

Williams Lake Timber Supply Area – TSA 29

Vegetation Resources Inventory Project Implementation Plan for Photo Interpretation

Nona Phillips Forestry Consulting
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Acknowledgements

This planning process for the Williams Lake Timber Supply Area was initiated by the Stakeholders in the TSA. The local licensees provided financial support through their discretionary funding from the Forest Investment Account (FIA) Land Based Investment Program (LBIP). This plan was developed based on the Vegetation Resources Inventory (VRI) Strategic Inventory Plan (VSIP). It has been supported by both industry and government Stakeholders including the following:

Leading Representative from Local licensees:

Guy Burdikin, Silvicultural Forester, West Fraser Mills Ltd., Williams Lake
Brenda Mann, Planning Forester, BC Timber Sales, Cariboo-Chilcotin Business Area
Shawn Meisner, Planning Forester, Tolko Industries Inc.

The Ministry of Forests & Range staff:

Central Cariboo District, Kerri Howse, Stewardship
Southern Interior Forest Region (SIFR), Kamloops
Jim Grace and Matt Makar, Vegetation Resources Inventory
Kevin Johnston, Stewardship, Vegetation Inventory Advisory Committee (VIAC)
member
Jeff Stone, Timber Supply
Forest Analysis and Inventory Branch, Victoria
Gary Johansen and Roman Bilek, Vegetation Resources Inventory

District Managers:

Mike Pedersen, Chilcotin Forest District
Al Balogh, Central Cariboo District

'Local' MFR expertise:

Southern Interior Forest Region, Williams Lake
Leo Rankin, Forest Entomologist

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Executive Summary

In the Williams Lake TSA, the Mountain Pine Beetle (MPB) epidemic has devastated the pine component of the forest. Both the Chilcotin and Central Cariboo Forest Districts do not have a current forest cover (FC) inventory for the remaining live tree component and lack critical information required by forest managers to proceed into the future. In terms of planning, it is the local Stakeholders' understanding that the focus of future Timber Supply Review processes in the Williams Lake Timber Supply Area will be 'mid-term timber'.

Through the Vegetation Resources Inventory (VRI) Strategic Inventory Planning (VSIP) process, the Stakeholder group in the Williams Lakes TSA investigated the type and timing of undertaking inventory options, both for TSR and operational planning purposes. The Strategic Planning process developed the Business Case around the inventory process and established that undertaking a two phase Vegetation Resources Inventory investment is appropriate for this TSA. With the support of the TSA's Stakeholders, preparation of this Project Implementation Plan for Photo Interpretation is the first step.

The plan details the Phase I VRI photo interpretation project. Critical aspects of this project include:

- New photo acquisition for the project area. The current air photos do not truly reflect the extensive pine mortality in the forest since they are from the period when the epidemic was just getting underway (2005 and 2006). If timed so that the MPB infestation is completed, re-flying will provide photos that show the remaining green component within the forest.
- Dividing the TSA into three blocks for undertaking the Phase I project. This 'phased' approach allows the project to address limitations on resources (funds and skilled photo interpreters) and the optimum time of flying the TSA relative to the MPB epidemic. Since there is some MPB residual activity west of the Fraser River at this time, Block 1 (covering much of the Central Cariboo District) would be flown initially. The timeline for the initiation of the photography program in the east could be as soon as the 2009 field season. The photos for the rest of the TSA should not be flown before 2010.
- While photos for a Block would be flown in its entirety, details for potential exclusions from delineation are provided in this document.

A team of Provincially Certified VRI photo interpreters will work through the project using Softcopy technology. The Phase I steps include:

- Polygon delineation
- Assessment of available historic calibration points
- Field calibration
- Polygon Attribute Estimation
- Digital Mapping

A Third-Party Quality Assurance contractor will follow up each activity, ensuring that the quality of the project is assessed and maintained.

With the MPB in decline in the eastern part of this TSA and the 'greying' of the forest following, this project could be initiated as early as 2009. Timelines for the project are funding dependent. There have been no funding commitments at the time of the writing of this plan. For this reason, project years are referenced as 'Year 1, Year 2, etc to allow the VPIP to remain 'current' if there is a delay in its implementation. Details of project activities and costs have been included to make this an operational document.

This plan was prepared and submitted following the MFR VRI Standards and Procedures. All aspects of this project will be conducted using the most current standards at the time of their undertaking. The plan has been reviewed by the WL TSA Stakeholders to ensure that it is consistent with the previously approved VSIP.

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1. Introduction

1.1 Background Information

In the province of British Columbia (BC), the Vegetation Resources Inventory (VRI) is a 'broad' inventory designed to support, among other things, the Timber Supply Review (TSR) process. The current Timber Supply Review in the Williams Lake Timber Supply Area (WLTSA) reflects management practices that are evolving in response to the Mountain Pine Beetle (MPB) attack. At the same time, the inventory in the TSA is becoming less accurate as the landscape changes following this epidemic.

The Stakeholders for the Williams Lake TSA have 'championed' the VRI planning process. Invited to participate in the Stakeholders' group are the following:

- Tolko Industries Ltd., Williams Lake
- West Fraser Mills Ltd., Williams Lake
- BC Timber Sales, Cariboo Chilcotin Business Area
- West Chilcotin Forest Products Ltd., Anahim Lake
- Ministry of Forests and Range (MFR)
 - – Forest Analysis & Inventory Branch (FAIB)
 - – Southern Interior Forest Region (SIFR)
 - – Central Cariboo Forest District
 - – Chilcotin Forest District
- Ministry of Environment (MoE), Williams Lake

A VRI Strategic Inventory Plan (VSIP) was completed in 2007/08 for this TSA by a contracted VRI specialist in consultation with the local Stakeholders. The consensus following the VSIP Stakeholders' meeting in January 2008, was that the forest cover in the Williams Lake TSA is not well represented by the current inventory. This creates issues for both operational and strategic planning. The group concluded that there is a need for a forest cover inventory project, starting with Phase I photo interpretation.

This VRI Project Implementation Plan (VPIP) for Photo Interpretation was prepared based on the direction provided in the VSIP, in consultation with the TSA's Stakeholders.

1.2 Vegetation Resources Inventory Planning Process Overview

The Vegetation Resources Inventory provides a 'strategic' level inventory for a management unit. It was designed to answer two questions: Where is, and how much, of a given vegetation resource is located in an inventory unit?¹

¹ From the MFR Vegetation Resources Inventory website – Overview - <http://www.for.gov.bc.ca/hts/vri/intro/index.html>

The Vegetation Resources Inventory has two Phases that may be undertaken in combination or in certain situations, individually. In Phase I of the inventory, polygons are delineated within an inventory unit. Vegetation attributes of these polygons are estimated by photo interpreters. In Phase II of the inventory, a subset of the polygons is randomly selected for ground sampling and Net Volume Adjustment Factor (NVAF) destructive sampling. The purpose of these Phase II activities is to verify and if necessary, adjust, Phase I vegetation attributes.

The initial step in any effective inventory program is establishing goals and objectives in the planning process. VRI planning involves three parts:

- Consultation with licensee and government stakeholders to identify issues that can be addressed by executing part or all of the Vegetation Resources Inventory, according to its Procedures and Standards.
- Developing a VRI Strategic Inventory Plan that provides background on the various VRI activities and draws on the consultation process to evaluate which ones would address local needs. The Williams Lake TSA VRI VSIP is posted on the following website:
http://www.for.gov.bc.ca/hts/vri/reports&pub/tsa_vsips/willamslake_vri_vsip.pdf
- **Development of a VRI Project Implementation Plan. The VPIP “is a working document that details the specific operational activities associated with the implementation and documentation of the inventory project.”² For a Phase I photo interpretation project it provides details on the project area, data sources, aerial photographs (existing or new), format of base files, project scheduling, deliverables and costs.**

More details regarding the Vegetation Resources Inventory, the VRI Standards and Procedures, are available at the Ministry of Forests & Range Forest Analysis & Inventory Branch website:

<http://www.for.gov.bc.ca/hts/vri/index.html>

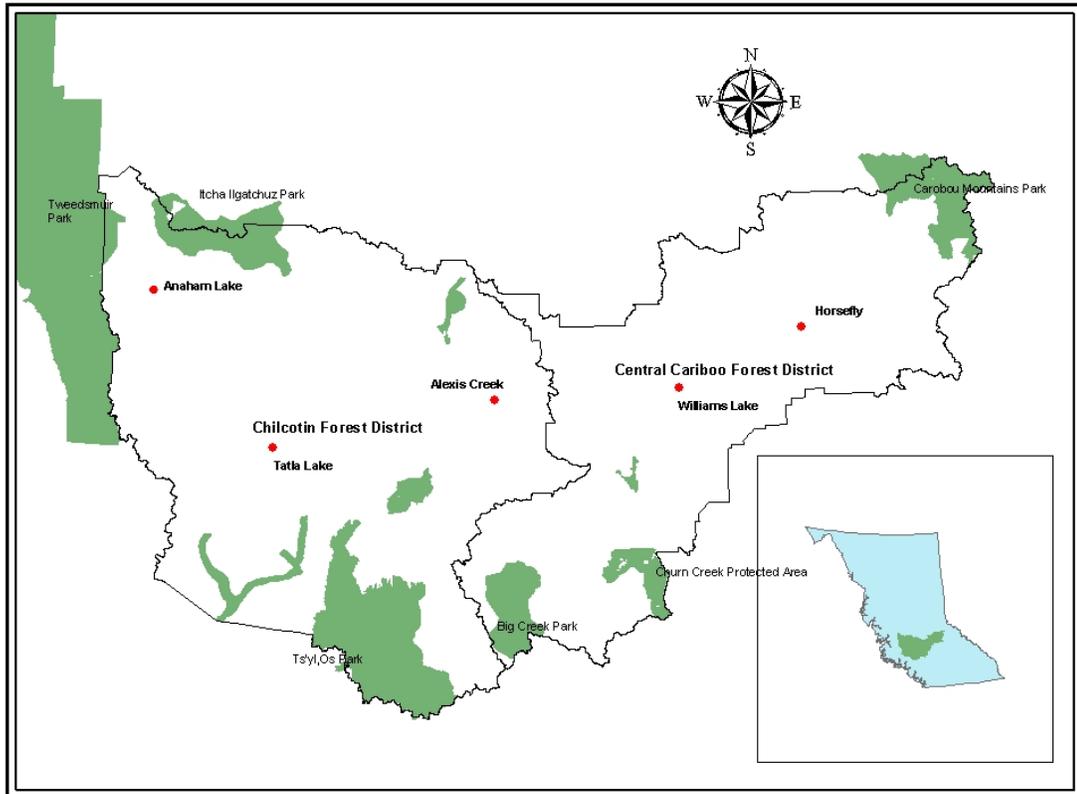
1.3 Current Landbase

The Williams Lake TSA is one of fifteen TSAs in the Southern Interior Forest Region of the Ministry of Forests and Range. It is administered from two MFR offices; Central Cariboo Forest District in Williams Lake in the east and Chilcotin Forest District in Alexis Creek in the west.

² From the Introduction of the VRI Standard “Guidelines for Preparing a Project Implementation Plan for Photo Interpretation”.

Geographically, it is bounded by the Quesnel TSA to the north, Wells Gray and Mitchell-Niagara Parks to the east, the 100 Mile House and Lillooet TSAs to the south, and Tweedsmuir Provincial Park, Kingcome and Sunshine Coast TSAs to the west. Figure 1 provides an overview of the TSA.

Figure 1 - Overview map of the Williams Lake TSA



The gross area of the Williams Lake TSA has been confirmed to be 4,930,844 hectares.³ Included in this area are parks and protected areas. It is proposed that over the course of this project, the complete TSA will be included in the flying of new aerial photography⁴.

Table 1 provides an area Summary for the TSA by land cover type.

³ Areas related to identifying the project populations are the result of GIS work conducted for this project by Meridian Mapping Ltd., Nanaimo, B.C. using the current FC1 files.

⁴ This assumes that the VRI will be completed on the entire TSA throughout the course of the project outlined in this planning document. Certainly all area in each Block (see Section 2.2.2) will be flown.

Table 1: Area Summary for the Williams Lake Timber Supply Area

Land Classification	Area	Percent of Category	Percent of Total Area
Total TSA Area	4,930,884		100
Non Productive-Total	1,368,460	100	28
Water	163423	12	
Non-Forested Land-Total	144,414	100	3
Non-commercial	1,813	1	
NSR	142,600	98	
Forested –Total	3,419,814	100	69
<30 Years	364,681	11	
30-80 Years	947,160	27	
81+ Years	2,107,973	62	

The Williams Lake TSA includes three general landscape types:

- West of the Fraser River, the Chilcotin Plateau is characterized by a drier climate with extensive lodgepole pine forests and some Douglas-fir, and is bounded on the west by the Coast Mountains.
- The central portion of the TSA, both east and west of the Fraser River, has mixed species forests, primarily leading in Douglas fir and lodgepole pine, interspersed with open range.
- Further east, the rolling plateau gently increases in elevation to meet the Cariboo Mountains and Quesnel Highlands where forests of spruce, pine, western red cedar, western hemlock and sub-alpine fir predominate.

The dominant tree species in the TSA are lodgepole pine (about 62% of the forested area by leading species) and Douglas fir (18%). Other tree species present include spruce (9%), subalpine fir (balsam) (5%), western red cedar and western hemlock (2% combined). Deciduous leading stands comprise 4% of the forested land. The Age-class distribution shows about 62% of the volume on the forested area is in stands older than 80 years.

There are ten First Nation communities in the TSA. Additionally, twelve First Nations assert traditional territorial interests in the area but do not reside in the TSA. For a complete list, please refer to the Williams Lake TSA VSIP.

1.4 State of the Current Inventory

1.4.1 Forest Cover Inventory History

The inventory in the Williams Lake TSA was developed through a series of projects, some of which date back to the original Unit Surveys. Four Public Sustained Yield Units (PSYUs) comprised most of the TSA (see Figure 2) and until 1995, projects are best referenced using these boundaries. The only VRI standard project undertaken has been in an Innovative Forest

Practices Agreement (IFPA) area⁵ in the TSA. Table 2 provides a summary of this TSA's inventory history.

Table 2: Inventories completed in the Williams Lake TSA⁶

Unit Name	Type of Inventory ⁷	Inventory date	ESA
Chilko PSYU	Unit Survey	1966	1978
Chilko PSYU	Reinventory (4 projects)	1988/89, 1990/92	
Stum PSYU	Unit Survey	1963,1966,1979 & 1980	1978
Stum PSYU	Reinventory (5 projects)	1988/89, 1994/95	
Quesnel Lake PSYU	Unit Survey	1971	1978
Quesnel Lake PSYU	Reinventory	1989/90, 1991	
Williams Lake PSYU	Unit Survey	1973	1973
Narcosli PSYU	Unit Survey	1961,1965,1974	1974
Prince George PSYU	Quesnel S.S.A. inventory	1963 and 1979	1978
Big Bar PSYU	Unit Survey	1962 and 1976	1976
Lac La Hache	Unit Survey	1972	1977
Williams Lake TSA (less Lignum IFPA)	VRI Phase II & NVAF	1998-2002	
Lignum IFPA	VRI Phase I, II and NVAF	1997-2002	

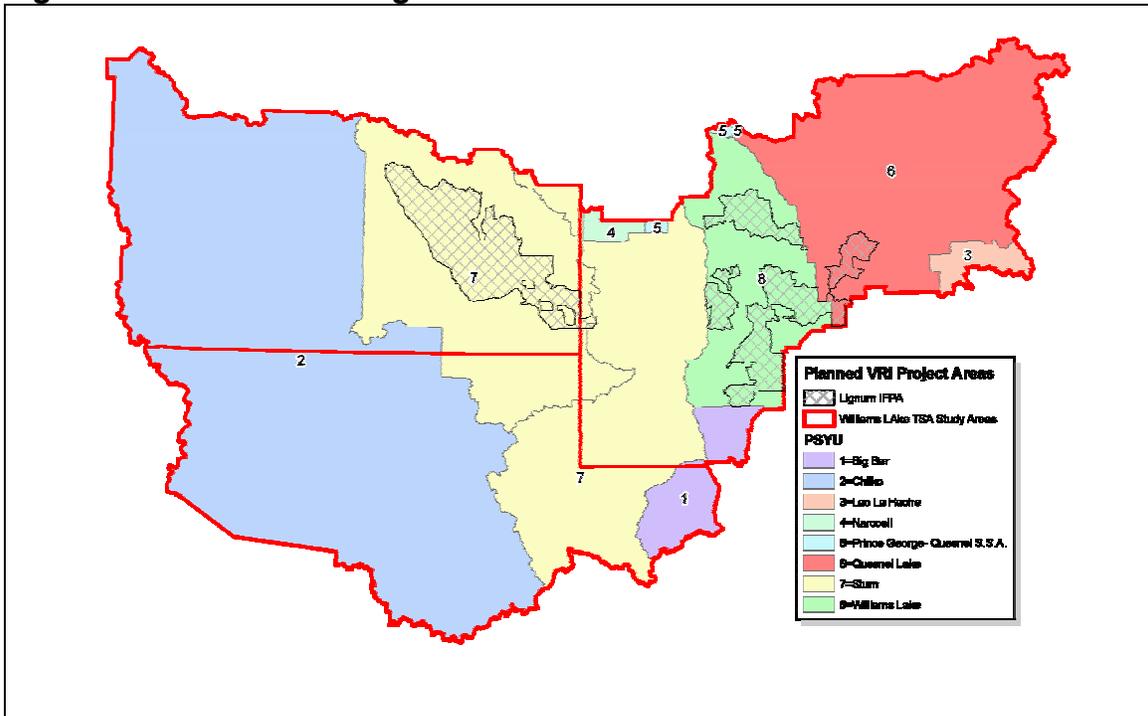
The most current disturbance update of the VRI files for the Williams Lake TSA in the Land & Resources Data Warehouse (LRDW) is August 2004.

⁵ In the late 1990s, Lignum managed an Innovative Forest Practices Agreement that was part of both Williams Lake and 100 Mile House TSAs. (This IFPA has since been assumed by Tolko Industries Ltd.) GIS work completed for this VPIIP calculated the IFPA area in this TSA to be 530,754 hectares which is approximately 11% of the total TSA.

⁶ Most details for this table come from J.S. Thrower & Associates. Williams Lake TSA Vegetation Resource Inventory Ground Sampling Plan Final Report Addendum. Page 4 and Personal Communication from Jim Grace, February 2, 2009.

⁷ The old PSYU Inventory was called a Unit Survey, not a Reinventory. PSYU Unit Surveys occurred up to 1980 in the WL TSA. An inventory project from approximately 1987 to 1998 was a Reinventory with more refined attributes. Personal Communication, Jim Grace, February 20, 2008 and February 2, 2009.

Figure 2 - WL TSA Showing PSYUs and IFPA



1.4.2 Inventory Audit

A significant inventory initiative that occurred in most managed tenures in British Columbia between 1992 and 1999 was the Inventory Audit program. The inventory audit methodology was developed to provide a statistical description of the forest inventory's volume. To achieve this goal, statistical analysis techniques examined the accuracy of forest polygon attributes and the total standing volume in a timber supply area.⁸

The audit in Williams Lake TSA⁹ was undertaken in two phases. Analysis of the initial sampling showed a large sampling error associated with the mature component of the sample (stands over 60 years). Additional mature polygons were sampled to ensure that the variability of the volumes estimates was within an acceptable level. The analysis of the complete data set of mature polygons indicated that the inventory volume appeared to be overestimated. The difference between the mean audit volume and the mean inventory volume was found to be statistically significant. Further study concluded that the bias in the inventory volume was almost equally associated with the VDYP model and the inventory classification attributes.

⁸ Resource Inventory Branch, Inventory Audit Sampling Standards & Procedures 1998.
http://www.for.gov.bc.ca/hts/vri/audits/audit_manuals/auditsp.pdf

⁹ Results of the WL TSA Inventory Audit were published in 1998.

In the immature component of the inventory, the audit results suggested that the site index may be underestimated in young stands.

1.4.3 WL TSA VRI and Analysis of the VRI ground sampling data, 2003

A 'statistical adjustment report' completed by Jahraus & Associates Consulting Inc.¹⁰ provides a summary of the Phase II and NVAF ground sampling undertaken in the Williams Lake TSA (excluding the Lignum IFPA). This report is important for its analysis of the trends in the inventory based on the VRI data collection. Overall, the study suggests that volumes are underestimated by about 14% in the Vegetated Treed population greater than 30 years of age. The volume underestimation was consistent across all strata with the exception of insect-attacked lodgepole pine in the IDF and SBPS Biogeoclimatic zones (BGC) and deciduous (Cottonwood (Act) / Trembling Aspen (At)) samples where volume is overestimated.

The conflicting results from the Inventory Audit analysis and from the VRI ground sampling provide uncertainty in the accuracy of the inventory's mature volumes. However at this point in time, while it is interesting to ponder this difference, the mountain pine beetle has drastically changed the forest cover and removed any uncertainty of the requirement for a new inventory in this TSA starting with Phase I photo interpretation.

1.5 Document Objectives

Based on the issues identified by the Stakeholders in the VSIP, this VPIIP initiates the VRI process in the Williams Lake TSA. It will detail the Phase I inventory project and specify the steps, schedule, specifications, responsibilities and costs to complete it. It is a 'working' document.

It should be noted that the primary objective of any new VRI photo interpretation project is to bring a new inventory to the Vegetation Resources Inventory Standard (where the existing inventory is inadequate). Included in this process, is that all certified photo interpreters involved in any portion of the project will be involved in all related phases (delineation, field work, attribution) for the areas of the project for which they are responsible.

Section 1 of this document provides background on the VRI process and a description of the current inventory and landbase.

Section 2 states the information needs that precipitated the plan to complete this VRI project locally. It also describes technical details including the phases of the

¹⁰Available on the Ministry of Forests & Range, Forest Analysis & Inventory Branch website, VRI reports & publications:

http://www.for.gov.bc.ca/hts/vri/reports&pub/tsa_analysis/williamslaketsa_vri_adjustment.pdf

project including polygon delineation, field sampling, final attributing and digital mapping.

Section 3 provides considerations for the project's implementation.

2. Photo Interpretation Plan

2.1 Project Objectives

The primary objective of this project is to create an inventory of the current forest in the Williams Lake TSA. This inventory will be a consistent product that follows the provincial Vegetation Resources Inventory standards. It should be completed in a relatively concentrated timeframe considering the very large size of the TSA.

Through the completion of a VRI project in the TSA starting with new photo interpretation, data will be collected that may provide information on the following issues identified to be of interest to the Stakeholders:

1) Mid-term wood supply: The biggest impact on the TSA has been mortality in pine stands caused by the recent mountain pine beetle infestation. Stakeholders are concerned about mid-term wood supply. Timing the photography so that it follows complete mortality in the stands will facilitate typing of remaining live timber and create the opportunity to derive the live volume for all species. This includes identifying some remaining understory trees, to the level possible using the VRI tool set, in pine and mixed-wood stands.

2) Uneven-aged Stands: Related to mid-term wood supply, there will be an increase in importance of Douglas fir. These fir stands also frequently overlap mule deer winter range. The Stakeholders want more information on these stands. Additional attribute collection associated with the VRI procedures has the potential to provide this (e.g. vertical complexity and tree cover pattern).

3) Species composition: Stakeholders expressed concern about inaccurate species composition interpretation in the current inventory. This project will be an opportunity to improve on this through new delineation using high quality photos.

4) Site index: Stakeholders feel that current site indexes underestimate actual growth rates. This project may provide more accurate height estimations for determining site index. In addition, a discrete value for height and age is now required rather than a class that was used in the current inventory (e.g. Height Class 2 = 10.5m -19.4m). Differences in height of 2-3 metres now require a new polygon for stands under 50 years or less than 20 metres.

5) Landscape level biodiversity: Stakeholders wanted more information on stand structure as it relates to biodiversity. The VRI collects attributes that were not collected in the previous inventory, including:

- Timber: 2nd species, age and height, density, basal area, vertical complexity, tree cover pattern, snag density¹¹.
- Ecology: site position meso, modifying process, surface expression, SMR, SNR.
- Non treed types: Percentage cover for herbs, shrubs and non-vegetated types.

2.2 Target Area

2.2.1 General

The gross area of the Williams Lake TSA has been confirmed to be 4,930,884 hectares.¹² Included in this area are parks and protected areas. Dependent on Provincial project support, all of the TSA would be included in the flying of new aerial photography in phases as discussed later in this plan.

Discussion has focused on delineating much of the TSA, including the Tolko IFPA. The IFPA is not an Area-based tenure but operationally, Tolko has exclusivity to operate in this area. The data derived in the IFPA is used in the Timber Supply Review for the TSA. Although the IFPA has a more recent VRI (see Section 1.4.1), the forest cover has also been changed by the MPB epidemic and some of the local Stakeholders have expressed an interest in including the IFPA in the new VRI process and not just 'clipping in' the existing VRI.

The Alex Fraser Research Forest (9,870 hectares) has not been re-inventoried¹³ and the Stakeholders support it being included in the new Phase I project.

The Likely Xatsu'll Community Forest (24,625 hectares) has had a series of three-point volume samples established across its landbase on a grid. Since these have not resulted in a new Phase I, the Community Forest will not be excluded from the TSA project¹⁴. The samples could be used as calibration data.

There is an interest in including parks in the new VRI, due to their contribution to non-timber values. Assessment of parks to be included in

¹¹ There is discussion ongoing to adding a 'dead tree layer' to the VRI procedures. This is not finalized at this time and would have to be assessed whether it is a useful addition at the time of undertaking this project.

¹² Numbers related to identifying the project populations are the result of GIS work conducted for this project by Meridian Mapping Ltd., Nanaimo, B.C.

¹³ Personal communication, Ken Day, Forester, UBC Research Forest Williams Lake, February 2, 2009.

¹⁴ Personal Communication, Gregor Lee, Field contractor for the Sampling Project on the Likely Xatsu'll Community Forest, January 31, 2009.

the project will be on an individual basis, with size being the primary guideline. Parks in excess of 30,000 hectares will be excluded. Excluded parks may be included in the photo acquisition phase where it makes more sense to include them due to the complexities of flight line planning. Appendix A includes a listing of the TSA's parks which can be used as a guideline in this decisions related to incorporating specific parks.

Other exclusions may include the following:

- The Chilcotin Federal Reserve (currently planning to undergo new VRI)
- The Esketemic Community Forest (new Phase I VRI completed 2007)
- Schedule "B" (Crown) lands in Woodlots with recent VRI. Any woodlots with no new or recent VRI will be included in this project. Immediately prior to project start up, the Woodlot Association will be consulted.
- Private land (small areas of private lands will be included where it is more logical to include them based on flight line planning). Multiple small holes will not occur on any maps in the project area.

The final decision on any exclusions will be reviewed during the project initiation (pre-work meeting) phase. The mapsheet listing in Appendix B provides hectares for any potential exclusions, to facilitate these decisions and allow easy calculation of the size of the project.

It is currently anticipated that field work including Phase I ground calls and Phase II Ground sampling will be confined to the Vegetated Treed polygons outside of any excluded area.

2.2.2 Dividing the Project Area

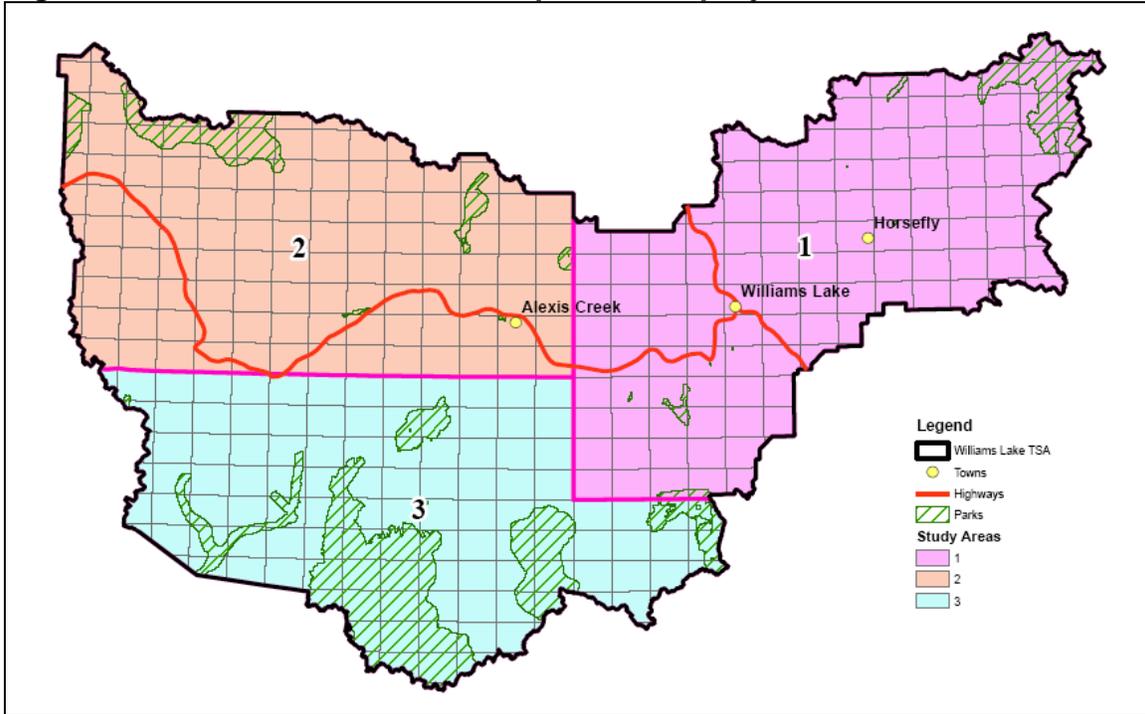
The resource requirements in undertaking an inventory project are sizeable. Both funds (through a portion of the provincial allocation from the Forest Investment Account inventory 'focus' fund) and qualified photo interpreters are limited. Building on their experience of resource limitations when undertaking the Predictive Ecosystem Mapping project, the local Stakeholders have proposed a 'phased approach' to undertake the Williams Lake VRI. The MPB activity pattern has provided the basis for the proposed blocks. The project is divided into three blocks as illustrated in Figure 3. An area summary is provided in Table 3.

The Mountain Pine Beetle infestation in the north east (Block 1) has collapsed and photos could be flown as early as the 2009 field season. To the west and south (Blocks 2 and 3), the beetle's activity is diminishing, progressing from north to south. Starting photo acquisition activity here in 2010 would be more appropriate.

Table 3: VRI Project Blocks

Project	Block 1	Block 2	Block 3
Total Area	1,714,021	1,617,449	1,599,414
Maps	137	123	122
Full map equivalents	115	108	107

Figure 3 – Williams Lake TSA – Proposed VRI project blocks



Advantages

The following list provides a brief summary of the advantages of this ‘phased’ approach to doing the WL TSA Phase I photo interpretation project:

- more realistic size of project
- opportunity to learn incrementally and improve the project and the skills of the contractors undertaking the project
- does not overtax the existing skilled contracting work force and funnel all contractors into one unit
- does not have unrealistic financial requirements for a short period but allows lower annual funding over potentially extended period
- allows project to start as early as funding is available as Block 1 is ready for flying at this time

Disadvantages

All three blocks are about the same size and shape and therefore the same number of flight lines. While there might be some increased unit costs incurred by breaking the area into three parts, 100 plus maps is still a sizeable project area and flying the TSA over a series of years will reduce costs in any one year. There are risks to the overall project's completion related to lack of funding in subsequent years and weather preventing completion of flying in a particular year.

Conclusion

On balance, there are more benefits to divide the TSA so a phased approach will be used to complete the new VRI in the Williams Lake TSA. During the March 2, 2009 VPIP meeting, concern was expressed about the funding being available for all three blocks of the TSA. The local Stakeholders stated that completion of Block 1 is their priority at this time for Williams Lake TSA. The costs of just completing block 1 is shown in Section 3.8, Table 7, in the eventuality that it is the only portion approved for funding.

2.3 Inventory Documentation and Archive

2.3.1 Inventory Status

The major impact on the status of the inventory is the mortality caused by Mountain Pine Beetle. Field sampling in Quesnel in 2008 showed a loss of about 73% of the volume in mature pine-leading stands within the TSA. There is no reason to expect a different condition in the Williams Lake TSA.

Looking at the history of the Williams Lake TSA's inventory, Table 2 in Section 1.4.1 of this plan shows that the TSA has an inventory completed to various standards over the past 40 plus years. The TSA's inventory origins reflect its being part of the first province wide forest inventory, the Unit Survey. The PSYU Unit Surveys were completed by 1980 and provided extensive provincial coverage to a uniform standard. These Management Unit surveys included both forest cover classification and volume sampling.

Between 1987 and 1998, government forest Regions were in the Re-inventory period. The completion of the last mapsheets reclassified as part of this initiative was in the eastern part of the former Cariboo Forest Region in 1998.

Several VRI projects have been undertaken following the current provincial inventory standards and procedures. In the two blocks of the Lignum IFPA,

both Phase I and Phase II ground sampling (including NVAF) were completed by the Licensee. A separate Phase II ground sampling and NVAF project was completed in the rest of the TSA under the Region's direction. The attributes of the photo interpreted inventory were not adjusted based on this Phase II project.

In summary, the inventory of this TSA reflects forest classification done to three different standards:

1. Some of the inventory is from the original Unit Surveys. This inventory has been updated periodically to account for disturbances over several decades (e.g. harvesting, fire).
2. Regional reclassification projects. These projects involved little if any new calibration groundwork to support the reclassification. This creates the potential for the forest cover data from 1981 to 1998 to include both the strengths and weaknesses of the Unit Surveys as it depended on their sampling.
3. The IFPA has completed an inventory to the new VRI standard for forest classification. This standard includes full forest cover calibration support as well as volume sampling. It is designed to generate polygon volumes using the new model of VDYP, VDYP 7.

2.3.2 Digitizing History

Prior to 1978 strategic inventory maps were drafted by hand on Irish linen usually at a scale of 40 chains, the equivalent of 1" = 2640' (or 1:31680). In the digitizing era (late 70's, 1980), the Inventory Branch took the NTS 6' by 12' maps and cut and pasted them into the current BCGS format. Up to 6 portions of the old NTS were required to make one BCGS by hand (without computer technology). These maps had to have all polygons numbered and then the attributes had to be mid-pointed for species composition, age and height. (Generalized direct label entry). Crown closure and ESA's were added later.

These hard copy "cut and paste" maps were digitized during the mid to late 80's. NAD 83 shift and TRIM were added and the final product is what exists in much of the Williams Lake TSA today.¹⁵

The "FS810" method was used for entering forest cover details for projects in the PSYU Unit B Surveys. All of the attributes collected were mid-pointed range values, i.e. species composition, age and heights (Generalized direct label entry) onto the FS 810's; Crown closure was obtained from the document photos; and ESA were added from related surveys. Attributes collected in the Reinventory has more refined attributes.

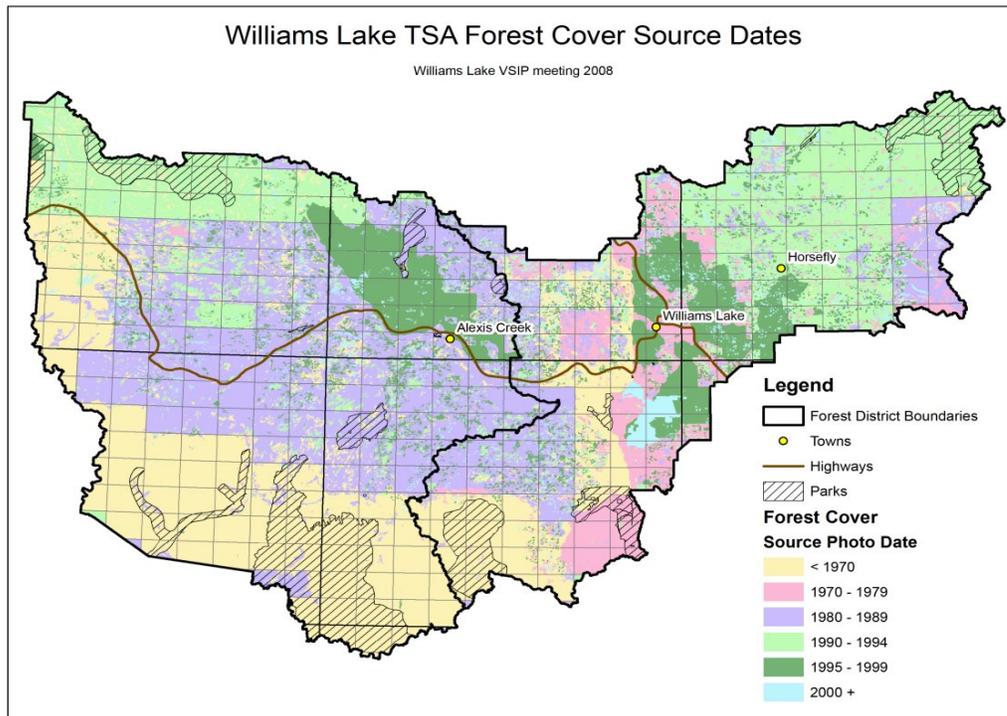
¹⁵ Personal Communication, Eric Fisher and Jim Grace, February 2, 2009.

The Lignum IFPA Vegetation Resources Inventory project likely used the “VegCap” method for entering and validating vegetation cover details and the DIAP softcopy photogrammetry system for delineating and digitizing VRI polygons.¹⁶

2.3.3 Aerial Photographs / Existing Photography

A summary of the source photo data used for the various inventory projects in the TSA is illustrated in Figure 4.

Figure 4 – WL TSA Forest Cover Source Dates



The original copies of document photos from any WL TSA photo interpretation project would reside in the MFR Southern Interior Regional Office in Kamloops.

The most current photos that exist for most of this TSA were flown in 2005 and 2006. There are several issues with this photography as listed below:

¹⁶ Despite attempts to obtain records regarding the history of the Lignum IFPA VRI project, none were provided. It is assumed that when the project starts and the historical records are found for the older WL TSA projects, some files for the IPFA project may also be located in the government archives.

1) A 5 year life span is normally considered by the MFR Inventory Branch to be an appropriate time frame for photography. If the project is not started immediately, the photos will be beyond this timeframe.

2) There are gaps in the most recent photo coverage.

3) The 2005 preset data coverage is felt to be of very poor quality.¹⁷

Following the 2008 Strategic Planning meeting, additional analysis by MFR VRI Certified photo interpreters in both the Branch and Southern Interior Region concluded that using this photography in its softcopy (digital) format would affect the quality of a Vegetation Resources Inventory.

4) Perhaps the most important concern around the existing photography is that the Regional Entomologist, Leo Rankin has indicated that the MPB was still active and picking up momentum in 2005 and 2006¹⁸. It is unlikely that the existing photos capture the post beetle forest cover. All direction from FAIB staff in both Inventory and Timber Supply groups maintain that new VRI initiatives should be delayed in MPB affected TSAs until the beetle has fully run its course.

As a result of this assessment, this plan for the Williams Lake TSA Phase I project has been prepared based on the conclusion that new photography will be required for any areas where new VRI will occur.

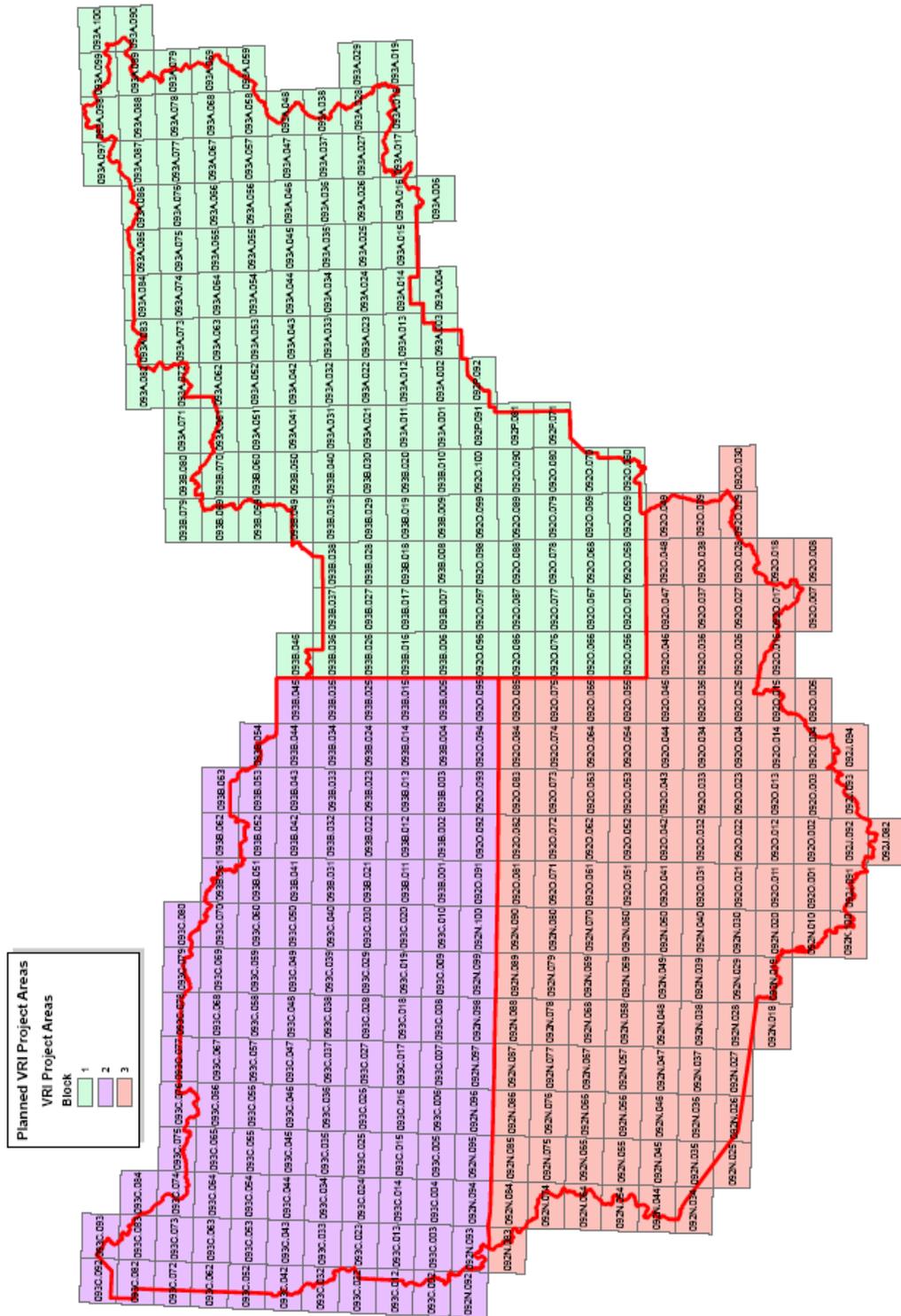
2.3.4 Photo Coverage

As noted in Section 2.2.1, new photos will be acquired by block, over a three year period. Figure 5 provides a key map for the photo project. Appendix B provides details on area and ownership by mapsheet.

¹⁷ Jim Grace, Personal communication, Stakeholders' Meeting. January 29, 2008

¹⁸ Leo Rankin, Personal communication, Stakeholders' Meeting presentation. January 29, 2008

Figure 5 - Photo key map



2.3.5 Photo Specifications and Quality

All aerial photographs and digital stereo models used for the VRI photo interpretation project will be new and approved for all relevant details by the GeoBC section of the Integrated Land Management Bureau of the Ministry of Agriculture and Lands.

Use of digital photography (appropriate GSD – Ground Sampling Distance) or conventional photography (1:20,000 colour) for this project, has not been determined at this point. Digital photography requires more flight lines, many more images and can have increased photo acquisition costs. It does however, already come in a digital format (no scanning required) and has potential for higher resolution/quality imagery for the VRI. Past experience with conventional photography (2005) has shown image quality issues can occur when conventional imagery is converted to soft copy format (sjs formats).

The digital medium has a drawback in the format which is rectangular. This imagery has a number of frames per map in hardcopy which may be less convenient operationally¹⁹.

2.3.6 Base Maps

All maps are available in TRIM (NAD83) format.

It is desirable for contractors to edge tie adjacent mapsheets. There is a VRI project currently underway in Quesnel TSA and there are plans underway to conduct a new VRI Phase I project in 100 Mile House TSA. Depending on timelines for each project, edge tying issues will have to be addressed during the initial planning for each block of the project

2.3.7 Special Studies or Surveys

At the Stakeholders' meeting, **the addition of large format digital or conventional (LSP) photography** to the project was discussed with regard to its ability to assist with field data collection. Large format (70 mm) photography and more recently, large format digital imagery acquisition has the potential to be an additional source of data for field calibration. It creates the opportunity to collect a large amount of data in a short time frame and have it available to revisit at any time without having to go back to the field. It can assist in getting data in remote or inaccessible areas. It can provide details of understory or brush conditions, heights, density, number of snags, etc. Its overall costs may be cheaper than any similar ground field visitation program.

¹⁹ Jim Grace, Personal communication, March 19, 2009.

The Ministry of Forest, FAIB in Victoria has a study underway using Digital Camera Sampling (being called Digital Camera System), under the direction of Xiaoping Yuan. It is hoped that a project can be run to collect attribute data from digital imagery (software, etc. may need development) to assess understory and other VRI attributes and the cost that would be associated with collecting data in this manner. By working on bringing these ideas of the 1960s and 70s up to today's standards, perhaps this digital imagery may be in a useable format during the period that this project is undertaken.

2.4 Calibration Data Sources

Data sources are used as calibration points for improving the quality of photo interpretation. Existing data sources include ground calls, air calls, permanent and temporary samples and observations distributed across the TSA during previous inventory projects.

Once the project is underway, access to historical field data can be requested from the Regional MFR Inventory Foresters. Historic photo coverage (document photos) is not as important to acquire as in the past. The MFR has had a digital calibration tile prepared that shows the locations of all of the historic calibration points. The old XO or air call and ground call books are still needed for the actual attribute data.

Due to the changes in the TSA's landbase and the potential long timeframe for the existence of this historical data, an analysis of historic data should be undertaken by the Project Manager upon project start up and prior to contract preparation. To decide the value of this data for the upcoming project the state of the forest may have to be assessed block by block. For example, a preliminary overlay of cut block and mature pine forest may provide a first cut of existing sample information. Where there is still forested cover, the value of the historic data will be based on the following assessment:

- Type of measurement
- Frequency
- Distribution
- Age
- Completeness
- Condition of available data
- Quality

The standard is that all existing data sources must be retained on or transferred to the new graphics file. There are some situations that justify not following this step including major disturbances. In the case of this TSA, the long history of the inventory and this data creates the need for this assessment i.e. over the past

four decades there are likely some large stand structure changes in certain areas due to fire, harvesting, insect and disease damage.

These changes may decrease the value of existing calibration data sources. At the same time, this may increase the need for new and current calibration data. The analysis will contribute to a recommendation for the number and distribution of additional (new) air calls, ground calls and observations that are needed for this project. Data collection should occur in polygons that do not otherwise have any source information or in polygons where the source information is questionable.

2.4.1 Cruise Plot Data Sources

Cruise plot data from unlogged timber sales and cutting permits can be used as calibration points. Some opportunity may exist particularly for non-PI stands or stands with a lesser Pine component as recent harvesting efforts were redirected to cut in a salvage mode.

The Project Manager will need to survey local licensees to determine the number of unlogged cutblocks and the potential number of current and valid cruise plots available to be summarized and transferred to the new photos. Check the availability, suitability, condition and compatibility of cruise plot data for use in calibration. Positional accuracy will also be a requirement to transfer the cruise plot location to the new photos.

2.4.2 Other Resource Data Sources

The Project Manager should assess the data available from Research and Growth & Yield (G&Y) plots.

There is a Predictive Ecosystem Mapping (PEM) inventory completed for the Williams Lake TSA. The PEM will be a significant secondary source of information for the photo interpreters. It has a high (minimum 65%) accuracy for predictions of site series and associated vegetation, soil moisture and soil nutrients. It will provide an ecological characterization of the VRI polygon.

2.5 Polygon Delineation

The polygon delineation will follow current Vegetation Resources Inventory Photo Interpretation Procedures. In the VRI Standards, the minimum polygon size is stated as 2 hectares for areas with distinct edges and 5 hectares for areas with indistinct edges. However, in instances where unique Vegetated or Non-Vegetated complexes or individual polygons are noted, such as swamps, side areas, wildlife tree patches, etc. that provide the location of high value resources

or significant features for field navigation by maps users, polygon sizes down to ½ hectare may be appropriate. The issue to consider is excessive polygon counts, but these smaller polygons can be very important to capture. This should be discussed at the pre-work.

Quality Control of polygon delineation will be as specified in the “VRI Photo Interpretation Standards and Quality Assurance Procedures”.

2.6 Integrating Results Information

Special consideration will be given to the integration of silvicultural openings that exist in provincial reporting system known as the Reporting Silviculture Updates and Land Status Tracking System (RESULTS), into the photo interpreted inventory. The Ministry of Forests & Range will provide a copy of the RESULTS shapefiles at the start of the photo interpretation contract and a new cut of RESULTS data should be requested from the VRI Update Section in Kamloops, for each year of a contract or project. The integration process will follow the requirements outlined in the most current edition of the VRI Standard “Preparing a VRI VPIP for Photo Interpretation”, that can be found at : <http://www.for.gov.bc.ca/hts/vri/standards/index.html>.

2.7 New Field Calibration

Phase I photo interpretation is usually supported by field data collection procedures referred to as calibration field work. The field work is a mixture of ground calls (one-point, three-point, ground observations with measurement) and air calls distributed over the entire project area and provides reference points with field measurements. In addition, casual field and air observations, at no additional cost, have been a mainstay of all VRI projects. The goal is to improve the accuracy of forest polygon descriptions by improving the ability of the contractor to interpret the photos in the office. A data source analysis will need to be completed to determine the type and number of calibration data by mapsheet/project. The amount of fieldwork completed is specified in the RFP and is determined by the forest management and inventory issues identified and approved funding levels. The contract should be written to ensure that a variety of cover types are visited including non-vegetated and non-treed polygons (except for silviculture openings).

Ground calls are the most costly data collection. They should be distributed across the full range of cover types but emphasis should be placed on those that are more complex. For this project’s field calibration plan, priority areas will include:

- Multi-layer or Uneven aged forests i.e. Douglas Fir

- Stands with complex species composition
- Second growth types
- Height class 2 and 3 lodgepole pine stands
- Deciduous-Coniferous mixes
- Deciduous stands with possible coniferous in-growth (understory?)
- Stands not previously sampled
- Polygons larger than 20 hectares in size
- A cross section of stand stages of development
- Some vegetated treed and non-treed wetland types

There are three types of ground calls to consider:

- Three point ground calls (one full measure and 2 count plots) on complex species types and in uneven-aged stands.
- One point ground calls on single species stands (full measure plot). These will include two additional prism sweeps to ensure that the polygon is more fully covered.
- Ground Observations (XGO) with measurement.

The general guideline to be considered is the establishment of at least 20 air calls, 10 ground calls and 10 observations with measurements, per full map sheet. This will apply to non-pine dominated mapsheets. (This will be left up to the Contractor and outlined in their RFP submission.) A decision will need to be made for pine dominated mapsheets as it is possible that less calibration will be needed there because of the mortality in those stands (except in areas where there is secondary structure). The quality of the photos may become more important and relevant.

Field calibration (air calls and ground calls) data collection is to be completed according to the "VRI Air Calibration (Air Call) and Ground Calibration (Ground Call) Data Collection Procedures". Field calibration data collected is to be documented and recorded in a format acceptable to the Ministry and specified in the photo interpretation contractor's contract. In keeping with the VRI Standard, a complete set of any new data sources will be provided to the MFR in an agreed digital format as part of the project delivery. This will include geographical locations (UTM coordinates) of these data sources as well as the complete set of field attribute data collected.

Prior to the initiation of the field calibration program, a Field Calibration Plan will be prepared in accordance with the MFR Field Calibration Plan guidelines and submitted by the contractor to the WLTS Phase I Project Manager and to the Regional VRI specialist assigned to this project in the Southern Interior Regional Office in Kamloops. This plan should include a map of the unit documenting the general location and distribution of the calibration points.

It is beneficial to the project to have the same individuals completing the field data collection as are performing the attribute estimation. During the contracting

out of this work, it will be specified that this is the desired methodology. Points will be awarded for the commitment to collect and attribute data by the same people. The results of whether this has occurred will be documented in the contractor's report (Project Completion Report) at the end of the project.

2.8 Attribute Estimation

The trend in photo interpretation is softcopy technology. Softcopy refers to the project being done using digital air photos, on a computer screen. After the TSA is flown, the scanning of the photos, aerial triangulation and digital model building will need to occur before the project begins. (If using Digital Camera, the scanning step is not required.)

Softcopy technology may facilitate the measurement of tree heights from the digital image (scanned conventional or digitally acquired images). Tree heights will be measured in 50% of the polygons to assist in the interpretation of the stand height. In polygons where there is a significant difference in height between the first and second species i.e. 3 metres or more, a second height will be taken on the second leading species.

All polygon descriptions will be carried out to the standards of the most current VRI Photo Interpretation Procedures at:

<http://www.for.gov.bc.ca/hts/vri/standards/index.html>.

Polygon descriptions can be divided into 8 categories as follows:

- General Attributes (e.g. polygon number, surface expression, site position meso)
- Land Cover Component (identifies type of land cover under the BC Land Cover Classification Scheme)
- Site Index Attributes (e.g. site index tree, site index)
- Tree Attributes (e.g. species composition, age, height)
- Shrub Attributes (shrub height, crown closure)
- Herb Attributes (herb type, cover percent)
- Bryoid Attributes (percent cover)
- Non-Forest Attributes

2.9 Mapping

The Ministry of Forests & Range has developed a format and database standards for the submission and storage of spatial and attribute data for VRI Photo Interpretation. This project will be completed to the "VRI Phase I Digital Data Deliverables Format" Standards at:

<http://www.for.gov.bc.ca/hts/vri/standards/index.html>.

3. Project Implementation

3.1 Scheduling

The following factors will affect scheduling of this project's implementation:

1. Approval of this project plan.
2. Securing funding.
3. Once initial funding is secured, timing of the acquisition of new photography within the fiscal year. This will affect the level of start up year activities possible.
4. Level of continuous funding to allow completion of all Phase I activities in all of the blocks over several fiscal years.
5. Availability of sufficient certified VRI photo interpreters for the size and duration of the project (Block).

The TSA Stakeholders are concerned about obtaining accurate and consistent photo estimates prior to the next TSR (currently scheduled for 2011). It may be more realistic to plan on delivery for future TSR processes.

Since there are currently no commitments to expedite this project, scheduling in this plan will reference timelines in a general way i.e. "Year 1, Year 2 etc". This does not limit this document's value to guide work when the project proceeds.

Based on expected timelines, the delineation could be bid out and started in the same fiscal year in which the new photos are flown and produced. It normally takes two to three years to complete a new Phase I (per block in this project). Table 4 shows the project schedule.

Table 4: Project Schedule By Year

Year	Task
1	Photo acquisition and soft copy Block 1 Delineation Block 1 Quality assurance Block 1
2	Photo acquisition and soft copy Block 2 Delineation Block 2 Quality assurance Block 2 Field data collection & VRI Attribution Block 1 Quality assurance Block 1
3	Photo acquisition and soft copy Block 3 Delineation Block 3 Quality assurance Block 3 Field data collection & VRI Attribution Block 2 Quality assurance Block 2
4	Field Data Collection & VRI Attribution Block 3 Quality assurance Block 3

Steps in the start up scheduling include the following:

3.1.1 Preparation

- Select administration staff / Contract Coordinator
- Define project area and tasks
- Conduct preliminary review to establish costs for each task
- Identify budget costs associated with each task

3.1.2 Work Plan

- Identify activities needed to meet project objectives
- Acquire funding / Develop work schedule based on assumed funding
- For up to three years, depending on funding, scheduling for the WLTA project will have to incorporate photo acquisition as a preliminary step
- Conduct preliminary review i.e. data sources to develop RFP
- Develop RFP for photo interpretation, by Block. In Year 1 of each project, due to the requirements of acquiring photos, the photo interpretation contractor may only be able to begin with polygon delineation. Details of delineation, field work requirements etc will be included in the RFP.

3.1.3 Viewing

- Identify contract evaluation team. The contract evaluation team must include at least one MFR VRI representative from the Southern Interior Forest Region.
- Advertise RFP.

3.1.4 The Contract

- Award work and develop Phase I contract
- Contractor to produce a Work plan for the project that addresses the Contract Implementation Schedule. This will include the Field Calibration Sampling Plan at the start of the year that the field work is scheduled.
- Award QA to a third-party contractor and develop their associated contract
- All Contracts will include a Contract Implementation Schedule

3.2 Photo Scale

The preferred scale for image acquisition for conventional photo for VRI in the Southern Interior Forest Region is 1:20,000 colour. Digital Photography used in the 2008 Okanagan VRI was at a GSD (ground sampling distance) of 33cm.

There is a discussion in Section 2.3.5 about the advantages and disadvantages of digital photography.

The project will use soft copy photogrammetric technology at a recommended scale of 1:20,000 or suitable digital imagery and GSD. The final decision on which medium to use will be discussed with the MFR VRI Regional staff, GeoBC and the local Stakeholders.

If conventional photos are the chosen medium, all photographs will be scanned at a 14 micron resolution and then converted to sjs format digital files for use with, a softcopy system. All scanning, aerial triangulation and control transfer will be conducted to current GeoBC standards.

3.3 Project Coordinator

A Project Coordinator completely independent of the Photo Interpretation Contractor will be assigned by the local Licensees to lead this process. Since the timeframe for funding is uncertain at this point in time, the Licensees will defer this decision in this planning document. They will work with the Ministry of Forests & Range Inventory staff at the Region when making final decisions to be sure that an appropriate candidate is selected. The Project Coordinator is responsible for all phases of work delivery, including third party QA.

Specific responsibilities of the Project Coordinator will include:

- coordinating the project;
- monitoring and communicating project progress;
- preparing and bidding all tender documents and contracts related to the contractors who will undertake the photo interpretation;
- ensuring that all contractors undertaking the project are qualified and certified in the appropriate ratios; overseeing photo interpretation activities;
- ensuring that quality assurance is completed for all stages of the project and is delivered and resolved as is appropriate; and
- assisting in coordinating available technical expertise when it is required.

This role is separate from the Contract Project Manager who is an employee of the Photo Interpretation Contractor who is undertaking this project.

3.4 Photo Interpretation Contractor

The proponent who is awarded the photo interpretation contract for each Block of the Williams Lake TSA VRI Phase I project must be able to comply with the high level of experience and supervision required by the VRI program. All VRI photo interpretation work conducted in British Columbia must be completed by or

directly supervised by a VRI Certified Photo Interpreter²⁰. At least 50% of the photo interpreters working on a VRI project must be certified. All uncertified photo interpreters are to be directly supervised by a Certified Photo Interpreter working on the project.

3.5 Quality Assurance

It will be the responsibility of the WL TSA VRI Phase I Project Coordinator to ensure that the VRI Phase I Standards and Procedures are followed. To this end, a critical aspect of the project is retaining a qualified independent (of the Photo Interpretation Contractor) contractor from the BC Government Certified Photo Interpreters' listing to oversee the project's Quality Assurance. The QA contractor should be in place before the project starts, and should attend any pre-work meetings.

The QA contractor will conduct the QA for both the field data collection and the office (polygon delineation, polygon attribute estimation) efforts. He must make every effort to sample a proportion of the work for each crew or photo interpreter. In addition to providing a QA role, the intent is that he will also provide project technical support. He will monitor surveyors to ensure that the procedures and standards for VRI calibration work are being followed as detailed in the contract.

The QA program will be conducted on each phase of the project according to the VRI Photo Interpretation Standards and Quality Assurance procedures. The QA contractor will develop a schedule for his work that is designed to 'shadow' the photo interpretation contractor's delivery. Timely follow up by this contractor and good communication with all project team members will be conditions of this contract.

The 3rd party contractor will be responsible to provide a record of activities to both the Project Coordinator and the Ministry of Forests & Range Inventory Forester in the Region.

3.6 Deliverables

The following is a list of products that will be delivered to the MFR upon completion of each Block of the project. At each level – project coordination, photo interpretation and quality control contractors – all project deliverables will be signed off by a Registered Professional Forester.

²⁰ The Ministry of Forests & Range, Forest Analysis & Inventory Branch maintains a list of Certified Photo Interpreters on their website at:

http://www.for.gov.bc.ca/hts/vri/contractinfo/rpt_pi_list.pdf

- Complete VRI data files in the format specified in “VRI Phase I Digital Data Deliverables Format” Standards;
- VegCap validation reports;
- MFR validation reports for each mapsheet in a format provided by the MFR;
- Hardcopy tally sheets or digital equivalent for each ground and air calibration point;
- Digital field summary for all calibration points per MFR VRI requirements. (This is for the VRI “Calibration Tile”);
- Photo Interpretation contractor Project Completion Report²¹. It should be noted that in this TSA, with the VRI being completed over a number of years potentially by various contractors, more than one Project Completion Report will be required. This will be verified at any pre-work meetings, for each year or contract, throughout the life of this project. It should be noted that the Project Completion Report is the responsibility of the proponent, but may be written by the Contract Administrator or VRI Contractor, with input from the MFR VRI Regional Staff and 3rd party QA Contractor;
- Quality Assurance Contractor documentation for each phase of the VRI project; and
- An annual progress report and a final project report will be required from the Project Coordinator due to the multi-year, phased approach of this VRI project. The final report is the Project Completion Report so another final report is not needed. The format for an Annual Progress Report for multi-year contracts still needs to be developed.

3.7 Reference Materials

The current version of all VRI Standards and Procedures for Photo Interpretation must be followed when completing this project. They can be found at the MFR website:

<http://www.for.gov.bc.ca/hts/vri/standards/index.html#photo>

Additional references that will be used by the Photo Interpretation Contractor include the following:

1. MoFR Vector Cleaning Specifications, Current Version
2. BC MoFR Colour Stereogram Handbook
3. BC MoFR Black and White Stereogram Handbook

²¹ The minimum requirement for this report is provided in the MFR Standards.

3.8 Costs

Table 5: Total Project Costs for VRI Phase I Activities

VRI Activity	Unit	Number of Units	Cost per Unit	Total Cost
VPIP Preparation	Plan	1	\$15,000.00	\$15,000.00
Administration	Hectares	4,930,883	\$0.023	\$114,611.79
Photo acquisition and soft copy	Hectares	4,930,883	\$0.35	\$1,725,809.05
Delineation	Hectares	4,930,883	\$0.15	\$739,632.45
QA –delineation	Hectares	4,930,883	\$0.03	\$147,926.49
Field data collection and VRI Attribution	Hectares	4,930,883	\$1.00	\$4,930,883.00
Helicopter	Hectares	4,930,883	\$0.05	\$246,544.15
QA –data collection and attribution	Hectares	4,930,883	\$0.04	\$197,235.32
Total	Hectares	4,930,883	\$1.62	\$8,117,642.25

Table 6: Project Costs By Year

VRI Activity	Unit	Number of Units	Unit Cost	Total Cost
Preliminary Year				
VPIP Preparation	Plan	1	\$15,000.00	\$15,000.00
Year 1				
Administration	Hectares	1,714,021	\$0.02	\$34,280.42
Photo acquisition and soft copy Block 1	Hectares	1,714,021	\$0.35	\$599,907.35
Delineation -block 1	Hectares	1,714,021	\$0.15	\$257,103.15
QA -delineation block 1	Hectares	1,714,021	\$0.03	\$51,420.63
Total Year 1				\$942,711.55
Year 2				
Administration	Hectares	1,617,449	\$0.02	\$32,348.98
Photo acquisition and soft copy Block 2	Hectares	1,617,449	\$0.35	\$566,107.15
Delineation block 2	Hectares	1,617,449	\$0.15	\$242,617.35
QA -delineation block 2	Hectares	1,617,449	\$0.03	\$48,523.47

Field data collection block 1 & VRI Attribution	Hectares	1,714,021	\$1.00	\$1,714,021.00
Helicopter block 1	Hectares	1,714,021	\$0.05	\$85,701.05
QA –data collection & attribution block 1	Hectares	1,714,021	\$0.04	\$68,560.84
Total Year 2				\$2,757,879.84
Year 3				
Administration	Hectares	1,599,413	\$0.02	\$31,988.26
Photo acquisition and soft copy Block 3	Hectares	1,599,413	\$0.35	\$559,794.55
Delineation block 3	Hectares	1,599,413	\$0.15	\$239,911.95
QA -delineation block 3	Hectares	1,599,413	\$0.03	\$47,982.39
Field data collection block 2 & VRI Attribution block 2	Hectares	1,617,449	\$1.00	\$1,617,449.00
Helicopter block 2	Hectares	1,617,449	\$0.05	\$80,872.45
QA –data collection & attribution block 2	Hectares	1,617,449	\$0.04	\$64,697.96
Total Year 3				\$2,642,696.56
Year 4				
Administration	Hectares	1,599,413	\$0.01	\$15,994.13
Field Data Collection & VRI Attribution block 3	Hectares	1,599,413	\$1.00	\$1,599,413.00
Helicopter block 3	Hectares	1,599,413	\$0.05	\$79,970.65
QA –data collection & attribution block 3	Hectares	1,599,413	\$0.04	\$63,976.52
Total Year 4				\$1,759,354.30
TOTAL ALL YEARS				\$8,117,642.25

Table 7: Project Costs for Block 1 Only

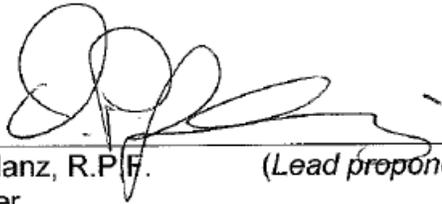
VRI Activity	Unit	Number of Units	Cost per Unit	Total Cost
VPIP Preparation	Plan	1	\$15,000.00	\$15,000.00
Administration	Hectares	1,714,021	\$0.04	\$68,560.84
Photo acquisition and soft copy	Hectares	1,714,021	\$0.35	\$599,907.35
Delineation	Hectares	1,714,021	\$0.15	\$257,103.15

QA -delineation	Hectares	1,714,021	\$0.03	\$51,420.63
Field data collection and VRI Attribution	Hectares	1,714,021	\$1.00	\$1,714,021.00
Helicopter	Hectares	1,714,021	\$0.05	\$85,701.05
QA -data collection and attribution	Hectares	1,714,021	\$0.04	\$68,560.84
Total	Hectares	1,714,021	\$1.67	\$2,860,274.86

3.9 Sign-off sheet

Williams Lake Timber Supply Area Vegetation Resources Inventory Project Implementation Plan Approval

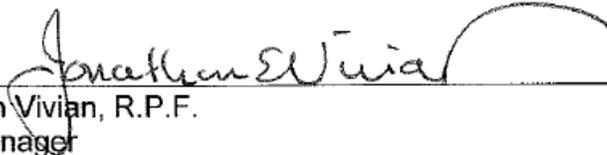
The Williams Lake TSA Vegetation Resources Inventory Project Implementation Plan (VIP) for Photo Interpretation was prepared in consultation with Ministry of Forests & Range (MFR) staff. I have read and concur that this plan, dated March 29, 2009 meets current VRI standards, business needs and considerations. It is understood that this is an agreement-in-principle and does not commit the signatories to completing the inventory activities outlined within the plan. .



Otto Pflanz, R.P.F. (Lead proponent)
Manager
British Columbia Timber Sales
Cariboo-Chilcotin Business Area

APRIL 2/09

Date



Jon Vivian, R.P.F.
Manager
Vegetation Resource Inventory
Forest Analysis and Inventory Branch
Ministry of Forests and Range

09.04.15

Date

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Appendix A

Land Ownership, Park Listing, and Possible Exclusions

Land Ownership

Land Ownership	Area	Percent
Crown	4,077,848	83
Private	198,318	4
Park	588,410	12
Indian Reserve	23,988	0
Federal	42,320	1
Total TSA Area	4,930,884	100

List of Parks in Williams Lake TSA

Park	Area (Ha)
Big Creek Ecological Reserve	257
Big Creek Park	67,961
Bull Canyon Park	343
Cardif Mountain Ecological Reserve	72
Cariboo Mountains Park	83,985
Cariboo River Park	1,870
Cedar Point Park	8
Chilanko Wildlife Management Area	716
Churn Creek Protected Area	36,940
Dzawadi/Upper Klinaklini R Conservancy	956
Homathko R-Tatlayoko Protected Area	35,565
Horsefly Lake Park	185
Ilgachuz Range Ecological Reserve	532
Itcha Ilgachuz Park	70,186
Junction Sheep Range Park	4,778
Nazko Lake Park	12,052
Nuntsi Park	20,585
Ts'yl-Os Park	233,825
Tweedsmuir Park	13,149
Wells Gray Park	329
Westwick Lake Ecological Reserve	39
White Pelican Park	4026
Spruce Lake Protected Area	2
Total	588,361

Potential Exclusions

Potential Exclusions	Area	Percent
Alex Fraser Research For	9,870	<1
Woodlots	34,186	1
Community Forests	50,897	1
Total Potential Excl	94,953	2
Total TSA Area	4,930,884	100

Appendix B

Mapsheet List

Excluded Areas Summary by Block and Mapsheet all Record >10m ²			
VRI BLOCK	A20K_TAG	DESCRIP	AREA(Ha)
1	0920.056	Crown Grant (Private)	232.0
1	0920.056	Crown Forest	15,190.5
1	0920.057	Crown Grant (Private)	157.3
1	0920.057	Crown Forest	15,265.3
1	0920.058	Crown Grant (Private)	2,042.1
1	0920.058	Crown Forest	10,168.5
1	0920.058	Crown Provincial Park Class A	3,212.4
1	0920.059	Crown Grant (Private)	5,132.3
1	0920.059	Federal Reserve	46.0
1	0920.059	Indian Reserve	2,512.8
1	0920.059	Crown Forest	4,273.2
1	0920.059	Crown Provincial Park Class A	2,437.5
1	0920.060	Crown Grant (Private)	254.1
1	0920.060	Federal Reserve	10.8
1	0920.060	Indian Reserve	692.4
1	0920.060	Crown Forest	8,520.3
1	0920.066	Crown Grant (Private)	253.5
1	0920.066	Crown Forest	15,085.4
1	0920.066	Crown Reserve Misc.	7.4
1	0920.066	Crown and Private Woodlot Licences	42.6
1	0920.067	Crown Grant (Private)	328.2
1	0920.067	Crown Forest	15,027.2
1	0920.067	Crown Reserve Misc.	33.8
1	0920.068	Crown Grant (Private)	797.6
1	0920.068	Crown Forest	14,591.7
1	0920.069	Crown Grant (Private)	1,616.0
1	0920.069	Federal Reserve	43.4
1	0920.069	Indian Reserve	585.0
1	0920.069	Crown Forest	11,428.6
1	0920.069	(DEPRECATED) Forest Tenure Managed Licences Polygons	1,716.7
1	0920.070	Crown Grant (Private)	1,512.0
1	0920.070	Federal Reserve	2.7

1	0920.070	Indian Reserve	24.4
1	0920.070	Crown Forest	11,727.6
1	0920.070	Crown Reserve Misc.	16.2
1	0920.070	(DEPRECATED) Forest Tenure Managed Licenses Polygons	426.5
1	0920.076	Crown Grant (Private)	438.9
1	0920.076	Public Recreation	296.0
1	0920.076	Public Recreation	16.4
1	0920.076	Crown Forest	13,702.6
1	0920.076	Crown Reserve Misc.	16.1
1	0920.076	Crown and Private Woodlot Licences	885.4
1	0920.077	Crown Grant (Private)	174.3
1	0920.077	Crown Forest	15,181.0
1	0920.078	Crown Grant (Private)	867.8
1	0920.078	Crown Forest	12,107.0
1	0920.078	Crown Provincial Park Class A	2,381.0
1	0920.079	Crown Grant (Private)	7,368.0
1	0920.079	Federal Reserve	15.2
1	0920.079	Indian Reserve	260.9
1	0920.079	Crown Forest	1,988.3
1	0920.079	Crown Provincial Park Class A	263.4
1	0920.079	Crown Reserve Misc.	77.3
1	0920.079	(DEPRECATED) Forest Tenure Managed Licenses Polygons	5,383.1
1	0920.080	Crown Grant (Private)	15.7
1	0920.080	Crown Grant (Private)	96.9
1	0920.080	Federal Reserve	14.8
1	0920.080	Indian Reserve	333.5
1	0920.080	Indian Reserve	595.6
1	0920.080	Crown Forest	1,987.0
1	0920.080	Crown Forest -IFPA	7,147.2
1	0920.080	Crown and Private Woodlot Licences	1.5
1	0920.080	Crown and Private Woodlot Licences	598.8
1	0920.080	(DEPRECATED) Forest Tenure Managed Licenses Polygons	4,565.1
1	0920.080	(DEPRECATED) Forest Tenure Managed Licenses Polygons	0.5
1	0920.086	Crown Grant (Private)	5,016.6
1	0920.086	Crown Forest	10,070.6
1	0920.086	Crown Reserve Misc.	234.4
1	0920.087	Crown Grant (Private)	937.6
1	0920.087	Crown Ecological Reserve	256.9
1	0920.087	Crown Forest	14,127.3
1	0920.088	Crown Grant (Private)	6,938.0
1	0920.088	Federal Reserve	2.6

1	0920.088	Indian Reserve	93.0
1	0920.088	Crown Forest	6,206.8
1	0920.088	Crown Provincial Park Class A	1,993.8
1	0920.088	Crown Reserve Misc.	87.8
1	0920.089	Crown Grant (Private)	8,987.3
1	0920.089	Federal Reserve	3.4
1	0920.089	Indian Reserve	5.1
1	0920.089	Crown Forest	2,468.7
1	0920.089	Crown Provincial Park Class A	136.2
1	0920.089	(DEPRECATED) Forest Tenure Managed Licenses Polygons	3,721.8
1	0920.090	Crown Grant (Private)	730.7
1	0920.090	Crown Grant (Private)	260.4
1	0920.090	Indian Reserve	1,977.5
1	0920.090	Indian Reserve	40.5
1	0920.090	Crown Forest	1,145.2
1	0920.090	Crown Forest -IFPA	4,762.8
1	0920.090	Crown and Private Woodlot Licences	522.6
1	0920.090	Crown and Private Woodlot Licences	9.6
1	0920.090	(DEPRECATED) Forest Tenure Managed Licenses Polygons	5,873.8
1	0920.090	(DEPRECATED) Forest Tenure Managed Licenses Polygons	0.0
1	0920.096	Crown Grant (Private)	322.5
1	0920.096	Public Recreation	14.7
1	0920.096	Crown Forest	14,502.2
1	0920.096	Crown Forest -IFPA	444.5
1	0920.096	Crown Reserve Misc.	4.0
1	0920.097	Crown Grant (Private)	1,476.5
1	0920.097	Military Reserve	513.6
1	0920.097	Crown Forest	12,714.8
1	0920.097	Crown and Private Woodlot Licences	570.9
1	0920.097	Crown Misc. Lease	12.2
1	0920.098	Crown Grant (Private)	1,539.1
1	0920.098	Federal Reserve	63.3
1	0920.098	Indian Reserve	2,388.1
1	0920.098	Military Reserve	1,068.5
1	0920.098	Public Recreation	78.9
1	0920.098	Crown Forest	10,115.4
1	0920.098	Crown Reserve Misc.	12.4
1	0920.098	Crown and Private Woodlot Licences	19.4
1	0920.098	Crown Misc. Lease	3.3
1	0920.099	Crown Grant (Private)	3,218.9
1	0920.099	Crown Grant (Private)	308.9

1	092O.099	Federal Reserve	113.5
1	092O.099	Crown Ecological Reserve	47.8
1	092O.099	Crown Forest	10,216.6
1	092O.099	Crown Forest -IFPA	375.6
1	092O.099	Crown Reserve Misc.	65.0
1	092O.099	(DEPRECATED) Forest Tenure Managed Licenses Polygons	942.4
1	092O.100	Crown Grant (Private)	2,997.6
1	092O.100	Crown Grant (Private)	773.2
1	092O.100	Crown Ecological Reserve	22.5
1	092O.100	Crown Ecological Reserve	16.3
1	092O.100	Crown Forest	6,818.6
1	092O.100	Crown Forest -IFPA	4,059.5
1	092O.100	Crown and Private Woodlot Licences	378.4
1	092O.100	Crown and Private Woodlot Licences	223.2
1	092P.061	Crown Forest	390.1
1	092P.071	Crown Grant (Private)	181.9
1	092P.071	Crown Forest	7,676.2
1	092P.071	Crown Forest -IFPA	4,290.6
1	092P.081	Crown Grant (Private)	388.3
1	092P.081	Federal Reserve	11.0
1	092P.081	Indian Reserve	122.2
1	092P.081	Public Recreation	34.6
1	092P.081	Crown Forest	64.9
1	092P.081	Crown Forest -IFPA	11,711.0
1	092P.091	Crown Grant (Private)	846.7
1	092P.091	Crown Grant (Private)	467.2
1	092P.091	Public Recreation	180.0
1	092P.091	Crown Forest	7,430.9
1	092P.091	Crown Forest -IFPA	5,935.5
1	092P.091	Crown Reserve Misc.	8.6
1	092P.091	Crown Reserve Misc.	71.3
1	092P.091	Crown and Private Woodlot Licences	25.7
1	092P.091	Crown and Private Woodlot Licences	7.7
1	092P.091	Crown Misc. Lease	3.1
1	092P.092	Crown Grant (Private)	1,022.1
1	092P.092	Crown Grant (Private)	60.4
1	092P.092	Crown Forest	5,299.2
1	092P.092	Crown Forest -IFPA	14.5
1	092P.092	Crown and Private Woodlot Licences	561.0
1	092P.092	Crown and Private Woodlot Licences	81.4
1	092P.093	Crown Forest	247.4

1	092P.093	Crown Forest -IFPA	521.2
1	092P.093	Crown and Private Woodlot Licences	22.4
1	093A.001	Crown Grant (Private)	1,975.2
1	093A.001	Crown Grant (Private)	4,403.9
1	093A.001	Crown Grant (Private)	4.0
1	093A.001	Crown Grant (Private)	0.6
1	093A.001	Crown Grant (Private)	4.7
1	093A.001	Federal Reserve	0.0
1	093A.001	Indian Reserve	378.7
1	093A.001	Crown Forest	1,386.8
1	093A.001	Crown Forest -IFPA	3,878.4
1	093A.001	Crown Forest -UBC	2,826.8
1	093A.001	Crown Forest -UBC	17.0
1	093A.001	Crown Forest -UBC	0.0
1	093A.001	Crown Reserve Misc.	0.8
1	093A.001	Crown and Private Woodlot Licences	379.4
1	093A.002	Crown Grant (Private)	127.8
1	093A.002	Crown Grant (Private)	1,216.8
1	093A.002	Crown Grant (Private)	0.3
1	093A.002	Crown Grant (Private)	0.1
1	093A.002	Crown Forest	1,799.5
1	093A.002	Crown Forest -IFPA	10,805.4
1	093A.002	Crown Forest -UBC	639.9
1	093A.002	Crown Forest -UBC	2.6
1	093A.002	Crown Reserve Misc.	2.8
1	093A.002	Crown Reserve Misc.	13.5
1	093A.002	Crown and Private Woodlot Licences	4.6
1	093A.002	Crown and Private Woodlot Licences	643.8
1	093A.003	Crown Grant (Private)	86.1
1	093A.003	Crown Grant (Private)	185.1
1	093A.003	Crown Forest	3,008.5
1	093A.003	Crown Forest -IFPA	7,219.7
1	093A.004	Crown Forest	225.6
1	093A.006	Crown Forest	301.4
1	093A.011	Crown Grant (Private)	1,843.9
1	093A.011	Crown Grant (Private)	3,270.1
1	093A.011	Federal Reserve	15.9
1	093A.011	Indian Reserve	792.7
1	093A.011	Indian Reserve	52.5
1	093A.011	Public Recreation	4.9
1	093A.011	Crown Forest	1,596.9

1	093A.011	Crown Forest -IFPA	6,234.3
1	093A.011	Crown Reserve Misc.	18.7
1	093A.011	Crown and Private Woodlot Licences	96.2
1	093A.011	Crown and Private Woodlot Licences	1,295.3
1	093A.011	Crown Misc. Lease	1.1
1	093A.012	Crown Grant (Private)	2,063.5
1	093A.012	Crown Grant (Private)	449.9
1	093A.012	Crown Forest	7,683.5
1	093A.012	Crown Forest -IFPA	4,686.6
1	093A.012	Crown and Private Woodlot Licences	199.0
1	093A.012	Crown and Private Woodlot Licences	140.8
1	093A.013	Crown Grant (Private)	1,075.8
1	093A.013	Crown Grant (Private)	388.4
1	093A.013	Public Recreation	14.6
1	093A.013	Crown Forest	8,002.9
1	093A.013	Crown Forest -IFPA	5,718.6
1	093A.013	Crown Reserve Misc.	24.1
1	093A.014	Crown Grant (Private)	113.5
1	093A.014	Crown Grant (Private)	37.4
1	093A.014	Public Recreation	13.1
1	093A.014	Crown Forest	11,580.3
1	093A.014	Crown Forest -IFPA	295.4
1	093A.014	Crown Reserve Misc.	569.3
1	093A.015	Public Recreation	3.2
1	093A.015	Crown Forest	14,264.9
1	093A.015	Crown Reserve Misc.	155.5
1	093A.015	Crown Reserve Misc.	2.8
1	093A.016	Public Recreation	31.5
1	093A.016	Crown Forest	13,704.9
1	093A.017	Crown Grant (Private)	1.2
1	093A.017	Public Recreation	19.8
1	093A.017	Crown Forest	2,230.5
1	093A.017	Crown Reserve Misc.	1,351.3
1	093A.017	Crown Reserve Misc.	20.4
1	093A.018	Crown Provincial Park Class A	7.8
1	093A.018	Crown Reserve Misc.	6,005.3
1	093A.019	Crown Provincial Park Class A	8.8
1	093A.019	Crown Reserve Misc.	193.4
1	093A.021	Crown Grant (Private)	5,192.9
1	093A.021	Crown Grant (Private)	63.9
1	093A.021	Crown Forest	8,330.3

1	093A.021	Crown Forest -IFPA	126.3
1	093A.021	Crown Reserve Misc.	3.1
1	093A.021	Crown Reserve Misc.	2.2
1	093A.021	Crown and Private Woodlot Licences	1,075.0
1	093A.021	Crown and Private Woodlot Licences	391.9
1	093A.021	Crown Misc. Lease	2.7
1	093A.022	Crown Grant (Private)	4,163.7
1	093A.022	Crown Grant (Private)	255.0
1	093A.022	Crown Forest	8,839.6
1	093A.022	Crown Forest -IFPA	1,070.8
1	093A.022	Crown Reserve Misc.	10.5
1	093A.022	Crown and Private Woodlot Licences	849.9
1	093A.023	Crown Grant (Private)	840.5
1	093A.023	Crown Grant (Private)	1,279.3
1	093A.023	Public Recreation	13.5
1	093A.023	Crown Forest	7,567.4
1	093A.023	Crown Forest -IFPA	4,634.0
1	093A.023	Crown Reserve Misc.	23.4
1	093A.023	Crown and Private Woodlot Licences	581.0
1	093A.023	Crown and Private Woodlot Licences	251.3
1	093A.024	Crown Grant (Private)	761.3
1	093A.024	Crown Grant (Private)	254.0
1	093A.024	Crown Forest	9,173.6
1	093A.024	Crown Forest -IFPA	4,829.4
1	093A.024	Crown Reserve Misc.	157.1
1	093A.024	Crown Reserve Misc.	16.1
1	093A.025	Crown Grant (Private)	1,040.4
1	093A.025	Public Recreation	0.6
1	093A.025	Crown Forest	14,045.9
1	093A.025	Crown Reserve Misc.	105.9
1	093A.026	Crown Grant (Private)	60.4
1	093A.026	Public Recreation	71.9
1	093A.026	Crown Forest	14,960.9
1	093A.026	Crown Reserve Misc.	6.5
1	093A.026	Crown Reserve Misc.	91.3
1	093A.026	Crown Misc. Lease	3.0
1	093A.027	Public Recreation	126.9
1	093A.027	Crown Forest	9,536.8
1	093A.027	Crown Reserve Misc.	5,497.4
1	093A.027	Crown Reserve Misc.	34.5
1	093A.028	Crown Forest	2,384.4

1	093A.028	Crown Provincial Park Class A	23.5
1	093A.028	Crown Reserve Misc.	8,643.9
1	093A.029	Crown Reserve Misc.	18.6
1	093A.031	Crown Grant (Private)	739.8
1	093A.031	Crown Grant (Private)	1,169.5
1	093A.031	Crown Forest	3,694.4
1	093A.031	Crown Forest -IFPA	8,424.4
1	093A.031	Crown Reserve Misc.	76.7
1	093A.031	Crown and Private Woodlot Licences	230.9
1	093A.031	Crown and Private Woodlot Licences	817.8
1	093A.031	Crown Misc. Lease	1.1
1	093A.032	Crown Grant (Private)	1,023.4
1	093A.032	Crown Grant (Private)	2.7
1	093A.032	Public Recreation	1.8
1	093A.032	Crown Forest	10,862.2
1	093A.032	Crown Forest -IFPA	2,883.8
1	093A.032	Crown Reserve Misc.	16.9
1	093A.032	Crown Reserve Misc.	11.9
1	093A.032	Crown and Private Woodlot Licences	278.8
1	093A.032	Crown and Private Woodlot Licences	73.9
1	093A.033	Crown Grant (Private)	4,457.4
1	093A.033	Crown Grant (Private)	324.9
1	093A.033	Federal Reserve	1.0
1	093A.033	Crown Forest	8,207.9
1	093A.033	Crown Forest -IFPA	146.9
1	093A.033	Crown Reserve Misc.	51.0
1	093A.033	Crown and Private Woodlot Licences	1,905.0
1	093A.033	Crown and Private Woodlot Licences	62.4
1	093A.034	Crown Grant (Private)	3,603.8
1	093A.034	Crown Grant (Private)	164.3
1	093A.034	Public Recreation	6.2
1	093A.034	Crown Forest	9,429.1
1	093A.034	Crown Forest -IFPA	65.9
1	093A.034	Crown Provincial Park Class A	158.1
1	093A.034	Crown Reserve Misc.	105.3
1	093A.034	Crown Reserve Misc.	537.6
1	093A.034	Crown Reserve Misc.	37.0
1	093A.034	Crown and Private Woodlot Licences	1,050.2
1	093A.035	Crown Grant (Private)	163.2
1	093A.035	Public Recreation	7.5
1	093A.035	Crown Forest	14,968.2

1	093A.035	Crown Reserve Misc.	18.3
1	093A.035	Crown Misc. Lease	1.5
1	093A.036	Crown Forest	14,592.3
1	093A.036	Crown Reserve Misc.	567.8
1	093A.037	Crown Forest	9,171.2
1	093A.037	Crown Reserve Misc.	5,990.5
1	093A.038	Crown Forest	934.1
1	093A.038	Crown Provincial Park Class A	9.7
1	093A.038	Crown Reserve Misc.	5,734.0
1	093A.041	Crown Grant (Private)	3,784.0
1	093A.041	Crown Grant (Private)	2,278.0
1	093A.041	Crown Grant (Private)	4.8
1	093A.041	Public Recreation	32.2
1	093A.041	Public Recreation -UBC	0.2
1	093A.041	Crown Forest	5,431.7
1	093A.041	Crown Forest -UBC	1,549.8
1	093A.041	Crown Forest -UBC	500.8
1	093A.041	Crown Reserve Misc.	9.2
1	093A.041	Crown and Private Woodlot Licences	843.4
1	093A.041	Crown and Private Woodlot Licences	685.9
1	093A.041	Crown Misc. Lease	0.8
1	093A.042	Crown Grant (Private)	1,517.3
1	093A.042	Crown Grant (Private)	22.7
1	093A.042	Public Recreation	13.6
1	093A.042	Public Recreation -UBC	1.5
1	093A.042	Crown Forest	6,833.0
1	093A.042	Crown Forest -UBC	5,844.3
1	093A.042	Crown Reserve Misc.	0.1
1	093A.042	Crown Reserve Misc.	13.7
1	093A.042	Crown Reserve Misc. -UBC	4.9
1	093A.042	Crown and Private Woodlot Licences	870.3
1	093A.042	Crown and Private Woodlot Licences	0.1
1	093A.043	Crown Grant (Private)	827.6
1	093A.043	Public Recreation	65.8
1	093A.043	Crown Forest	13,291.6
1	093A.043	Crown Reserve Misc.	313.5
1	093A.043	Crown Reserve Misc.	162.1
1	093A.043	Crown and Private Woodlot Licences	460.8
1	093A.043	Crown Misc. Lease	1.1
1	093A.044	Crown Grant (Private)	65.9
1	093A.044	Public Recreation	53.8

1	093A.044	Crown Forest	14,194.4
1	093A.044	Crown Reserve Misc.	12.2
1	093A.044	Crown Reserve Misc.	164.6
1	093A.044	Crown and Private Woodlot Licences	631.8
1	093A.044	Crown Misc. Lease	0.6
1	093A.045	Crown Grant (Private)	1.9
1	093A.045	Public Recreation	9.9
1	093A.045	Crown Forest	15,060.7
1	093A.045	Crown Reserve Misc.	52.3
1	093A.046	Crown Grant (Private)	11.6
1	093A.046	Public Recreation	89.5
1	093A.046	Crown Forest	13,832.7
1	093A.046	Crown Reserve Misc.	1,137.6
1	093A.046	Crown Reserve Misc.	54.8
1	093A.047	Crown Grant (Private)	6.0
1	093A.047	Public Recreation	9.7
1	093A.047	Crown Forest	4,946.5
1	093A.047	Crown Reserve Misc.	10,165.5
1	093A.048	Crown Forest	1,352.5
1	093A.048	Crown Provincial Park Class A	12.5
1	093A.048	Crown Reserve Misc.	5,950.5
1	093A.051	Crown Grant (Private)	1,058.3
1	093A.051	Crown Forest	12,464.1
1	093A.051	Crown Reserve Misc.	4.1
1	093A.051	Crown and Private Woodlot Licences	1,560.2
1	093A.052	Crown Grant (Private)	195.1
1	093A.052	Public Recreation	1.9
1	093A.052	Crown Forest	12,668.8
1	093A.052	Crown Reserve Misc.	1,505.9
1	093A.052	Crown Reserve Misc.	48.0
1	093A.052	Crown and Private Woodlot Licences	222.9
1	093A.052	(DEPRECATED) Forest Tenure Managed Licenses Polygons	444.8
1	093A.053	Crown Grant (Private)	212.0
1	093A.053	Public Recreation	15.5
1	093A.053	Crown Forest	8,970.3
1	093A.053	Crown Provincial Park Class A	9.2
1	093A.053	Crown Reserve Misc.	22.9
1	093A.053	Crown Reserve Misc.	90.7
1	093A.053	Crown and Private Woodlot Licences	138.8
1	093A.053	(DEPRECATED) Forest Tenure Managed Licenses Polygons	5,629.0
1	093A.054	Crown Grant (Private)	11.9

1	093A.054	Public Recreation	86.2
1	093A.054	Crown Forest	13,981.1
1	093A.054	Crown Reserve Misc.	461.9
1	093A.054	Crown Reserve Misc.	67.2
1	093A.054	(DEPRECATED) Forest Tenure Managed Licenses Polygons	481.2
1	093A.055	Crown Grant (Private)	69.9
1	093A.055	Public Recreation	13.6
1	093A.055	Crown Forest	13,374.6
1	093A.055	Crown Reserve Misc.	1,556.5
1	093A.055	Crown Reserve Misc.	70.7
1	093A.055	Crown Misc. Lease	5.5
1	093A.056	Crown Grant (Private)	1.0
1	093A.056	Public Recreation	14.6
1	093A.056	Crown Forest	11,493.1
1	093A.056	Crown Reserve Misc.	3,574.3
1	093A.056	Crown Reserve Misc.	9.1
1	093A.057	Public Recreation	35.4
1	093A.057	Crown Forest	8,920.9
1	093A.057	Crown Reserve Misc.	6,137.2
1	093A.058	Public Recreation	20.4
1	093A.058	Crown Forest	7,302.4
1	093A.058	Crown Provincial Park Class A	26.8
1	093A.058	Crown Reserve Misc.	6,675.0
1	093A.058	Crown Reserve Misc.	18.2
1	093A.059	Crown Forest	2,657.5
1	093A.059	Crown Provincial Park Class A	459.4
1	093A.059	Crown Reserve Misc.	801.3
1	093A.061	Crown Grant (Private)	46.9
1	093A.061	Crown Forest	8,954.3
1	093A.061	Crown and Private Woodlot Licences	92.6
1	093A.062	Crown Grant (Private)	466.1
1	093A.062	Public Recreation	30.5
1	093A.062	Crown Forest	9,827.2
1	093A.062	Crown Provincial Park Class A	0.7
1	093A.062	Crown Reserve Misc.	9.5
1	093A.062	Crown and Private Woodlot Licences	1,525.8
1	093A.062	(DEPRECATED) Forest Tenure Managed Licenses Polygons	1,777.9
1	093A.063	Crown Grant (Private)	473.0
1	093A.063	Crown Forest	9,546.9
1	093A.063	Crown Reserve Misc.	907.8
1	093A.063	Crown Reserve Misc.	31.0

1	093A.063	Crown and Private Woodlot Licences	704.1
1	093A.063	(DEPRECATED) Forest Tenure Managed Licenses Polygons	3,391.6
1	093A.064	Crown Forest	3,977.6
1	093A.064	Crown Reserve Misc.	11,077.8
1	093A.065	Crown Grant (Private)	2.1
1	093A.065	Public Recreation	8.2
1	093A.065	Crown Forest	4,181.2
1	093A.065	Crown Reserve Misc.	10,865.2
1	093A.066	Crown Grant (Private)	32.4
1	093A.066	Public Recreation	16.8
1	093A.066	Crown Forest	7,430.9
1	093A.066	Crown Reserve Misc.	7,503.5
1	093A.066	Crown Reserve Misc.	74.4
1	093A.067	Crown Forest	2,257.3
1	093A.067	Crown Reserve Misc.	12,802.2
1	093A.068	Crown Forest	2,277.7
1	093A.068	Crown Provincial Park Class A	7,232.5
1	093A.068	Crown Reserve Misc.	5,550.9
1	093A.069	Crown Grant (Private)	6.9
1	093A.069	Public Recreation	11.5
1	093A.069	Crown Forest	2,899.4
1	093A.069	Crown Provincial Park Class A	6,445.5
1	093A.069	Crown Reserve Misc.	839.3
1	093A.069	Crown Reserve Misc.	41.5
1	093A.072	Crown Forest	4,024.8
1	093A.072	Crown Reserve Misc.	389.6
1	093A.072	Crown and Private Sched B Tree Farm Licence	0.9
1	093A.073	Crown Grant (Private)	133.9
1	093A.073	Public Recreation	24.9
1	093A.073	Crown Forest	13,543.9
1	093A.073	Crown Reserve Misc.	1,149.4
1	093A.073	Crown Reserve Misc.	6.9
1	093A.073	Crown and Private Sched B Tree Farm Licence	140.7
1	093A.074	Crown Grant (Private)	50.1
1	093A.074	Public Recreation	116.4
1	093A.074	Public Recreation	0.9
1	093A.074	Crown Forest	6,864.1
1	093A.074	Crown Provincial Park Class A	98.9
1	093A.074	Crown Reserve Misc.	7,882.9
1	093A.074	Crown Reserve Misc.	7.9
1	093A.075	Crown Forest	4,894.9

1	093A.075	Crown Reserve Misc.	10,127.5
1	093A.076	Crown Grant (Private)	58.8
1	093A.076	Public Recreation	39.5
1	093A.076	Crown Forest	6,351.1
1	093A.076	Crown Provincial Park Class A	359.4
1	093A.076	Crown Reserve Misc.	8,198.8
1	093A.076	Crown Reserve Misc.	16.2
1	093A.077	Crown Forest	2,479.5
1	093A.077	Crown Provincial Park Class A	313.2
1	093A.077	Crown Reserve Misc.	12,232.5
1	093A.078	Crown Forest	1.7
1	093A.078	Crown Provincial Park Class A	9,152.6
1	093A.078	Crown Reserve Misc.	5,872.6
1	093A.079	Crown Provincial Park Class A	7,782.9
1	093A.082	Crown Forest	185.4
1	093A.082	Crown Reserve Misc.	480.3
1	093A.083	Public Recreation	4.0
1	093A.083	Crown Forest	6,298.1
1	093A.083	Crown Reserve Misc.	3,631.3
1	093A.083	Crown Reserve Misc.	3.3
1	093A.083	Crown and Private Sched B Tree Farm Licence	0.0
1	093A.084	Crown Grant (Private)	9.8
1	093A.084	Crown Forest	5,592.4
1	093A.084	Crown Provincial Park Class A	1,768.3
1	093A.084	Crown Reserve Misc.	3,664.9
1	093A.084	Crown Reserve Misc.	195.5
1	093A.085	Crown Forest	7,318.3
1	093A.085	Crown Provincial Park Class A	1.7
1	093A.085	Crown Reserve Misc.	4,363.8
1	093A.086	Crown Forest	3,103.7
1	093A.086	Crown Provincial Park Class A	1,095.4
1	093A.086	Crown Reserve Misc.	5,764.8
1	093A.086	Crown Reserve Misc.	41.5
1	093A.087	Crown Forest	1,159.4
1	093A.087	Crown Provincial Park Class A	10,440.4
1	093A.087	Crown Reserve Misc.	2,705.8
1	093A.088	Crown Forest	1.5
1	093A.088	Crown Provincial Park Class A	12,461.6
1	093A.088	Crown Reserve Misc.	2,529.5
1	093A.089	Crown Provincial Park Class A	9,423.5
1	093A.090	Crown Provincial Park Class A	1,356.2

1	093A.097	Crown Provincial Park Class A	1,788.4
1	093A.098	Crown Grant (Private)	13.3
1	093A.098	Crown Forest	0.0
1	093A.098	Crown Provincial Park Class A	10,423.3
1	093A.099	Crown Forest	0.0
1	093A.099	Crown Provincial Park Class A	4,873.9
1	093A.100	Crown Provincial Park Class A	596.7
1	093B.006	Crown Grant (Private)	46.8
1	093B.006	Crown Grant (Private)	64.7
1	093B.006	Public Recreation	1.0
1	093B.006	Crown Forest	13,053.3
1	093B.006	Crown Forest -IFPA	2,054.4
1	093B.006	Crown Reserve Misc.	33.8
1	093B.007	Crown Grant (Private)	265.9
1	093B.007	Military Reserve	6,046.3
1	093B.007	Crown Forest	8,942.2
1	093B.008	Crown Grant (Private)	312.6
1	093B.008	Federal Reserve	5.7
1	093B.008	Indian Reserve	74.4
1	093B.008	Military Reserve	14,542.4
1	093B.008	Crown Forest	319.5
1	093B.009	Crown Grant (Private)	881.3
1	093B.009	Crown Grant (Private)	753.4
1	093B.009	Federal Reserve	3.8
1	093B.009	Federal Reserve	0.6
1	093B.009	Indian Reserve	8.8
1	093B.009	Indian Reserve	14.3
1	093B.009	Crown Forest	9,515.3
1	093B.009	Crown Forest -IFPA	4,007.9
1	093B.009	Crown Reserve Misc.	69.8
1	093B.010	Crown Grant (Private)	1,861.3
1	093B.010	Crown Grant (Private)	1,786.6
1	093B.010	Federal Reserve	1.1
1	093B.010	Indian Reserve	5.7
1	093B.010	Crown Forest	5,049.3
1	093B.010	Crown Forest -IFPA	5,234.4
1	093B.010	Crown Reserve Misc.	26.1
1	093B.010	Crown and Private Woodlot Licences	459.1
1	093B.010	Crown and Private Woodlot Licences	781.7
1	093B.010	Crown Misc. Lease	50.1
1	093B.016	Crown Grant (Private)	160.3

1	093B.016	Indian Reserve	1.9
1	093B.016	Crown Forest	15,058.2
1	093B.017	Crown Grant (Private)	181.0
1	093B.017	Military Reserve	5,457.6
1	093B.017	Crown Forest	9,581.9
1	093B.018	Crown Grant (Private)	228.1
1	093B.018	Military Reserve	13,039.7
1	093B.018	Crown Forest	1,952.9
1	093B.019	Crown Grant (Private)	1,987.9
1	093B.019	Crown Grant (Private)	318.1
1	093B.019	Federal Reserve	3.9
1	093B.019	Indian Reserve	3.9
1	093B.019	Crown Forest	9,115.1
1	093B.019	Crown Forest -IFPA	3,412.0
1	093B.019	Crown Reserve Misc.	314.0
1	093B.019	Crown Reserve Misc.	66.1
1	093B.020	Crown Grant (Private)	5,070.3
1	093B.020	Crown Grant (Private)	2,367.7
1	093B.020	Federal Reserve	16.0
1	093B.020	Indian Reserve	222.9
1	093B.020	Public Recreation	145.4
1	093B.020	Crown Forest	5,025.9
1	093B.020	Crown Forest -IFPA	1,629.5
1	093B.020	Crown Reserve Misc.	98.0
1	093B.020	Crown Reserve Misc.	36.6
1	093B.020	Crown and Private Woodlot Licences	609.6
1	093B.026	Crown Grant (Private)	572.6
1	093B.026	Indian Reserve	13.7
1	093B.026	Crown Forest	14,217.9
1	093B.026	Crown Provincial Park Class A	360.9
1	093B.026	Crown Reserve Misc.	21.4
1	093B.027	Crown Grant (Private)	350.9
1	093B.027	Crown Forest	14,835.7
1	093B.028	Crown Grant (Private)	531.4
1	093B.028	Crown Forest	14,046.7
1	093B.028	Crown and Private Woodlot Licences	608.8
1	093B.029	Crown Grant (Private)	2,458.0
1	093B.029	Public Recreation	8.4
1	093B.029	Crown Forest	12,668.0
1	093B.029	Crown Forest -IFPA	2.8
1	093B.029	Crown Reserve Misc.	50.2

1	093B.030	Crown Grant (Private)	1,066.4
1	093B.030	Crown Grant (Private)	50.1
1	093B.030	Federal Reserve	5.9
1	093B.030	Indian Reserve	1,645.6
1	093B.030	Public Recreation	2.3
1	093B.030	Crown Forest	10,434.7
1	093B.030	Crown Forest -IFPA	264.8
1	093B.030	Crown Reserve Misc.	518.5
1	093B.030	Crown Reserve Misc.	21.8
1	093B.030	Crown and Private Woodlot Licences	1,177.9
1	093B.036	Crown Grant (Private)	255.4
1	093B.036	Indian Reserve	11.1
1	093B.036	Crown Forest	13,329.5
1	093B.036	Crown Provincial Park Class A	72.2
1	093B.036	Crown Reserve Misc.	33.1
1	093B.036	Crown and Private Woodlot Licences	0.5
1	093B.037	Crown Grant (Private)	1,015.0
1	093B.037	Crown Forest	10,352.1
1	093B.037	Crown and Private Woodlot Licences	0.8
1	093B.038	Crown Grant (Private)	1,660.1
1	093B.038	Crown Forest	10,841.1
1	093B.038	Crown and Private Woodlot Licences	88.6
1	093B.039	Crown Grant (Private)	3,275.1
1	093B.039	Crown Grant (Private)	431.5
1	093B.039	Federal Reserve	36.2
1	093B.039	Indian Reserve	410.0
1	093B.039	Public Recreation	1.0
1	093B.039	Crown Forest	8,704.4
1	093B.039	Crown Forest -IFPA	1,622.2
1	093B.039	Crown Reserve Misc.	40.6
1	093B.039	Crown Reserve Misc.	1.9
1	093B.039	Crown and Private Woodlot Licences	552.4
1	093B.039	Crown and Private Woodlot Licences	78.1
1	093B.040	Crown Grant (Private)	904.4
1	093B.040	Crown Grant (Private)	314.1
1	093B.040	Public Recreation	17.4
1	093B.040	Crown Forest	6,772.3
1	093B.040	Crown Forest -IFPA	6,757.8
1	093B.040	Crown Reserve Misc.	128.4
1	093B.040	Crown and Private Woodlot Licences	238.3
1	093B.040	Crown Misc. Lease	21.1

1	093B.046	Crown Forest	1,259.5
1	093B.048	Crown Grant (Private)	107.2
1	093B.048	Crown Forest	1,045.2
1	093B.049	Crown Grant (Private)	1,501.1
1	093B.049	Public Recreation	3.1
1	093B.049	Crown Forest	8,428.4
1	093B.049	Crown Reserve Misc.	38.2
1	093B.049	Crown and Private Woodlot Licences	83.1
1	093B.050	Crown Grant (Private)	1,583.7
1	093B.050	Crown Grant (Private)	942.8
1	093B.050	Public Recreation	4.4
1	093B.050	Crown Forest	4,869.1
1	093B.050	Crown Forest -IFPA	6,485.6
1	093B.050	Crown Reserve Misc.	67.8
1	093B.050	Crown Reserve Misc.	103.9
1	093B.050	Crown and Private Woodlot Licences	324.4
1	093B.050	Crown and Private Woodlot Licences	738.3
1	093B.059	Crown Forest	2,063.6
1	093B.060	Crown Grant (Private)	678.2
1	093B.060	Crown Forest	13,776.0
1	093B.060	Crown Reserve Misc.	180.1
1	093B.060	Crown Reserve Misc.	47.5
1	093B.060	Crown and Private Woodlot Licences	404.2
1	093B.069	Crown Forest	3,096.4
1	093B.070	Crown Grant (Private)	319.7
1	093B.070	Crown Forest	13,916.6
1	093B.079	Crown Forest	21.7
1	093B.080	Crown Grant (Private)	80.4
1	093B.080	Crown Forest	1,180.4
1 Total			1,714,275.6
2	092N.092	Crown Forest	264.8
2	092N.092	Crown Provincial Park Class A	1.5
2	092N.093	Crown Forest	12,881.4
2	092N.093	Crown Provincial Park Class A	13.0
2	092N.094	Crown Grant (Private)	98.6
2	092N.094	Crown Forest	15,198.7
2	092N.095	Crown Grant (Private)	298.7
2	092N.095	Public Recreation	20.6
2	092N.095	Crown Forest	14,976.4
2	092N.096	Crown Grant (Private)	1,687.9
2	092N.096	Public Recreation	4.7

2	092N.096	Crown Forest	13,436.9
2	092N.096	Crown Reserve Misc.	115.1
2	092N.096	Crown Reserve Misc.	49.6
2	092N.097	Crown Grant (Private)	408.5
2	092N.097	Public Recreation	31.9
2	092N.097	Crown Forest	13,153.9
2	092N.097	Crown Reserve Misc.	1,677.2
2	092N.097	Crown and Private Woodlot Licences	21.5
2	092N.098	Crown Grant (Private)	282.9
2	092N.098	Public Recreation	4.6
2	092N.098	Crown Forest	11,910.3
2	092N.098	Crown Reserve Misc.	3,064.3
2	092N.098	Crown Reserve Misc.	29.8
2	092N.099	Crown Grant (Private)	32.5
2	092N.099	Public Recreation	9.6
2	092N.099	Crown Forest	15,099.4
2	092N.099	Crown Reserve Misc.	89.0
2	092N.099	Crown Reserve Misc.	60.5
2	092N.100	Crown Grant (Private)	1.1
2	092N.100	Public Recreation	2.3
2	092N.100	Crown Forest	15,279.6
2	092N.100	Crown Reserve Misc.	7.0
2	092O.091	Crown Grant (Private)	17.5
2	092O.091	Crown Forest	15,271.8
2	092O.092	Crown Grant (Private)	20.2
2	092O.092	Crown Forest	15,114.9
2	092O.092	Crown and Private Woodlot Licences	153.6
2	092O.093	Crown Grant (Private)	59.6
2	092O.093	Crown Forest	15,228.8
2	092O.094	Crown Grant (Private)	161.5
2	092O.094	Crown Forest	15,126.6
2	092O.095	Crown Grant (Private)	2,576.8
2	092O.095	Federal Reserve	13.4
2	092O.095	Federal Reserve	10.3
2	092O.095	Indian Reserve	1,766.2
2	092O.095	Indian Reserve	358.4
2	092O.095	Crown Forest	9,793.7
2	092O.095	Crown Forest -IFPA	769.1
2	093B.001	Crown Forest	15,255.5
2	093B.002	Crown Grant (Private)	585.5
2	093B.002	Crown Grant (Private)	165.7

2	093B.002	Public Recreation	12.1
2	093B.002	Crown Forest	14,119.6
2	093B.002	Crown Forest -IFPA	137.1
2	093B.002	Crown Reserve Misc.	76.1
2	093B.002	Crown and Private Woodlot Licences	56.6
2	093B.002	Crown and Private Woodlot Licences	102.4
2	093B.003	Crown Grant (Private)	1,334.9
2	093B.003	Crown Grant (Private)	346.0
2	093B.003	Public Recreation	5.8
2	093B.003	Crown Forest	12,670.4
2	093B.003	Crown Forest -IFPA	236.1
2	093B.003	Crown Reserve Misc.	120.9
2	093B.003	Crown and Private Woodlot Licences	533.4
2	093B.003	Crown and Private Woodlot Licences	7.1
2	093B.004	Crown Grant (Private)	1,602.1
2	093B.004	Crown Grant (Private)	1,276.0
2	093B.004	Federal Reserve	25.3
2	093B.004	Indian Reserve	742.5
2	093B.004	Crown Forest	9,468.8
2	093B.004	Crown Forest -IFPA	725.3
2	093B.004	Crown Provincial Park Class A	343.2
2	093B.004	Crown Reserve Misc.	47.2
2	093B.004	Crown Reserve Misc.	331.1
2	093B.004	Crown Reserve Misc.	28.6
2	093B.004	Crown and Private Woodlot Licences	664.3
2	093B.005	Crown Grant (Private)	17.9
2	093B.005	Federal Reserve	24.2
2	093B.005	Indian Reserve	2,656.1
2	093B.005	Crown Forest	4,281.0
2	093B.005	Crown Forest -IFPA	8,275.0
2	093B.011	Crown Grant (Private)	244.5
2	093B.011	Federal Reserve	34.9
2	093B.011	Indian Reserve	584.8
2	093B.011	Public Recreation	10.3
2	093B.011	Crown Forest	14,248.5
2	093B.011	Crown Reserve Misc.	98.7
2	093B.012	Crown Grant (Private)	1,120.8
2	093B.012	Crown Grant (Private)	433.0
2	093B.012	Crown Forest	5,814.3
2	093B.012	Crown Forest -IFPA	7,531.2
2	093B.012	Crown Reserve Misc.	16.0

2	093B.012	Crown Reserve Misc.	0.8
2	093B.012	Crown and Private Woodlot Licences	305.0
2	093B.013	Crown Grant (Private)	312.9
2	093B.013	Crown Grant (Private)	695.3
2	093B.013	Crown Forest	98.0
2	093B.013	Crown Forest -IFPA	14,114.6
2	093B.014	Crown Grant (Private)	201.3
2	093B.014	Crown Grant (Private)	775.3
2	093B.014	Federal Reserve	18.1
2	093B.014	Indian Reserve	334.8
2	093B.014	Public Recreation	6.5
2	093B.014	Crown Forest	2,383.1
2	093B.014	Crown Forest -IFPA	11,465.7
2	093B.014	Crown Reserve Misc.	30.8
2	093B.014	Crown Reserve Misc.	4.9
2	093B.015	Crown Grant (Private)	166.8
2	093B.015	Crown Grant (Private)	152.6
2	093B.015	Indian Reserve	8.5
2	093B.015	Crown Forest	8,662.6
2	093B.015	Crown Forest -IFPA	6,229.9
2	093B.021	Crown Grant (Private)	3.1
2	093B.021	Crown Forest	11,698.7
2	093B.021	Crown Forest -IFPA	3,486.1
2	093B.022	Crown Forest	414.4
2	093B.022	Crown Forest -IFPA	14,773.0
2	093B.023	Crown Grant (Private)	647.6
2	093B.023	Public Recreation	11.6
2	093B.023	Crown Forest -IFPA	14,482.1
2	093B.023	Crown Reserve Misc.	45.6
2	093B.024	Crown Grant (Private)	19.0
2	093B.024	Crown Grant (Private)	165.8
2	093B.024	Crown Forest	5,615.1
2	093B.024	Crown Forest -IFPA	9,386.7
2	093B.025	Crown Grant (Private)	227.3
2	093B.025	Crown Grant (Private)	42.5
2	093B.025	Indian Reserve	16.3
2	093B.025	Crown Forest	10,691.0
2	093B.025	Crown Forest -IFPA	1,527.4
2	093B.025	Crown Provincial Park Class A	2,674.2
2	093B.025	Crown Reserve Misc.	7.8
2	093B.031	Crown Grant (Private)	16.2

2	093B.031	Crown Grant (Private)	909.5
2	093B.031	Crown Forest	3,869.0
2	093B.031	Crown Forest -IFPA	10,339.3
2	093B.031	Crown Reserve Misc.	20.0
2	093B.032	Crown Grant (Private)	15.3
2	093B.032	Crown Forest -IFPA	14,624.5
2	093B.032	Crown Provincial Park Class A	513.4
2	093B.033	Crown Grant (Private)	176.1
2	093B.033	Crown Grant (Private)	319.9
2	093B.033	Crown Forest	1,062.8
2	093B.033	Crown Forest -IFPA	11,232.9
2	093B.033	Crown Provincial Park Class A	2,338.5
2	093B.033	Crown Reserve Misc.	16.7
2	093B.033	Crown Reserve Misc.	5.9
2	093B.034	Crown Grant (Private)	120.0
2	093B.034	Public Recreation	1.4
2	093B.034	Crown Forest	12,734.7
2	093B.034	Crown Forest -IFPA	1,500.9
2	093B.034	Crown Reserve Misc.	688.3
2	093B.034	Crown Reserve Misc.	107.5
2	093B.035	Crown Grant (Private)	406.1
2	093B.035	Indian Reserve	18.1
2	093B.035	Crown Forest	13,823.4
2	093B.035	Crown Provincial Park Class A	905.0
2	093B.041	Crown Grant (Private)	407.0
2	093B.041	Crown Forest	674.1
2	093B.041	Crown Forest -IFPA	14,038.9
2	093B.042	Crown Grant (Private)	166.1
2	093B.042	Crown Forest	1,773.4
2	093B.042	Crown Forest -IFPA	13,180.0
2	093B.043	Crown Grant (Private)	364.1
2	093B.043	Crown Grant (Private)	17.1
2	093B.043	Crown Forest	5,919.1
2	093B.043	Crown Forest -IFPA	1,658.7
2	093B.043	Crown Provincial Park Class A	6,923.7
2	093B.043	Crown Reserve Misc.	164.4
2	093B.043	Crown Reserve Misc.	71.8
2	093B.044	Crown Grant (Private)	164.4
2	093B.044	Indian Reserve	4.8
2	093B.044	Crown Forest	14,949.5
2	093B.045	Crown Grant (Private)	125.5

2	093B.045	Indian Reserve	31.1
2	093B.045	Public Recreation	1.0
2	093B.045	Crown Forest	14,937.8
2	093B.045	Crown Reserve Misc.	23.2
2	093B.051	Crown Grant (Private)	302.0
2	093B.051	Crown Forest	12,645.2
2	093B.051	Crown Forest -IFPA	1,847.5
2	093B.052	Crown Grant (Private)	388.0
2	093B.052	Crown Forest	12,847.6
2	093B.052	Crown Forest -IFPA	342.6
2	093B.053	Crown Grant (Private)	154.1
2	093B.053	Crown Forest	12,403.0
2	093B.053	Crown Provincial Park Class A	2,202.6
2	093B.053	Crown Reserve Misc.	100.9
2	093B.054	Crown Forest	4,775.5
2	093B.055	Crown Forest	0.1
2	093B.061	Crown Grant (Private)	99.6
2	093B.061	Crown Forest	7,976.4
2	093B.062	Crown Forest	435.1
2	093B.063	Crown Grant (Private)	74.2
2	093B.063	Crown Forest	2,735.8
2	093C.002	Crown Forest	3,427.5
2	093C.002	Crown Provincial Park Class A	14.8
2	093C.003	Crown Forest	15,265.2
2	093C.004	Public Recreation	30.6
2	093C.004	Crown Forest	15,232.8
2	093C.005	Crown Grant (Private)	43.9
2	093C.005	Public Recreation	2.8
2	093C.005	Crown Forest	15,155.7
2	093C.005	Crown Reserve Misc.	59.4
2	093C.006	Crown Grant (Private)	358.8
2	093C.006	Public Recreation	2.8
2	093C.006	Crown Forest	14,805.7
2	093C.006	Crown Reserve Misc.	93.1
2	093C.007	Crown Grant (Private)	16.1
2	093C.007	Crown Forest	15,243.2
2	093C.008	Crown Forest	15,258.1
2	093C.009	Crown Grant (Private)	24.5
2	093C.009	Public Recreation	9.7
2	093C.009	Crown Forest	14,898.3
2	093C.009	Crown Provincial Park	25.1

2	093C.009	Crown Reserve Misc.	299.6
2	093C.010	Crown Grant (Private)	104.6
2	093C.010	Crown Forest	15,049.6
2	093C.010	Crown Provincial Park	64.3
2	093C.010	Crown Reserve Misc.	37.8
2	093C.012	Crown Forest	3,892.0
2	093C.012	Crown Provincial Park Class A	11.2
2	093C.013	Crown Grant (Private)	12.1
2	093C.013	Crown Forest	15,211.9
2	093C.013	Crown Reserve Misc.	7.1
2	093C.014	Crown Grant (Private)	293.7
2	093C.014	Public Recreation	104.6
2	093C.014	Crown Forest	14,816.6
2	093C.014	Crown Reserve Misc.	14.7
2	093C.015	Crown Grant (Private)	260.3
2	093C.015	Crown Forest	14,967.8
2	093C.016	Crown Forest	15,226.7
2	093C.017	Crown Forest	15,225.3
2	093C.018	Crown Grant (Private)	253.5
2	093C.018	Indian Reserve	2.8
2	093C.018	Crown Forest	14,968.0
2	093C.019	Crown Grant (Private)	326.9
2	093C.019	Indian Reserve	20.5
2	093C.019	Crown Forest	14,875.8
2	093C.020	Crown Grant (Private)	371.1
2	093C.020	Public Recreation	13.3
2	093C.020	Crown Forest	13,569.7
2	093C.020	Crown Provincial Park	520.1
2	093C.020	Crown Reserve Misc.	675.2
2	093C.020	Crown Reserve Misc.	73.1
2	093C.022	Crown Forest	2,156.5
2	093C.022	Crown Provincial Park Class A	8.9
2	093C.023	Public Recreation	64.7
2	093C.023	Crown Forest	15,130.5
2	093C.023	Crown Provincial Park Class A	0.2
2	093C.023	Crown Misc. Lease	1.0
2	093C.024	Crown Grant (Private)	68.2
2	093C.024	Public Recreation	128.6
2	093C.024	Public Recreation	60.2
2	093C.024	Crown Forest	14,937.5
2	093C.024	Crown Misc. Lease	1.1

2	093C.025	Crown Grant (Private)	418.0
2	093C.025	Federal Reserve	39.8
2	093C.025	Indian Reserve	255.7
2	093C.025	Crown Forest	14,480.6
2	093C.026	Crown Grant (Private)	96.8
2	093C.026	Crown Forest	15,090.0
2	093C.026	Crown Reserve Misc.	5.9
2	093C.027	Crown Forest	15,191.5
2	093C.028	Crown Grant (Private)	209.1
2	093C.028	Indian Reserve	3.6
2	093C.028	Crown Forest	14,977.7
2	093C.029	Crown Grant (Private)	565.4
2	093C.029	Federal Reserve	1.2
2	093C.029	Indian Reserve	122.7
2	093C.029	Crown Forest	14,500.1
2	093C.030	Crown Grant (Private)	647.6
2	093C.030	Federal Reserve	11.7
2	093C.030	Indian Reserve	116.6
2	093C.030	Public Recreation	6.1
2	093C.030	Crown Forest	14,309.2
2	093C.030	Crown Reserve Misc.	89.3
2	093C.030	Crown Reserve Misc.	8.1
2	093C.032	Crown Forest	4,874.8
2	093C.032	Crown Provincial Park Class A	26.7
2	093C.033	Public Recreation	25.2
2	093C.033	Crown Forest	14,141.1
2	093C.033	Crown Reserve Misc.	997.0
2	093C.034	Crown Grant (Private)	276.5
2	093C.034	Public Recreation	48.6
2	093C.034	Crown Forest	14,658.4
2	093C.034	Crown Reserve Misc.	170.0
2	093C.034	Crown Reserve Misc.	8.1
2	093C.035	Crown Grant (Private)	843.6
2	093C.035	Federal Reserve	16.5
2	093C.035	Indian Reserve	83.6
2	093C.035	Public Recreation	4.3
2	093C.035	Crown Forest	14,086.8
2	093C.035	Crown Reserve Misc.	109.9
2	093C.035	Crown Misc. Lease	15.4
2	093C.036	Crown Grant (Private)	281.5
2	093C.036	Crown Forest	14,877.2

2	093C.037	Crown Forest	15,157.5
2	093C.038	Crown Grant (Private)	332.3
2	093C.038	Indian Reserve	11.3
2	093C.038	Crown Forest	14,812.9
2	093C.039	Crown Grant (Private)	914.7
2	093C.039	Federal Reserve	72.9
2	093C.039	Indian Reserve	367.2
2	093C.039	Crown Forest	13,800.6
2	093C.040	Crown Grant (Private)	518.9
2	093C.040	Crown Grant (Private)	1.5
2	093C.040	Federal Reserve	1.7
2	093C.040	Indian Reserve	47.8
2	093C.040	Public Recreation	4.7
2	093C.040	Crown Forest	14,346.7
2	093C.040	Crown Forest -IFPA	167.6
2	093C.040	Crown Reserve Misc.	65.7
2	093C.042	Crown Grant (Private)	178.2
2	093C.042	Crown Forest	9,209.1
2	093C.042	Crown Provincial Park Class A	19.0
2	093C.043	Crown Grant (Private)	331.5
2	093C.043	Public Recreation	16.8
2	093C.043	Crown Forest	14,591.3
2	093C.043	Crown Reserve Misc.	152.0
2	093C.043	Crown Reserve Misc.	37.8
2	093C.044	Crown Grant (Private)	1,392.1
2	093C.044	Federal Reserve	49.0
2	093C.044	Indian Reserve	445.5
2	093C.044	Public Recreation	13.0
2	093C.044	Crown Forest	12,889.3
2	093C.044	Crown Provincial Park Class A	145.8
2	093C.044	Crown Reserve Misc.	123.0
2	093C.044	Crown Reserve Misc.	69.9
2	093C.045	Crown Grant (Private)	1,071.0
2	093C.045	Crown Forest	14,055.3
2	093C.046	Crown Grant (Private)	6.6
2	093C.046	Crown Forest	15,118.2
2	093C.047	Crown Forest	15,123.6
2	093C.048	Crown Grant (Private)	321.3
2	093C.048	Indian Reserve	7.8
2	093C.048	Crown Forest	14,793.3
2	093C.049	Crown Grant (Private)	374.8

2	093C.049	Indian Reserve	25.7
2	093C.049	Crown Forest	14,721.0
2	093C.050	Crown Grant (Private)	820.8
2	093C.050	Crown Grant (Private)	159.3
2	093C.050	Crown Forest	9,568.2
2	093C.050	Crown Forest -IFPA	4,572.4
2	093C.052	Public Recreation	13.8
2	093C.052	Crown Forest	9,137.3
2	093C.052	Crown Provincial Park Class A	404.7
2	093C.052	Crown Reserve Misc.	80.2
2	093C.053	Crown Grant (Private)	477.7
2	093C.053	Federal Reserve	69.5
2	093C.053	Indian Reserve	396.7
2	093C.053	Public Recreation	5.8
2	093C.053	Crown Forest	13,543.6
2	093C.053	Crown Provincial Park Class A	22.0
2	093C.053	Crown Reserve Misc.	579.9
2	093C.054	Crown Grant (Private)	1,079.5
2	093C.054	Federal Reserve	334.3
2	093C.054	Indian Reserve	20.5
2	093C.054	Public Recreation	18.9
2	093C.054	Crown Forest	12,991.7
2	093C.054	Crown Provincial Park Class A	60.5
2	093C.054	Crown Reserve Misc.	571.8
2	093C.054	Crown Reserve Misc.	15.2
2	093C.054	Crown Misc. Lease	1.1
2	093C.055	Crown Grant (Private)	747.4
2	093C.055	Crown Forest	14,344.7
2	093C.056	Crown Grant (Private)	77.4
2	093C.056	Crown Forest	13,830.9
2	093C.056	Crown Provincial Park Class A	1,118.5
2	093C.056	Crown Misc. Lease	64.0
2	093C.057	Crown Forest	13,549.8
2	093C.057	Crown Provincial Park Class A	1,539.7
2	093C.058	Crown Forest	13,639.7
2	093C.058	Crown Provincial Park Class A	1,448.8
2	093C.059	Crown Forest	15,087.4
2	093C.060	Crown Grant (Private)	125.0
2	093C.060	Crown Grant (Private)	4.5
2	093C.060	Crown Forest	8,498.0
2	093C.060	Crown Forest -IFPA	6,459.1

2	093C.062	Crown Forest	3,912.4
2	093C.062	Crown Provincial Park Class A	5,700.5
2	093C.063	Crown Grant (Private)	471.2
2	093C.063	Indian Reserve	20.0
2	093C.063	Public Recreation	54.4
2	093C.063	Crown Forest	13,832.8
2	093C.063	Crown Provincial Park Class A	29.0
2	093C.063	Crown Reserve Misc.	352.2
2	093C.063	Crown Reserve Misc.	42.4
2	093C.063	Crown and Private Woodlot Licences	259.2
2	093C.064	Federal Reserve	205.1
2	093C.064	Crown Forest	8,552.8
2	093C.064	Crown Provincial Park Class A	6,301.7
2	093C.065	Crown Forest	5,737.1
2	093C.065	Crown Provincial Park Class A	9,320.9
2	093C.066	Crown Forest	2,748.6
2	093C.066	Crown Provincial Park Class A	12,225.7
2	093C.067	Crown Forest	942.2
2	093C.067	Crown Provincial Park Class A	14,113.2
2	093C.068	Crown Forest	13,775.7
2	093C.068	Crown Provincial Park Class A	1,278.6
2	093C.069	Crown Forest	15,053.4
2	093C.070	Crown Forest	13,956.7
2	093C.072	Crown Forest	2,820.6
2	093C.072	Crown Provincial Park Class A	6,794.4
2	093C.073	Crown Grant (Private)	789.4
2	093C.073	Indian Reserve	116.3
2	093C.073	Public Recreation	35.5
2	093C.073	Crown Forest	12,490.7
2	093C.073	Crown Provincial Park Class A	1,124.0
2	093C.073	Crown Reserve Misc.	131.8
2	093C.073	Crown Reserve Misc.	6.1
2	093C.073	Crown and Private Woodlot Licences	333.1
2	093C.074	Crown Forest	72.8
2	093C.074	Crown Provincial Park Class A	7,996.0
2	093C.075	Crown Provincial Park Class A	4,066.8
2	093C.076	Crown Provincial Park Class A	2,730.3
2	093C.077	Crown Forest	1,140.7
2	093C.077	Crown Provincial Park Class A	6,374.5
2	093C.078	Crown Forest	7,264.6
2	093C.079	Crown Forest	5,197.1

2	093C.080	Crown Forest	1,522.6
2	093C.082	Crown Grant (Private)	193.0
2	093C.082	Federal Reserve	119.9
2	093C.082	Indian Reserve	379.4
2	093C.082	Public Recreation	210.1
2	093C.082	Crown Forest	9,782.0
2	093C.082	Crown Provincial Park Class A	10.6
2	093C.082	Crown Reserve Misc.	274.5
2	093C.082	Crown Reserve Misc.	315.2
2	093C.083	Crown Grant (Private)	73.2
2	093C.083	Public Recreation	22.7
2	093C.083	Crown Forest	11,590.3
2	093C.083	Crown Provincial Park Class A	764.1
2	093C.083	Crown Reserve Misc.	133.0
2	093C.083	Crown Reserve Misc.	59.9
2	093C.084	Crown Forest	26.6
2	093C.084	Crown Provincial Park Class A	734.5
2	093C.092	Federal Reserve	25.5
2	093C.092	Indian Reserve	64.8
2	093C.092	Crown Forest	2,699.9
2	093C.093	Crown Forest	2,744.0
2 Total			1,617,650.7
3	092J.082	Public Recreation	10.2
3	092J.082	Crown Forest	9.6
3	092J.082	Crown Provincial Park Class A	1,266.0
3	092J.091	Public Recreation	0.0
3	092J.091	Public Recreation	19.2
3	092J.091	Crown Forest	11.5
3	092J.091	Crown Provincial Park Class A	9,707.4
3	092J.092	Public Recreation	8.0
3	092J.092	Crown Forest	6.5
3	092J.092	Crown Provincial Park Class A	15,301.9
3	092J.093	Crown Forest	2,339.4
3	092J.093	Crown Provincial Park Class A	4,892.7
3	092J.094	Crown Forest	806.7
3	092J.094	Crown Provincial Park Class A	5.6
3	092K.100	Crown Provincial Park Class A	3,227.1
3	092N.010	Crown Forest	926.6
3	092N.010	Crown Provincial Park Class A	10,656.2
3	092N.018	Crown Forest	130.9
3	092N.019	Crown Forest	339.9

3	092N.019	Crown Provincial Park Class A	7,680.6
3	092N.020	Crown Forest	4.4
3	092N.020	Crown Provincial Park Class A	14,931.4
3	092N.025	Crown Forest	1,582.2
3	092N.026	Crown Forest	6,443.1
3	092N.026	Crown Provincial Park Class A	3,600.6
3	092N.027	Crown Forest	12,723.0
3	092N.028	Crown Forest	14,988.4
3	092N.029	Crown Forest	3,984.1
3	092N.029	Crown Provincial Park Class A	11,541.9
3	092N.030	Crown Provincial Park Class A	15,525.2
3	092N.034	Crown Forest	2,927.8
3	092N.035	Crown Forest	13,653.8
3	092N.036	Crown Forest	8,457.3
3	092N.036	Crown Provincial Park Class A	7,038.9
3	092N.037	Crown Forest	11,291.0
3	092N.037	Crown Provincial Park Class A	4,203.9
3	092N.038	Crown Forest	15,167.5
3	092N.038	Crown Provincial Park Class A	326.2
3	092N.039	Crown Forest	7,727.5
3	092N.039	Crown Provincial Park Class A	7,765.1
3	092N.040	Crown Grant (Private)	47.2
3	092N.040	Crown Forest	2,464.0
3	092N.040	Crown Provincial Park Class A	12,980.5
3	092N.044	Crown Forest	9,464.4
3	092N.045	Crown Forest	12,842.9
3	092N.045	Crown Provincial Park Class A	2,621.2
3	092N.046	Crown Forest	13,150.3
3	092N.046	Crown Provincial Park Class A	2,312.3
3	092N.047	Crown Grant (Private)	108.3
3	092N.047	Crown Forest	14,696.2
3	092N.047	Crown Provincial Park Class A	656.8
3	092N.048	Crown Grant (Private)	102.1
3	092N.048	Public Recreation	45.8
3	092N.048	Crown Forest	8,447.8
3	092N.048	Crown Provincial Park Class A	6,864.4
3	092N.049	Crown Grant (Private)	143.0
3	092N.049	Crown Forest	9,290.4
3	092N.049	Crown Provincial Park Class A	6,020.6
3	092N.049	Crown Reserve Misc.	5.1
3	092N.050	Crown Grant (Private)	217.3

3	092N.050	Federal Reserve	39.1
3	092N.050	Indian Reserve	901.8
3	092N.050	Crown Forest	8,086.2
3	092N.050	Crown Provincial Park Class A	6,213.7
3	092N.054	Crown Forest	5,109.8
3	092N.055	Crown Forest	12,976.2
3	092N.055	Crown Provincial Park Class A	2,453.2
3	092N.055	Crown Misc. Lease	1.1
3	092N.056	Crown Grant (Private)	31.9
3	092N.056	Crown Forest	15,386.2
3	092N.056	Crown Provincial Park Class A	11.0
3	092N.057	Crown Grant (Private)	13.0
3	092N.057	Crown Forest	15,414.7
3	092N.058	Crown Forest	11,465.4
3	092N.058	Crown Provincial Park Class A	3,961.2
3	092N.059	Crown Forest	11,321.2
3	092N.059	Crown Provincial Park Class A	4,090.3
3	092N.059	Crown Reserve Misc.	14.0
3	092N.060	Crown Grant (Private)	27.9
3	092N.060	Federal Reserve	3.3
3	092N.060	Indian Reserve	3.4
3	092N.060	Public Recreation	26.7
3	092N.060	Crown Forest	11,846.7
3	092N.060	Crown Provincial Park Class A	3,422.2
3	092N.060	Crown Reserve Misc.	94.5
3	092N.064	Crown Forest	3,357.6
3	092N.065	Crown Forest	15,396.9
3	092N.066	Crown Grant (Private)	714.5
3	092N.066	Public Recreation	11.0
3	092N.066	Crown Forest	14,510.9
3	092N.066	Crown Reserve Misc.	109.2
3	092N.066	Crown Reserve Misc.	49.8
3	092N.067	Crown Forest	15,394.1
3	092N.068	Crown Grant (Private)	731.5
3	092N.068	Crown Forest	13,161.3
3	092N.068	Crown Provincial Park Class A	1,500.1
3	092N.069	Crown Grant (Private)	364.2
3	092N.069	Public Recreation	1.7
3	092N.069	Crown Forest	14,989.9
3	092N.069	Crown Reserve Misc.	36.2
3	092N.070	Crown Grant (Private)	612.3

3	092N.070	Public Recreation	28.4
3	092N.070	Crown Forest	12,833.0
3	092N.070	Crown Provincial Park Class A	1,788.8
3	092N.070	Crown Reserve Misc.	128.7
3	092N.074	Crown Forest	5,575.5
3	092N.074	Crown Provincial Park	555.4
3	092N.075	Crown Forest	15,363.2
3	092N.076	Crown Grant (Private)	191.2
3	092N.076	Crown Forest	15,170.6
3	092N.077	Crown Grant (Private)	600.5
3	092N.077	Public Recreation	5.6
3	092N.077	Crown Forest	14,590.6
3	092N.077	Crown Reserve Misc.	163.7
3	092N.078	Crown Grant (Private)	1,687.8
3	092N.078	Public Recreation	0.6
3	092N.078	Crown Forest	13,415.7
3	092N.078	Crown Reserve Misc.	7.2
3	092N.078	Crown Reserve Misc.	72.3
3	092N.078	Crown and Private Woodlot Licences	175.8
3	092N.079	Crown Grant (Private)	427.9
3	092N.079	Crown Forest	14,420.1
3	092N.079	Crown Reserve Misc.	105.0
3	092N.079	Crown and Private Woodlot Licences	405.4
3	092N.080	Crown Grant (Private)	155.2
3	092N.080	Crown Forest	15,129.1
3	092N.080	Crown Reserve Misc.	73.2
3	092N.083	Crown Forest	3,872.7
3	092N.084	Crown Forest	14,897.0
3	092N.084	Crown Provincial Park	400.5
3	092N.085	Crown Forest	15,327.5
3	092N.085	Crown Reserve Misc.	2.0
3	092N.086	Crown Forest	15,223.8
3	092N.086	Crown Reserve Misc.	101.9
3	092N.086	Crown Reserve Misc.	2.3
3	092N.087	Crown Grant (Private)	338.4
3	092N.087	Public Recreation	3.2
3	092N.087	Crown Forest	14,209.9
3	092N.087	Crown Reserve Misc.	53.2
3	092N.087	Crown Reserve Misc.	121.0
3	092N.087	Crown and Private Woodlot Licences	601.0
3	092N.088	Crown Grant (Private)	1,100.0

3	092N.088	Public Recreation	3.9
3	092N.088	Crown Forest	13,615.8
3	092N.088	Crown Reserve Misc.	543.2
3	092N.088	Crown Reserve Misc.	62.7
3	092N.089	Crown Grant (Private)	61.0
3	092N.089	Crown Forest	14,666.9
3	092N.089	Crown and Private Woodlot Licences	596.6
3	092N.090	Crown Forest	15,323.8
3	092O.001	Crown Provincial Park Class A	15,591.1
3	092O.002	Crown Forest	2,069.6
3	092O.002	Crown Provincial Park Class A	13,521.0
3	092O.003	Crown Forest	12,669.1
3	092O.003	Crown Provincial Park Class A	2,921.0
3	092O.004	Crown Forest	13,108.0
3	092O.004	Crown Provincial Park Class A	1.9
3	092O.005	Crown Forest	727.9
3	092O.005	Crown Provincial Park Class A	3.2
3	092O.007	Crown Forest	686.9
3	092O.008	Crown Forest	88.5
3	092O.011	Crown Provincial Park Class A	15,557.8
3	092O.012	Crown Forest	9,980.2
3	092O.012	Crown Provincial Park Class A	5,577.0
3	092O.013	Public Recreation	8.4
3	092O.013	Crown Forest	15,548.3
3	092O.014	Crown Forest	11,001.6
3	092O.014	Crown Provincial Park Class A	4,554.8
3	092O.015	Crown Forest	418.2
3	092O.015	Crown Provincial Park Class A	8,122.0
3	092O.016	Crown Forest	4,004.2
3	092O.016	Crown Provincial Park Class A	58.1
3	092O.017	Public Recreation	10.2
3	092O.017	Crown Forest	11,652.9
3	092O.017	Crown Reserve Misc.	148.3
3	092O.018	Crown Forest	1,133.0
3	092O.021	Crown Provincial Park Class A	15,524.4
3	092O.022	Crown Grant (Private)	19.2
3	092O.022	Public Recreation	3.1
3	092O.022	Crown Forest	9,553.9
3	092O.022	Crown Provincial Park Class A	5,866.0
3	092O.022	Crown Reserve Misc.	77.0
3	092O.022	Crown Misc. Lease	4.7

3	0920.023	Crown Forest	15,523.4
3	0920.024	Crown Forest	10,167.3
3	0920.024	Crown Provincial Park Class A	5,355.8
3	0920.025	Crown Forest	2,124.5
3	0920.025	Crown Provincial Park Class A	13,224.4
3	0920.026	Crown Forest	14,751.3
3	0920.026	Crown Provincial Park Class A	771.7
3	0920.027	Crown Forest	15,523.0
3	0920.028	Public Recreation	12.6
3	0920.028	Crown Forest	13,966.2
3	0920.029	Crown Forest	2,617.3
3	0920.029	Crown Provincial Park Class A	2,923.5
3	0920.030	Crown Forest	6.3
3	0920.030	Crown Provincial Park Class A	7.8
3	0920.031	Crown Forest	985.2
3	0920.031	Crown Provincial Park Class A	14,505.7
3	0920.032	Crown Grant (Private)	1.2
3	0920.032	Public Recreation	1.1
3	0920.032	Crown Forest	8,934.2
3	0920.032	Crown Provincial Park Class A	6,487.8
3	0920.032	Crown Reserve Misc.	66.0
3	0920.033	Crown Forest	15,489.9
3	0920.034	Crown Forest	6,459.3
3	0920.034	Crown Provincial Park Class A	9,030.3
3	0920.035	Crown Forest	3,053.2
3	0920.035	Crown Provincial Park Class A	12,436.3
3	0920.036	Crown Forest	15,402.0
3	0920.036	Crown Provincial Park Class A	87.5
3	0920.037	Crown Grant (Private)	126.9
3	0920.037	Crown Forest	15,360.8
3	0920.037	Crown Reserve Misc.	2.0
3	0920.038	Crown Grant (Private)	2.7
3	0920.038	Public Recreation	141.0
3	0920.038	Crown Forest	15,249.2
3	0920.038	Crown Provincial Park Class A	91.1
3	0920.038	Crown Reserve Misc.	6.0
3	0920.039	Crown Grant (Private)	66.5
3	0920.039	Crown Forest	4,650.8
3	0920.039	Crown Provincial Park Class A	7,951.8
3	0920.041	Crown Grant (Private)	306.6
3	0920.041	Federal Reserve	35.6

3	0920.041	Indian Reserve	389.6
3	0920.041	Crown Forest	13,516.3
3	0920.041	Crown Provincial Park Class A	1,206.2
3	0920.041	Crown Reserve Misc.	2.7
3	0920.041	Crown Misc. Lease	0.6
3	0920.042	Crown Ecological Reserve	72.2
3	0920.042	Crown Forest	15,084.8
3	0920.042	Crown Reserve Misc.	299.8
3	0920.043	Crown Forest	15,438.5
3	0920.043	Crown Reserve Misc.	17.9
3	0920.044	Crown Forest	11,681.6
3	0920.044	Crown Provincial Park Class A	3,774.6
3	0920.045	Crown Grant (Private)	52.6
3	0920.045	Crown Forest	5,157.5
3	0920.045	Crown Provincial Park Class A	10,245.8
3	0920.046	Crown Grant (Private)	226.7
3	0920.046	Crown Forest	15,035.5
3	0920.046	Crown Provincial Park Class A	193.7
3	0920.047	Crown Grant (Private)	34.4
3	0920.047	Crown Forest	15,079.7
3	0920.047	Crown Provincial Park Class A	342.1
3	0920.048	Crown Grant (Private)	504.2
3	0920.048	Crown Forest	5,493.4
3	0920.048	Crown Provincial Park Class A	9,458.9
3	0920.049	Crown Grant (Private)	245.7
3	0920.049	Crown Forest	1,582.2
3	0920.049	Crown Provincial Park Class A	10,485.3
3	0920.051	Crown Grant (Private)	241.3
3	0920.051	Public Recreation	69.1
3	0920.051	Crown Forest	15,083.5
3	0920.051	Crown Reserve Misc.	30.0
3	0920.052	Crown Grant (Private)	27.7
3	0920.052	Public Recreation	7.7
3	0920.052	Crown Forest	15,330.3
3	0920.052	Crown Reserve Misc.	57.6
3	0920.053	Crown Grant (Private)	91.0
3	0920.053	Crown Forest	15,332.0
3	0920.054	Crown Grant (Private)	135.5
3	0920.054	Crown Forest	15,280.4
3	0920.054	Crown Reserve Misc.	6.7
3	0920.055	Crown Grant (Private)	537.2

3	0920.055	Crown Forest	14,885.3
3	0920.061	Crown Grant (Private)	229.2
3	0920.061	Crown Forest	11,472.1
3	0920.061	Crown Provincial Park Class A	3,689.1
3	0920.062	Crown Grant (Private)	114.4
3	0920.062	Crown Forest	15,048.8
3	0920.062	Crown Provincial Park Class A	226.6
3	0920.063	Crown Grant (Private)	162.7
3	0920.063	Public Recreation	9.5
3	0920.063	Crown Forest	15,192.8
3	0920.063	Crown Reserve Misc.	24.2
3	0920.064	Crown Grant (Private)	110.8
3	0920.064	Crown Forest	15,226.3
3	0920.064	Crown Reserve Misc.	52.1
3	0920.065	Crown Grant (Private)	971.4
3	0920.065	Crown Forest	14,104.7
3	0920.065	Crown and Private Woodlot Licences	312.8
3	0920.071	Crown Grant (Private)	131.5
3	0920.071	Crown Forest	8,949.4
3	0920.071	Crown Provincial Park Class A	6,275.9
3	0920.072	Crown Forest	5,356.4
3	0920.072	Crown Provincial Park Class A	9,435.5
3	0920.072	Crown Reserve Misc.	563.4
3	0920.072	Crown Reserve Misc.	0.8
3	0920.073	Crown Grant (Private)	154.8
3	0920.073	Crown Forest	14,147.7
3	0920.073	Crown Reserve Misc.	1,053.3
3	0920.074	Crown Grant (Private)	120.2
3	0920.074	Federal Reserve	15.8
3	0920.074	Indian Reserve	72.8
3	0920.074	Crown Forest	15,146.5
3	0920.075	Crown Grant (Private)	892.6
3	0920.075	Indian Reserve	0.2
3	0920.075	Crown Forest	13,909.5
3	0920.075	Crown Reserve Misc.	23.0
3	0920.075	Crown and Private Woodlot Licences	530.1
3	0920.081	Crown Forest	15,323.1
3	0920.082	Crown Forest	14,372.8
3	0920.082	Crown Provincial Park Class A	943.1
3	0920.082	Crown Reserve Misc.	3.2
3	0920.082	Crown Reserve Misc.	3.4

3	0920.083	Crown Forest	10,374.5
3	0920.083	Crown Reserve Misc.	4,947.5
3	0920.084	Crown Grant (Private)	133.5
3	0920.084	Crown Forest	15,188.2
3	0920.085	Crown Grant (Private)	2,346.8
3	0920.085	Federal Reserve	68.4
3	0920.085	Indian Reserve	323.6
3	0920.085	Crown Forest	12,582.8
3 Total			1,598,958.1
Grand Total			4,930,884.4