



Committee Report

Date of Report: May 29, 2024
Date & Type of Meeting: June 12, 2024, Rural Affairs Committee
Author: Stephanie Johnson, Planner
Subject: DEVELOPMENT VARIANCE PERMIT
File: V2404A-04737.100-Crowe-DVP00252
Electoral Area/Municipality A

SECTION 1: EXECUTIVE SUMMARY

The purpose of this report is for the Rural Affairs Committee (RAC) and Regional Board to consider a Development Variance Permit (DVP) application requesting an alternative private wastewater disposal system not permitted under the RDCK's *Subdivision Bylaw*.

Specifically, this DVP application seeks to vary Section 9.01 a. 'On-Site Sewerage Disposal' in the *Regional District's Subdivision Bylaw No. 2159, 2011*, which states, "where no community wastewater system exists, or is proposed, confirmation of assessment for capabilities on the basis of Type 1 (septic tank) treatment for each proposed lot" is required. The applicant is seeking Type 2 treatment systems for proposed residential Lots A and B. Approval of this DVP would facilitate a subdivision that would otherwise not be possible, given the proposed wastewater treatment system.

Staff recommend that the Regional Board not approve issuance of this DVP.

SECTION 2: BACKGROUND/ANALYSIS

At the May 15, 2024 RAC meeting the following resolution was passed:

*"That the Committee **REFERRED** to the June 12, 2024 Rural Affairs Committee meeting for a decision regarding the issuance of Development Variance Permit V2404A to 1068616 BC LTD., INC. NO. BC1068616 for the property located at 129 Boulder Beach Road and legally described as Lot 5 District Lot 4595 Kootenay District Plan 811, Except parts included in Plans 3062, 16541, R127, NEP60734, NEP68076, NEP69201 and NEP72451 (PID: 011-123-877) to vary Section 9.01 a. 'On-Site Sewerage Disposal' under the RDCK's Subdivision Bylaw No. 2159, 2011 to a future Board meeting pending receipt of revised septic reports".*

At this RAC meeting staff were also directed to, "get clarification on both Interior Health Authorities role regarding septic system and Ministry of Transportation and Infrastructure's Provincial (rural) Approving Officer function".

Role of Approving Authorities in the Subdivision Process

Role of Regional Districts

Regional Districts can provide planning services for the community as a whole, specific neighborhoods, or individual parcels; this can include Regional Growth Strategies, Official Community Plans, and or local bylaws, including a Subdivision Bylaw, which lay out the acceptable means of servicing various areas. Zoning bylaws can also be used by

Regional Districts to establish operation and maintenance bylaws to control development. For example, Zoning Bylaws could specify appropriate wastewater management requirements or restrict development density using onsite systems for designated areas depending on local soil conditions.

Role of Health Authorities (HAs)

Environmental Health Officers inspect and monitor activities and premises that have the potential to affect the public's health, including the area in which a subdivision may be located, with particular interest in drinking water supply and onsite sewage discharge. The HAs advise Provincial Approving Officers (PAOs) from the perspective of the *Public Health Act*, the Provincial Sewerage System Regulation (SSR), the *Drinking Water Protection Act*, and the Drinking Water Protection Regulation. *The local HA's do not provide any form of approval regarding the subdivision of land. Upon request health authority staff provides recommendations to PAOs on subdivision applications.*

In cases where there is no community sewer system, on-site sewerage disposal matters are governed by the SSR under the *Public Health Act*. The scheme of the SSR is that construction and operation standards are established by the Ministry of Health, and compliance with the standards is monitored by the regional health authorities by means of "filings" or plans and specifications for on-site systems before and after installation. There is no longer a provincial permitting systems for approving officers to use in determining whether suitable arrangements for on-site sewage disposal have been made.

In 2005, the Province enacted the SSR, replacing the prior Sewage Disposal Regulation switching from a HA oversight model to a professional reliance model. Homeowners are responsible for ensuring appropriate system maintenance is carried out, but may have limited awareness of system maintenance requirements and their legal obligations, particularly when properties are sold to new owners.

Role of Provincial Approving Officers

Provincial Approving Officers (PAOs) through the Ministry of Transportation and Infrastructure (MOTI) are designated under the *Land Title Act* to approve rural subdivisions and ensure they are implemented in accordance with provincial statutes, regulations, local government bylaws regulating Subdivision and land use (e.g. OCP and Zoning). PAOs have separate jurisdictions of authority for approving subdivision plans and are quasi-judicial officials who act independently to ensure that the subdivision complies with Provincial acts, regulations and bylaws, as well as protecting the best interests of the public.

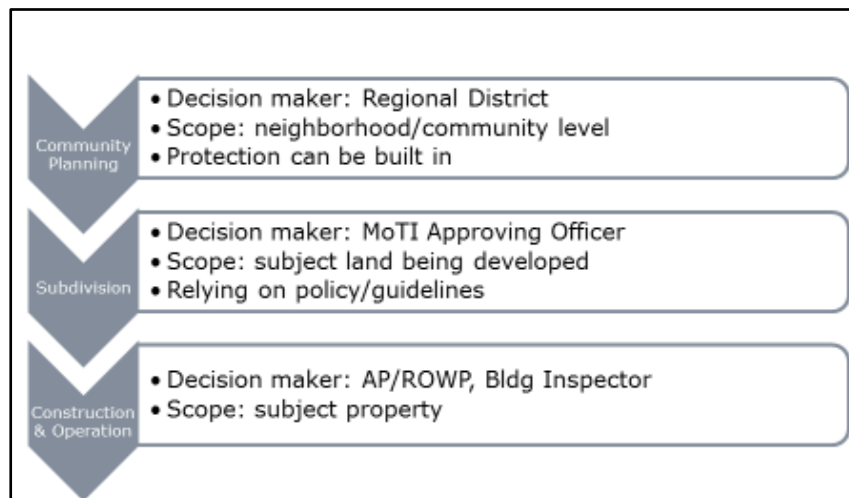


Figure 1: Overview of Decision Maker Role related to Septic Systems

RDCK Subdivision Bylaw Review Project – Update

Staff are currently reviewing the *RDCK's Subdivision Bylaw*. Feedback received from Authorized Persons involved in the review to date has provided crucial insight into why the Type 1 system requirement exists. Concerns observed with deviating from a Type 1 system include:

- System reliability – Type 1 systems are low maintenance, dependable, and less costly to install and maintain.
- Ongoing Maintenance – Type 2 systems require frequent maintenance, and one key concern raised in the review is that some people do not keep up with the maintenance or, more commonly, the property changes hands and the new owners are not aware of the maintenance requirements.
- Covenants are not monitored for compliance and Environmental Health Officers do not typically have capacity to proactively monitor systems in the region.
- Most people do not know or do not want to know about problems with their system, and systems may not be repaired or replaced until it is unavoidable (i.e. toilets not flushing or septage pooling in the field area).
- The current 4-bedroom baseline for assessment is no longer adequate with recent development trends, namely additional dwelling units and vacation rentals – the Provincial housing changes have exacerbated this concern.

Based on the preliminary feedback from the review, it is unlikely that staff would deviate from recommending all new lots be capable of supporting a Type 1 system. Mitigation measures, like sewage system maintenance bylaws or maintenance covenants, are tools that could be utilized by the RDCK to address some of the concerns related to Type 2 systems; however, the current staff capacity and organizational structure does not support the implementation of either of these tools, as they require ongoing involvement of staff with the relevant expertise to ensure the regulations of a bylaw or conditions of a covenant are being met.

GENERAL INFORMATION
Property Owner: 1068616 BC LTD., INC. NO. BC1068616 C/O Ken Crowe
Property Location: 129 Boulder Beach Road, Kootenay/Crawford Bay, Electoral Area 'A'
Legal Description: Lot 5 District Lot 4595 Kootenay District Plan 811, Except parts included in Plans 3062, 16541, R127, NEP60734, NEP68076, NEP69201 and NEP72451 (PID: 011-123-877)
Property Size: 11.1 hectares (ha)
Current Zoning: Not applicable (N/A)
Current Official Community Plan Designation: Country Residential (RC)

SURROUNDING LAND USES
North: Country Residential and Highway 3A
East: Riodel Road, Country Residential and a Tourist Commercial land uses
South: Country Residential
West: Kootenay Lake and Country Residential

Background Information and Site Context

The 11.1 ha in size subject property is addressed at 129 Boulder Beach Road in the Kootenay Bay area of Electoral Area 'A', and is located approximately 3 kilometres west of the community of Crawford Bay. The surrounding area is comprised of mostly country residential land uses. The residential portion of the site is 3.5 ha in size with roughly 260 metres of lake frontage, and currently has two existing houses adjacent to Kootenay Lake (on proposed Lots A and B) both with an existing water line extracting from the lake, and their own septic field. Cabbage Creek flows through the subject site (proposed Lot B) in a westerly direction. An unauthorized deck and stairway has been constructed at the north end of proposed Lot A, in addition to some minor beach modifications at the south end of proposed Lot B without any Regional District approvals from both Planning and Building Services (e.g. Environmentally Sensitive

Development and Building Permits). These environmental considerations are discussed further in Section 3.3 of this report. The portion of this hooked parcel adjacent to Highway 3A (south side) is currently vacant, and is approximately 7.5 ha in size.



Figure 2: Site Location Air Photo Overview

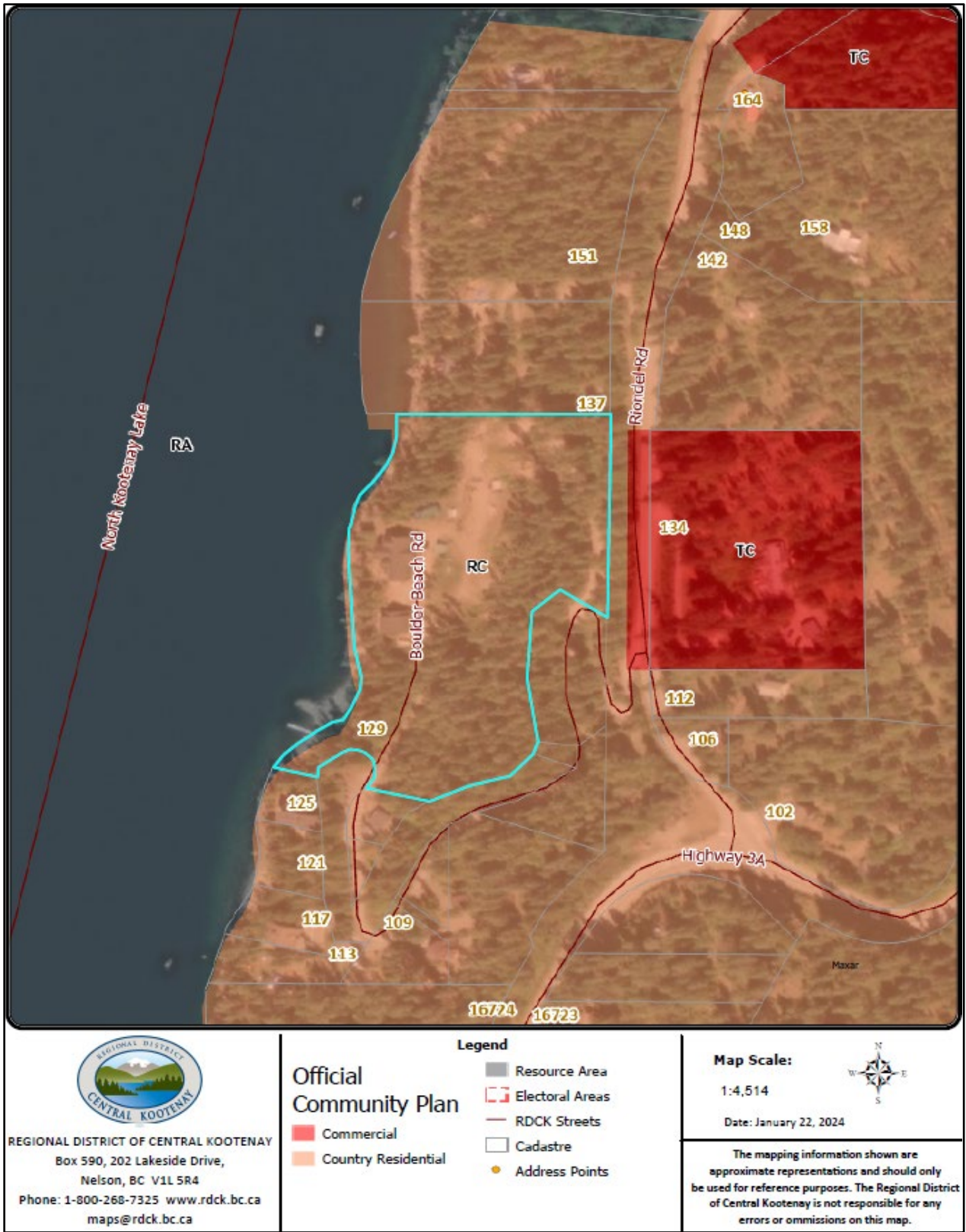


Figure 3: OCP Land Use Designation Map

Development Proposal

A rural subdivision application has been submitted to the Province (MOTI) to create three lots and a remainder parcel. Proposed residential Lots A (1.41 ha) and B (1.5 ha) are for residential use, whereas Lot C (0.53 ha) is proposed to provide common access to the existing dwellings. The applicant seeks to subdivide to recognize the above two existing home sites and provide access to these proposed lots.

The Regional District's Subdivision Bylaw No. 2159 Section 9.01 a. 'On-Site Sewerage Disposal' "requires where no community wastewater system exists, or is proposed, confirmation of assessment for capabilities on the basis of Type 1 (septic tank) treatment for each proposed lot". The applicant is proposing Type 2 treatment systems for proposed residential Lots A and B. A Type 1 system is proposed for the remainder lot. All other servicing requirements, including proof of water remain in effect for this subdivision proposal. No development is proposed for the common access Lot C.

As part of the concurrent subdivision application, the owners have submitted an Environmentally Sensitive Development Permit (ESDP) application. The ESDP application and related riparian assessment report from a Qualified Environmental Professional takes into account the unauthorized works and beach modifications. Staff await the Board's decision on this DVP application prior to undertaking the processing of the ESDP application (please see Section 3.3).

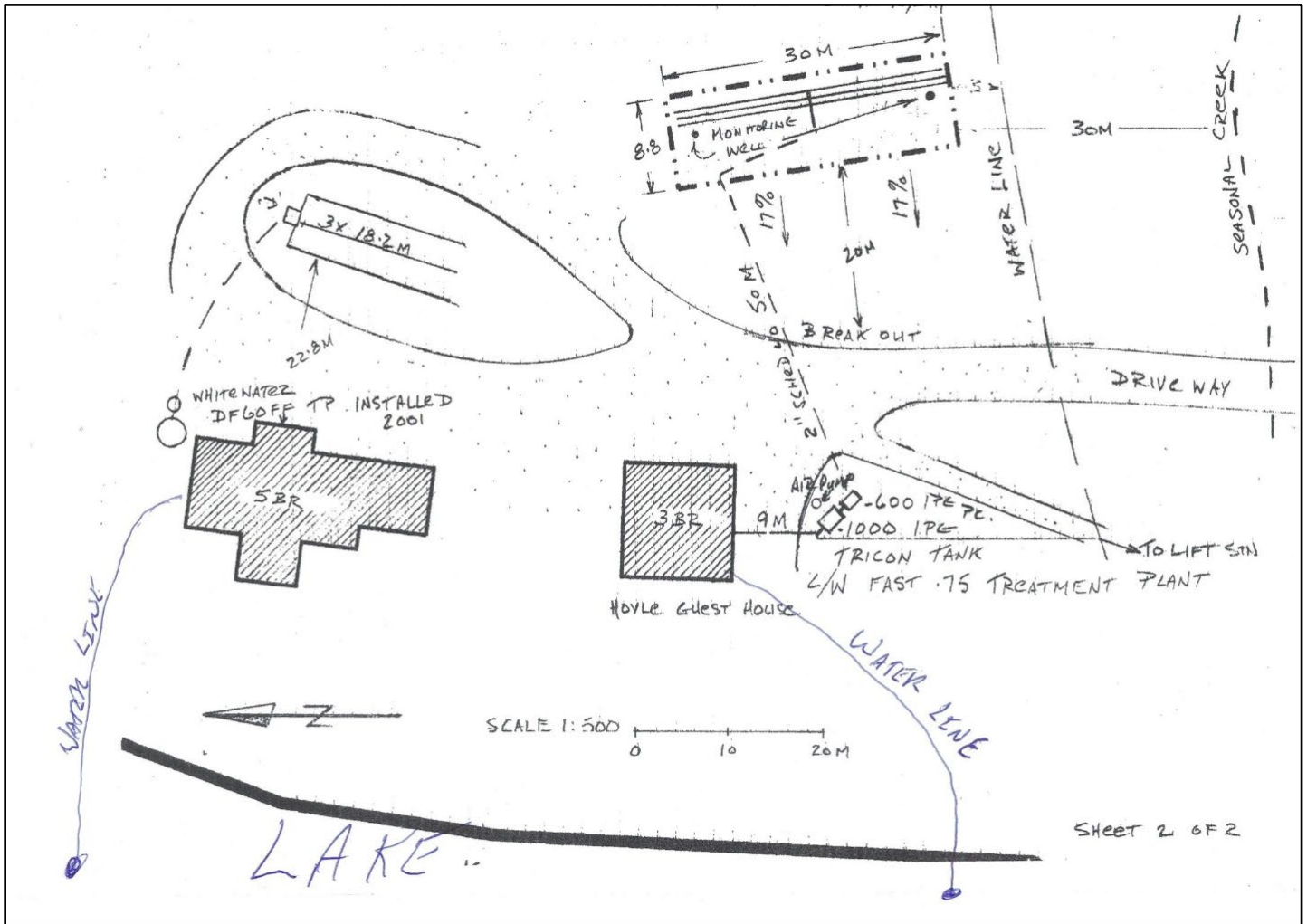
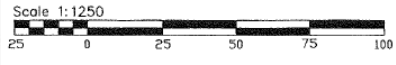
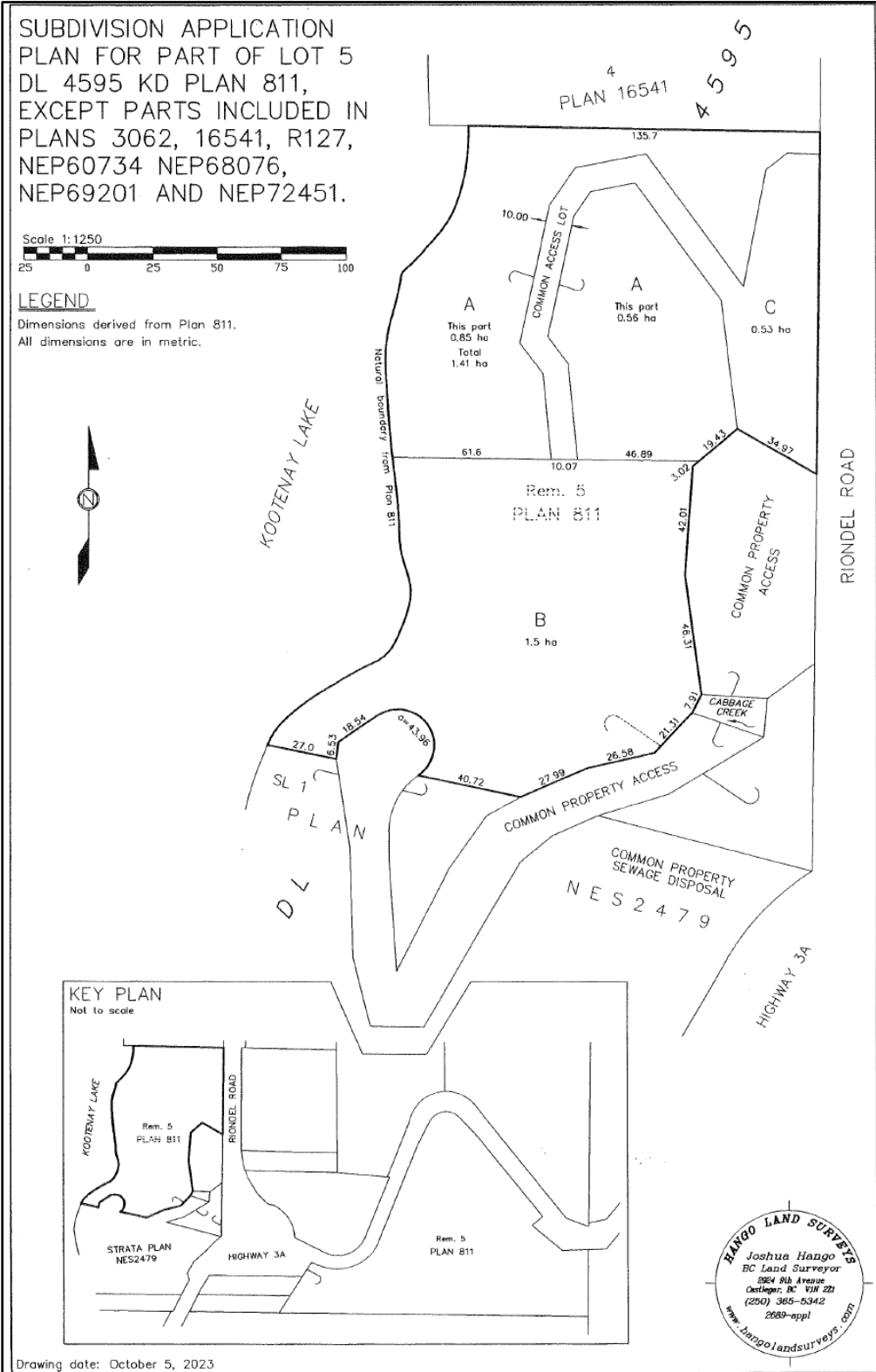


Figure 4: Existing Dwellings (cross hatched) adjacent to Kootenay Lake to Proposed to be Lots A and B (see Figure 5)

SUBDIVISION APPLICATION
 PLAN FOR PART OF LOT 5
 DL 4595 KD PLAN 811,
 EXCEPT PARTS INCLUDED IN
 PLANS 3062, 16541, R127,
 NEP60734 NEP68076,
 NEP69201 AND NEP72451.



LEGEND
 Dimensions derived from Plan 811.
 All dimensions are in metric.



Drawing date: October 5, 2023

Figure 5: Proposed Subdivision Plan

Planning Policy

The Electoral Area 'A' Comprehensive Land Use Bylaw No. 2315, 2013 includes the following relevant policies:

General Residential Objectives

1. To encourage coordinated and orderly subdivision of residential lands.
2. To consider development proposals in relation to the provision of efficient and effective services.
6. To maintain the rural character, environmental integrity and the social and cultural diversity of the Plan Area.

Country Residential (RC) Policies

The Regional Board:

25. Directs that the principal use shall be one-family or two-family dwellings.
26. Directs that a one-family or two-family dwelling should be permitted per lot and one additional dwelling shall be permitted for every one (1) hectare of lot area over one (1) hectare.
27. Directs that the recommended minimum lot size should be one (1) hectare. In areas where there is no associated zoning, this minimum lot size may vary if the area needed for an on-site septic system is less.
28. Encourages the clustering of strata lots subject to density that should not exceed one unit per hectare of total lot area and subject to the protection of green-space through issuance of a Development Permit.

SECTION 3: DETAILED ANALYSIS

3.1 Financial Considerations – Cost and Resource Allocations:

Included in Financial Plan: Yes No **Financial Plan Amendment:** Yes No
Debt Bylaw Required: Yes No **Public/Gov't Approvals Required:** Yes No

The DVP application fee has been paid in full pursuant to the *RDCK Planning Procedures and Fees Bylaw No. 2457, 2015*.

3.2 Legislative Considerations (Applicable Policies and/or Bylaws):

Under Section 498 of the *Local Government Act (LGA)*, the Board has the authority to vary provisions of a Zoning Bylaw or Subdivision Bylaw other than use or density through a DVP.

3.3 Environmental Considerations

An unauthorized deck and stairway has been constructed at the north end of proposed Lot A, in addition to some minor beach modifications at the south end of proposed Lot B. Other than the above, the riparian area is relatively undisturbed with existing development sited largely outside of the 15 metres ESDP area. With the proposed creation of two separate legal lots for residential use, however, further new development may occur impacting the environment, including if approved, the use of Type 2 septic systems without a maintenance plan, which could have a negative impact on the environment, including Kootenay Lake. As no development is proposed for this remainder parcel staff anticipate no environmental impact.

A riparian assessment has been provided by Masse Environmental Ltd. as required in conjunction with the concurrent processing of the ESDP application for the subdivision proposal and unauthorized works, including beach

modifications. This application process would include a referral circulated to all relevant internal departments and external agencies, which would identify if any additional Provincial approvals are necessary.

3.4 Social Considerations:

No social considerations are anticipated from this variance request.

3.5 Economic Considerations:

No economic considerations are anticipated from this proposed DVP application.

3.6 Communication Considerations:

In accordance with the LGA and the RDCK's *Planning Procedures and Fees Bylaw No. 2457, 2015* a sign describing the proposal was posted on the subject property, and notices were mailed to surrounding neighbours within a 100 metre radius of the subject property. To date, no comments have been received in response to the above notification.

Planning Services referred the application to all relevant government agencies, internal RDCK departments, the Director for Electoral Area 'A' and local Advisory Planning and Heritage Commission (APHC) for review. The following comments were received:

Interior Health

"We understand that a development variance permit application has been submitted in support of a rural subdivision application to allow Type 2 treatment systems to be considered for two of the proposed lots, which varies from the Regional District's Subdivision Bylaw No. 2159 Section 9.01 which "requires where no community wastewater system exists, or is proposed, confirmation of assessment for capabilities on the basis of Type 1 (septic tank) treatment for each proposed lot."

The following comments have been provided from a Healthy Community Development and an Environmental Public Health perspective for your consideration:

- We fully support the Regional District of Central Kootenay's approach that each lot be assessed on the basis of a Type 1 trench based dispersal method per the existing language in Subdivision Bylaw No. 2159 Section 9.01 where no community wastewater system exists, and onsite sewerage disposal systems are being proposed.*
- Additionally per Interior Health's Subdivision Report Criteria for Authorized Persons, our Land Use and Subdivision Team's assessment is typically based on sufficient area to contain a Type 1 trench based dispersal method for a 4 bedroom home (1,600 litres/day) to ensure the long term sustainability of the lot, which is how all properties will be evaluated at the time of the proposed subdivision to the Ministry of Transportation and Infrastructure.*

We hope that these comments are helpful in supporting your decision related to this application. If you have any questions, or require further clarification, please don't hesitate to reach out".

Ministry of Transportation and Infrastructure (MOTI)

"The referral is related to an active MOTI subdivision, 2021-05374, which was issued a Preliminary Layout Review (PLR) letter in November 2023. The Ministry has no concerns with the proposed variance to allow for a Type 2 system for subdivision, however, should the variance be approved, the Provincial Approving Officer may require registration of a septic covenant on the lots depending on the recommendations provided by the Registered Professional".

Ministry of Water, Land and Resource Stewardship

“All activities are to follow and comply with all higher-level plans, planning initiatives, agreements, Memorandums of Understanding, etc. that local governments are parties to.

Changes in and about a “stream” [as defined in the Water Sustainability Act (WSA)] must only be done under a license, use approval or change approval; or be in compliance with an order, or in accordance with Part 3 of the Water Sustainability

Regulation. Authorized changes must also be compliant with the Kootenay-Boundary Terms and Conditions and Timing Windows documents. Applications to conduct works in and about streams can be submitted through FrontCounter BC.

No “development” should occur within 15 m of the “stream boundary” of any “stream” [all as defined in the Riparian Areas Protection Regulation (RAPR)] in the absence of an acceptable assessment, completed by a Qualified Professional (QP), to determine if a reduced riparian setback would adversely affect the natural features, functions and conditions of the stream. Submit the QP assessment to the appropriate Ministry of Water, Land and Resource Stewardship office for potential review. Local governments listed in Section 2(1) of RAPR are required to ensure that all development is compliant with RAPR.

The federal Species at Risk Act (SARA) protects Endangered, Extirpated or Threatened species listed under Schedule 1 of SARA. Developers are responsible to ensure that no species or ecosystems at risk (SEAR), or Critical Habitat for Federally listed species, are adversely affected by the proposed activities. The BC Species and Ecosystem Explorer website provides information on known SEAR occurrences within BC, although the absence of an observation record does not confirm that a species is not present. Detailed site-specific assessments and field surveys should be conducted by a QP according to Resource Inventory Standard Committee (RISC) standards to ensure all SEAR have been identified and that developments are consistent with any species or ecosystem specific Recovery Strategy or Management Plan documents, and to ensure proposed activities will not adversely affect SEAR or their Critical Habitat for Federally-listed Species at Risk (Posted).

Development specific Best Management Practices (BMPs) should be applied to help meet necessary legislation, regulations, and policies. Current BC BMPs can be found at: Natural Resource Best Management Practices - Province of British Columbia (gov.bc.ca) and Develop with Care 2014 - Province of British Columbia.

Vegetation clearing, if required, should adhere to the least risk timing windows for nesting birds (i.e., development activities should only occur during the least risk timing window). Nesting birds and some nests are protected by Section 34 of the provincial Wildlife Act and the federal Migratory Birds Convention Act. Guidelines to avoid harm to migratory birds can be found at: Guidelines to avoid harm to migratory birds -Canada.ca. If vegetation clearing is required during the bird nesting period (i.e., outside of the least risk timing window) a pre-clearing bird nest survey should be completed by a QP. The following least risk windows for birds are designed to avoid the bird nesting period:

Bird Species	Least Risk Timing Windows
Raptors (eagles, hawks, falcons, & owls)	Aug 15 – Jan 30
Herons	Aug 15 – Jan 30
Other Birds	Aug 1 – March 31

The introduction and spread of invasive species is a concern with all developments. The provincial Weed Control Act requires that an occupier must control noxious weeds growing or located on land and premises, and on any other property located on land and premises, occupied by that person. Information on invasive species can be found at: Invasive species - Province of British Columbia. The Invasive Species Council of BC provides BMPs that should be followed, along with factsheets, reports, field guides, and other useful references. For example, all equipment, including personal equipment such as footwear, should be inspected prior to arrival at the site and prior to each daily use and any vegetative materials removed and disposed of accordingly. If noxious weeds are established as a result of this project or approval, it is the tenure holder's responsibility to manage the site to the extent that the invasive, or noxious plants are contained or removed.

Section 33.1 of the provincial Wildlife Act prohibits feeding or attracting dangerous wildlife. Measures should be employed to reduce dangerous human-wildlife conflicts. Any food, garbage or organic waste that could attract bears or other dangerous wildlife should be removed from the work area. If this is not feasible and waste is not removed, it should be stored in a bear-proof container to avoid drawing wildlife into the area and increasing the threat of human/wildlife conflict.

If this referral is in relation to a potential environmental violation it should be reported online at Report All Poachers & Polluters (RAPP) or by phone at 1-877-952-RAPP (7277).

BC Hydro

"BC Hydro has reviewed this application and has no concerns".

FortisBC

"Land Rights Comments

- *There are no immediate concerns or requests for additional land rights, however there may be additional land rights requested stemming from changes to the existing FortisBC Electric ("FBC(E)") services, if required.*

Operational & Design Comments

- *There are FortisBC Electric ("FBC(E)") primary distribution facilities along Boulder Beach Road.*
- *All costs and land right requirements associated with changes to the existing servicing are the responsibility of the applicant.*
- *The applicant and/or property owner are responsible for maintaining safe limits of approach around all existing electrical facilities within and outside the property boundaries.*
- *For any changes to the existing service, the applicant must contact an FBC(E) designer as noted below for more details regarding design, servicing solutions, and land right requirements".*

APHC

"That the Area A Advisory Planning Commission SUPPORT the Development Variance Permit Application to Ken Crowe for the property located 129 Boulder Beach Road, Kootenay Bay and legally described as LOT 5 DISTRICT LOT 4595 KOOTENAY DISTRICT PLAN 811, EXCEPT PARTS INCLUDED IN PLANS 3062, 16541, R127, NEP60734, NEP68076, NEP69201 AND NEP72451."

3.7 Staffing/Departmental Workplace Considerations:

Should the Regional Board approve issuance of the requested variance, staff would issue the Permit and register a Notice of Permit on the property's Title.

3.8 Board Strategic Plan/Priorities Considerations:

This application falls under the operational role of Planning Services.

SECTION 4: OPTIONS & PROS / CONS

Under the Provincial Sewerage System Regulation (SSR), septic systems are divided into Types 1, 2 and 3. Type 1 is treatment by septic tank and drain field. It may be gravity fed or pumped into the drain field. Type 2 and Type 3 systems introduce further treatment in order to produce a higher quality effluent that can be discharged into a smaller sized drain field. Type 2 and Type 3 systems are often used where there are site or soil constraints that prevent a Type 1 from being used. These systems often use a package treatment plant and they have mechanical or media components that require more frequent maintenance than Type 1 systems.

Planning Discussion

Staff do not support the issuance of this DVP since:

- Subdivision Bylaws, including the RDCK's are designed to ensure that 'Best Practices' are utilized. This is especially important in areas that are located near surface water or areas with other sensitive environmental features. In the absence of an updated *RDCK Subdivision Bylaw* (which would consider a long term strategy to prevent public health concerns before they arise) the potential pivotal and precedent setting nature of this variance request is concerning. Without a maintenance plan, systems can fail in a shorter period of time than Type 1 systems. On a Regional subdivision scale, this could have detrimental 'cumulative' impacts on human health and the environment and on staff capacity to process these applications.
- The applicant has chosen not to revise the septic reports via his engineer. In response, there continue to be many outstanding uncertainties associated with the quality of the septic reports (Attachment 'C'), including "community water" listed as the water source, and the site plans not showing a water line easement to an adjacent property, location of Cabbage Creek, and no information or recommendations related to the how the proposed Type 2 systems are to be maintained.
- Rather than supporting this site specific variance request, staff outline that this could be an opportunity for the Regional District to expand the scope of its *Subdivision Bylaw* project if directed, to include the review of alternative private wastewater disposal systems.
- The subject property is in an unzoned area, by asking for a type 1 trench and backup area to be demonstrated as a minimum at time of subdivision staff are building in some protection (buffer) if the land ends up being used in other ways. Most homeowners do not know or want to know about problems with their septic system unless it's unavoidable.
- The existing house on proposed Lot A is currently listed on a short term vacation rental platform with occupancy for approximately 16 people, which raises concern about the proposed septic system type, future potential failure and maintenance planning. The above is also concerning since there is no zoning in place to consider limits on the development of a parcel (e.g. parcel size to density of development), and regulation of short term rental use. Also, some uses, such as a short-term vacation rental, produce inconsistent levels of wastewater (sometimes little,

sometimes lots) depending on number of guests. As sewage systems rely on living organisms that feed on the contents of the sewage, short-term rental (or other uses) can impact the longevity of a system.

- The variance requested to permit Type 2 systems for two new legal residential lots does not follow the Province’s “Sewerage/Subdivision Best Practice Guidelines” (2017), which states that:

“All subdivision reviews should be based on Type 1 treatment (septic tank system), as defined in the SSR, BC Reg. 326/2004. Type 1 treatment systems typically operate with lower effluent application rate (hydraulic loading rates), and are less prone to problems resulting from lack of maintenance, seasonal occupancy and power outages”.

“The application of the Type 1 treatment standard to proposed lots has always been to ensure that new lots are able to sustain onsite sewage treatment for the long term and to build in capacity for higher levels of treatment should owners alter or disturb the site conditions on the property”.

- Interior Health does not support subdivision or creating new lots based on Type 2 sewerage disposal systems.

It is for the above reasons that Planning Services recommends that the Regional Board not approve issuance of this DVP.

Options

Option 1

That the Board NOT APPROVE the issuance of Development Variance Permit V2404A to 1068616 BC LTD., INC. NO. BC1068616 for the property located at 129 Boulder Beach Road and legally described as Lot 5 District Lot 4595 Kootenay District Plan 811, Except parts included in Plans 3062, 16541, R127, NEP60734, NEP68076, NEP69201 and NEP72451 (PID: 011-123-877) to vary Section 9.01 a. ‘On-Site Sewerage Disposal’ under the RDCK’s *Subdivision Bylaw No. 2159, 2011* as follows:

- From requiring confirmation of a Type 1 (septic tank) treatment where no community wastewater exists, or is proposed, to permitting a Type 2 treatment system(s) for proposed residential Lots A and B for subdivision file no. S2319A.

Option 2

That the Board APPROVE the issuance of Development Variance Permit V2404A to 1068616 BC LTD., INC. NO. BC1068616 for the property located at 129 Boulder Beach Road and legally described as Lot 5 District Lot 4595 Kootenay District Plan 811, Except parts included in Plans 3062, 16541, R127, NEP60734, NEP68076, NEP69201 and NEP72451 (PID: 011-123-877) to vary Section 9.01 a. ‘On-Site Sewerage Disposal’ under the RDCK’s *Subdivision Bylaw No. 2159, 2011* as follows:

- From requiring confirmation of a Type 1 (septic tank) treatment where no community wastewater exists, or is proposed, to permitting a Type 2 treatment system(s) for proposed residential Lots A and B for subdivision file no. S2319A.

SECTION 5: RECOMMENDATION

That the Board NOT APPROVE the issuance of Development Variance Permit V2404A to 1068616 BC LTD., INC. NO. BC1068616 for the property located at 129 Boulder Beach Road and legally described as Lot 5 District Lot 4595 Kootenay District Plan 811, Except parts included in Plans 3062, 16541, R127, NEP60734, NEP68076, NEP69201 and NEP72451 (PID: 011-123-877) to vary Section 9.01 a. 'On-Site Sewerage Disposal' under the RDCK's *Subdivision Bylaw No. 2159, 2011* as follows:

- From requiring confirmation of a Type 1 (septic tank) treatment where no community wastewater exists, or is proposed, to permitting a Type 2 treatment system(s) for proposed residential Lots A and B for subdivision file no. S2319A.

Respectfully submitted,

Stephanie Johnson, Planner MCIP RPP

CONCURRENCE

Planning Manager – Nelson Wight

General Manager of Development Services – Sangita Sudan

Chief Administrative Officer – Stuart Horn

ATTACHMENTS:

Attachment A – Draft Development Variance Permit

Attachment B – Excerpt from *RDCK Subdivision Bylaw No 2159, 2011*

Attachment C – Septic Reports



Development Variance Permit

V2404A (Crowe)

Date:

Issued pursuant to Section 498 of the *Local Government Act*

TO: 1068616 BC LTD., INC. NO.
BC1068616 C/O KEN CROWE

ADMINISTRATION

1. This Development Variance Permit (DVP) is issued subject to compliance with all of the bylaws of the Regional District of Central Kootenay (RDCK) applicable thereto, except as specifically varied or supplemented by this Permit.
2. The land described shall be developed strictly in accordance with the terms and conditions and provisions of this DVP, and any plans and specifications attached to this Permit that shall form a part thereof.
3. This DVP is not a Building Permit.

APPLICABILITY

4. This DVP applies to and only to those lands within the RDCK described below, and any and all buildings, structures and other development thereon, substantially in accordance with Schedules '1', '2' and '3':

Address: 129 Boulder Beach Road
Legal: Lot 5 District Lot 4595 Kootenay District Plan 811, Except parts included in Plans 3062, 16541, R127, NEP60734, NEP68076, NEP69201 and NEP72451
PID: 011-123-977

CONDITIONS

5. Development Variance

Regional District's Subdivision Bylaw No. 2159, 2011, Section 9.01 an 'On-Site Sewerage Disposal' is varied as follows:

FROM requiring confirmation of a Type 1 (septic tank) treatment where no community wastewater exists, or is proposed, TO permitting and requiring confirmation of a Type 2 treatment system for proposed residential Lots A and B for subdivision file no. S2319A.

As shown on Schedules '1', '2' and '3'.

6. Schedule

If the holder of the DVP does not substantially start any construction or does not register the subdivision with respect to which the permit was issued within two years after the date it is issued, the permit lapses.

7. Other

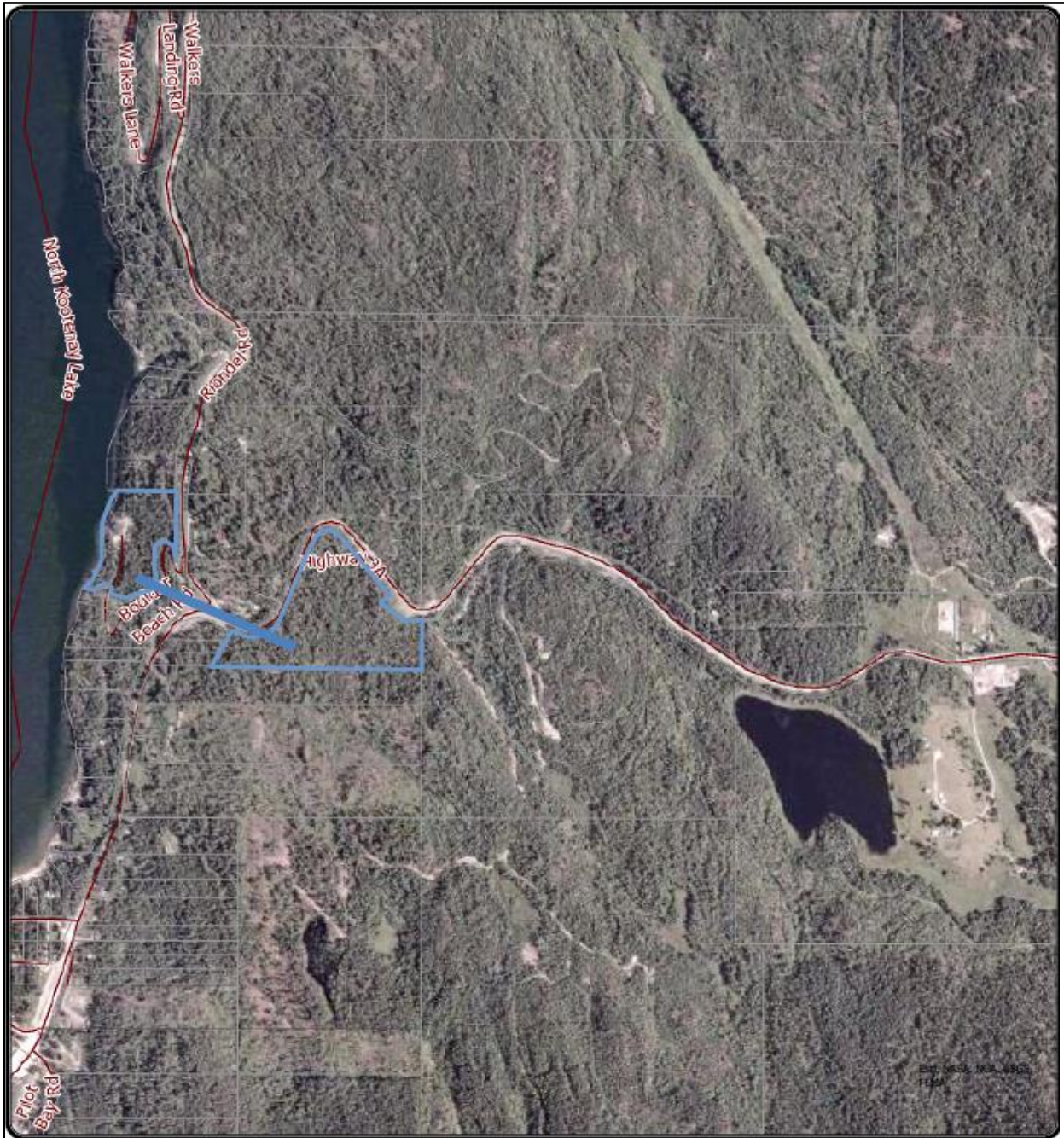
Authorized resolution [*enter resolution number*] passed by the RDCK Board on the _____ day of _____, 202_.

The Corporate Seal of
THE REGIONAL DISTRICT OF CENTRAL KOOTENAY
was hereunto affixed in the presence of:

Aimee Watson, Board Chair

Mike Morrison, Corporate Officer

Schedule 1: Subject Property



REGIONAL DISTRICT OF CENTRAL KOOTENAY
Box 590, 202 Lakeside Drive,
Nelson, BC V1L 5R4
Phone: 1-800-268-7325 www.rdck.bc.ca
maps@rdck.bc.ca

Legend

-  Electoral Areas
-  RDCK Streets
-  Cadastre

Map Scale:

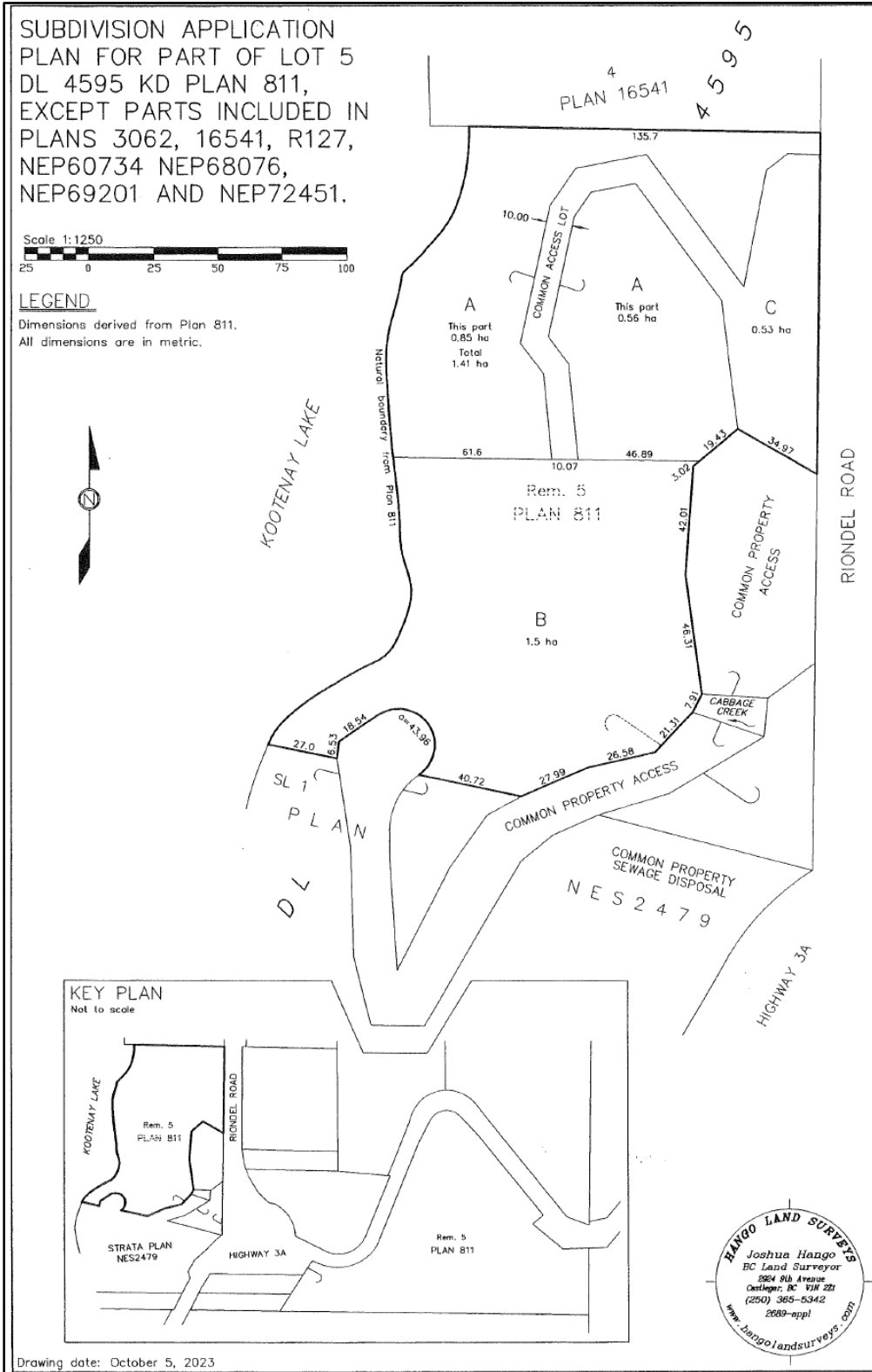
1:18,058



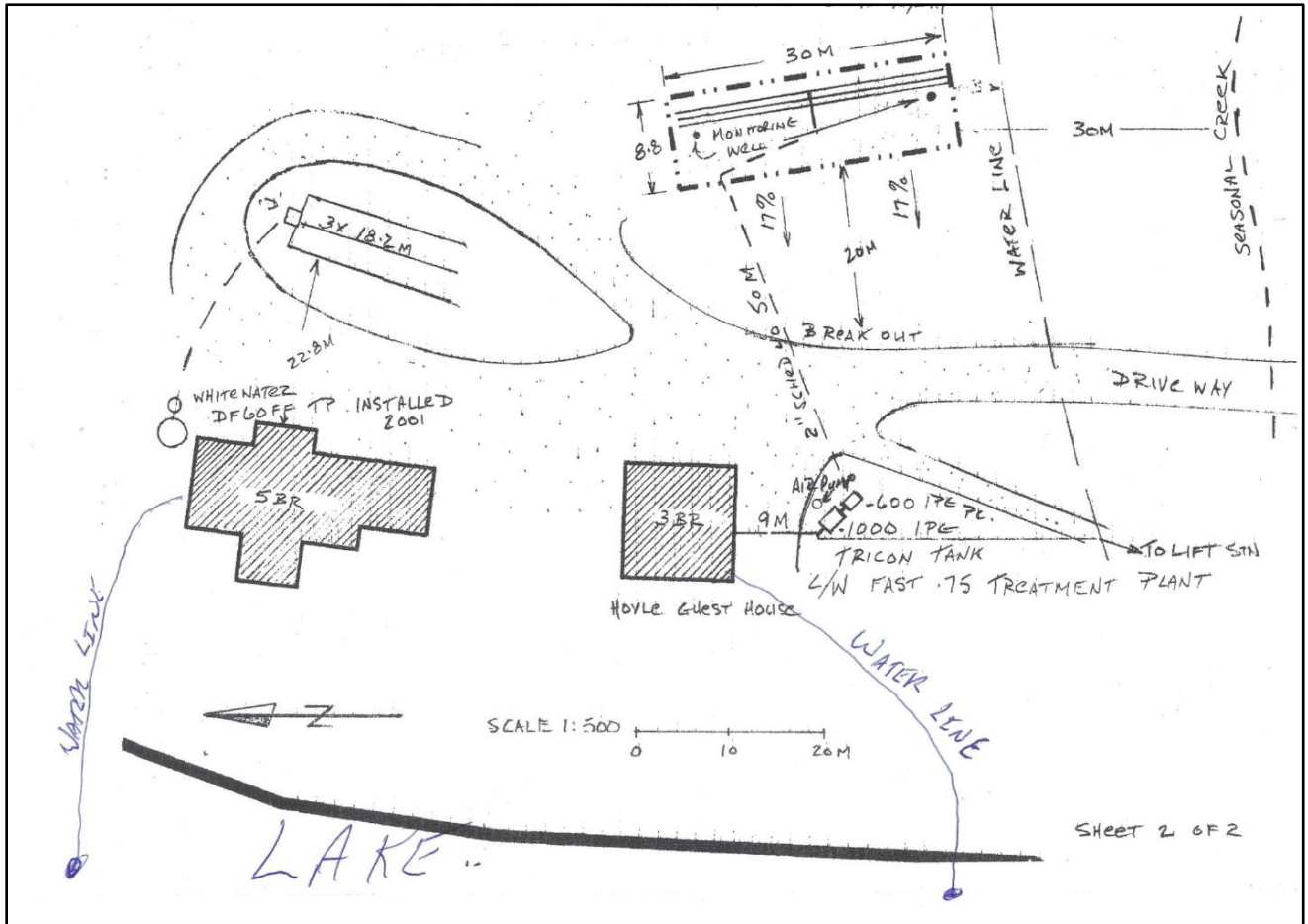
Date: March 22, 2024

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

Schedule 2: Proposed Plan of Subdivision



Schedule 3: Site Plan



- c. Confirmation of existing connection(s) to community water systems currently on boil water advisory shall be accepted as proof of water for the purposes of subdivision where the connection currently serves an existing residence as long as no new connections to the community water system are involved.

Where an applicant proposes to establish a new community water system, the applicant must submit to the Regional District:

- d. A copy of the construction permit issued pursuant to the *Drinking Water Protection Act*;
- e. Where a community water system is to be acquired by the Regional District, the design of such shall be submitted to the Regional District for approval prior to the commencement of construction as required by this Bylaw;
- f. That the water source to be used by the system is adequate to serve each parcel to be served by the system as determined by the authority having jurisdiction over the system.

PART 9 - SEWAGE

9.01 On-Site Sewage Disposal

Where no community wastewater system exists, or is proposed, soil and site conditions for on-site sewage disposal systems shall be subject to the following:

- a. Each lot be assessed on the basis of Type 1 (septic tank) treatment and trench disposal systems;
- b. Each lot must be self-contained, providing an initial and replacement sewage disposal area;
- c. Sewerage holding tanks will not be considered an acceptable method of waste water disposal.

9.02 Community Wastewater Systems

Where an applicant proposes to connect to an existing community wastewater system the applicant must submit to the Regional District:

- a. A letter from the Owner/Operator of the community wastewater system confirming that all parcels proposed can be connected to the wastewater system and that fees have been paid for connection to the wastewater system. Confirmation must be submitted prior to final Approval of the subdivision;

10/31/2022

129 Boulder Beach Rd, Subdivision #1, Site and Soils Report Type 2 System

*Interior Health Authority Filing for Construction of Septic System: Site
Investigation Report, Record of Design, and Specifications*

Alexander McNally P.Eng
WEST KOOTENAY SEPTIC SOLUTIONS



Table of Contents

<i>Introduction:</i>	2
Summary of Proposed Works:	2
RE: 129 Boulder Beach Rd #1 Type 2 Septic System	2
<i>Site Information:</i>	2
<i>Site and Soil Evaluation Report:</i>	3
Test pit #1	3
Test pit #2	3
Limiting Layer/ Design Limit	3
<i>Declaration:</i>	3
<i>Appendix 1: Site Plan, Detailed Design, Layout</i>	4
<i>Appendix 2: Site & Soil Evaluation Photos</i>	5

Introduction:

Legal Owner's Name:	<u>Ken Crowe (204) 570-3213</u>
Date:	<u>October 18, 2022</u>
Civic Address:	<u>129 Boulder Beach Rd, Kootenay Bay V0B 2B0</u>
Legal Description:	<u>Lot 5 Plan NEP811 District Lot 4595 Land District 26 Except Plan 3062 16541 R127 NEP60734 NEP68076 NEP69201 NEP72451 FOR FORESHORE SEE 786-04737.101</u>
Tax Assessment Roll Number	<u>21-786-04737.100</u>
Property PID Number	<u>011-123-877</u>

Summary of Proposed Works:

See attached drawings Site Plan, Detailed Design, and Layout in Appendix 1

RE: 129 Boulder Beach Rd #1 Type 2 Septic System

This system will connect to an existing 5 person house at 129 Boulder Beach Rd. The system will use a Type 2 sand mound design. The house system is designed to accommodate 5 residents at 350L/D/R for a DDF of 1750L/D. A type 2 sand mound designs were chosen for these systems based on the percolation tests with a resulting Kfs of 1080mm/D. The sand mound system will use timed micro dosing to distribute the effluent throughout the day. The system will have to an outlet at the house [100 mm]. The house will use gravity to transport the effluent to a 2840 L (750 G) Dual Chamber Premium Plastic Tank (or equivalent) with a PL122 Effluent Filter [100 mm inlet/ outlet]. From the septic tank the effluent will flow with gravity into a 2840 L (750 G) Premier Pump Chamber (or equivalent). In the pump chamber the effluent will flow into a Hydromatic OSP50 Pump [$\frac{1}{2}$ hp] set to run at 46 L/S for 76 sec every 38 min [30 times a day]. The effluent leaves the pump chamber in 50mm (2") Sch. 40 PVC (or equivalent) pipe and enters a manifold with three 32 mm (1 $\frac{1}{4}$ ") Sch. 40 laterals. The manifold has a head pressure of >2 m for both systems when the pump is on. The manifold has 5mm (3/16") orifices, spaced 0.6 m apart, facing up and down, orifice shields installed on the down facing orifices to prevent erosion. The distribution field is 3 m wide and 11m long with an area of 33 m². The laterals are surround in drain rock with 50 mm (2") above the pipe and 200mm (8") below the pipe, wrapped in geotextile fabric. The distribution field is placed on a sand mound that rises 0.6m (2') above ground level and includes a sand toe which has a slope of 3:1. This all covered by natural organic material while also maintaining a slope of 3:1. The system has a HLR of 60 L/D/m² as chosen using result of percolation tests. This system is designed in accordance with the Ministry of BC's Sewer System Standard Practice Manual.

Site Information:

- Total parcel size: 27.48 Acres
- Potable Water Source: Community Water
- Closest Water Feature 45 m Kootenay Lake

Site and Soil Evaluation Report:

See Site and Soil Evaluation test photos in Appendix 2

Test pit #1

- 0 cm - 9 cm –Organics and sand dark brown soil
- 9cm – 70 cm – Mixed soil with large rocks, sand, clay, loam, greyish brown material

Test pit #2

- 0 cm - 11 cm –Organics and sand dark brown soil
- 11cm – 80 cm – Mixed soil with large rocks, sand, clay, loam, greyish brown material

$Kfs = 1080 \text{ mm/day} \Rightarrow \text{Type 2 Hydraulic Loading Rate HLR} = 60 \text{ L/D/m}^2$

Limiting Layer/ Design Limit

- Limiting Layer >150 cm

Declaration:

These plans and specifications are consistent with standard practice with regard to the Sewerage System Regulations and the Sewerage System Standard Practices Manual of the B.C. Ministry of Health. I have conducted a site evaluation, exercised due diligence, and am a registered On-Site Practitioner authorized to plan and install the system designed herein.



Appendix 1: Site Plan, Detailed Design, Layout

General Notes

1. System designed in accordance with BC Sewer System Practice Manual
2. Septic system shall be installed by authorized practitioner or under the supervision of a Professional Engineer registered with EGCBC
3. Micro Dosing
H1 46 L/min for 76 sec
Every 38 min 30 times a day
4. Kts 1060 mVd @20cm H20
5. House 5 Residents
6. H1 DDF 1750 L/D
7. L.R 60 L/D/m²
8. H1 Dispersal Area 33 m²
Length 11 m Width 3 m
9. Type 2 Orifice
All 90° bends 2 x 45°
10. Manifold head pressure >2 m H₂O
11. Water: Community System
12. Closest Water Body >30m
13. System design is site specific anyone else using this information does so at their own risk

PID 011-123-877
Tax Roll# 21-786-04737.100
Lot Size 27.48 Acres
Lat 49.886059
Long -116.869309

McNally Technical Services
Alexander McNally P. Eng
301 Vernon St. Nelson, BC
V1L 4E3

129 Boulder Beach Rd #1
Kootenay Bay
Land Subdivision
Type 2 Septic System

Lot 5 Plan NEP811 District Lot
4595 Land District 26 Except
Plan 3062 16541 R127
NEP60734 NEP68076
NEP69201 NEP72451 FOR
FORESHORE SEE
786-04737.101

October 31, 2022
2022-10-MTKB-5RSMTY2
Scale 1:1,128
Sheet 1 of 3
Site Plan
Rev 0

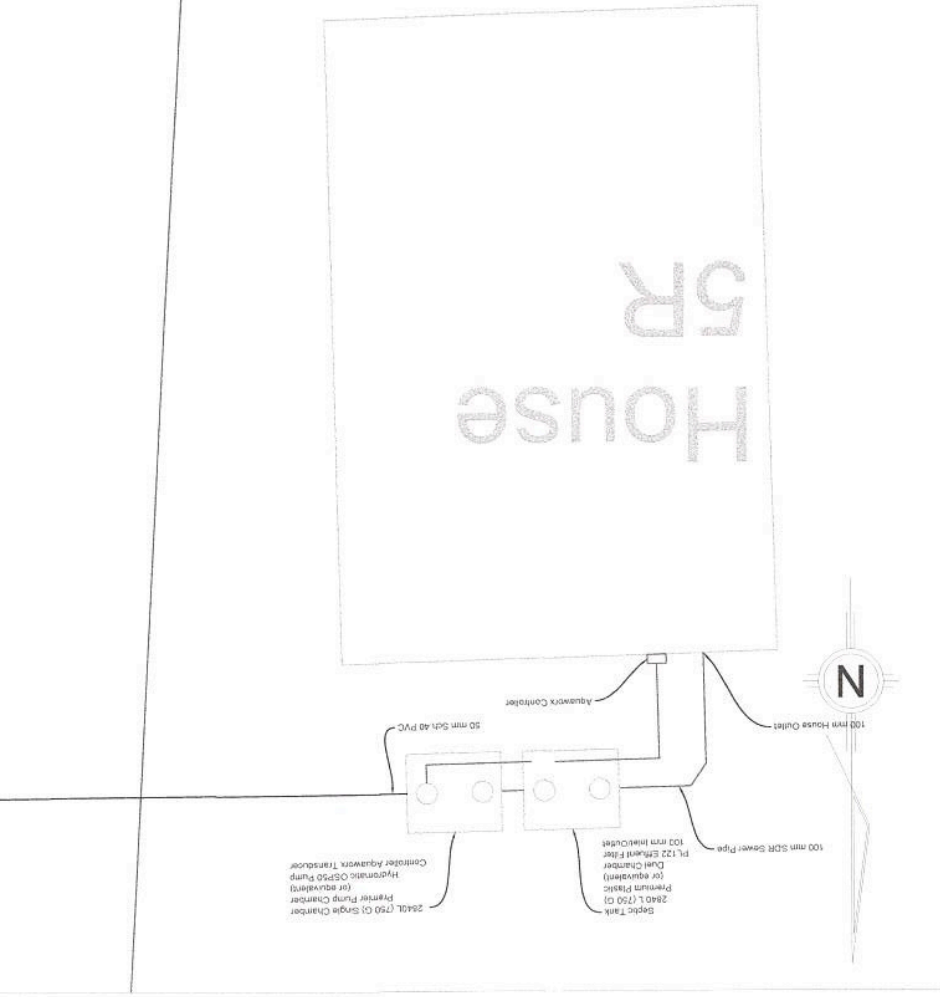
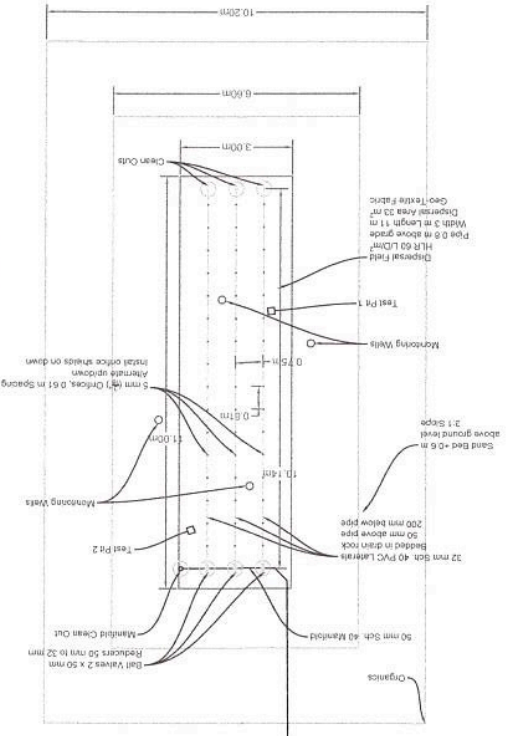


General Notes

- System designed in accordance with BC Sewer System Practice Manual
- Septic system shall be installed by authorized practitioner or under the supervision of a Professional Engineer registered with EIBC
- Micro Dosing
H1 46 L/min for 76 sec
Every 38 min. 30 times a day
4. Kts 1080 mm/D @20cm H2O
5. House 5 Residents
6. H1 DDF 1750 L/D
7. HLR 60 L/D/m²
8. H1 Dispersal Area 33 m²
Length 11 m Width 3 m
9. Type 2 Office
All 90° bends 2 x 45°
10. Manifold head pressure >2 m H₂O
11. Water: Community System
12. Closest Water Body >30m
13. System design is site specific anyone else using this information does so at their own risk

PID 011-123-877
Tax Roll# 21-786-04737.100
Lot Size 27.48 Acres
Lat 49.686059
Long -116.869309
McNally Technical Services
Alexander McNally P.Eng
301 Vernon St. Nelson, BC
V1L 4E3
129 Boulder Beach Rd #1
Koolenay Bay
Land Subdivision
Type 2 Septic System
Lot 5 Plan NEP811 District Lot 4595 Land District 26 Except Plan 3062 16541 R127
NEP60734 NEP68076
NEP69201 NEP72451 FOR FORESHORE SEE
786-04737.101

October 31, 2022
2022-10-MTKB-SRSMTY2
Scale 1:500
Sheet 2 of 3
Detailed Design
Rev 0



General Notes

1. System designed in accordance with BC Sewer System Practice Manual
2. Septic system shall be installed by authorized practitioner or under the supervision of a Professional Engineer registered with EGBC
3. Micro Dosing
H1 46 L/min for 76 sec
Every 38 min 30 times a day
4. Kts 1080 mm/D @20cm H20
5. House 5 Residents
6. H1 DDF 1750 L/D
7. HLR 60 L/D/m²
8. H1 Dispersal Area 33 m²
Length 11 m Width 3 m
9. Type 2 Orifice
All 90° bends 2 x 45°
10. Manifold head pressure > 2 m H₂O
11. Water: Community System
12. Closest Water Body > 30m
13. System design is site specific anyone else using this information does so at their own risk

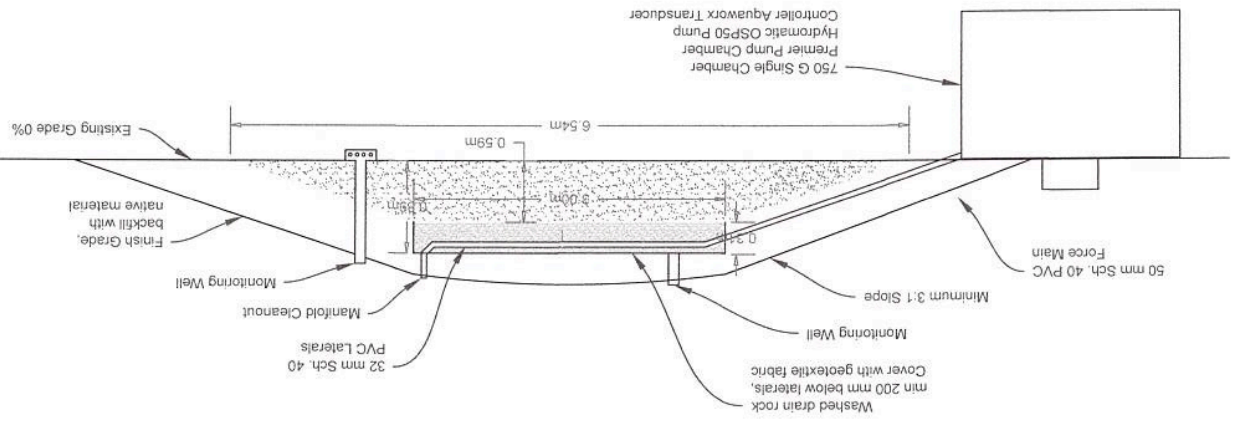
PID 011-123-877
Tax Roll# 21-786-04737-100
Lot Size 27.48 Acres
Lat 49.686059
Long -116.869309

McNally Technical Services
Alexander McNally P. Eng
301 Vernon St. Nelson, BC
V1L 4E3

129 Boulder Beach Rd #1
Kootenay Bay
Land Subdivision
Type 2 Septic System

Lot 5 Plan NEP811 District Lot
4596 Land District 26 Except
Plan 3062 16541 R127
NEP60734 NEP68076
NEP69201 NEP72451 FOR
FORESHORE SEE
786-04737-101

October 31, 2022
2022-10-MTKB-5RSMTY2
Scale 1:50
Sheet 3 of 3
Layout
Rev 0



Appendix 2: Site & Soil Evaluation Photos



Figure 1: test pit # 1



Figure 2: Test Pit 2



Figure 5: Organics



Figure 6: Rocks, Clay and Sandy Gravel



10/31/2022

129 Boulder Beach Rd #2, Site and Soils Report Type 2 Systems

*Interior Health Authority Filing for Construction of Septic System: Site
Investigation Report, Record of Design, and Specifications*

Alexander McNally P.Eng
MCNALLY TECHNICAL SERVICES



Table of Contents

Introduction:2

Summary of Proposed Works:2

 RE: 129 Boulder Beach Rd # 2, Type 2 Septic System..... 2

Site Information:2

Site and Soil Evaluation Report:.....3

 Test pit #13

 Test pit #23

 Limiting Layer/ Design Limit3

Declaration:3

Appendix 1: Site Plan, Detailed Design, Layout4

Appendix 2: Site & Soil Evaluation Photos.....5

Introduction:

Legal Owner's Name:	Ken Crowe (204) 570-3213
Date:	October 18, 2022
Civic Address:	129 Boulder Beach Rd, Kootenay Bay V0B 2B0
Legal Description:	Lot 5 Plan NEP811 District Lot 4595 Land District 26 Except Plan 3062 16541 R127 NEP60734 NEP68076 NEP69201 NEP72451 FOR FORESHORE SEE 786-04737.101
Tax Assessment Roll Number	21-786-04737.100
Property PID Number	011-123-877

Summary of Proposed Works:

See attached drawings Site Plan, Detailed Design, and Layout in Appendix 1

RE: 129 Boulder Beach Rd # 2, Type 2 Septic System

This system will connect to an existing 8 person house at 129 Boulder Beach Rd. The system will use a Type 2 sand mound design. The house system is designed to accommodate 8 residents at 350L/D/R for a DDF of 2800L/D. A type 2 sand mound designs were chosen for these systems based on the percolation tests with a resulting Kfs of 1080mm/D. The sand mound system will use timed micro dosing to distribute the effluent throughout the day. The system will have to an outlet at the house [100 mm]. The house will use gravity to transport the effluent to a 2840 L (750 G) Dual Chamber Premium Plastic Tank (or equivalent) with a PL122 Effluent Filter [100 mm inlet/ outlet]. From the septic tank the effluent will flow with gravity into a 2840 L (750 G) Premier Pump Chamber (or equivalent). In the pump chamber the effluent will flow into a Hydromatic OSP50 Pump [½ hp] set to run at 46 L/S for 120 sec every 38 min [30 times a day]. The effluent leaves the pump chamber in 50mm (2") Sch. 40 PVC (or equivalent) pipe and enters a manifold with three 32 mm (1 ¼") Sch. 40 laterals. The manifold has a head pressure of >2 m for both systems when the pump is on. The manifold has 5mm (3/16") orifices, spaced 0.6 m apart, facing up and down, orifice shields installed on the down facing orifices to prevent erosion. The distribution field is 3 m wide and 15 m long with an area of 45 m². The laterals are surround in drain rock with 50 mm (2") above the pipe and 200mm (8") below the pipe, wrapped in geotextile fabric. The distribution field is placed on a sand mound that rises 0.6m (2') above ground level and includes a sand toe which has a slope of 3:1. This all covered by natural organic material while also maintaining a slope of 3:1. The system has a HLR of 60 L/D/m² as chosen using result of percolation tests. This system is designed in accordance with the Ministry of BC's Sewer System Standard Practice Manual.

Site Information:

- Total parcel size: 27.48 Acres
- Potable Water Source: Community Water
- Closest Water Feature 45 m Kootenay Lake

Site and Soil Evaluation Report:

See Site and Soil Evaluation test photos in Appendix 2

Test pit #1

- 0 cm – 7 cm –Organics and sand dark brown soil
- 7cm – 72 cm – Mixed gravel with large sharp rocks, sand, clay, loam, grey material

Test pit #2

- 0 cm - 13 cm –Organics and sand dark brown soil
- 13cm – 90 cm – Large rocks, and mixed gravel, greyish brown material

$K_{fs} = 1080 \text{ mm/day} \Rightarrow \text{Type 2 Hydraulic Loading Rate HLR} = 60 \text{ L/D/m}^2$

Limiting Layer/ Design Limit

- Limiting Layer >150 cm

Declaration:

These plans and specifications are consistent with standard practice with regard to the Sewerage System Regulations and the Sewerage System Standard Practices Manual of the B.C. Ministry of Health. I have conducted a site evaluation, exercised due diligence, and am a registered On-Site Practitioner authorized to plan and install the system designed herein.



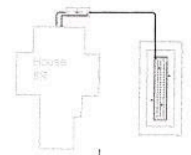
Appendix 1: Site Plan, Detailed Design, Layout



Kootenay Lake

Boulder Beach Rd

Riondel Rd



129



General Notes

1. System designed in accordance with BC Sewer System Practice Manual
2. Septic system shall be installed by authorized practitioner or under the supervision of a Professional Engineer registered with EGBC
3. Micro Dosing
46 L/min for 120 sec
Every 38 min 30 times a day
4. Kfs 1080 mm/D @20cm H2O
5. House 8 Residents
6. H2 DDF 2800 L/D
7. HLR 60 L/D/m²
8. H1 Dispersal Area 45 m²
Length 15 m Width 3 m
9. Type 2 Orifice
All 90° bends 2 x 45°
10. Manifold head pressure >2 m H₂O
11. Water: Community System
12. Closest Water Body >30m
13. System design is site specific anyone else using this information does so at their own risk

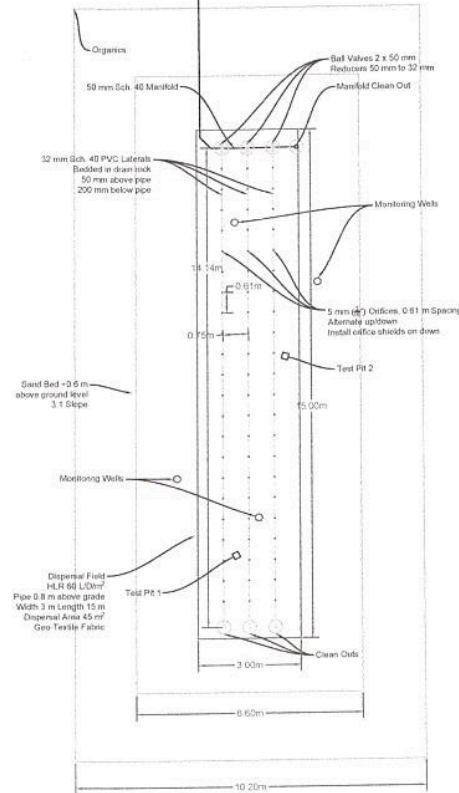
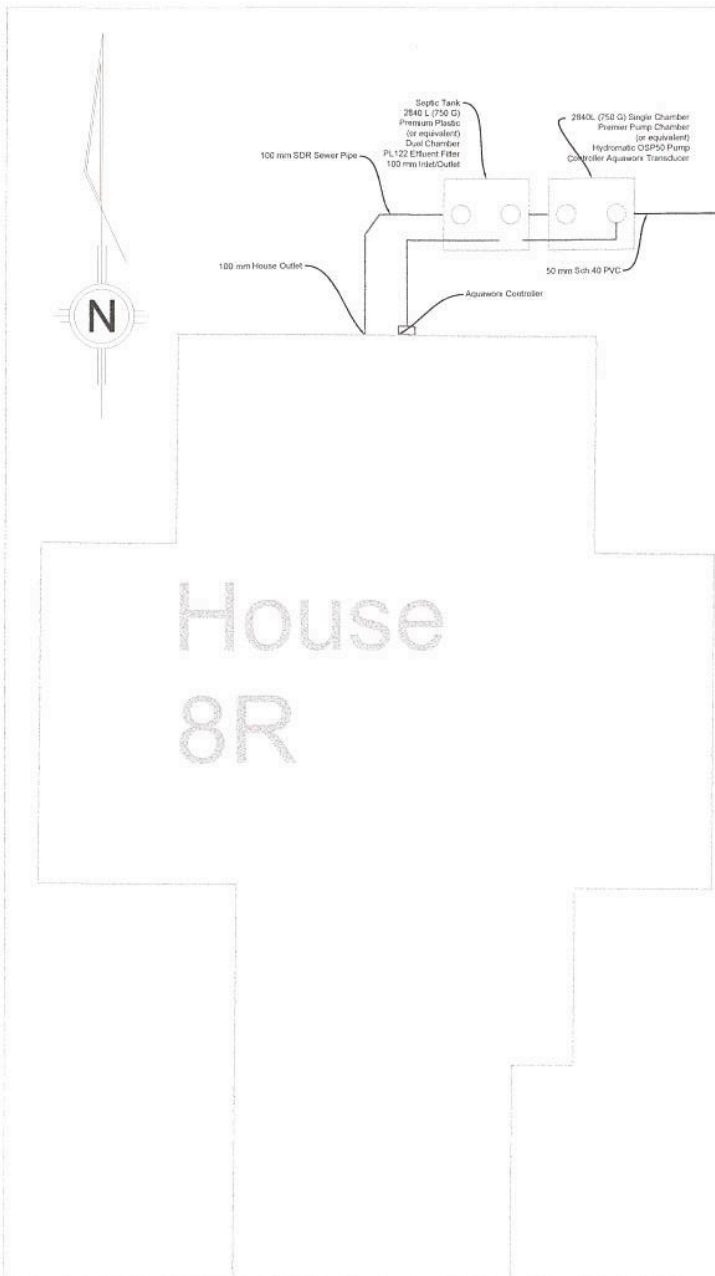
PID 011-123-877
Tax Roll# 21-786-04737.100
Lot Size 27.48 Acres
Lat 49.686332
Long -116.869187

McNally Technical Services
Alexander McNally P.Eng
301 Vernon St, Nelson, BC
V1L 4E3

129 Boulder Beach Rd #2
Kootenay Bay
Land Subdivision
Type 2 Septic System

Lot 5 Plan NEP811 District Lot
4595 Land District 26 Except
Plan 3062 16541 R127
NEP60734 NEP68076
NEP69201 NEP72451 FOR
FORESHORE SEE
786-04737.101

October 31, 2022
2022-10-MTKB-8RSMTY2
Scale 1:1,128
Sheet 1 of 3
Site Plan
Rev 0



General Notes

1. System designed in accordance with BC Sewer System Practice Manual
2. Septic system shall be installed by authorized practitioner or under the supervision of a Professional Engineer registered with EGBC
3. Micro Dosing
46 L/min for 120 sec
Every 38 min 30 times a day
4. Kfs 1080 mm/D @20cm H2O
5. House 8 Residents
6. H2 DDF 2800 L/D
7. HLR 60 L/D/m²
8. H1 Dispersal Area 45 m²
Length 15 m Width 3 m
9. Type 2 Orifice
All 90° bends 2 x 45°
10. Manifold head pressure >2 m H₂O
11. Water: Community System
12. Closest Water Body >30m
13. System design is site specific anyone else using this information does so at their own risk

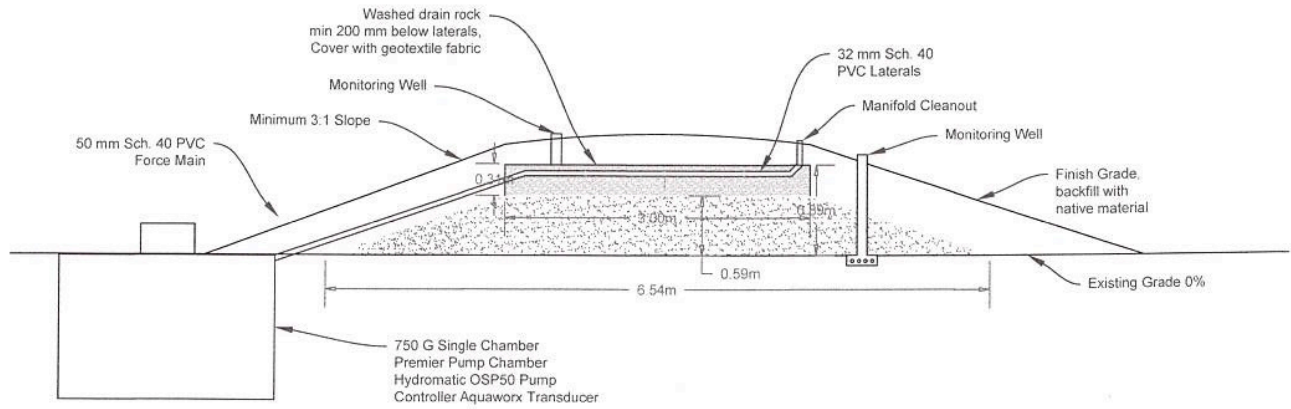
PID 011-123-877
Tax Roll# 21-786-04737.100
Lot Size 27.48 Acres
Lat 49.686332
Long -116.869187

McNally Technical Services
Alexander McNally P.Eng
301 Vernon St, Nelson, BC
V1L 4E3

129 Boulder Beach Rd #2
Kootenay Bay
Land Subdivision
Type 2 Septic System

Lot 5 Plan NEP811 District Lot
4595 Land District 26 Except
Plan 3062 16541 R127
NEP60734 NEP68076
NEP69201 NEP72451 FOR
FORESHORE SEE
786-04737.101

October 31, 2022
2022-10-MTKB-8RSMTY2
Scale 1:500
Sheet 2 of 3
Site Plan
Rev 0



General Notes

1. System designed in accordance with BC Sewer System Practice Manual
2. Septic system shall be installed by authorized practitioner or under the supervision of a Professional Engineer registered with EGBC
3. Micro Dosing
46 L/min for 120 sec
Every 38 min 30 times a day
4. Kfs 1080 mm/D @20cm H2O
5. House 8 Residents
6. H2 DDF 2800 L/D
7. HLR 60 L/D/m²
8. H1 Dispersal Area 45 m²
Length 15 m Width 3 m
9. Type 2 Orifice
All 90° bends 2 x 45°
10. Manifold head pressure >2 m H₂O
11. Water: Community System
12. Closest Water Body >30m
13. System design is site specific anyone else using this information does so at their own risk

PID 011-123-877
 Tax Roll# 21-786-04737.100
 Lot Size 27.48 Acres
 Lat 49.686332
 Long -116.869187

McNally Technical Services
 Alexander McNally P.Eng
 301 Vernon St, Nelson, BC
 V1L 4E3

129 Boulder Beach Rd #2
 Kootenay Bay
 Land Subdivision
 Type 2 Septic System

Lot 5 Plan NEP811 District Lot
 4595 Land District 26 Except
 Plan 3062 16541 R127
 NEP60734 NEP68076
 NEP69201 NEP72451 FOR
 FORESHORE SEE
 786-04737.101

October 31, 2022
 2022-10-MTKB-8RSMTY2
 Scale 1:500
 Sheet 2 of 3
 Site Plan
 Rev 0



Appendix 2: Site & Soil Evaluation Photos



Figure 1: test pit # 1



Figure 2: Test Pit 2



Figure 5: Organics



Figure 6: Rocks, Clay and Sandy Gravel

