

Kamloops – North Thompson

Sustainable Forest Management Plan



Annual Monitoring Report

January 1, 2009 to December 31, 2009

Released March 2010

Cover Photo: Frank Lake Cross Country Ski Trails - TFL 18 (13 yr old plantation) - Feb 2010;
Taken by Dave Poole, Canfor – Vavenby

12 km of impromptu ski trails were developed on existing roads in the south part of the TFL, 12km from Clearwater, when the traditional trail system became unusable with warm weather.

PARTICIPATING Replaceable Forest Licensees (FL)
and Non-Replaceable Forest Licensees (NRFL):

Ainsworth Lumber Co. Ltd. ▪ Ashcroft Indian Band ▪ Chasm Sawmills, A Division of West Fraser Mills Ltd. ▪ British Columbia Timber Sales ▪ Canadian Forest Products Ltd. ▪ Gilbert Smith Forest Products Ltd. ▪ Interfor, Adams Lake Lumber ▪ Little Shuswap Indian Band ▪ Lower North Thompson Community Forest Society ▪ Neskonlith Indian Band ▪ Simpcw Development Corp. Ltd. ▪ Stella-Jones Canada Inc. ▪ Tolko Industries Ltd. ▪ Wells Gray Community Forest Corporation

PARTICIPATING Small Scale Salvage Program:

Ministry of Forests and Range - Headwaters & Kamloops Districts

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Vision Statement

The Sustainable Forest Management Plan will foster forest management practices - based on a balance of science, professional judgment and local and First Nations input - that sustain the long-term health and productivity of forest ecosystems while contributing to a strong economy and thriving communities throughout the Kamloops and North Thompson areas.

1.0 Background

Between February and August 2000, all forest licensees operating in the Kamloops Timber Supply Area (TSA) worked with a dedicated group of public stakeholders to develop a Sustainable Forest Management (SFM) Plan for the TSA. Members of the SFM Advisory Group reflected a cross-section of local interests including environmental organizations, First Nations, resource-based interests and research specialists.

Any licensee wishing to become registered to the Canada's national standard, known as CAN/CSA-Z809-96 could use the plan, in part, to meet forest certification requirements. The SFM Plan was updated to the CAN/CSA-Z809-02 standard in 2004. In turn, this standard has been under review and has been updated to the CAN/CSA-Z809-08. In 2009, the SFM Plan changed from a TSA Plan to a regional plan for the Kamloops – North Thompson. The area contained within the plan is not the entire TSA. The SFM Plan serves as a “roadmap” to current and long-term management, setting performance objectives and management strategies that reflect the ecological and social values across the Kamloops-North Thompson area. It is consistent with the Kamloops Land and Resource Management Plan.

2.0 Continual Improvement



The SFM Plan contains Indicators for sustainable forest management. Targets for these Indicators are monitored annually based on information provided by each licensee. Annual monitoring reports, prepared each spring, will indicate whether performance measures for each of the Indicators have been met.

The effectiveness of the SFM Plan will continually be improved by reviewing annual monitoring results. This review will provide licensees and the public with an opportunity to bring forward new information and to provide input concerning new or changing public values that can be incorporated into future updates of the SFM Plan. Performance measures (Indicators and Targets) may also change as additional information becomes available.

3.0 Opportunities for Involvement

More information about sustainable forest management in the Kamloops TSA (including a copy of the SFM Plan) is available on the Kamloops TSA Certification website:

<http://kamloopsustainableforestry.ca>

If you wish to be further involved or wish to know about the annual performance results, please use the “Contact Us” tab on the above website or link to one of the replaceable Forest Licensees whose logos are listed on the website.



4.0 Licensee Reporting

Sustainable Forest Management Plan reporting for the 2009 period was completed by seven major licensees (Replaceable Forest Licences) as well as by the holders of 10 Non-replaceable Forest Licences (NRFL). These licences are located throughout the Kamloops Timber Supply Area. Some licensees have more than one licence and, consequently, have combined their reporting for each licence into one company report. Weyerhaeuser Co. Ltd. is no longer reporting and a number of NRFL holders also did not report this year.

a) Non-Replaceable Forest Licence Reporting

Non-replaceable Forest Licences (NRFL) accounted for approximately 36% of the allocated harvest. Ministry of Forests and Range Kamloops and Headwaters Districts committed the NRFL holders to report their performance against the SFM Indicators and Targets in the Kamloops TSA. NRFL holders reported on a subset of the SFM Plan Indicators that were agreed to with the SFM Public Advisory Group (PAG). The short term (5 year) NRFLs reported on Indicators 2, 4 to 8, 10 to 15, 19, 23, 25 and 30. The remaining Indicators are not reported on as they are operational Indicators beyond the scope of their licence. Note that harvesting has not yet been activated on a number of these NRFLs.

b) Small Scale Salvage Program Reporting

Over the past several years, the small scale salvage operations, managed by the BC Ministry of Forests and Range, have significantly increased their operations to deal with the growing need to salvage damaged timber. The Ministry of Forests and Range Kamloops and Headwaters Districts are committed to the achievement of the Plan and will report on their performance against the Targets they do influence. The Small Scale Salvage Program will report against the following Targets and Indicators: 1, 2, 4, 5, 6, 7, 8, 11, 12, 13, 16, 19, 25 and 30.

4.1 Highlights 2009

The following summarizes highlights from the Kamloops TSA Sustainable Forest Management Plan 2009 monitoring period:

- Provision for wildlife tree patches/individual wildlife trees/stubs in 93 percent of the cutblocks greater than 10 hectares in size.
- The harvested area occupied by permanent roads and landings was 3.8 percent of the total harvest area compared to the target of 6 percent.
- Ninety-eight percent of affected ranchers (117) and trappers (50) were communicated with.
- Ninety-four percent of cutblocks met the coarse woody debris management target.
- There were 122 meetings and meaningful communications with First Nations.
- There were 50 working relationships with First Nations in the TSA area.
- Ninety-two percent of non-ESSF blocks declared Free Growing in 2009 had three or more species.
- The average timeframe for road cut and fill slope grass seeding on new road construction was 8.8 months.
- Average time for artificial regeneration was 25 months.

5.0 Performance 2009

Environmental, social and economic performance was assessed according to the six criteria in the CSA standard.



Annual performance related to the implementation of the SFM Plan is determined by the extent to which Targets for individual Indicators have been met. The overall achievement of sustainable forest management is assessed by reviewing progress toward the values and objectives identified for each criterion in the SFM Plan. Since Indicators and Targets have been established for each of the goals relating to the criterion, an assessment of progress towards sustainable forest management can be made by reviewing the collective achievement of the Indicator results for each of the criterion.

The six criteria included in the CSA standard define the broad parameters of sustainable forest management (i.e. biological diversity, forest ecosystem condition and productivity, soil and water resources, contributions to global ecological cycles, benefits to society, and society's responsibility for sustainable development).

A summary of the performance results for the Indicators relating to each of the CSA criterion is provided as follows. Specific details on all performance Indicators and the Targets are provided in Section 5.1.

Criterion	Related Indicator	Percent Achieved
1. Conservation of Biological Diversity	1, 2, 3, 4, 7, 8, 9, 12, 14, 18, 22, 28, 30	85%
2. Maintenance and Enhancement of Forest Ecosystem Condition and Productivity	1, 2, 4, 7, 9, 10, 13, 21, 22	89%
3. Conservation of Soil and Water Resources	2, 5, 6, 10, 13, 14, 15	86%
4. Forest Ecosystem Contribution to Global Ecological Cycles	1, 5, 6, 10, 11, 21, 22	100%
5. Multiple Benefits to Society	11, 12, 16, 19, 20, 23, 25, 27, 28	100%
6. Accepting Society's Responsibility for Sustainable Development	12, 16, 23, 24, 25, 26, 27, 28, 29,	100%

The target was not achieved for Indicators #2 & 8. See Section 5.1 for more detail on all performance Indicators and Targets.

Indicator	Performance Level	Percent Achieved
2	Natural drainage patterns were disturbed on a marginal S6 by an excavator during road construction.	99.9%
8	All major licensees consulted the CDC for Red and Blue listed species. The submitting foresters for Small Scale Salvage permits are responsible for their own consultation and in some cases information regarding that was not available.	86%

5.1 2009 Performance Summary by Indicator and Targets

In an SFM Plan, Indicators and Targets provide the performance measures that are to be met through on-the-ground forest management activities. Full compliance is required for many Indicators i.e., there is no variance. Where full compliance may not be achievable, an acceptable level of variance is indicated for the Indicator.

Indicators are measures to assess progress toward a value and objective.

Targets are specific short-term (one or two year) commitments to measure progress against identified Indicators.

Indicator: (1) Achievement of the TSA's old forest strategy.

Target: Operations will respect the LRMP's objectives for retaining old forest as a component of seral stage distribution by landscape unit.

Variance: None

Assessment Results: All licensees met the intent of the Kamloops LRMP for old forest retention.

Indicator (1) forms part of the overall strategy to manage for biodiversity at the landscape and stand level. High, intermediate and low biodiversity emphasis options and corresponding Targets for Old Growth Management Areas (OGMA's) have been assigned to each of the 33 landscape units in the LRMP area.

Indicator: (2) Level of conformance to riparian management area and lakeshore commitments contained within plans.

Target: 100 percent conformance to riparian and lakeshore commitments made within plans.

Variance: Minus 5 percent.

Variance to accommodate nonconformance to plans that have little or no impact to the environment and/or to the social and ecological objectives of lakeshore areas.



Photo by Bill Ashman, MoFR

Assessment Results: The total gross area of cutblocks and right-of-ways harvested, having Riparian Management Area (RMA) or Lakeshore Management Area (LMA), was 5,855 hectares, with one non-conformance. Natural drainage patterns were disturbed on a marginal S6 by an excavator during road construction. Some R/W wood was also decked in the RMA.

Indicator (2) forms part of the overall strategy to manage for biodiversity at the landscape and stand levels. Riparian management areas provide connectivity of forested cover along waterways, which are generally areas with high value for wildlife habitat and movement

Indicator: (3) Level of FPC compliance with Mountain Caribou strategies.

Target: Full compliance with FPC and KLRMP Mountain Caribou strategy.

Variance: As provided for within the legal framework.

Assessment Results: One licensee harvested a total of 28.2 ha within the LRMP Mountain Caribou Strategy Area, and the operations were consistent with the Caribou Management Strategies.



*Mountain Caribou
Natural Resources Canada
Photo Credit – Stephen Walker*

Indicator (3) Mountain Caribou is a provincially Red-listed species as well as is one of the species identified in the provincial Identified Wildlife Management Strategy (IWMS) and strategic direction for management of caribou habitat is provided in the Kamloops LRMP. Operations are not precluded within designated Mountain Caribou corridors and their boundaries can be adjusted.

Indicator: (4) Stand level retention -- individual wildlife trees/stubs and/or wildlife tree patches

Target 4a: 80 percent of cutblocks greater than 10 hectares will have individual wildlife trees/stubs and/or wildlife tree patches within the block.

Variance: 10%

Assessment Results: Ninety-three percent (128 out of 138) of harvested cutblocks greater than 10 hectares in size have Wildlife Tree Patches (WTP's) and/or individual leave trees (WT)/stubs identified in operational plans.

Target 4b: Of the blocks that have individual wildlife trees/stubs and/or wildlife tree patches; at least 50 percent of the time these blocks will have dispersed individual trees, stubs or small (<0.25 ha) patches retained.

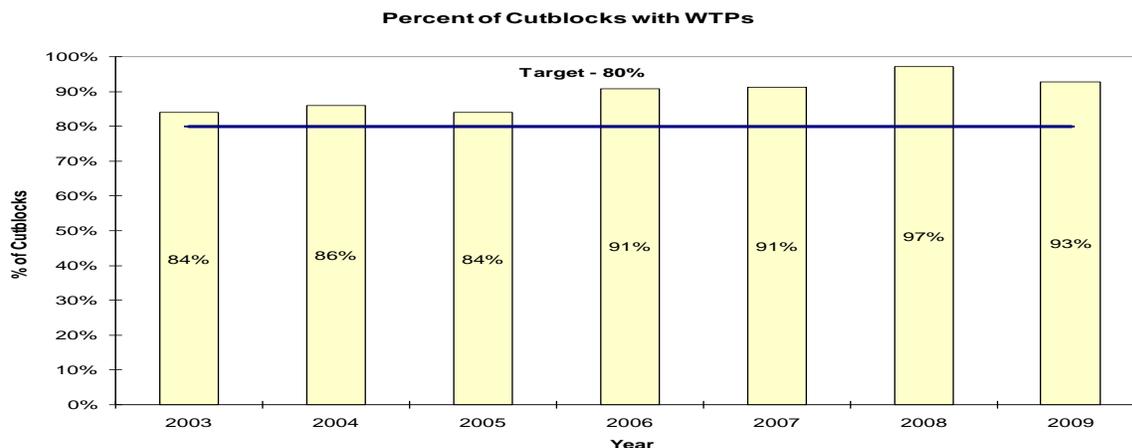
Reporting against target “b” is limited to blocks harvested during the reporting year that had the original SP signed after January 1st, 2007.

Variance: 10%

Assessment Results: Of blocks with dispersed WTPs, etc. and with their original SPs signed after January 1st, 2007, 94% (119 out of 127) had dispersed individual trees, stubs or small patches retained.



*Clump of Leaf Trees
Photo Courtesy of International Forest Products*



Indicator (4) focuses on management for biodiversity at the stand level. Note that wildlife tree patches may be located outside of cutblocks, along their edge, and still be consistent with provincial policy on wildlife tree retention.

Indicator: (5) Stand level retention - coarse woody debris

Target:

Coarse woody debris shall be left on each block:

- a minimum of 5 m³/ha dispersed on blocks with very dry BEC variants, denoted with an “x” descriptor for moisture
- a minimum of 20 m³/ha dispersed on all other blocks

Reporting against the target is limited to blocks harvested during the reporting year that had the original SP signed after January 1st, 2007.



*Coarse Woody Debris
Photo Courtesy of Tolko Industries Ltd.*

Variance: 20%

Assessment Results:

A total of 422 cutblocks, with original SPs signed after January 1st, 2007, were harvested during the reporting period. 395 cutblocks or 94 percent of the harvested cutblocks met the requirements contained in the plan.

Indicator (5) This Indicator addresses the need to maintain structural features of forest ecosystems at the stand level.

Indicator: (6) Average regeneration period from time of harvest.

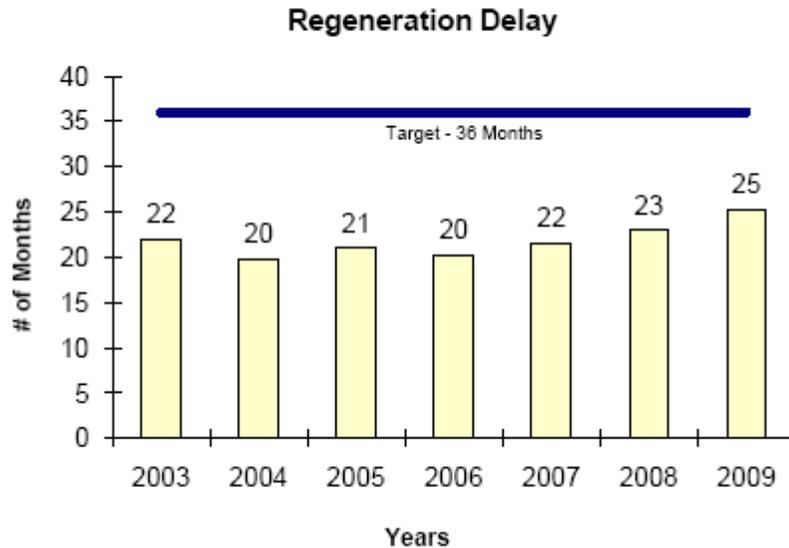
Target:

Regeneration established within three years or less on average from time of harvest.

Variance: 12 months beyond 3 year target.

Assessment Results:

Average regeneration delay was 25.3 months versus the 36 month target. Natural regeneration average was 60 months, which is an appropriate time frame for the regime. The average regeneration delay for artificial reforestation was 21.5 months.



Indicator (6) Prompt reforestation ensures that the productive capacity of forest landbase to grow trees is maintained. Licensees will follow guidelines specifying tree species that are most suited ecologically to maintain natural forest composition in an area.

Indicator: (7) Management strategies for rare ecosystems.

Target:

Prioritized Red-listed ecological communities will be protected with retained existing forest.

a. Where the ecological community is “documented, mapped (GPS/UTM) and field verified” the substantial part of the identified occurrence is included in WTP(s).

b. Where the ecological community is not well documented, the prioritized list of Red-listed ecological communities is used as a support tool to weight WTP placement, or other reserves, to the applicable site series in the block

Reporting against the targets is limited to blocks harvested during the reporting year that had the original SP signed after January 1st, 2007.

Variance:

a. None

b. Target to be met on at least 90% of cutblocks where ecosystems identified as “prioritized Red-listed ecological communities” occurred.

Assessment Results:

There were no cutblocks where documented Red-listed communities occurred. As well, there were no cutblocks where non-documented ecosystems identified as “prioritized Red-listed ecological communities” occurred.

Indicator (7) Management strategies will be applied at the stand level through identification of rare sites in the SP process and through the application of retention.

Indicator: (8) Identification and protection of wildlife (mammals, birds, reptiles, fish and amphibians) at risk

Target 8a: On an annual basis, obtain from the Conservation Data Centre (CDC), the location of known Red-listed and Blue-listed species within the TSA.

Variance: None

Assessment Results: With Small Scale Salvage permits, the submitting forester is responsible for reviewing the CDC information. It is unclear whether this was done across all permits. All other licensees indicated that they obtained the location of known Red-listed and Blue-listed species.



*Screech Owl Wildlife Habitat Area
Photo by Casey Macaulay
Tolko Industries Ltd.*

Target 8b: Where there is a documented, mapped and field verified occurrence of a critical habitat feature for a Red-listed or Blue-listed species, operations achieve 100% consistency with SP measures.

Variance: None

Assessment Results: There were no cutblocks harvested, where there was a documented critical habitat feature for a Red-listed or Blue-listed species.

Target 8c: Based on the potential level of impact to the TSA, participate in the consultation process led by the Ministry of Environment and the Ministry of Forests and Range, in the identification of Ungulate Winter Range and Wildlife Habitat Areas and the development of General Wildlife Measures.

Assessment Results: In 2009 TSA licensees participated in the Species at Risk Coordination Office (SaRCO) Mountain Caribou Recovery process. As well, two licensees reviewed various proposed Wildlife Habitat Areas (WHA) applicable to SAR.

Indicator (8) The intent of this indicator is to ensure that not only all measures required by law are addressed, but also, reasonable voluntary actions that are deemed necessary by licensees, are implemented during forest planning and practices for the protection of biodiversity and species at risk.

Indicator (9) Percent of land base for broadleaf species.

Target: No net loss for broadleaf species.

Variance: 5% reduction in broad leaf species (uncontrolled events associated with licensee operations: forest pests etc)

Assessment Results: The Kamloops Timber Supply Area’s (TSA) productive forested landbase is 1,479,005 hectares. The amount of area where broadleaf species (e.g. aspen or birch) are leading is 37,878 hectares or 2.6 percent of the landbase. These values are taken from the Kamloops TSR IV Report (June 2008). The amount of area has remained the same as in the Kamloops TSR II report (July 2001).

Indicator (9) Maintain the deciduous species through individual tree and patch retention and through natural regeneration in harvested areas. Maintain natural diversity of coniferous species through stocking and natural regeneration.

Indicator: (10) Annual percent of harvested areas in permanent access structures (e.g. roads and landings).

Target: Less than 6 percent, on average, of harvested areas will be in permanent roads and landings.

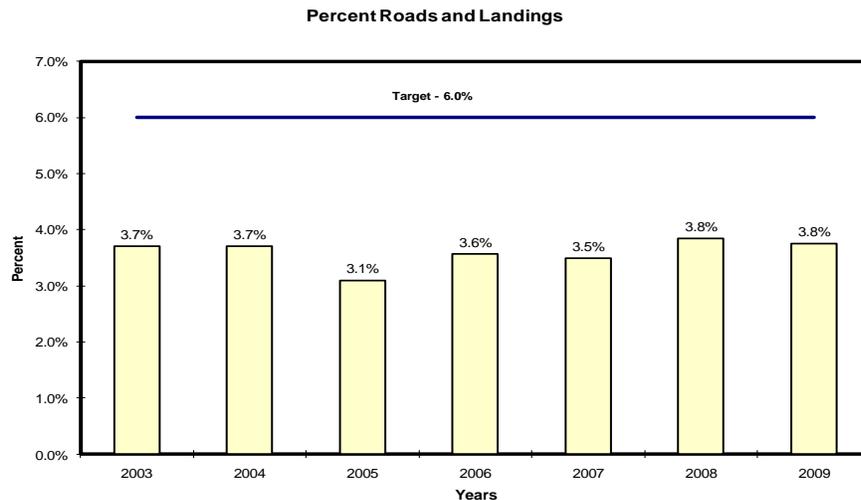
Variance: None

Photo Credit: Tolko Industries Ltd.



Assessment Results: The percentage of roads and landings within the total harvested area averaged 3.8 percent. One licensee did not meet the target due to terrain and small opening sizes, and the amount of roads and landings required to access and safely operate.

A total of 6,486 ha (gross area) was harvested in 2009. New permanent road and landing construction occupy 243 ha of land.



Indicator (10) Access structures such as roads and landings compact soil, making regeneration difficult, and disrupt the natural connectivity within forest stands. The percent target refers specifically to loss of the timber harvesting land base due to access structures within harvested areas.

Indicator: (11) Annual harvest level relative to annual allocation.

Target: Harvest the annual cut allocation for the year consistent with the Cut Control Regulation and Policy.

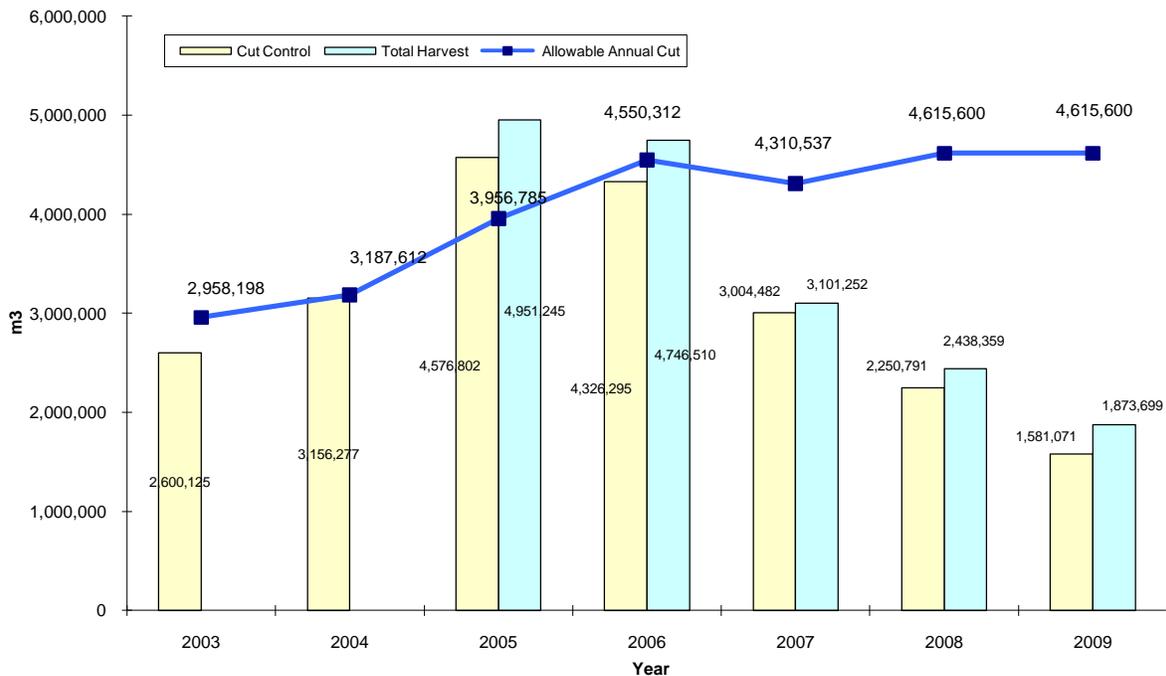
Variance: According to Cut Control Regulations and Policy

Assessment Results: Licensees harvested 1,581,071 cubic metres (m³) of cut control volume, and, including off-quota volume, a total volume of 1,873,699 m³. The total volume harvested was 41 percent of the allocated volume (AAC) of 4,615,600 cubic metres, which includes the Kamloops TSA, TFL 18 and TFL 35. The AAC is based on TSR IV, for the TSA, and current AAC rationales for TFL 18 and TFL 35. The volume harvested is compliant with the cut control regulation. Due to the global recession and associated lack of market demand, the actual total harvest is significantly lower than the allowable annual cut.



Sunset Creek
Photo Credit: Toby Jeffreys, GSFP

Allowable Annual Cut vs. Cut Control



Indicator (11) The Chief Forester determines the sustainable harvest level for the TSA after considering social, economic and biological criteria. Licensees contribute to the sustainable harvest level by adhering to their apportioned harvest volume within the TSA. Cut control regulations dictate the short-term harvest flexibility.

Indicator: (12) Incorporation of traditional knowledge, non-timber resources, and cultural and spiritual values in forest planning, where available.

Target 12a: Open communications with local First Nations during Operational Plan reviews will assist with the management of traditional knowledge, non-timber resources, and cultural and heritage values.

Variance: None

Assessment Results: All licensees harvesting or operating during the reporting period communicated with local First Nations during Operational Plan reviews. Number of meetings and meaningful communications was 122.

Target 12b: TSA Licensees respond to all written requests for communication from First Nations

Assessment Results: Licensees had 69 written requests for communication and responded to all.

Target 12c: Incorporation of traditional knowledge, non-timber resources, and cultural and spiritual values in forest planning, where available.

Assessment Results: Number of cutblocks where specific actions were requested and taken was 64. Examples of consultations/issues discussed were: planned activities within FN traditional territories, cultural trails, culturally modified trees, areas of potential archaeology, culturally significant plants, overlapping Title and Right claim areas, Mountain Caribou Strategy, letter of support for a First Nation community forest application, fisheries values, traditional use values, business opportunities, referrals, AOA plans, strategies and results.

Indicator (12) recognizes the importance of managing for non-timber resources, including cultural/heritage resources and values, during forestry operations.

Indicator: (13) Level of conformance to soil conservation commitments contained within plans.

Target: 100 percent conformance to soil conservation measures contained within plans.

Variance: None

Assessment Results: Soil disturbance objectives were met on all 6,248 hectares (total net area) harvested.

Indicator (13) addresses the impacts of forestry operations on soil productivity. Soil compaction, displacement and erosion are components of soil disturbance.

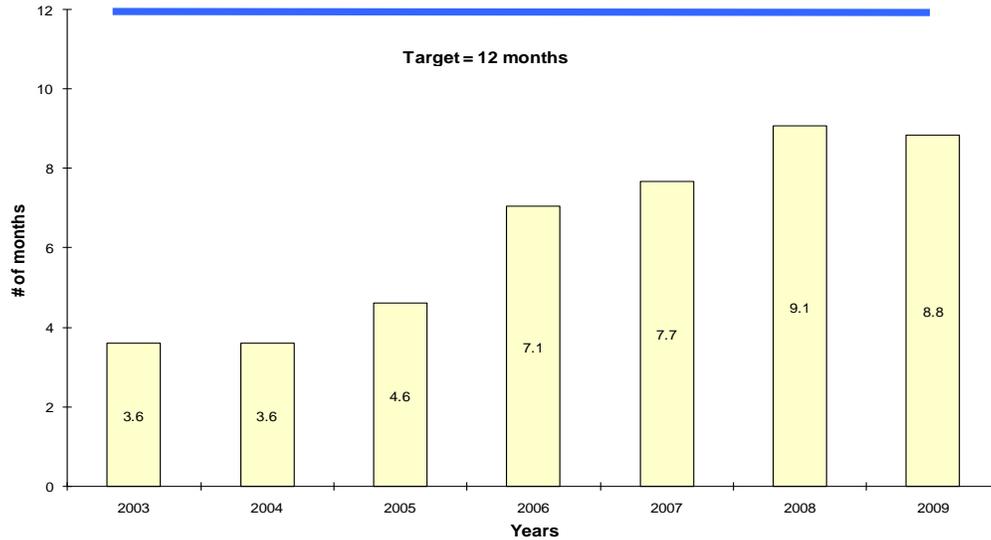
Indicator: (14) Number of months for road cut and fill slope seeding application.

Target: All planned road cut and fill slope seeding application carried out within 12 months of completed road construction on suitable sites.

Variance: 3 months

Assessment Results: Road cuts and fill slopes were seeded or planted on average within 8.8 months of disturbance, compared to a target of 12 months. All but one licensee (using up old seed with no record of source or company) used 100% certified seed. Total certified seed reported used was 2660Kg out of a total of 2841Kg. One licensee did not meet the 12 month target; road construction ended in late fall, and as logging (utilizing roadside harvest system) started immediately afterward, they waited until after logging completion to grass seed.

Seeding Application



Indicator (14) Prompt revegetation of road cuts and fill slopes will minimize potential for soil movement and sedimentation. This will contribute to maintenance of water quality and long-term productivity of the land. Prompt revegetation of harvested areas will also contribute to noxious weed control.

Indicator: (15) Percent of permanent status roads that have maintenance completed as per programs.

Target: All permanent status roads and associated structures will have maintenance completed as scheduled.

Variance: None



*Replacing bridge on Dunn Lake FSR
Photo by Gord Bower, MoFR*

Assessment Results: Licensees completed all 292 maintenance action items related to water management and soil movement that were required during the reporting year. Some examples of maintenance action items were replacing a 24m bridge on a S2 creek, removal of log culverts, road surface erosion, culverts blocked by beavers, installing rip-rap on river and creek banks, installing ballast in ditches, rehabilitating temporary access structures, cross ditching block roads, cut slope failures, and water barring old roads in burned areas.

Indicator (15) recognizes the potential impact of roaded access on forests and waterways.

Indicator: (16) Level of participation in the annual reporting of results and the number of advisory group meetings held annually.

Target: 100 percent participation in the SFM Plan monitoring process and hold at least two meetings per year with the SFM Public Advisory Group (PAG) to review results.

Variance: None

Assessment Results: There was 100% participation of the certified licensees in the monitoring process. The SFM Plan Monitoring Report for 2008 was presented to the PAG in March 2009. There were six additional meetings during the year to review changes to the SFM Standard (Z809-02 vs. Z809-08) and to update the SFM Plan for 2010. As well, there was a field trip and a regular meeting in Fall 2009 to review action items.

Indicator (16) indicates a commitment of Licensees to develop a Sustainable Forest Management Plan, irrespective of whether or not they intend to pursue formal certification. This will ensure consistency of sustainable forest management across the TSA.

Indicator: (17) Number of registrations to a recognized third party certification.

Members of the PAG agreed to remove this indicator from the report, as amalgamation of licenses may provide misleading results.

Indicator: (18) Protected Ecosystems

Target: 12% Protected Area as last reported by a Timber Supply Review.

Variance: None.

Assessment Results: 607,465 hectares are maintained as Protected Area (TSR IV – June 2008). This is 21.9 % of the total Kamloops TSA Landbase. Without Wells Gray Park, there are 68,363 ha of protected area in the productive forest landbase of 1,479,005 (4.6%)

Indicator (18): Part of the overall strategy to manage for biodiversity at the landscape level. The Protected Areas strategy is designed to protect viable, representative examples of British Columbia's natural diversity and recreational opportunities and to protect special natural, cultural heritage and recreational features.

Indicator: (19) Percent of affected ranchers with whom forest planning is discussed.

Target: Where forest operations are planned within range units, the forest licensee will meet annually with the rancher to help ensure forest operations will not adversely affect existing animal unit months (AUMs). Licensees will also communicate with affected trappers and guide/outfitters.

Variance: Minus 10 percent of 90 percent target.

Assessment Results: 115 of 117 ranchers (98%) affected by planned operations were communicated with during the reporting period; 49 of 50 (98%) of affected trappers were also communicated with. Some issues discussed with ranchers were cattle drift, cattle guard location, natural range barriers, fences, grass seeding, debris management adjacent to watering holes, invasive plants, and road deactivation schedules. Issues discussed with trappers were food sources and habitat for small mammals, future access and retention of small piles for wildlife cover.

Indicator (19): Forestry operations often overlap range tenures and the outcome of operational activities can potentially have a significant effect on range use.

Indicator: (20) Level of conformance to strategies in plans designed to achieve preservation, retention and partial retention of visual quality objectives.

Target: 100 percent conformance to strategies contained in plans.
Variance: None



Photo courtesy of Tolko Industries Ltd.

Assessment Results: One hundred percent of harvested blocks achieved the visual intent as described in plans (102 blocks).

Indicator (20): Visual quality objectives define the amount of visual alteration acceptable from a given viewpoint. The choice of scenic areas and significant viewpoints is based on social preferences.

Indicator: (21). Mean Annual Increment (MAI).

Target: Maintain the long term productivity of the forest as measured by the mean annual increment (m3/ha/yr) for Lodgepole pine.
Variance: None

Assessment Results: The current mean annual increment for Lodgepole Pine in the Kamloops TSA is 1.86 m3/ha/yr. This value is taken from the Kamloops TSR II Report (July 2001) and was not recalculated in the Kamloops TSR IV Report (June 2008).

Indicator (21): Mean Annual Increment is an indicator of the sustainability of management practices and the productivity of ecosystems.

Indicator: (22) Forest Age Class Distribution.

Target: Progress towards a stable forest age class distribution on the timber harvesting land base, where each age class to 100 years old [1 (0 to 20), 2 (21-40), 3 (41-60), 4 (61 to 80) and 5 (81 to 100)] occupies at least 8.5% of the timber harvesting land base.
Variance: Attaining age class balance earlier a benefit. Later – 20 years.

Assessment Results: Age Class 1 and 5 each occupy at least 8.5% of the timber harvesting land base (THLB), at 24.4% and 8.7% respectively. In the previous reporting period only Age Class 1 attained the 8.5% target. Age Classes 2, 3, and 4 have less than 8.5% area representation, with 6.4%, 3.1%, and 8.0% respectively. The target of age class balance will be achieved over time. These numbers are from the July 2008 TSR IV Report.

Indicator (22) A balanced age class distribution allows for an even flow of timber values and benefits as well as a reduction in forest health risks. Forecasted forest age class distribution over time provides an indication of sustainability. Balanced age class will result in a larger proportion of hectares in younger faster growing stands with a net carbon intake

Indicator: (23) The number of working relationships with applicable First Nations.

Target: Maintain and/or increase the number of working relationships (partnerships, joint ventures, cooperative agreements, memoranda of understanding, or business contracts) with First Nations.

Variance: None

Assessment Results: There were 50 working relationships with First Nations in the TSA area during 2009, which is up from 40 in the previous reporting period. The rolling three year average is 44.3. This is above the baseline target of 42, which was established in 2003.

See [Appendix II](#) for examples of working relationships.

Approximately 16% of the total apportionment (TSR IV) is associated with First Nations licensees, above and beyond the business relationships that First Nations have with other licensees.

Indicator (23) recognizes the licensee's efforts to build capacity within First Nations on matters related to the forest industry.

Indicator: (24) Number of presentation or field trips to schools, public groups and individuals.

Target: The TSA Licensees will maintain educational support that leads to a balanced and broad-based understanding of forestry. One focus is forestry programs at the elementary level, secondary and post-secondary levels. Target 40 actions per year (visits, field trips, information provision, etc).

Variance: None

Assessment Results: There were 92 presentations or field visits by licensees in the reporting period, as compared to 203 in the previous reporting period. Licensees met the expected target. As well, licensees in the Kamloops, Merritt and Lillooet TSAs funded a Forest Educator program to work with schools to provide forest education support for teachers. See [Appendix III](#) for more information on this program and a summary of its activities.



*Forestry Camp at McQueen Lake
Photo Courtesy of Susan Bondar,
Bondar Forest Planning Inc.*

Indicator (24) recognizes the importance of informed, educated public with respect to forest management. Licensees will be involved with educational support to ensure the importance of resource management is conveyed.

Indicator: (25) Participation with First Nations to implement and improve upon the revised Archaeological Overview Assessment model and process.

Target: TSA Licensees will participate with First Nations to implement and improve upon the revised Archaeological Overview Assessment model and process.

Variance: None

Assessment Results: The Kamloops licensees in partnership with the AOA Steering Committee continued in 2009 to work towards enhancing the AOA model to develop a more accurately predictive tool. This enhancement work will be periodically ongoing in future years. Archaeological Assessments were completed for 254 harvested cutblocks requiring this assessment. There were also 130 preliminary field reconnaissance trips. Note that the number of field visits do not correspond directly to the AOAs by year, i.e. AOAs completed in 2009 may not be field visited until 2010.

Indicator (25) assesses the potential for occurrence of cultural heritage resources and direct more detailed assessments in areas of moderate or high potential where forestry operations are planned. By incorporating archaeological assessments and inventories into operational plans, licensees contribute to the protection of First Nations Values.

Indicator: (26) Participant Satisfaction Survey.

Target: 26a 80% of responses to the Participation Satisfaction Survey are a “3” (satisfactory) or better

Variance: None

Assessment Results: Survey response was an average of 4.4 out of 5 which is higher than 2008 (4.1). All of the questions responded to were marked as a “3” or better.

There were five respondents to the survey.



PAG Field Tour

Photo courtesy of Dave Poole, Canfor

Target: 26b All written comments are reviewed and considered, and all line responses averaging less than 3 become action items

Variance: None

Assessment Results: Results of the feedback form were compiled and are reported as part of the annual monitoring program in [Appendix IV](#) of this report. There were no items that averaged less than 3.0.

Indicator (26) Ensuring the continuing interest and participation of this important Group is a Licensee priority. The SFM Plan is an evolving document that will be reviewed and revised on an annual basis with the SFM Advisory Group to address changes in forest condition and local community values.

Indicator: (27) Public Awareness of the SFMP.

Target: 27a Licensees will keep members of the public informed of TSA strategies being developed, and planning occurring by:

1. Maintaining a website
2. Circulating SFMP and other information to the public at least annually (news release/leaflet/open house/LRUP etc.)

Variance: None

Assessment Results: Licensees report that the web site is being maintained and the SFMP and other related information was made publicly available in the last year. The website has been tracking 'hits' since March 2009. The total number of hits combined for the Kamloops and Okanagan site was 216 (Canada-151, Brazil-23, USA-16, balance of world-16). The number of unique visitors was 150.

Advertisements were placed in the *Kamloops Daily News*, *Clearwater Times* and *Logan Lake Journal* newspapers in October and early November, inviting participation in the November Public Advisory Group meeting. This directly resulted in two new potential PAG members.

Target: 27b TSA Licensees respond to all written requests from the public for communication within 30 days of their receipt.

Variance: None

Assessment Results: Licensees received one written request for communication. The request was responded to in seven days.

Indicator (27) recognizes the importance of keeping members of the public informed of forestry strategies being developed and planning occurring in their area. Open lines of communication facilitate public awareness and understanding of the SFM Plan and other current forestry topics, and provide an open opportunity for the public to respond.

Indicator: (28) Number of opportunities/avenues for public participation in decision-making processes.

Target: 28a TSA Licensees will provide opportunities/avenues for public participation in decision-making processes through participation in:

- LRMP committees (strategic level);
- 70 percent of Local Resource Use Plan meetings (local level);
- Forest Stewardship Plan (FSP) meetings (operational level);
- Community meetings.

Variance:

- No variance in meeting Targets for LRMP involvement;
- Minus 10 percent or plus 30 percent variance of the 70 percent target for attending LRUP meetings;
- No variance for Forest Stewardship Plans; and
- No variance for community meetings

- Assessment Results:
- There were no LRMP meetings and no LRUP meetings.
 - There were no FSP review meetings attended during the previous period.
 - A total of seven community meetings were attended.

Target: 28b TSA Licensees respond to all written requests from the public for communication within 30 days of their receipt.

Variance: None

Assessment Results: There were four written requests for communication from the public to the licensees and all were responded to, with an average response time of 9.5 days.

Indicator (28) recognizes the importance of providing opportunities for members of the public, as well as First Nations, to provide input into forestry planning. Open lines of communication allow forest licensees to maintain an awareness of social values and concerns and to respond accordingly

Indicator: (29) Report on number of research and extension initiatives licensees have participated in.

Target: 29a TSA licensees will participate in research and extension activities.

Variance: None

Assessment Results: Licensees were directly or indirectly represented on the Forest Research Extension Partnership (FORREX). Participating Licensees also contributed to FPInnovations, through payment based on volume harvested from replaceable licenses, facilitating operational and wood product research such as biofuel grinding in the bush. Licensees conducted ad hoc trials and research, such as the Great Blue Heron inventory project, to improve forestry management understandings,



*Great Blue Heron
Photo by Jason Hobbs, RPBio*

Target: 29b Identify priorities for reinvestment in the forest sector through the TSA committee annual review and support of research programs and strategies.

Variance: None

Assessment Results: TSA wide research results were shared with members of the Public Advisory Group. [Appendix V](#) contains a summary of ongoing research that is being conducted by licensees. There is additional research being conducted by government and broader licensee organizations that is not described in this report.

Target 29(a) recognizes the standard of continual improvement requires ongoing monitoring and research related to the SFM Plan to assess and adaptively manage forestry operations. Monitoring the achievement of Indicators and Targets assesses the long-term effectiveness of the Plan. Target 29(b) demonstrates a commitment by forest licensees to reinvest in the forest landbase and proved a stable and profitable forest industry in the long term.

Indicator: (30) Percent of harvested cutblocks having three or more tree species identified in the free growing inventory.

Target: 30

70 percent of cutblocks harvested will have three or more tree species (includes conifer and deciduous comprising one percent or more of total trees) in the free growing survey, and two or more tree species within the ESSF Biogeoclimatic (BGC) Zone.

Variance: None



*Free Growing cutblock
Photo by Dennis Farquharson
Tolko Industries Ltd*

Assessment Results:

Ninety-two percent of the cutblocks declared free growing during the reporting year in non-ESSF BGC zones had three or more tree species. The average of the leading tree species was 47%. One hundred percent of cutblocks declared free growing in ESSF BGC zones had two or more species, with the average of the leading tree species at 70%.

Indicator (30): An objective of the Kamloops LRMP, with respect to ecosystem management is to maintain viable populations of all species across the landscape within their existing geographic range. Ensuring a diversity of tree species is maintained improves ecosystem resilience and productivity and positively influences forest health.

Appendix I: CSA Registered Licensee Summary Reports

- 1. BC Timber Sales**
- 2. Canadian Forest Products Ltd.**
- 3. Gilbert Smith Forest Products Ltd.**
- 4. Tolko Industries Ltd.**

Appendix II: First Nations Relationship Examples

Appendix III: Forest Educator Report

Appendix IV: Advisory Group Evaluation Summary – 2009

Appendix V: Summary of Research

2009 SFM MONITORING SUMMARY



More Information on how BC Timber Sales performed against all 30 indicators can be obtained by contacting Richard Cooper at the Kamloops Business Area office.

Ph: (250) 371-6500

richard.cooper@gov.bc.ca

**BC Timber Sales
1265 Dalhousie Dr.
Kamloops, B.C.
V2C 5Z5**



Photo Courtesy of Reuben Irvine, RFT

BC Timber Sales 2009 SFM Performance Highlights:

SFM Plan performance requirements were achieved for 27 of 30 indicators relating to the sustainability criteria in the Kamloops TSA SFM Plan being reported on. The following highlights BC Timber Sales contribution to the Kamloops TSA 2009 Sustainable Forest Management Plan Report.

- Permanent access structures occupied only 3.47% of the harvested area.
- 95% of cutblocks reaching free to grow had 3 or more species present.
- 100% of the ranchers and trappers affected by BCTS operations were talked to about forest operations and development.
- All requests for information were responded to in allowed time frames.
- Average time for regeneration establishment was 18.9 months.
- BCTS staff completed 54 presentation or field trips to schools, public groups, and individuals.
- 100% of hectares logged met soil disturbance commitments:

SFM Plan performance targets were not achieved for 3 of 30 indicators relating to the sustainability criteria in the Kamloops TSA SFM Plan. The targets were not achieved for;

Indicator 14: Average time for road cut and fill slope seeding application took an average of 24 months versus the target of 12 months.

Indicator 5: The coarse woody debris target was met on 75% of all blocks logged in the reporting period versus the variance allowed of 80%.

Indicator 2: Natural drainage patterns were disturbed on one small creek during road construction.

This report can be located at: <http://www.kamloopssustainableforestry.ca/>

2009 SFM MONITORING SUMMARY



Vavenby

More Information on how Canfor - Vavenby performed against all 29 indicators reported on in 2009 can be obtained by contacting Dave Poole at Canfors' office in Vavenby.

Ph: (250) 676-9518
David.Poole@Canfor.com

Canadian Forest
Products Ltd.
Box 39
Vavenby, B.C.
V0E 3A0



Canadian Forest Products Ltd. - Vavenby 2009 SFM Performance Highlights:

SFM Plan performance requirements were achieved for 29 of 29 indicators relating to the sustainability criteria in the Kamloops TSA SFM Plan. The following highlights Canfor - Vavenbys contribution to the Kamloops TSA 2009 Sustainable Forest Management Plan Report.

- Canadian Forest Products Ltd. - Vavenby maintained certification to CAN / CSA Z809:2002 registered in 2005, ISO 14001:04 registered since 2001 and was registered to PEFC chain of custody in 2007.
- Regeneration of harvested blocks occurred within 27 months on average from the time of harvesting compared to a target of 36 months.
- New road cuts and fill slopes were seeded on average within 5.7 months of disturbance, compared to a target of 12 months.
- Wildlife trees and/or wildlife tree patches were retained on all blocks greater than 10 ha during 2009
- 100% of blocks with Visual Quality Objectives achieved the visual intent (5 blocks)
- Soil disturbance commitments were met on all area harvested in 2009 (544.6 ha)
- Coarse Woody Debris objectives were met on 21 of the 21 blocks surveyed during the reporting year

This report can be located at: <http://www.canfor.ca/sustainability/certification/csa.asp>

2009 SFM MONITORING SUMMARY



More Information on how Gilbert Smith performed against all 30 indicators can be obtained by contacting Dave Tremblay, RPF at Gilbert Smith's office in Barriere.

Ph: (250) 672-9435
d_tremblay@telus.net

**Gilbert Smith Forest
 Products Ltd.
 Box 689
 Barriere, B.C.
 V0E 1E0**



Gilbert Smith Forest Products Ltd. 2009 SFM Performance Highlights: 2009

SFM Plan performance requirements were achieved for 29 of the 30 indicators relating to the sustainability criteria in the Kamloops TSA SFM Plan being reported on. The following highlights Gilbert Smith's contribution to the Kamloops TSA 2009 Sustainable Forest Management Plan Report.

- Gilbert Smith Forest Products Ltd. successfully maintained our registration to the CAN / CSA Z809:2002 third party certification during our audit on July 27th to 29th, 2009.
- Gilbert Smith Forest Products Ltd. achieved full compliance with Kamloops LRMP caribou strategies (28.2 hectares harvested).
- Gilbert Smith Forest Products Ltd. continued participation in a process led by the Ministry of Environment and Species at Risk Coordination Office for identification of recovery habitat for Mountain Caribou.
- Regeneration of harvested blocks occurred within 18.88 months on average from the time of harvesting compared to a target of 36 months.
- 89% of the identified Free Growing blocks had 3 or more species in the inventory label.
- Road cuts and fill slopes were seeded on average within 0.7 months of disturbance, compared to a target of 12 months which represents an improvement from an average of 3.4 months reported in 2008.
- Gilbert Smith Forest Products Ltd. reported a total of 5 working relationships with First Nations in 2009.
- Coarse Woody Debris Targets were 100% achieved.
- 100% conformance related to plans addressing harvesting within or adjacent to Riparian Management Areas.

SFM Plan performance targets were not achieved for 1 of 30 indicators relating to the sustainability criteria in the Kamloops TSA SFM Plan. Targets were not achieved for Indicator 10 as follows:

- The amount of area in permanent roads and landings in areas harvested during the year exceeded the 6.0% target. This was due to the small opening sizes and the amount of roads and landings required to access and safely operate, giving consideration to the future access requirements beyond the cutblocks.

[Pictured above: Grizzly Bear in Oliver Creek / Utilizing Brush Mats in Thunder River Area.]

This report can be located at: <http://thompsonokanaganustainableforestry.ca>
 Tolko Industries Ltd., Thompson Nicola Woodlands, Heffley Creek

February 2010

2009 SFM MONITORING SUMMARY



More information on how Tolko performed against all 29 sustainability indicators can be obtained by contacting Michael Bragg, RPF, Regional Forester at Tolko.

**Tolko Industries Ltd.,
Thompson Nicola Woodlands,
Heffley Creek**

Phone: 250 578 2181
michael.bragg@tolko.com

6275 Yellowhead Hwy.
Kamloops
British Columbia
V2H 1T8

www.tolko.com



East Barriere Lake

Tolko Industries Ltd.'s 2009 SFM Performance Highlights

SFM Plan performance requirements were achieved for all 23 indicators relating to the sustainability criteria in the Kamloops TSA SFM Plan being reported on. The results for the remaining six Kamloops TSA SFM Plan indicators are reported in the Kamloops TSA Sustainable Forest Management Plan Monitoring Report.¹ The following highlights Tolko's contribution to the Kamloops TSA 2009 Sustainable Forest Management Plan report.

- Tolko operations respected the Kamloops LRMP's objectives for old forest retention. Tolko has been actively involved in ILMB's OGMA legalization process.
- The percentage area in permanent roads and landings in areas harvested during the year was 4.1 percent (38.0 ha), which is well below the 6 percent target.
- 100 percent conformance to riparian and lakeshore commitments was achieved (519.5ha gross area of cutblocks within or adjacent to RMAs)
- 100 percent conformance to soil conservation measures was achieved.
- There were 38 meetings and meaningful communications with a number of local First Nations communities where our Forest Management activities overlap their areas of interest.
- Average time for regeneration establishment was 33 months, below the target of 48 months.
- 53 of 58 (91 %) of non-ESSF blocks declared Free Growing in 2009 had three or more species. All six ESSF blocks declared Free Growing in 2009 had two or more species.
- Road cut and fill slopes were seeded within four months on average, utilizing 750 Kg of seed, all of which was certified seed.
- Four research projects were undertaken including biodiversity/wildlife habitat, blue heron inventory, drag scarification for natural regeneration, and hydra gel tea bags (moisture retention product).

¹This report can be located at <http://kamloopssustainableforestry.ca/>

Appendix II: First Nations Relationship Examples

The following is a list of licensee – First Nations relationship examples:

- Tenure Management Agreement
- Archaeology Overview Assessment (AOA) services
- Archaeology Impact Assessment services
- Cultural Heritage Resource Assessment services
- Services for log hauling
- Log Purchase Agreements with First Nation held tenures (i.e. NRFLs, Woodlots, etc)
- Harvesting
- Mechanical Site Prep
- Silviculture
- Road Building
- Memorandums of Understanding
- Communication Agreements
- Volume Sharing Agreement

Appendix III: Forest Educator Report

Volunteer Presentations of Forestry Personnel

Forest Education Year 2009

Company	ILA Van	Camp	NFW	Train	Spring Lesson	Career Talks	Tree Planting
Number of Presentations or Field Trips							
Interfor					2		2
Gilbert Smith				2	6		
Tolko				8	3		
Canfor				3	7		
BCTS	3	5	1	5	41	8	

Volunteer Hours of Forestry Personnel

Forest Education Year 2009

Company	ILA Van	Camp	NFW	Train	Spring Lesson	Career Talks	Tree Planting
Number of Hours							
Interfor					2		4
Gilbert Smith				2	4		
Tolko				8	3		
Canfor				3	5.5		
BCTS	5	12	4	5	34.5	8	

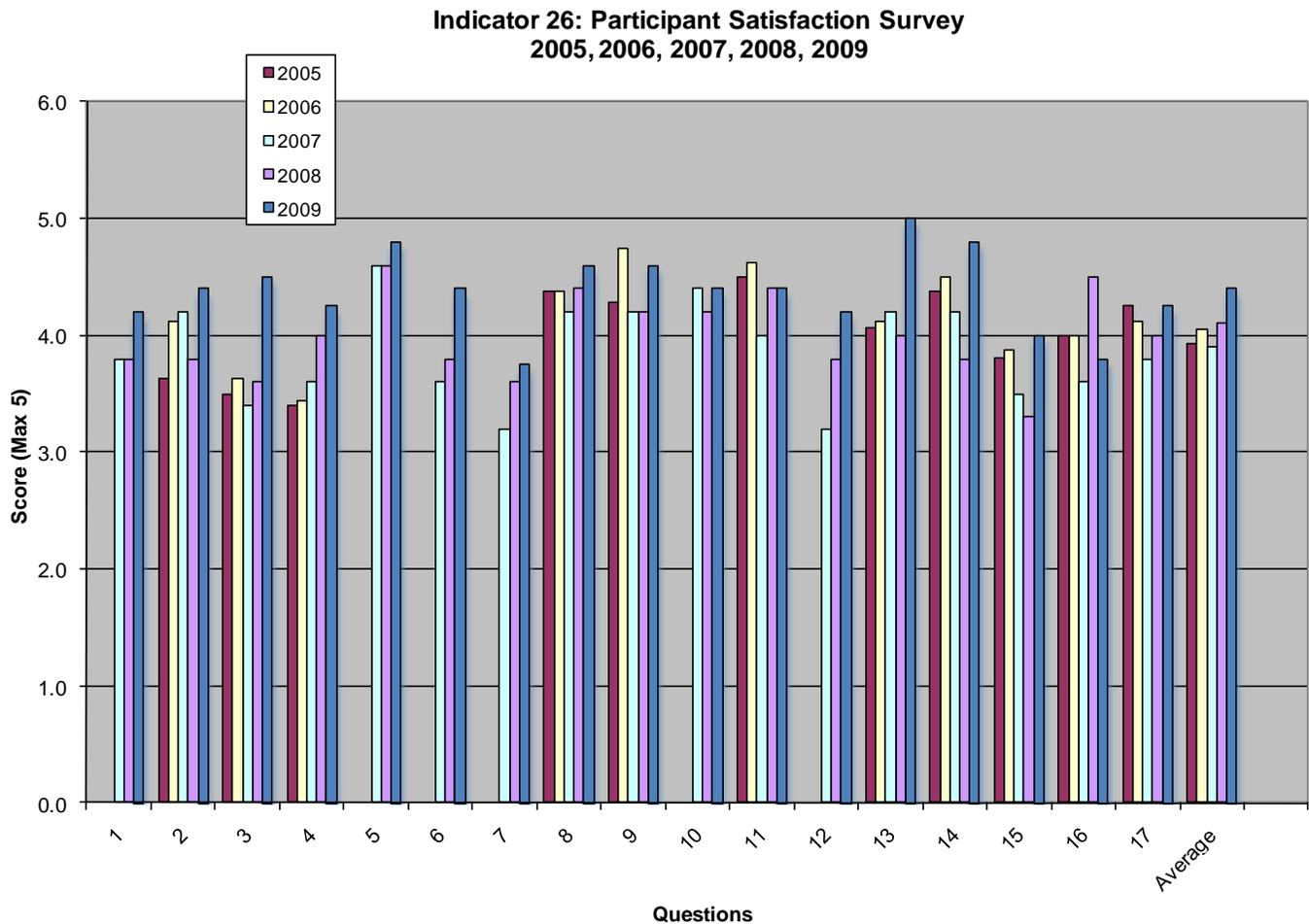
- **Interior Logging Association Forest Education Van** – The ILA Van is a teaching resource that is taken to schools and public functions. Students and teachers tour the van with Forestry Personnel interpreting the information represented outside and inside the van. The lessons represented were held at a BC Rivers Day Celebration for Bert Edwards Elementary School. In total, 75 students and 3 teachers attended the presentations and 240 students were involved in the event.
- **Introduction to Forestry Camp** – The McQueen Lake Environmental Education Centre was the site for the Intro to Forestry Camp for 18 high school students. The lessons for the three day camp were taught by post secondary instructors and forestry personnel.
- **National Forest Week Presentations** – NFW presentations were held at the 100 Mile House Demonstration Forest and attended by School District #27 grade 4 students. Approximately 210 students and 30 – 40 teachers and parents benefited from the presentations. The BC Timber Sales personnel that assisted with the presentations works out of the Kamloops BCTS office.
- **Training** – Train the Presenter and Spring Forestry Lesson Training Sessions were held prior to the school presentations to help forestry personnel learn techniques on how to present and also the content of the Spring Forestry lesson.
- **Spring Forestry Lessons** – Presentations have been created for forestry personnel to share a 45 minute lesson in classrooms. The topic for 2009 was ‘Watersheds’ and approximately 3,780 students and teachers benefited from the presentations.
- **Career Talks** – Presenters attended speaking engagements at 3 High Schools to inform students of career opportunities in the forest industry. Approximately 200 students and teachers attended the presentations.
- **Tree Planting** – Two grade 7 classes planted seedlings at Shuswap Lake Provincial Park to celebrate Earth Day. The Provincial Park had lost trees due to wind throw and beetle infestation. Approximately 54 students, 4 teachers and 3 parents participated in the tree planting.

The volunteer hours and presentations represented in the tables are for School District 73.

- School District 73 is the Kamloops/Thompson area and encompasses Chase in the east, Logan Lake south/west and Blue River in the north.

Appendix IV: Advisory Group Evaluation Summary - 2009

The following chart outlines the average response for each question in the Public Advisory Group Survey.



Below are the questions and the average response of the Public Advisory Group. The following table describes the ratings from 1 to 5.

1	2	3	4	5
Poor		Satisfactory		Well done

#	Question	Average Rating
1.	I feel that the Terms of Reference provide clear direction to the Public Advisory Group and I am in general agreement with their concerns.	4.2
2.	I have a good understanding of the purpose of the advisory group and my role as part of that group.	4.4
3.	My input related to SFM values and objectives are being adequately listened to at the Advisory Group Meetings and efforts have been made to incorporate my input into the SFM Plan.	4.5

4.	My input related to SFM indicators, targets, strategies and monitoring programs are being adequately listened to at the Advisory Group Meetings and efforts have been made to incorporate my input into the SFM Plan.	4.3
5.	I am supplied with the annual monitoring reports and audit summaries and have been given the opportunity to evaluate and discuss the results.	4.8
6.	I am encouraged to make suggestions towards continuous improvement and feel that my suggestions are adopted whenever practical.	4.4
7.	Issues relevant to SFM in the DFA are discussed and resolved to my satisfaction.	3.8
8.	Adequate and relevant information has been provided to me and supports my involvement in the Advisory Group process.	4.6
9.	Additional information I ask for is provided to me.	4.6
10.	My involvement in the Advisory Group and the information I receive has resulted in a better understanding of the interrelationships between Forest Companies, BCTS, and other resource users.	4.4
11.	The Advisory Group meeting minutes capture important aspects of the meeting.	4.4
12.	Overall, the Advisory Group process is designed and functioning to my satisfaction.	4.2
13.	Advisory Group Meetings are run efficiently and effectively.	5.0
14.	The meeting agenda allows for discussion of any related sustainable forestry issues of concern to advisory group members.	4.8
15.	Communication with advisory group members between meetings is adequate.	4.0
16.	The outputs generated through discussion with the advisory group (SFM Plan and annual monitoring reports) are clear and concise.	3.8
17.	Scheduling of meetings held during the year is an adequate balance between meeting continuous improvement objectives of the SFM Plan and use of my time.	4.3
	Total Average Rating	4.4

Appendix V: Summary of Research

Research	Value to SFM
Mountain Caribou Research Project	<p>Caribou Tracking This project has been on-going for nine years and is part of a larger province-wide project. The project is tracking the movement of Caribou using GPS collars, and by completing ground-based and aerial surveys. The project is enabling comprehensive maps of Caribou movement and habitat requirements to be prepared. These maps are facilitating the development of improved forest management strategies.</p> <p>Wolf Tracking Collaring wolves to evaluate the predatory relationship between wolves and caribou.</p>
Seedling Recruitment in Douglas-fir Forests	Research on the effects of partial retention and common mycorrhizal networks on seedling recruitment in Douglas-fir forests, with Marcus Bingham. This will help silviculturalists predict growth and health of Fd under various canopies in the ICH.
Kamloops TSA Fertilization Plan	The impact of the Mountain Pine Beetle infestation throughout the forested Crown land of the BC interior is having significant short- and mid-term harvest supply impacts in management units with a significant proportion of lodgepole pine. The objectives of fertilization are to mitigate short- and mid-term timber supply impacts through strategically focused fertilization activities, and to add merchantable volume to existing 40 to 80 year old stands to ensure earlier operability or higher volumes when harvested.
Seral Stage and Wildlife Habitat	Biodiversity across landscapes is more than simply a species count; it also includes the range of habitats and ecological processes ('diversity') present. If these processes are interrupted, an integral component of the ecosystem is lost, leading to more visible consequences such as species declines or extirpations. We are entering (or already in) a bottleneck, with regards to the ecological processes across much of our 'working forest'. Once beetle-salvage operations taper off, sources of wood will become even more constrained, leading to increasing pressure on the stands of mature forest remaining on a landscape dominated by younger stands. Effective planning for biodiversity on these landscapes requires understanding how stands of different age-classes contribute to the 'functioning' of the forest ecosystem, and when mature stands can be harvested as younger stands start to support 'mature forest' species. <u>Results:</u> Currently at a mid point in the study.
Hydra Gel Tea Bags	<p><u>Function:</u> The purpose of this project is to research the use of hydra gel tea bags (a moisture retention product) during the reforestation of high risk, drought prone cut blocks in order to determine the survivability differences of planting with and without such a product. The standard practice for Tolko for planting drought prone areas has involved disc trenching or mounding sites prior to planting, planting as soon as the snow has receded, and planting the seedling plugs slightly deeper than normal to allow for the seedling roots to have a greater chance of growing and following the moisture deeper down into the soil as the top layers dry out through the summer. The method to be used in this project will also include planting the cut blocks as soon as the snow has receded, and planting the seedling plugs slightly deeper. In addition a hydra gel tea bag will be planted with each seedling with the expectation that it will help retain the soil moisture longer after a soil wetting event, thereby making it available to the seedling for a longer period of time.</p> <p><u>Results:</u> Ongoing research</p>

TSA Strategic Investment Group	Gives direction for research investments and priorities. It also integrates overlapping project objectives.
Great Blue Heron Inventory	<p>Aerial inventories for the interior sub-species (<i>Ardea herodias herodias</i>) of the Great Blue Heron have never been conducted within the Kamloops Forest Region. In the spring of 2009 the BC Ministry of Environment (MOE), in partnership and with funds provided by Tolko Industries (Kamloops Division – Michael Bragg) conducted 33 hours and eight minutes of aerial surveys, within the geographic core of the sub-species range, to locate new Great Blue Heron nesting colonies.</p> <p>Prior to completing the aerial inventory, records of heron sightings and nest reports were solicited from the naturalist community via email solicitation to regional bird associations. Records of heron rookeries (n=4) were also obtained from the Conservation Data Center (CDC).</p> <p><u>Results:</u> Aerial inventories were conducted opportunistically over seven days between January 16th, 2009 and February 13, 2009. Within the Okanagan and Kamloops MOE regions a total of twelve new and/or potential colonies were detected during our surveys; in addition, twenty-one confirmed colonies were collated from naturalists, agency biologists, consultants and former reports. Finally, an additional eleven suspected colonies were also collated from naturalists.</p>
Drag Scarification for Naturals	<p>Function: The intention of this project is to research the opportunity to successfully drag scarify cut blocks to promote reforestation through natural regeneration. This is a departure from Tolko's traditional methods as it will take place in areas where reforestation obligations have previously only been met by disc trenching or mounding and then artificially reforesting (planting) the cut blocks.</p> <p><u>Results:</u> Ongoing research</p>