Woodlot Licence W0007

Management Plan #4

Chilliwack Forest District

BCIT Forest Society
28101 Dewdney Trunk Road
Maple Ridge, British Columbia
V2W 1M1

November 12, 2001

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1.0 Introduction

Woodlot Licence W0007 (W0007) is a 275 ha woodlot managed by the BCIT Forest Society[1]. The woodlot has been in operation since 1985, when it was approved by the Ministry of Forests to manage the forest resources in the area under a woodlot licence.

The main purposes of W0007 are:

1. To operate as a financially self-sustaining, managed forest under the Ministry of Forests Woodlot Licence program.
2. To be an educational training facility and outdoor classroom for students and staff of the BCIT Renewable Resources Department.
3. To balance environmental, economic and social values while managing the woodlot.

This is the fourth Management Plan (MP) since the woodlot was awarded. It is submitted to the Chilliwack Forest District Manager for approval in accordance with the woodlot licence and the *Forest Act*. It complies with the *Forest Practices Code of BC Act*.

MP4 describes the woodlot, the goals and commitments of the BCIT Forest Society to manage W0007, resource inventories and proposed management activities, the proposed allowable annual cut, and provides reference information to guide the management of W0007.

1.1 Location of W0007

W0007 is located near Blue Mountain Provincial Forest, at the eastern boundary of the Municipality of Maple Ridge. The main access to the woodlot is off Dewdney Trunk Road in the vicinity of 272nd Street, at 28101 Dewdney Trunk Road. A secondary access is located at the end of 287th Street.

Refer to Appendix 1 (or pouch of the Management Plan binder) for the Woodlot W0007 MP#4 map, and the reduced version on page 2.

[1] The BCIT Forest Society is comprised of members from the BCIT Renewable Resources staff. The BCIT Forest Society elects its 5-member board of directors annually.

Insert Reduced MP4 Map here

1.2 Legal Description

W0007 is entirely Crown land, with a total gross area of 275 ha. The legal description is:

Township 15, ECM: Section 21 - west1/2 and northeast 1/4
Section 28 - southeast 1/4 and northeast 1/4

The woodlot is bounded as follows:

- North: Parallels BC Hydro Right of Way
- South: Dewdney Trunk Road
- East: Mission Tree Farm Licence (TFL) 26 and a residential neighborhood with access from 287th Street
- West: Kanaka Creek Regional Park; Crown Land within Blue Mountain Provincial Forest

Refer to Appendix 1 for the woodlot Exhibit "A" sketch map.

1.3 Terrain

W0007 has a southerly aspect with elevations ranging from 175 m in the southern areas, to about 590 m in the northern areas. The overall terrain is moderately rolling. Slopes are generally less than 30%, with a few areas ranging up to 60%.

1.4 Biogeoclimatic Zone

The woodlot lies within the Coastal Western Hemlock dry maritime biogeoclimatic subzone (CWHdm). It approaches or is just into the Coastal Western Hemlock very wet maritime biogeoclimatic subzone (CWHvm) at the uppermost elevations of the woodlot.

1.5 Forest Cover

The forest within W0007 is primarily second growth timber. The southern (lower) area of about 200 ha was naturally regenerated following railroad logging and slash burning in the late 1910's. The northern (upper) area of about 75 ha was naturally regenerated following truck logging and slash burning during the 1930's through to the 1950's.

Typically on the lower area, the timber type is predominantly a Western Redcedar, Western Hemlock and Douglas-fir mix with a minor component of Birch, Red Alder and Cottonwood. The upper area is predominantly a Western Hemlock and Western Redcedar mix, with some areas with Balsam, Red Alder or Birch. Full details of the 1999 forest inventory are included in Appendix 2, and described in Section 4.1. A summary of the timber inventory, by area, is outlined below.

Inventory	**South (lower) area**	**North (upper) area**
Average age	93.5 yrs	71.5 yrs
Average volume per hectare	789 m3/ha	659 m3/ha
Range of volumes	248 to 1411 m3/ha	253 to 1022 m3/ha

There is a total of 29.6 ha of managed plantations on the woodlot, with a small Yew research trial of 0.122 ha.

1.6 Cut Control

Cut control describes the allowable limits of compliance within the approved harvest rate on the woodlot. In accordance with Section 64(3) of the Forest Act, the licensee is exempted from the minimum annual cut requirement of Section 64(1)(a) of the Forest Act but shall ensure that the volume of timber harvested during the five year cut control period is not less than 80 percent nor more than 120 percent of the total of the allowable annual cuts during the five year period.

The following describes the allowable harvest levels. Should harvest rates exceed 100%, the overage is removed from the next period. Refer to Section 8.0 Allowable Annual Cut for a description of the proposed AAC of 2,600 m3/year for the years 2001 to 2009.

Period	**1**	**2**	**3**	**4**	**5**
Years	1985 to 1989	1990 to 1994	1995 to 1999	2000 to 2004	2005 to 2009
Allowable cut in the five year period (m3)	5,900	9,587	12,585	12,031[2] (proposed)	13,000[3] (proposed)

[2] 12,883 m3 = 2,483m3 yr1 (prorate of old and new AACs) + 2600 m3/yr for 4 years
[3] 13,000 m3 = 2600 m3/yr for 5 years

2.0 Licensee's Goals

The goals for the woodlot are to manage W0007 as follows:

1. To maximize income from forest products while meeting environmental and social objectives.

2. For students of the BCIT Renewable Resources Department:
   a) To utilize the area for demonstration and training purposes, and for educational projects.
   b) To provide financial assistance for education through summer employment, bursaries and awards; foreign exchanges for forestry students (e.g. Chilean rainforest exchange with the Chiloë Model Forest.)

3. To make the woodlot available for public education. The woodlot will be available for public tours and educational programs related to integrated resource management upon request.

4. For educational purposes, to demonstrate operationally a variety of silviculture systems and harvest techniques compatible with resource management objectives.

5. To participate in the research and/or implementation of new forest stewardship practices that are compatible with resource management objectives.

6. To manage access throughout the woodlot by means of a small road and trail network for forest fire or other emergency situations.

7. To provide meaningful communication with resource management agencies, First Nations, local communities and interested citizens.

8. To maintain or improve water quality and fish habitat within and downstream of the woodlot.

9. To maintain a pleasing, forested appearance on the woodlot for areas that view the woodlot.

10. To enable forest recreation by the public.

11. To maintain or improve forest productivity.

12. To manage biological diversity according to current strategies endorsed by the Ministry of Forests.

3.0 Licensee's Statement of Commitments

During the term of Management Plan 4, the following specific commitments will be made to assist in achieving the goals of the W0007:

1. Educational Use

The BCIT Forest Renewable Resources Department will continue to use the woodlot licence area as an educational training ground for students.

The BCIT Forest Society welcomes use by local schools and community groups for field trips and as a study area.

2. Reforestation and Basic Silviculture

All sites harvested on the woodlot will be reforested within one year of harvest where feasible. Silviculture Prescriptions and Site Plans will detail reforestation requirements.

3. Intensive Forest Management

The woodlot will continue to submit proposals for funding (e.g. FRBC or its replacement fund) of intensive forest management projects, where funding opportunities exist, in order to enhance the Crown forest resources beyond normally expected levels. For example, funding proposals may be submitted for small forest enhancement projects to optimize the timber productivity if there are suitable sites and funding is available.

4. Resource Inventories

The woodlot is committed to completing the following inventory projects:

Inventory Project	Completion Date
Update the fish stream inventory	September 2002
Timber Growth and Yield OAF1 and OAF2 study (study of adjustment factors for managed stands)	September 2003
Undertake a woodlot wide resource development study	September 2003
Complete ecosystem classification (with special attention to soil erosion and terrain hazard areas such as gullies)	September 2004
Update the wildlife inventory	September 2006
Update the timber inventory	September 2009

5. Resource Development

The woodlot is committed to evaluating harvest and road development options throughout the woodlot, with emphasis on the upper portion on the area (i.e. above 310m elevation) by September 2003. This, in conjunction with resource inventories and planning, will be used to guide future forest development proposals.

4.0 Resource Inventories and Management Activities

4.1 Timber Resources Inventory

The original 1990 timber inventory was updated in 1999, and further adjusted in 2000 as follows. Refer to Appendix 2 for a detailed description of the inventory update, and a summary of the timber inventory. The current timber inventory has been reviewed and accepted by the Chilliwack Forest District. This inventory information was used in the current timber supply analysis.

1990 Inventory

The original W0007 inventory submitted in 1990 was a conventional 'average line' inventory based on extensive (75 full measure and 180 count plots) 'operational level' ground sampling by students. Timber volumes were derived using BC appraisal timber cruise volume algorithms. The original Ministry forest cover map supplemented with air photo interpretation was used to pre-stratify the woodlot into conventional timber types. A 200m x 200m permanent grid was established for full measure plots. A second 100m x 100m grid was established for basal area count plots.

Twenty strata were sampled. The main strata attributes were primary and secondary species, age of establishment, height class and density class. The woodlot was divided into two areas for sampling: the upper area (approximately 75 ha., younger types) and the lower area (approximately 200 ha., older types) sampling units. The sampling units were combined for woodlot totals. Ministry staff participated in the checking of student work.

In 1991 the original strata labels were re-submitted with site index calculated and site classes developed for each type. Individual polygon attributes were then developed by redistributing the 'average line values' based on individual plot values. Overall totals remained constant.

The resulting inventory has proven to be accurate and reliable.

1999 Inventory

In 1999, the original 1990 timber inventory was up-dated to account for roads, plantations, deletions, special management zones, etc. 50 full measure plots and 180 count plots from the original inventory polygons were re-assessed. The assessments focussed on species composition, height, age, site index, volume, live timber basal area per hectare, and the basal area per hectare of old stumps and snags.

2000 Inventory Adjustment

Based on the 1999 re-measurements, adjustment ratios were developed and applied to all forest inventory polygons (with a combined Sampling Error of 12.2 % at a 95% confidence limit achieved.) Volume, age and top heights were ratio adjusted. Site index was derived from the adjusted attributes. This is adequate for inventory purposes and accommodates the current timber supply modeling process.

The updated timber inventory was used in the 2001 timber supply analysis (refer to Section 8.0 and Appendix 8). Volume adjustment factors (VAF[4]) were developed to utilize this inventory in the Ministry of Forest's model WOODLOT for Windows. These VAFs are provided in a summary table in Appendix 2 titled "Volume Adjustment Factor (October 2000 Adjustments)".

The timber harvesting landbase is as follows (refer also to Section 8.0 and Appendix 8):

Forest	Contributing to AAC (ha)	Not Contributing to AAC (ha)	Total (ha)
Forest with no reserves	203.1		203.1
Forest with Rotational Wildlife Tree Patches	9.9		9.9
Forest with Wildlife Tree Patches and Riparian Reserves	0.0	30.3	30.3
Forest with Riparian Management Areas that partially contribute to timber supply	23.9		23.9
Existing Roads and Buildings		8.6	8.6
Other Exclusions (Taxol Plantation)		0.1	0.1
Total	236.9	39.0	275.9

[4] VAFs are used for modeling timber supply in WOODLOT, to reflect differences between the more localized woodlot inventory and the Ministry of Forests inventory data, which was derived for a broader timber supply area. A VAF is the ratio of the volume from the W0007 inventory divided by the volume from the Ministry of Forests VDYP yield model for each forest polygon (e.g. for polygon 1, VAF = 970 m3/877 m3 = 1.11)

For timber supply analysis purposes, the expected growth and yield from plantations is currently assessed using the Ministry of Forests yield model called the Table Interpolation Program for Stand Yields (TIPSY). We have used the Ministry default values for Operational Adjustment Factors (OAF) as follows:

- OAF1 (for holes) = 15%
- OAF2 (losses to insects and disease over time) = 5%

We believe that the OAFs might overstate future losses for this woodlot. It is our intent over the next few years to conduct a study to measure the OAF1 and OAF2. We will use this data to support our next Allowable Annual Cut proposal.

4.2 Forest Soils, Landforms and Ecosystems

The forest soils are predominately podzols[5] derived from coarse and moderately coarse textured glacial till and colluvium over bedrock. Throughout the woodlot there are occasional exposed upper soil horizons comprised of silts, blue clays, and the occasional bedrock outcrop.

Below the forest soils, a thick layer of dense basal glacial till covers much of the woodlot. This is generally stable and can withstand logging road construction and timber harvesting. Terrain stability is checked as required during the preparation of Site Plans and Silviculture Prescriptions.

Slopes are generally less than 30%, with a few areas ranging up to 60%, and there has been no need to complete terrain hazard mapping or reconnaissance terrain stability mapping. To date there have been no indicators of terrain instability identified during any field activity. Past road construction practices and harvesting practices have resulted in no discernable stability problems. Should we identify localized sensitive sites during operational planning (such as around steep stream gullies), these sites will be assessed by qualified registered professionals.

Ecosystem mapping will be undertaken on W0007. Soil erosion and terrain hazard areas (such as gullies) will be mapped during the completion of ecosystem classification work, by September 2004.

4.3 Stream Classification and Riparian Management

The majority of the streams on W0007 have been classified following the Operational Planning Regulation under the *Forest Practices Code of BC Act*. Stream surveys were carried out by students employed over the summer, by students of the FWR program within

[5] The majority of the woodlot is comprised of Cardinal and Steelhead soils. Cardinal soils are Orthic Ferro-Humic podzols and are comprised of moderately coarse textured glacial till. Steelhead soils are gleyed Orthic Ferro Humic podzols and are comprised also of moderately coarse textured glacial till. In the upper areas of the woodlot there are Cannell soils. These soils are Lithic Orthic Humo-Ferric podzols.

their fisheries course, and by forestry students within their project course. Stream classifications include:

Riparian Class	Stream Type	Stream Width (m)	Required Riparian Reserve Zone (m)	Required Riparian Management Zone (m)
S1	Fish	>20m	50	20
S2	Fish	>5 </= 20m.	30	20
S3	Fish	1.5</= 5m.	20	20
S4	Fish	<1.5m.	0	30
S5	Non-fish	> 3m.	0	30
S6	Non-fish	</= 3m.	0	20

The streams and their classification are shown on the W0007 MP4 1:5000 scale map.

Forest management will be planned to maintain or improve water quality and fish habitat on and downstream of W0007. Minimum required riparian management areas will be established on all streams according to Code requirements as noted above. A riparian management area consists of a reserve zone (RRZ) and a management zone (RMZ).

The RMZ normally will involve some level of tree retention where required, and as specified in a Silviculture Prescription or Site Plan (SP). No more than 50% of the basal area of trees within the RMZ will be harvested at any entry. According to the strategy expressed in the pertinent SP, this will be implemented in either a group selection (i.e. <2 tree heights in width) or individual tree selection Silviculture Systems. Where trees are removed from the RMZ, it is the practice of the licensee to replant as soon as possible with large stock if denuded, such as may occur on low order S6 streams. (For timber supply modeling purposes, 50% of the area of the RMZ has been netted out on average to account for this management approach.)

We will be reviewing and confirming all stream classifications by September, 2002, and will have the inventory signed off by a qualified person.

There are several small non-fish bearing streams (S6) and a few larger non-fish bearing streams (S5). Most of these eventually flow into fish bearing streams downslope, and so managing forestry projects around streams for water quality on S5 and S6 streams is important.

Fish bearing streams are located on the lower portions of W0007. There are no large fish streams (S1), though there are a number of other fish streams (S2-S4).

4.4 Cultural Heritage Management

W0007 lands are located within the traditional territory of the Sto:lo, Katzie and Kwantlen First Nations. The protection of aboriginal rights and traditional use is of foremost importance and the licensee will consult with the First Nations through the operational planning process and on an on-going basis.

No Archaeological Overview Assessment (AOA) has been conducted or is required on the woodlot. The Archaeological Impact Assessments (AIA) conducted to date have not identified any archaeological sites. The requirement for future AIA's will be determined by the District Manager.

The updating of the forest development plan will reflect the management recommendations of AIA's if archaeological sites are found. During operations if an unrecorded site is identified by the licensee's operators, operations that may impact upon the site will cease and the site will be reported to the District Manager.

At present there is no impact from Cultural Heritage Management on the calculation of the harvest rate.

4.5 Recreation Management

There are many people that enjoy the recreational opportunities on the woodlot. Recreational users include:

- hikers and recreational walkers
- mountain bikers
- equestrian groups
- designated groups, such as scouts or first nation associations that utilize the teepees for overnight accommodation (located adjacent to the meeting building.)
- other groups that wish to use our facilities, such as our meeting building. The building is available for use on a cost recovery basis.

Mountain biking has become very popular on the woodlot in recent years, and students have completed two studies (1999 and 2001) to identify uses and possible management approaches. Copies of the these studies are available by contacting the Manager, BCIT Forest Society. Please refer to Appendix 4 for a listing.

The woodlot recognizes the interest and use for mountain bike trails, and will work with mountain bikers to find a solution for the management and use of the trails. However, recent trail construction is not authorized, having been built by volunteers without permission to use or occupy the Crown land from either the licensee or the Ministry of Forests.

We believe that forest management and mountain biking can coexist as it has to date, and are committed to ongoing discussion with mountain bikers and to work with trail users to find a way that this will continue. It must be recognized that the woodlot was established for forest management activities to occur, and this may result in development in or near the trails. Should forest management activity be proposed across one of the trails, we will involve the mountain biking community in the review of our proposals to identify solutions if an issue arises.

In addition, there are three underlying concerns that need to be addressed with mountain biking on the woodlot. These relate to user safety and liability to the woodlot licensee and the Crown, environmental protection, and maintaining the productivity of the forestland. There are currently ongoing discussions within the mountain biking community to form a club to address the liability and insurance issues. We also hope that the mountain biking community recognizes the need to ensure trails meet environmental and safety requirements, are adequately cross drained, and that users stay on the trails. It is important for users to recognize the forestland values, and to avoid damaging plantations or trees on the woodlot.

Walking trails and other trails or accesses may be maintained periodically by the licensee on an adhoc basis for use by students. For example, the lower most walking trail has been worked on in recent years, as have trails leading to the canopy station. These trails are not officially designated, but rather are used during training sessions.

W0007 will be available for public tours and educational programs related to forest management upon request, on a cost recovery basis.

During periods of active harvesting, appropriate signs will be posted near the operations occurring on the woodlot. All contractors will be cautioned to be aware of and respect non-industrial users of the woodlot area. Signs will be posted when forest operations are commencing.

The illegal dumping of garbage and other material is an ongoing concern to both the licensee and residences adjacent to Dewdney Trunk Road. Discussions will continue with BC Hydro, the Municipality of Maple Ridge, and the Ministry of Forests as to how best to deal with this problem.

4.6 Range Management

No livestock or range use agreements are in place at the current time; none are expected.

4.7 Conservation of Biological Diversity

Conservation of biological diversity (biodiversity) occurs at the broad landscape level and the more refined stand level. The woodlot is within the Allouette Landscape Unit (35,019 ha.); landscape unit planning is currently underway by the Ministry of Sustainable Resource Management. The intent of landscape unit planning is to address priority biodiversity elements (old growth retention and wildlife tree retention in the first phase) to guide forestry operations in the landscape unit. The licensee will work to implement the direction provided by the landscape unit planning process once it is complete.

In the interim, we will undertake the following measures to maintain stand level biodiversity. Refer to the Woodlot W0007 MP#4 map and Appendix 3 map titled Woodlot W0007 Biodiversity for the planned network of Wildlife Tree Patches (WTP's). A summary of areas and calculations is also included in Appendix 3, titled Biodiversity Contribution of WTPs and Reserves, Woodlot W0007.

- WTP's will be established as guided by the District Manager's December 15, 1995 letter, and as guided by The Comprehensive Plans for Wildlife Tree Retention in a Woodlot Licence Forest Development Plan (Preliminary Draft fax dated October 4, 2001, refer to Appendix 3.)

- The overall target is to retain 18% of the forested area in or near W0007 for WTPs, and that WTP's are located no more than 500 meters apart.

  Adjacent properties to the woodlot contribute in the form of old forest and wildlife tree patch attributes. Kanaka Creek Regional Park is adjacent to the western boundary of the woodlot. TFL 26 to the East has a mosaic of long term and rotational reserves in close proximity to the woodlot boundary. Where W0007 is influenced by adjacent reserves within 500m, it is permissible to denote the adjacent area for use as WTP's, thereby negating the need to establish WTPs within the influence zone. Appendix 3 denotes these zones.

The lower part of Kanaka Creek Regional Park contributes to the biodiversity needs in W0007 and WTPs are not required to be established in the woodlot where the park provides an influence (shaded red on the map). However, the upper influence of the park and the influence of TFL 26 are not required to offset required WTP's (shaded green on the map), since these areas would negate the contribution of existing riparian reserves and natural WTP locations in W0007.

- WTP's are planned as follows, with final locations to be denoted on the Forest Development Plans and Site Plans:
  - Permanent WTPs – generally located over riparian reserves or logical extensions to them. These will not normally be moved, though portions outside of reserves can be adjusted if a replacement area is available. No timber harvesting will occur.
  - Riparian WTPs – generally located over other riparian zones. No timber harvesting will occur unless required for WTP management purposes.
  - Rotational WTPs – generally located in areas that exhibit significant "wildlife tree characteristics", or that contribute to the diversity of the woodlot. They can be harvested or removed over time provided that suitable alternate WTPs are established that maintain the total retention rate of 18%.

- Road access will be planned to avoid crossing through WTPs where practicable. Where it is necessary, rights of way will be minimized.

- Coarse woody debris will be retained, approximating pre-harvest stand levels. W0007 will follow the Coarse Woody Debris (CWD) Short Term Strategy as outlined in the District Managers letter of May 15, 2000.

- A mosaic of small cutblocks with various retention or small clearcut openings will be maintained.

- Care will be taken to manage windthrow to pre-harvest levels on WTP's.

4.8 Wildlife

The licensee will manage wildlife resources to the levels required under the *Forest Practices Code of BC Act*, although there are no known management objectives from the Ministry of Forests or other government agencies.

The primary source of information for wildlife species on W0007 is based on a reconnaissance level survey in 1985 by Dr. Guthrie, wildlife instructor at BCIT. This survey indicated that wildlife populations were relatively small, as follows:

- bird species and populations are moderate and are those typical of the area given the structure and ages of the stands on and adjacent to the woodlot. Passeriform species predominate. The harvesting has increased diversity in the avifauna and has generally been beneficial. Decadent trees have provided habitat for woodpeckers.
- small mammals such as squirrels, raccoons, rabbits, mink and weasels are present in moderate numbers.

- black-tailed deer and black bear are the only large mammals present. The deer population of the woodlot is considered transient, as opposed to resident, and the number of deer have dramatically increased in numbers due to the increased forage available as small openings are created by harvesting operations.

There have been a few wildlife surveys undertaken by students as part of the FWR program at BCIT on the woodlot in 1985, 1991, 1997 and 1998. Our information will be continually updated with studies by wildlife interest groups and student projects over time. The wildlife inventory and management strategies will be formally updated by September 2006.

Areas of the woodlot have been noted as being "highly capable of being recruited to function as future Deer Winter Range (DWR). Manipulation of stands are required prior to this occurring…"[6]. However, there are no known deer winter range requirements on W0007, and so W0007 has no plans to create DWR other than forest practices described in the Forest Practices Code.

4.9 Water Resources

W0007 is not located within a community watershed. There are no active water licences within the boundary of the woodlot. Water licences do exist on creeks outside the boundaries of the woodlot. Please refer to Appendix 5 for a listing and map location of these adjacent licences.

Forest management will be planned to maintain or improve water quality and fish habitat on and downstream of W0007. No harvesting, road construction or silviculture activity will be carried out within 100 m of any water intake.

There are concerns about siltation of streams and surface water caused by the random and unauthorized use of four wheel drive vehicles and by traffic on the BC Hydro Right-of Way along the south boundary of the woodlot. These uses are beyond the control of W0007, though we will continue to work with the authorities to try to reduce incidents where possible.

4.10 Visual Quality

W0007 is within the scenic vista of the Blue Mountain area, making visual resources an important management consideration. The area has a visual landscape inventory, completed by the Chilliwack Forest District and updated in 2000, describing the visual sensitivity units (VSUs) and recommended visual quality classes (rVQCs). Refer to Appendix 6 and MP#4 map.

For the scenic views, timber harvesting and forest management activities will be planned to meet the recommended visual quality objectives for the area, in accordance with the direction provided by the Chilliwack Forest District Manager on December 17, 1999. This

[6] by the Fish, Wildlife and Habitat Management Forest Interactions section of the Ministry of Water, Land and Air Protection, September, 2001

direction outlines the known scenic areas and the viewshed's associated with each. The only one applicable to W0007 is the area viewed from Highway 7 (Lougheed Highway). There is also the potential for some activities within the woodlot to be visible from the beach and wharf at Whonnock Lake.

We expect that harvested areas will have reached visually effective greenup when the replacement forest is at least 5m tall (i.e. when the ground is not easily discernable in perspective as noted from viewpoints). This assumption was discussed with the Chilliwack Forest District, and is consistent with the Fraser Timber Supply Review. This should occur within 13-15 years on average[7] . Where partial harvesting is undertaken, the visual impact can be further reduced or even eliminated.

In 2000 and 2001, the Chilliwack Forest District reassessed the visual quality objectives (now called recommended Visual Quality Classes) for the area encompassing W0007. Although the new objectives have not been officially made known to the licensee, the draft results have been used in MP4 in order to work with the latest information. These indicate that about 62% of the woodlot is visually sensitive. Recommended Visual Quality Classes (rVQC) range from Retention to Partial Retention – High (PR-H). 55% of the woodlot has the rVQC of PR-H, allowing up to 3.4% visual alteration level in perspective from the scenic viewing locations. This is a significant increase in scenic values over the previous inventory, though can be managed using careful block design and placement.

The strategy proposed in MP4 to meet the rVQCs is to utilize good visual design concepts in combination with small cutblocks, strategically located retention patches, minor amounts of partial harvesting if necessary, and prompt reforestation.

We intend to ensure that through good design and careful block placement that we can achieve a plan to perspective (P2P) ratio of at least 4. (P2P = % planimetric alteration of the cutblock in the rVQC polygon / % perspective alteration of the cutblock in the rVQC polygon.) This means that a 2% alteration in perspective view for the rVQC polygon can be as high as 8% alteration in planimetric view. The Ministry of Forests found in a study[8] that 5 of 27 large industrial operations have a P2P greater than 4, which we believe will be easily achieved on W0007 given our ability to use small patches, the tallness of foreground trees and the gentle terrain.

When planning timber harvesting, W0007 will prepare a visual assessment package (VAP) of proposed operations within the scenic areas to ensure that rVQCs and P2Ps are being met. The current VAP procedure, dated January 27, 2000, will guide submissions.

For our neighbours adjacent to the woodlot, and particularly due to the proximity of residential housing near the southeast corner of the woodlot, care has been taken during past harvesting operations to minimize the effect that the practices have had on these residents. In most cases for cutblocks along the perimeter of the woodlot, we intend to minimize visual impacts by using:

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[7] 13 to 15 years is the estimated upper maximum age that trees will reach 5m height, based on average yield projections. Source: Age to Green-up Height, BC Ministry of Forests, June 18, 2001, Internet source: www.for.gov.bc.ca/resinv/g&y/projects/spwg/atg

[8] Source: A First Look at Visual Landscape Design and its Influence on Timber Supply, Summary of Year One Research, March 30, 1999, BC Ministry of Forests, Victoria, BC

- block design less than 10 ha in size.
- partial harvesting using a selection system or a system of cut and leave patches (which will not affect timber supply.)
- planting the same year using large stock.

For example, through the use of selection harvesting in one block, and the planting of large stock in a small clearcut block, the visual impact of these practices have been minimized. Due to the slope and aspect of the building lots, most of the adjacent residents have their main views out towards the south east, away from the woodlot. Those properties adjacent to the woodlot boundary and the roads leading in to the area have natural roadside screening, due to the input of natural Alder seeding in.

To account for visual resource values in the allowable annual cut for W0007, an age constraint option was utilized in the WOODLOT for Windows timber supply model. We have assumed that with a P2P of 4 on visually sensitive polygons, this will equate to the assumption that at least 80% of the timbered areas of the woodlot must be older than 15 years[9]. Further details are provided in Appendix 6 and 8.

4.11 Botanical Forest Products

There has been minor interest in the collection of botanical forest products on the woodlot, and the licensee currently does not harvest botanicals. Occasionally the general public has been observed collecting Western Redcedar bark, mushrooms, salal or moss from within the woodlot. If observed, we will discuss the activity with pickers and ask them to use care and to minimize their impacts of picking on the environment and the woodlot resources.

There is currently one gentleman interested in gathering moss; we are is in the process of setting up an agreement for the collection of moss. This gentleman is currently the holder of a moss harvesting agreement within Woodlot W0038. There are no regulations for botanical forest products yet established under the *Forest Practices Code of BC Act*.

4.12 Forest Health

W0007 has minimal incidence of forest health issues, and the issues are typical for this area on the coast. These include:

- Pockets of hemlock dwarf mistletoe.
- Pockets of Armillaria root rot.
- Endemic windthrow of minor natural amounts.
- Hemlock Looper.

A study undertaken in 1997 by students titled " Hemlock Dwarf Mistletoe Survey at Woodlot 007" describes the extent of infestations, and suggests some management strategies to

[9] This is a conservative assumption since we are using the upper range of tree heights, which we believe will be achieved at an earlier age (although not documented.)

consider during preparation of Silviculture Prescriptions. In many areas on the woodlot, the hemlock trees are able to outgrow the upward spread of the disease. As the hemlock stands are harvested, these sites will be assessed for appropriate treatment such as converting to a Douglas-fir and Western Redcedar mixed stands.

Pockets of Armillaria root rot have been harvested in a block adjacent to the woodlot building (Block 10). An intensive survey was undertaken of the infected area and Western Larch, an Armillaria resistant species, was planted near the infected stumps. The site is monitored on a yearly basis as a student project.

In 2000, Hemlock Looper was identified in the North Shore mountains. There are indications of Hemlock Looper attack in the woodlot, though it is not currently thought to be a significant hazard on the woodlot. Strategies will be developed should it become a significant concern.

Windthrow is endemic in the woodlot. As in most coastal forests it is a natural part of the ecological cycle, but not believed to be significant in W0007 in terms of timber losses. Cutblock design will consider and address the effect of wind on boundaries for remaining standing timber, reserves and wildlife tree patches. Where fringe windthrow occurs, efforts will be made to salvage the timber as required and where approved.

The licensee has not been directed to undertake any overview assessments by the Chilliwack Forest District Manager. We will monitor the woodlot annually for insect, disease and other damage and will adjust harvesting plans as required and where approved to accommodate the removal of such threats. The Forest Development Plan will describe specific forest health requirements.

4.13 Timber

The timber management goals are to operate on the woodlot area in an environmentally responsible, socially responsible and economically responsible manner to:

- maintain a healthy forest.
- produce an economically viable range of forest products and logs.
- ensure that development will continue in a sustainable, non-declining even flow basis over the long term.

At present, the following are the major forest products that are produced on the licence area:
- Sawlogs
- Poles and piling
- House logs

Minor products produced on the licence area are:
- Fence posts and rails
- Fire wood
- Christmas trees
- Pulpwood

The forest products are sold for their highest obtainable market value, which fluctuates with market cycles, timber quality and requirements of the buyer. Where possible, the licensee has managed the harvesting within periods of high return for the products harvested.

It is the intention of the licensee to manage for quality rather than volume. Harvest ages will be based on producing the following grades of logs: H grade sawlog, I grade sawlog, C grade peelers and Western Redcedar poles. On average, we will harvest when the average stand diameter for the leading species is at least 45 cm (which may occur before culmination age). Smaller stems will be harvested in thinning regimes or partial cuts that are required to meet other forest management objectives, such as windthrow recovery or visual resource objectives.

Timber development priorities for the woodlot will be:

1. Maintain a healthy forest, and therefore the harvesting is concentrated in areas that are unhealthy such as the mistletoe stands.
2. Salvage wood that has been damaged as the result of wind, fire, insect attack or rot as soon as possible and where practicable.
3. Harvest the stands that have met the harvest ages, and that are economically viable.
4. Provide a profile of harvesting throughout the woodlot based on being able to meet a social, economic and environmental balance. It will be important to move to some areas of the woodlot that have not seen development, as these become economically viable. All stands in the woodlot are considered operable, except those that will be reserved for other resource values.

We will determine the cutblock size and silviculture system based on the resource values at risk, with a preference to management of Douglas-fir or Western Redcedar, based on the

species best ecologically suited to the site. Small patches will be used where we intend to manage for Douglas-fir (to allow enough light to grow) unless there is a forest health issue.

Commercial thinning will be undertaken where economically feasible.

We will manage for two broad zones in the woodlot, the southerly (lower) woodlot and the northerly (upper) woodlot, with the split approximately east-west at the Nygaard Trail as follows.

The Lower Woodlot

This is the urban interface portion of W0007. We will utilize small openings (e.g. less than 4 ha.), commercial thinning and partial cutting to minimize impacts on neighbouring properties where practicable.

The Upper Woodlot

This timber management zone is constrained mainly by scenic values, access limitations and currently the younger age class. The emphasis will be to manage for rate of cut with a series of small well designed openings to accommodate visual concerns. Our 10-year forest development plan includes cutblock proposals for the southerly portion.

Development of the young stands in the northeast portion of W0007 will be investigated thoroughly over the next few years to determine the best development pattern and treatments. The woodlot is committed to completing a detailed evaluation and total resource plan for the upper portion of the woodlot by September 2003, to guide forest development planning in this area. Our initial investigations indicate that a road system will need to be developed through the area to the northwest outside of W0007, which we have proposed as a woodlot expansion. This area has smaller timber types that have not met harvest age requirements, making harvest planning difficult.

It is anticipated to convert the existing hemlock leading stands to a Douglas-fir, Western Redcedar mix stand (refer to Section 4.14). Analysis of the Woodlot Licence Harvest Planning report shows that diameters of the harvested stands within the next 100-year period are as large as 74-cm. dbh at time of harvest. In the following 100 year period (2100 – 2200) the analysis shows that the dbh at harvest decreases as the stands are converted to managed stands. However, diameters at harvest in the mid 60 c.m. are still found. It is hoped that through careful management, these stands will produce a high value product.

W0007 also intends to investigate options for forest products certification over the next five years.

4.14 Silviculture

We will plant before or during the first growing season following harvest completion where regeneration is required and unless natural regeneration is specified in the site plan.

Spacing will not generally be undertaken unless required for density management on reforested stands.

A full range of silviculture systems will be employed on W0007, based on meeting the resource objectives of the site and sound ecological principles to establish the best crop for the site (Douglas-fir and Western Redcedar are preferred where possible).

The intent of the licensee is to shift to a retention type silviculture system (even aged in the harvested areas), where openings will be up to two tree lengths wide. It is also anticipated that the majority of the existing stands will be converted from their current stand makeup to a mixed stand with leading species of coastal Douglas-fir and Western Redcedar, generally 70% and 30% respectively, though this will be confirmed operationally with a Site Plan or Silviculture Prescription prior to harvesting. A minor component of hemlock and other naturally seeded in species will be acceptable.

Our preliminary assessment is that we should be able to grow Douglas-fir in these small patches with no significant affect on growth, though we will monitor growth over the next several years.

The following are some silviculture activities that are under consideration. Code required treatments will occur in all cases, though proposed FRBC funded projects (or its proposed replacement fund[10]) are discretionary depending on the availability of funding.

	Activity	**Location**	**Who will do the activity**	**When**	**Proposed Funding**
1	Pruning Trial Commercial Thin	Block 1	Student Training	Ongoing 2003 – 2010	BCIT Forest Society
2	Light pruning Spacing	Blocks 2, 3	Contractor Own Resources	2000 – 2010	FRBC
3	Free growing survey	Blocks 4, 5	Own Resources	2000 2000 – 2010	BCIT Forest Society
4	Pruning and spacing	Blocks 4 Block 5	Student training Contract or Own Resources	2000 – 2010 2000 – 2010	BCIT Forest Society FRBC
5	Free growing survey Pruning and spacing.	Blocks 6, 10 Blocks 6, 10	Contract or Own Resources	2001 – 2004 2000 – 2010	BCIT Forest Society FRBC
6	Free growing survey Brushing and Weeding	Block 7 Block 7	Contract or Own Resources Student training	2005 – 2010 2002 - 2010	BCIT Forest Society BCIT Forest Society
7	Planting, Brushing and Weeding	Block 9	Student Training	2001 – 2010	BCIT Forest Society

[10] Note that as of November, 2001, FRBC is currently in place, although recent government announcements indicate that FRBC will be replaced in 2002. All references to FRBC in MP4 also refer to the replacement funds.

4.15 Roads and Access

It is the intent of W0007 to create a permanent drive-able road network servicing the entire woodlot so that we can intensively manage the forest.

Access will be maintained (or deactivated) based on the level of required use. Road deactivation will generally be semi-permanent or temporary on roads that may have future uses for management, and permanent where they will not be required until the next rotation.

There is currently approximately 6 km of permanent roads on W0007. It is estimated that an additional 4-km of road will be required to provide permanent roads to the remainder of the woodlot.

For timber supply purposes, existing roads (combined with buildings) cover approximately 8.6 ha. (as measured from the forest inventory file), or 3.1% of the woodlot This area has been removed from the contributing forest. For future roads, a right-of-width of 10m was assumed, and future roads amount to approximately 4 ha, or 1.5 % (rounded to 2% for analysis) of the woodlot. To account for future roads in the timber supply, a 2% netdown factor was applied in WOODLOT for Windows. Refer also to Appendix 8.

4.16 Fire Protection

As an operational forest located close to residential areas, careful attention is paid to being prepared in the event a forest fire occurs. Some precautions we are taking include:

- A Fire Preparedness Plan is updated and submitted annually to the Chilliwack Forest District Manager, prior to April 1st of each year.
- W0007 has an onsite caretaker who lives in a suite within the woodlot building, and may act as firewatch as required.
- Water sumps are strategically located adjacent to main access roads, to aid in the delivery of water.
- A fire tool cache is located in the equipment room at the woodlot building.

Past forest fire experience has been limited on the woodlot. The last fire formally actioned was in 1995. Woodlot staff also discovers the remains of 3-5 campfires annually.

4.17 Forest Research

Forest research is undertaken mostly by students as part of their studies in forestry programs at BCIT. There are two research trials underway on the woodlot:

- A Yew plantation (0.1 ha) for Taxol research.
- An evaluation of stand management practices for reducing White Pine Blister Rust.

There are no new research trials planned, although there are several other studies planned as described in section 5.0.

There are a number of educational and training facilities on the woodlot, and the woodlot collaborates with some organizations for their research projects (refer to section 5.0).

The woodlot has been used for conducting pathological research by other agencies as well. Refer to Section 4.18.

4.18 Collaborative Research

Other researchers also will use the woodlot, with prior approval by W0007.

The BCIT Forensic school will continue to carry out forensic studies using pig carcasses. We will ensure that adequate signage and public information about the studies is provided, and that pig carcasses are located away from high use areas on the woodlot.

5.0 Training and Education

The woodlot has a small training center developed as an educational facility and classroom for the students and staff of the BCIT Renewable Resources Department. This includes a canopy station. Should we consider the need for additional facilities, we will consult with the District Manager.

A budget has been set up to offset the cost of educational projects. This fund can be accessed by staff and students to help defray the cost of buying equipment and supplies within their educational projects. Throughout the term of this management plan, it is hoped that students will be involved with as many hands on projects as time permits, in order that they can gain some operational field experience within their courses. A past and ongoing educational project has been the student involvement in identification of white pine blister rust and the application of different pruning regimes of the incidence of this disease. This has helped the students to gain valuable field experience in Forest Health and Silviculture. It is hoped that projects of this nature will continue to occur within the operational framework of the woodlot licence program.

Other examples of projects (in addition to research projects) that are ongoing or in the planning stage are:

- Armillaria Root Rot study (planned)
- Amphibian study (planned)
- Canopy station studies (planned)
- FERIC trials for small scale equipment (ongoing)
- Thinning projects (ongoing)
- Pruning projects (planned)
- Spruce weevil study (planned)

The BCIT Forest Society will continue to use the woodlot area as an educational training ground for students of the BCIT Renewable Resources program, students of neighboring schools and international exchanges. Some of these include:

- BCIT Renewable Resources classes in forest engineering, measurements, mapping and air photo interpretation, soils and ecology. Currently the woodlot is used by classes of the following programs within the BCIT Renewable Resources Department:
  - Two year Forestry program
  - Two Year Fish, Wildlife and Recreation program (FWR)
  - One Year Forest Technician program
- Student projects
- Visits by local elementary and high schools
- Forest awareness tours for various local community groups

Appendix 4 provides a listing of Recent Student Projects, including projects undertaken by students on W0007 and reports completed by Renewable Resources Co-op 5th term students. Copies of these reports are available from the woodlot manager.

6.0 Community Interaction

It is important that the woodlot interacts with the community to demonstrate that our actions contribute to the community and considers the needs of the community. This will be undertaken in several ways:

- We have two members of the community on the board of directors for the Forest Society. We hope that these members will reflect interests of the community in decisions about the operation of the woodlot.

- Tours of the woodlot are provided to schools and other interested parties on request. The Forest Society also rents out the training facility to people for a variety of functions, such as wedding receptions and gatherings. We continue to get positive comments from people that visit our facility.

- Most work undertaken on the woodlot is carried out with members of the local community, putting much of the revenue directly back into the community.

- Our manager lives in the community and interacts with neighbors on an ongoing basis.

Refer to Appendix 7 for a compilation of letters, news articles and journal entries about the woodlot.

The Management Plan and Forest Development Plan is reviewed by the public prior to approval by the Ministry of Forests.

Information about Woodlot W0007 and further contacts can also be accessed on the Internet at **www.woodlot.bc.ca/fraser/society1.shtml.**

7.0 Timber Utilization Standards

Timber utilization will be based on the following Ministry of Forests utilization standards, and in accordance with statutory log grades, unless otherwise specified in the Cutting Permit:

Species	Maximum Stump Height	Minimum Log or Slab Length	Minimum Top Diameter or Slab Thickness.
All Coniferous Species	30 cm	3.0 m	10 cm in second growth 15 cm in mature stands
All Deciduous Species	30 cm	2.6 m	10 cm in second growth 15 cm in mature stands

BCIT Forest Society staff will perform waste and residue measurements on all openings once harvesting operations are complete.

If the licensee wishes to retain coarse woody debris that would otherwise exceed utilization levels, the specific details will be contained in a Forest Development Plan or a Site Plan.

8.0 Allowable Annual Cut

The proposed Allowable Annual Cut (AAC) for W0007 in MP#4 is ***2600 m3/yr***. The AAC is derived entirely from Schedule B Crown land, as there is no private land associated with the woodlot.

The AAC is proposed to be the calculated sustainable harvest rate. It will result in a non-declining even flow harvest rate (continuous) over a 250 year planning horizon, and will account for all resource values described in this management plan.

The harvest rate was calculated using the Ministry of Forests timber supply model WOODLOT for Windows Version 3.020. (A digital copy of the Woodlot for Windows .lot file is included in the back cover of the copy of MP 4 for the Chilliwack Forest District.)

The Woodlot Licence Harvest Planning Report (Appendix 8) describes all the input variables, timber supply assumptions and calculations used. The Timber Supply Contribution Map in Appendix 8 denotes the areas that contribute to the AAC. Refer also to Section 4.1.

9.0 Public and Agency Involvement and Consultations

During the preparation of MP4, we have discussed management concepts with several public groups and agencies. The draft management plan was advertised and available for review in August/September, 2001, including an open house in August at the woodlot. Referrals of the management plan were sent to:

- Chilliwack Forest District
- Kwantlen First Nation
- Sto:lo Nation
- Greater Vancouver Regional District
- Water Resource Specialist, Ministry of Environment, Lands and Parks, Chilliwack Forest District Office
- Forest Ecosystem Specialist, Ministry of Environment, Lands and Parks, Chilliwack Forest District Office
- District of Maple Ridge
- Department of Fisheries and Oceans
- John and Tilde Castiello
- BCIT Forest Society Directors

This management plan will be available for review by appointment on the woodlot prior to approval by the District Manager. The woodlot manager should be contacted at (604) 462-7893 to arrange for a review. The management plan may also be viewed on the Internet at **http://www.enfor.com/customers/bcit/index.htm**. Notice of the public review will be made by local newspaper ads.

Appendix 9 describes the results of referrals.

Appendix 1 Location & Management Plan #4 Map

1. **Woodlot W0007 General Location Map (in Maple Ridge): 1:70,000 Scale**
2. **Exhibit 'A" Map from W0007: 1:20,000 Scale**
3. **Woodlot W0007 MP#4 map: 1:5,000 Scale**
   (Refer to MP4 binder sleeve)

Appendix 2 Timber Inventory Data & Report

1. **Woodlot W0007 Inventory Summary Statement – October 2000**
2. **Woodlot W0007 – 1999 Vegetation Inventory Report (Submitted to MOF June 2000 / Modified October 2000)**
3. **Woodlot W0007 1999 Inventory Data Summary Spreadsheet**
4. **Volume Adjustment Factors Spreadsheet (October 2000 Adjustments)**
5. **Woodlot W0007 Site Indices – Site Index Conversions from VDYP to TIPSY, 2001/08/03**

Appendix 3 Non-Timber Resource Inventories

1. **Woodlot W0007 Riparian Management Map –1:12,000 Scale (approx.)**
2. **Woodlot W0007 Biodiversity Map –1:12,000 Scale (approx.)**
3. **Comprehensive Plans for Wildlife Tree Retention in a Woodlot Licence Forest Development Plan (Preliminary Draft)**
4. **TFL 26 Biodiversity Adjacency Map – Excerpt from District of Mission 2000-2005 Forest Development Plan**

Appendix 4 – Recent Student Projects and Reports on W0007

Appendix 4 – Recent Student Projects and Reports on W0007

1. Projects Undertaken by Students on W0007

Over the past few years, students have utilized the woodlot as an area to carry out projects for their 2nd Year Projects Course and Independent Studies Course. Projects have ranged from standard surveys (such as timber cruising) to research projects (such as Spread Rates of Armillaria). Some of these reports reside at the Woodlot Office or at BCIT, and others have been returned to the students. The following is a compilation of projects that have been undertaken during these courses since 1991.

Current Projects in W0007:

Topic	**Advisor**
Mistletoe Survey	P. Yanciw
Development Plan	P. Barss
Interpretive Trail	J. Smyth
Watershed/Steam Assessment	R. Chester
Defoliator Impact Analysis	P. Yanciw

Past Projects that can be ongoing, depending on student interest and Independent Studies topics:

Topic
Impact of Pruning on WPB Rust
Spread Rates of Armillaria
Impact of nurse trees on S. Weevil
Yew Propagation and Taxol Trial

Past topics completed:

Year	**Topic**
1999-2000	Comparison of seedling Protectors
	Fire Management Plan
	Commercial Thinning
	Windthrow survey
	Timber Cruise
	Armillaria Study
	Trail Construction
	Woodlot Inventory/AAC
	Evaluation of Mountain Bike Trails

Year	Topic
1998	Permanent Sample Plots
	Silviculture Prescription
	Road Deactivation
	Trail Evaluation
	Prescribed Burn Plan
	Cutblock Layout
	Woodlot Inventory
	Wildlife Inventory
	Stream Inventory and Classification
	Fish and Fish Habitat Inventory
	Recreational Trail Construction
1997	Cutblock Layout
	Steam Survey
	Forest Development Plan
	Hemlock Dwarf Mistletoe Survey of WL 007
	Cruise Comparison of 3P and PPS
1991-1996	Trail Survey (1996)
	Stream Inventory (1996)
	Silviculture Surveys (1995)
	Forest Road Design (1994)
	Stream Survey (1991)

2. Reports Completed by Renewable Resources Co-op 5th Term students.

Biogeoclimatic Ecosystem Classification Sampling Plan for Woodlot 0007. Tina Skorupa, Sacha Homgren & Cathy Piedt. April 25th 2001

Woodlot 0007: A study to determine management options for the northern stands. Chris Gruenwald, Michelle McKibbon & Ali Sadhegi. April 27th, 2001

Stand level biodiversity at Woodlot 0007. Lisa Krebs & Roy Blackwell. April 2001.

Recreational survey and inventory of mountain biking in Woodlot 0007. Kris Castle, Maritza Garriock & Dianne Ramage. April 2001.

An Evaluation of a Mountain Bike Trail built on Woodlot 007, Corrina Netherton, George Nohr, Mitch Wilson, Submitted to Roald Kley, Manager of Woodlot 007, March 1999.

Hemlock Dwarf Mistletoe Survey at Woodlot 007, Paper to Peter Yanciw, BCIT Renewable Resources Instructor, M. Kosalko, E. Widmer, March 7, 1997.

Appendix 5 Water Licences

1. Table of Water Licences & Holders Downstream from Woodlot W0007*

Licence #	WR Map / (Point Code)	Stream Name	Purpose	Licensee Name
C034693	5910H (R8)	Maple Brook	Domestic & Land Improvement	Wanstall, Anthony
F020388	5910H (T4, U4, V4, X4)	Wanstall Creek	Domestic & Land Improvement	Wanstall, Stanley
F041733	5910H (N8)	Whonnock Creek	Domestic	Bates, Barry & Brenda
None Noted	5910H (A9)	Dunaway Creek	Appears abandoned	None Noted
None Noted	5910H (Z8)	Dunaway Creek	Appears abandoned	None Noted

*Source : Ministry of Water, Land and Air Protection web site:
http://www.elp.gov.bc.ca:8000/pls/wtrwhse/water_licences.input, October 2001

2. Map of Water Licences on Properties to the South of Dewdney Trunk Road.

Appendix 6 Visual Landscape Inventory Summary

1. **Visual Landscape Inventory Summary W0007, August 1, 2001**
2. **Visual Landscape Inventory Summary and VQO constraints used in AAC Calculation, 2001/08/03**

Appendix 7 Samples of Supportive Documents

1. **Letter : CR Lewis, resident, July 6, 2001**
2. **News article, Maple Ridge Pitt Meadows News, Aug.6 2000**
3. **Letter : A. Card, Student, May 13, 2001**
4. **News article, Maple Ridge Pitt Meadows News Aug.16 2000**
5. **News article, Maple Ridge Pitt Meadows News Oct 23, 2001**
6. **Excerpts from Woodlot Guest Book**

Appendix 8 Timber Supply Analysis (AAC Calculations)

1. **Timber Supply Contribution Map – Scale 1:12 000 (approx.)**
2. **Woodlot Licence Harvest Planning report, November, 2001**

Appendix 9 Public and Agency Review

1. **MP 4 Referral Letters**
2. **Summary of Responses and Manner Addressed.**

Appendix 6 Visual Landscape Inventory Summary W0007

Visual Sensitivity Unit (VSU)	Recommended Visual Quality Class (rVQC)	Acceptable % Alteration in Perspective View	Visual Sensitivity Class (VSC)	Area Covered by VSU (ha)	% of woodlot	Existing Visual Condition (EVC)	Visual Absorption Capability (VAC)	Biophysical Rating (BR)	Viewer Condition (VC)	Viewer Rating (VR)
1008	Retention (R)	0-1.5%	3	2.91	1.1	Retention	Low	Moderate	Moderate	Moderate
13002	Partial Retention – Moderate (PR-M)	3.5-5.2%	3	15.71	5.7	Preservation	Moderate	Low	Moderate	High
13003	Partial Retention – High (PR-H)	1.6-3.4%	2	153.16	55.5	Retention	Low	Low	High	High
Non-Vis	Not applicable	NA	NA	104.12	37.7	NA	NA	NA	NA	NA
Total				275.90	100%					

Notes:

1. Source: Chilliwack Forest District, July, 2001
2. For details on visual sensitivity classifications, refer to “Chilliwack Forest District Visual Landscape Inventory, 1996”
3. Refer to excel spreadsheet for prorated % alteration and assumptions used in timber supply analysis. Visually Effective Greenup is expected to occur after harvesting when saplings reach 5m in height.