From: Hadikin, Ed FOR:EX(Ed.Hadikin@gov.bc.ca)

To: S. 22

Subject: RE: Sproule Creek kmls **Sent:** 02/05/2024 18:15:43

Hi S. 22

Thank you for taking the time to send comments. Sorry I took so long to respond; I was away Thursday & Friday last week for meetings in Cranbrook.

Sproule creek has had an updated watershed completed and we are in the process of updating Rixen Creek (field work is done, waiting for the report). Also, terrain stability assessments will be completed on the Blks & roads this summer. The proposed Blks and roads will be consistent with the recommendation of the assessments.

Current retention plans, anticipate there to be around 7% of the total Blk area to be in WTRA's and in addition individual trees or in groups will be retained throughout the harvest area. Once the other assessments (hydrology, terrain stability and visual) are completed, additional reserves may be required.

s. 22

. A new visual impact assessment will be completed which will consider the existing and proposed Blks to ensure that the current established VQO's are being meet using major viewpoints. I don't anticipate that proposed Blks (SMA-020 & SMA-022) will be as visible as s. 22 or if at all, due to them being hidden behind existing reserves, timbered leave areas and the Blks are facing the northwest. The visual impact assessment will better represent what the proposed Blks will look like.

There is still a lot of field work and assessment that need to be completed. If you like, we can keep you informed as information comes in? Please reach out anytime with any questions and or concerns.

Thanks,

Ed Hadikin, RPF Practices Forester BCTS Kootenay Lake Field Team

Cell: (250) 608-0954 Email: Ed.Hadikin@gov.bc.ca

From: S. 22

Sent: Wednesday, January 31, 2024 8:22 PM

To: Hadikin, Ed FOR:EX < Ed. Hadikin@gov.bc.ca >
Cc: Tobiasz, Anna FOR:EX < Anna.Tobiasz@gov.bc.ca >

Subject: Re: Sproule Creek kmls

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. Learn why this is important

[EXTERNAL] This email came from an external source. Only open attachments or links that you are expecting from a known sender.

Hi Ed,

Thanks for sending the info through to me.

Have any hydrological assessments been done on the Sproule Creek/Rixen Creek watersheds? If not, are there any plans to do an assessment?

My other question is focused more on blocks 20 and 22. I'm curious what the retention plans are for these blocks. Block 20 is partially within a Retention VQ polygon, and I am curious if it is possible to follow the guidance for Retention polygons for all of Block 20 and include Block 22 in that as well. s. 22

Thanks,

s. 22

On Tue, Jan 30, 2024 at 4:33 PM Hadikin, Ed FOR:EX < Ed. Hadikin@gov.bc.ca > wrote:

Hi S. 22

Thanks for reaching out. The letter states January 30, 2024 as the deadline but if you need a couple of extra days extra, that will not be a problem. Please see attached PDF of the Operating Plan referral map and KML files of the Blks and roads.

Layout has not started on the operating plan Blks so there are no internal WTRA / Reserves, but I anticipate there to be around 7% of the total Blk area to be in WTRA's and in addition individual trees will be retained throughout the harvest area. Also note that the Blks are shown larger (buffer area) for referral purposes and the final size of the Blks will be smaller. Blks within the WUI polygons will consider WUI stocking standards and we will be working with wildfire to look at post-harvest fuel treatments.

If you have any questions, please do not hesitate to contact me.

Thanks,

Ed Hadikin, RPF Practices Forester BCTS Kootenay Lake Field Team

Cell: (250) 608-0954

Email: Ed.Hadikin@gov.bc.ca

----Original Message----

From: S. 22

Sent: Monday, January 29, 2024 6:03 PM
To: Hadikin, Ed FOR:EX < Ed. Hadikin@gov.bc.ca >

Subject: Sproule Creek kmls

[You don't often get email from S. 22 https://aka.ms/LearnAboutSenderIdentification]

Learn why this is important at

[EXTERNAL] This email came from an external source. Only open attachments or links that you are expecting from a known sender.

Hi Ed,

I figured I should email you with my personal email rather than my work email. I was wondering when the

deadline is for comments, etc on the next phase in Sproule Creek. I think it was right around now, so hopefully I haven't missed it. S. 22 I was also wondering if you could send me kmls of the planned harvest areas showing where the wtra's/reserves are, and let me know what the retention plans are for these blocks.

Thanks,

s. 22

From: Dosenberger, Lynda L FOR:EX(Lynda.Dosenberger@gov.bc.ca)

To: Dosenberger, Lynda L FOR:EX (Lynda.Dosenberger@gov.bc.ca)

Subject: MOTI no concerns - **Sent:** 04/09/2024 21:55:24

| | | crystal.swan@go | | If any new rd building accesses a MOTI Rd or construction takes | |
|----|--------------|-----------------|------|---|---|
| 48 | Crystal Swan | <u>v.bc.ca</u> | MOTI | place next to MOTI Rds please contact them | N |

Email not available.

From: Chris Bosman(cbosman@naturetrust.bc.ca)

To: Tobiasz, Anna FOR:EX (Anna. Tobiasz@gov.bc.ca)

Subject: RE: BCTS Kootenay Lake Sproule/Rixen Creek Proposed Blocks and Roads Referral

Sent: 01/08/2024 19:59:03

[EXTERNAL] This email came from an external source. Only open attachments or links that you are expecting from a known sender.

Hi Anna:

Thanks for the fulsome written response, its appreciated! Great to hear that BCTS has engaged a hydrologist to assess the watershed and potential impacts from harvest.

I should mention that S. 22

reached out to me. They received referral letters from BCTS and asked that I share our correspondence after they received referral letters. They may submit something to you as well – their names are $\frac{s. 22}{s}$

Keep us in the know as things progress. Thanks and Happy New Year!

Chris

From: Tobiasz, Anna FOR:EX < Anna. Tobiasz@gov.bc.ca>

Sent: Tuesday, January 2, 2024 11:24 AM

To: Chris Bosman <cbosman@naturetrust.bc.ca>

Subject: RE: BCTS Kootenay Lake Sproule/Rixen Creek Proposed Blocks and Roads Referral

Hi Chris,

Thank you for your comments on behalf on Nature Trust BC on BCTS' proposed developments in Rixen Creek.

BCTS recognizes the high level of domestic use within the Rixen watershed and has identified protection of water quantity, quality, and timing of flow as a key value. BCTS has contracted a Professional Hydrologist to complete a watershed assessment for Rixen Creek. We expect the results and full report this winter. Recommendations from that report will be incorporated and I am happy to share the key findings with you when I receive them.

Typically, the riparian reserves in BCTS Kootenay Lake's developments exceed the legislated requirements. Where the reserves are located, and the size of reserves is often decided based on First Nation input. This occurs during the fieldwork stages of the development. The bare minimum for Rixen Creek would be a 20m reserve zone (no harvest) and a 20m management zone (greater than or equal to 20% basal area retention) but as previously mentioned this is the legal minimum and is often exceeded.

Apologizes that the map online is at a scale that makes it difficult to identify where the block boundaries are in relation to Rixen Creek. Neither SMA-028 nor SMA-022 will include Rixen Creek. Currently SMA-028 is 90m away and SMA-022 is 40m away from Rixen Creek.

Many of the ecological values you mentioned are captured in our cultural value surveys which we complete on our blocks. Where it is safe to do so we try to retain standing snags for wildlife trees and coarse woody debris recruitment, broadleaf species, veterans, among many other specific values. In terms of old growth, we do harvest any ancient forests or field verified Technical Advisory Old Forest areas, however there are no overlaps in these blocks.

The existing road, Rixen Creek FSR will experience some upgrades and further extension of the road. Due to long term planning the Rixen Creek FSR will not be fully deactivated but post-logging cross ditches (water bars) will be installed to ensure natural drainage patterns are not disturbed. Typically any in block roads will be deactivated such as those in SMA-028.

If you would like I can send you updated information after more field work has been completed and we have received further First Nation input.

Sincerely,

Anna Tobiasz, RPF – Planning Forester

BC Timber Sales - Kootenay Business Area 1907 Ridgewood Road, Nelson, BC V1L 6K1

From: Chris Bosman < cbosman@naturetrust.bc.ca Sent: Tuesday, December 19, 2023 12:19 PM

To: Tobiasz, Anna FOR:EX < Anna.Tobiasz@gov.bc.ca >

Subject: RE: BCTS Kootenay Lake Sproule/Rixen Creek Proposed Blocks and Roads Referral

[EXTERNAL] This email came from an external source. Only open attachments or links that you are expecting from a known sender.

Hi Anna:

I'm looping back to this referral from last month, I figured I'd get it over to you before the holidays.

When NTBC secured the property in 2020, we developed a management plan for what we call the Marsden Face – Rixen Creek Conservation Area. The MP was co-written by a RPF we contracted, and myself. We also had a ecological baseline inventory completed the following year by an RPBio.

When we did our tour a couple of years back, I likely mentioned that the 80ac parcel was donated by a group of downstream water users. While NTBC is in the business of conserving land for biodiversity and wildlife habitat values, one of the defining management principles for this parcel is to help ensure (in whatever way we can), a steady and clean supply of water for domestic, incidental and irrigation purposes to the downstream users. NTBC itself also has a POD and water license on Rixen Creek as well.

The management plan specifically speaks to working with BCTS to ensure that there is a low hydrologic risk to the Rixen watershed, so as not to risk degradation of stream habitat and aquatic ecosystem values. I've cut and pasted a relevant section of the MP below which is of relevance to your planning efforts. I should note that while its presence wasn't confirmed, the habitat attributes exist along the creek for Couer D'Alene Salamanders.

As a headwater, Rixen Creek is a tributary to Sproule Creek, which in turn flows into the Kootenay River. Mapped at 5.1 kilometres in total length, approximately 750 metres of Rixen Creek are located within the boundaries of the property (FIDQ, 2020). The creek has a Provincial Waterbody ID of #181196 and a Watershed Code of #340-095600-22000 (FIDQ, 2020). Field observations confirmed Rixen Creek as having a riparian class S3 (Hodgins, 2020). Its complex morphology and intact riparian banks and closed forest canopy support a small resident population of rainbow trout (Oncorhynchus mykiss). The creek is prone to disturbance. A suspected 1:100 year flood event in 1997 altered the pool and riffle composition of the stream (P. Williams & R. Kotyk., pers. comm., June 24, 2019). Field observations in the summer of 2020 pointed to a recent sudden release of water not associated with peak flows or upstream timber harvest (Hodgins, 2020). This small event disturbed the stream and caused movement of fines, cobbles and coarse woody debris (CWD) out of the stream channel and onto its banks but, did not erode creek banks or disturb riparian vegetation (Hodgins, 2020). It may have been caused by CWD damming or, human intervention (Hodgins, 2020). The upper reaches of Rixen Creek were logged in 2008-09, with an estimated equivalent clear-cut area (ECA) of the watershed being a maximum of 15%, considered a low to moderate hydrologic hazard (Hodgins, 2020). While not officially a Community Watershed, Rixen Creek provides many downstream water licensees with their various water needs.

Looking at the cutblock layout, NTBC would be supportive of BCTS expanding the riparian reserve and management zones beyond what is required through legislation, regulations and guidelines. It's difficult to

tell with the scale of mapping but, cutblocks SMA 028 and, particularly SMA-022 look to nearly abut Rixen Creek. For many reasons, it would be preferable to see harvest activities be pushed back further.

Of course, NTBC encourages a site plan and harvest that carefully considers the ecological values of the forests being cut and, every effort made to retain forest stand diversity and structure with retention of wildlife trees, vets and old growth.

I have personally driven up the FSR network to the locations of the previous harvests (it was rough going). And, this is a good thing – it reduces motor vehicle travel. The area is covered by the Sproule Creek Motor Vehicle Closure Area (NTBC has an exemption permit) but, compliance isn't 100%. Thus, we are always encouraging of efforts to deactivate roads, even temporarily or reduced maintenance schedules following harvest, if legally compliant.

Thanks Anna for thinking to reach out, we appreciate the opportunity to comment on BCTS harvest plans in the area.

Season's Greetings!

Chris Bosman

Kootenay Conservation Land Manager
The Nature Trust of British Columbia
205 Industrial Road G | Cranbrook BCVIC 7G5
Tel: 250.420.6517 | Cell: 250.489.9338

naturetrust.bc.ca



From: Tobiasz, Anna FOR:EX < Anna. Tobiasz@gov.bc.ca >

Sent: Friday, November 10, 2023 6:40 PM

To: Chris Bosman < cbosman@naturetrust.bc.ca >

Subject: BCTS Kootenay Lake Sproule/Rixen Creek Proposed Blocks and Roads Referral

Hi Chris,

We met a few years back in the field in the Rixen Creek Nature Trust lands.

BCTS Kootenay Lake has some proposed blocks and roads in the Sproule Creek & Rixen Creek area that may be of interest to you.

If you go to the following link you can find more information and maps regarding these proposed developments.

https://www.for.gov.bc.ca/ftp/TKO/external/!publish/FSP/Operating-Plans/Operating%20Plan 2023 Sproule Rixen Kootenay Lake/

Please do not hesitate to reach out with any questions or concerns.

Cheers,

Anna Tobiasz, RPF – Planning Forester BC Timber Sales - Kootenay Business Area

BC Timber Sales - Kootenay Business Area 1907 Ridgewood Road, Nelson, BC V1L 6K1 Phone: 250-354-8799

email: Anna.Tobiasz@gov.bc.ca

From: Tobiasz, Anna FOR:EX(Anna.Tobiasz@gov.bc.ca)

To: S. 22

Subject: RE: BCTS Kootenay Lake Sproule/Rixen Creek Proposed Blocks and Roads Referral

Sent: 11/24/2023 20:12:30

н^{s. 22}

Thank you for getting back to me.

We completed a watershed assessment of Sproule Creek in 2021 prior to the current TSL (TA1992) that we previously referred and have been building road for this year. That watershed assessment looked at our total chance planning for the Sproule Creek watershed. I reviewed it this morning and what was included was a 3ha block from the woodlot that was harvested in 2020 and the new road that was built around a similar time. I don't believe we reached out to ask for planned information for the woodlot but this is what the hydrologist did in respect to incorporating future harvesting from the woodlot.

I was not provided with information on planned woodlot harvest over the same interval, so I estimated expected values. About one-third of the woodlot's 600 ha tenure is within the Sproule Creek watershed, and woodlots typically harvest about one percent of their tenure per year, on average. I therefore expect that over the six year interval covered by this assessment, future woodlot harvesting within the Sproule Creek watershed might account for approximately 2 ha per year, or 6 ha per three years, on average. I added 6 ha to the planned BCTS harvest for each of these three-year intervals (12 ha in total over six years) to account for this and estimate the total amount of harvesting that might occur.

We are currently working on plans for the Falls Creek area. These developments will be part of our larger annual referral that comes out late winter (2024).

I think in general it would be good to meet. We can pull out maps of the Falls Creek plans and chat about our proposed access as well as look at the watershed assessment for Sproule Creek.

I am just waiting to hear back from the Development Forester that oversees the projects in this operating area to confirm scheduling. Once I hear back from him, I'll reach out with a proposed meeting time.

Cheers,

Anna Tobiasz, RPF - Planning Forester

BC Timber Sales - Kootenay Business Area 1907 Ridgewood Road, Nelson, BC V1L 6K1 email: <u>Anna.Tobiasz@gov.bc.ca</u>

From^{S. 22}

Sent: Tuesday, November 21, 2023 9:31 AM

To: Tobiasz, Anna FOR:EX < Anna. Tobiasz@gov.bc.ca>

Cc:S. 22

Subject: Re: BCTS Kootenay Lake Sproule/Rixen Creek Proposed Blocks and Roads Referral

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[EXTERNAL] This email came from an external source. Only open attachments or links that you are expecting from a known sender.

Good morning Anna,

Thanks for sending the referral for the proposed blocks and roads.

Our concerns are based on the ECAs for Sproule Creek. Roughly a 3rd of s. 22 s on the face unit of Sproule creek and we have planned harvests in the coming years, along with pressure to complete a WUI harvest above the private lands. Is there any information you can pass along that shows how much of the watershed has been impacted and if you have taken our future harvests into consideration.

Also we have been hearing that there is possible plans to build road into Falls Creek. Wondering if there is any maps available to see the operational plans in the drainage because this would also be adjacent to $^{\rm S.~22}$ Also if you have considered using $^{\rm S.~22}$

We would be happy to talk in person or over the phone if that would makes things easier.

Thank you,

s. 22

On Nov 21, 2023, at 8:49 AM, Brent Petrick S. 22

wrote:

From: Tobiasz, Anna FOR:EX < Anna.Tobiasz@gov.bc.ca>

Sent: Friday, November 10, 2023 5:31 PM

To^{S. 22}

Subject: BCTS Kootenay Lake Sproule/Rixen Creek Proposed Blocks and Roads Referral

HS. 22

BCTS Kootenay Lake have proposed blocks and roads in the Sproule Creek & Rixen Creek areas that may of interest to you due to the ^{S. 22}

In the attachment you'll find a link to various documents and maps with further information.

As per our new FSP #914 – we do require a documented response to this referral **so please do respond to this email** when you have had a chance to review the information.

Don't hesitate to reach out if you have any questions or concerns.

Sincerely,

Anna Tobiasz, RPF - Planning Forester

BC Timber Sales - Kootenay Business Area 1907 Ridgewood Road, Nelson, BC V1L 6K1

Phone: 250-354-8799

email: Anna.Tobiasz@gov.bc.ca

<2023_Sproule_Rixen^{S. 22}

s. 22 From:

To: Tobiasz, Anna FOR:EX (Anna. Tobiasz@gov.bc.ca)

Chris Bosman - BC Nature Trust (cbosman@naturetrust.bc.ca); s. 22

To:

Subject: Comments from a Rixen Creek water user

01/28/2024 19:41:08 Sent:

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[EXTERNAL] This email came from an external source. Only open attachments or links that you are expecting from a known sender.

Hello Anna,

Getting a few words in to you before your deadline regarding future logging activities in the Rixen Creek area, thanks. Sometimes in this note I am talking personally for myself in the first person and other times in plural, figuring that my neighbors would agree.

I was amongst the group of Rixen/Sproule neighbors who in 2020 donated the 80 acre parcel to the Nature Trust of BC, represented by Chris Bosman.

s. 22

Our main focus at that time was to protect our Rixen Creek water source by at first trying to stop the logging and after that failed, working with the loggers to produce a beneficial outcome for all. In that, we succeeded and the water source has been just fine over these many past years.

Of course, we would like to have our pristine Rixen Creek water source continue indefinitely into the future, not affected negatively by any nearby logging activity.

We are very pleased with the NTBC care taking role of our former parcel and have quickly learned to trust Chris Bosman's judgment and expertise. He has shared with me his email communications with you concerning the SMA-028 and SMA-022 cut blocks guite close to the creek. suggesting how the harvest activities might be pushed further back thus expanding the riparian reserve. He also commented to you regarding more general ecological values as well as roads/access. I concur with the points he has already brought up to you and am as well heartened by your response back to him. Considering the climate change drought trend we are apparently now on, it is now more important than ever for the BCTS to expand the riparian reserve and management zones well beyond what is required through legislation, regulations and guidelines.

We hope and expect that due care is taken by BCTS and hence Rixen Creek will continue supplying pure water to the residents for years to come.

Regards,

s. 22



RDCK Planning File No. R2343F

January 5, 2024

Anna Tobiasz
Planning Forester
BC Timber Sales

Email: anna.tobiasz@gov.bc.ca

Dear Anna:

RE: 2023 BCTS Referral for proposed blocks and roads in the Sproule Creek & Rixen Creek

Thank you for the opportunity to comment on this referral for the proposed potential blocks and road construction. The comments from the RDCK Planning Department are as follows:

The proposed works are located within Electoral Area F in Sproule Creek and Rixen Creek above a primarily residential area. The area of proposed works is large and is mostly zoned Open Space (OS) with a smaller portion in the Residential 3 (R3) zone under Regional District of Central Kootenay Zoning Bylaw No. 1675, 2004. Resource Based Activities including but not limited to Forest Harvesting are permitted in the OS zone, but are not permitted in the R3 zone.

The area is mostly designated as Open Space (OS) and is partially designated as Rural Residential (RR) under Electoral Area 'F' Official Community Plan Bylaw No. 2214, 2011. Please be advised of the following applicable policies and objectives from this Bylaw:

The Open Space (OS) designation outlines the following:

Open Spaces are described as large parcels of land, primarily 20 ha or greater, and includes both private and/or Crown land. Typical uses include forest land, grazing or range land, public and commercial recreation areas, watershed, and resource extraction areas. Although it is recognized that local land use designations do not apply to the Crown, the 20 ha minimum parcel size is still applied to Crown land in order to provide regulations upon alienation, and to address Crown leases.

Relevant Open Space (OS) Objectives:

- 1. To recognize that much of the land designated as Open Space in the Plan area is part of the Provincial Forest, and to minimize conflicts between these lands and other land uses
- To maintain the rural character and compatibility of land designated Open Space.

Relevant Open Space (OS) Policies:

The Regional Board:

1. Recognizes the jurisdiction of the Province over public Crown land.

Nelson Office: Box 590, 202 Lakeside Drive, Nelson, BC. V1L 5R4 Phone: 250.352.6665 | Toll Free: 1.800.268.7325 (BC) | Email: info@rdck.ca | Fax: 250.352.9300

- Generally supports Provincial policies on protection and use of working forests, and looks for alternatives to development that might conflict with forestry operations and management, or protection of important habitat.
- 3. Supports Provincial land use strategies as a means to ensure that local government concerns are addressed regarding visual, recreation, timber, range, important habitat and other resources in the Plan area.
- 4. Supports the fire management policies set out in the Hazard Lands Section for any proposed residential uses.

Relevant Rural Residential (RR) policies:

The Regional Board:

 Supports small-scale, home-based service, commercial, and industrial uses in Suburban Residential areas, providing such uses shall not conflict with the residential character of the area.

Relevant General Residential Objectives:

- 1. Protect the existing quality of life and character of existing neighbourhoods.
- 2. Encourage high quality design, building, development and landscaping standards that improve energy efficiency and maintain and enhance rural character.

The OCP highlights the following regarding Crown Land:

The management of these lands is complex, and the potential for impact on downstream private property and lakeshores is a key consideration in decision-making. Management policies and objectives supported within the Provincial Kootenay Boundary Land Use Plan Implementation Strategy include general management direction.

Relevant Crown Land Objectives:

1. Encourage the Province to respect the interests and concerns of local residents in decisions concerning activities, development, and sale of Crown land.

Relevant Crown Land Policies:

The Regional Board will:

- Strongly encourage the Province to seek full community support before any change in land
 use on Crown land, including issuing licenses or permits for any development or activity, land
 sales, and land use designation amendments that may affect the community.
- Encourage the Province to give adequate notice to the RDCK and the affected community
 about applications for the lease or sale of Crown Lands, and to encourage the Province to
 ensure adequate public consultation in the affected community before a decision is made on
 such applications.

3. Encourage connectivity within and among environmentally sensitive Crown lands with important habitat and wildlife corridors, through the sale and lease of adjoining Crown lands.

Relevant Economic Development Objectives:

- 1. Attract and maintain the operation of responsible, renewable resource based industries to the region
- Minimize conflicts between resource based industries and other land uses

Relevant Economic Development Policies:

The Regional Board:

- 1. Supports efforts to diversify and strengthen the local economy
- 2. Continues to support the traditional economic base of the resource sectors, but recognizes and supports the shift towards emerging sustainable resource management opportunities as the new core of the local economy, e.g. tourism, education, value-added.
- 3. Recognizes the jurisdiction of the Province over public Crown land.
- 4. Promotes growth and expansion of value added forestry, fishing and agriculture.

Relevant Forestry Policies:

The Regional Board:

- 1. Designates land (generally Crown land) identified as Open Space on Map Schedule B for forestry, ranching, grazing, general resource management, resource extraction/exploration activities, outdoor recreation, fish and wildlife habitat, and other uses that fit with the character of the area.
- 2. Will work in cooperation with stakeholders in the forest industry to protect the forest land base and promote sustainable forest operations while balancing recreation and other interests.
- 3. Considers impacts of potential forest operations and management that might conflict with the protection of important habitat.
- 4. Supports the Provincial FireSmart guidelines for the protection of forestry resources.

Sincerely,

Sadie Chezenko Planning Technician (250)352.1585 planning@rdck.bc.ca From: Money, Dani ENV:EX(Dani.Money@gov.bc.ca)

To: Tobiasz, Anna FOR:EX (Anna.Tobiasz@gov.bc.ca)

Subject: RE: BCTS Kootenay Lake Sproule/Rixen Creek Proposed Blocks and Roads Referral

Sent: 11/30/2023 21:13:06

Thanks Anna, no concerns from BC Parks.

Dani



Planning Section Head, Kootenay, BC Parks / P: (250) 420-6310

~I recognize that I live and work in the traditional territories of Indigenous Peoples. I will tread lightly and with respect.~

From: Tobiasz, Anna FOR:EX < Anna. Tobiasz@gov.bc.ca>

Sent: Friday, November 10, 2023 6:19 PM

To: Money, Dani ENV:EX <Dani.Money@gov.bc.ca>

Subject: BCTS Kootenay Lake Sproule/Rixen Creek Proposed Blocks and Roads Referral

Hi Dani,

BCTS Kootenay Lake have proposed blocks and roads in the Sproule Creek & Rixen Creek areas that may of interest to you.

In the attachment you'll find a link to various documents and maps with further information.

Don't hesitate to reach out if you have any questions or concerns.

Sincerely,

Anna Tobiasz, RPF – Planning Forester

BC Timber Sales - Kootenay Business Area 1907 Ridgewood Road, Nelson, BC V1L 6K1

Phone: 250-354-8799

email: Anna.Tobiasz@gov.bc.ca

s. 22

From:

To: Tobiasz, Anna FOR:EX (Anna. Tobiasz@gov.bc.ca)

To: S. 22

Subject: RE: BCTS Kootenay Lake Sproule/Rixen Creek Proposed Blocks and Roads Referral

Sent: 11/20/2023 23:35:04

[EXTERNAL] This email came from an external source. Only open attachments or links that you are expecting from a known sender.

Thanks for the response Anna. S. 22 response is: CCC shares K10 landscape unit - West Arm – this is the LU that includes Balfour Face/Laird Creek FDU. CCC's analysis shows a >1000 ha surplus of Mature + Old in ICHdw. The OGMA is not physically large enough to meet Old targets. CCC does not have ICHdm in CCC's K10 tenure. Subsequently, CCC does not have concerns with BCTS' Sproule/Rixen Creek proposed development.

(would be good to talk sometime Anna. Give me a call or let me know when your available)

s. 22

From: Tobiasz, Anna FOR:EX [mailto:Anna.Tobiasz@gov.bc.ca]

Sent: November 15, 2023 1:29 PM

To^{S. 22}

Subject: RE: BCTS Kootenay Lake Sproule/Rixen Creek Proposed Blocks and Roads Referral

Hi S. 22

Just tried to give you a shout but it is no longer morning hence I missed you.

Apologizes, the statement about not containing AC 8 or 9. It was something I specifically added for share licensees in K10 but I see how my wording could be misleading.

That statement only pertains to the old and mature targets. Using the Selkirk Suite 2022 Biodiversity tables and our FSP netdown method (using the combined target % of old and mature, meeting the target with OGMA/Protected areas first then moving down the age classes based on inoperability and connectivity) the following wouldn't be available for harvest: OGMA/Protected areas, all AC9 in or outside of connectivity, and AC8 in connectivity and inoperable. There is a surplus available in AC8 connectivity operable ground. For this specific block, it doesn't contain any area that would be used to meet the targets (the oldest AC in the block is 7). That was not necessarily intentional, there just isn't any AC 8 or 9 in the block.

I believe due to District direction from around 2019 we have been staying out of the old age classes in the ICHdw in K10 due to the OGMA deficit but that is the only LU where we are doing that in KL.

The current BCTS direction is that we stay out of TAP polygons unless they have been verified to not meet the old forest criteria, in which case they can be rationalized and a replacement area that does contain that old forest criteria is used to replace the proposed harvested area. Ideally replacement areas being established in collaboration with KNC.

There is a lot of back and forth these days with KNC regarding the O&M targets and how we netdown. For now, I still operate based on the FSP and more significant discussions are happening

at the regional and district level around CFLB, updated BEC, OGMA deficits, etc.

Feel free to give me a call this afternoon or tomorrow between 10-12 if you want to chat further.

Cheers,

Anna 250-354-8799

From S. 22

Sent: Wednesday, November 15, 2023 9:08 AM **To:** Tobiasz, Anna FOR:EX <Anna.Tobiasz@gov.bc.ca>

Cc: S. 22

Subject: RE: BCTS Kootenay Lake Sproule/Rixen Creek Proposed Blocks and Roads Referral

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Anna: I'm just having ^{S. 22} have a look at your package and will give BCTS a formal response after he has a chance to review your proposal. I doubt CCC will have any concerns.

Question though: you state this development does not contain any AC 8 or 9. Just wondering if BCTS is now not developing any blocks that have AC 8/9, or deleting areas of AC 8/9 from your development? s. 16 s. 16

What is BCTS' stance regarding logging AC 8+? I am around my office this morning if you have time to give me a call to talk about this. It would be good for all of us other Licensees to know. Thanks Anna.

s. 22

From: Tobiasz, Anna FOR:EX [mailto:Anna.Tobiasz@gov.bc.ca]

Sent: November 10, 2023 5:32 PM

To: S. 22

Subject: BCTS Kootenay Lake Sproule/Rixen Creek Proposed Blocks and Roads Referral

Hi S. 22

How are you doing these days?!

BCTS Kootenay Lake has proposed blocks and roads in the Sproule Creek & Rixen Creek areas that may be of interest to you.

All blocks are in Landscape Unit K10 – West Arm. According to our FSP old targets are met through the OGMAs. One block (SMA-028) is in the ICHdm which has old & mature targets, however it does not contain any AC8 or 9.

In the attachment you'll find a link to various documents and maps with further information.

As per our new FSP #914 – we do require a documented response to this referral, **so please do respond to this email** when you have had a chance to review the information.

Don't hesitate to reach out if you have any questions or concerns.

Sincerely,

Anna Tobiasz, RPF – Planning Forester

BC Timber Sales - Kootenay Business Area 1907 Ridgewood Road, Nelson, BC V1L 6K1

Phone: 250-354-8799

email: Anna.Tobiasz@gov.bc.ca

From: Tobiasz, Anna FOR:EX(Anna.Tobiasz@gov.bc.ca)

To: S. 22

Subject: RE: Sproule Rixen Referral Meeting request for s. 22

Sent: 03/06/2024 21:51:26

Hi S. 22

This is a great question and one I have posed to the hydrologist though more broadly relating to groundwater and harvesting. She is currently still processing data and preparing the watershed assessment which we anticipate the result from in the coming weeks. Once she has finalized things and has some conclusions I will follow up with specifics relating to Rixen/Sproule and share that with you. In the meantime, this is what she provided more generally.

Cheers,

Anna

So the biggest take away is that the impact on water tables varies a lot by geography and over time.

Most of the literature suggests that groundwater tables actually **increase** following harvest as you don't have the evapotranspirative losses from the vegetation. You also tend to get more precipitation falling directly on soils due to lack of interception; this can be coupled with faster runoff especially within steeper catchments and for significant rainfall events, but the overall impact of less evapotranspiration and less interception in increasing groundwater levels post harvest is a dominant theme in the current literature.

Over time, recovering stands can be denser than mature forest and cause groundwater to decrease as trees use more water (they can also have slightly higher interception due to their increased density).

Here is a good (albeit older) paper within the BC context regarding groundwater if you are interested:

https://jem-online.org/forrex/index.php/jem/article/view/409

This is really describing water table impacts that are fairly close to the surface (including soil moisture) and assumes that other variables remain the same (i.e., we get the same amount of precipitation in the same ratio between snow/rain, which as we know is changing rapidly). The impact on wells and springs will also depend on how connected they are to near surface groundwater. The timing of impacts also depends on groundwater residence time (it may take months/years for impacts to show up, and may not if the groundwater source is not connected to nearer surface groundwater within the area harvested).

One important caveat is that context is important and watersheds may behave differently depending on soil characteristics, how the logging occurred, how steep they are, etc.

Extending studies within one watershed more broadly can be tough - hydrologic response can be very complex and site specific.

Sediment is, of course, a big concern post harvest, and can cause aggradation within streams such that during low flows they follow subsurface pathways as opposed to flowing on the surface. In short, increased sediment can fill a channel with cobble/gravel, and make it appear that there is less flow as the stream now flows through this permeable substrate. There is lots of great work on Vancouver Island that shows these impacts.

Additionally, we have seen cases where infiltration decreases post-harvest due to increases in sublimation and ET (newly re-vegetated deciduous stands). So, even though there may be more precip (rain or snow) accumulation, it doesn't necessarily translate to recharge. In conclusion, this is a complex issue and is site specific.

From: S. 22

Sent: Saturday, February 24, 2024 11:44 AM

To: Tobiasz, Anna FOR:EX < Anna. Tobiasz@gov.bc.ca>

Subject: Re: Sproule Rixen Referral Meeting request for S. 22

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Learn why this is important

[EXTERNAL] This email came from an external source. Only open attachments or links that you are expecting from a known sender.

Hello Anna; Thank you for your continued assistance as I attempt to anticipate the impact on my water supply licensed from ^{s. 22}

Ed and Warren confirmed that some of what I was attempting to understand would best be answered by the hydrologist and they said you would be able to arrange a conversation with him/her for me. As I explained to Ed and Warren last late winter/early spring the spring water was reduced to a trickle. Up to that point it had flowed abundantly and continuously even in the hottest of summers. At the moment it is running again but at a much reduced level.

While there are likely many contributing factors, climate change and previous harvesting included, my hope was to identify any factors that may result from the proposed activity above both Rixen and Sproule Creek areas. What are the factors that could further reduce ground water? For example, In general, to what extent and for how longer afterward does harvesting decrease the water holding capacity of the soil, reducing the ground water level.

If I could understand the possible influences of what is planned this will help me determine if I have to look for another water source. A water license for Sproule Creek, if approved, is a multi year process at present I am told. And of course water levels in Sproule Creek also appeared to be at an all time low last fall.

Basically this is what I would like to discuss with the hydrologist... a brief discussion would be anticipated to be preferable to him/her rather than taking the time for a written response.

Thank you again for your help with this.

Best,

On 23 Feb 2024, at 5:20 pm, Tobiasz, Anna FOR:EX < Anna. Tobiasz@gov.bc.ca > wrote:

Hi ^{S. 22}

Just to verify, your interest is more specifically with the Sproule Creek drainage than Rixen?

We do not typically provide the contact information for contractors to stakeholder or public as it is outside the scope of the contracts. I have reached out to the hydrologist and their preference is to be forwarded questions. If you want to forward me your questions, I am happy to forward them along to the hydrologist.

Cheers,

Anna Tobiasz, RPF

Planning Forester – Kootenay Lake Field Team BC Timber Sales - Kootenay Business Area | Ministry of Forests 1907 Ridgewood Rd. Nelson, BC, V1L 6K1 Phone: 778-671-9068 <image001.png>

From: S. 22

Sent: Friday, February 16, 2024 4:37 PM

To: Tobiasz, Anna FOR:EX < Anna. Tobiasz@gov.bc.ca >

Subject: Re: Sproule Rixen Referral Meeting request for S. 22

[EXTERNAL] This email came from an external source. Only open attachments or links that you are expecting from a known sender.

Hello Anna; Thank you for replying. Ed and Warren told me that the hydrologist had completed his review but not the report. They also said that you would be able to provide me with the name of the hydrologist and his/her contact information so I could ask a couple of questions of him/her directly. Please forward those at your earliest convenience. Thank you so much. Best wishes, s. 22

On 16 Feb 2024, at 9:53 am, Tobiasz, Anna FOR:EX < Anna. Tobiasz@gov.bc.ca > wrote:

Hi ^{S. 22}

Apologies for the radio silence. Here is some additional hydrological information about the Sproule/Rixen proposed blocks and roads. If you have further question please let me know.

Impacts from forest harvesting on water tables varies greatly. Steepness of terrain, conditions of specific rainfall events, changes in vegetation over time in respect to evapotranspiration and rainfall interception, soil characteristics, how harvesting is completed, and well locations are contributing factors. Therefore, because it is site specific,

we cannot apply generalizations of causation of low spring flow and wells to forest harvesting.

Groundwater is also responsive to other, non-harvest factors (snowpack, water balance, other landuse and human abstraction), so while forest harvest impacts can be site specific, so too are other factors that may be influencing trends in groundwater.

BCTS is working with qualified professional hydrologists to understand the complexity and site specifications of the Sproule Creek and Rixen Creek watersheds. Any recommendations provided will be incorporated into block and road plans.

BCTS is not anticipating any impacts to water quality or quantity. To ensure this BCTS follows all recommendations from Hydrology & Watershed Assessments to mitigate any impacts to water. In addition, BCTS will be conducting Terrain Stability Assessments (TSFA) and following all recommendations to mitigate erosion and sediment entering streams. Furthermore, BCTS has Best Management Practices, such as Wet Weather Shutdown Procedures, sediment control measures (ie rock armoring culvert inlets and outlets) and increased TSL monitoring by qualified professionals in watersheds to ensure minimal impacts to downstream resources.

The block shapes provided are preliminary and demonstrate areas of interest. The final block shapes will be smaller but within the footprint shown. Based on your feedback, we recognize that providing not only the large scale map that shows the whole drainage but also block specific ones would have been valuable information.

SMA-022 will be buffered between 50-75m from Rixen Creek. There is a significant slope break near the creek which would be the lower block boundary. All remaining blocks will be a minimum of 75m from Rixen Creek and the three blocks in the Sproule Creek watershed are significantly further from the creek. To further reduce potential of sediment entering either creek, there will be no new road crossing constructed over either of the creeks.

As more fieldwork and assessments are completed over the coming year, BCTS can provide updated information. If you would like to receive updated information, please let me know. Sincerely,

Anna Tobiasz, RPF

Planning Forester – Kootenay Lake Field Team BC Timber Sales - Kootenay Business Area | Ministry of Forests 1907 Ridgewood Rd. Nelson, BC, V1L 6K1 Phone: 778-671-9068 <image001.png>

From: S. 22

Sent: Wednesday, January 10, 2024 5:00 PM

To: Tobiasz, Anna FOR:EX < Anna. Tobiasz@gov.bc.ca >

Cc: Hadikin, Ed FOR:EX < Ed. Hadikin@gov.bc.ca >; Picton, Warren FOR:EX

< Warren. Picton@gov.bc.ca>

Subject: Re: Sproule Rixen Referral Meeting request for S. 22

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Learn why this is important

IEXTERNAL] This email came from an external source. Only open attachments or links that you are expecting from a known sender.

Hello Anna; Now I am apologising for the delay in getting back to you. I was away when you offered the meeting on Jan 2nd. I wonder if you have another meeting scheduled or if there is a possibility to meet with you about the plans for Sproule/Rixen. Thank you very much. Best wishes, s. 22

s. 22

On 12 Dec 2023, at 3:41 pm, Tobiasz, Anna FOR:EX < Anna. Tobiasz@gov.bc.ca > wrote:

Hi ^{S. 22}

Apologizes in the delay getting back to you about scheduling a time to meet.

Are you available January 2nd around 9:30 to meet at our 4 Mile office on the North Shore?

Sincerely,

Anna Tobiasz, RPF – Planning Forester

BC Timber Sales - Kootenay Business Area 1907 Ridgewood Road, Nelson, BC V1L 6K1 email: <u>Anna.Tobiasz@gov.bc.ca</u>

From: Picton, Warren FOR:EX < Warren.Picton@gov.bc.ca >

Sent: Monday, December 4, 2023 11:14 AM

To: Tobiasz, Anna FOR:EX < Anna.Tobiasz@gov.bc.ca >

Cc^{s. 22} Hadikin, Ed FOR:EX < Ed. Hadikin@gov.bc.ca>

Subject: Sproule Rixen Referral Meeting request for S. 22

Hi Anna, ^{S. 22} contacted me via phone call this morning. She would like to set up a meeting to review our plans in Sproule / Rixen.

I'm thinking December 29^{th s. 22}

but she can potentially meet via Zoom (is Zoom possible for us?).

The alternative is sometime in January in which she can meet in person and we can have you call in.

s. 22 has already been impacted by previous development.

just an FYI, I included Ed on the email. Ed is our practices forester for that area.

Thanks Warren

<image001.png>

Warren Picton, RFT

Woodlands Supervisor-BC Timber Sales Kootenay Lake Field Team-Nelson

Phone: 778-671-9123 **Ministry of Forests**

BCTS-Kootenay Business Area respectfully acknowledges that it carries out its work on the traditional territories of the Secwepemc, Syilx, Ktunaxa, and Sinixt Nations

s. 22

From:

To: Tobiasz, Anna FOR:EX (Anna. Tobiasz@gov.bc.ca)

Subject: RE: BCTS Kootenay Lake Sproule/Rixen Creek Proposed Blocks and Roads Referral

Sent: 11/15/2023 20:06:46

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[EXTERNAL] This email came from an external source. Only open attachments or links that you are expecting from a known sender.

Hi Anna,

Gerald and I looked over the referral information. It looks great. The Kalesnikoff woodlands team doesn't have any concerns.

Regards,

s. 22

From: Tobiasz, Anna FOR:EX < Anna. Tobiasz@gov.bc.ca>

Sent: Friday, November 10, 2023 5:32 PM

To: S. 22

Subject: BCTS Kootenay Lake Sproule/Rixen Creek Proposed Blocks and Roads Referral

Hi^{S. 22}

BCTS Kootenay Lake has proposed blocks and roads in the Sproule Creek & Rixen Creek areas that may be of interest to you.

All blocks are in Landscape Unit K10 – West Arm. According to our FSP old targets are met through the OGMAs. One block (SMA-028) is in the ICHdm which has old & mature targets, however it does not contain any AC8 or 9.

In the attachment you'll find a link to various documents and maps with further information.

As per our new FSP #914 – we do require a documented response to this referral **so please do respond to this email** when you have had a chance to review the information.

Don't hesitate to reach out if you have any questions or concerns.

Sincerely,

Anna Tobiasz, RPF – Planning Forester

BC Timber Sales - Kootenay Business Area 1907 Ridgewood Road, Nelson, BC V1L 6K1

Phone: 250-354-8799

email: Anna.Tobiasz@gov.bc.ca

From: S. 22

To: Tobiasz, Anna FOR:EX (Anna.Tobiasz@gov.bc.ca)

Subject: Sproule Creek & Rixen Creek referral - comments on proposed cutblocks

Sent: 01/29/2024 17:11:13

You don't often get email from S. 22 Learn why this is important

[EXTERNAL] This email came from an external source. Only open attachments or links that you are expecting from a known sender.

Hello Anna,

My name is ^{s. 22} watershed and I am writing to you in regards to the new proposed cutblocks in this watershed.

s. 22

Two springs ago, Sproule Creek flowed brown and muddy due to high run off of topsoil, related to recent logging activity. Some people in our community along the creek draw their household water from the creek, and it is unfortunate that logging activity is impacting the quality of their household water supply.

I'd also like to point out, that the Sproule Creek drainage is an important wildlife corridor which connects the mountainous regions between Slocan and Kootenay Lake valleys to the Kootenay River as well as the Marsden Face wildlife habitat and Old Growth Management Areas. New proposed cutblocks are directly adjacent to existing OGMA and will no doubt degrade this important wildlife habitat.

Sproule Creek is also a very popular and well used trail not only by my local community, but for folks coming from Nelson, Castlegar and other towns in the area. Only a very narrow forested corridor along the creek has been left.

My hope is that BC Timber Sales set aside more of forest in the area for logging deferrals, as there is existing old growth scattered throughout the area, and the negative impacts of new cutblocks on people and wildlife is concerning.

Thank you for your time and consideration,

s. 22