REGIONAL DISTRICT OF BULKLEY-NECHAKO

RURAL DIRECTORS COMMITTEE
AGENDA
Thursday, October 6, 2016

PAGE NO.		ACTION
	AGENDA- October 6, 2016	Approve
	Supplementary Agenda	Receive
	MINUTES	
2-6	Rural Directors Committee Meeting Minutes - September 8, 2016	Receive
	DEVELOPMENT SERVICES *(All Directors)*	
	Referrals	
7-29	Land Referral File No. 7409869 YCS Holdings Ltd. Electoral Area 'F'	Recommendation (Page 8)
30-42	Land Referral File No. 6408940 Lake Babine Fisheries Electoral Area 'G'	Recommendation (Page 31)
43-48	Mines Referral File No. 522994 Robert Miller Electoral Area 'C'	Recommendation (Page 43)
	DISCUSSION ITEM	
	Illegal Dumping	
	SUPPLEMENTARY	
	NEW BUSINESS	
	ADJOURNMENT	

REGIONAL DISTRICT OF BULKLEY-NECHAKO

RURAL DIRECTORS COMMITTEE MEETING

Thursday, September 8, 2016

PRESENT:	Chair	Eileen Benedict
	Directors	Mark Fisher Tom Greenaway Bill Miller Rob Newell Mark Parker Jerry Petersen
	Staff	Melany de Weerdt, Chief Administrative Officer Cheryl Anderson, Manager of Administrative Services Jason Llewellyn, Director of Planning – arrived at 1:50 p.m., left at 1:52 p.m. Roxanne Shepherd, Chief Financial Officer Corrine Swenson, Manager of Regional Economic Development – arrived at 1:52 p.m. Wendy Wainwright, Executive Assistant
	Others	Taylor Bachrach, Town of Smithers – left at 1:52 p.m. Darcy Repen, Village of Telkwa – left at 1:47 p.m.

CALL TO ORDER Chair Benedict called the meeting to order at 1:46 p.m.

AGENDA Moved by Director Greenaway
Seconded by Director Petersen

RDC.2016-8-1 "That the Rural Directors Committee Agenda for September 8, 2016 be approved."

(All/Directors/Majority) CARRIED UNANIMOUSLY

SUPPLEMENTARY AGENDA Moved by Director Parker
Seconded by Director Greenaway

RDC.2016-8-2 "That the Rural Directors Committee Supplementary Agenda be received."

(All/Directors/Majority) CARRIED UNANIMOUSLY

MINUTES

Rural Directors Committee Meeting Minutes -August 18, 2016 Moved by Director Petersen
Seconded by Director Parker

RDC.2016-8-3 "That the minutes of the Rural Directors Committee meeting of August 18, 2016 be received."

(All/Directors/Majority) CARRIED UNANIMOUSLY

REPORTS

Smithers District Chamber of Commerce – Request for Grant in Aid – Electoral Area "A" (Smithers Rural)

Moved by Director Fisher
Seconded by Director Newell

RDC.2016-8-4

"That the Rural Directors Committee recommend to the Regional District of Bulkley-Nechako Board of Directors that the Smithers District Chamber of Commerce be given $170.62 grant in aid monies from Electoral Area "A" (Smithers Rural) for the "Environmental Business of the Year Award" at the 2016 Community and Business Awards."

(All/Directors/Majority) CARRIED UNANIMOUSLY

Grassy Plains Community Hall – Request for Grant in Aid – Electoral Area "E" (Francois/Ootsa Lake Rural)

Moved by Director Miller
Seconded by Director Parker

RDC.2016-8-5

"That the Rural Directors Committee recommend to the Regional District of Bulkley-Nechako Board of Directors that the Grassy Plains Community Hall be given $6,532 grant in aid monies from Electoral Area "E" (Francois/Ootsa Lake Rural) to assist with the purchase of a riding lawn mower."

(All/Directors/Majority) CARRIED UNANIMOUSLY

DEVELOPMENT SERVICES

REFERRALS

Land Referral File No. 6408913 Town of Smithers Electoral Area "A"

Moved by Director Fisher
Seconded by Director Miller

RDC. 2016-8-6

"That the Regional District of Bulkley-Nechako Comment Sheet on Crown Land Referral 6408913 be provided to the Province as the Regional District's comments on Crown Land application 6408913."

(All/Directors/Majority) CARRIED UNANIMOUSLY

Land Referral File No. 7409861 Blue Jay Farms Ltd. Electoral Area "C"

Moved by Director Greenaway
Seconded by Director Petersen

RDC. 2016-8-7

"That the Regional District of Bulkley-Nechako Comment Sheet on Crown Land Referral 7409861 be provided to the Province as amended to include in "Other Comments: "The Province should ensure that all licence holders (the fort St. James Community Forest, the Murray Ridge Ski Area and the Fort St. James Gun Club) are consulted due to any conflicts of interest."

(All/Directors/Majority) CARRIED UNANIMOUSLY

REFERRALS (CONT'D)

Land Referral File No. 7409863 Darrell & Rosanne Ophus Electoral Area "F"

Moved by Director Petersen
Seconded by Director Parker

RDC. 2016-8-8

"That the Regional District of Bulkley-Nechako Comment Sheet on Crown Land Referral 7409863 be provided to the Province as the Regional District's comments on Crown Land application 7409863."

(All/Directors/Majority) CARRIED UNANIMOUSLY

Land Referral File No. 0258220 Henderson Electoral Area "F"

Moved by Director Petersen
Seconded by Director Parker

RDC. 2016-8-9

"That the Regional District of Bulkley-Nechako Comment Sheet on Crown Land Referral 0258220 be provided to the Province as the Regional District's comments on Crown Land application 0258220."

(All/Directors/Majority) CARRIED UNANIMOUSLY

SUPPLEMENTARY AGENDA

REPORTS

Fraser Lake Cops for Cancer – Request for Grant in Aid – Electoral Area "D" (Fraser Lake Rural)

Moved by Director Parker
Seconded by Director Miller

RDC.2016-8-10

"That the Rural Directors Committee recommend to the Regional District of Bulkley-Nechako Board of Directors that the Fraser Lake Cops for Cancer be given $600 grant in aid monies from Electoral Area "D" (Fraser Lake Rural) to assist with accommodation costs for the Cops for Cancer Riders."

(All/Directors/Majority) CARRIED UNANIMOUSLY

Rural Connectivity - Funding Research

Moved by Director Newell
Seconded by Director Miller

RDC.2016-8-11

"That the Rural Directors Committee receive the Manager of Regional Economic Development's September 7, 2016 memo titled "Rural Connectivity – Funding Research."

(All/Directors/Majority) CARRIED UNANIMOUSLY

Corrine Swenson, Manager of Regional Economic Development provided an overview of the Rural Connectivity – Funding Research.

Discussion took place regarding the possibility of using Grant in Aid funding for a feasibility study for Rural Connectivity. The potential cost to complete a feasibility study for the entire region was discussed.

REPORTS

Director Parker spoke to the service that is currently being provided by ABC Communications in Electoral Area "D" (Fraser Lake Rural). He noted that the LTE service is line of site and they have not indicated that they will be using relays to assist in expanding the LTE line of site ability. He mentioned that the coverage may not be sufficient.

Director Greenaway mentioned that Electoral Area "C" (Fort St. James Rural) utilizes satellite for internet coverage.

Discussion took place in regard to the need for on the ground information that will provide answers to what services are available, not available and what download and upload speeds are in the region.

Discussion took place regarding the ability to have staff utilize RDBN civic address mapping and mapping from Internet Service Providers (ISP) to determine the coverage that is available.

The potential and unknown costs of hiring a consultant along with the lack of funds available for a feasibility study were discussed.

Rural Connectivity - Funding Research

Moved by Director Miller
Seconded by Director Newell

RDC.2016-8-12

"That the Rural Directors Committee recommend that the Regional District of Bulkley-Nechako Board of Directors direct staff to further investigate the cost to hire a consultant; and further, that staff research the ability to utilize RDBN civic address mapping and Internet Service Provider mapping to determine areas that have a lack of internet coverage."

(All/Directors/Majority) CARRIED UNANIMOUSLY

NEW BUSINESS

Illegal Dumping within the RDBN

Director Fisher spoke of the illegal dumping issues within Electoral Area "A" (Smithers Rural). Discussion took place regarding the Conservation Officer Service needing to consult with Rural Directors not just the mayors in regard to commenting on what issues are occurring in rural areas that are under the jurisdiction of the Conservation Officer Service, Ministry of Environment.

Director Miller mentioned that the Ministry of Forests, Lands and Natural Resource Operations Compliance and Enforcement division also assists with illegal dump sites.

Staff will bring forward Illegal Dumping at a future Rural Directors Committee meeting for further discussion.

Meeting with Reckitt Benckiser September 12, 2016 – Prince George, B.C.

Director Petersen mentioned that along with himself, Directors Greenaway and Parker and Jason Llewellyn, Director of Planning will be attending in person the meeting with Reckitt Benckiser in Prince George on September 12, 2016. Chair Benedict, Director Miller and Melany de Weerdt, CAO will be attending via teleconference.

ADJOURNMENT

Moved by Director Newell
Seconded by Director Miller

RDC.2016-8-13

"That the meeting be adjourned at 2:25 p.m."

(All/Directors/Majority) CARRIED UNANIMOUSLY

Eileen Benedict, Chair

Wendy Wainwright, Executive Assistant

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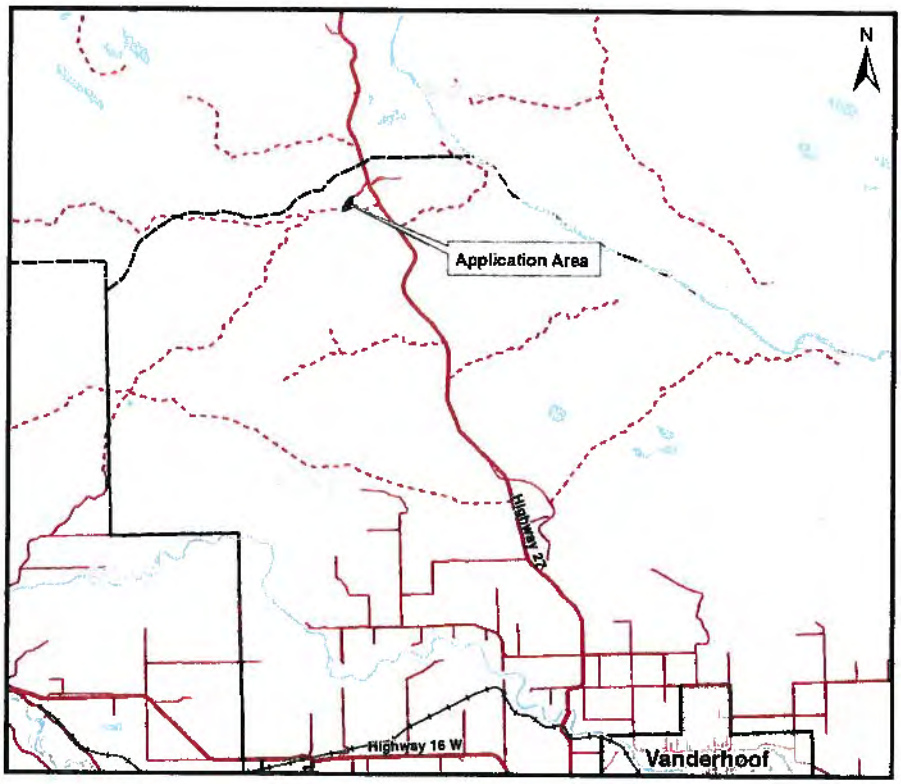
MEMORANDUM

To: Rural Directors
From: Jennifer MacIntyre, Planner I
Date: September 28, 2016
Re: Land Referral File No. 7409869 (YCS Holdings Ltd.)

This referral from the Province is for a coordinated application for a Licence of Occupation, and a Mines Notice of Work (NOW) to allow the applicant to develop the application area's aggregate resources. Both applications and consultation processes will be addressed at the same time.

The application area is located in the Dog Creek area, 19 km south of Fort St. James on Dog Creek FSR. The application area is 6 ha. in size.



The proposed operations includes the stockpiling, crushing, washing, and screening, of gravel; and, asphalt production. Approximately 25,000 m^3 of aggregate per year will be extracted. The proposed term of operation is 20 years and is proposed to start April, 2017. The work season will be from April to November ending in 2026.

Land Use Regulations

The Mine Plan submitted by the proponent states that;

> *"There is no OCP designation or any land use zoning" (Page 3).*

This statement is incorrect. The application area is zoned Rural Resource (RR1) under RDBN Zoning Bylaw No 700, 1993 and is designated Resource (RE) under Vanderhoof Rural Official Community Plan, Bylaw No. 1517, 2009.

The proposed asphalt production and crushing of aggregates is not permitted in the RR1 Zone. Therefore, the applicant must apply to rezone the property to Heavy Industrial (M2) or obtain a Temporary Use Permit if they wish to use the property for the crushing of gravel or asphalt production as proposed in the Mine Plan.

When the Province issues licenses or permits for uses which are not legally permitted on the land it often creates enforcement and compliance issues for the Regional District. Therefore, it is recommended that the Province not issue a Licence of Occupation and Mines NOW for uses which are not legally permitted on that land.

Resident Consultation

There has been several cases of illegal asphalt plants illegally operating on Crown lands under a license of occupation within the Dog Creek area. The most recent situation was in September 2016.

The Dog Creek area contains a residential subdivision that includes 26 residences. The nearest residence is 1.5 km away from the application area. Given the long history of repeated illegal use of Crown land for asphalt production in the area it is expected that residents will have an interest in this application. Therefore, it is recommended that residents of Kenner Road, Cook Road, and Hawk Road be consulted by the Province as part of their application review process.

Recommendation:

That the attached comment sheet be provided to the Province as the Regional District's comments on Crown land application 7409869.

Rural Directors – All/Directors/Majority

Reviewed by:

Jason Llewellyn
Director of Planning

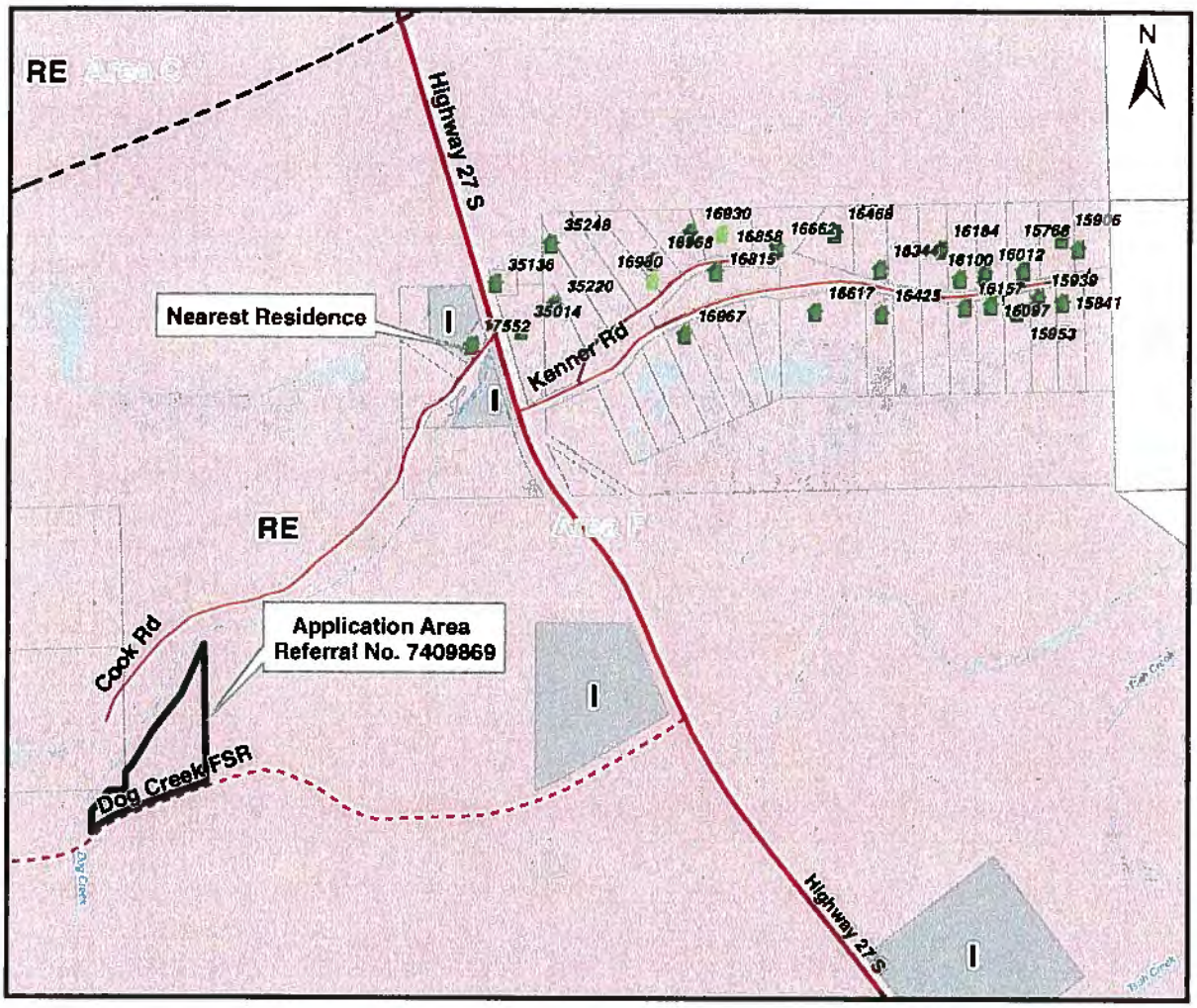
Written by:

Jennifer MacIntyre
Planner I

REGIONAL DISTRICT OF BULKLEY-NECHAKO COMMENT SHEET ON CROWN LAND REFERRAL 7409869

Electoral Area:	F
Applicant:	YCS Holdings Ltd.
Existing Land Use:	Vacant
Zoning:	Rural Resource (RR1)
Plan Designation	Resource (RE)
Proposed Use Comply With Zoning:	No
Agricultural Land Reserve:	Not within the ALR
Access Highway:	Dog Creek FSR
Archaeological Site:	Not according to Provincial mapping
Building Inspection:	Outside the building inspection area
Fire Protection:	Outside the Rural Fire Protection Area
Other comments:	As noted above the land is zoned Rural Resource (RR1) under RDBN Zoning Bylaw No 700, 1993 and is designated Resource (RE) under Vanderhoof Rural Official Community Plan, Bylaw No. 1517, 2009 contrary to the information provided in the application. The RR1 zone does not allow the crushing of gravel or the operation of an asphalt plant. It is recommended that all of the property owners on Kenner Road, Cook Road, and Hawk Road be consulted by the Province as part of their application review process. It is recommended that the Province not issue a license of occupation or Mines Notice of Work for Crown Land for uses that may not legally occur on that land pursuant to Regional District Zoning Bylaw No. 700, 1993. If the proposal is approved by the Province, the Province is asked to inform the applicant in writing that the use of the property is subject to local government zoning and that they must obtain RDBN approval if they wish to use the property for gravel crushing or asphalt production.

Zoning Map:


N
RE
Area C
Highway 27 S
Nearest Residence
I
Kenner Rd
RE
Area F
Cook Rd
Application Area
Referral No. 7409869
Dog Creek FSR
Dog Creek
Highway 27 S
Fish Creek
35248
16830
16858
16868
16652
16468
16184
15766
15906
35136
16960
16815
18344
16100
16012
35220
16617
16425
16157
15939
35014
16967
16097
15841
17552
15853

11

YCS Holdings Ltd. (dba Pittman Asphalt)

Mine Plan for the Dog Creek Aggregate Operation
Mine Development Period 2017 to 2026

Looking north across the proposed Dog Creek Aggregate Operation and existing MOTI operations

Map Sheet 093K.029 - UTM 10U: 416648E and 6014683N
Mine No. 1641360

GRAFF ENGINEERING INC.

August 2016

1.0 Introduction

This mine plan is being submitted by YCS Holdings Ltd. (dba Pittman Asphalt) (YCS), as a requirement of the ***Mines Act, RSBC 1996, Chapter 293*** *(Mines Act)* and the **Health, Safety and Reclamation Code for Mines in BC, 2008** (Code) for the proposed **Dog Creek Aggregate Operation** located near Ft. St. James, BC.

2.0 Project Overview

The project site is located on unsurveyed crown land in the vicinity of Dog Creek (Figure 1). The site is located ~19.9 km south of the center of Ft. St. James along Hwy 27 to Dog Creek FSR, and then ~1.5 km to the operating pit area.

This mine plan covers the mine development of the site between the years 2017 to 2026. It is expected that mining of the aggregate reserves over the next ten (10) years will be at a nominal mining rate of 25,000 m^3 or 50,000 tonnes per year, which will be used in production of asphalt and other construction by the company.

The mining area will be developed from a south to north direction, with widening to the west and east as required to allow for proper development. The northern (development) area of the mine permit area will be utilized for product stockpile development, while the area along the Dog Creek FSR will be used for topsoil/mineral soil stockpiles.

The proposed extraction (mining) faces will be three (3) to a maximum of seven (7) meters in height (Figure 4). These faces will be mined in accordance with **Part 6.23.4** of the Code. The mine development will result in ultimate pit walls along the limits of the development to be either at a 2:1 slope gradient and/or day lighted to contour.

It is anticipated that the mining and development will comply with the requirements of the *Mines Act* and Code. The operational intent for this proposal will be to locate equipment (mobile asphalt plant, loaders, trucks, crushing and screening plants) to the site during the work season (April to November).

The development is not expected to have any environmental and/or socio-community impacts given its relatively small size and comprehensive Mine Emergency Response Plan – MERP, where by the potential impacts should be limited. The company will have in-place; plans for archaeological chance find procedures and MERP (including fuel management & spill contingencies). Note: These particular plans are part of the attached.

The aggregate extraction project is expected to be developed in an environmentally sensitive manner, and YCS proposes to accomplish this by implementing plans, utilizing technology and using industry standard "best management practices" (BMP's) such as following the guidelines set forth by the *"Aggregate Operators Best Management Practices Handbook for British Columbia (April, 2002)"*

http://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/mineral-exploration-mining/documents/permitting/agg_bmp_hb_2002vol1.pdf

The company's objections will always be to either eliminate and/or minimize potential environment impacts associated with the project. It is expected that standard BMP's for sediment and erosion control procedures for aggregate operations in BC will be more than adequate for this particular site.

It should be noted that YCS is proposing during development, that a 5 meter buffer will remain between the LoO boundary and other portions of adjoining crown land, and will as well maintain a minimum forty (40) meter buffer between the operation and Dog Creek which is located north of the site, at all times.

Previous mining over the years by YCS on other properties in the northeast have not created any serious environmental impacts from their mining activities; therefore if this operation is developed following the "existing" mining operational philosophy, then there should be minimal if any potential impacts.

3.0 Project Description

3.1 Description of Work

The area of the proposed development is on un-surveyed crown land and is within the immediate vicinity of other aggregate extraction operations, which have been actively operated over the past several decades. The potential for aggregate materials from this particular site are based on a recent investigative test pit program and on other adjoining aggregate operations.

This mine (development) plan consists of operations, decommissioning of components and associated activities that would be typical for any small sized aggregate (sand and gravel) operation in BC.

As indicated previously, the operation will be in compliance with the Code, and will utilize the following equipment – loaders, excavators, tandem dump trucks, crushing and screening plants (when required) for excavation of aggregate products for the mobile asphalt plant and/or other construction requirements. The operation will use typical equipment similar to the Cat 966E - Front End Loaders, Cat 320C – excavator and tandem dump trucks.

3.2 Mine Plan

As previously stated the mining area will be developed from a south to north direction, with widening to the west and east as required to allow for proper development. The northern (development) area of the mine permit area will be utilized for product stockpile development, while the area along the Dog Creek FSR will be used for topsoil/mineral soil stockpiles.

The proposed extraction (mining) faces will be three (3) to a maximum of seven (7) meters in height (Figure 4). These faces will be mined in accordance with **Part 6.23.4** of the Code. The mine development will result in ultimate pit walls along the limits of the development to be either at a 2:1 slope gradient and/or day lighted to contour.

There will not be a requirement for an *Environmental Management Act* – Effluent Permit given that the project is not anticipated to have any effluent discharge. The control of any TSS and turbidity of any contact surface waters (if required) will be achieved through use of erosion and sediment control measures, such as a sediment control ponds, silt fencing and straw (hay) bales. If there is any run-off developed from the operations which is not expected, than prior to release from the site, the TSS and turbidity criteria level values will meet provincial and federal guidelines.

3.3 Present State of Land

The project site is located within the Stuart Dry Warm Sub-Boreal Spruce (SBS) and subzone dw3 Biogeoclimatic unit. The climate of the SBSdw3 is warm relative to other Biogeoclimatic units in this region. Winter precipitation is relatively low for the subzone with snow packs generally accumulating up to about 2m in depth. Climatic growth-limiting factors are drought on drier sites and frost on frost-prone sites.

According to "*Ecosystems of British Columbia - BC Ministry of Forests*" and other sources, the following list of tree species are most commonly found in the SBSdw3 unit. Coniferous forests in this unit tend to be mixtures of Lodgepole pine, Douglas-fir, and hybrid white spruce with Lodgepole pine and/or Douglas-fir dominating on drier sties and hybrid white spruce dominating on wetter sites.

In an effort to achieve the above association, YCS will replant the site with Lodgepole pine and Douglas-fir. It is anticipated that some natural revegetation of shrubs and/or herbs such as Pinegrass, Cladonia, Feathermoss and Ricegrass will occur almost immediately following reclamation activities.

The vegetative cover for the site is currently "forested" consisting of a mixture of immature second growth forest plantation and older age trees typical of this Biogeoclimatic unit. The site is classified as upland landscape, which is treed (coniferous) but sparse. Figure 3 which is attached provides an excellent orthophoto view of the proposed aggregate operation, at this time.

There is no official community plan designation for the site and/or any land use zoning. It is expected that YCS will maintain an end land use of wildlife habitat and/or forestry for the site.

The topography of the site is gentle, and is dry with no watercourses that will be affected by the operations. Specifically, there are no ephemeral creeks and/or small wetland complexes within the land base.

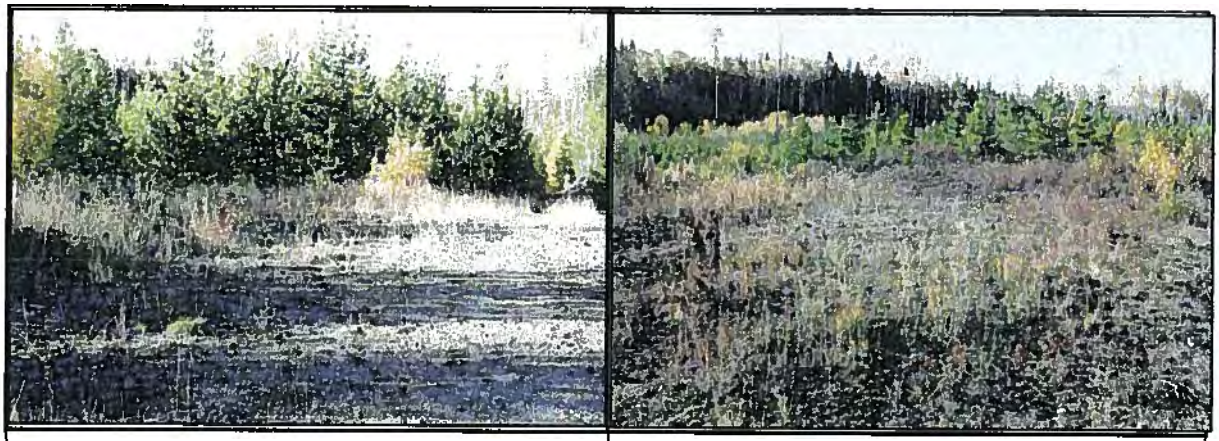
The development area is outside the ALR, but is within the Ft. St. James Timber Business Sales Area.

There are no known overlapping uses for the area, and the proposed aggregate operation should have minimal impacts given required compliance with the Code.

YCS will maintain a minimum forty (40) meter buffer between the operation and Dog Creek which is located north of the site, at all times.

The soils within proposed site are predominantly morainal materials. These deposits consist of gravelly clay loam and loam textures, associated with Gray Luvisolic soils, including Brunisolic Gray Luvisolics. Dystric Brunisols have formed on the coarser (gravelly sandy loam) morainal materials. Organic soils (Fibrisols) occur as a minor component of the morainal landscape. For this site, the soils tend to be very dry, and the retained nutrients are very poor to medium rich in quality. The thickness of the soil is limited; however YCS accepts the challenge to reclaim to the above preferred SBSdw3 species. It should be noted that every effort will be undertaken to achieve reclamation to these tree species.

Given the minimal soil depth, the salvage and stockpiling of these soils within a strategic location such as along the boundaries of the LoO and existing Dog Creek FSR, will be very important for YCS.



Typical present state of the area – August 2015	Typical present state of the area – August 2015

3.4 Reclamation

Reclamation Objectives

The reclamation of the Dog Creek Aggregate Project will follow the general guidelines recommended by Part **10.7.1** to **10.7.10** of the Code. It will be the intent of YCS, to prevent long-term environmental impacts at the site and to eliminate potential health and safety issues, as required. It is expected that the reclamation program will foster return to appropriate and functional values on the site.

The objective of the reclamation plan that follows is to create a physically stable environment, which is consistent with the requirements of the Code.

The end land use of the site will be a return to forestry values, which support wildlife habitat. To accomplish this, the following is proposed:

- Soil productivity and hydrologic function will be re-established to the extent possible. During development YCS will ensure all topsoil/sub-grade mineral soils have been salvaged, stockpiled and protected for use in reclamation of the site;
- The land surface and access roads will be left in a state that ensures long-term stability. As there is no surface drainages on site, they will not need to be restored; and
- The site will be re-vegetated to a self-sustaining state using suitable tree species as indicated previously.

It should be noted that YCS, reserves the right to have an opportunity for the reclamation plan to be refined during the operational period of the project. After closure, the site will be left in a safe and secure manner for the long-term with no projected maintenance.

Invasive Plant Management

In general terms, the invasive plant management for the site will include measures to prevent and control invasive plants and/or noxious weeds from becoming established on the site, including soil stockpiles, product stockpiles and site roads. In particular, invasive plant management on the site will emphasize stripping only the required amount of surface areas for short term mining, completion of rapid revegetation of cleared areas through growth of grasses, and undertake vigilant prevention and removal of problem plants during all phases of the project, in order to prevent the establishment and

spread of invasive and noxious plant species. Invasive plant management will be applied and be adaptively managed at the site.

The approach for the ensuring success with invasive plants will include:

- Prevention of invasive and noxious plant species establishment through use of best management practices (BMP's), such as minimizing soil disturbance, ensuring that at all equipment taken to the site has been thoroughly cleaned, and all soil & overburden stockpiles are covered (seeded) with a interior erosion control seed mixture;
- Proper identification and knowledge of invasive and noxious plant species gained through review of various publications provided by the Invasive Species Council of BC;
- All non-native invasive plant species, listed in the BC Weed Control regulations, as well as those priority invasive plant species listed by Invasive Species Council of BC, will be removed annually from the site prior to seed set. Native trees and shrubs that have establish naturally on the soil stockpiles and other stripped areas will be retained, as much as possible;
- Inventories, mapping, and monitoring of invasive and noxious plant species on the site, will be annually completed by the company;
- YCS will combine invasive plant management, with methods such as mechanical and biological controls; and
- YCS will periodically contract, if necessary, a qualified professional for invasive and noxious plant species management assessment of the site.

General Reclamation Concepts

In general, following finalization of mining operations, all equipment will be removed, the access road(s) will be decommissioned, and the site reclaimed to the noted above standard. The (final) reclamation activities will commence immediately once weather conditions are favorable for working the soil, and after all the product stockpiles have been removed from the site. Any final pit walls, which have not been resloped to 2:1 slope angle as part of operations will be recontoured, and any remaining pit floor and access roads that have not been scarified will be, then they will be capped with salvaged soils and revegetated (replanted) with the trees as indicated in Section 3.3 above.

Table 1 below provides a plan of reclamation activities for the project.

Table 1 Status of Area of Disturbance

Date	Undisturbed Area (ha)	Mining/Washing/SP Area (ha)	Reclamation Completed (ha)	Total Area (ha)
August 2016	6.1	0.0	0.0	6.1
August 2021	1.0	4.5	0.6	6.1
August 2026	1.0	0.0	5.1	6.1

It is expected that overall, the reclamation activities for the site will generally consist of the following:

- During operations, stripping and stockpiling of topsoil and sub-grade mineral soil will be undertaken, whereby both the topsoil and sub-grade mineral soils will be mixed together given the negligible amounts of soils. The topsoil/sub-grade mineral soils will continue to be stripped to rooting depth. Working of soils during wet conditions will continue to be avoided and/or minimized. The (salvaged) soil stockpiles will be clearly delineated from adjacent areas in order to prevent equipment from driving over the stockpiles and/or mixing aggregate materials with soils throughout the operational periods. This delineation will be developed by stockpiling (windrowed) soils along the LoO boundaries. The soil stockpiles will be constructed with 3:1 slopes, average 3m in height and will not be moved and/or disturbed during operations, expect when required for use in the reclamation of the site. The soil stockpiles will be seeded with an appropriate interior seed mixture, in order to prevent erosion and/or noxious weed invasion. Noxious weeds will be controlled by both mechanical and/or chemical (approved weed control products) means, as necessary;
- Utilization of soil salvage stockpiles for reclamation purposes will include soil replacement onto resloped pit faces, and placement of soils onto the scarified pit floor areas. The replaced soil materials will be left in a rough and loose mounded condition, in order to create micro sites to aid vegetation establishment, promote soil moisture infiltration and minimize the development of rills and channels for water erosion;
- Reclamation operations will establish final (ultimate) pit walls to a 2:1 slope angle;
- There will be re-contouring of any sediment basins constructed;
- The compaction of pit floors and access roads will be scarified by tilling with a winged sub-soiler to a minimum 50 cm depth;
- Decommissioning and removal of all mine site infrastructure will occur;
- If required, hydro seeding, fertilizing and application of a mulch application would be undertaken, to enhance revegetation and/or prevent erosion. The proposed hydro seeding mix might consist of 50 kg/ha of perennial native interior seed mix, 2,000 kg/ha of wood fibre mulch with 80 kg/ha non-asphaltic tackifier. Reclaimed areas would be completely seeded with the grass/legume mix to control erosion and/or maintain or increase soil productivity. Some quick establishing agronomic species such as hard fescue, alsike clover, white clover and hairy wild rye would be used in revegetation efforts of the reclaimed areas, since they are usually successful in a variety of site/soil types and climates. Fertilizer/lime addition maybe required before or after seeding depending on soil fertility. However, if possible fertilizer use will be kept to a minimum in order to help favour encroachment by native vegetation species. If required the initial fertilizer application would be limited to nitrogen and sulphur, with addition later of potassium or phosphorus. A fertilizer formulation of 34-0-0-11 (NPKS) is suggested with an application at a rate of 50 to 100 kg/ha, in order to promote initial establishment, followed by a slow release (nitrogen) formulation of 25-4-10 at an application rate of 50 kg/ha. The proposed interior (erosion control) seed mix would have a range of years of longevity after application. Most annuals will die out after 2 to 3 years, at which by this time other native grasses and herbs will have been established on the site;
- To promote structural and species diversity for the benefit of wildlife habitat and biodiversity, tree planting in clusters using the suggested trees species as noted in Part II, along with some deciduous tree species will be undertaken as part of the reclamation program. YCS will have

tree seedlings planted on site to achieve a target stocking rate of 900, well-spaced trees per hectare at the free growing stage. To achieve this target, approximately 1350 seedlings/ha (coniferous and deciduous combined) will be planted;
- There will be placement of appropriate signage and marker berms to indicate potential hazards;
- If necessary there will be a completion of a soil sampling and testing program that would delineate any contaminated areas as required by the *Contaminated Site Remediation, Environmental Management Act;* and
- There will be post-closure maintenance and monitoring programs carried out for two (2) years, as necessary.

It will always be the intent of YCS to achieve the following reclamation goals:

- Minimize or eliminate public safety hazards;
- Minimize potential effects to the environment, particularly water resources;
- Provide long-term stable landform configurations;
- Reclaim surface disturbances for beneficial use; and
- Minimize the requirements for post-closure monitoring and maintenance.

The goals of the reclamation plan will be to provide the necessary details of the reclamation objectives, and to provide an opportunity for the plan to be refined during the operational period of the project. After closure work has been completed, the project will be left in a safe and secure manner for the long-term with little projected maintenance.

YCS will deem the reclamation successful, if the following performance criteria and trends are observed:

- Soils are stable and no rill or gully erosion is occurring;
- Native plant species cover is increasing annually;
- Non-native invasive plant species are not present on the site; and
- A self sustaining, free-growing forest stand has been established that exceeds the minimum stocking standard suggested.

Long-term Stability

With no settling or tailings ponds, dams or waste dumps this means that there will not be a requirement for additional maintenance to ensure long-term physical stability on the site. With all physical structures being removed from the property during final reclamation, it can be appropriately decommissioned and reclaimed for long-term stability as required under the *Mines Act.*

If you have any questions, please contact the undersigned by email Erwin.Spletzer@terusconstruction.ca or (604) 575-3689.

Regards

Erwin Spletzer – Aggregate Manager
YCS Holdings Ltd. (dba Pittman Asphalt)
Cell: (250) 575-3473

19

YCS Holdings Ltd. (dba Pittman Asphalt)

August 6, 2016

Front Counter BC
5th Floor – 499 George Street
Prince George, BC V2L 1R5

FrontCounterBC@gov.ca

Re: Management Plan for a License of Occupation Application – Dog Creek Aggregate Project

YCS Holdings Ltd. (dba Pittman Asphalt) **(YCS)** has developed the following Management Plan to accompany its License of Occupation (LoO) Application – Tracking No. **100172929**, for the above noted project.

Section A – Project Overview

The project as proposed is a long-term development of a sand and gravel (aggregate) operation by YCS on a fairly flat area of ~ 6.1 ha more or less of un-surveyed crown land in the vicinity of Dog Creek. The plan for the parcel will be for development of a long-term (20 year) aggregate extraction operation by YCS, in which approximately 25,000m^3 per year will be extracted starting in April 2017. An "initial" mining area of ~3.0 ha will be developed over the time period of 2017 to 2021. For further details on the project can be found in the recently submitted **Notice of Work Application – Mine Plan Development Report, August 2016,** which has a Tracking No. **100172931**.

The LoO Application will require clearing (logging) of both older and second growth forest for mining and storage of topsoil, mineral soil, overburden and saleable products. During development, a 5 meter buffer will remain between the LoO boundary and other portions of adjoining crown land. A point of reference (SE corner of LoO boundary) is at UTM (10U) 41677SE and 6014621N (Figure 2). The land within LoO boundary (red outline) application is located ~19.9 km from the south of the center of Ft. St. James by going along Hwy 27 to the Dog Creek FSR, and then go ~1.5 km to the operating pit area (Figure 1).

It is anticipated that all mining and development activities will comply with the *Mines Act* and Health Safety and Reclamation Code for Mines in BC, 2008 (Code). To this end, YCS has applied to the Ministry of Energy and Mines (MEM) for a *Mines Act* permit for the mining (extraction) operation, as noted above.

The operational intent will be to locate equipment to the site during the work (summer) season (April to end of November).

The aggregate extraction project is expected to be developed in an environmentally sensitive manner, and YCS proposes to accomplish this by implementing plans, utilizing technology and using industry standard "best management practices" (BMP's) such as following the guidelines set forth by the *"Aggregate Operators Best Management Practices Handbook for British Columbia (April, 2002)"*

http://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/mineral-exploration-mining/documents/permitting/agg_bmp_hb_2002vol1.pdf

The company's objections will always be to either eliminate and/or minimize potential environment impacts associated with the project. It is expected that standard BMP's for sediment and erosion control procedures for aggregate operations in BC will be more than adequate for this particular site.

Location: 4955 Sandberg Road, Prince George BC, V2M 7B4 **Tel:** (250) 564-9444 **or Fax** (250) 563-7121
Mailing Address: PO Box 2370, Prince George, BC, V2N 256

Section B – Project Description

Part I – Description of Work

The site will be operated by YCS Holdings Ltd. (dba Pittman Asphalt) who has several decades of aggregate operational experience within the Prince George area.

The area of the proposed development is on un-surveyed crown land and is within the immediate vicinity of other aggregate extraction operations, which have been actively operated over the past several decades. The potential for aggregate materials from this particular site are based on a recent investigative test pit program and other adjoining aggregate operations.

The *Mines Act – Notice of Work Application* which has been submitted provides additional details on all required information pertaining to the pit development that is located within the boundaries of the parcel (red outline) shown on Figure 2.

It should be noted that initial extraction (mining) area will have a maximum height of seven (7) meters, which will be in compliance with Part 6.23.4 of the Code. Following development of the initial area, the mining faces will be reduced to a maximum height of three (3) meters within the final development area. On completion of mining, the pit faces will be resloped to a 2:1 slope angle and resurfaced with stockpiled soils. As noted in Figure 2, with stockpiles of product and topsoil/mineral soil, it is expected that a majority of the 6.1 ha LoO area will be utilized in some form during operations.

The mining and pit operations will be seasonal between April and the end of November, with activities driven by demand for the final products. The first year of operations will involve clearing the site for establishment of appropriate operating areas.

The aggregate extraction configuration will be capable of utilizing conventional mining equipment, and given that this project is a simple operation, there will be no waste rock dumps, no (milling) processing facility or any tailings facility, and no washing of materials; therefore the required engineering evaluations are limited for the project.

There will not be a requirement for an *Environmental Management Act* – Effluent Permit, as the project is not anticipated to have any effluent discharge. The control of TSS and turbidity of any contact surface waters will be achieved through use of erosion and sediment control measures such as sediment ponds, silt fencing and straw (hay) bales. The site will have in place a sediment and erosion control BMP, which will be submitted as part of the *Mines Act* permit application.

This particular development is not expected to have any environmental or socio-community impacts given its relativity small size.

The project will be developed in an environmentally sensitive manner, and YCS proposes to accomplish this by implementing plans, utilizing technology and using industry standard "best management practices" (BMP's) in order to either eliminate or minimize any environmental impacts that might occur from the operational areas.

Part II - Present State of Land

- There is no known local government zoning for this particular area of interest.
- The current and end land use for the area is wildlife/forestry.
- The topography of the site is gentle, and
- The site is dry and there are no watercourses that will be affected by the investigation.

The project site is located within the Stuart Dry Warm Sub-Boreal Spruce (SBS) and subzone dw3 Biogeoclimatic unit. The climate of the SBSdw3 is warm relative to other Biogeoclimatic units in this region. Winter precipitation is relatively low for the subzone with snow packs generally accumulating up to about 2m in depth. Climatic growth-limiting factors are drought on drier sites and frost on frost-prone sites.

According to "Ecosystems of British Columbia - BC Ministry of Forests" and other sources, the following list of tree species are most commonly found in the SBSdw3 unit. Coniferous forests in this unit tend to be mixtures of Lodgepole pine, Douglas-fir, and hybrid white spruce with Lodgepole pine and/or Douglas-fir dominating on drier sties and hybrid white spruce dominating on wetter sites.

In an effort to achieve the above association, YCS will replant the site with Lodgepole pine and Douglas-fir. It is anticipated that some natural revegetation of shrubs and herbs such as Pinegrass, Cladonia, Feathermoss and Ricegrass will occur almost immediately following reclamation activities.

The vegetative cover for the site is currently "forested" consisting of a mixture of immature second growth forest plantation and older age trees typical of this Biogeoclimatic unit. The site is classified as upland landscape, which is treed (coniferous) but sparse. Figure 3 which is attached provides an excellent orthophoto view of the LoO parcel of interest at this time.

There is no official community plan designation for the site and/or any land use zoning. It is expected that YCS will maintain an end land use of wildlife habitat and/or forestry for the site.

The development area is outside the ALR, but is within the Ft. St. James Timber Business Sales Area.

There are no known overlapping uses for the area, and the proposed aggregate operation should have minimal impacts given required compliance with the Code.

There are no watercourses on-site, specifically no ephemeral creeks and/or small wetland complexes within the land base.

YCS will maintain a minimum forty (40) meter buffer between the operation and Dog Creek which is located north of the site, at all times.

The soils within proposed site are predominantly morainal materials. These deposits consist of gravelly clay loam and loam textures, associated with Gray Luvisolic soils, including Brunisolic Gray Luvisolics. Dystric Brunisols have formed on the coarser (gravelly sandy loam) morainal materials. Organic soils (Fibrisols) occur as a minor component of the morainal landscape. For this site, the soils tend to be very dry, and the retained nutrients are very poor to medium rich in quality. The thickness of the soil is limited; however YCS accepts the challenge to reclaim to the above preferred SBSdw3 species. It should be noted that every effort will be undertaken to achieve reclamation to these tree species.

Given the minimal soil depth, the salvage and stockpiling of these soils within a strategic location such as along the boundaries of the LoO and existing Dog Creek FSR, will be very important for YCS. **Note:** A discussion of soil salvage and handling is covered later in Part III – Reclamation Section of this document, along with reclamation and invasive plant management for the site.

Part III - Reclamation

Reclamation Objectives

The reclamation of the Dog Creek Aggregate Project will follow the general guidelines recommended by Part 10.7.1 to 10.7.10 of the Code. It will be the intent of YCS, to prevent long-term environmental impacts at the site and to eliminate potential health and safety issues, as required. It is expected that the reclamation program will foster return to appropriate and functional values on the site.

The objective of the reclamation plan that follows is to create a physically stable environment, which is consistent with the requirements of the Code.

The end land use of the site will be a return to forestry values, which support wildlife habitat. To accomplish this, the following is proposed:

- Soil productivity and hydrologic function will be re-established to the extent possible. During development YCS will ensure all topsoil/sub-grade mineral soils have been salvaged, stockpiled and protected for use in reclamation of the site;

- The land surface and access roads will be left in a state that ensures long-term stability. As there is no surface drainages on site, they will not need to be restored; and
- The site will be re-vegetated to a self-sustaining state using suitable tree as indicated in Part II above.

It should be noted that YCS, reserves the right to have an opportunity for the reclamation plan to be refined during the operational period of the project. After closure, the site will be left in a safe and secure manner for the long-term with no projected maintenance.

Invasive Plant Management

In general terms, the invasive plant management for the site will include measures to prevent and control invasive plants and/or noxious weeds from becoming established on the site, including soil stockpiles, product stockpiles and site roads. In particular, invasive plant management on the site will emphasize stripping only the required amount of surface areas for short term mining, completion of rapid revegetation of cleared areas through growth of grasses, and undertake vigilant prevention and removal of problem plants during all phases of the project, in order to prevent the establishment and spread of invasive and noxious plant species. Invasive plant management will be applied and be adaptively managed at the site.
The approach for the ensuring success with invasive plants will include:

- Prevention of invasive and noxious plant species establishment through use of best management practices (BMP's), such as minimizing soil disturbance, ensuring that at all equipment taken to the site has been thoroughly cleaned, and all soil & overburden stockpiles are covered (seeded) with a interior erosion control seed mixture;
- Proper identification and knowledge of invasive and noxious plant species gained through review of various publications provided by the Invasive Species Council of BC;
- All non-native invasive plant species, listed in the BC Weed Control regulations, as well as those priority invasive plant species listed by Invasive Species Council of BC, will be removed annually from the site prior to seed set. Native trees and shrubs that have establish naturally on the soil stockpiles and other stripped areas will be retained, as much as possible;
- Inventories, mapping, and monitoring of invasive and noxious plant species on the site, will be annually completed by the company;
- YCS will combine invasive plant management, with methods such as mechanical and biological controls; and
- YCS will periodically contract, if necessary, a qualified professional for invasive and noxious plant species management assessment of the site.

General Reclamation Concepts

In general, following finalization of mining operations, all equipment will be removed, the access road(s) will be decommissioned, and the site reclaimed to the noted above standard. The (final) reclamation activities will commence immediately once weather conditions are favorable for working the soil, and after all the product stockpiles have been removed from the site. Any final pit walls, which have not been resloped to 2:1 slope angle as part of operations will be recontoured, and any remaining pit floor and access roads that have not been scarified will be, then they will be capped with salvaged soils and revegetated (replanted) with the trees as indicated in Part II above.

It is expected that overall, the reclamation activities for the site will generally consist of the following:

- During operations, stripping and stockpiling of topsoil and sub-grade mineral soil will be undertaken, whereby both the topsoil and sub-grade mineral soils will be mixed together given the negligible amounts of soils. The topsoil/sub-grade mineral soils will continue to be stripped to rooting depth. Working of soils during wet conditions will continue to be avoided and/or minimized. The (salvaged) soil stockpiles will be clearly delineated from adjacent areas in order to prevent equipment from driving over the stockpiles and/or mixing aggregate materials with soils throughout the operational periods. This delineation will be developed by stockpiling (windrowed) soils along the LoO boundaries. The soil stockpiles will be constructed with 3:1 slopes, average 3m in height and will not

be moved and/or disturbed during operations, expect when required for use in the reclamation of the site. The soil stockpiles will be seeded with an appropriate interior seed mixture, in order to prevent erosion and/or noxious weed invasion. Noxious weeds will be controlled by both mechanical and/or chemical (approved weed control products) means, as necessary;

- Utilization of soil salvage stockpiles for reclamation purposes will include soil replacement onto resloped pit faces, and placement of soils onto the scarified pit floor areas. The replaced soil materials will be left in a rough and loose mounded condition, in order to create micro sites to aid vegetation establishment, promote soil moisture infiltration and minimize the development of rills and channels for water erosion;
- Reclamation operations will establish final (ultimate) pit walls to a 2:1 slope angle;
- There will be re-contouring of any sediment basins constructed;
- The compaction of pit floors and access roads will be scarified by tilling with a winged sub-soiler to a minimum 50 cm depth;
- Decommissioning and removal of all mine site infrastructure will occur;
- If required, hydro seeding, fertilizing and application of a mulch application would be undertaken, to enhance revegetation and/or prevent erosion. The proposed hydro seeding mix might consist of 50 kg/ha of perennial native interior seed mix, 2,000 kg/ha of wood fibre mulch with 80 kg/ha non-asphaltic tackifier. Reclaimed areas would be completely seeded with the grass/legume mix to control erosion and/or maintain or increase soil productivity. Some quick establishing agronomic species such as hard fescue, alsike clover, white clover and hairy wild rye would be used in revegetation efforts of the reclaimed areas, since they are usually successful in a variety of site/soil types and climates. Fertilizer/lime addition maybe required before or after seeding depending on soil fertility. However, if possible fertilizer use will be kept to a minimum in order to help favour encroachment by native vegetation species. If required the initial fertilizer application would be limited to nitrogen and sulphur, with addition later of potassium or phosphorus. A fertilizer formulation of 34-0-0-11 (NPKS) is suggested with an application at a rate of 50 to 100 kg/ha, in order to promote initial establishment, followed by a slow release (nitrogen) formulation of 2S-4-10 at an application rate of 50 kg/ha. The proposed interior (erosion control) seed mix would have a range of years of longevity after application. Most annuals will die out after 2 to 3 years, at which by this time other native grasses and herbs will have been established on the site;
- To promote structural and species diversity for the benefit of wildlife habitat and biodiversity, tree planting in clusters using the suggested trees species as noted in Part II, along with some deciduous tree species will be undertaken as part of the reclamation program. YCS will have tree seedlings planted on site to achieve a target stocking rate of 900, well-spaced trees per hectare at the free growing stage. To achieve this target, approximately 1350 seedlings/ha (coniferous and deciduous combined) will be planted;
- There will be placement of appropriate signage and marker berms to indicate potential hazards;
- If necessary there will be a completion of a soil sampling and testing program that would delineate any contaminated areas as required by the *Contaminated Site Remediation, Environmental Management Act;* and
- There will be post-closure maintenance and monitoring programs carried out for two (2) years, as necessary.

It will always be the intent of YCS to achieve the following reclamation goals:

- Minimize or eliminate public safety hazards;
- Minimize potential effects to the environment, particularly water resources;
- Provide long-term stable landform configurations;
- Reclaim surface disturbances for beneficial use; and
- Minimize the requirements for post-closure monitoring and maintenance.

The goals of the reclamation plan will be to provide the necessary details of the reclamation objectives, and to provide an opportunity for the plan to be refined during the operational period of the project. After

closure work has been completed, the project will be left in a safe and secure manner for the long-term with little projected maintenance.

YCS will deem the reclamation successful, if the following performance criteria and trends are observed:

- Soils are stable and no rill or gully erosion is occurring;
- Native plant species cover is increasing annually;
- Non-native invasive plant species are not present on the site; and
- A self sustaining, free-growing forest stand has been established that exceeds the minimum stocking standard suggested.

Long-term Stability

With no settling or tailings ponds, dams or waste dumps this means that there will not be a requirement for additional maintenance to ensure long-term physical stability on the site. With all physical structures being removed from the property during final reclamation, it can be appropriately decommissioned and reclaimed for long-term stability as required under the *Mines Act*.

Section C – Additional Information

The development is not expected to have any environmental or socio-community impacts given its relatively small size and/or location. The company will have in-place; plans such as archaeological chance find procedures, sediment and erosion control, mine emergency response plan, fuel management and spill contingencies, and noise and dust as part of operations.

It is expected that YCS will operate and use Best Management Practices approach in the development and operation of the site.

I. Environmental

a. Land Impacts

The LoO Application and attached information shows the potential area of impact to the land base.

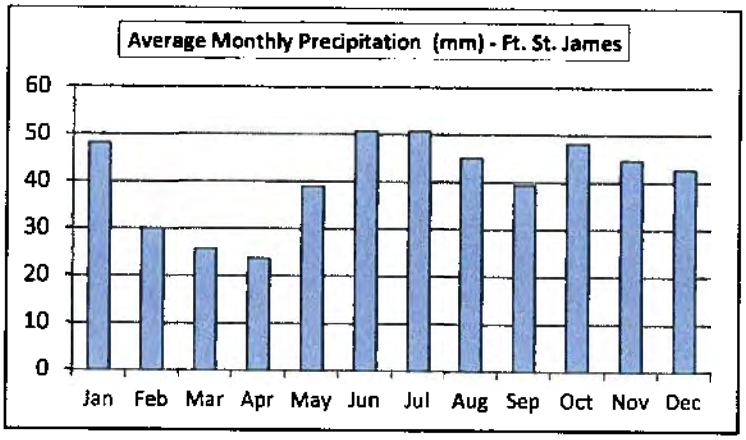
Given the proposed location of the operation, there is not a requirement for comprehensive plans to reduce visual, noise and dust impacts to outside sources. However, given the pit scenario development proposed, it is expected that natural berms consisting of aggregate and/or soil berms will surround the development in order to block visual, noise and dust impacts.

There are no documented archaeological sites within the proposed development area; however an Archeological Chance Find Procedure (CFP) will be in place during development.

b. Atmospheric Impacts

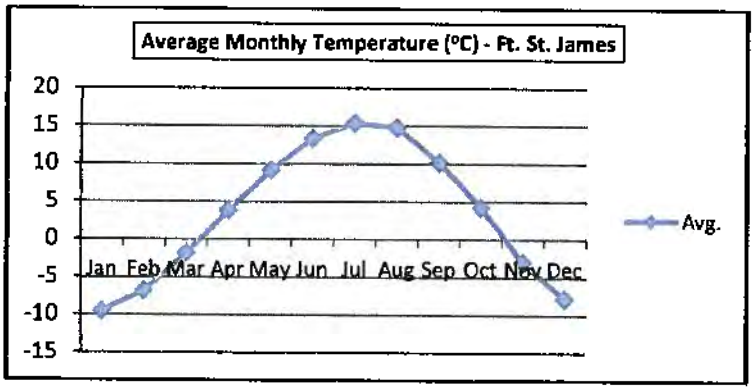
Climate

Annual precipitation in nearby Ft. St. James is 487 mm per year, which includes 315 cm of rainfall, with the majority falling during May through October. The area gets snowfall at an average rate of 173 cm per year mainly between November and March. The following graph depicts the average monthly precipitation.



The extreme daily rainfall event for the site in 24 hrs was determined to be 56 mm, with the extreme daily snow event to be 51 cm.

Annual temperatures in the area averages +3.5°C, with the warmest months being May through September having daily maximum average of +15.6 to +21.8°C, and the coldest months being December through February with daily minimums of -11.7 to -13.7°C. The following graph illustrates the average temperatures in the area.



Atmospheric Effects

It is expected that potential atmospheric impacts will be minimal, and come from equipment emissions and fugitive dust during mobilization, demobilization, land clearing, excavating, haulage and crushing and screening operations.

It is expected that there will be minimal (insignificant effects) impacts (such as deterioration or air quality and lower visibility due to diesel and fugitive dust emissions) on and/or from the site during construction and operations.

However, to assist with reducing atmospheric effects, YCS will undertake the following:

- Use modern construction (mining) equipment that meets latest applicable Canadian emission standards;
- Ensure proper inspection and maintenance of equipment;
- Operate equipment within specifications and capacity;
- Limit vehicle and construction equipment idling;
- Use low sulphur fuels for all diesel equipment;
- Re-vegetate any parts of the development that will not be disturbed in the future;
- Clear only the trees needed for mining in that particular area;
- Through a planned site layout (minimize creation), operational controls (control escape); air quality (dust removal) and cessation, the company can manage and mitigate any generated fugitive dust; and
- Maximize use and commit to Best Management Practices such as following the guidelines set forth by the *"Aggregate Operators Best Management Practices Handbook for British Columbia (April, 2002)"*.

c. Aquatic Impacts

For the Dog Creek Aggregate Project it is expected that there will be insignificant (minor) changes to surface water quality and quantity, as there are no noted watercourses within the LoO area. It is expected that given the projects location and that it will not be operating continuously, potential aquatic impacts would be intermittent, if at all.

YCS will utilize mitigation and monitoring as tools to minimize aquatic impacts, as necessary. The operation will use water management structures, and appropriate erosion and sediment control strategies such as managing sediment mobilization and erosion by installing sediment controls prior to land disturbance, limiting land disturbance to the minimum practicable extent, reducing water velocities across the ground, progressively rehabilitating disturbed land, ripping areas to promote infiltration, and restricting access to rehabilitated areas, and installing appropriate temporary erosion and sediment control measures or "Best Management Practices" prior to, and during, construction and operations activities.

d. Fish and Wildlife Habitat

Given the relative small size of the proposed project, fish and wildlife habitats baseline studies were not undertaken as part of this application. At this time, there have been no literature reviews of management plans specific to the region, no identification of species at risk and/or no field surveys completed by YCS.

There will be no disturbances to any fish and/or fish habitat during construction/operations of this particular development.

As a means to minimize potential impacts to fish and wildlife habitat, it is expected that YCS, will utilize Best Management Practices as noted in the *"Handbook for Mineral and Coal Exploration in BC, 2008/09"* and the *"Health, Safety and Reclamation Code for Mines in BC, 2008"*.

YCS will have as well, strict enforcement on removal of garbage, etc. on a daily basis in order to minimize attractants at the site.

II. Socio-Community

a. Land Use

The proposed project will not affect existing land uses in the area.

There are no known designated National Parks, National Historic Sites, National Marine Conservation Areas, National Wildlife Areas, Migratory Bird Sanctuaries or Marine Wildlife Areas within the development area.

There are currently no active forestry operations within the area.

Given that no environmental baseline work was undertaken on the site to date, the recreation values cannot be substantiated. However, the values are probably low sensitivity and low significance given the site's proximity to the other higher recreational areas located in the area.

b. Socio-Community Conditions

The project will not affect or influence any community services or infrastructure requirements due to it being a small sized operation that will operate intermittently.

c. Public Health

The project will not affect public health, again due to it being a limited size operation.

d. First Nations

The project site is located within the traditional territories of the Saik'uz First Nations, as indicated by the Consultative database. The company in the past has had good working relationships with various area First Nations, on this particular project there is currently efforts ongoing to develop a partnership arrangement between Pittman Asphalt and Saik'uz First Nation.

e. General Area Overview

The following photographs illustrate the general layout of the unsurveyed crown land in question.

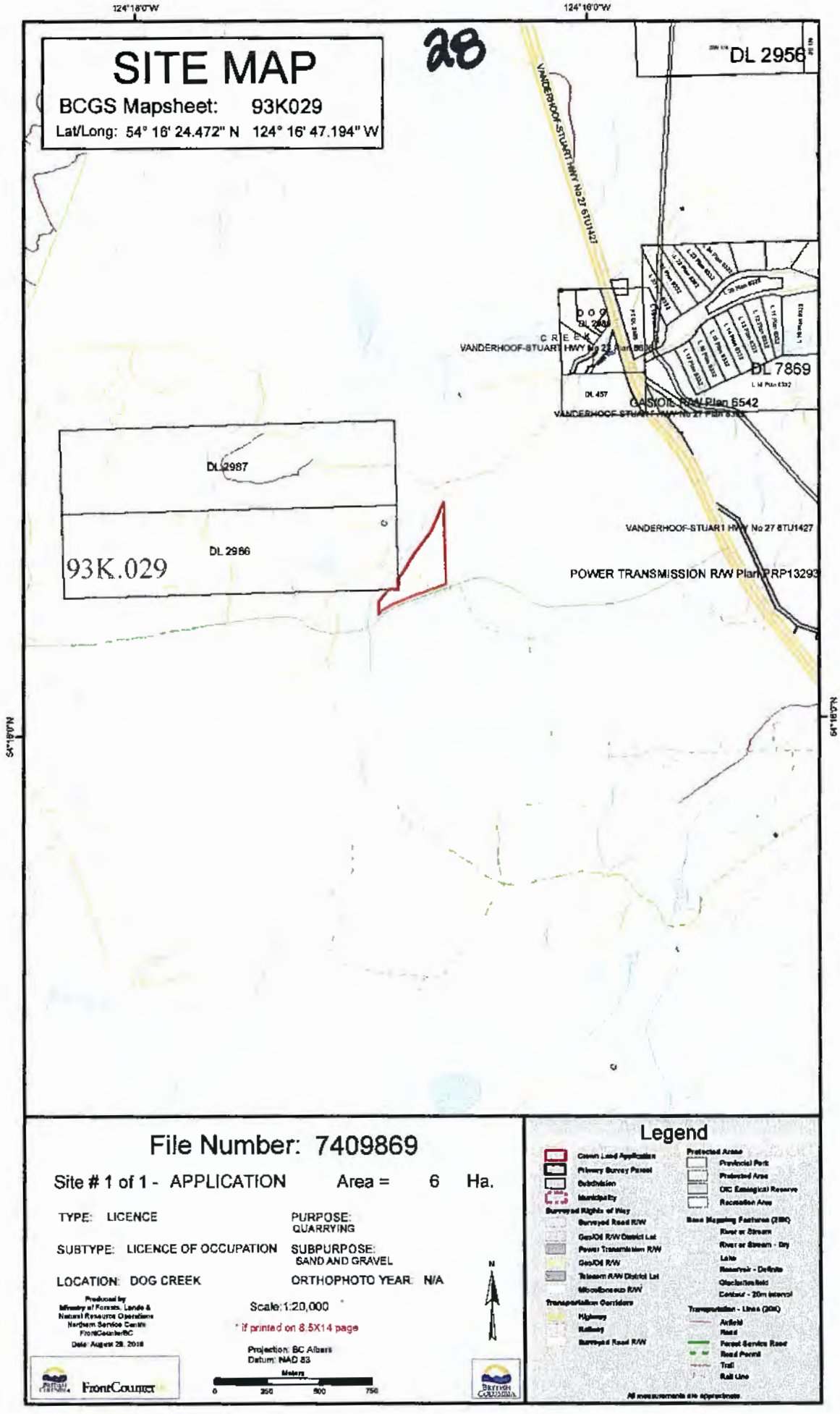
Area previously logged, showing older growth trees in the background

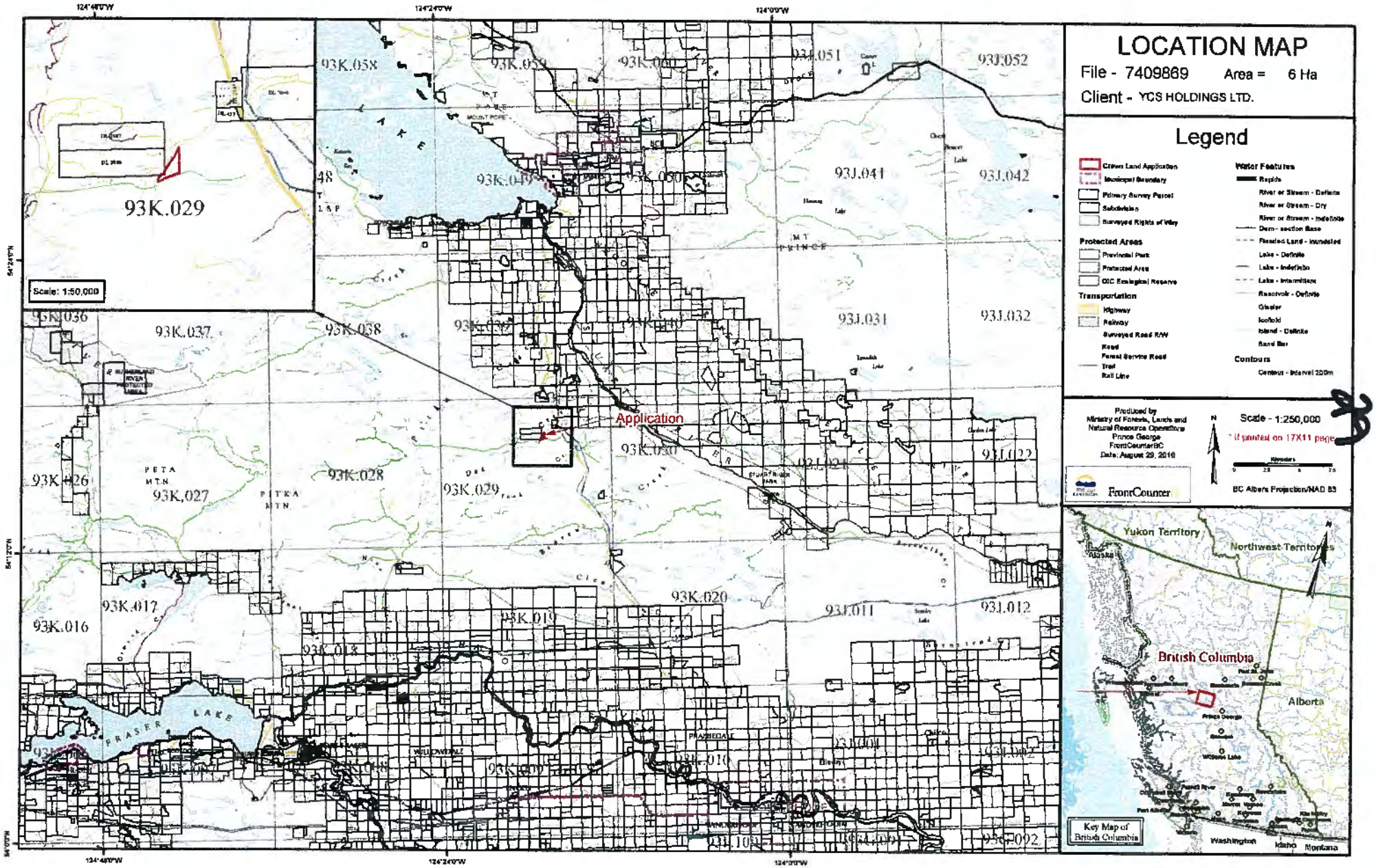
Area alongside Dog Creek FSR

If you have any questions, please contact the undersigned by email Erwin.Spletzer@terusconstruction.ca or (604) 575-3689.

Regards

Erwin Spletzer – Aggregate Manager
YCS Holdings Ltd. (dba Pittman Asphalt)
Cell: (250) 575-3473


SITE MAP
BCGS Mapsheet: 93K029
Lat/Long: 54° 16' 24.472" N 124° 16' 47.194" W
28
124°18'0"W
124°16'0"W
54°18'0"N
54°16'0"N
DL 2956
VANDERHOOF-STUART HWY No 27 8TU1427
DOG CREEK
DL 2988
DL 7869
DL 457
GAS/Oil R/W Plan 6542
DL 2987
DL 2986
93K.029
POWER TRANSMISSION R/W Plan PRP13293
File Number: 7409869
Site # 1 of 1 - APPLICATION
Area = 6 Ha.
TYPE: LICENCE
PURPOSE: QUARRYING
SUBTYPE: LICENCE OF OCCUPATION
SUBPURPOSE: SAND AND GRAVEL
LOCATION: DOG CREEK
ORTHOPHOTO YEAR: N/A
Scale: 1:20,000
* If printed on 8.5X14 page
Projection: BC Albers
Datum: NAD 83
Meters
0 250 500 750
FrontCounter
Legend
Crown Land Application
Primary Survey Parcel
Subdivision
Municipality
Surveyed Rights of Way
Surveyed Road R/W
Gas/Oil R/W District Lot
Power Transmission R/W
Gas/Oil R/W
Telecom R/W District Lot
Miscellaneous R/W
Transportation Corridors
Highway
Railway
Surveyed Road R/W
Protected Areas
Provincial Park
Protected Area
ER: Ecological Reserve
Recreation Area
Base Mapping Features (2M)
River or Stream
River or Stream - Dry
Lake
Reservoir - Definite
Glacier/Ice field
Contour - 20m interval
Transportation - Lines (2M)
Airfield
Road
Forest Service Road
Road Permit
Trail
Rail Line
All measurements are approximate


LOCATION MAP
File - 7409869 Area = 6 Ha
Client - YCS HOLDINGS LTD.
Legend
Crown Land Application
Municipal Boundary
Primary Survey Parcel
Subdivision
Surveyed Rights of Way
Protected Areas
Provincial Park
Protected Area
OIC Ecological Reserve
Transportation
Highway
Railway
Surveyed Road R/W
Road
Forest Service Road
Trail
Rail Line
Water Features
Rapids
River or Stream - Definite
River or Stream - Dry
River or Stream - Indefinite
Dam - section Base
Flooded Land - Inundated
Lake - Definite
Lake - Indefinite
Lake - Intermittent
Reservoir - Definite
Glacier
Icefield
Island - Definite
Sand Bar
Contours
Contours - Interval 200m
Application
Scale: 1:50,000
Produced by
Ministry of Forests, Lands and
Natural Resource Operations
Prince George
FrontCounterBC
Date: August 29, 2016
FrontCounter
Scale - 1:250,000
* If printed on 17X11 page
BC Albers Projection/NAD 83
Yukon Territory
Northwest Territories
Alaska
British Columbia
Alberta
Key Map of
British Columbia
Washington
Idaho
Montana
93K.029
93K.028
93K.027
93K.026
93K.036
93K.037
93K.038
93K.039
93K.049
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93K.058
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93J.051
93J.052
93J.041
93J.042
93J.031
93J.032
93J.021
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93K.020
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93J.011
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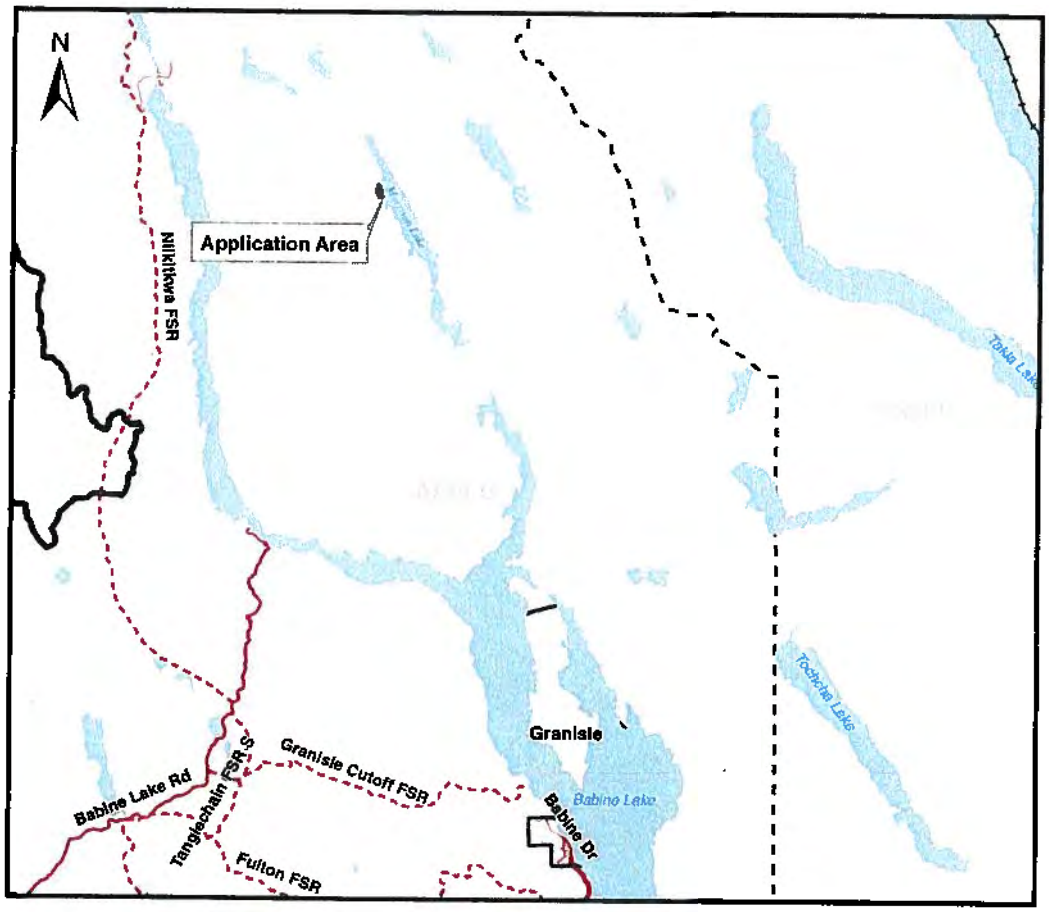
93J.001
93J.002
93K.010
93K.009
93J.009
93J.010
PETA MTN
PITKA MTN
FRASER LAKE
PRINCE GEORGE
MT PRINCE
124°48'0"W
124°24'0"W
124°0'0"W
54°24'0"N
54°12'0"N
54°0'0"N

30

MEMORANDUM

To: Rural Directors
From: Jennifer MacIntyre, Planner I
Date: September 21, 2016
Re: Land Referral File No. 6408940 (Lake Babine Fisheries)

This crown land application is regarding a Licence of Occupation for a 30 year term to construct a cabin and boat launch within the application area. The application is located on unsurveyed Crown land adjacent to Morrison Lake, 43 km north of Granisle. The application area is 14.25 ha. in size.



The intent of this application is to allow the Lake Babine Nation to use the application area and construct an 18' x 20'cabin, outhouse, roadway and boat launch that will assist the Lake Babine Fisheries in their monitoring and assessment efforts of the Sockeye Salmon populations on Morrison Lake. The cabin will allow field crews to continue their work in a more efficient manner.

The cabin will be accessed via the existing 532 FSR off the 5000 FSR road. A driveway will need to be constructed into the cabin and boat launch area.

Recommendation

That the attached comment sheet be provided to the Province as the Regional District's comments on Crown land application 6408940.

Rural Directors – All/Directors/Majority

Reviewed by:

Jason Llewellyn
Director of Planning

Written by:

Jennifer MacIntyre
Planner I

REGIONAL DISTRICT OF BULKLEY-NECHAKO COMMENT SHEET ON CROWN LAND REFERRAL 6408940

Electoral Area:	G
Applicant:	Babine Lake Fisheries
Existing Land Use:	Vacant, Forested
Zoning:	None
Plan Designation	None
Proposed Use Comply With Zoning:	N/A
If not, why?	
Agricultural Land Reserve:	Not in the ALR
Access Highway:	532 FSR Via 5000 FSR
Archaeological Site:	None according to provincial mapping
Building Inspection:	Not within the building inspection area
Fire Protection:	Not within a Rural Fire Protection Area
Other comments:	None

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Management Plan

Crown Land Tenure:

Lake Babine Nation, Morrison Lake Cabin

From: Donna Macintyre, LBN Fisheries

Box 879 Burns Lake, BC

250-847-9209

Background:

Morrison Lake is located at the headwaters of the Skeena River. The Skeena River is the second-largest producer of sockeye salmon in British Columbia. Morrison Lake flows via the Morrison River into the north-eastern arm of Babine Lake. Babine Lake drains into the Babine River and then down to the Skeena River.

Sockeye can spawn in the Tahlo and Morrison River but can also spawn along the shoreline of Morrison Lake. Morrison Lake is rated as 'high productivity' and provides for rearing habitat for over 12 fish species, including sockeye salmon. Sockeye salmon fry will spend at least one year feeding and growing in Morrison Lake before migrating to sea.

The Tahlo/Morrison sockeye salmon conservation unit is unique. This conservation unit includes the Morrison River sockeye population. Morrison Lake represents the majority of lake habitat available to this conservation unit. A conservation unit is defined (in *Canada's Policy for Conservation of Wild Pacific Salmon, 2005*) as a group of wild salmon sufficiently isolated from other groups that, if extirpated, is very unlikely to re-colonize naturally within an acceptable timeframe (e.g. a human lifetime). The Morrison/Tahlo CU has the second largest spawning population of Skeena sockeye population.The CU status of the Morrison / Tahlo Sockeye currently ranks the cumulative pressure indicators on rearing and spawning as 'Moderate Risk.'

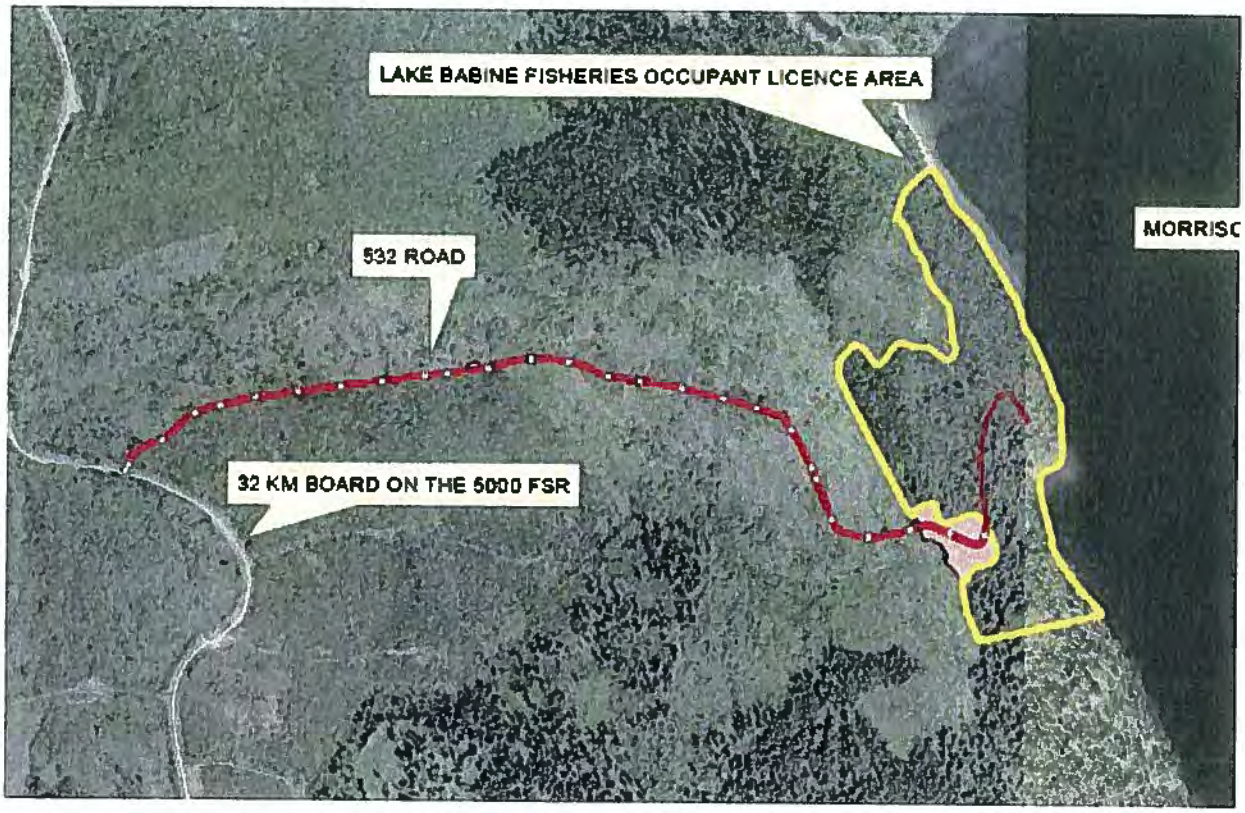
Morrison Lake Sockeye will return as adults from the sea to spawn and will pass many coastal and inland First Nations that rely on Skeena Sockeye for Food Social and Ceremonial purposes. Morrison Lake is within Lake Babine Nation's Traditional territory. Lake Babine Nation (LBN) members are Salmon People. Sockeye salmon is fundamental to food, social and ceremonial purposes. Lake Babine Nation is working alongside Skeena First Nations, federal and provincial governments, and non-government organizations to protect and conserve wild Sockeye Salmon and their habitats within the Babine Watershed.

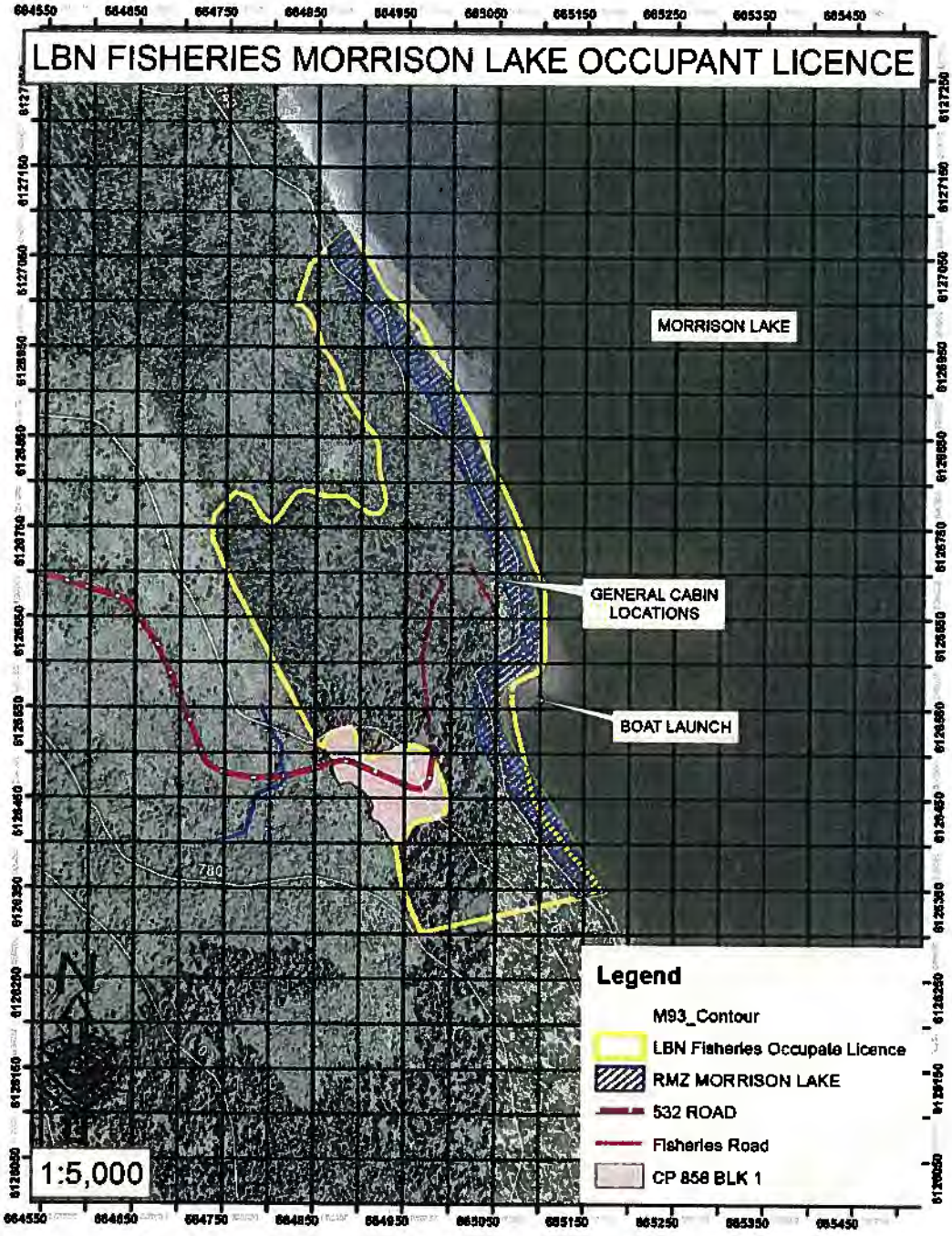
In order to continue efforts in the conservation and protection of wild Sockeye salmon, LBN Fisheries would like build a cabin near Morrison Lake. The cabin will allow field crews to continue to conduct monitoring and assessment work on the Tahlo/Morrison systems in a much more efficient manner.

Morrison Lake is within the Lake Babine Nation traditional territory. A support letter from Chief Wilf Adam, Lake Babine Nation, accompanies this Management Plan.

Location: An Occupational Licence for Land Tenure was submitted to Front Counter BC on June 27, 2016. The application contains further details on exact location.

The cabin will be access via the existing 532 road off the 5000 FSR road. Road construction will be by Pacific Inland Resources. Alan Baxter, PIR contact information is: 250-847-6517. PIR has agreed to assist LBN with the road construction and access into the cabin site.





Infrastructure:

The cabin has been pre-constructed and will be trucked to the location. No trees will be used for the construction of the cabin from the tenure site.

Access to the cabin will via the 532 road. No pouring of concrete will occur. The small cabin is approximately 18 feet by 20 feet. The cabin will be placed onsite by Hiab truck.

Site disturbance will be minimized. The cabin will be located at least 15 m away from the High water mark of Morrison Lake. An outhouse will be built behind the cabin and at least 30 m from the High water mark.

Small boats will be used for field work. The boats will access the lake via a small boat access to be built within the tenure area. The access will be no wider than 10 m. No gravels or paving will occur. Boat Fuel will be stored at least 15 m away from Morrison Lake. Riparian vegetation removal will be minimized.

Domestic water will be collected by buckets from Morrison Lake at the boat access location. No electric water pumps will be used. No fish screens on water pumps will be required.

It is hoped that a more permanent structure will be constructed in the future. Applicable agencies will be contacted as appropriate with detailed plans.

Flood Potential:

The cabin will be located at least 15 m from the High Water Mark of Morrison Lake.

Fish and Wildlife Habitat:

LBN Fisheries is dedicated to the conservation and protection of wild sockeye salmon in the Tahlo/Morrison watersheds. The cabin is to provide accommodation during the field survey season. The intention of the cabin is for LBN Fisheries staff.

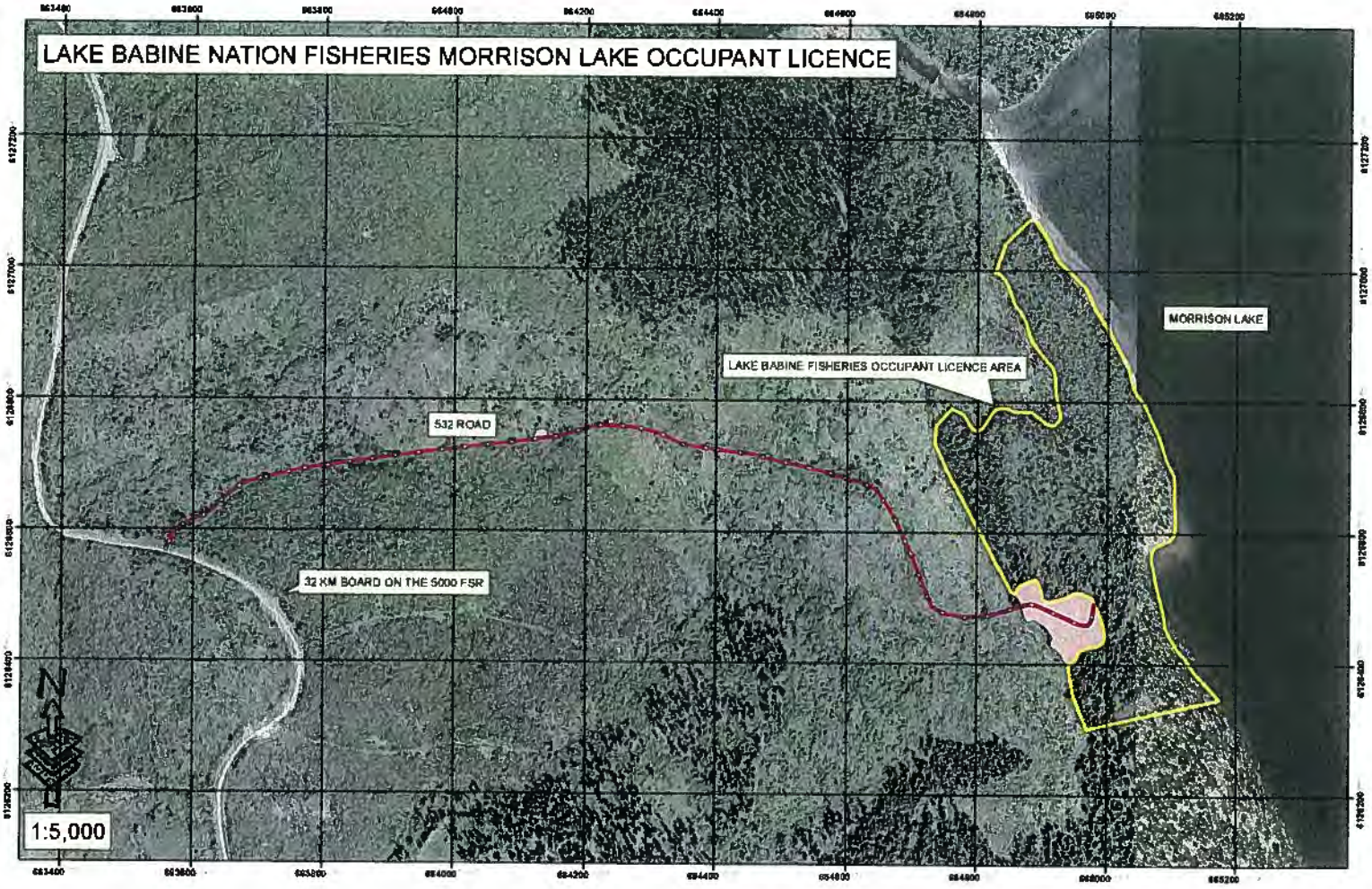
Fish sampling permits will be obtained as required through the provincial and federal governments to support the LBN Fisheries programs.

Impacts to riparian vegetation will be minimized by locating the cabin away from the Morrison Lake, restricting boat access to a 10 m wide area and locating the outhouse away from the riparian area. No pesticides or herbicides will be used on the tenure.

Visual Impacts:

Visual Impacts from the Morrison Lake will be minimized by locating the cabin at least 15 m back from the water's edge and by minimizing riparian removal. Boat access will be limited to an area no larger than 10 m. The cabin will be made of natural materials and the roof is green and will therefore blend with the background.

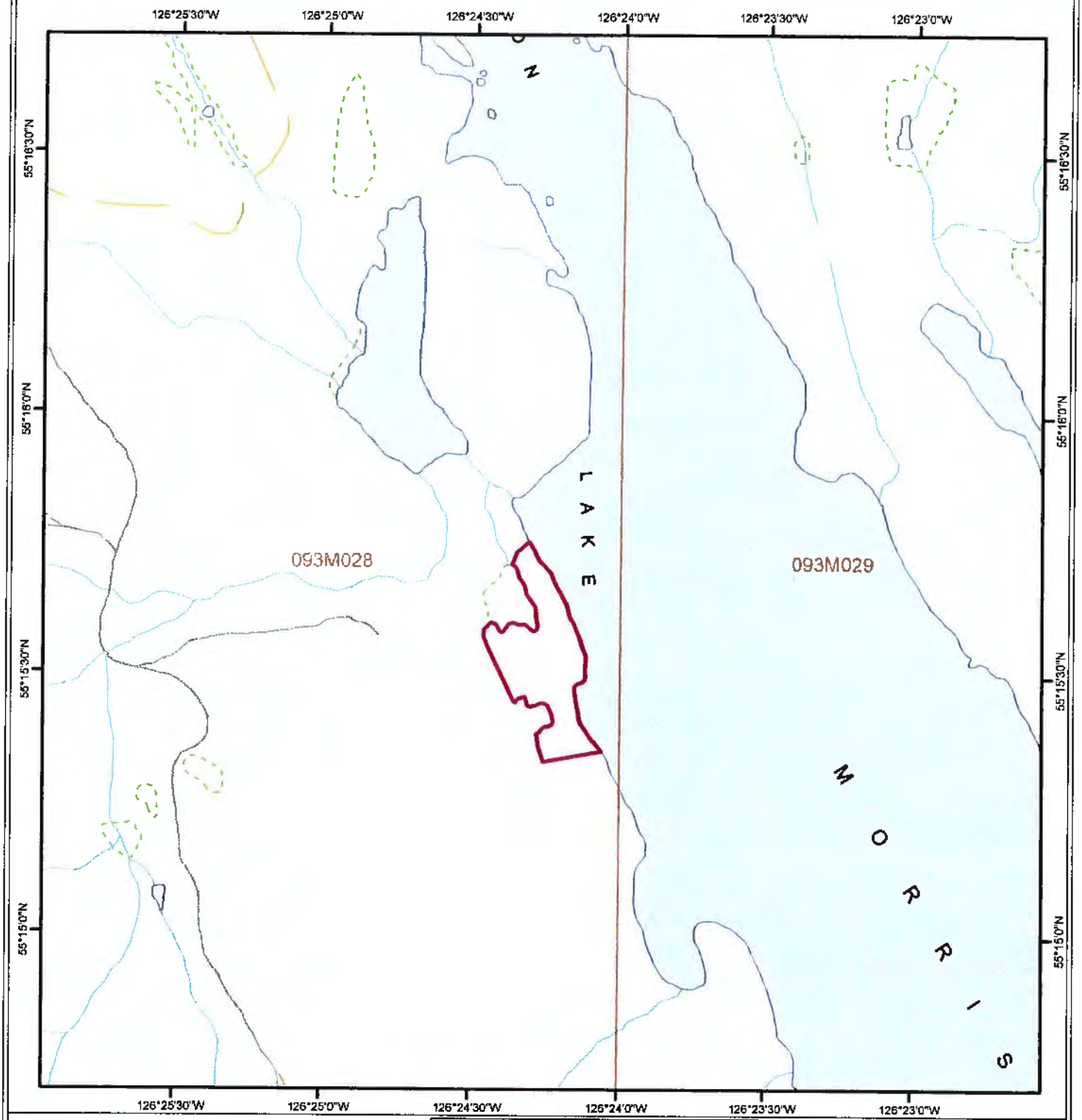
LAKE BABINE NATION FISHERIES MORRISON LAKE OCCUPANT LICENCE


LAKE BABINE NATION FISHERIES MORRISON LAKE OCCUPANT LICENCE
MORRISON LAKE
LAKE BABINE FISHERIES OCCUPANT LICENCE AREA
532 ROAD
32 KM BOARD ON THE 5000 FSR
1:5,000

Interest Holder: LAKE BABINE FISHERIES

40

File No: 6408940



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Purpose: COMMUNITY
Subpurpose: MISCELLANEOUS
Type: LICENCE
Subtype: LICENCE OF OCCUPATION

Application Area
Indian Reserves
Parks and Protected Areas

N
W E
S

Referral Map

BRITISH COLUMBIA

Date: 24 Aug 2016

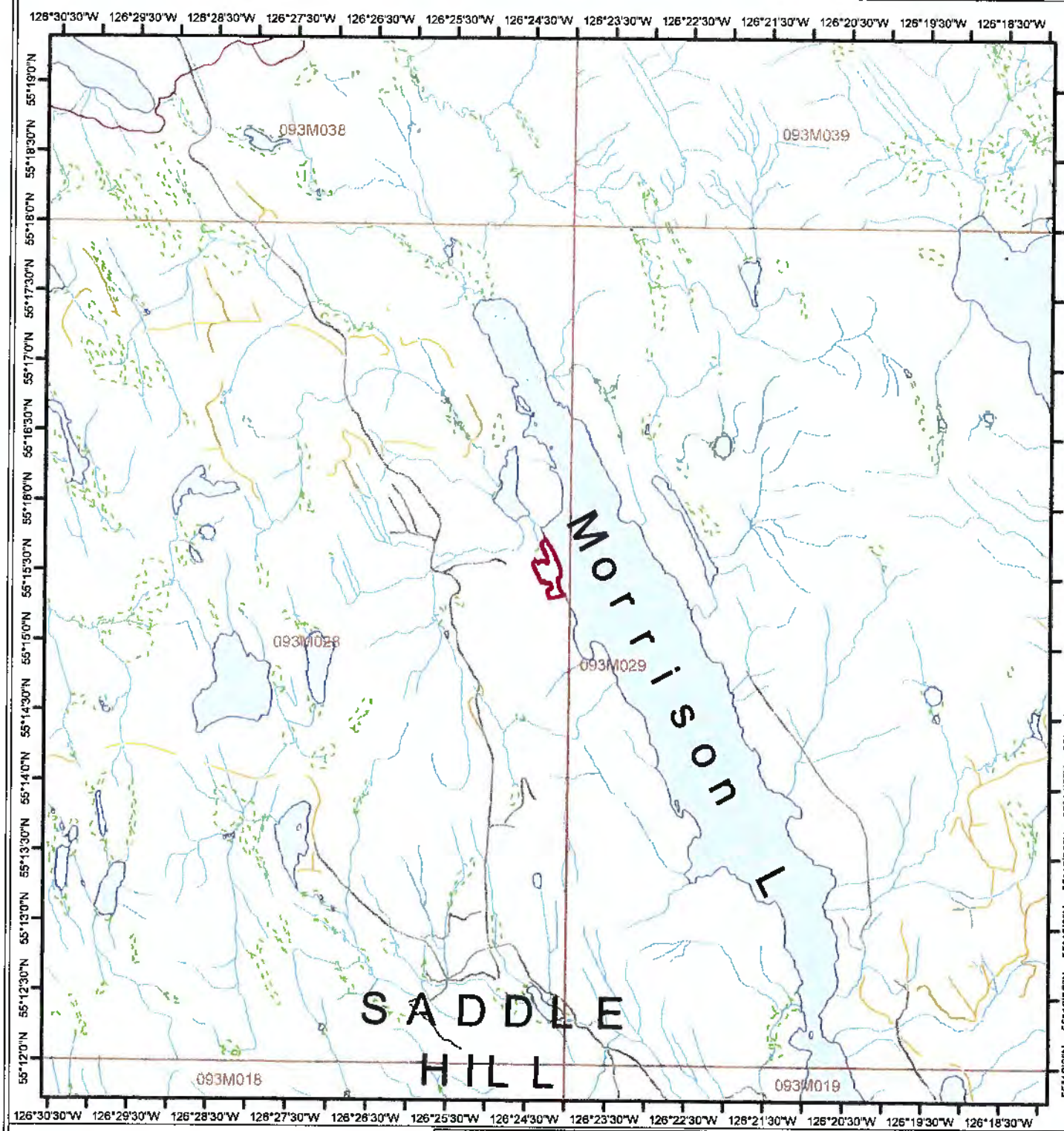
BCGS Mapsheet(s): 93M.028

Page: _____ of _____

Interest Holder: LAKE BABINE FISHERIES

41

File No: 6408940



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Subpurpose: MISCELLANEOUS
Type: LICENCE
Subtype: LICENCE OF OCCUPATION

Application Area
Indian Reserves
Parks and Protected Areas

N
W E
S

Referral Map

BRITISH COLUMBIA

Date: 24 Aug 2016
Tantalis Area: 14.25 ha

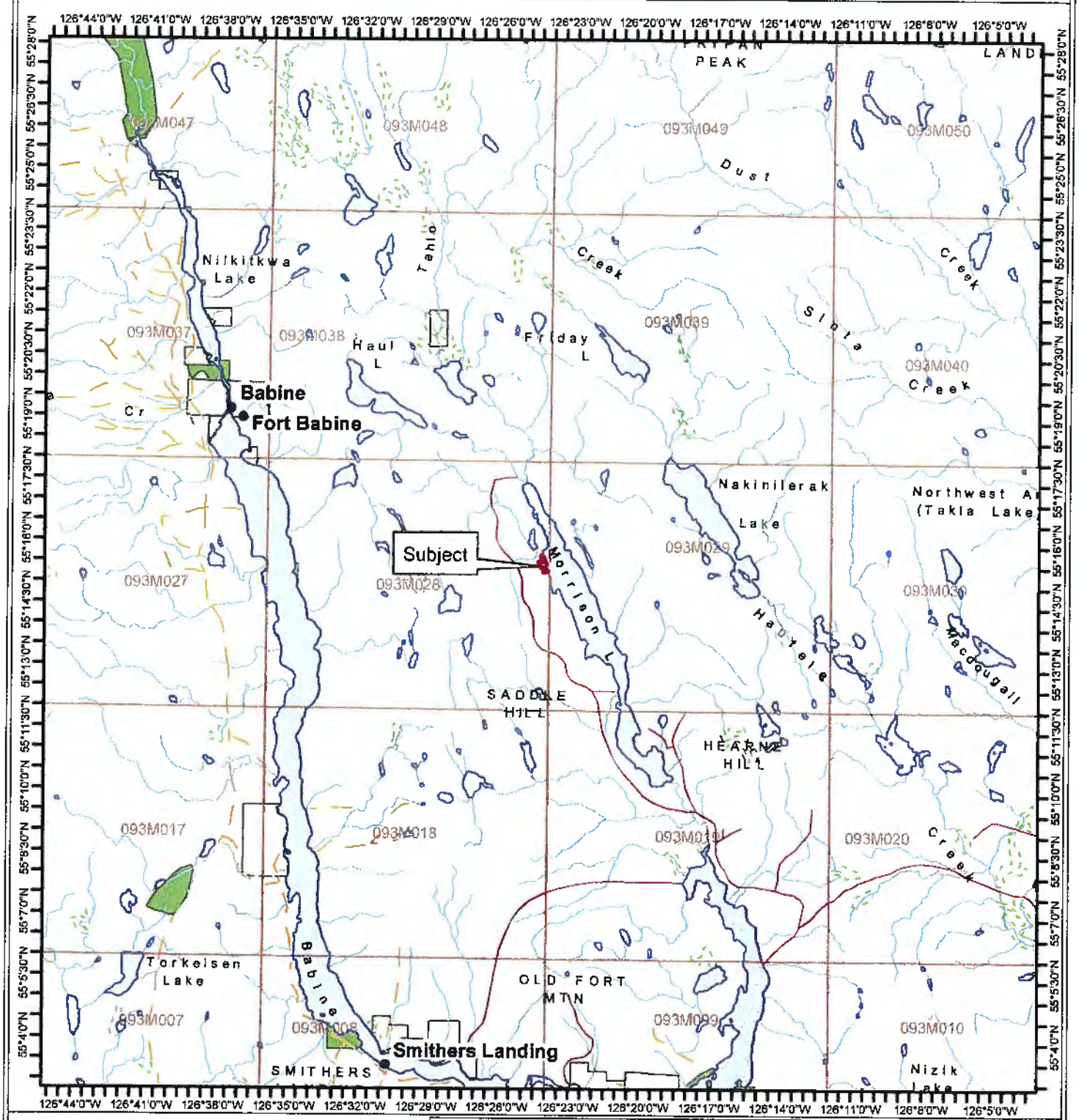
BCGS Mapsheet(s): 93M.028

Page: _____ of _____

Interest Holder: LAKE BABINE FISHERIES

42

File No: 6408940



Scale: 1:250,000
Purpose: COMMUNITY
Subpurpose: MISCELLANEOUS
Type: LICENCE
Subtype: LICENCE OF OCCUPATION

Application Area
Indian Reserves
Parks and Protected Areas

N
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Referral Map

BRITISH COLUMBIA

Date: 24 Aug 2016
Tantalis Area: 14.25 ha

BCGS Mapsheet(s): 93M.028

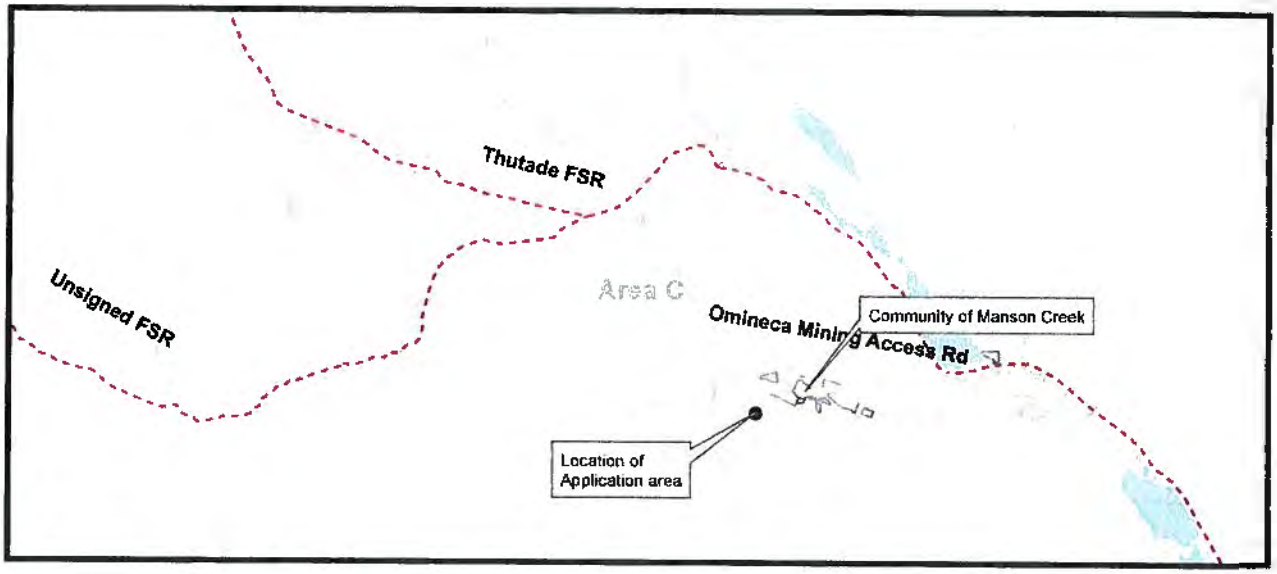
Page: _____ of _____

MEMORANDUM

To: Board of Directors
From: Jennifer MacIntyre, Planner I
Date: September 21, 2016
Re: Mines File No. 522994 (Miller)

This application is regarding a renewal of a Placer Lease held by Robert Miller. The lease is located south of the rural community of Manson Creek, approximately 135 kilometres north of the District of Fort St James, and is 34.16 ha in size. The lease was originally issued for a 10 year term and the proponent is asking for a 10 year extension.

The application area is not zoned.



Recommendation

That the attached comment sheet be provided to the Province as the Regional District's comments on Mines File No. 522994 (Miller).

Rural Directors – All/Directors/Majority

Reviewed by:

Jason Llewellyn
Director of Planning

Written by:

Jennifer MacIntyre
Planner I

REGIONAL DISTRICT OF BULKLEY-NECHAKO COMMENT SHEET ON Mines File No. 522994

Electoral Area:	C
Applicant:	Robert Miller
Existing Land Use:	Vacant
Zoning:	No zoning
Plan Designation	None
Proposed Use Comply With Zoning:	N/A
If not, why?	
Agricultural Land Reserve:	Not in the ALR
Access Highway:	Omineca Mining Access Rd
Archaeological Site:	Not according to provincial mapping
Building Inspection:	Not within the Building Inspection area
Fire Protection:	Outside Rural Fire Protection area
Other comments:	None

December 30, 2014

Mining and Placer Leases Explained

What is a Mining Lease? What is a Placer Lease?

A mining lease is a form of mineral title that effectively removes the limit on production of ore from a mineral claim. A mineral claim allows the recorded holder to explore for and develop minerals up to a production limit of 1,000 tonnes of ore in a year from each unit of a claim. A bulk sample of up to 10,000 tonnes of ore may be extracted from a mineral claim not more than once every five years. Production of ore, as one would encounter in a fully operational mine, beyond these limits requires a mining lease. Each adjoining mineral claim from which minerals will be extracted at mine production levels must be converted to a single mining lease. To apply for a mining lease, a recorded holder applies to have their mineral claim replaced with a mining lease under Section 42 of the *Mineral Tenure Act*.

The decision to issue a mining lease is a statutory decision made by the Chief Gold Commissioner under Section 42(5) of the *Mineral Tenure Act*. Mining leases are issued according to a survey plan and for a pre-defined term of no more than 30 years, and on conditions the Chief Gold Commissioner considers necessary. A mining lease is maintained by payment of annual rent of $20 per hectare. There are no exploration work requirements to maintain a lease in good standing as exist for a mineral claim. The presumption is that the lessee will be engaged in mine production and/or mine reclamation subsequent to production. Royalties under the Mineral Tax Act are paid on the volume of ore and/or minerals produced from a lease.

A placer lease serves essentially the same purpose as a mining lease but it differs in several ways:

- A placer claim may be converted to a placer lease and a mineral claim may be converted to a mining lease.
- Placer claims and leases confer a right to placer minerals, whereas mining claims and leases confer rights to hard rock minerals.
- Production on a placer claim or lease is expressed in cubic meters of "pay dirt". The annual production limit on a placer claim is 20,000 cubic meters. If more than 20,000 m3/year of pay dirt will be processed, the recorded holder must apply to convert the claim to a lease.
- Placer leases are issued pursuant to section 45 of the *Mineral Tenure Act*. Placer leases are issued for a term of no more than 10 years, and the term may be extended for additional terms up to 10 years each.
- As part of the application for a placer lease, the applicant may submit either a survey plan or a technical survey plan as described in Section 18 of the Mineral Tenure Act Regulation.

When a mining or placer lease expires, the area subject to the lease may become available to a recorded holder of a cell claim if some portion of the lease area overlaps some portion of an existing cell claim. Once a lease expires, it is not eligible for renewal unless an application has been made to extend the term. If no such application is made, the area may become available for subsequent staking of a claim.

A lease does not authorise any mining activity but does ensure the recorded holder has the exclusive right to all minerals on the lease area. A claim is a chattel interest; whereas a lease is considered an

Ministry of Energy and Mines | Mineral Titles Branch | Location & Mailing Address: 300-865 Hornby Street Vancouver, BC V6Z 2G3 | Phone: 1 (866) 616-4999 Fax: (604) 660-2653 Em: mineral.titles@gov.bc.ca http://www.mineraltitles.gov.bc.ca

interest in land as per Section 48 of the *Mineral Tenure Act*. Section 48 also notes that if a lease is issued over a mineral claim or group of mineral claims, the title of those claims is extinguished.

Leases can be bought and sold. Any sale transaction must be registered in the Mineral Titles Online registry.

Application for a Lease

The recorded holder or authorized agent of a claim may register an application for a lease online using the Mineral Titles Online registry. There is a registration fee of $100 per application.

One or more adjoining claims may be replaced with a lease, and the claims may be legacy claims, cell claims or a combination of the two types, provided all claims are adjoining. A definition of adjoining is provided in Section 1 of the *Mineral Tenure Act*.

Upon registration of a lease application, Mineral Titles contacts the applicant respecting the type of survey that must be completed. Upon approval of the survey, the lease application must be advertised according to the requirements in section 42(2) of the *Mineral Tenure Act* for a mining lease, or section 18 of the Mineral Tenure Act Regulation for a placer lease. As the issuance of both mineral and placer leases are statutory decisions, the province is required to consult with and if necessary accommodate First Nations. Lease applications are also referred to other provincial ministries and agencies as well as to municipal and local government agencies. More detailed information may be obtained from Mineral Titles staff.

Payment of Annual Rent on a Lease

A lease is maintained by payment of the annual rent of $20 per hectare for a mining lease or $20 per hectare for a placer lease. The recorded holder or authorized agent registers the payment in Mineral Titles Online. Payment is due at the start of the anniversary year of the lease. If payment is not made on or before the anniversary date, Mineral Titles staff will send a notice requiring payment within 30 days. If no payment is made after notification that payment is due, the Chief Gold Commissioner may order the forfeiture of the lease.

A term extension application may be registered at any time prior to the date of expiry of the lease. Leases may also include a condition that the lessee applies for a renewal of the term of the lease at least one year prior to the expiry date of the lease.

Registering a Term Extension Application for a Lease

A mining lease is issued for a specific term up to maximum of 30 years while placer leases are issued for maximum 10 year terms. The recorded holder of a lease may register a term extension at any time prior to the expiry of the lease, but typically the application for an extension is made during the last year of the existing term. If this is not done, the lease automatically terminates on the anniversary date ending the last year of the current term.

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When applying for an extension of the term of a lease the Chief Gold Commissioner must be satisfied that the lease is required for a mining activity. It is recommended that application for a term renewal be registered early in the last anniversary year. Mineral Titles Branch will contact the recorded holder following registration of the application for a term extension in order to obtain the necessary information to evaluate the application.

Any questions regarding the content of this document, may be directed to the Mineral Titles Branch at 1-866-616-4999 or at mineral.titles@gov.bc.ca

In the event of a discrepancy between the information in this document and the *Mineral Tenure Act* and regulations under the Act, the provisions in the statute and regulations apply.

Ministry of Energy and Mines

Mineral Titles Branch

Location & Mailing Address:
300-865 Hornby Street
Vancouver, BC V6Z 2G3

Phone: 1 (866) 616-4999
Fax: (604) 660-2653
Em: mineral.titles@gov.bc.ca
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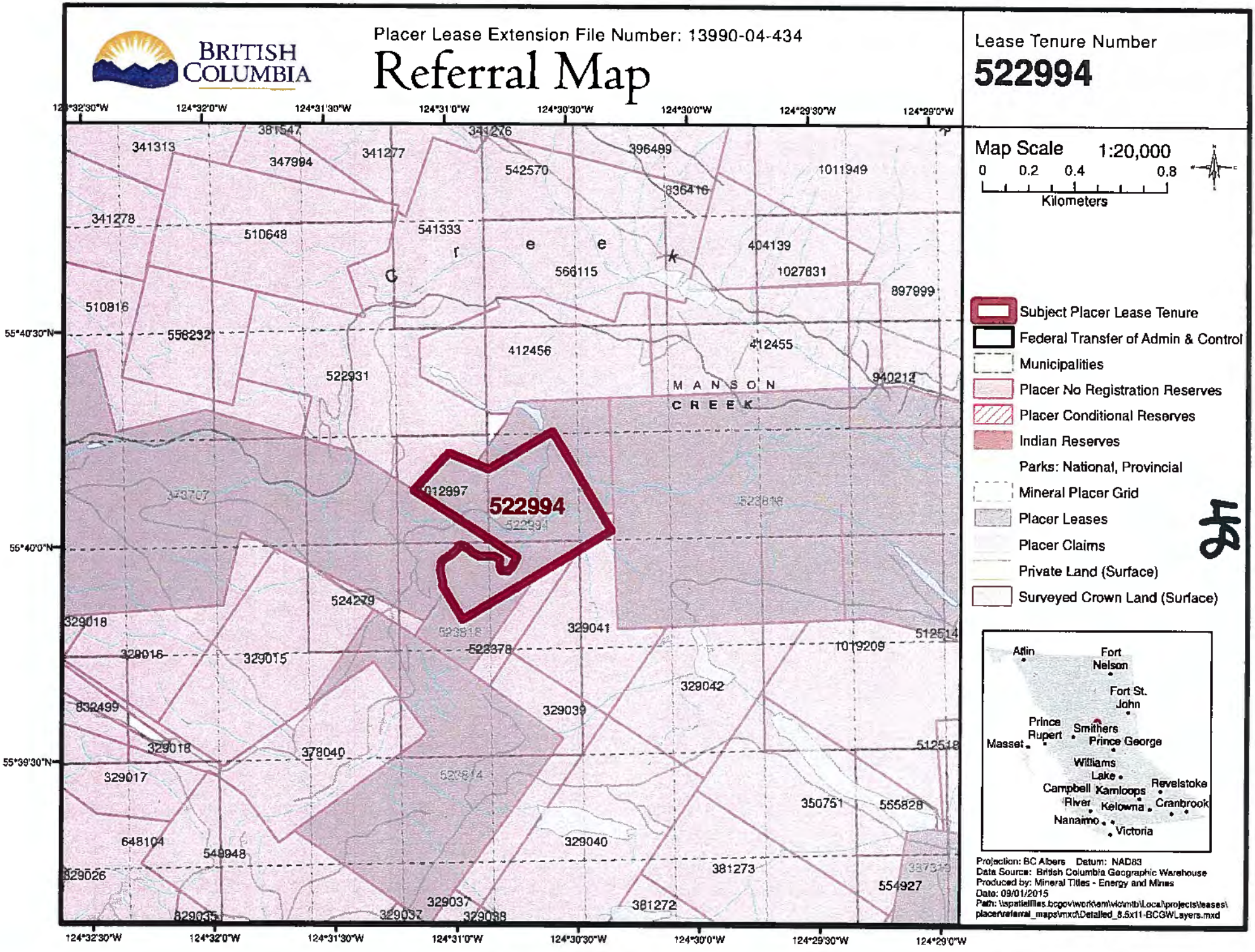
BRITISH COLUMBIA
Placer Lease Extension File Number: 13990-04-434
Referral Map
Lease Tenure Number
522994
Map Scale 1:20,000
0 0.2 0.4 0.8
Kilometers
Subject Placer Lease Tenure
Federal Transfer of Admin & Control
Municipalities
Placer No Registration Reserves
Placer Conditional Reserves
Indian Reserves
Parks: National, Provincial
Mineral Placer Grid
Placer Leases
Placer Claims
Private Land (Surface)
Surveyed Crown Land (Surface)
MANSON CREEK
522994
124°32'30"W
124°32'0"W
124°31'30"W
124°31'0"W
124°30'30"W
124°30'0"W
124°29'30"W
124°29'0"W
55°40'30"N
55°40'0"N
55°39'30"N
Atlin
Fort Nelson
Fort St. John
Prince Rupert
Smithers
Prince George
Masset
Williams Lake
Campbell River
Kamloops
Kelowna
Revelstoke
Cranbrook
Nanaimo
Victoria
Projection: BC Albers Datum: NAD83
Data Source: British Columbia Geographic Warehouse
Produced by: Mineral Titles - Energy and Mines
Date: 09/01/2015
Path: \\spatialfiles.bcgov\work\em\vic\mtb\Local\projects\leases\placer\referral_maps\mxd\Detailed_8.5x11-BCGWLayers.mxd