



# 2002 Field Tour

*LRMP Implementation & Monitoring Team*

June 15th, 2002

## Introduction

The Prince George Land and Resource Management Plan (LRMP) was begun in March 1993 and received Provincial Government approval on January 25<sup>th</sup>, 1999. Key to the LRMP's success were the field tours that allowed its members to find common ground and ultimately helped them to reach consensus. Building on this success, the plan recommended that the tours be continued during implementation.

The first post-implementation tour took place in the fall of 2000 and covered northern parts of the planning area, typical of the interior plateau. The second tour in June 2001 covered east central portions of the planning area including mountainous terrain, the interior wet belt and the Bowron Valley. Each of the first two tours covered a wide variety of landscapes and issues. Following the 2001 tour, participants expressed interest in visiting the McGregor area.

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This year's tour was set entirely within Canadian Forest Products' (Canfor's) Tree Farm License 30 (TFL 30) and the overlapping McGregor Model Forest. In July of 2001, Canfor received a Sustainable Forest Management (SFM) certification for the defined forest area covered by TFL 30 under the Canadian Standards Association CAN/CSA-Z809-96 stamp. That process included a Public Advisory Group (PAG.) Some members of the PAG participated in this year's LRMP tour, thus deriving extra value from the day and addressing the growing need to optimize limited resources in overlapping public processes.

The 2002 tour differed from its predecessors in that it was conducted entirely within a single resource management zone (RMZ) whose category, Enhanced Resource Management, means "development and enhancement of the timber resource consistent with the objectives of the RMZ." In other words, the emphasis in this RMZ is timber production, while still taking into account other values.

The tour was organized by Shannon Carson of the Ministry of Sustainable Resource Management (MSRM,) supported by LRMP Chair, Jeff

Burrows of the Ministry of Forests (MOF,) and Kerry Deschamps of Canfor. Under the recent government services reorganization, Jeff and Shannon have essentially swapped roles regarding primary responsibility for the tour. Most of the work in actually putting together the tour, maps, and handouts was done by Kerry (Canfor.)

A total of nine tour stops were planned and eight were achieved in a long hot day covering 165 kilometers of pavement and 170 kilometers of dusty forest road. The absence of rain made the job of recorder easier, but this was offset at the first tour stop by the author delaying putting on insect repellent, to the delight of the ensuing cloud of mosquitoes.

A total of 14 people gave up their Saturday to take part. Despite the participation of Canfor's PAG (some PAG members are also members of the LRMP) attendance was down 30% over last year, but still close to the 2000 tour level. It was agreed to consider scheduling next year's tour earlier in the season (late April or early May) to try and make it convenient for more people. Nonetheless a good cross-section of interests was represented, ensuring lively discussion at the tour stops and in the vehicles between stops. A list of participants and their affiliations is given at the end.

The Prince George LRMP has recently passed the one-third mark in its originally stated 10-year life. Two indicators of its success are that both the implementation/monitoring group and its field tours are still active.

On the other hand, this is a time of considerable change, which is starting to affect the LRMP:

- ⚡ Government is restructuring and bringing in a new Results Based Forest Practices Code (RBC.)
- ⚡ Resource professionals are looking towards increased Professional Reliance and working with government to revamp some of the right-to-practice and right-to-title legislation.

- ⚡ Forest companies are moving inexorably towards privately sponsored Forest Certification standards, each with Sustainable Forest Management plans that overlay government and publicly produced plans. Certification schemes of importance in BC are:
  - International Organization of Standardization (ISO 14001) that most companies use as a baseline environmental management system;
  - Canadian Standards Association (CSA);
  - U.S. industry-originated Sustainable Forestry Initiative (SFI); and the
  - broadly-subscribed Forest Stewardship Council (FSC) which has just completed its regional standards for British Columbia.

Other factors influencing change are:

- ⚡ The mountain pine beetle epidemic and the resulting 3 million cubic meters per year increase in the Annual Allowable Cut (AAC) in the Prince George Timber Supply Area.
- ⚡ The Softwood Lumber dispute and its influence on possible Stumpage and Tenure reform.
- ⚡ Increased emphasis on Consultation rather than Consensus-based public involvement in planning.
- ⚡ MOF is getting out of the recreation business, directly impacting LRMP objectives.
- ⚡ The replacement of Forest Renewal BC (FRBC) with a lesser-funded Forest Investment Account (FIA) that again may impact LRMP objectives in areas such as inventory, restoration and research work.

Implications to the future of the Prince George LRMP were discussed at the final tour stop. Yet, while these factors will undoubtedly bring change to the LRMP implementation and monitoring process, the LRMP itself will probably remain as an important guide for lower level SFM plans. The LRMP has already shown value in Canfor's CSA certification; and as the RBC unfolds, the input of LRMP members to help interpret what

was intended in the plan should continue to be an important aspect of land use planning in the Prince George Forest District.

## Tour Stops

### ***Stop 1: General information about Tree Farm License 30; vegetation resource inventory***

The route to the first stop included part of Don Wilkins' trapline, and participants riding in his vehicle were given insights into the habitats and needs of fur-bearing animals on the trapline, notably lynx and marten. The tour entered TFL 30 after crossing the Fraser River via the Hansard Bridge near the old town site of McGregor. This bridge is reputed to be the only one of its kind in Canada, where the railway and the road share one single-lane crossing. For safety reasons, the bridge is manned 24 hours a day.

A few kilometers north of the Fraser River, the party made its first tour stop in a section of mature forest alongside the Church Forest Service Road. Here, Kerry Deschamps gave an introductory overview of the 180,471-hectare TFL 30, and then talked about the Vegetation Resource Inventory (VRI) that was conducted in two phases in the Tree Farm.



Kerry Deschamps gives an overview of TFL 30

The LRMP objective relating to this stop was to optimize timber growth and to implement silviculture strategies to produce a broad spectrum of forest products. The LRMP strategy was to promote growth and yield research in stands to determine appropriate site index (site productivity and growth potential) on managed stands. The site was chosen to illustrate the types of information currently collected on the forest.

Canfor (Northwood Inc at the time) initiated the VRI after a government audit showed a 16% overestimate of volume in mature stands (older than 60 years) in the TFL. The VRI was conducted in conjunction with the McGregor Model Forest and was one of the first to be undertaken in BC. Phase-1 comprised the interpretation of new photos, and was followed by an overlapping phase-2 from 1997 to 1999 to conduct 263 random samples. Then, in 2000, the phase-1 attributes were statistically adjusted using the phase-2 data and were later used in supporting the Timber Supply Analysis.

Because this was one of the first VRIs, and because the overlap meant that phase-2 samples were selected from earlier forest cover maps before phase-1 was complete, growing pains were experienced ensuring that the plots were correctly located to enable the adjustments to be made. The adjustments showed that phase-1 heights were over-estimated by 2%, ages by 6% and volume by 19%. The latter figure applied to all stands, not just the mature stands in the original MOF audit.

As the mosquitoes swarmed, Kerry discussed a number of attributes of the forest in which we stood. Although this was rated a mature forest, there had clearly been some harvesting disturbance in the past. The site index, or height of trees at age 50 years, was currently between 22 and 25 meters, meaning this was quite a productive forest. The site index of the original old forest would have been about 15 meters. Crown Closure is a measure of how much open sky can be seen

through the canopy, and although this was a mature forest, there was still a fair amount visible.

We discussed natural versus managed stands, and the importance of putting suitable species back on the site. At a site such as this, it is usual to plant Spruce and to rely on natural regeneration for Balsam, the latter occurring more easily than for Spruce. We could also see the occasional Birch tree in the forest, which triggered some discussion on that topic. It was noted that there is a fair amount of interest locally among small business in Birch wood, but the quality has to be good, as most of the value is in the higher grades.

The history of TFL 30 shows that the first cuts occurred in the 1920s with intermediate utilization, sometimes known as high grading. Clearcutting began and plantations appeared in the mid to late 1960's, along with natural conversion to deciduous tree types taking place. Natural seeding through strip logging was tried, with preparation of the intervening strips of topsoil by blading. Early strip-cutting and natural regeneration methods were inconsistent in reproducing regenerated stands of forests similar to those that had been logged. Today, regeneration is achieved almost exclusively by planting selected species of trees (mainly Spruce) and relying on natural regeneration for Fir and deciduous species.

Although TFL 30 is zoned for enhanced resource development, Kerry stressed that other forest values are being provided for, and he noted that as well as meeting the intent of the LRMP plan, this is an important consideration in CSA certification. The existence of the McGregor Model Forest has also meant that federal funds have been available to assist in inventories, models and other research work in TFL 30. "There is a lot of both young and old forest," he said, "We can't cut all old forest, and we use computer models to ensure that we have a wide range of values which are drawn both from the LRMP and the certification PAG."

A lively discussion ensued with Don Wilkins opening by asking how these aims can best be achieved. Kerry noted that the area we were standing in had been logged once, with only the older Spruce being taken, which, he said, creates problems later. The approach today is for 95% clearcut with retention. Kerry explained that the objective is to harvest the 'profile' of the forest, for example the same percentage of Balsam as occurs in the forest. Harvesting the profile is another important point in certification. Rip Kitchen added that Balsam, although not favoured by sawmills, is good for log building and is nice to work with. He also noted that there are two sides to every story, and that when looking at preserving a range of values in the forest, one should not forget the investment that industry has made in its plant (mills and infrastructure.)



Rip Kitchen emphasizes two sides to every story

Kerry noted that forestry is moving towards ecosystem-based management. He talked about three Natural Disturbance Types (NDT) at play in TFL 30: NDT 1 is higher elevation with more gap

dynamics and a tendency to stay around longer than 250 years. NDT 3 experiences more frequent natural fires, averaging every 100 to 150 years and resulting in natural regeneration. NDT 2 is somewhere in between. “The aim is to try to balance and mimic in a broad sense the natural dynamics in the landscape.” This prompted Esther Perry to note that you can’t mimic nature if you control every fire and bug outbreak. Kerry replied that they look at what nature does and try to imitate it. One person observed that one approach with a natural fire is not to salvage the burnt trees.



Esther Perry addresses the tour group at Stop 1

There are many other values in TFL 30, including the higher elevation mountain caribou that are taking on greater significance as a threatened species in central and southern BC; five recreation sites; the historic Giscome Portage Trail in the west end of the area, and caves at the east end. Victor Bopp and Rip Kitchen called attention to some of the other values in our immediate surroundings, notably a Winter Wren and a Three-toed Woodpecker.

SFM requires a lot better inventory than conventional forestry, with photo interpretation estimates backed up and revised by ground plots. Kerry explained that block planning and habitat models are a lot more detailed than they used to be, and while in the past we concentrated on trees, now we look at what’s underneath. The vegetation inventories are used to infer value for habitat, rather than trying to inventory the animal

species themselves, but he conceded that the PAG would like to see more animal inventories, a matter that is still under discussion.

Jeff commented that computer-modeling tools are being applied to this inventory data, and Kerry added that whereas two lines of computer code used to suffice to net out the results, now two pages of code are required. “The result is a state of the art inventory on TFL 30,” he said, citing as an example Map 29 in the thick handout that each tour participant had been provided showing cover type polygons averaging 10 hectares each in

size. These inventories, he said, also help with strategic planning. Esther felt that there will come a time when everyone harvesting trees, including small woodlots, will have to have this for certification.

### **Stop 2: Amanita recreation site**

Leaving the first tour stop and its rapacious mosquitoes, we continued on a short distance to the Amanita Recreation site. There, while families were enjoying the sunny lake with its floating dock and swimming platform provided by Canfor, we discussed the future of forest recreation in BC and the philosophy of user pay. The LRMP objective relating to this stop was to encourage a variety of recreation and tourism opportunities; and the strategy was to create more forest recreation sites, in response to demand, and where compatible with other resource values.

Jeff led the discussion at this stop, first reviewing the history of forest recreation sites, and then noting that in light of new government policy, the strategy to create more forest recreation sites will clearly not be met.



Group discussion at the Amanita recreation site

As with previous years' tours, the topic of forest recreation provided a high level of interest and discussion. Previously we had discussed the camping fee and pass system introduced by the previous government. That is now gone, and many of the recreation sites may follow unless MOF can get private sector involvement in the form of clubs, community groups, forest licensees, or commercial recreation interests. Viewpoints raised in the ensuing discussion were:

- /// Some outdoor groups have asked government to go slow so that they may look at the opportunities.
- /// Government will first approach non-profit, and then commercial organizations.
- /// If there are no funds available to help, user groups may be reluctant to take them on.

- /// Liability is an issue for non-profit groups, although with some existing relationships such as mountain huts the groups involved do carry liability insurance.
- /// The whole point of the forest recreation sites is that people want to get away from developed areas. It's important to provide these relatively undeveloped front country opportunities for people who don't want or lack the skills to engage in wilderness backcountry camping.
- /// The forest recreation sites were created originally to deal with problems such as fire and sanitation resulting from random camping. Many in the group expressed strong opinions that we risk reverting to that situation, noting that the \$4 million cost for recreation sites for the entire province is cheap – the cost of just one fire could exceed that.
- /// Tony Hechenberger noted that a recreation review panel has been struck. He said that the recreation policy is also closely related to access issues resulting from road deactivation and reduced road maintenance. He observed that the new policy will be bad for tourism, and he stressed that what we need is a mix between government and private – that we must avoid a simplistic view of either. While government may not be a business, it still has to manage.
- /// Some felt that forest recreation should definitely stay in government hands, and there were mixed views on alternate funding such as taxing outdoor equipment. The problem with general taxation, some argued, is that everyone pays for a resource used by a few.
- /// Victor also brought up the subject of access, noting that if we close down recreation sites we have to also close down access. He wondered how easy that is to do. He was also concerned about closing remoter recreation sites where there is a lot of use by local people but no money incentive for operators.
- /// Others noted that if we close down recreation sites like Amanita, we will lose tourists such as Alberta hunters.

⚡ In regard to the question of forest licensees taking on more responsibility for recreation sites, Kerry indicated that Canfor doesn't know what's coming with respect to all the ongoing changes and is unable, yet, to make a commitment. He thought, however, that the company would probably be interested in partnering with outdoor groups in some way.

During the annual LRMP meeting following the tour, this issue raised a considerable amount of further discussion. The result was that a committee of non-government LRMP members agreed to draft a letter to government outlining concerns and suggestions made at the meeting.

### ***Stop 3: Regeneration – Spruce leader weevil; site index adjustment***

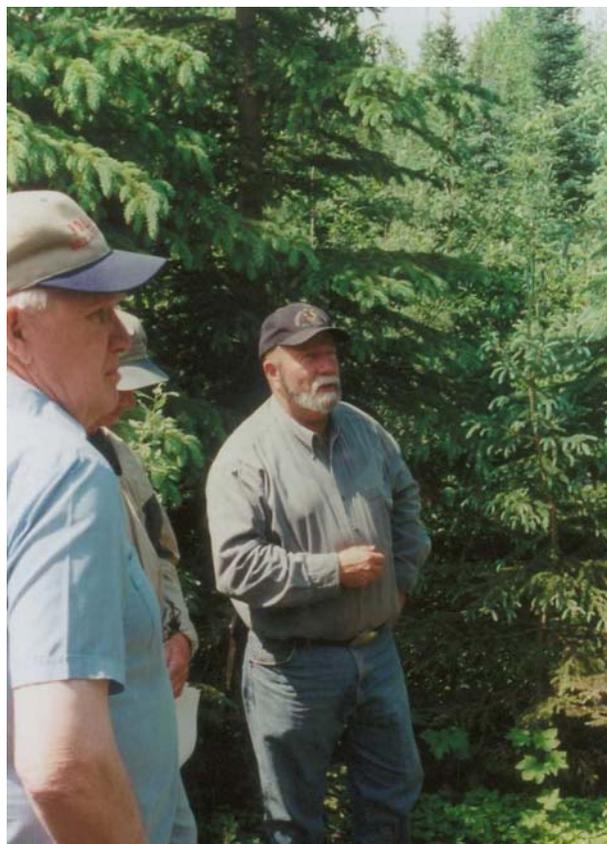
Leaving the recreation site, we proceeded north on the Church Road and then on to the Huble Road to a site that had been logged in 1972 and 1979 using a method of leaving seed-tree strips. There, we looked at regeneration issues, discussed the next rotation, and talked about growth and yield. The LRMP objective relating to this stop was to optimize timber growth and to implement silviculture strategies to produce a broad spectrum of forest products. The LRMP strategy was to utilize cost effective intensive silviculture treatments, including spacing, commercial thinning, fertilization and pruning, on a site-specific basis.

The site had been scarified between the strips of leave trees in 1975 and 1979 for natural seeding, which at times had worked well, but for the most part didn't. The area was planted in 1980, mostly with Spruce, but also with a little Pine, and was chemically brushed in 1990.

A feature of the site is the Spruce leader weevil that attacks the leading growth of Spruce trees. It doesn't kill the trees, but affects productivity by reducing yields predicted by the models and affects the quality of the wood through deformed

stems. The Spruce weevil loves sunlight, especially on sites such as this below 800 meters elevation, and the chemical brushing had opened up the stand, thus providing a good breeding ground. Spruce grows best with 10% shade.

Jeff pointed out that the site has many openings that are now lush with elderberries and other brush, giving it good wildlife values. Don, however, noted that while lynx, feeding on the rabbits that are currently at their population peak, should be the main fur bearing animals in this area, he couldn't see much sign of lynx or rabbits, or even moose.



Don Wilkins questions wildlife use of site

There is a lot of water on the site contributing to its productivity. If it had been manually brushed, it would have had to be done again in two years. On the other hand chemical brushing had certainly

contributed to the weevil problem. Although broadcast spraying of herbicide has been significantly reduced over the Prince George Forest District, Don said that in wetter zones such as this he had observed that a lot of broadcast spraying is still being done.

Kerry talked about the site index or the condition of how fast a site is growing. He said there are huge differences between naturally regenerated sites and sites such as this, and noted that this site is growing almost twice as fast as had been expected. Data from the growth and yield plot indicates that we may have to adjust the TFL 30 site index to take into account higher growth rates and the effects of the weevil. There are big implications to yield, harvesting levels and habitat, and the forecast rotation on this site could be reduced from 100 to 70 years. He cautioned, however, that we only have 30 years of data and the growth and yield predictions could change.

Esther wondered if the site was too dense and should be spaced? Kerry replied that they had brought in a specialist two years ago to look at that, and he had suggested leaving it for about 40 years rather than risking taking out good trees and “putting all the eggs in the remaining basket.”

As we left this tour stop, Jeff reminded the group that the LRMP priority for TFL 30 is growing timber.

#### ***Stop 4: Weevil strategies – resistant seed and other strategies***

One of the LRMP objectives addressed by several of the tour stops (including stop 4) is intensive silviculture. The objective was to optimize timber growth and to implement silviculture strategies to produce a broad spectrum of forest products. The related LRMP strategy was to utilize improved seedlings where appropriate, while maintaining genetic diversity.

Stop 4 took place in a block adjacent to stop 3. The block had been planted in 2000 with stock from the Vernon Seed Orchard that had been genetically improved to resist Spruce weevil through selective breeding. It was stressed that this is NOT a genetically modified organism in the sense of genetic engineering, gene insertion, gene splicing, or biotechnology. The resistant stock was developed through what is called a “Tree Improvement Cycle.” Seeds are collected from trees that have naturally escaped the weevil problem, and are grown into seedlings that are then tested, evaluated and reselected before being planted both in an arboretum and in the seed orchard. The resulting stock has shown a 21% genetic gain in weevil resistance.



Rip, Bonnie, Victor, Charlie & Tony discuss seed strategies

Other strategies being used are to establish mixed species plantations; use a variety of weevil resistant stock as it becomes available; changes to stocking standards to allow more deciduous and brush species to impede weevil damage, and tracking to see if we get the gains expected.

Rip wondered, having previously seen clumps of healthy pine trees amidst areas heavily impacted by the mountain pine beetle, if any attempts are being made to find genetically resistant trees to

that problem? Kerry didn't know of any, saying that the only research that he is aware of is directed at the general form and growth of trees, and at the Spruce weevil.

The high level of interest and discussion thus far, meant that we were behind schedule, and to save time lunches were distributed in the vehicles en route to stop 5.

**Stop 5: Large blocks and natural disturbance**

Returning to the Church Road, we headed north on the North Fraser and McGregor Bend Roads to the foothills of the Rockies. The first stop was in a large, open block, comprised mostly of 15-year old Spruce. Here we discussed large blocks and natural disturbance, and how to manage for multiple objectives such as those developed by the LRMP. We discussed the TFL 30 certification process, and the criteria and indicators that will be measured in order to achieve these multiple objectives.

The main LRMP objective relating to the stop was to provide for timber harvesting opportunities. The associated strategy was that harvest blocks

greater than 60 hectares can be considered provided they are consistent with characteristics of the Natural Disturbance Type such as distance to cover, forest health, wind-firm edges, hydrology, coarse woody debris etc. (Full details on page 22 of the LRMP document.) A further LRMP objective is to manage for biodiversity by maintaining a pattern of mature and old growth forest at the landscape level. The related strategy was to mimic the natural pattern of size, shape, spatial and temporal distribution of forest stands, considering all resource users.

Shannon led the discussion at this stop, noting that natural fire openings used to be in the range of 1,000 to 5,000 or even 10,000 hectares over approximately 100-year intervals (in NDT 3) on the interior plateau. In managing landscape units, we are moving towards 'natural' designs; so that shape, for example, is important in order to mimic skips, varying boundaries and fire intensities. MSRM is tasked with leading the next stage of developing land use objectives that licensees will be measured against.

The tour handout included a report on natural disturbance (Craig DeLong, 2002) and a section from Canfor's SFM plan.



Large blocks and natural disturbance in the foothills of the Rockies

- /// A large proportion of harvested patches over 100 hectares in size is ecologically desirable in order to achieve a more natural spatial age and to reduce fragmentation, as well as to reduce roads and stream crossings.
- /// Design harvested patches to take the place of the medium to large disturbances that were historically created by fire.
- /// Mimic fire characteristics of size,

shape, and skip.

- ⚡ Leave as much unmerchantable wood on the site as possible to reflect natural disturbances that remove little or no biomass.
- ⚡ Where possible, create similar vegetation patterns of non-forest (such as willow and alder) and forested habitat types as would be left by a wildfire of varying intensity.

Shannon noted that in achieving a broad size range of openings, medium-sized openings are the most economical and as a result we are presently over-achieving on these. In Canfor's SFM plan, the indicator for patch size suggests that the Averil landscape unit will not reach the objective for medium blocks until 2080. In certain parts of TFL 30 and in the Prince George LRMP area, we are also over-achieving on very large blocks (over 1,000 hectares,) usually where a forest health issue dictated a large-block response. The block we were standing on was quite open, of a type that was common 15 years ago. If it were to be designed today, it would at least include wildlife retention patches.

In the ensuing discussion, Tony raised the topic of the targets in the CSA certification plan outlined in the handout. The achievement dates range from the present to 2080 depending on patch size and landscape unit. We were told that the plan is a compromise to deal with timber, biodiversity, and other values, as well as the legacy of the past.

Kerry indicated that Canfor is working on a SFM plan for possible U.S. certification through SFI that would incorporate Craig DeLong's work as well as other work from Ontario. Targets will include a 'shape index' that takes into account irregular patches and peninsulas, and it will be applied through adaptive management. One indicator will be to keep a certain amount of deciduous trees for the use of woodpeckers, perching birds, etc.

In considering small versus larger blocks from an environmental perspective, small blocks do not

necessarily translate into a reduce cut. Instead, the result is more fragmentation and more roads. Don made the point that larger blocks also leave larger undisturbed areas. Kerry noted that if we keep 'cookie cutting' we will leave a checkerboard legacy into the future, and he felt that larger areas with leave-patches are much preferred in helping to maintain ecosystem diversity and forest health. What does the public want, he asked? What are the social objectives? Do wildlife need the larger configured areas? How long can we hang on to the surrounding old growth?

Shannon thought the public now has a much better understanding of the pros and cons of block size. Jeff noted that mimicking nature is OK, but it has to be tempered with reality. He added: we have to realize that even if larger blocks are appropriate on this site, they aren't necessarily appropriate in the Interior Cedar Hemlock zone or in the Herrick Valley. As we ended the stop, Don turned his trapper's eye on the block and noted that fisher habitat had been eliminated.

### ***Stop 6: Forest health – Spruce beetle site; mountain pine beetle***

Continuing north for a few kilometers to stop 6, we walked into a Spruce bark beetle attack site in the Seebach operating area. The LRMP objective relating to this stop was to provide timber-harvesting opportunities. The strategy was to establish plans to minimize non-recoverable timber losses from forest insects, diseases, wind damage and fire.

Canfor's management objectives with respect to forest health are to:

- ⚡ Minimize the spread of bark beetles and subsequent damage to the forest resource.
- ⚡ Prioritize and maximize the harvest of beetle infested stands.
- ⚡ Minimize the impact of the Spruce leader weevil to the forest resource.

- // Develop effective forest health management plans in consideration of other resource values.
- // Balance forest health decisions with economic, environmental and social values.



Victor holds mountain pine beetle handout map

During the past 20 years, TFL 30 has had epidemic outbreaks of Spruce bark beetle in mature and over-mature stands. Subsequent control harvesting has resulted in large openings across the southern part of the area. The population is presently under control, but the beetle persists at endemic levels. An aerial overflight is conducted each year by the MOF to look for beetle occurrences as well as for patches of wind thrown Spruce. An evaluation and risk assessment is done, and if necessary treatments, which could include baiting, trap tree falling, pesticide use, fall and burn, and harvesting are prescribed to mitigate risks to resources.

Although this was a Spruce bark beetle site, the discussion covered a broad range of pests, especially the mountain pine beetle. The latter is topical relative to the nearly 3 million cubic meters per year increase in the AAC in the Prince George Timber Supply Review. Concern was expressed that in ten years time there will be political pressure to maintain the increase. It was

explained that the Chief Forester is independent and is governed by the Forest Act in setting the AAC. There was some concern that a portion of the increase will go to wood that is not infested. In fact, the majority of the AAC increase will go to trees with mountain pine beetle, especially to those in the green attack stage to try to constrain the spread. Some, of necessity, may go to non-infested trees.

Other discussion:

- // Reinforcing an earlier question, Rip asked why, when an island of green is seen in an otherwise infested area, we don't go in and look at why the trees are surviving?
- // Jeff commented that the large patch approach, as a means to avoid forest fragmentation, has to be tempered with a precautionary approach due to the risk associated with insect infestations. He added that we should be careful when proposing large harvest patches over healthy forest stands. Adjacent stands left as reserves, could be hit by insects shortly after, thereby creating harvest patches that exceed our objectives and reduce old growth forest below acceptable limits for biodiversity conservation. Some saw this as a refreshing comment, since traditionally among resource



Kerry points to Spruce bark beetle entry point

managers it is biologists rather than foresters who tend to adopt the precautionary principle.

- ⚡ Don wondered what happened to federal research done in 1973 on a mountain pine beetle outbreak in southern BC?
- ⚡ Someone observed that the fragmented landscapes might have contributed to the opportunity for mountain pine beetles to spread.
- ⚡ A comment that government has been slow looking at the problem brought a response that while the problem couldn't have been stopped, perhaps there had been too much bureaucracy.

**Stop 7: Terrestrial ecosystem mapping – vegetation resource inventory applications; marten habitat mapping; rare plant community ecosystem mapping**

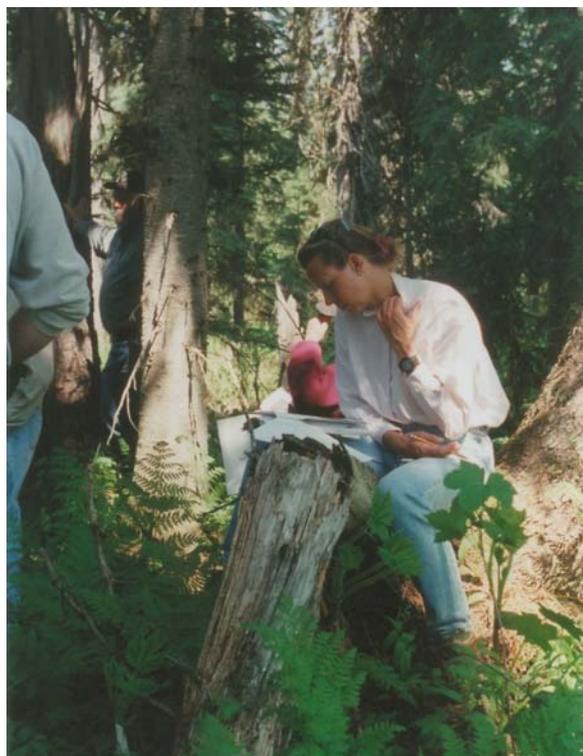
This stop was at a terrestrial ecosystem mapping (TEM) plot, where we discussed rare and endangered species and the how's and why's of ecosystem mapping. The LRMP objective here was to maintain rare and uncommon habitats, plants and /or animal species, and the strategy was that BC Environment (now WLAP) or designate will identify rare and uncommon habitat, plants and /or animal and plant associations.

The other purpose of stop 7 was to look at marten habitat management. The LRMP objective was to manage marten habitat to provide the opportunity for population levels to be maintained. Strategies were:

- ⚡ BC Environment or designate will identify areas of high stability marten habitat.
- ⚡ In areas of high suitability marten habitat, manage dead and downed woody material and wildlife tree retention in harvested areas to maintain habitat (denning, hunting) for marten.
- ⚡ In areas of high suitability marten habitat, manage for a mosaic of habitat types and characteristics (vegetation types, age class and spatial distribution) and stand attributes that mimic habitat suitable for marten.

A considerable amount of information on TEM was provided in the tour handout, whereas the following comments relate mainly to discussion at the site.

Kerry led by explaining that the TEM provides a lot of information on the ecosystem and the plants that are contained within it. As a general rule, he said, if you are 60% correct with TEM you are doing well; while quality checks on the TFL 30 TEM show that it is 85% correct. This, he said, is phenomenal, especially given the large number of polygons (over 20,000) and plots involved. Some of the features covered include wildlife suitability, pest impacts, biodiversity, silviculture, and fine-fuel fire loading.



Bonnie Hooge studies TEM handout

We looked at such vegetation features as Devils Club and Lady Fern and discussed how rare plant communities have been mapped and can be accessed. This, Kerry said, means that we can look at protection measures before going out into

the field and can therefore be much more proactive.

The use of marten as an indicator species was discussed. Marten was chosen because it likes the TFL 30 forest type and because of the LRMP objective to maintain marten habitat. That being said, marten habitat will drop as a result of harvesting – the key is to determine what the threshold is. It is not realistic to increase marten habitat in TFL 30 where managing for timber production is the priority.

Don told us that 15 years ago forest practices of the day were bringing down marten populations at a high rate. He said that certain features were required to stop this dive, including leaving coarse woody debris, providing movement corridors, and ensuring land that is suitable for marten prey species. One approach, he said, might be to do something with a given plot of land so that in a 100-year rotation marten can use it, say, for 20 years instead of 10 years. Don noted that for unknown reasons, the winter of 2001/2002 was particularly bad for marten, especially in western Canada. No one knows why – it was not a lack of squirrels or mice, for example, but trappers are seeing numbers reduced from say 30 to 12. This, he said, is an indicator sign of a population in distress, and trappers are cutting back on their take accordingly.

Kerry asked whether a forest company such as Canfor should just manage for habitat, or go one step further and ensure that the animals are really there. Part of the reasoning behind this question was there was some feeling in the PAG that other indicator species should be inventoried. Don responded that he felt there was a limit to what

forest companies should do, but that they should have indicators and do inventories.

Certification is pushing increasingly for social objectives, and yet there are many possible factors involved such as disease and climate change. How much do you put onto the forest companies versus government responsibility? Don replied that the companies must manage the habitat and the way they change it, but if we have crown ownership, government should set the objectives, conduct inventories and determine if the indicators are working.



Kerry explains maps & inventories

The tour stop ended with a short discussion about problems of private land and gates. This is not yet an issue in TFL 30, but there was concern about any move in that direction.

### **Stop 8: Older regenerated area**

Stop 8 was to have been an older cleared area near Kilometer-49 on the North Fraser Forest Service Road near the north shore of the Fraser River; possibly an old homestead site. This was of interest because the site has 60 to 65 years of growth and is in “amazing shape,” despite just having been logged and left. Since it was a general interest stop that was out of the way, and because we were already an hour behind schedule, it was decided to discuss the site briefly at the end of stop 7, and bypass the actual stop.

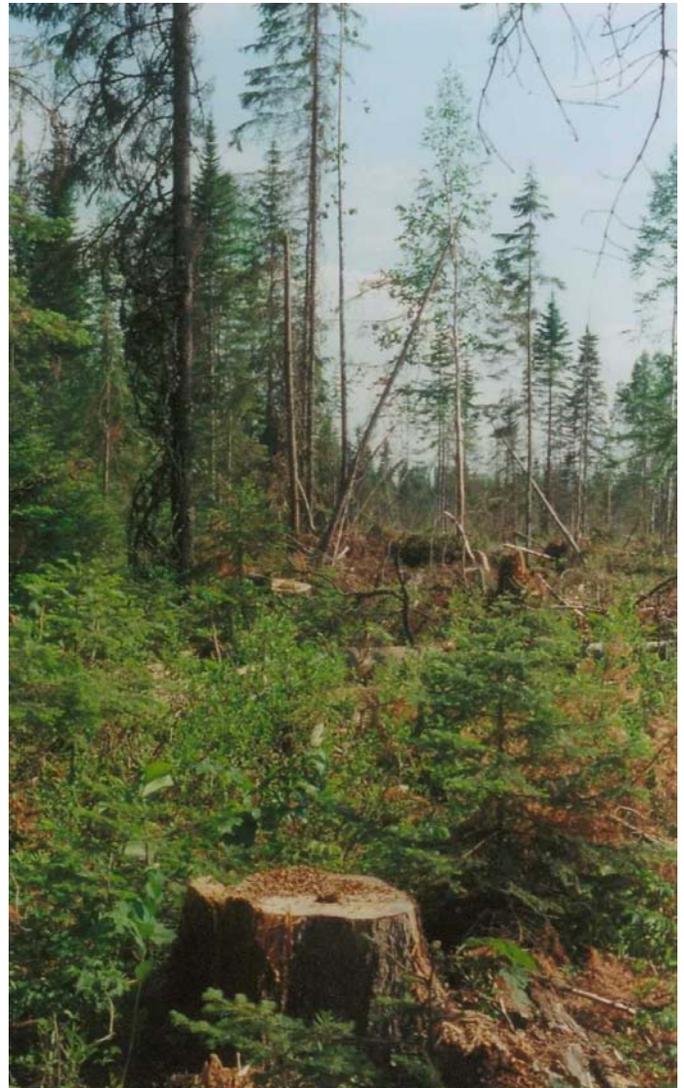
We then headed back the way we had come to the final tour stop at a recently logged block on the Church Road, north of McGregor. We could not complete a shorter circuit via the North Fraser Road to Highway 97 because of a washout.

En route to the last stop we drove past magnificent old stands of Cottonwood trees near the McGregor River that were perhaps reminiscent of what Prince George might have looked like 200 years ago at the confluence of the rivers. We talked about the alternative values of the river flats and the desire to preserve some of them. This had been a topic of discussion in the PAG, and Kerry indicated that no development was planned there yet, and he thought that some form of protection would eventually be achieved. In hindsight, some felt this would have been an interesting tour stop.

***Stop 9: The future – forest practices code to results based code; sustainable forest management plans; McGregor Model Forest phase 3, beyond the boundaries***

The final stop of the day took place in a newly logged block that showed evidence of improved (present day) practices such as those discussed earlier in the tour. Here we considered how the RBC might change how forestry is managed. The relevant statement in the Prince George LRMP document was: “All land and resource developments shall comply with the existing regulatory framework including relevant legislation, regulation and government policy (page 16.)”

Shannon opened the discussion by reviewing the tour handout’s comparative table of Forest Practices Code (FPC) versus RBC requirements. The five-year Forest Development Plan, for example, is replaced with the Resource Development Permit. The Silviculture Prescription (SP) is not required under the RBC, but may still be done outside the approval process. Cutting Permits and Road Permits no longer have specific content requirements, but will be checked for certain infringements. Professional reliance was important in the past for both the submitting and approving professional foresters, but with MOF no longer checking and approving SP’s this will take on much greater significance.



Jeff noted that the main benefit under the new code is that minor changes no longer have to go through permit changes. Under the RBC, as long as the plan continues to meet the original objectives the forester can go ahead and make changes to it. Under the existing FPC, a simple change of equipment used on the block that we were standing on would require an amendment to the SP.

Esther was concerned that the real effect of the RBC is to offload changes to industry, and while a large company like Canfor can afford it, small woodlot operators might not be able to. Those who developed the RBC didn’t consider the small

woodlot operator, she felt. As well, she was concerned that a small operator will no longer be able to go to the MOF and ask for advice as in the past. She noted that the code also applies to grazing tenure in that the tenure holder has to develop range-use plans.

The woodlot program is put further in jeopardy by markets, stumpage, and the beetle uplift. Professional reliance means more accountability for the professional forester, and woodlots will have to hire more RPFs to do the work for them, which may run counter to some of the original thinking about woodlots. It is easy to make mistakes in the bush, especially for small operators. Kerry acknowledged that while Canfor has built systems as part of its ISO 14001 certification, a lot of small operators might lack that capability.

Tony commented that it all comes down to the capability and knowledge of staff, and Jeff observed that under certification even the equipment operator has to take training. Jeff cautioned, however, that we aren't there yet with the RBC white paper.

Kerry felt that the future is a push towards certification, citing the SFM plan developed for TFL 30 a year ago. The move in certification is away from the 'how to' approach to having lots of specific indicators – a lot like the RBC. Canfor, he said, is looking to expand its certification to other areas and is seeking partners. In the future, the company will work with and/or partner with First Nations, woodlots, and other licensees.

Kerry indicated that Canfor surveyed its professional foresters and foresters in training, and also held a one-day workshop. In analyzing the results, there was quite a favourable response for the RBC largely because of the support of the Company in the form of internal training and mentoring programs. Jeff wondered if a smaller company might tell the RPF to take his chances instead of providing this support structure, and the

author later heard this concern expressed by foresters who were in that type of situation.

Kerry noted that the McGregor Model Forest is moving to a third phase and is looking beyond its boundaries with regard to SFM, collecting information and community involvement. Again, the big change that has happened is setting measurable targets and indicators.

The final tour stop concluded with a brief discussion about the future of the LRMP. Some thoughts expressed were:

- /// We have learned to respect others' opinions.
- /// The LRMP may be overtaken by other developments, the RBC and certification.
- /// We should continue with at least one annual meeting.
- /// The TFL 30 PAG was impressive, but it may take a while for the RBC to take hold.
- /// The best people to speak for the future of the LRMP are its members, not government staff.

Rip summed up many feelings by emphasising that it is important for the LRMP to continue.

## Summary Comments of Participants

During the latter part of the tour, I took the opportunity to gather overall impressions and opinions. These are essentially unedited in the order given and are presented without attribution:

- // Speed up the tour stops; otherwise I found it very interesting, especially seeing different types of area as well as new country.
- // It is valuable to hear the views of different people – it challenges you to think harder of other things – broadens one’s perspective – quite useful.
- // The field tours have now visited most of the vital parts of the LRMP area. It is good to see on the ground what we talked about in the meetings – an absolute necessity to put things in perspective.
- // This tour was more business oriented and more technical than previous tours. Having now seen Canfor’s TFL 30, on the next tour we should look at areas that the MOF is handling.
- // Federal tax dollars were used on TFL 30 through the McGregor Model Forest, but Canfor did well, also.
- // What about small business? Is the government committed to small business? So much forest is committed to long term tenures. (The TFL is a 25-year term, renewable every five years for a further 25 years. Forest licenses are good for 20 years and are also replaceable every five years.)
- // The amount of resource management required seems to be inversely proportional to the resource available.
- // I quite enjoyed the day – it was nice to see some of the things that Canfor is taking into account. They appear to have a good handle on what they are doing. They appear to be taking into account environmental factors, and are working within the spirit of the LRMP.
- // Focussing on TFL 30 was a worthwhile aim – each tour stop built on the others.

- // Well organized, and the handouts were a good refresher.
- // Glad we included recreation sites – good discussions. I am a little apprehensive about all the ongoing changes.
- // The new information presented will be useful.
- // I’m constantly amazed at the core group that comes out and I enjoy the variety. I wonder about the future of the LRMP – where it’s going; how long it will be used.

Participants again felt that the tour was well organized, with credit to Shannon Carson, Jeff Burrows, and in particular to Kerry Deschamps.

### ***Comments made following the tour***

Additional comments on the field tour were offered at the LRMP meeting on the following Monday evening:

- // Could something have been done sooner to stop the mountain pine beetle?
- // The tour was a good refresher on the RBC for small operators.
- // It was informative travelling through Don’s trapline.
- // The stops to look at the Spruce bark beetle and Spruce leader weevil problems were worthwhile.
- // Kerry did an excellent job – knowledgeable – good presentation style expounded plainly and simply so that everyone could understand.
- // Having the map was helpful this time.
- // It was interesting reviewing the proposed changes in legislation.

Finally, the group considered possible destinations for next year’s tour. Two options were proposed. The first was to use riverboats to access the Bowron, with stops including commercial use of ferns, guiding, wildlife (geese and ducks), Spruce trees left behind, Cottonwood stands. The other suggestion was northwest to Mossvale, with possible tour stops including timber, farming, trapping and guiding.

## Participants, with affiliation or area of interest

Victor Bopp	Citizen	Charlie Forden	Citizen
Ali Brost	Ministry of Sustainable Resource Management	Tony Hechenberger	BC Wildlife Federation
Shannon Carson	Ministry of Sustainable Resource Management (Field tour organizer)	Bonnie Hooge	North Rockies Ski Tours
Jeff Burrows	Ministry of Forests (LRMP Chair / field tour co-organizer)	Rip Kitchen	Woodsmen - Bear Lake
Kerry Deschamps	Canadian Forest Products (Field tour co-organizer)	Mike Nash	Recorder
		Esther Perry	Perry Brothers Contracting
		Ken Pickering	Trapper
		Jim Reid	Ministry of Forests (Small Business)
		Don Wilkins	BC Trappers Association



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## Tour map