

WOODLOT LICENCE W0026

WOODLOT LICENCE PLAN #1

First Term
2009 to 2019

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Date

May 4, 2009

District Manager Signature

Signature

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Date

DISCLAIMER

- Recognising the special nature of management on a woodlot licence, this disclaimer forms part of the Woodlot Licence Plan (WLP) for Woodlot Licence Number 0026 (W0026) and advises that:
 - the decision to operate under one or more of the Default Performance Requirements provided in the Woodlot Licence Planning and Practices Regulation (WLPPR) is the sole responsibility of the woodlot licence holder, and involved no detailed oversight or advice from the prescribing registered professional forester. This disclaimer is signed on the explicit understanding and information provided by government that, the use and achievement of a Default Performance Requirement, meets the expectations of government with respect to the management of woodlot licences;
 - the undersigned Registered Professional Forester has been retained to provide advice on the practice of professional forestry with regard to items such as alternative performance requirements, applicable results and strategies and other required measures that do not have a default performance requirement provided in the WLPPR.

Signed _____

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TABLE OF CONTENTS

PLAN AREA	4
MAP AND INFORMATION.....	4
AREAS WHERE TIMBER HARVESTING WILL BE AVOIDED	7
AREAS WHERE TIMBER HARVESTING WILL BE MODIFIED	7
CONSERVING AND PROTECTING CULTURAL HERITAGE RESOURCES	9
WILDLIFE TREE RETENTION STRATEGY	11
MEASURES TO PREVENT INTRODUCTION OR SPREAD OF INVASIVE PLANTS.....	15
MEASURES TO MITIGATE EFFECT OF REMOVING NATURAL RANGE BARRIERS.....	16
STOCKING INFORMATION FOR SPECIFIED AREAS.....	16
PERFORMANCE REQUIREMENTS	17
SOIL DISTURBANCE LIMITS	17
PERMANENT ACCESS STRUCTURES	17
STOCKING STANDARDS	17
WIDTH OF STREAM RIPARIAN AREAS.....	17
WIDTH OF WETLAND RIPARIAN AREAS	18
WIDTH OF LAKE RIPARIAN AREAS	18
RESTRICTIONS IN A RIPARIAN RESERVE ZONE.....	18
RESTRICTIONS IN A RIPARIAN MANAGEMENT ZONE.....	18
WILDLIFE TREE RETENTION	18
COARSE WOODY DEBRIS	19
RESOURCE FEATURES	19
APPENDICES	20

I. CONTENT FOR A WOODLOT LICENCE PLAN (WLP)

PLAN AREA

This plan covers the entire Woodlot Licence (WL) area.

Woodlot Licence W0026 (W0026) is composed of four crown property units of approximately 699 hectares (ha) and eight private property units of 395 ha, covering a total estimated area of 1094 ha. The Schedule 'B' land (Provincial Forest Crown) and Schedule "A" land (Forest Private) are located between Black creek and Buckley Bay within the general area of the Comox Valley, B.C. The specific blocks are noted within Table 1 and on the Woodlot Licence Plan (WLP) maps in appendix III.

Table 1: W0026 Property Summary

Description	Area (ha)	Ownership	Biogeoclimatic Subzone	Road Access Name
Tasman	242.4	Crown	CWHxm1	Tasman
Larkin	40.5	Crown	CWHxm1	Larkin
Trent	90.1	Crown	CWHxm1	Trent
Union Bay	326.0	Crown	CWHxm1	Van West
Total Crown	699.0	Crown		
Buckley	26.9	Private	CWHxm1	Buckley Bay
Burns	46.4	Private	CWHxm1	Burns
Firetrail	95.8	Private	CWHxm1	Dove Creek
Denman	39.6	Private	CDFmm	Denman Is
Pendergast	44.9	Private	CWHxm1	Pendergast
Macham	34.0	Private	CWHxm1	Macham
Tsolum	24.2	Private	CWHxm1	Tsolum
Tyee Valley	83.2	Private	CWHxm1	Tyee Valley
Total Private	395.0	Private		
Total Crown/Private	1094.0			

Vehicle access to all of the blocks is via roads listed in Table 1. All of the access roads are public except for short sections linking the Buckley, Larkin, Trent and Union Bay blocks.

MAP AND INFORMATION

The WLP maps include (information required in section 8(1) of the Woodlot Licence Planning and Practice Regulation (WLPPR)) forest cover; topography; location of streams; wetlands; terrain; resource inventory; fish and fish habitat ; riparian classification of streams and wetlands; identification of fish streams; biogeoclimatic zones and subzones; public utilities; existing roads; community watersheds; contiguous areas of sensitive soils; permanent barricades to restrict vehicle access; and private property within or adjacent to the WL area.

The information required to be addressed in Section 8(1) WLPPR, including additional details, are noted as follows:

Biogeoclimatic zones and subzones:

The WL area, both crown and private units, are located within the Coastal Western Hemlock zone/ extra dry maritime (CWHxm) Biogeoclimatic Subzone (BEC), except for the Denman Island unit which is within the Coastal Douglas Fir BEC. While the CWHxm variant is mapped as "1" separate ecosystems have not yet been described by ecologists to distinguish a site level difference between variant 1 and 2.

Resource Management Zones, Landscape Units or Sensitive Areas:

Three land use plans cover the area of W0026, including the Vancouver Island Land Use Plan (VILUP), the Rural Comox Valley Official Community Plan (RCVOCP) and the Denman Island OCP (DIOCP).

The summary of the VILUP has been given a higher-level plan status by government and identifies Resource Management Zone (RMZ) #33 as a General Management Zone. There is no order establishing objectives for RMZ #33. The overall management direction for this zone is **"second growth timber values and particular suitability for enhanced silviculture and growth and yield management; recreation/scenery and tourism opportunities associated with intensively managed, roaded resource lands; high fish and wildlife values; biodiversity conservation/restoration is recommended with emphasis on retention, and where required, active restoration of mature and old seral forest attributes and age classes"** In addition forest management strategies should promote **"retention of scattered veteran trees, wildlife tree patches, diversity of tree species and ages, and partial cutting silvicultural systems"**.

The VILUP has stated objectives related to retention of old forest attributes, seral stage distribution and diversity. This WLP provides results and strategies that are connected to the sustainable growth rate calculation derived within the Management Plan, which meet the VILUP objectives.

The community values described by forestry resources in the RCVOCP are compatible with the practices proposed in the WLP. The forest resources in the RCVOCP are valued as natural green space to counter density development of other land parcels. There are eleven separate properties contained within W0026 providing forestry community resource values scattered throughout the Comox Valley. There is only one property located outside the RCVOCP located on Denman Island.

The DIOCP is located within the Islands Trust. Currently the DIOCP is being drafted and is included within proposed bylaw 185, including a specific section (Part - G) which describes the principles of sustainable forest use. The principles described for sustainable forest use are compatible with the practices proposed in this WLP and the MP for W0026.

Wildlife Habitat Areas:

There are no known Wildlife Habitat Areas (WHA) within W0026.

Scenic Areas:

There are no known Scenic Areas within W0026.

Ungulate Winter Ranges:

There are no known Ungulate Winter Ranges within W0026.

Community Watersheds:

The Pendergast unit of the WL area is within the Puntledge Community Watershed, having a community watershed code 920.054, and 5,8590.5 hectares in size. The Puntledge Community Watershed is made up of 11 subwatersheds and Comox Lake. The lake is the primary source of water¹. The Pendergast unit is located within one of the subwatersheds, the Browns River watershed, comprising a very small portion of the total watershed area.

There are no Community Watershed intakes located within W0026.

Fisheries Sensitive Watersheds:

There are no known Fisheries Sensitive Watersheds within W0026.

Community and domestic water supply intakes that are licensed under the Water Act and any related water supply infrastructures:

There are no known community or domestic water supply intakes that are licensed under the Water Act and any related water supply infrastructures inside the boundaries of W0026.

Contiguous Areas of Sensitive Soils:

*“sensitive soil” means an area with one or both of the following:
a slope greater than 60% or indicators of potential slope instability.²*

Known areas of sensitive soils are indicated on the WLP Map in Appendix III. The sensitive soils have been identified using regional soil maps and field work. More areas are expected to be added as the soils field work covers more of the WL area. Slopes over 60 percent (highest stability risk) are located along the Trent, Tsolum and Buckley Bay units.

Temporary or permanent barricades that restrict vehicle access:

Temporary or permanent barriers to restrict vehicle access are identified on the WLP Map in Appendix III. The access to Buckley Bay, Trent river, and Larkin units cross private land which is gated (existing gate controlled by a third party) to restrict vehicle access, for property security. The access to Pendergast and Tyee Valley are gated on public road access, also for property security purposes.

Private property within or adjacent to the woodlot licence area:

The location of adjacent property owners, by ownership groups, Rural Residential³ and Resource owners (private or crown) are outlined on the WLP Map. There are a number of private and crown property interests surrounding all units of W0026, who have differing forest ownership objectives. Ongoing consultation occurs to ensure activities and treatments are co-ordinated between private and crown property interests.

Resource features other than wildlife habitat features and other features where the location must not be disclosed

At the time of preparing this WLP Map, no resource features have been established within the WL area under the Government Actions Regulation. There were also no resource features within the WL area that were made “known” by the district manager under the regulations of the *Forest Practices Code of BC Act*.

¹ CSRD Watershed Assessment, 2006.

² WLPPR, Part 1, BC Reg 21/2004

³ Rural residential is a land use designation within the CVOCP and the TOCP.

AREAS WHERE TIMBER HARVESTING WILL BE AVOIDED

There are no specific areas where timber harvesting will be avoided on W0026.

AREAS WHERE TIMBER HARVESTING WILL BE MODIFIED

There are areas where timber harvesting will be modified including:

Wildlife Tree Retention Areas (WTRA):

Anchored WTRA will have harvest modified as described in the WTRA Strategy.

Recreation Trail:

Harvesting will be modified along main recreational trails along the Trent and Tsolum Rivers, consistent with public safety recognising that there is significant public usage. Modification could include cutting all hazard trees within a 1.5 tree length distance from any trail for public and worker safety.

Riparian Management Areas:

Harvesting will be modified within the area of the Riparian Management Area's (RMA's). Unless exempted by the district manager, or the harvesting of a road clearing width is required, the WL holder will retain the post harvest stand structure noted in Table 2.

The retention level will be determined based on field assessments considering the site classification, species composition, age classes and wildlife values of stratified units where there is a potential to modify harvesting. It is expected that retention of residual trees will be highest for an S2-4 stream classification. Streams classified as S5/6 will have a standard of management to minimise debris transportation to lower reaches of the streams.

Retention levels by area description:

The WL holder will ensure that the required riparian forest cover retention is consistent with Table 2. For the purposes of forest health (root disease treatment) and windthrow abatement (or recovery) harvesting in the RMA will consider the results of a windthrow assessment and forest health survey.

The measurement for the determination of riparian retention requires a length in order to derive the percent basal area retained. For the purposes of measure, the greater of the RMZ area within the harvest block or RMZ area for 50 meters stream length, will be used to determine the basal area retained.

The percentage of the total basal area within the RMZ specified in Table 2 will be left as standing trees at the completion of harvesting:

Archaeological Assessment Area:

Scattered areas of moderate potential veteran Culturally Modified Trees (CMT) will be assessed within areas identified on the 2007 Millennia Research Limited mapping for W0026. Harvesting will be modified to the degree necessary to protect identified cultural heritage resources. The resources will be identified by

undertaking an Archaeological Inventory (AI) within areas having a moderate potential when activities are likely to damage CMT's or Archaeological sites.

Table 2: Basal Area retention by Riparian Class.

Riparian Class	Basal Area to be Retained Within Riparian Management Zone (%)	Management Intent	Retained Species ⁴
S1 streams	≥20	<u>Maintain Riparian and Wildlife values</u>	<u>Fd, Dr, Mb, Cw, Hw, Act, At, Ss, Pw</u>
S2 stream	≥20		
S3 stream	≥10		
S4 stream	0-10	<u>Maintain Stream bank integrity</u>	
S5 stream	0-10	<u>Minimise Debris Transportation</u>	
S6 stream			
All wetland classes	≥10	<u>Maintain RRZ, Wildlife Habitat, Coarse Woody Debris (CWD)</u>	

Eagle Nesting and Bathing Area:

The timing of harvesting will be modified between May 1 and June 30 within an area 100m from the high water mark on both sides of the Trent River to avoid disturbing Bald Eagles during their nesting period, recognising the unique behaviour within this area. Operations will not take place within this area during this period.

⁴ Tree species labels are listed within Appendix IIA footnotes section.

CONSERVING AND PROTECTING CULTURAL HERITAGE RESOURCES

The following strategy is proposed to conserve and protect cultural heritage resources (CHR) that are the focus of a traditional use by an aboriginal people and of continuing importance to them. This strategy applies to CHR that are not protected under the ***Heritage Conservation Act***. *Chinook Woodlots Ltd (CW)* the WL holder, is committed to carrying out forest practices at a time and in a manner that is unlikely to damage or harmfully alter CHR.

Consultation with First Nations (FN) to review plans and to participate in the information sharing process is included in section II of this plan. W0026 is within the traditional territory of the K'omok, Campbell River, Cape Mudge, Homalco, Qualicum and Sliammon First Nation.

A strategy to conserve and protect the CHR's on W0026 has and will continue to incorporate any existing⁵ or new information (when it becomes available) on CHR. Currently, the information provided by the Ministry of Forests and Range (MOFR) and FN has been based on general information and the Archaeological Overview Assessment (AOA) completed by Millennia Research Limited (2007).

Discussions with the K'omok FN is in progress and is expected to continue into the future. Discussions with other FN have been limited.

There are no known Archaeological features on W0026. The AOA designates areas that have potential (low, moderate and high), Veteran Culturally Modified Trees (CMT) and Non CMT Archaeological sites in second growth. Within the moderate and high designated areas assessments will be completed when activities are likely to damage CMT's or Archaeological sites.

The strategies and results for traditional plants, western red cedar and the steps necessary when new information on CHR becomes known are as follows:

Traditional Plants

Facilitating opportunities for FN to harvest and use plants for traditional use will require the following steps:

- Identify specific traditional use plants of continuing interest by local FN⁶.
- Where specific plants other than western red cedar trees are identified by the applicable FN, notification will be provided by the WL holder prior to timber harvesting activities on stands or sites likely to contain the traditional plants. The time frame for notification will be determined in consultation between FN and CW, when specific plants are identified by FN.

⁵ An Archaeological Overview Assessment was completed in 2007 by Millennia Research Limited.

⁶ When FN have identified a specific traditional use plant.

Traditional Use of Western Red Cedar

FN traditional use of western red cedar is common throughout the coastal region. The opportunity for traditional use of western red cedar will continue on W0026 by utilising the following steps.

- When requested by the applicable FN, a reasonable opportunity for traditional use of western red cedar trees for bark striping and monumental logs, (recognising there is a limited availability of monumental logs within W0026) will be made available.
- Western red cedar will be planted, where it is ecologically suited to any site, as a mixture with other preferred or acceptable trees species in order to build a future supply of trees.
- As part of the retention strategy for specified areas within W0026 western red cedar will be retained as a component of the stand structure. When available, reliable and feasible, western red cedar will also be retained within clearcut openings.
- CW is committed to involvement in any cedar strategies adopted by the local woodlot association.

New Information on CHR

All plans and activities will consider CHR and when field surveys indicate a potential traditional use, the location will be made available to local FN and the MOFR.

- Any potential traditional use sites will be protected from alteration or disturbance, whenever practicable and feasible.
- If new information on CHR's become available, CW will contact the FN and endeavour to understand the concerns and ensure the CHR is question is protected and/or conserved wherever practicable and feasible.
- During operational planning on W0026 the AOA will be considered to avoid damage to CMT or Archeological sites.

WILDLIFE TREE RETENTION STRATEGY

The proportion of W0026 that is occupied by Wildlife Tree Retention Areas (WTRA) is specified in the "PERFORMANCE REQUIREMENTS" section of this plan. The performance requirement for the proportion of W0026 that is occupied by Wildlife Tree Retention (WTR) areas will not be less than 8 percent of the total woodlot area 1094 ha. The minimum area of WTR will be achieved either as ecologically anchored stands of medium to high value wildlife tree's (WT's) or as dispersed stands or individual WT's. Only those trees or areas specifically identified and documented to meet the performance requirement of 8% are required to meet the WTR strategy. Other areas of the woodlot, although they also provide wildlife value are not required or restricted to meet the WTR requirement as per WLPRR s.52 (1) or this strategy.

There are no known identified wildlife on the woodlot. Expected use by wildlife on W0026 would likely include the Great blue heron, American dipper, Palliated woodpeckers, birds, kinglets, frogs, black-tailed deer, wolf, owl, bear, cougar and Roosevelt elk.

WT and coarse woody debris (CWD) retention will be the main techniques employed on W0026 to meet the WTR strategy. These tools are practical and measurable and are included as part of the overall WTR strategy.

A specific map of WTRA has not been included as part of this WLP. A map will be retained on file at the Chinook Woodlots Ltd. (W0026) field office to demonstrate how the WTR requirements are achieved (WLPRR Section 52).

The two types of WTRA's (Anchored or Dispersed), contribution will be measured as described within the performance requirement section of this plan. The attributes of anchored and dispersed WTRA's are described as follows:

Anchored WTRA

Ecologically anchored WTRA are expected to be integral to a permanent or fixed feature such as a wetland or group of trees with unique wildlife characteristics. Anchored WTRA's will usually be located adjacent to any den or nest, be part of the RMA for streams and wetlands, or where existing veteran trees or snags have medium to high wildlife value. Anchored WTR will be normally preferred for meeting the performance requirements.

As operational planning is completed anchored WTRA will be selected. Currently, ecological features having the potential forest attributes of an Anchored WTRA are described in Table 3.

Dispersed WTRA

When ecological anchors are absent or widely spaced, other areas will be retained as dispersed WTRA. Dispersed WTR will include scattered units (groups of trees within units less than .5 ha), a specified area or individual suitable (medium or high value) WT's. A dispersed retention strategy, using basal area retention equivalence will be used to verify results (i.e. 50 percent basal area retention on one hectare is equivalent to .5ha of WTR). It is expected that dispersed WTRA's will move over time.

Examples of dispersed WTRA's include the following:

- Specified area's (treated or untreated) where there are greater than 250 stems/ha (SPH) of a preferred or acceptable tree species. Treated areas are required to

have similar or future potential of medium or high wildlife characteristics in a similar proportion to untreated stands.

- Individual trees retained within clearcuts that have medium or high wildlife value.
- Minor tree species retained to achieve biodiversity objectives, including Aspen, Cascara, Yew, Cherry, Willow or Hawthorne.
- Contained forest health incidences, such as root disease or mistletoe, where the risk of spread is limited.

INDIVIDUAL WILDLIFE TREES

a) Species and Characteristics:

The species and characteristics of WT's will be representative of the current stands, with a priority for selection based on high or medium value classification. Trees with wildlife values will be selected based on species preference from high to low as follows: Fd, Cw, Mb, Ss, Bg, Hw, Act, Dr and At.

Wildlife tree characteristics⁷ for medium and high value include:

- Pathological indicators – scars, internal decay, cracks, loose bark, cavities, contained⁸ areas of root disease or mistletoe;
- Evidence of current or future wildlife use;
- Existing nest or den;
- Veterans greater than 250 years old;
- Large open grown trees with large branches (more than 5cm in diameter) and having multi-tops and stem distortions (sweeps or crooks);
- Value for wildlife (berries, insects, perch to view prey);
- Locally important WT.

WT trees will be assessed for windthrow risk and safety prior to selection. Once selected, WT's will be retained for as many years as practical and left where they fall if windthrow occurs. Generally, WT will be selected outside of the hazard zone of roads or trails⁹.

b) Conditions Under Which Individual Wildlife Trees May Be Removed:

Individual specifically identified WT's may be removed if they become a safety hazard or they become infested with insects which threaten the health of adjacent trees. Individual WT's could be removed under the following circumstances:

- Compromises the safety of workers or the public;
- Risk of significant forest damage (i.e. localised insect and disease outbreaks);
- When there is available WTRA replacement;
- To improve wildlife function of other WT's.

c) Replacement of Individual Wildlife Trees:

If individual WT's are removed they will be replaced with trees of comparable WT tree value. It is expected that there will always be stands of large trees and older forests within close proximity to each other, including anchored WTRA's on W0026.

⁷ Any individual characteristic indicates a medium/high value, when it is >12.5cm and ecologically suited to the site.

⁸ Contained: The limited opportunity to spread to healthy stands.

⁹ Road hazard zone of 40 m, on both sides.

WILDLIFE TREE RETENTION AREAS

a) Forest Cover Attributes

The W0026 WTR strategy for the identification of WTRA's will utilize a selection process. Those forest types which have large numbers of medium and high WT characteristics will have the attributes of a WTRA. Preference for selecting WTRA will be stands anchored ecologically to streams, wetlands, or existing veteran trees. WTRA's will usually contain a mixture of coniferous and deciduous trees. WTRA's will be dispersed throughout the woodlot area, selecting areas where wildlife and biodiversity values are present. A WTRA will be comprised of trees with a minimum age of 30 years, tree diameters greater than 12.5cm and heights greater than 15meters.

Within two private blocks within W0026 (Pendergast and Tye Valley) harvesting over the past decade has been planned to recover blowdown following windthrow. Although, it is unlikely that less than 8% of these blocks will contain trees less than 30 years of age, the recovery of blowdown in the future could result in a short term exemption to the minimum age and height criteria during the WLP period.

Forest health incidence and risk of spread will be evaluated for an area considered for WTR. When veteran or older trees are selected for WTR they often have forest health factors such as root disease and dwarf mistletoe. The overarching goal is to develop strategies to prevent their spread that are supported by a rationale and monitored for effectiveness.

There are potential Anchored WTRA which have been identified, with the forest cover attributes and resource values listed in Table 3.

Table 3: Forest cover attributes of WTRA

Location Description	Forest Cover	Site Index	Function and Value
Trent River (RRZ & Steep Slopes)	HwFdDrMb	30-34	Riparian/Older forest
Tsolum River (RRZ)	FdDrCwHw	36	Riparian/Diverse forest
Buckley Bay unit unnamed Cr	CwPwDr	27	Riparian
W1,2&4 (All units)	DrFdCw	23-38	Riparian/High value WT
Tsolum River unit unnamed Cr	FdHwCw	34	Riparian/Diverse forest

The WTRA map will be supported with documentation of the contribution as per WLPPR s.52(1) following operational planning, including consultation with Qualified Professionals, when required.

b) Conditions Under Which Trees May Be Removed from Wildlife Tree Retention Areas:

Trees may be removed from a WTRA under the following circumstances:

- If they become a safety hazard, or worker or public safety is compromised;

- If they become infested with insects or diseases which threaten the health of adjacent trees or spread is likely to occur (species specific), based on an assessment by a qualified professional;
- To provide access to adjacent stands. To construct access roads and trails, where no other practicable option exists. Access construction will avoid removal of high and medium value WT's. The number of quality WT trees removed will be no more than reasonably needed to provide the access;
- Any tree which is not a high or medium value WT and does not damage the WTRA function;
- Where more than 50% of the trees within a WTRA are damaged by natural causes.

c) Replacement of Trees Removed from Wildlife Tree Retention Areas:

If WT's with high or medium wildlife value are removed from a WTRA, they will be replaced with comparable trees from a nearby location. If there is significant damage (>50% tree damage) to a WTRA it will be replaced with a similar area, unless the damage is determined to contribute to achieving the performance requirements of the Wildlife Tree Retention Strategy (ie: CWD, elevated root structures).

d) Wildlife Notices outside of W0026

This Wildlife Retention Strategy contributes to the intent of the Wildlife Notice, which does not specifically apply to W0026, but it is important to be aware of when considering the selection of WTRA's. A WILDLIFE NOTICE UNDER SECTION 9(3) OF THE WLPPR INCLUDES INDICATORS OF THE AMOUNT, DISTRIBUTION AND ATTRIBUTES OF WILDLIFE HABITAT REQUIRED FOR THE SURVIVAL OF THE SPECIES AT RISK covering the Campbell River Forest District (CRFD). The CRFD is setting aside areas required to meet the notice within the larger forest land base, and will not likely require any portion of the woodlot for future WHA's. The amount of area required for each wildlife species is relatively small in proportion to the entire TSA, where adequate areas should be available outside of W0026.

The specific species included in the notice are listed as follows:

-Coastal Tailed Frog, Red-Legged Frog, Keen's Long eared Myotis.

None of the habitats of Coastal Tailed Frog, Red-Legged Frog, or Keen's Long eared Myotis are known to occur in W0026. Material to support the notice for species at risk in the CRFD did not propose any WHA's on the woodlot.

-Queen Charlotte Goshawk and Marbled Murrelet nesting habitat

The woodlot area is primarily older second growth which can be suitable for nesting habitat for Goshawk, but not preferred by the Marbled Murrelet. The WHA's selected for nesting habitat within the CRFD are not in close proximity to W0026. Although no nests have been located on W0026 the management and WTR strategies provide for abundant Goshawk nesting habitat availability.

-Great Blue Heron

There are no known nesting areas for the Great Blue Heron that have been identified on W0026.

MEASURES TO PREVENT INTRODUCTION OR SPREAD OF INVASIVE PLANTS

It is likely that the forest practices of a WL holder may cause the introduction or spread of species of plants described in the MFR Invasive Plants-List (Appendix IV). Some of the invasive plants (Scotch broom, Blackberry and Thistle) presently occur within the woodlot area. The best future approach is to prevent the introduction or spread of invasive plants (stop it from happening).

Chinook Woodlots Ltd. commits to carry out the following measures to prevent the introduction and spread of invasive plants that are likely the result of the WL holder's forest practices:

- Areas of new disturbance (i.e. new construction where there is significant mineral soil exposure resulting from timber harvesting), will be seeded as soon as practicable. Reseeding will be done at an acceptable rate, with an appropriate mix of fast growing grasses and legumes (using seed of the grade Canada Common #1 or better), if natural plant revegetation and growth is unlikely;
- Minimise the transport of invasive plant seed by removing invasive plant seeds or vegetative material (ie: burrs) from the WL holder's clothing and equipment. Checking the undercarriage of the WL holder's vehicles and remove invasive plant material before leaving an infested area.

Other activities that are good practice, **but are not required**, include:

- Invasive plant identification training of employees.
- Annual inspections to identify any areas where invasive plants are present.
- Control measures to prevent the spread of invasive plant as part of operational planning.
- Gravel quarried for road construction kept clean of invasive plants and seeds by clearing topsoil where invasive plants are present. When invasive plants are present the distribution and spread will be avoided.
- Revegetation with native tree and brush species usually occurs within a growing season. If there is a risk of invasive plant introduction, revegetation will be prescribed to minimise the spread. Both reforestation and reseedling will occur at the first practicable time frame.
- Restricting the number of unregulated users who have not been trained in identification of invasive plants.
- Maintaining a closed canopy by commercial thinning practices practically eliminates all invasive plants, due to the low light levels. Narrow road corridors will also maintain low light levels discouraging invasive plants.

An assessment of any treatment will incorporate mapping to document the change over time following an adaptive management approach using ecological characteristics to manage invasive species. Treatments, either by hand or with power tools, will be employed as part of a standard brushing regime with an emphasis on effective implementation and monitoring when invasive plant species are present.

STOCKING INFORMATION FOR SPECIFIED AREAS

☒ For the purposes of section 12 and 34(3) of the WLPPR an amended Uneven-aged Stocking standards for single-tree selection are adopted, as found in the MFR publication “Reference Guide for FDP Stocking Standards”. A copy of these stocking standards is included in Appendix I.

The specified areas (SA) stocking standards indicated in Appendix I apply to areas where the establishment of a free growing stand is not required and harvesting is limited to commercial thinning, removal of individual trees, intermediate cutting, single or group selection, or harvesting special forest products.

SA's could be located anywhere within W0026. Where more than 50% of the stand volume is harvested during a single entry there will be a regeneration strategy planned to meet the Stocking Standards (SS) as noted in Appendix IIA.

Commercial thinning on W0026 will target a harvest basal area, and/or stems per hectare (SPH), estimate based on an evaluation of stand stocking characteristics. A stand assessment, tree marking and evaluation methodology is developed for the practice of commercial thinning. The commercial thinning regime plans for harvest re-entries every 10 years until such time as the Current Annual Increment begins to decline due to gaps developing in the stand.

When stocking is reduced to below 250 SPH the units will be excluded from the specific area designation. Opening size and configuration will be reviewed and documented to ensure reliability of achieving SS (Appendix IIA), within an appropriately sized¹⁰ unit for reforestation success.

The type of commercially valuable and ecologically suited trees and their character, quantity and distribution is described in Appendix IA, for specified areas. The SS for (free growing obligations) for the purposes of section 12 and 34(3) of the WLPPR Planning and Practices Regulation are found in the Appendix IIA.

¹⁰ The appropriate size for reforestation success on a unit is dependant on a number of site factors including slope, aspect, age and height of trees along the southern boundary, opening orientation and site.

PERFORMANCE REQUIREMENTS

SOIL DISTURBANCE LIMITS

Alternative WLPPR s.24(1)(a):

Soil disturbance limits will be less than eight percent of net area to be reforested, except for situations where site preparation activities (scalps and gouges) are described within this Alternative Performance Requirement (APR).

The soil disturbance limits for Wide Scalps and Deep Gouges will be as follows:

Wide scalps - Maximum 30% of site prepared area.

Deep gouges - Maximum 15% of site prepared area.

A rationale in support of this APR for Soil Disturbance limits and how to meet WLPPR s9 objectives is included within Section II.

PERMANENT ACCESS STRUCTURES

Default: WLPPR s.25:

The maximum area occupied by permanent access structures is as follows:

For Cutblocks \geq 5 ha – 7% of the total cutblock area

For Cutblocks < 5 ha – 10% of the total cutblock area

For the Total WL Area – 7% of the total Woodlot Licence area

STOCKING STANDARDS

Alternative WLPPR s. 35(1)(a):

The SS, regeneration dates and free growing dates are indicated in Appendix IIA.

The SS listed in Appendix IIA include Biogeoclimatic Classification, conifer and broadleaf species for regeneration, stocking targets, latest free growing date and minimum heights by species.

The specific alternatives to the SS (rules for modification) are listed within appendix IIA for circumstances as follows:

- -Mosaic/Complexes;
- -Transition Sites;
- -Minimum Intertree Distances;
- -Heavy Elk/Deer Browse and vandalism;
- -Latest Free Growing period is 20 years.;
- -MSS are reduced by the NPNAT % .

A rationale to describe circumstances where SS will apply and how they meet WLPPR s9 objectives is included within section II.

WIDTH OF STREAM RIPARIAN AREAS

Default WLPPR s.36(4)(b):

The minimum width of the riparian reserve zone, riparian management zone and riparian management area are as described in WLPPR s.36 (4)(b).

WIDTH OF WETLAND RIPARIAN AREAS

Default: WLPPR s.37(3)(b)

The minimum width of the riparian reserve zone, riparian management zone and riparian management area are as described in WLPPR s.37 (3)(b).

WIDTH OF LAKE RIPARIAN AREAS

Default: WLPPR s.38 (2)(b)

The minimum width of the riparian reserve zone, riparian management zone and riparian management area are as described in WLPPR s.38 (2)(b).

RESTRICTIONS IN A RIPARIAN RESERVE ZONE

Alternative WLPPR s.39 (2.1):

The following road construction is proposed in a riparian reserve zone:

Road construction (stream crossing) is proposed through an RRZ within the upper reaches of the Buckley Bay unit creek (S-3 stream) and the Tsolum River unit creeks (S-2) or roads paralleling a stream.

Other stream crossings could be constructed which cut, modify or remove trees in an RRZ, if S-2 or 3 stream classification is determined based on a field assessment at a future date.

Rationale: This Alternative Performance requirement has been included since the two (Buckley Bay and Tsolum River) potential stream crossings provide the only practical access to forest values within these areas.

RESTRICTIONS IN A RIPARIAN MANAGEMENT ZONE

Default: WLPPR s.40(1)(b)(c) or (d):

Construction of a road in a riparian management zone is limited to the conditions described in Section 40(1) of the WLPPR without additional conditions to allow road construction being provided in the WLP.

WILDLIFE TREE RETENTION

The proportion of the Woodlot Licence area that will be occupied by wildlife tree retention is:

Default WLPPR s.52(1)(c): 8 % of the woodlot licence area

There are three methods for measurement of the WTRA for meeting WLPPR s52 (1)(c) as follows:

Option A-Anchored WTRA

Anchored WTR contribution is based on the area designated on maps and documented.

Option B-Individual Tree contribution

For the purpose of measuring the contribution of individual WT's, 30m² of individual WT's is deemed to represent 1ha of WTR. Each individual WT contributes a unique basal area (m²). As an example, 54 medium and high WT's, with an average diameter of 60cm (30m²/ha), will be the equivalent of 1ha of WTR.

Option C-Retention Equivalence (Untreated or Specified areas)

For the purpose of measuring the WTRA contribution within an untreated forest type, a commercially thinned or partially cut stand, the equivalent percentage basal area retention will represent the area of WTR. There will be substantially similar proportional representation of tree species, size and wildlife tree value following any commercial thinning or partial cutting treatment. As an example, of measuring the WTRA contribution, if 80% of the basal area of a stand is retained during a commercial thinning, this will be the equivalent of .8ha of WTR contribution. An untreated area contributes 100% of the occupied area, if it is documented as a WTRA.

COARSE WOODY DEBRIS

Unless exempted by the district manager or the WLPPR, the minimum amount of coarse woody debris to be left on areas where there is a requirement to establish a free growing stand is:

Default: WLPPR s.54(1)(b)

Minimum retention of 4 logs per ha \geq 5 m in length and \geq 30 cm in diameter at one end.

RESOURCE FEATURES

Default WLPPR s.56(1)(b):

Ensure that forest practices do not damage or render ineffective a resource feature.

CHIEF FORESTER'S STANDARDS FOR SEED USE

Default WLPPR s.32:

Adopting the Chief Forester's standards for seed use effective on the date of the approval of this plan.

APPENDICES

Appendix I: Stocking Standards for Specified Areas

Partial cutting, such as patch cuts and commercial thinning, provide greater opportunities to undertake forest health treatments. The W0026 partial cutting strategy, including commercial thinning, will continue to be implemented. The effect of this is to lengthen rotations and maintain older forest attributes on the woodlot.

Planning of silviculture system locations continue to be prioritised on the basis of incidence of forest health factors, intermediate cutting cycles and species improvements. The harvest systems utilise a network of permanent access trails for intermediate cut areas and ground based forwarding for patch cuts. The SS for SA's (SSSA) utilises the Uneven-aged SS for single-tree selection, as found in the MFR publication "Reference Guide for FDP SS" modified to include (table 4) only layer 1 (>12.5cm dia) trees. Other layers (2-4) will only be considered for stocking within areas where reforestation is required.

The stand structure retained following the completion of a harvest entry within a specified area is expected to have a species composition substantially the same as the original stand and have the following characteristics:

- Higher composition of preferred tree species;
- Improved spacing and form (straight stems, fewer multiple tops, forks or crooks) on trees, except when classified as a medium or high value WT;
- Improved individual residual tree vigour (crown height, height/diameter ratio and colour) and growth;
- Greater than the minimum preferred and acceptable stocking from Table 4;

The priority for harvesting individual trees follows the selection order of mortality, less vigorous trees, off-site species, acceptable species and then those trees (preferred or acceptable) which, when removed, provide the greatest gain to the retained trees, all subject to a limited maximum harvest percentage.

Trees species and character to meet target stocking in Table 4.

Preferred (p) Species:

Species listed in Appendix IIA by Site Series (Variant) will comprise 80% of the Layer 1 Stocking.

All species listed as acceptable (only trees without any pathological incidences or quality concerns¹¹), will comprise 20% of the layer 1 stocking.

¹¹ As per MOFR 2008 Cruising Manual.

Acceptable (a) Species:

Acceptable species listed are those likely to be present in a natural stand including Fd, Cw, Hw, Bg, Ss, Pw, Dr, Act, At and Mb. During any of the multiple stand entries tree species could be retained to a similar level (tree species percentage) as was found in the original natural stand¹². During any single stand entry some trees which would not be acceptable (or preferred) at the time of reforestation could be left unharvested (ie:Pw, Mb). After the completion of multi stand entries the selection criteria will have encouraged preferred species composition or openings will be created where reforestation obligation (preferred species establishment) will apply.

Especially, during the first commercial thinning entry there will be tree species variability and situations where a portion of the stand is comprised entirely of only acceptable tree species. Within a larger timber type comprised primarily of preferred species, small units containing pure stands of acceptable tree species will also occur. During the first thinning entry there will continue to be post harvest intertree competition, due to individual tree cutting priorities over multiple entries. During post stand surveys, it is important to recognise that acceptable trees will continue to grow and qualify for meeting SS, within a SA, for up to 20% of the stocking levels. Upon final harvest, where the majority of trees are removed, the Stocking standards (Appendix IIa) will apply.

Character:

Tree layer 1 is comprised of trees >12.5cm expected to be dominant by size (heights ranging from 20-55m, dia from 12.5 to >100cm), and vigour (crown development, colour and spread) contributing to maintaining and enhancing the economically valuable supply of commercial timber from ecologically suitable tree species. The four layers are described in Table 5, but only layer 1 is included as this stocking level which closely proximates the actual Commercial Thinning practice results on W0026.

Other layers could exist as an understory composition of ecologically suited trees of varying form and vigour. After more than one stand entry it is expected that understory trees (not meeting layer 1 description) will be either harvested or have improved vigour, capable of continued individual tree growth.

WT and minor species¹³ will be retained to avoid species sanitation.

¹² Tree species composition for W0026 is estimated as Fd73, Dr16, Cw3, Mb2, Hw2, Pw1, Ss1, Bg1, NSR/NCBR1

¹³ Minor tree species list: Yew, cascara, dogwood, hardhack, crab apple, willow, and cherry.

Table 4: Stocking Standards Specified Area¹⁴

Total SPH ¹⁵	Layer ¹⁶	Target pa SPH	Minimum pa SPH	Minimum p SPH
900	1	400	200	200
800	1	300	150	150

Notes:

The inclusion of Table 4 is based on the past 20 years of stand planning, assessments and evaluations of performance on W0026 for commercial thinning treatments in combination with MOFR reference guide for FDP Unevenaged SS. The Unevenaged SS have been modified by removing reference to layers 2-4.

Regeneration delay is immediately following harvest when the residual stand has no significant damage or pest problems and meets the minimum SS. When regeneration is achieved, the earliest free growing date is 12 months and the latest is 24 months after completion of harvesting. Preferred and acceptable species and “Target and Minimum Standards” for total SPH are as specified in Table IIA by BEC site series.

Table 5: Layer 1-4 Size Description

Layer #	Description	Size
Layer 1	Mature	trees >=12.5cm
Layer 2	Pole	trees 7.5cm to 12.4cm
Layer 3	Sapling	trees 1.3m height to 7.4cm
Layer 4	Regeneration	trees <1.3m height

SSSA has been proposed within this WLP supported by the following rationale concerning preferred and acceptable tree species. Any existing tree species can be counted towards SSSA's (table 4) listed as acceptable (to a max of 20%) or preferred. The species composition that currently exists on W0026 will be modified during the various entries when operating within the SA's. It is intended that the existing tree composition of a mixture¹⁷ of species will continue, either as small patches of preferred species and/or a mixture within a closely monitored stand management regime. It is estimated that 809 ha of older forest types could be designated as specified areas within W0026.

When applying the SSSA to any stand within the woodlot area, the species composition following treatment will provide for diversity with a priority placed on preferred species forming

¹⁴ Source of table 4 is MOFR Reference Guide for FDP stocking standards.

¹⁵ Target Stocking standards from table 6 (Appendix IIA).

¹⁶ Table 5 describes layer 1-4.

¹⁷ Other species on W0026 include Ss, Pl, Act, Mb, Bitter Cherry and Bg.

the dominant stand structure over a number of entries. At the conclusion of any single entry stands can contain the full range of existing tree species supported by the current stocking levels within table 4.

Appendix IIa: Stocking Standards W0026

As an alternative performance requirement under WLPPR s.35 (1)(a) the SS for W0026 include an introduction, Table 6: Regeneration Guide/Stocking Standard detail, Footnotes, and Modification rules as an APR. This APR was prepared utilising the "Introduction to the Reference Guide for FDP SS" (01/20/2008). All of the units of W0026 are located within the CWHxm BEC except for Denman Island which is within the CDF BEC. Common stocking requirements for specific locations and conditions for areas where the establishment of a free growing stand is required include:

Minimum inter-tree distance

Trees must be greater than the approved minimum inter-tree distance apart in order to be well spaced as follows:

Min inter-tree distance (m)	Location/condition
1.0	Modifying Rule Number Three (Hygic, sub-hydric or site prepared areas);
1.5	Modifying Rule Number Four (Heavy Deer/Elk Browse and Vandalised areas);
2.0	All other areas.

Height of trees above brush

In addition to being at least the required minimum height, trees must be greater than a minimum 150% height above brush in order to be free growing (FG) for all areas of W0026.

Where appropriate and practicable

- A) Areas will be reforested with a mixture of desirable species, and
- B) On sites with more than one "preferred species more than one preferred species (and where practicable, all of the preferred species) will be planted".

Assessment for Latest Free Growing date

Assessment for Latest Free Growing date is 20 years.

Tree Species listed as preferred for Root Rot or Broadleaf management

In certain circumstances, such as management of riparian zones or wildlife habitat, site restoration, or for forest health reasons, species that are listed in the guide as tertiary are proposed as acceptable and as preferred species in Table 6. Tree species listed in Table 6 as Root rot and broadleaf will apply to any unit where there has been no destumping and/or root disease is present.

Table 6: Regeneration Guide/Stocking Standard Detail W0026

Biogeoclimatic classification Zone/SubZone is CWHxm1.

Site Series	Tree Species				Conifer ⁷ Stocking well spaced/ha			Late FG Date	Minimum FG Hts/species				
	Conifer			Broadleaf ⁷	Target	Min pa	Min p		Year	Species	Ht (m)	Species	Ht (m)
	Preferred (p)	Acceptable (a)	Root Rot										
01	Fd	Hw Cw Pw ³	Pw ³	Dr ^{5,6,a} Mb ^b	900	500	400	20	Fd Pw	3.00 2.50	Hw Cw,	2.0 1.5	
02*	PI Fd		Pw ³ PI		400	200	200	20	Pw	2.50	Ss,Lw	1.5	
03	Fd PI ¹	Cw	Pw ³ PI	(ActDrMb) ^b	800	400	400	20	Fd	2.00	PI,Cw	1.25	
04	Fd	Cw Pw ³	Pw ³ Cw		900	500	400	20	Fd Pw	3.00 2.50	Hw Cw,Lw	2.0 1.5	
05	Cw Fd	Pw ³	Pw ³	(ActDr) ^{5,a} Mb ^a	900	500	400	20	Fd	4.00	Pw	2.5	
07	Cw Fd	Bg	Pw ³	(ActDr) ^{5,a} Mb ^a	900	500	400	20	Bg	3.50	Cw,Hw	2.0	
06	Cw Hw Fd		Pw ³	Act ^b Dr ⁶ Mb ^b	900	500	400	20	Bg, Fd Pw	3.00 2.50	Hw Cw,Lw	2.0 1.5	
08	Cw Ss ⁴	Bg	Pw ³	(ActDrMb) ^{6,a}	900	500	400	20	Ss	4.00	Pw	2.5	
09	Cw ²	Bg	Pw ³	(ActDrMb) ^{6,a}	900	500	400	20	Bg	3.50	Cw	2.0	
10	no conifers			(Act,Dr,Mb) ^b	-	-	-	-					
11*	PI ²	Cw ²	Pw ³ CwPI		400	200	200	20	Pw	2.50	Hw,Ss	1.5	
12	Cw ²	Ss ⁴ Hw ² Pw ³	Pw ³		800	400	400	20	Fd	2.00	PI,Cw	1.25	
13	Cw Bg Fd		Pw ³	(ActDrMb) ^{6,a}	900	500	400	20	Fd	4.00	Pw	2.5	
14	Bg ² Cw ²		Pw ³		900	500	400	20	Bg	3.50	Cw	2.0	
15	Cw ²		Pw ³	(ActDrMb) ^{6,a}	800	400	400	20					

Table 6: Regeneration Guide/Stocking Standard Detail W0026

Biogeoclimatic classification Zone/SubZone is CDF

Site Series	Tree Species				Conifer ⁷ Stocking well spaced/ha			Late FG Date	Minimum FG Hts/species				
	Conifer			Broadleaf ⁷	Target	Min pa	Min p		Year	Species	Ht (m)	Species	Ht (m)
	Preferred (p)	Acceptable (a)	Root Rot										
01	Fd Pl ¹	Cw	Pw ³	Dr ^{5,6,a} Mb ^b	900	500	400	20	Fd,Pw Pl	2.00 1.25	Bg/Pw Cw,	1.4 1.0	
02*	Pl ¹ Fd		Pw ³ Pl		400	200	200	20	Bg	1.4	Cw	1.0	
03	Fd Pl ⁸		Pw ³ Pl		800	400	400	20	Fd,Pw	2.00	Pl	1.25	
04	Fd	Cw, Bg ³	Pw ³ Cw	Dr,Mb,Act	900	500	400	20	Fd Pw	3.00 2.00	Bg Cw	1.75 1.5	
05	Fd	Cw ³	Pw ³	(ActDr) ^{5,a} Mb ^a	900	500	400	20	Fd Bg	3.00 1.75	Pw Cw	2.5 1.5	
06	Cw Fd	Bg	Pw ³	Act ^b Dr ⁶ Mb ^b	900	500	400	20	Fd Pw	4.00 2.50	Cw Bg	2.0 2.25	
07	Cw Fd	Bg	Pw ³	(ActDr) ^{5,a} Mb ^a	900	500	400	20	Bg Fd	2.25 4.0	Cw Pw	2.0 2.5	
08	Cw	Bg ²	Pw ³	(ActDrMb) ^{6,a}	900	500	400	20	Fd Bg	4.00 2.25	Pw Cw	2.5 2.0	
09	no conifers			(ActDrMb) ^{6,a}				20					
10	Pl	Cw ²	Pw		400	200	200	20	Pw,Pl	1.25	Cw	1.25	
11*	Cw ²		Pw ³ Pl	(Act,Dr,Mb) ^b	800	400	400	20	Pw	2.50	Cw	1.0	
12	Cw ²	Bg ²	Pw ³	(ActDrMb) ^{6,a}	900	500	400	20	Cw	2.00	Bg	2.25	
13	(Cw Fd Bg) ²		Pw ³	(ActDrMb) ^{6,a}	900	500	400	20	Fd	4.00	Pw	2.5	
14	Cw ²	Bg ²	Pw ³	(ActDrMb) ^{6,a}	800	400	400	20	Pw Bg	2.5 1.4	 Cw	 1.0	

Footnotes and symbol descriptions attached to the stocking standards (Table 6) for W0026

Conifer Tree Species

	#	Foot Note	
"Bg" means grand fir;	1	Pl is restricted to nutrient very-poor sites	
"Cw" means western red cedar;	2	Elevated microsites are preferred	
"Fd" means Douglas fir;	3	Risk of white pine blister rust	
"Hw" means western hemlock;	4	Risk of Weevil damage	
"Pl" means lodgepole pine;	5	Restricted to fresh soil moisture regimes	
"Pw" means white pine;	6	Limited by poorly drained soils	
"Ss" means Sitka Spruce;	7	Stocking standards for Broadleaf Species - Sawlog by Species	
"Lw" means western larch;			TSSpa MSSpa MSSa Min Ht
			(m)
			Act 700 400 400 4
		Dr,Mb 1200 700 600 4	
	8	Restricted to coarse textured soils	

Broadleaf Tree Species

	#	Broadleaf Management constraints
"Act" means black cottonwood		Productive, reliable, and feasible regeneration option Limited in productivity, reliability and/or feasibility Less than 20% of W0026 will have broadleaf management applied to SS. Reference Chief Forester letter August 22, 2002.
"At" means trembling aspen;	a	
"Dr" means red alder;	b	
"Mb" means red alder;		
"Mb" means bigleaf maple;		

Biogeoclimatic unit or BEC classification" means the zone, variant and site series described in the most recent field guide published by the Ministry of Forest for the identification and interpretation of ecosystems, as applicable to a harvest area.

"Min" means minimum.

Rules for Modifying Stocking Standards (Table 6) on W0026¹⁸

RULE NUMBER ONE - Site Series Mosaics/Complexes

Where more than one site series is located within a logical standards unit area the standard that applies will be that of the dominant site series. This standard can be modified with the inclusion of additional species selected from the standard of the subdominant site series for those specific areas of the mosaic or complex.

These additional components to the standard will be supported by a rationale, and documented.

RULE NUMBER TWO - Transitional Sites

On transitional sites occurring between two BEC units the standard that applies will be that of the dominant BEC unit. This standard can be modified with the inclusion of components of the standard with the sub-dominant BEC unit.

These additional components to the standard will be supported by a rationale and documented.

RULE NUMBER THREE - Minimum Intertree Distance (MITD)

The general MITD of 2.0 meters can be reduced down to 1.0 meters for any given site where productive and plantable sites are limited by pre-harvest site characteristics. These can include but are not limited to colluvial, hygic and subhygic sites. Also included are areas immediately adjacent to a stream (within a RMA), NPNAT, mechanically mounded site or unplantable slash piles.

Justification for a reduced MITD will be supported by a rationale and documented.

RULE NUMBER FOUR - Heavy Elk/Deer Browse or Vandalised Areas (HEDBV)

In HEDBV the intertree spacing is reduced to 1.5 m and MSS is 50% of normal standards. HEDBV are defined as units where browse or damage is chronic and ongoing. HEDBV will include more than 50 damaged trees per hectare or standard unit.

The HEDBV designation will be supported by a rationale and documented.

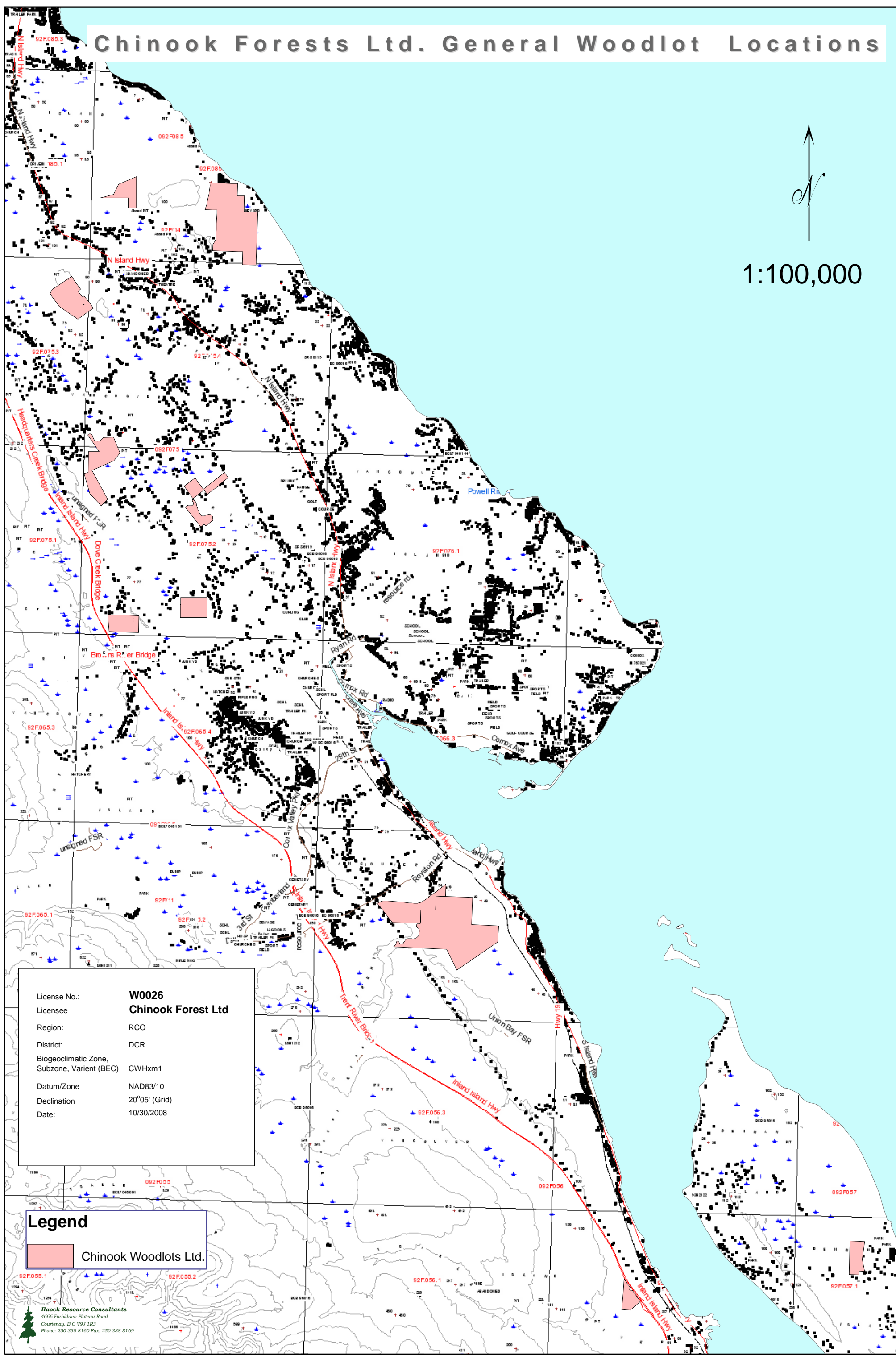
¹⁸ Rules for Modifying stocking standards developed from the Sunshine Coast Forest District approved stewardship plans.

Appendix III: The Woodlot Licence Plan Maps

Chinook Forests Ltd. General Woodlot Locations



1:100,000



License No.:	W0026
Licensee	Chinook Forest Ltd
Region:	RCO
District:	DCR
Biogeoclimatic Zone, Subzone, Variant (BEC)	CWHxm1
Datum/Zone	NAD83/10
Declination	20°05' (Grid)
Date:	10/30/2008

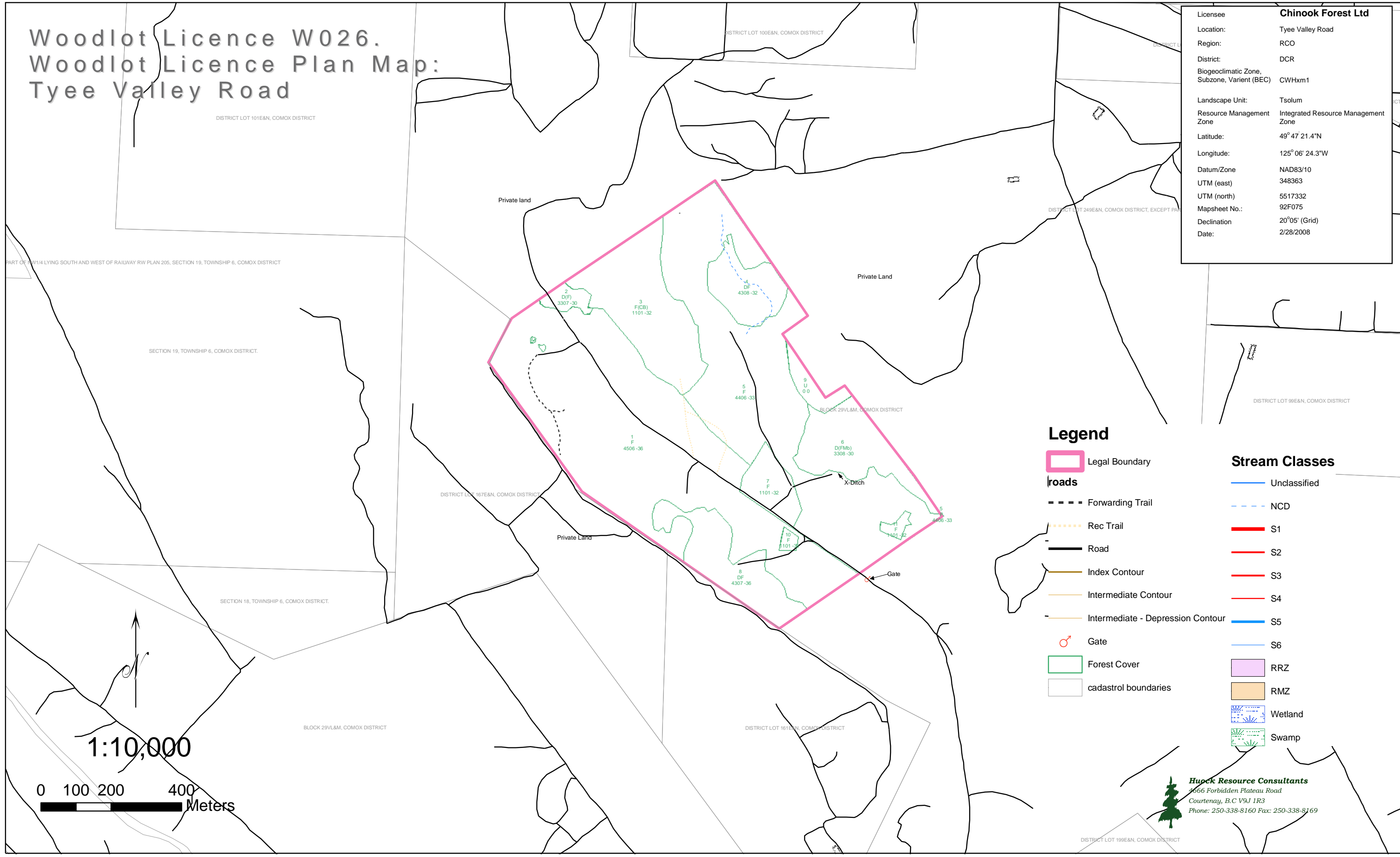
Legend

Chinook Woodlots Ltd.

Huock Resource Consultants
 4666 Forbidden Plateau Road
 Courtenay, B.C. V9J 1R3
 Phone: 250-338-8160 Fax: 250-338-8169

Woodlot Licence W026. Woodlot Licence Plan Map: Tye Valley Road

Licensee	Chinook Forest Ltd
Location:	Tye Valley Road
Region:	RCO
District:	DCR
Biogeoclimatic Zone, Subzone, Variant (BEC)	CWHxm1
Landscape Unit:	Tsolum
Resource Management Zone	Integrated Resource Management Zone
Latitude:	49° 47' 21.4"N
Longitude:	125° 06' 24.3"W
Datum/Zone	NAD83/10
UTM (east)	348363
UTM (north)	5517332
Mapsheet No.:	92F075
Declination	20°05' (Grid)
Date:	2/28/2008



Legend

- Legal Boundary
- roads**
- - - Forwarding Trail
- - - Rec Trail
- Road
- Index Contour
- Intermediate Contour
- Intermediate - Depression Contour
- ♂ Gate
- Forest Cover
- cadastrol boundaries

Stream Classes

- Unclassified
- NCD
- S1
- S2
- S3
- S4
- S5
- S6
- RRZ
- RMZ
- Wetland
- Swamp

1:10,000



Hupck Resource Consultants
4666 Forbidden Plateau Road
Courtenay, B.C V9J 1R3
Phone: 250-338-8160 Fax: 250-338-8169

Woodlot Licence W026. Woodlot Licence Plan Map: Buckley Bay

LOT 23E&N, SECTION 2A, NELSON DISTRICT.

License No.:	W026
Licensee	Chinook Forest Ltd
Location:	Buckley Bay
Region:	RCO
District:	DCR
Biogeoclimatic Zone, Subzone, Variet (BEC)	CWHxm1
Landscape Unit:	Trent
Resource Management Zone	Integrated Resource Management Zone
Latitude:	49°31' 38"N
Longitude:	124°52' 1"W
Datum/Zone	NAD83/10
UTM (east)	364895
UTM (north)	5487760
Mapsheet No.:	92F056
Declination	20°05' (Grid)
Date:	1/15/2008

LOT 33G, SECTION 2A, NELSON DISTRICT

LOT 31G, SECTION 2A, NELSON DISTRICT








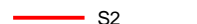

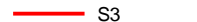

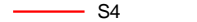

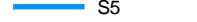

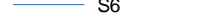

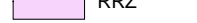

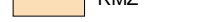



Private Forest Land

LOT 27E&N, SECTION 2A, NELSON DISTRICT.

SECTION 2A, NELSON DISTRICT

LOT 36G, SECTION 2A, NELSON DISTRICT

Legend

	Legal Boundary		Unclassified
	Forwarding Trail		NCD
	Proposed		S1
	Rec Trail		S2
	Road		S3
	Cadastral Boundaries		S4
	Index Contour		S5
	Intermediate Contour		S6
	Intermediate - Depression Contour		RRZ
	Forest Cover		RMZ
	Gate		Building
			Transmission Line

1:5,000

LOT 35G, SECTION 2A, NELSON DISTRICT

0 100 200 400 Meters

1
CBHmb(F)
4405-27

2
DMb(BFH)
4307-23

3
CF(DH)
3407-27

4
FB(CH)
4407-29

5
SCHB
6405-28

6
SWAMP
00

Br 100

Br 120

Br 8

Br 110

Br 115

Buckley Bay Main

Inland Island Highway

Huock Resource Consultants
 PO Box 328, 191 Fern Road West
 Qualicum Beach BC V9K 1S8
 Tel: 250-752-6219 Fax: 250-752-6575
huock@shaw.ca

Woodlot Licence W026. Woodlot Licence Plan Map: Burns

SECTION 27, TOWNSHIP 9, COMOX DISTRICT.

DISTRICT LOT 119E&N, COMOX DISTRICT.

Rural Residential

Rural Residential

SECTION 22, TOWNSHIP 9, COMOX DISTRICT.

SECTION 23, TOWNSHIP 9, COMOX DISTRICT.

SE1/4, SECTION 22, TOWNSHIP 9, COMOX DISTRICT, PLAN 552G.

License No.:	W026
Licensee	Chinook Forest Ltd
Location:	Burns
Region:	RCO
District:	DCR
Biogeoclimatic Zone, Subzone, Variant (BEC)	CWHxm1
Landscape Unit:	Tsolum
Resource Management Zone	Integrated Resource Management Zone
Latitude:	49°42' 27"N
Longitude:	125°3' 3"W
Datum/Zone	NAD83/10
UTM (east)	352122
UTM (north)	5508150
Mapsheet No.:	92F075
Declination	20°05' (Grid)
Date:	1/15/2008

Legend

- | | |
|-----------------------|----------------|
| Legal Boundary | Stream Classes |
| Provincial Forestland | Unclassified |
| roads | NCD |
| Forwarding Trail | S1 |
| Proposed | S2 |
| Rec Trail | S3 |
| Road | S4 |
| Community Watershed | S5 |
| Legal Boundary | S6 |
| Cadastral Boundaries | RRZ |
| Gate | RMZ |
| Forest Cover | Wetland |
| Index Contour | Swamp |
| Intermediate Contour | Lake |

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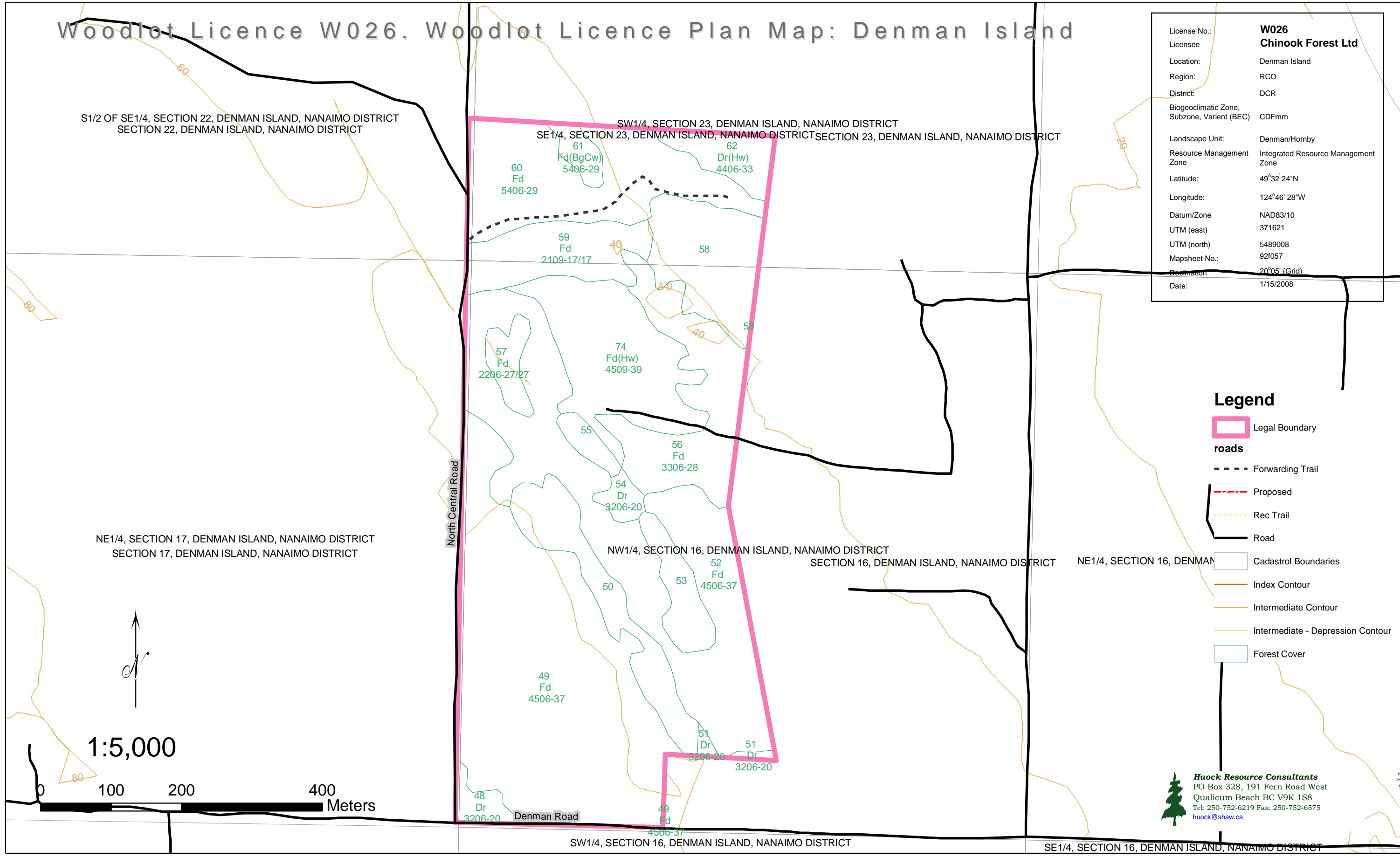


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WA25102200

Woodlot Licence W026. Woodlot Licence Plan Map: Denman Island

License No.:	W026
Licensee	Chinook Forest Ltd
Location:	Denman Island
Region:	RCO
District:	DCR
Biogeoclimatic Zone, Subzone, Variant (BEC)	CDFmm
Landscape Unit:	Denman/Hornby
Resource Management Zone	Integrated Resource Management Zone
Latitude:	49°32' 24"N
Longitude:	124°46' 28"W
Datum/Zone	NAD83/10
UTM (east)	371621
UTM (north)	5489008
Mapsheet No.:	92f057
Declination	20°05' (Grid)
Date:	1/15/2008



S1/2 OF SE1/4, SECTION 22, DENMAN ISLAND, NANAIMO DISTRICT
SECTION 22, DENMAN ISLAND, NANAIMO DISTRICT

SW1/4, SECTION 23, DENMAN ISLAND, NANAIMO DISTRICT
SE1/4, SECTION 23, DENMAN ISLAND, NANAIMO DISTRICT
SECTION 23, DENMAN ISLAND, NANAIMO DISTRICT

NE1/4, SECTION 17, DENMAN ISLAND, NANAIMO DISTRICT
SECTION 17, DENMAN ISLAND, NANAIMO DISTRICT

NW1/4, SECTION 16, DENMAN ISLAND, NANAIMO DISTRICT
SECTION 16, DENMAN ISLAND, NANAIMO DISTRICT

NE1/4, SECTION 16, DENMAN ISLAND, NANAIMO DISTRICT

SW1/4, SECTION 16, DENMAN ISLAND, NANAIMO DISTRICT

SE1/4, SECTION 16, DENMAN ISLAND, NANAIMO DISTRICT

Legend

- Legal Boundary
- roads**
- Forwarding Trail
- Proposed
- Rec Trail
- Road
- Cadastrol Boundaries
- Index Contour
- Intermediate Contour
- Intermediate - Depression Contour
- Forest Cover

1:5,000



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Qualicum Beach BC V9K 1S8
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huock@shaw.ca




























Woodlot Licence W026. Woodlot Licence Plan Map: Firetrail

License No.:	W026
Licensee	Chinook Forest Ltd
Location:	Firetrail
Region:	RCO
District:	DCR
Biogeoclimatic Zone, Subzone, Variet (BEC)	CWHxm1
Landscape Unit:	Tsolum
Resource Management Zone	Integrated Resource Management Zone
Latitude:	49°44' 37.4"N
Longitude:	125°5' 46.3"W
Datum/Zone	NAD83/10
UTM (east)	348981
UTM (north)	5512245
Mapsheet No.:	92F075
Declination	20°05' (Grid)
Date:	2/28/2008

Rural Residential

Rural Residential

Legend

	Legal Boundary		Stream Classes
	W1677		Unclassified
	Cadastral Boundaries		NCD
	Parks or Protected Areas		S1
	Forest Cover		S2
	roads		S3
	Forwarding Trail		S4
	Rec Trail		S5
	Road		S6
	TRIM Contours		RRZ
	Index		RMZ
	Intermediate		Wetland
			Swamp
			Lake
			Community Watershed

1:10,000

0 100 200 400 Meters

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Woodlot Licence W026. Woodlot Licence Plan Map: Larkin

Raven Lumber

License No.:	W026
Licensee	Chinook Forest Ltd
Location:	Larkin
Region:	RCO
District:	DCR
Biogeoclimatic Zone, Subzone, Variant (BEC)	CWHxm1
Landscape Unit:	Tsolum
Resource Management Zone	Integrated Resource Management Zone
Latitude:	49°49' 8.2"N
Longitude:	125° 05' 11.2"W
Datum/Zone	NAD83/10
UTM (east)	349915
UTM (north)	5520588
Mapsheet No.:	92F085
Declination	20°05' (Grid)
Date:	1/15/2008

Legend	
	Legal Boundary
	Vacant Crown
roads	
	Forwarding Trail
	Rec Trail
	Road
	Community Watershed
	Index Contour
	Intermediate Contour
	Intermediate - Depression Contour
	Gate
	Forest Cover
Stream Classes	
	Unclassified
	NCD
	S1
	S2
	S3
	S4
	S5
	S6
	RRZ
	RMZ
	Wetland
	Swamp
	Lake
	Cadastrol Boundary

1
NpBr
0.0

2
F(PwBg)
1101 -34

3
NpBr
0.0

5
F
4506 -34

6
FD
4408 -30

7
F
1101 -27

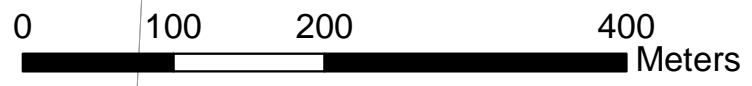
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4407 -27

4
F(BgCPw)
1101 -30

9
F
4505 -36

10
F(D)
4506 -35

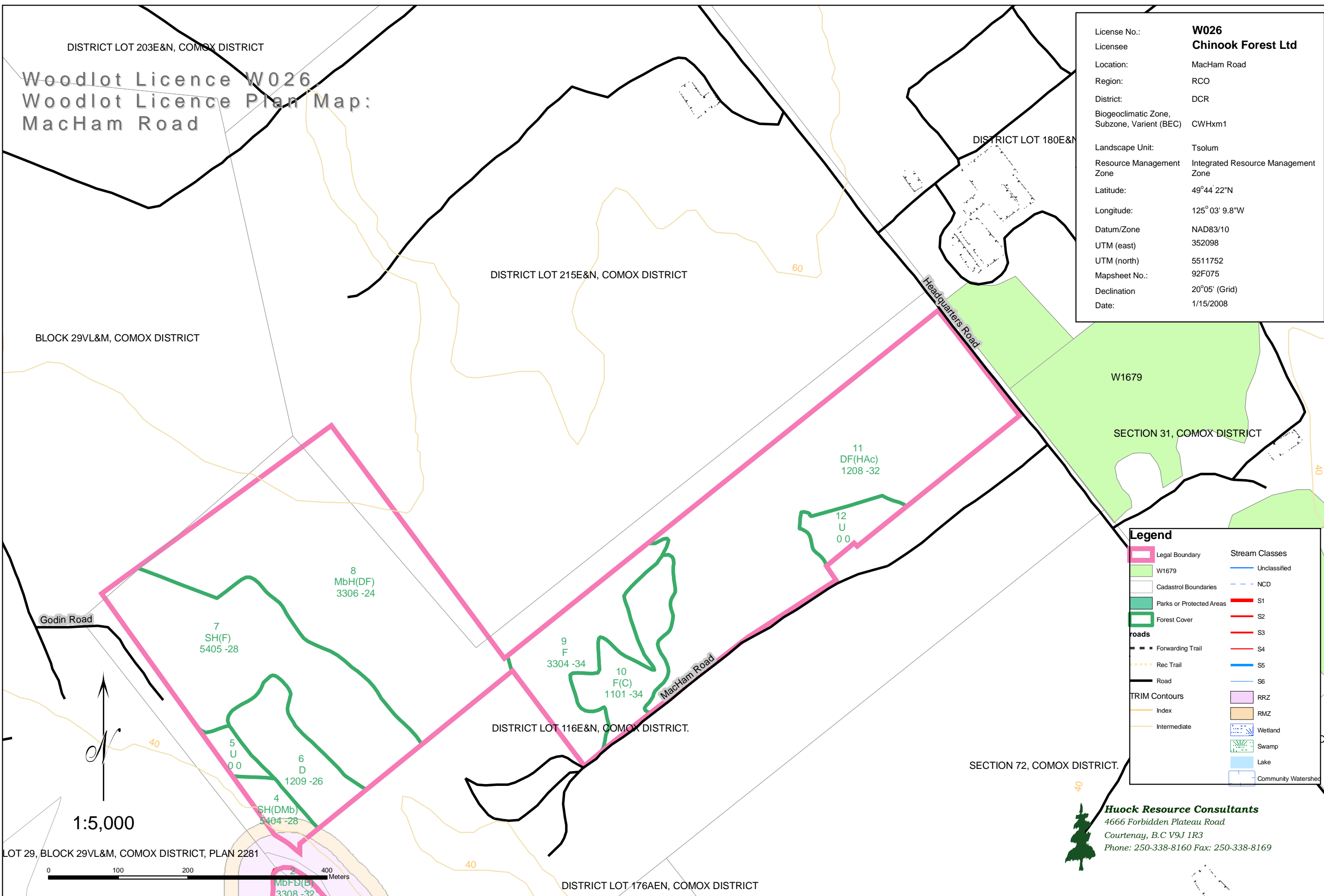
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Woodlot Licence W026 Woodlot Licence Plan Map: MacHam Road

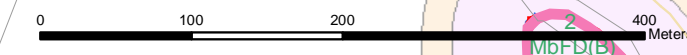
License No.:	W026
Licensee	Chinook Forest Ltd
Location:	MacHam Road
Region:	RCO
District:	DCR
Biogeoclimatic Zone, Subzone, Variant (BEC)	CWHxm1
Landscape Unit:	Tsolum
Resource Management Zone	Integrated Resource Management Zone
Latitude:	49°44' 22"N
Longitude:	125° 03' 9.8"W
Datum/Zone	NAD83/10
UTM (east)	352098
UTM (north)	5511752
Mapsheet No.:	92F075
Declination	20°05' (Grid)
Date:	1/15/2008



Legend	
	Legal Boundary
	W1679
	Cadastral Boundaries
	Parks or Protected Areas
	Forest Cover
	Forwarding Trail
	Rec Trail
	Road
	Index
	Intermediate
	Unclassified
	NCD
	S1
	S2
	S3
	S4
	S5
	S6
	RRZ
	RMZ
	Wetland
	Swamp
	Lake
	Community Watershed

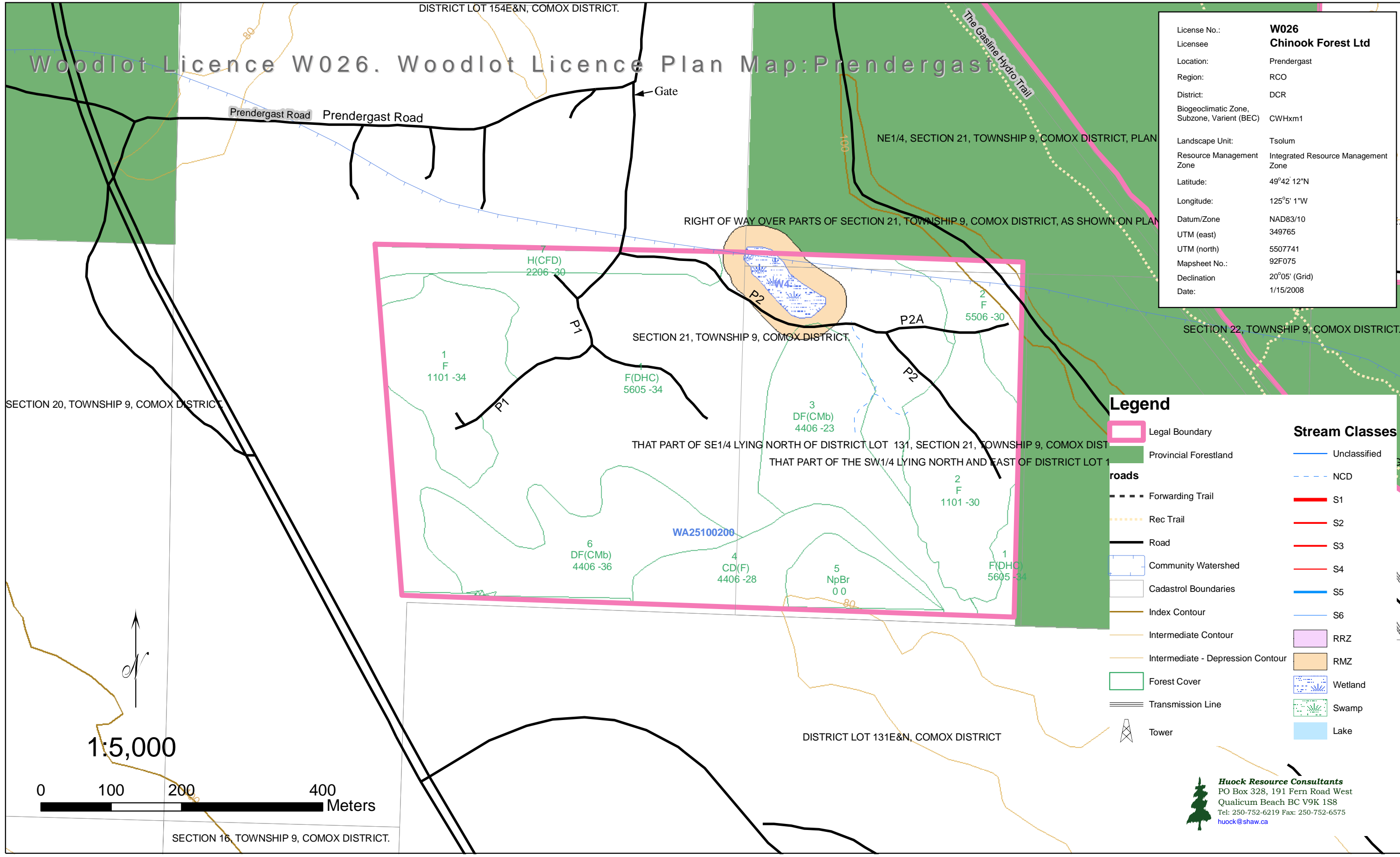
Huock Resource Consultants
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LOT 29, BLOCK 29VL&M, COMOX DISTRICT, PLAN 2281



Woodlot Licence W026. Woodlot Licence Plan Map:Prendergast

License No.:	W026
Licensee	Chinook Forest Ltd
Location:	Prendergast
Region:	RCO
District:	DCR
Biogeoclimatic Zone, Subzone, Variant (BEC)	CWHxm1
Landscape Unit:	Tsolum
Resource Management Zone	Integrated Resource Management Zone
Latitude:	49°42' 12"N
Longitude:	125°5' 1"W
Datum/Zone	NAD83/10
UTM (east)	349765
UTM (north)	5507741
Mapsheet No.:	92F075
Declination	20°05' (Grid)
Date:	1/15/2008



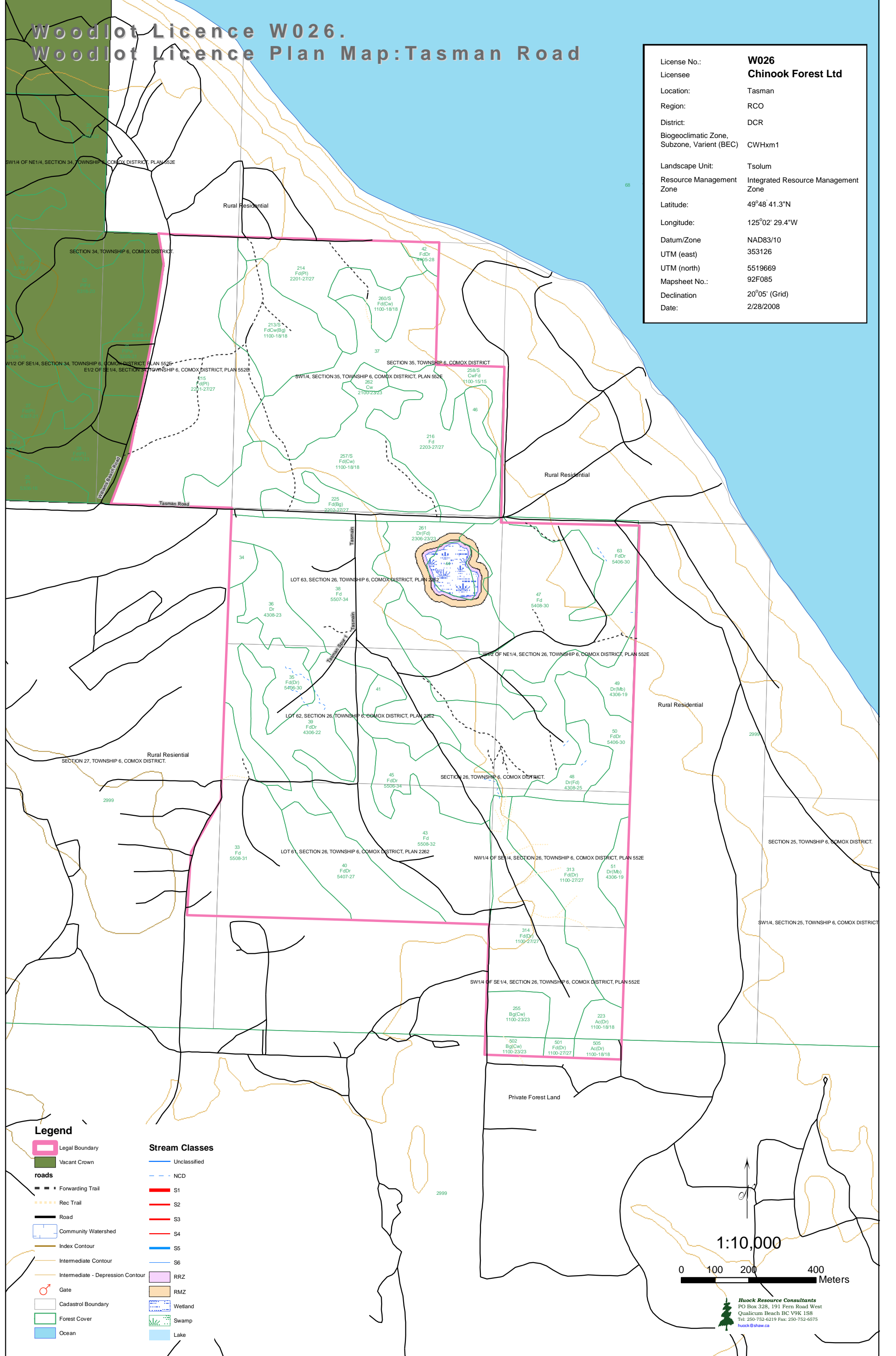
Legend

	Legal Boundary		Unclassified
	Provincial Forestland		NCD
	Forwarding Trail		S1
	Rec Trail		S2
	Road		S3
	Community Watershed		S4
	Cadastral Boundaries		S5
	Index Contour		S6
	Intermediate Contour		RRZ
	Intermediate - Depression Contour		RMZ
	Forest Cover		Wetland
	Transmission Line		Swamp
	Tower		Lake

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Woodlot Licence W026. Woodlot Licence Plan Map: Tasman Road

License No.:	W026
Licensee	Chinook Forest Ltd
Location:	Tasman
Region:	RCO
District:	DCR
Biogeoclimatic Zone, Subzone, Variant (BEC)	CWHxm1
Landscape Unit:	Tsolum
Resource Management Zone	Integrated Resource Management Zone
Latitude:	49°48' 41.3"N
Longitude:	125°02' 29.4"W
Datum/Zone	NAD83/10
UTM (east)	353126
UTM (north)	5519669
Mapsheet No.:	92F085
Declination	20°05' (Grid)
Date:	2/28/2008



Legend

- Legal Boundary
- Vacant Crown
- roads**
- Forwarding Trail
- Rec Trail
- Road
- Community Watershed
- Index Contour
- Intermediate Contour
- Intermediate - Depression Contour
- Gate
- Cadastral Boundary
- Forest Cover
- Ocean
- Stream Classes**
- Unclassified
- NCD
- S1
- S2
- S3
- S4
- S5
- S6
- RRZ
- RMZ
- Wetland
- Swamp
- Lake

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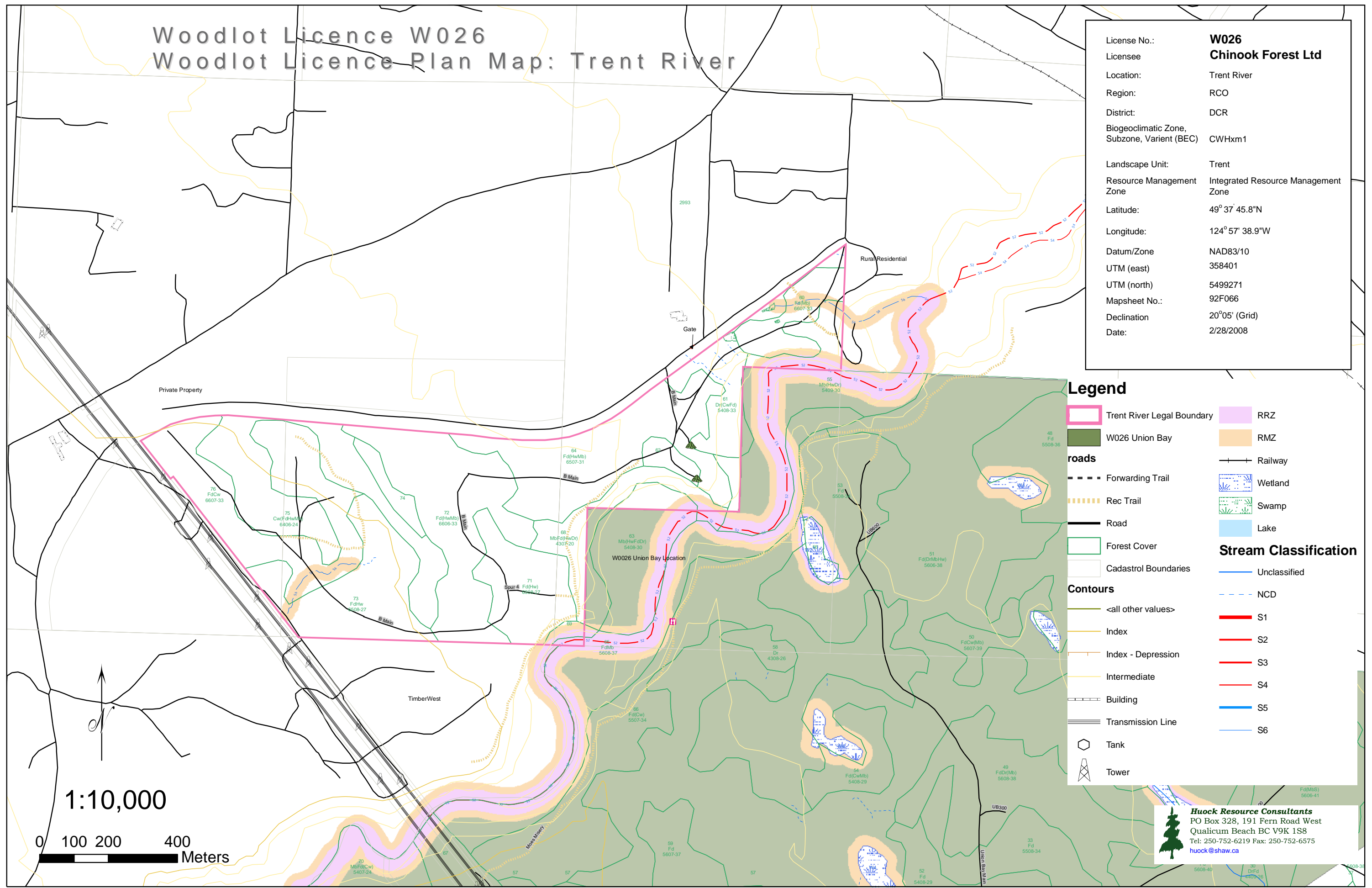


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Woodlot Licence W026

Woodlot Licence Plan Map: Trent River

License No.:	W026
Licensee	Chinook Forest Ltd
Location:	Trent River
Region:	RCO
District:	DCR
Biogeoclimatic Zone, Subzone, Variant (BEC)	CWHxm1
Landscape Unit:	Trent
Resource Management Zone	Integrated Resource Management Zone
Latitude:	49° 37' 45.8"N
Longitude:	124° 57' 38.9"W
Datum/Zone	NAD83/10
UTM (east)	358401
UTM (north)	5499271
Mapsheet No.:	92F066
Declination	20°05' (Grid)
Date:	2/28/2008



Legend

- Trent River Legal Boundary
- W026 Union Bay
- roads**
- Forwarding Trail
- Rec Trail
- Road
- Forest Cover
- Cadastral Boundaries
- Contours**
- <all other values>
- Index
- Index - Depression
- Intermediate
- Building
- Transmission Line
- Tank
- Tower
- RRZ
- RMZ
- Railway
- Wetland
- Swamp
- Lake
- Stream Classification**
- Unclassified
- NCD
- S1
- S2
- S3
- S4
- S5
- S6

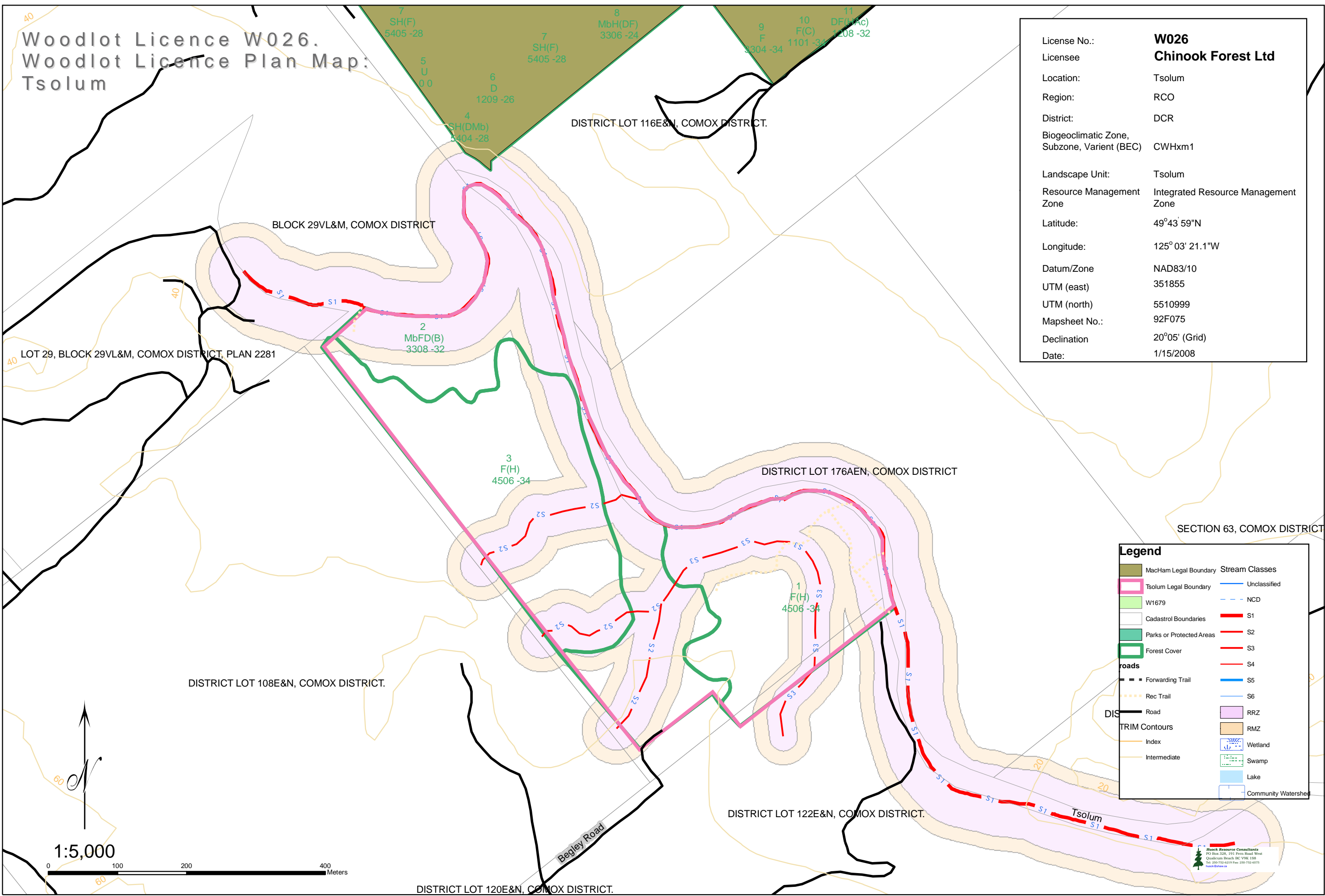
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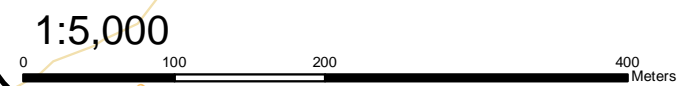
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 Qualicum Beach BC V9K 1S8
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huock@shaw.ca

Woodlot Licence W026.
Woodlot Licence Plan Map:
Tsolum

License No.:	W026
Licensee	Chinook Forest Ltd
Location:	Tsolum
Region:	RCO
District:	DCR
Biogeoclimatic Zone, Subzone, Variant (BEC)	CWHxm1
Landscape Unit:	Tsolum
Resource Management Zone	Integrated Resource Management Zone
Latitude:	49°43' 59"N
Longitude:	125° 03' 21.1"W
Datum/Zone	NAD83/10
UTM (east)	351855
UTM (north)	5510999
Mapsheet No.:	92F075
Declination	20°05' (Grid)
Date:	1/15/2008



Legend	
	MacHam Legal Boundary
	Tsolum Legal Boundary
	W1679
	Cadastral Boundaries
	Parks or Protected Areas
	Forest Cover
	Forwarding Trail
	Rec Trail
	Road
	Index
	Intermediate
	Stream Classes
	Unclassified
	NCD
	S1
	S2
	S3
	S4
	S5
	S6
	RRZ
	RMZ
	Wetland
	Swamp
	Lake
	Community Watershed

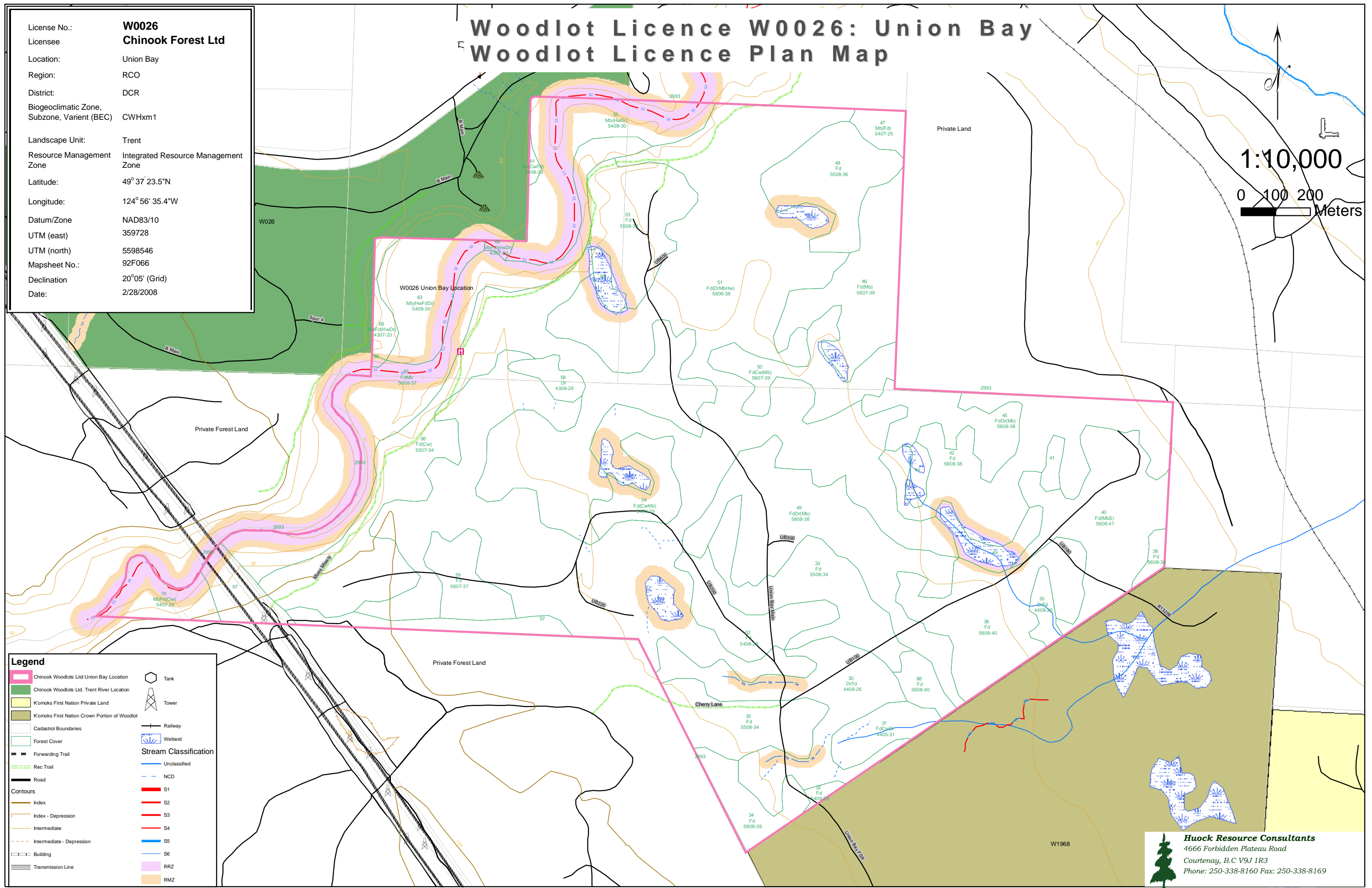


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chinookresource.com

Woodlot Licence W0026: Union Bay Woodlot Licence Plan Map

License No.: **W0026**
 Licensee: **Chinook Forest Ltd**
 Location: Union Bay
 Region: RCO
 District: DCR
 Biogeoclimatic Zone, Subzone, Variant (BEC): CWHxm1
 Landscape Unit: Trent
 Resource Management Zone: Integrated Resource Management Zone
 Latitude: 49° 37' 23.5"N
 Longitude: 124° 56' 35.4"W
 Datum/Zone: NAD83/10
 UTM (east): 359728
 UTM (north): 5598546
 Mapsheet No.: 92F066
 Declination: 20°05' (Grid)
 Date: 2/28/2008

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 Meters



Legend

Chinook Woodlots Ltd Union Bay Location	Tank
Chinook Woodlots Ltd Trent River Location	Tower
Komoks First Nation Private Land	Railway
Komoks First Nation Crown Portion of Woodlot	Wetland
Cadastral Boundaries	Stream Classification
Forest Cover	Unclassified
Forwarding Trail	NCD
Rec Trail	S1
Road	S2
Contours	S3
Index	S4
Index - Depression	S5
Intermediate	S6
Intermediate - Depression	RRZ
Building	RMZ
Transmission Line	

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Appendix IV: Invasive Plant List

2. For the purposes of section 47 of the Forest and Range Practices Act, the prescribed species of invasive plants are as follows:

Weed Species	Scientific name
Anchusa	<i>Anchusa officinalis</i>
Baby's breath	<i>Gypsophila paniculata</i>
Black knapweed	<i>Centaurea nigra</i>
Blueweed	<i>Echium vulgare</i>
Brown knapweed	<i>Centaurea jacea</i>
Bull Thistle	<i>Cirsium vulgare</i>
Canada Thistle	<i>Cirsium arvense</i>
Common Burdock	<i>Arctium minus</i>
Common Tansy	<i>Tanacetum vulgare</i>
Dalmatian Toadflax	<i>Linaria dalmatica</i>
Diffuse Knapweed	<i>Centaurea diffusa</i>
Field Scabious	<i>Knautia arvensis</i>
Giant Knotweed	<i>Polygonum sachalinense</i>
Gorse	<i>Ulex europaeus</i>
Hoary Alyssum	<i>Berteroa incana</i>
Hoary Cress	<i>Cardaria draba</i>
Hound's-tongue	<i>Cynoglossum officinale</i>
Japanese Knotweed	<i>Polygonum cuspidatum</i>
Leafy spurge	<i>Euphorbia esula</i>
Marsh Thistle	<i>Cirsium palustre</i>
Meadow Hawkweed	<i>Hieracium pilosella.</i>
Meadow Knapweed	<i>Centaurea pratensis</i>
Nodding Thistle	<i>Carduus nutans</i>
Orange Hawkweed	<i>Hieracium aurantiacum</i>
Oxeye Daisy	<i>Chrysanthemum leucanthemem</i>
Perennial pepperweed	<i>Lepidium latifolium</i>
Plumeless Thistle	<i>Carduus acanthoides</i>
Puncture vine	<i>Tribulus terrestris</i>
Purple Loosestrife	<i>Lythrum salicaria</i>
Rush Skeletonweed	<i>Chondrilla juncea</i>
Russian Knapweed	<i>Acroptilon repens</i>
Scentless Chamomile	<i>Matricaria maritima</i>
Scotch broom	<i>Cytisus scoparius</i>
Scotch Thistle	<i>Onopordum acanthium</i>
Spotted Knapweed	<i>Centaurea maculosa</i>
St. John's-wort	<i>Hypericum perforatum</i>
Sulphur Cinquefoil	<i>Potentilla recta</i>
Tansy ragwort	<i>Senecio jacobaea</i>
Teasel	<i>Dipsacus fullonum</i>
Yellow Iris	<i>Iris pseudacorus</i>
Yellow starthistle	<i>Centaurea solstitialis</i>
Yellow toadflax	<i>Linaria vulgaris</i>

[Provisions of the *Forest and Range Practices Act*, SBC 2002, c. 69, relevant to the enactment of this regulation: sections 47 and 141]

INVASIVE PLANTS REGULATION

B.C. Reg. 18/2004[effective Jan. 31, 2004]