



WESTBANK FIRST NATION
COMMUNITY FOREST PILOT AGREEMENT
ANNUAL REPORT
For the Period of:
April 1, 2006 to March 31, 2007



October 17, 2007

October 23, 2007

Re: **2006/07 Annual Report for the**
Westbank First Nation Community Forest Pilot Agreement

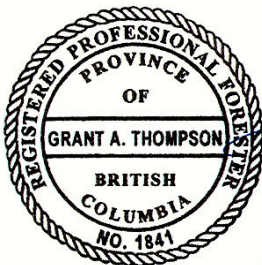
I am pleased to present to the membership of Westbank First Nation and the broader community of Westbank the second annual report for the Community Forest Pilot Agreement.

This annual report covers the period of April 1, 2006 through March 31, 2007, the second full year of harvesting on the Community Forest.

I would like to take the opportunity to thank all of those who contributed to our second full year of operations in particular our First Nations contractors involved in planning, road building, harvesting and trucking.

If you have any comments or questions regarding this report or any of our activities on the Community Forest please do not hesitate to contact me or drop in to the forestry office.

Respectfully submitted by



A handwritten signature in blue ink, appearing to be "G.A. Thompson", written over a horizontal line.

Grant A. Thompson RPF
Operations and Planning Forester



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1.0 BACKGROUND

In August of 2004 Westbank First Nation (WFN) entered into an agreement with the British Columbia Ministry of Forests providing Westbank with the rights and obligations regarding timber management on Crown land as authorized under the Forest Act.

With this license also come a series of the obligations and requirements including:

- Payment of stumpage to the Crown for timber harvested
- Development of long and medium term plans
- Public and government agency review of those plans
- Approvals of cutting permits and road permits before works begin
- Protection of non timber resources such as water and wildlife habitat
- Consideration of other values including visuals, range and recreation
- Ensuring that harvested areas are planted and fully restocked so that another crop of timber is available for future generations.

This is the second annual report published for the Community Forest. The first annual report, published in September of 2006, covered activities during the period of August 2004 through March 2006.



2.0 PLANNING

2.1 Initial Plans

After the signing of the license agreement in 2004 and before harvesting could proceed WFN was required to complete and submit for public and government agency review a number of planning documents. These documents included:

- **Management Plan #1** for the Community Forest. Management Plan #1 outlines the management strategies that WFN will pursue during the period of August 1, 2004 through July 31, 2009. These activities will further the long term forest management objectives for this license.
- **Forest Development Plan.** This plan identifies proposed cutblocks and road construction works required for the period of August 1, 2004 through July 31, 2009. It also identifies any constraints or non timber issues associated with the proposed development areas.

The initial Management Plan and Forest Development Plan were both approved in the spring of 2005.

2.2 Forest Development Plan Amendments

Amendment #1

In the spring of 2005 an infestation of mountain pine beetle (MPB) was detected in the Hidden Creek area of the Community Forest. Layout crews surveyed the extent of the infestation and installed beetle baits to slow the beetle's spread and layed out new blocks and roads to remove infested stands.

In August of 2005 WFN advertised for public and government agency reviews an amendment to the approved Forest Development Plan. This amendment identified new blocks to remove pine stands infested by MPB. These blocks were logged in the winter of 2005/06.



Amendment #2

In the fall of 2006 field crews discovered light infestations of mountain pine beetle in the Sunset Lake, Cameo Lake and Silver Lake areas. As in 2005 these appeared to be an increase in the endemic population of mountain pine beetle. This population appears to be less vigorous than the epidemic populations to the north and south of the Community Forest.

A second amendment to the FDP was developed to address these infestations. The amendment was approved in 2007.

2.3 Cutting Permits

Before harvesting can begin cutting permits and site plans must be developed. In 2006/07 permits were approved for the following:

- Cutting Permits #4, 13, and 14: These were blocks approved in the original FDP in 2005 and were primarily lodgepole pine. These permits were moved forward on our schedule as “pro active” MPB blocks. That is we harvested these blocks ahead of the epidemic MPB infestation. Layout of these blocks occurred in the winter of 2005/06 and by time logging started in the summer of 2006 we noted new beetle infestations.

Cutting Permit 13 was harvested by contractors of Gorman Bros. Lumber Ltd. as “payment” for an equivalent block provided by Gorman Bros. to WFN contractors in 2003. That block was meant as an interim accommodation while the terms of the Community Forest were still being negotiated

- Cutting Permits #7 and 8: These were MPB infested blocks in the Hidden Creek area. These were part of FDP Amendment #1.
- Cutting Permit #10: This permit is located on Cameo Road just east of Cameron Lake. This permit was moved forward on our schedule as “pro active” MPB blocks. That is, we harvested these blocks ahead of the epidemic MPB infestation. Layout of these blocks occurred in the winter of 2006/07 and by time logging we noted new beetle infestations.



- Cutting Permit #20. This permit was located at the north end of Lambly Lake adjacent to the recreation site. This block was heavily infested with MPB and was part of FDP amendment #1.

2.4 Silviculture Systems and Site Plans

During the planning process forestry planners need to be cognizant of a full suite of issues that will affect the success of harvesting and success of regenerating the site while at the same time minimizing impacts to other users.

Issues considered in the community forest include:

- Ungulate winter range
- Moose management zone
- Fish populations and habitat
- Visuals
- Recreation use
- Biogeoclimatic ecological classification
- Community watersheds
- Wildlife tree retention



3.0 HARVESTING

3.1 Operations

Harvesting on the Community Forest started in Hidden Creek at the end of May, shortly after the snow had melted and the roads were dry. Harvesting continued until August at which time fire danger ratings forced us into early shift. Eventually conditions got severe enough for us to shut down operations for one week in August and one week in September.

Harvesting continued from September 2006 steady through to mid March of 2007. Just before Christmas 2006 we encountered a period of -20 C degree temperature. Operations shut down for that week to minimize damage to logging equipment.

Log sales in 2006/07 were to three buyers. Our two primary purchasers Tolko Industries Ltd. and Gorman Bros. Lumber Ltd. both purchased approximately 45% of our production. The other 10% was purchased by Ardew Forest Products in Merritt.

In 2006/07 14 cutblocks were harvested as summarized in Table 1 following.



Table 1 – Harvesting in 2006/07

HARVESTED AREA							
<u>Timber Mark</u>	<u>Permit & Blocks</u>	<u>Gross (ha)¹</u>	<u>Net (ha)²</u>	<u>Internal WTP³</u>	<u>External WTP⁴</u>	<u>Volume Harvested (m3)⁵</u>	<u>Volume Retention %</u>
K1P004	CP 4 - Blk 40	28.1	28.1	na	1.7	23,415	na
	CP 4 - Blk 41	18.9	18.9	na	1.6		na
	CP 4 - Blk 44	18.7	18.3	na	1.1		na
K1P007	CP 7 – Blk 102A	3.1	3.1	na	0.2	8,543	na
	CP 7 - Blk 102B	7.0	7.0	na	0.4		na
	CP 7 - Blk 104	5.7	5.7	na	0.3		Fd 10%
	CP 7 - Blk 105	14.5	14.5	na	0.9		na
K1P008	CP 8 – Blk 101	9.6	9.0	0.2	0.5	7,919	Fd 10%
	CP 8 – Blk 103	12.4	12.0	na	0.8		Fd 5%
K1P010	CP 10 – Blk 73	12.2	10.5	na	0.7	23,742	na
	CP 10 - Blk 74	52.2	47.7	3.1	Na		Sx, Bl, PI 3%
K1P013⁶	CP 13 – Blk 43	22.8	21.9	0.3	1.1	7,709	na
K1P014	CP 14 – Blk 42	13.7	12.7	0.2	0.6	3,781	Bl 5%
K1P020	CP 20 – Blk 120	8.7	8.2	na	0.5	1,693	Fd 10%
TOTALS		227.6	217.6	3.8	10.4	76,802	
Avg.		16.3					

¹ Total block area.

² Net area is the total area to be replanted.

³ Wildlife tree patches (WTP) inside the block.

⁴ Wildlife tree patches outside of the block.

⁵ Harvested volume has been tracked by permit not by individual block.

⁶ K1P013 was harvested by Gorman Bros. Lumber Ltd. contractor. This was “repayment” for an equivalent volume provided to WFN contractors in 2003.

3.3 Post Harvest

In preparation for tree planting and to reduce fire risk, debris piles created during harvesting are burned in late fall after the first snowfall.

In the fall of 2006 debris piles resulting from CP 1, CP 2, CP 3, CP 6, CP 7, CP 8 and CP 20 were burned. Approximately 330 piles were burned. Since the 2006 burning program included debris created in 2005 and 2006 we do not anticipate our burning program to be as large in the future.



Although CP 20 was not harvested until December of 2005 its proximity to the recreation site on Lambly Lake prompted us to burn this debris before the recreational season in 2006.

Debris piles associated with CP 4 and CP 10 will be burned in the fall of 2007.



4.0 ROAD CONSTRUCTION AND MAINTENANCE

Since the area now within the Community Forest had previously been managed by three other major licensees most permanent road access has already been constructed. Our goal is to add as little permanent access as possible. Permanent access structures, which include roads, landings and bridges, normally are constructed to access more than one cutting permit and are built to last more than 20 years.

By minimizing new permanent access more of our land base will continue to grow trees and provide habitat to a full range of species.

Road construction on the Community Forest has been undertaken by a WFN contractor.

4.1 Temporary Access

The development of temporary access structures such as roads, spurs and landings within the internal boundaries of cutblocks are used to access timber with the least amount of soil disturbance. Once harvesting is complete these areas will be deactivated to increase the Net Area to Reforest (NAR). Minimal soil disturbance allows for easier planting and a greater survival rate for seedlings.

Almost twice as much temporary access was constructed in 2006/07 as in the previous year.

4.2 Permanent Access

No permanent access roads were constructed on the community forest in 2006/07.

Table 2 following summarizes the road construction activity on the Community Forest in 2006/07.



Table 2 – Road Construction

<i>ROAD CONSTRUCTION</i>						
<i>Timber Mark</i>	<i>Permit & Block</i>	<i>Temporary (m)</i>	<i>Permanent (m)</i>	<i>Landings @ 0.25 ha.</i>	<i>Total Area (ha)</i>	<i>Scheduled Rehabilitation</i>
<i>K1P004</i>	CP 4 - Blk 40	1,600	na	3	0.75	2007
	CP 4 - Blk 41	500	na	1	0.25	2007
	CP 4 - Blk 44	500	na	1	0.25	2007
<i>K1P007</i>	CP 7 – Blk 102A	na	na	na	na	na
	CP 7 - Blk 102B	na	na	1	0.25	2007
	CP 7 - Blk 104	na	na	1	0.25	2007
	CP 7 - Blk 105	na	na	na	na	na
<i>K1P008</i>	CP 8 – Blk 101	na	na	1	0.25	2007
	CP 8 – Blk 103	na	na	1	0.25	2007
<i>K1P010</i>	CP 10 – Blk 73	300	na	2	0.5	2007
	CP 10 - Blk 74	950	na	4	2.0	2007
<i>K1P013</i> [†]	CP 13 – Blk 43	750	na	1	0.25	2006
<i>K1P014</i>	CP 14 – Blk 42	1,100	na	1	0.25	2007
<i>K1P020</i>	CP 20 – Blk 120	na	na	1	0.25	2007
<i>TOTALS</i>		5,700		18	4.5	

† K1P013 was harvested by Gorman Bros. Lumber Ltd. contractor. This was “repayment” for an equivalent volume provided to WFN contractors in 2003.

4.3 Road Deactivation and Rehabilitation

Road deactivation is the process whereby constructed roads are deconstructed to minimize environmental degradation through soil erosion, loss of productive forest sites or excessive vehicle traffic.

Rehabilitation is the process whereby temporary roads and landings are fully recontoured to allow for tree planting and the establishment of a new plantation.

During 2006/07 temporary roads constructed in 2005 in Cutting Permit #1 were



rehabilitated.

4.4 Road Maintenance

In 2006/07 our primary road maintenance activity was the grading and snowplowing of our road systems including Hidden Creek Forest Service Road and its secondary feeder roads; Pattinson FSR and Bear FSR.

As well, Westbank First Nation replaced wooden box culverts on the Cameo Road system with new metal culverts. The old culverts were originally installed over 25 years ago and were still allowing the flow of water but probably would not support heavy machinery and fully loaded logging trucks.



5.0 SILVICULTURE

As tenure holders WFN is responsible for the reforestation of all areas harvested. This means not only tree planting but ensuring that the new plantations survive until they reach “free growing” which is any where from 10 to 15 years after harvesting.

Steps required to ensure we achieve our silviculture obligations include:

- Seed collection
- Seed purchasing
- Germinating of seed and growing of seedlings
- Preparation of planting sites
- Tree planting and inspections
- On-going surveys to monitor the status of plantations

5.1 Cone Collection

The Province of BC has developed guidelines regarding the use of tree seed on Crown land. After years of testing the province has determined that seed has limitations on transfer on the basis of latitude and elevation. Fundamentally this means that the closer the site of origin for seed to be planted the better.

Most tenure holders in the province collect their own seed to provide their own seedlings for future planting. Since WFN did not obtain its Community Forest until 2004 we did not have any seed collected and stored. This meant that we purchased seed from both the Ministry of Forests and other licensees to grow seedlings that will be planted in 2007.

No cones were collected in 2006/07.

Table 3 – Cone Collection

<i>SILVICULTURE</i>			
<i><u>Species</u></i>	<i><u>Cones Collected</u></i>	<i><u>Seed Viability</u></i>	<i><u>Total Seeds</u></i>
<i>Lodgepole pine</i>	na		
<i>Spruce</i>	na		
<i>Douglas-fir</i>	na		



5.2 Seedlings

WFN has contracted a tree nursery in Oliver to grow a total of 274,000 seedlings on our behalf. These seedlings will be available for planting in the spring of 2008 for blocks logged in 2006. Species composition is as follows:

- Lodgepole pine: 196,000
- Douglas-fir: 35,000
- Spruce: 43,000

Table 4 – Seedlings

SILVICULTURE			
<u>Timber Mark</u>	<u>Permit & Block</u>	<u>Seedlings Ordered</u>	<u>Scheduled Planting</u>
<i>K1P002</i>	CP 2 - Blk 106	√	Spring 2008
	CP 2 - Blk 110	√	Spring 2008
<i>K1P003</i>	CP 3 - Blk 2	√	Spring 2008
	CP 3 - Blk 6	√	Spring 2008
<i>K1P004</i>	CP 4 - Blk 40	√	Spring 2008
	CP 4 - Blk 41	√	Spring 2008
<i>K1P006</i>	CP 6 - Blk 109	√	Spring 2008
	CP 6 - Blk 111	√	Spring 200
<i>K1P007</i>	CP 7 - Blk 102A	√	Spring 2008
	CP 7 - Blk 102B	√	Spring 2008
	CP 7 - Blk 104	√	Spring 2008
	CP 7 - Blk 105	√	Spring 2008
<i>K1P008</i>	CP 8 - Blk 101	√	Spring 2008
	CP 8 - Blk 103	√	Spring 2008
<i>K1P010</i>	CP 10 - Blk 73	Fall 2008 ¹	Spring 2009
	CP 10 - Blk 74	Fall 2008	Spring 2009
<i>K1P020</i>	CP 20 - Blk 120	Fall 2008	Spring 2009
<u>TOTALS</u>	17		

¹ Cutting Permits 10 and 20 were harvested in the winter of 2006/07 and plantability surveys could not be conducted until the summer of 2007.



5.3 Silviculture Surveys

In order to monitor the performance of our plantations WFN will conduct a series of surveys on each block.

Post Harvest Survey – As the name implies this survey is conducted just after the completion of harvesting. Data collected during this survey is used as the basis upon which seed and seedlings are ordered for the plantation. Post harvest surveys were conducted in the fall of 2006 to allow us to order seeds and seedlings for planting in 2008.

Survival Survey – This is conducted 1 to 2 years after planting to determine the survival of the planted trees. If survival is poor fill planting may be recommended. No survival surveys were conducted on the Community Forest in 2006/07

Brushing Survey – On richer sites the overtopping of seedlings by weeds and brush can impede the growth of a plantation. Surveys are conducted on these sites between 5 to 15 years after planting. If competition is noted then brushing and weeding activities may be recommended. No brushing surveys were conducted on the Community Forest in 2006/07.

Free Growing Survey – The final survey, anywhere from 10 to 15 years after harvest is conducted, to documents that the plantation is fully stocked with the appropriate tree species and that there are no problems with brush competition. No free growing surveys were conducted on the Community Forest in 2006/07.



Table 5 – Silviculture Surveys

<u>SURVEYS</u>					
<u>Timber Mark</u>	<u>Permit & Block</u>	<u>Post Harvest</u>	<u>Survival</u>	<u>Brushing Survey</u>	<u>Free-Growing</u>
K1P002	CP 2 - Blk 106	√			
	CP 2 - Blk 110	√			
K1P003	CP 3 - Blk 2	√			
	CP 3 - Blk 6	√			
K1P004	CP 4 - Blk 40	√			
	CP 4 - Blk 41	√			
K1P006	CP 6 - Blk 109	√			
	CP 6 - Blk 111	√			
K1P007	CP 7 - Blk 102A	√			
	CP 7 - Blk 102B	√			
	CP 7 - Blk 104	√			
	CP 7 - Blk 105	√			
K1P008	CP 8 - Blk 101	√			
	CP 8 - Blk 103	√			
K1P010	CP 10 - Blk 73	Summer 2007 ¹			
	CP 10 - Blk 74	Summer 2007			
K1P020	CP 20 - Blk 120	Summer 2007			
<u>TOTALS</u>	17				

¹ Cutting Permits 10 and 20 were harvested in the winter of 2006/07 and plantability surveys could not be conducted until the summer of 2007.



6.0 FOREST HEALTH

Forest health can mean a range of concepts from the incidence of insect populations to the health of entire ecosystems. For the purposes of this report we will limit our discussion to impacts on the timber quality and quantity that WFN has the responsibility of managing.

6.1 Mountain Pine Beetle

Mountain pine beetle (MPB) populations have risen to epidemic proportions in the Okanagan. What were once small endemic populations in scattered pockets have now grown to consume entire stands and watersheds of lodgepole pine.

The Community Forest is not immune to the current MPB infestation. In the spring of 2005 forestry crews discovered a new infestation in the Hidden Creek area. This area was promptly surveyed and laid out for new blocks and roads to remove the infested stands.

We anticipate that addressing MPB stands will be an on-going issue for the next 5 to 10 years. Our energies will be focused on annual monitoring of lodgepole pine stands at risk or attacked and modifying our harvesting and development plans as required.

It appears that 2006/07 was probably our last opportunity to pro-actively remove pine stands ahead of the MPB infestation. Our surveys in early fall of 2007 indicate that the Community Forest is now receiving the full impact of the epidemic population from the north. It is likely that for the next 3 to 5 years we will be harvesting only stands infested by MPB.

6.2 Balsam Bark Beetle

Balsam bark beetle infestations have also grown within the Community Forest. These infestations normally show up as small clusters of six to twelve trees in isolated pockets. We are not actively pursuing these pockets but will harvest infested balsam as encountered in our planned blocks.



6.3 Douglas-fir Bark Beetle

Douglas-fir bark beetle has been growing in the Southern Interior. Although we have not identified specific pockets on the Community Forest we expect it is occurring, especially at lower elevations.

6.4 Western Bark Beetle

As many have noted in the Okanagan Valley western bark beetle has become a serious issue in the last three years. This beetle aggressively attacks yellow pine and has been very active in IR #9, IR #10 and the surrounding municipality.

This beetle has also attacked yellow pine on the Community Forest. Unfortunately there are few markets for yellow pine which reduces our opportunities for dealing with this issue. We are continuing to pursue opportunities to deal with this issue and to monitor the problem on the Community Forest.

6.5 Spruce Budworm

In the fall of 2006 the Ministry of Forests and Range indicated that there was a growing spruce budworm outbreak in the Merritt area approximately 20 km west of the Community Forest.

In the summer of 2007 this infestation was noted throughout Douglas-fir stands in the Community Forest. Spruce budworm does not normally kill Douglas-fir but will probably impede its growth over the next few years. We do not have any plans to move into Douglas-fir stands until the current MPB outbreak has passed.



7.0 ASSESSMENTS

During 2006/07 WFN conducted additional assessments to ensure that our forest management decisions were based upon the best available knowledge of our landbase.

7.1 Equivalent Clearcut Assessment

More than 50% of the Community Forest is located within community watersheds. As land managers our responsibility is to manage the level of harvest within each watershed to minimize impacts to water quality and quantity.

In 2005 we conducted a computer analysis of the level of previous harvest in our watersheds and the level of forest recovery from that same harvest. The assessment also considers our proposed harvest development for the next five years as outlined in our Forest Development Plan.

No new ECA calculations were conducted in 2006/07.

7.2 Fish Stream Assessments

Before harvesting was undertaken in the Cameo Road area (CP 10) the streams in the vicinity of this permit were assessed by a Registered Professional Biologist (R.P.Bio). This assessment is to determine if streams are capable of supporting fish habitat or fish populations. Although the streams in the vicinity of Cameo Road carry a significant amount of water in the spring significant barriers to fish movement from lower elevations were discovered. These streams were classified as non-fish bearing.

7.3 Fish Culvert Inspection Program

The area now contained within the boundaries of the Community Forest has been developed over many years with some roads over 30 years old. With funding provided by the provincial Forest Investment Agreement program a mapping and site inspection project was undertaken. This project focused on crossings of known fish streams and is designed to identify crossings where fish movement may be impaired.



No serious impediments to fish movement were noted. We intend to continue assessments of this nature in the future.

7.4 Archaeological Impact Assessment

Through funding provided by the provincial Forest Investment Account (FIA) WFN sponsored the development of an archaeological overview assessment (AOA) for the Community Forest in 2005

Using the results from the AOA detailed ground surveys were conducted on 13 proposed cutblocks. Of these blocks only one showed any evidence of previous activity by First Nations. This block was reduced in size to provide protection to this site. No harvesting or road building will be conducted near this site.

