area (Photo 8). Northeast corner is 22.2 m away from Bulmer Creek.
- A small shed (3.9 m by 2.5 m) is 15.9 m from Bulmer Creek (Photo 8).

Refer to Appendix 1 for Site Plan showing existing development.



Photo 1. Access road created during fire suppression activities (Feb. 27, 2026).



Photo 2. Erosion protection north of access road (Feb. 27, 2026).



Photo 3. Erosion protection south of access road (Feb. 27, 2026).



Photo 4. Bench south of access road within Lot 8 covenant (Feb. 27, 2026). Note large rocks used to armour bench.



Photo 5. Concrete steps from south bench to upper property (Feb. 27, 2026).



Photo 6. Bench north of access road within Lot 8 covenant (Feb. 27, 2026). Note invasive weeds growing on bench.



Photo 7. Rock wall and gazebo within Bulmer Creek common property (Feb. 27, 2026).



Photo 8. Excavation site with footings for future house and small shed at the back on the left of photo (Feb. 27, 2026).

2.1.3 Watercourses and Aquatic Habitat

2.1.3.1 Kootenay Lake

Kootenay Lake borders the Property along the western boundary for ~37 m; and consists of a rocky shore with a gradual slope of ~ 18% gradient and is composed of a mixture of angular cobbles and gravels, dominated by large cobbles (Photo 9 and Photo 10) with a few pieces of LWD.

Kootenay Lake 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. 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).

Kootenay Lake supports a variety of fish species, including several species of regional interest such as 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).). Most of the Property shoreline is located within Foreshore Inventory Mapping (FIM) Segment 100 which includes the Bulmer Creek fan and continues to the south. The aquatic habitat index rating for this segment was rated as high (Table 3; Ecoscape 2016). The shoreline has potential to support juvenile fish rearing and adult staging habitat, migration and shore spawning (Photo 10). The Bulmer Pointe Subdivision is located ~ 5 km south of the Duncan River mouth and delta. This area has been identified as critical habitat for White Sturgeon and where millions of kokanee fry migrate through from the Duncan River every spring. A Section 16 Reserve was established in the bay

immediately north of Lot 8, starting in front of the common property. This bay is generally north facing and provides shelter from the southerly winds.



Photo 9. Rocky foreshore in front of Lot 8 looking south (Feb. 27, 2026).



Photo 10. Mixture of substrate on foreshore looking west (Feb. 27, 2026).

2.1.3.2 Bulmer Creek

Bulmer Creek is a third order tributary stream with an approximate length of 6 km and drainage area of 8.14 km²; flows west into Kootenay Lake and originates from the Purcell Mountains. The channel had an average channel width of 2.1 m, average stream gradient of 14% and step-pool morphology and becomes further confined upstream of the Bulmer Drive culvert (Photo 11 to Photo 13). There was no distinct channel within the foreshore of Kootenay Lake (Photo 14). The first 33 m of the stream channel has been modified by the owners of Lot 7 to the north with armouring placed instream (Photo 15). The channel was completely dry throughout the Bulmer Pointe Subdivision at the time of the survey; however, flows were observed in the stream channel upstream of the Argenta-Johnsons Landing Road. There was no fisheries information for Bulmer Creek (Habitat Wizard), however, due to the lack of fish habitat, and stream flows is considered non fish bearing.

A debris flood hazard assessment was completed in 2008 (Skmana) to provide more site specific information and recommendations for mitigation of flood hazards within the Bulmer Pointe Subdivision. An initial geotechnical hazard assessment had been completed in 2007 by Golder Associates Ltd. to identify the potential for geotechnical hazards and identified the need for mitigation works to mitigate for the potential risks of debris flows. Mitigation measures included in the Skmana report consisted of the construction of a 2 m high berm along either side of Bulmer Creek extending 100 m downstream from Bulmer Drive. North berm is visible on left side of Photo 11.



Photo 11. Bulmer Creek showing engineered berm on north side of stream (Feb. 27, 2026).



Photo 12. Stream becomes confined in steep gully upstream of Bulmer Road (Feb. 27, 2026).



Photo 13. Culvert (1400 mm) under Bulmer Drive (Feb. 27, 2026).



Photo 14. View of Bulmer Creek mouth with no distinct channel (Feb. 27, 2026).



Photo 15. View of lower Bulmer Creek with armoring (Feb. 27, 2026).



Photo 16. Upstream view of Bulmer Creek upstream of subdivision with water flowing in the channel (Feb. 27, 2026).

2.1.4 Vegetation

The Property is within the West Kootenay Interior Cedar – Hemlock dry, warm (ICHdw1) biogeoclimatic subzone. This subzone typically ranges in elevation from 600-1225 m and is characterized by moist warm springs; hot to very hot dry summers; and mild dry winters with a moderately shallow snowpack. This subzone is highly productive with a great variety of plant and wildlife species (MacKillop and Ehman 2016). Invasive plant species are widespread in the ICHdw1 and include knapweeds (*Centaurea* spp.), sulphur cinquefoil (*Potentilla recta*), and hawkweeds (*Hieracium* spp.) (MacKillop and Ehman 2016).

The riparian area consists of a narrow band of trees (5 to 7 m wide) along the steep bank as most of the property was cleared of vegetation (Photo 17 and Photo 18). Mature tree species on the bank include Western redcedar (*Thuja plicata*), Douglas fir (*Pseudotsuga menziesii*), and birch (*Populus papyrifera*). Shrubs include Oregon grape (*Mahonia aquifolium*), red-osier dogwood (*Cornus sericea*), rose (*Rosa* sp.), and Western red cedar regen. Cottonwood regen was present below the HWM. The benched area west of the narrow riparian band is lacking native vegetation and had invasive weed species such as knapweed, mullein and grasses. The area east of the vegetation band still within Lot 8 Covenant was also cleared.



Photo 17. View of narrow band of vegetation along foreshore, disturbed area with invasive species and grasses (Feb. 27, 2026). Note sweeping trees along bank.



Photo 18. Vegetation along access trail to lake (Feb. 27, 2026).

2.1.5 Wildlife

The riparian area on the Property has potential to provide perching and stop-over habitat for migratory birds. The proximity to Bulmer Creek and protected riparian area within the Common Property and potential use as a migration corridor from the lake to upland habitat may increase the potential for wildlife sightings. Small mammals are likely to utilize areas that are denser with shrubs and understory vegetation. Large mammals such as ungulate and bears are likely to frequent the area.

2.1.5.1 Species at Risk

Species at risk information pertinent to the Property was obtained through searches using Habitat Wizard, iMap, and iNaturalist (2025) with a 5 km buffer. Based on these queries, white sturgeon (*Acipenser transmontanus* – Upper Kootenay River population, BC Red-Listed, SARA Endangered), Great Blue Heron (*Ardea herodias herodias*, BC Blue- Listed), Monarch (*Danaus Plexippus*, BC Red-Listed, SARA Endangered), northern rubber boa (*Charina bottae*, SARA species of special concern), western skink (*Plestiodon skiltonianus*, BC Blue-Listed, SARA species of special concern), and western toad (*Anaxyrus boreas*, SARA species of special concern) were identified as potentially occurring within the buffered area.

The property is within the Southern Mountain Caribou (*Rangifer tarandus*; BC Red listed; SARA Endangered) critical habitat polygon. Southern Mountain Caribou have largely been extirpated from their historic range; however, efforts to recover the population may result in successful reintroductions that will depend on suitable intact habitat.

Some of these species are wide ranging or have broad habitat requirements and may transiently use the area, however; no critical habitat, dens, or nests for species at risk were identified during the site visit.

2.1.6 Invasive Species

Invasive species observed during field surveys include knapweed, and mullein. Other species may be present but were not observed due to the time of year. Spotted knapweed and mullein are listed as priority 4 “Strategic Control”. Priority 4 indicates that the species is widespread, beyond landscape level control, and has a relatively low impact.

2.2 Proposed Development

The proposed development includes the construction of a house and garage within the Kootenay Lake and Bulmer Creek 30 m WDP area immediately east of the designated building envelope footprint (Skmana 2008). The area has already been cleared of vegetation, and the excavation and installation of footings has been completed (Photo 8). No additional clearing or excavation will be required in association with building of the house. Refer to Site Description (Section 2.2) for current site conditions.

The Owner is proposing to retain a portion of the existing sitting area (~25 m²; Photo 4) within the lake Covenant area, along with a 2 m wide access trail within the existing alignment (Photo 1), in order to support safe and practical access for an immediate family member with limited mobility. This trail width allows for a small side by side off-road vehicle to drive down to the sitting area and beach.

3 REGULATORY OVERVIEW

3.1 Lot 8 Covenants

The Bulmer Pointe Subdivision, a 32.52 ha property, was subdivided in 2007 and included the creation of 25 residential lots along the Kootenay Lake foreshore. A riparian assessment was completed for the entire property to assess potential impacts of the subdivision on the riparian habitat along Kootenay Lake. Riparian setbacks were developed for each lot and were based on riparian vegetation, wildlife habitat, topography and building envelopes to ensure riparian habitat is maintained over the entire property, with each lot having its own setback (Masse & Miller 2007).

Riparian covenants were registered on title against each lot by the Kamloops Land Title Office on August 15, 2018. This agreement includes the exemption from Section 19.0 – Watercourse Development Permit Area of Kootenay Lake and Lardeau Valley portion of Electoral Area 'D' Official Community Plan Bylaw No. 1996, 2009 (which preceded Bylaw 2435, 2016). Riparian covenant for Lot 8 is 20 m. The covenant specifies that no buildings, structures, or improvements of any kind be constructed within the riparian setback, as well as no removal or disturbance to any soil, vegetation (with the exception of weeds and dead foliage and the removal of any foliage as is reasonably necessary for, or incidental to, fire prevention) or trees, however provides allowance for a 1.5 m wide walkway to access the beach (2018). Any area damaged by the subdivision shall be rehabilitated.

A covenant was also designated on the south side of Lot 8 as a no build area in the event of a debris flood (Skmana 2008).

3.2 Streamside Protection and Enhancement Area (SPEA)

The Streamside Protection and Enhancement Area for the property was determined by completing a detailed assessment following the Riparian Area Protection Regulation (RAPR) methodology.

The SPEA for Kootenay Lake was determined as 15 m from the high-water mark, as the SPEA is determined based on the zone of sensitivity (ZOS) with the greatest width. The large woody debris (LWD) and litter ZOS were plotted 15 m inland from the HWM of Kootenay Lake and the shade ZOS is 0 m since the property is generally west facing (Table 1). Even though the SPEA was determined to be less than the 20 m Covenant riparian setback, the Covenant takes precedence.

The SPEA for Bulmer Creek was based on an average channel width of 2.1 m, an average gradient of 14% and a step-pool morphology, which results in a zone of sensitivity (ZOS) for large woody debris (LWD) and

litter fall of 10 m from the high-water mark. The shade ZOS is based on 3 times the channel width totalling 6.3 m to the south of the high water mark of the stream channel.

Results for the Zones of Sensitivity (ZOS) and SPEA are presented in Table 1 and the SPEA is mapped in Appendix 1.

Table 1. Results of detailed RAPR assessment for Kootenay Lake and Bulmer Creek.

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 ⁴
Lot 8 Covenant					20 m
Bulmer Creek	TR	10	10	6.3	10 m

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

² LWD- large woody debris

³SPEA- streamside protection and enhancement area

⁴Note that the 20 m Covenant riparian setback takes precedence over the 15 m SPEA in this case.

3.3 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. The Property is located within FIM Segment 100. The aquatic habitat index rating was rated as High for this segment, with high rating for juvenile rearing and potential for staging, migration and shore spawning (Table 2). A Section 16 Reserve (which is a temporary designation for the protection of sensitive fisheries areas and wetlands from habitat alteration or destruction) has been designated immediately north of Lot 8, starting in front of the common property.

Table 2. Aquatic and archaeological risk results

Aquatic Habitat Index Rating (AHI)	Aquatic Sensitivity	Archaeological Risk	Enhanced Engagement Required
High	Yes	Orange	Yes

The ecological risk matrix provided in the Kootenay Lake Shoreline Management Guidelines indicates a risk assessment rating of “Very High” associated with the removal of native riparian vegetation.

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, and most of the east side of Kootenay Lake is considered to have archaeological potential.

The cultural values engagement matrix provided in the Kootenay Lake Shoreline Management Guidelines outlines the level of risk a proposed activity would have on cultural values and the type of engagement required. As per the guidelines, Segment 100 would require enhanced engagement with Ktunaxa for any land development, including building permit applications and native vegetation removal.

The archaeological risk matrix provided in the Kootenay Lake Shoreline Management Guidelines outlines the level of risk a proposed activity would have on potential archaeological sites. As per the guidelines, Segment 100 was assigned an orange classification, which indicates a high level of risk associated with native vegetation modification/removal and moderate level of risk associated with building permit applications. A high level of risk pertains to localized and/or relatively superficial effects in locations where the physical evidence is likely to be very sparse, highly localized, deeply buried and/or already too highly disturbed to be of further archaeological value. Consulting an archaeologist is recommended in situations where the activity is deemed to be high risk. A moderate level of risk is one where the activity itself might not constitute a potential threat to intact archaeological materials but ancillary activities (e.g. those involving access to, from or across land or some disturbance of mineral soil) may cause impacts to known archaeological sites or where such are likely to be present. Following an Archaeological Chance Find Procedures is recommended for moderate risk activities.

4 IMPACT ASSESSMENT

Historical photos from the 2007 riparian assessment were compared to current conditions (Photo 19 to Photo 24). The riparian area consisted of a mixture of young coniferous trees mostly Douglas fir within the first 15 m with some deciduous species mixed throughout and abundant LWD (Masse & Miller 2007). Douglas fir were present in relatively low density in this section (Photo 20, 22 and 24). Some of the deciduous shrubs had been cleared at the time, but vigorous regrowth was expected. Mature Douglas fir and Western red cedar were present along the bank. Much of the vegetation west of the mature trees along the bank has been removed and the ground recontoured to create two benches, one on either side of the access road and the access road. Most of the LWD that was present along the shoreline has been removed (Photo 22). Imported material including pea gravel was placed on top of the south bench. Most of the vegetation along the foreshore of the property has been removed leaving a narrow band of trees, 5 to 7 m wide. Some of this removal may have been caused by the accidental fire that happened in 2016,

but was to be restored as per Permit A4-6831. Vegetation east of the narrow band of trees within the covenant was also removed.

The impacts associated with the proposed retention of the sitting area and a slightly wider access path reduces the restoration area by ~35 m². Prior to disturbances, the proposed sitting area and lower section of the path had less dense vegetation (Photo 24) and therefore the impacts associated with this development are relatively small as long as the surfaces remain pervious (i.e. gravel and soil).

The rock wall and gazebo located within the Common Property and the Bulmer Creek WDP area are outside of the 10 m SPEA. The small shed is also outside of the Bulmer Creek 10 m SPEA and outside of the Common Property.

Table 3. Summary of Areas of Impact

Area ID	Area Description	Area (m ²)	Vegetation removal	Large Woody Debris (LWD) removal	Development
A	North Lower Bench	155 m ²	Yes- Removed during 2016 fire and fire suppression efforts.	Yes- Removed during 2016 fire suppression.	Yes- Flat bench was created (20 m long by 4.5 m wide). Owner attempted replanting but failed.
B	South Lower Bench	90 m ²	Yes-Vegetation removed during 2016 fire and suppression efforts.	Yes- Removed during 2016 fire suppression.	Yes- Flat bench was created for seating area (15 m long x 8 m wide). Imported pea gravel placed on sitting area surface).
C	Access Road	85 m ²	Yes-3.5 m wide path cleared to create machine access for fire suppression and clean-up.	Yes- along shoreline as part of fire suppression work in 2016.	Yes- Access road cut into bank to accommodate machine for fire suppression in 2016.
D	North Upper Bench	105 m ²	Yes- Vegetation removed and replaced with lawn.	Unknown	Yes- Area was excavated to create flat bench. Rock retaining walls constructed at north end within Strata Lot.
E	South Upper Bench and Foreshore Access Stairs	80 m ²	Yes-Vegetation removed. Currently exposed dirt.	Unknown	Yes- Area was regraded to create flat bench in front of house. Concrete access stairs (6 m x 1.5 m) placed at south-west corner of property encroaching into neighbour's covenant.
F	South Strip of Trees	55 m ²	Potential understorey vegetation damaged by rock placement around conifer trees.	Unknown	Yes-Rock was placed around trees.



Photo 19. View of disturbed foreshore and narrow strip of trees along bank (Feb. 27, 2026).



Photo 20. View of vegetated area in front of mature trees along foreshore in 2007 (March 27, 2007).



Photo 21. View of disturbed foreshore, access road and narrow strip of trees along bank (Feb. 27, 2026).



Photo 22. View of natural vegetation in 2007 and abundant LWD (March 27, 2007).



Photo 23. View of disturbed foreshore, access road and narrow strip of trees along bank (Feb. 27, 2026).



Photo 24. View of natural vegetation in 2007 and area where existing seating area is (March 27, 2007).

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

Professional assessment of danger trees is outside the scope of this report and should be conducted by a certified Danger Tree Assessor. If trees are felled within the Lot 8 Covenant and the Bulmer Creek SPEA, they should be left as coarse woody debris and should be replaced according to the provincial tree replacement criteria. Where possible, danger trees should be topped rather than felled.

5.2 Windthrow

The foreshore of Kootenay Lake is susceptible to strong winds and may be prone to windthrow. A formal assessment of windthrow risk is beyond the scope of this report and any such assessment should be conducted by a Registered Professional Forester (RPF). If trees felled within the Lot 8 Covenant and the Bulmer Creek SPEA, they should be left as coarse woody debris and should be replaced according to the provincial tree replacement criteria (BC 2019). Trees with wildlife attributes (cavities, peeling bark), should be left standing where they do not pose a threat to structures.

5.3 Slope Stability

The property is mostly gently sloping towards Kootenay Lake with a short steeper bank within the Riparian Covenant with some signs of instability including trees sweeping. A geotechnical assessment was conducted on January 26, 2026 by Skmana to assess the house foundation subgrade and the subgrade was found to be suitable for development as foundation support. Further assessment of geotechnical hazard is beyond the scope of this report, and any such assessment should be led by a P.Geol. or P.Eng.

5.4 Protection of Trees and Vegetation in the SPEA

The Property in the vicinity of the development was historically cleared and is already developed therefore limited options for the protection of the Riparian Covenant are present at the location. The following protection measures should be taken to minimize further impacts to existing and potential trees and vegetation within the Riparian Covenant:

- Avoid removal of any vegetation within the Riparian Covenant.
- Protect existing tree roots along the Riparian Covenant boundary.
- Plant native vegetation in areas that have been impacted to improve the resilience of existing and potential vegetation.

- Any future developments on the Property should consider clearly identifying limits of disturbance along the Riparian Covenant boundary to prevent impacts to trees and their roots. This should include: no trenching through the root zone, no paving around trees, no changes to ground level around trees, no parking under trees, and no concrete washout or other pollutants around trees (BC 2019).

5.5 Encroachment

Protection measures to minimize effects of encroachment within the Riparian Covenant include:

- Avoid any new developments or additional disturbance within the Riparian Covenant.
- Restrict human use to existing trails, and minimize noise, bank disturbance and vegetation trampling (BC 2019).

5.6 Erosion and Sediment Control

Erosion and sediment control measures shall be incorporated as required, to protect riparian vegetation and water quality in Kootenay Lake.

5.7 Stormwater Management

The following mitigation measures will help decrease stormwater impacts to the Riparian Covenant:

- Design roof rainwater collection systems that direct rainwater into suitable landscape features which can absorb and utilize runoff.
- Do not use the vegetated area within the Riparian Covenant to filter sediment laden water.
- Stormwater management infrastructure should not be located in the Riparian Covenant and any discharges to streams will require meeting the Water Sustainability Act and any other applicable legislation.

5.8 Floodplain Concerns

No floodplain concerns were noted with respect to the Riparian Covenant as the property is elevated above the flood level of Kootenay lake. A debris flood hazard assessment was completed in 2008 (Skmana) to provide more site specific information and recommendations for mitigation of flood hazards within the Bulmer Pointe Subdivision.

A debris flood hazard assessment was completed in 2008 (Skmana) to provide more site specific information and recommendations for mitigation of flood hazards within the Bulmer Pointe Subdivision. An initial geotechnical hazard assessment had been completed in 2007 by Golder Associates Ltd. to

identify the potential for geotechnical hazards and identified the need for mitigation works to mitigate for the potential risks of debris flows. Mitigation measures included in the Skmana report consisted of the construction of a 2 m high berm along either side of Bulmer Creek extending 100 m downstream from Bulmer Drive. A covenant was also designated on the south side of Lot 8 as a no build area in the event of a debris flood.

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.
- No barriers will be developed that will impact natural fish/wildlife movement along the shoreline.

5.10 Invasive Plant Management

Invasive species were observed in the riparian area. Land use activities can potentially increase prevalence of these invasive plant species which can out-compete native riparian vegetation, causing damage to habitat and ecosystem function. 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). The subject Property is located within the Kaslo North Invasive Plant Management Area, and the priority species list can be found at <https://ckiss.ca/invasive-plant-priority-lists/>.

The following mitigation measures are recommended to reduce impacts of plant species:

- Monitor existing invasive plants to ensure they do not spread or increase in distribution.
- Hand pull invasive plants, where possible.

6 PROPOSED RESTORATION PLAN

Mitigation for impacts of the development within the Kootenay Lake Lot 8 Riparian Covenant and the Bulmer Creek SPEA is based on the hierarchy of mitigation options outlined in RDCK 2024 to achieve a net loss of habitat. This is achieved by applying the following mitigation options: 1. Avoidance of environmental impacts; 2. Minimizing unavoidable impacts; 3. On-site restoration; and 4. Offsetting impacts that cannot be minimized.

In the case of this property, the unauthorized works have already occurred, of which ~270 m² of vegetation removal below the steep bank and 166 m² above the steep bank, and ~256 m² of ground disturbance within Lot 8 Riparian Covenant. Avoidance and minimizing is therefore not possible.

In order to restore the impacted area and protect the Lot 8 Riparian Covenant, restoration and mitigation measures are detailed in Table 4.

Table 4. Detailed Restoration Prescription for Impacted Areas.

Area ID	Area Description	Area (m ²)	Proposed Restoration
A	North Lower Bench	155 m ²	Remove weeds. Regrade area back to natural grade and create rough and loose conditions. Add habitat complexity. Place 5 large woody debris pieces and create rock clusters. Plant 40 plants in clusters of 3-5 plants. Flood tolerant species to be planted on lower half of this area (Table 5). Seed exposed soils on upper bank with Interior dryland seed mix (Table 6).
B	South Lower Bench	55 m ²	Retain existing vegetation. Remove placed fill material from east corner to natural ground. Create rough and loose conditions where soil is compacted outside of the proposed sitting area. Plant 20 plants in clusters of 3-5 plants. Flood tolerant species to be planted on lower half of this area (Table 5). Add habitat complexity by adding rock clusters on beach area
C	Access Road	28 m ²	Reduce path from 3.5 to 2.0 m wide walking path (to support safe and practical access for an immediate family member with limited mobility). Create rough loose conditions along edges to be planted. Plant 10 low shrubs and perennials (Table 5) and spread riparian seed mix (Table 6).
D	North Upper Bench	40 m ²	Retain existing vegetation. Create rough and loose conditions. Plant 20 plants- a minimum of 5 native trees and assortment of native shrubs and perennials (Table 5). Seed disturbed soils lightly with native dryland seed mix (Table 6).
E	South Upper Bench and bank	70 m ²	Retain existing vegetation. Create Rough and loose conditions. Plant 35 plants- a minimum of 5 native trees and assortment of native shrubs and perennials (Table 5). Seed disturbed soils lightly with riparian seed mix (Table 6).
F	South Strip of Trees		None

The final plant species selection and quantities should be determined by a QEP in consultation with the Owner and will be dependent on plant availability at the time of ordering. The re-vegetation design should provide mixed plant structure and layering. The proposed revegetation will require ongoing maintenance (i.e., irrigation and weeding) until it becomes established.

Table 5. Recommended riparian plant species.

Common Name	Latin Name
Areas A and B- North and South Lower Benches	
Lower portion	
black cottonwood*	Populus trichocarpa
red osier dogwood*	Cornus sericea
sandbar willow*	Salix exigua
Sitka willow*	Salix sitchensis
Nootka rose *	Rosa nootkana
prickly rose*	Rosa acicularis
Oregon Grape	Mahonia Aquifolium
Upper portion	
Douglas fir	Pseudotsuga menziesii
Oregon grape	Mahonia Aquifolium
kinnikinnick	Arctostaphylos uva-ursi
common snowberry	Symphoricarpos albus
Scoulers willow	Salix scouleriana
Douglas maple	Acer glabrum
shrubby penstemon**	Penstemon fruticosus
golden aster	Heterotheca villosa
Area C – Access Trail	
kinnikinnick	Arctostaphylos uva-ursi
common snowberry	Symphoricarpos albus
common yarrow**	Achillea millefolium
shrubby penstemon**	Penstemon fruticosus
Golden aster**	Hethrotheca villosa
Areas D and E– North and South Upper Benches	
Douglas fir	Pseudotsuga menziesii
Western larch	Larix occidentalis
Paper birch	Populus trichocarpa
Douglas maple	Acer glabrum
Saskatoon berry	Amelanchier almifolia
Scouler's willow	Salix scouleriana
Nootka rose	Rosa nootkana
prickly rose	Rosa acicularis
Oregon grape	Mahonia Aquifolium
kinnikinnick	Arctostaphylos uva-ursi
common snowberry	Symphoricarpos albus
shrubby penstemon**	Penstemon fruticosus
golden aster**	Hethrotheca villosa

*Flood tolerant species

**suitable for dry rocky slopes

Table 6. Recommended Interior Dryland Seed Mix blend.

Common Name	Latin Name	Weight %
Bluebunch Wheatgrass	<i>Pseudoroegneria spicata</i>	30%
Sandberg’s Bluegrass	<i>Poa secunda</i>	25%
Idaho Fescue	<i>Festuca idahoensis</i>	15%
Slender Wheatgrass	<i>Elymus trachycaulus</i>	10%
Annual Ryegrass	<i>Lolium multiflorum</i>	10%
June grass	<i>Koeleria macrantha</i>	5%
Sand Dropseed	<i>Sporobolus cryptandrus</i>	4%
Yarrow	<i>Achillea millefolium</i>	1%

*Applied at a rate of 20 kg/ha

General Planting and Maintenance Guidelines

- Planting should not occur during periods of hot dry weather unless they are irrigated daily.
- Locally adapted native plants are preferable to those collected or grown outside the region. The recommended plant species and seed mix are available from Sagebrush Nursery in Oliver <https://sagebrushnursery.com>. Alternatively, the Owners can transplant native species from other local areas with permission from landowner.
- Planting holes should be a minimum of 3 times the size of the pot.
- Specific locations of plants should be directed by a QEP.
- Use transplant fertilizer (ie. Mykes Mycorrhizae Tree and Shrub or similar) as per manufacturers specifications in each planting hole.
- Mix topsoil/compost and native soils together in each planting hole (50/50 mix).
- Within the beach restoration area, rake back native beach substrate around each plant (~2-3" deep), to protect soil from erosion.
- Within the riparian restoration area, place 3-4 inches deep of mulch around each plant.
- Ensure the objective of the restoration is to naturalize the riparian area and not create a landscaped garden.
- Regularly irrigate new plantings during the plant establishment period for a minimum of 2-years and thereafter as required.

7 ENVIRONMENTAL MONITORING AND POST INSPECTION

The anticipated effort for environmental monitoring and professional guidance on this project includes the following:

- QEP will be on site for a pre-construction meeting with Owner and Contractor to ensure that all parties are aware of environmental sensitivities and familiar with the proposed restoration plan and mitigation measures.

- QEP to provide guidance during site re-grading, habitat complexing and revegetation, as required.
- QEP will conduct a post-construction site visit once planting is complete to assess compliance and completion of the project.
- QEP will prepare an environmental summary report, and submit to the RDCK once restoration is complete.

Further effectiveness monitoring of restoration measures may also be required by the RDCK. The following indicators of success of riparian plantings should be documented:

- Plant composition includes mostly native trees, shrubs and grasses with <10% invasive species.
- Establishment of >50% of planted riparian species after 3 full years would be a reasonable indication that the restoration plan has been successfully completed.

8 CONCLUSION

The riparian area assessment conducted within the 30 m WDP Area in accordance with the Riparian Areas Protection Regulation determined that disturbance had occurred within the 20 m Riparian Covenant measured from the HWM of Kootenay Lake. To mitigate for the riparian vegetation removal and ground disturbance a restoration plan is proposed. The plan includes recontouring the benched area, reducing access road to a 2.0 m wide path and revegetation of the impacted areas within the Riparian Covenant.

We trust the information provided in this report meets your current requirements. If you have any questions or require further information do not hesitate to contact the undersigned.

Prepared by:



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9 REFERENCES

- [BC Habitat Wizard] Province of British Columbia. 2024. Habitat Wizard [web application]. Victoria, B. C. Canada. Accessed October 2025. Available at:
<https://www2.gov.bc.ca/gov/content/environment/plants-animals/ecosystems/ecosystems/habitatwizard>
- [BC iMap] Province of British Columbia. 2025. iMap BC [web application]. Victoria, B. C. Canada. Accessed November 2025. Available at: <https://www2.gov.bc.ca/gov/content/data/geographic-data-services/web-based-mapping/imapbc>
- [BC] Province of British Columbia. 2019. Riparian Areas Protection Regulation. B.C. Reg. 178/2019, last amended February 4, 2021, by B.C. Reg 11/2021. Victoria, British Columbia, Canada.
- [BC] Province of British Columbia. 2014. Water Sustainability Act. SBC 2014, current to August 24, 2022. Victoria, British Columbia, Canada.
- [BC] Province of British Columbia. 2017. Water Sustainability Act - Approval Changes In and About a Stream. Permit # A4-3831.
- [BC] Province of British Columbia. 2018. Land Title Act - Strata Lot 8 District Lot 7827 Kootenay District Strata Plan NES3603 – Covenant. Issued by the Kamloops Land Title Office.
- [BC] Province of British Columbia. 1996. Wildlife Act. SBC 1996, current to January 30, 2024. Victoria, British Columbia, Canada.
- [BCCDC] Province of British Columbia. 2025. BC Conservation Data Centre, Species and Ecosystems Explorer. B.C. Ministry of Environment, Victoria B.C. Accessed October 2025. Available at: <http://a100.gov.bc.ca/pub/eswp/>
- [CKISS] Central Kootenay Invasive Species Society. 2023. CKISS Invasive Plant Priority List 2023. Available online at: <https://ckiss.ca/species/invasive-plant-priority-lists/>
- Fortis BC. 2024. Kootenay Lake Levels. Available at:
<https://www.fortisbc.com/in-your-community/kootenay-lake-level-monitoring/kootenay-lake-levels>

Golder and Associates. 2007. Geotechnical Hazard Assessment – Bulmer Pointe Development between Argenta, BC and Johnson’s Landing, BC. Report prepared for Roco Development Ltd.

Gov of Canada. 1994. Federal Migratory Birds Convention Act. (S.C. 1994, c. 22). Available at: <https://laws-lois.justice.gc.ca/eng/acts/m-7.01/>

[KLP] Kootenay Lake Partnership. Ktunaxa Nation Council, Regional District of Central Kootenay, Ministry of Forests, Lands, and Natural Resource Operations, Ecoscape Environmental Consultants Ltd., Tipi Mountain Eco-Cultural Services Ltd. The Firelight Group Ltd., Wayne Choquette. 2020. Shoreline Guidance Document – Kootenay Lake. Prepared for Kootenay Lake Partnership.

[KLP]. Kootenay Lake Partnership. 2023. Kootenay Lake Shoreline Inventory Mapping Interactive Map. Available online at: <http://kootenaylakepartnership.com/>

Mackillop, D. and Ehman, A. 2016. A Field Guide to Site Classification and Identification for Southeast British Columbia: the South-Central Columbia Mountains. Province of B.C., Victoria, B.C. Land Management Handbook 70.

Masse & Miller Consulting Ltd. 2007. Bulmer Pointe Subdivision Riparian Assessment. Report prepared for Roco Development Ltd.

[RDCK] Regional District of Central Kootenay. 2019. RDCK Floodplain Management Bylaw No. 2080, 2009. Updated December 12, 2019.

[RDCK] Regional District of Central Kootenay. 2024. DRAFT Standardized Terms of Reference for Riparian Assessment Reports.

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.

Skmana Creek Consulting Ltd. 2008. Debris Flood Hazard Assessment Bulmer’s Pointe Argenta BC. Report prepared for Roco Developments Ltd.

Skmana Creek Consulting Ltd. 2026. House Foundation Subgrade Inspection. Report prepared for Hamill Creek Timber Homes..

APPENDIX 1. SITE PLAN AND SPEA MAP

BROWN RESIDENCE
LOT 8 - BULMER'S POINTE, B.C.

DATE	ISSUE
20251104	PERMIT SET
20251219	TO ENG V3
20260105	RDCK REVIEW
20260114	GEOTECH REVIEW/ENG V4
20260127	CONSTRUCTION DRAWINGS

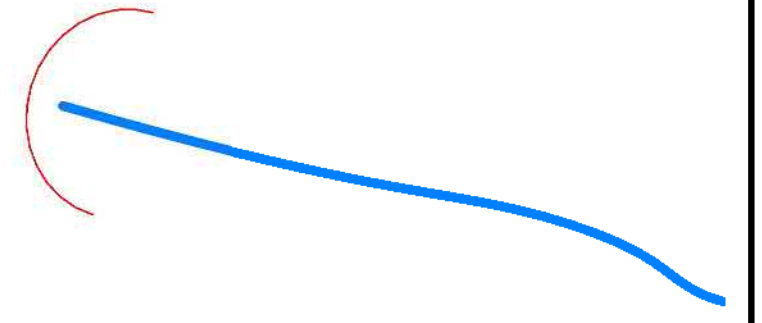
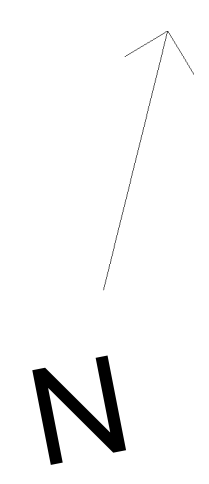
REVISIONS	NO	DATE	ISSUE
	01	260316	MASSE SITE PLAN REQUEST

PROJ. NO.:	BROW0925BC
DRAWN BY:	KH
CHECKED BY:	DS
ISSUE DATE:	2026.03.16

DRAWING TITLE
SITE PLAN - FIONA

DRAWING NO.

A2.1



LEGEND

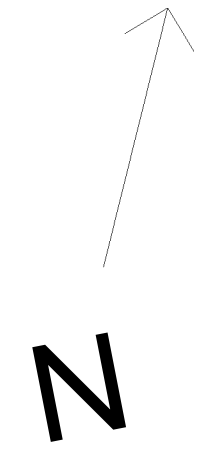
- SPEA (Kootenay Lake 15m and Bulmer Creek 10m)
- WDP and Riparian Assessment Area (30 m)
- Covenant Lines (CA7000667, CA7000671, LB 0206291)
- LWD and Litterfall ZOS (Kootenay Lake 15m and Bulmer Creek 10 m)
- Shade ZOS (Kootenay Lake 0 m and Bulmer Creek 6.3 m)
- Areas of Impact (Area A, Area B, Area C, Area D, Area E, Area F)
- Existing Structures (Gazebo and Bunkhouse)
- Proposed New Home and Garage Footprint

Drawing: Site Plan
Address: 1339 Hamill Lane, Bulmer
Pointe Subdivision, Johnsons Landing

Edited by: Fiona Lau
Date: March 24, 2026



APPENDIX 2. MITIGATION PLAN



BROWN RESIDENCE
LOT 8 - BULMER'S POINTE, B.C.

DATE	ISSUE
20251104	PERMIT SET
20251219	TO ENG V3
20260105	RDCK REVIEW
20260114	GEOTECH REVIEW/ENG V4
20260127	CONSTRUCTION DRAWINGS

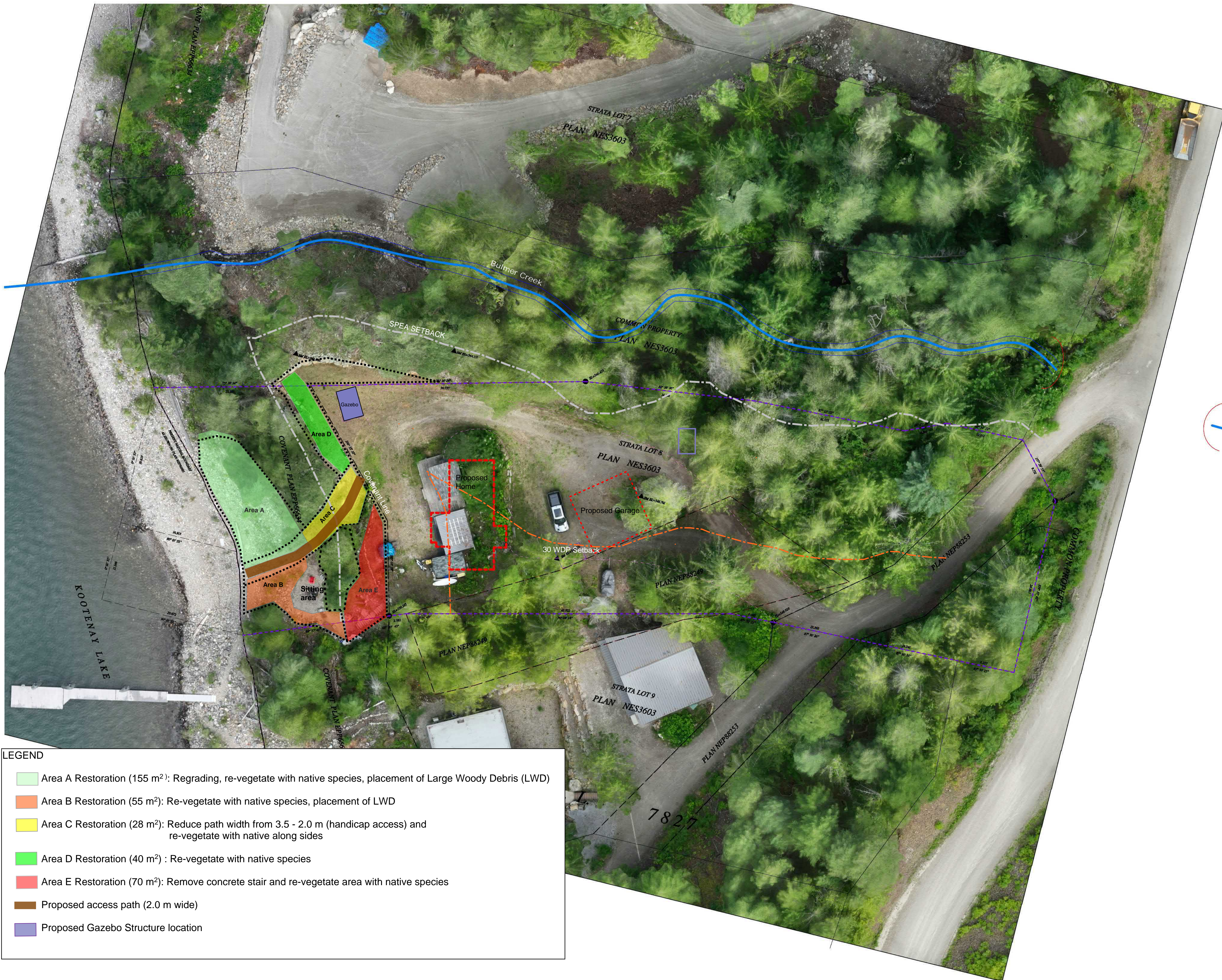
REVISIONS	NO	DATE	ISSUE
	01	260316	MASSE SITE PLAN REQUEST

PROJ. NO.:	BROW0925BC
DRAWN BY:	KH
CHECKED BY:	DS
ISSUE DATE:	2026.03.16

DRAWING TITLE
SITE PLAN - FIONA

DRAWING NO.

A2.1



LEGEND

- Area A Restoration (155 m²): Re-grading, re-vegetate with native species, placement of Large Woody Debris (LWD)
- Area B Restoration (55 m²): Re-vegetate with native species, placement of LWD
- Area C Restoration (28 m²): Reduce path width from 3.5 - 2.0 m (handicap access) and re-vegetate with native along sides
- Area D Restoration (40 m²): Re-vegetate with native species
- Area E Restoration (70 m²): Remove concrete stair and re-vegetate area with native species
- Proposed access path (2.0 m wide)
- Proposed Gazebo Structure location