



THE WOODLAND ALMANAC



www.woodlot.bc.ca

Winter 2016

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Sjoden Family Efforts Restore The Health Of The Forest



Carl Sjoden and his family enjoying the winter wonderland near Houston BC

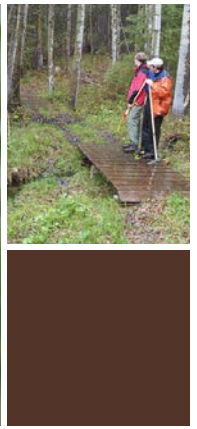
by Sara Grady

The Mountain Pine beetle is still in the news as the destructive pests continue their march eastward and new tracts of forest are consumed. It's easy to forget that forest operators in BC are still dealing with the aftermath of an infestation that leveled their livelihoods over a decade ago. But their efforts are most certainly newsworthy, including those of the Sjoden woodlot family.

Carl and Pamela Sjoden's Woodlot License #0124 is located five kilometres out of Houston, a small community on the Yellowhead Highway, nestled in the Bulkley Valley between Burns Lake and Smithers. The community's roots were planted with the expansion of the railroad at the turn of the century, and today its 3000-plus citizens and countless visitors enjoy the winding hiking trails and pristine lakes in the region.

The Sjoden family have been, quite literally, tending to W0124 since 1985. They approach forest management with the mindset of farmers, treating their 600-hectare woodlot like a giant garden. Interestingly, thanks to the technological aptitude of Carl's son Marselle, they've succeeded in combining boots-on-the-ground practices with computer-based inventory tracking and assessment.

cont'd on page 7 ...



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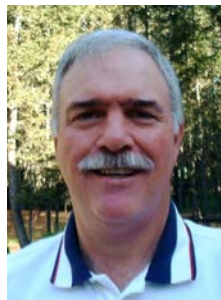
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Improvements for woodlot planning and practices

by Brian McNaughton

In August, the Forest Practices Board announced that it would be conducting a special investigation into the Woodlot Licence Program to determine if the roles and responsibilities of woodlot licensees, government and forest professionals in the Kootenay Lake TSA are clearly defined and understood, and are being carried out in a manner that ensures woodlot licensees are complying with forest practices legislation. From the Federation's perspective, such an investigation is timely. It's been over 12 years since the Woodlot Licence Planning & Practices Regulation came into effect on January 31, 2004 and even longer since the Forest & Range Practices Act (FRPA) was passed into law in November 2002. Over that time, there has been considerable progress, many challenges and obstacles have been overcome, but there is still room for improvement. The hope is that this investigation will be constructive exercise that will help identify FRPA's strengths and weaknesses and result in recommendations to improve woodlot planning and practices.

In retrospect, FRPA and the WLPPR represented a monumental shift in the culture and administration of woodlot licences and, of all the forest tenures, woodlot licences might have been the least prepared. Right up until FRPA and the WLPPR were implemented,



Brian McNaughton,
General Manager

woodlot licensees relied on the Ministry for information and guidance. In fact, the Ministry's Timber Management Manual described the information and technical advice that woodlot licensees would need to manage their WLS and identified the forest service person responsible for providing the service! Most WL licensees weren't prepared for freedom to manage, results based, professional reliance and compliance & enforcement; i.e. FRPA's administrative model. Where major licensees had the economy of scale, infrastructure and wherewithal to support such a model; e.g. experienced professionals on staff, WLS did not. The situation faced by WLS in the early days of FRPA provides important context for the Board's investigation. It is a contributing factor in how well (or poorly) the roles and responsibilities of woodlot licensees, government and forest professionals were defined and carried out.

The Federation provided support to the West Kootenay WL Association, met with the Board's investigators and made a formal written submission. No doubt the Board's report will be the subject of follow work with the ministry.

Even though the special report was still in the process of being written, Forest Practices Board representatives attended and made a presentation at the Annual General Meeting, and then met with the Federation's Board of Directors the next day. The discussion focussed on woodlot licensees' performance and findings from recent audits, performance trends, etc. The most common activities with performance related issues are:

- Reporting – mostly RESULTS but also waste and fire hazard assessments
- Reforestation – stocking but more often free growing
- Road & bridge maintenance and inspections
- Waste assessments & reporting
- Fire hazard assessments & reporting
- Fire tools

The Federation will be undertaking some actions to assist licensees to meet their obligations. Two such actions are already underway – the Getting RESULTS project and the recently released CP Reminders List which is available on the Federation's website – www.woodlot.bc.ca.

Best wishes to you and yours for a Happy New Year!

Brian ♦

Free Growing Declaration: On the Ground and On-line Reporting

by Mark Clark

I started off 2017 by making our first 'Free Growing Declaration.' Spending six hours trekking in the woods on a sunny day was great, walking the plantations, putting in plots and checking for pests. We knew the plantation was doing well, having watched and walked it a half dozen times in the last 12 years.



Mark Clark
President

The not-so-fun part was meeting our obligation to tell Government that all was well. At the same time as making the declaration, we decided to update and correct the information in RESULTS from 2003. This took about 8 hours. Most of the time was spent digging out archived paper maps, files, prescriptions and planting records. The \$80 bill from the computer guru to help enter the data correctly rankled a bit to be sure. But in the end, we now know our records are up to date, obligations have been met and inventory labels including site index and stand density descriptors are accurate. With any luck at all, our AAC will go up the next time an AAC calculation/determination is done.

I know you know about Getting RESULTS and are probably sick of hearing about it but please, if you haven't already, take a look at the summary report for your WL and address the reporting deficiencies – at least the ones for which you

are responsible. Also, please work cooperatively with your district staff to correct the issues with the data for which the ministry is responsible.

2017 promises to be a busy year for the Federation. For example, a few of the

key priorities and initiatives will be:

- Advancing the one authorization concept within the Ministry. We simply need to find a more efficient but equally or more effective way to administer WLs.
- Addressing waste; preferably by getting the flat fee for waste proposal (or something similar) approved.
- There were questions raised during 2016 about licensee performance including RESULTS reporting, fire hazard assessments, achieving free growing and road & bridge maintenance. The Forest Practices Board initiated a special investigation into WLs and the Federation will undoubtedly be taking action in response to the report, when it is released.
- There are a number of government programs, notably Forests for Tomorrow and the Forest Enhancement Society which

offer opportunities for WLs. The Federation will be working hard to access funding and other support that will benefit licensees.

With these priorities in mind, budgeting for 2017/18 is well underway. The Budget Review Committee, which includes representatives from the Federation and Woodlot Product Development Council (WPDC), is in the process of building this coming year's work plan, which includes reviewing last year's budget and spending. The Federation's priority list that was approved at the annual general meeting, input from Associations, the membership questionnaire, and advice from contractors and committees all factor into the plan. Once the committee has finished its work, the budget and plan will be presented for approval by the Federation and WPDC at the March 2017 Directors meeting, and if approved by both Federation and Council, it drives the organization forward into 2017.

If you aren't already, please get involved with your local Woodlot Association. Progress and the Federation's ability to accomplish things on your behalf are dependent on the strength of the membership.

Happy 2017 to each of you, and please stay safe.

Mark ♦

R & D Project Funding Available

The annual work plan has an allotment of \$5,000 for R & D Projects that will benefit woodlot licensees. If you have an idea for a project, submit a proposal to the Woodlot Product Development Council by January 31 to be considered in the next fiscal year work plan. Proposals will be reviewed by members of the Council and the Federation. The project proposal form can be found at: <http://www.woodlot.bc.ca/wpdc.html#projects> ♦

Confirming Stumpage Rates MFLNRO Harvest Billing system

by *Debbie Zandbelt, RPF*

The Harvest Billing system – is a government run website. It can be found at: <https://a100.gov.bc.ca/pub/hbs>. The good thing about this site is that it is a public site and secondly you don't need to have any username or passwords to access the wealth of information in it. You need your woodlot timbermark handy.



Debbie Zandbelt, RPF
Interior Timber Pricing
Coordinator

To confirm your stumpage rate:

1. Go to the home page.
2. In the lower half of the page locate “Other Queries and Menus”.
3. Under the section Other Queries and Menus (in green writing) select “Stumpage Rate Search”.
4. The information you need is your timbermark, species, product (logs), select a grade and scale date (use today's date if you want current information), and leave the rate return type as normal.
5. Hit the submit button and the information should appear.

Last Almanac article I started a series of information regarding scaling. Log scaling jargon seems to be high in the question bank lately, thus that is the topic of the month. Once again I landed on some relevant information from my predecessor Dean Daly. (Also from a Woodlot Product Development Council: Information Bulletin – Appendix 5)

The relationship between wood volumes and weight (log conversions) is extremely important to licensees in the Interior because most logs are weight scaled. Timber is bought and sold by the cubic meter or by the metric tonne. The relationship

between cubic meters (volume) and metric tonnes (weight) can be confusing and in some cases it can also cost the uninformed licensee considerable sums of money. Some terminology clarification may be helpful.

Stratums

Each mill has several log stratums which are sampled on an annual basis. Stratums are assigned to logs that have similar characteristics. Species, tree diameter and height, geographic location of the timber, and wood quality are only some of the considerations used to determine the stratum in which the weights of your logs will be averaged. This is done to provide more consistency in weight for a given volume. For example, small pine in the central interior has very different characteristics when compared to over mature interior cedar. These two species would never be in the same stratum but could be weighed at the same scale.

The following example is used to describe this further. Think of an elementary school that has seven classes with grades 1 to 7. If we selected 30 students, at random, from the entire school, and measured their heights to determine the average height of the students at that school, these numbers would be highly variable and possibly meaningless. However, if we say that each classroom is a stratum, and we take the average height of each classroom or in other words - only sample within that stratum, we will have much more accurate and meaningful information of the average height of each class (stratum). By Stratifying by class the average height of the grade 1 class

would not be lumped in with the average height of the grade 7 class, and our information would be more meaningful.

Sample Scaling

Each year mills must estimate how many loads they will receive in each stratum and provide this information to MFLNRO. This allows the MFLNRO to determine the sample frequency. Statistical analysis has determined that at least 30 sample loads are required to provide a precise estimate. Therefore, the minimum sampling frequency will be the estimated loads divided by 30. If the mill estimated that it would receive 2000 loads of small pine the sample frequency would be $2000 / 30 = 66$. What this means is that for the first 66 loads of delivered pine, one sample load will be selected. The process is repeated for the next 66 loads and so on through the entire year. The samples are selected at random and neither the log truck driver nor the scaler knows which load in 66 will be selected until it is on the scale. Each selected sample is spread out at the mill yard where a scaler measures the diameters and length to determine the volume (cubic meters) of wood in the sample load. While taking their measurements scalers make deductions in volume for rot and breakage. Now the information needed to determine log conversions is started. At the end of the year all the weights and volumes of the sample loads are tallied and the MFLNRO calculates the log conversions for that particular stratum. **Total weight divided by total volume = log conversion.** Kilograms / cubic meters = kg/ m³.

Obviously at the start of each scaling

cont'd on page 7 ...

Looking ahead and remembering the past

by Ed Hughes

Market Pricing System Advisory Committee (MPSAC)

Since the September “kick-off” the Market Pricing System Advisory Committee has been working towards an updated formula for January 1, 2017. Lots of conference calls and emails, which open as many stumpage impact variables for review as can possible. The ongoing process is very technical, with an extended due date of February 1, 2017.

The details of the MPSAC are held confidential, but one thing is for certain, the Industry and Government members are diligent and thorough in the review and analysis of every timber pricing detail. This annually repetitive process, is getting close to completion for another year.

Softwood Lumber Agreement

There are articles everyday regarding the SLA. The full range of concerns, that will impact our Timber Prices and Stumpage rates will be reviewed in detail in 2017. Coastal woodlot licensees need to start (most already have) looking ahead towards a time when markets might not be as strong (possibly due to the SLA), and when stumpage rate reductions/decreases could lag behind. If these SLA negotiations are anything like the last one, we can assume it will take a really long time to complete.

There are several implications that should be discussed by Woodlot Licensees, in relation to our log markets and stumpages. Call or email me with your concerns, so that we can collectively plan for SLA 2017.



Ed Hughes,
Coastal Timber Pricing
Coordinator

Coast Timber Pricing Advisory Committee (CTPAC):

The CTPAC meetings will follow the completion of the MPSAC meetings. This will be a good opportunity for the

Coastal group of licensees to consider:

- the future in the new light of an expired SLA,
- the risks involved with a good market,
- the concerns of increasing stumpage rates,
- how industry and government can work together on stumpage issues.

Flat Fee for Woodlot Waste:

Debbie Zandbelt is looking after this file during the Provincial Waste Manual review process that is ongoing.

Timber Pricing Conference calls:

One of the new initiatives over the past year is regular conference calls with the TP Branch Director and Manager. These calls are a great way to keep up with the current situations and for concerns to be expressed between the Branch and our Federation Timber Pricing committee. These calls provide an opportunity to discuss both coastal and interior Woodlot Timber Pricing priorities, with the Timber Pricing decision makers. Since the 2015 “mass exodus” of the TP branch staff, there is a replacement group (Steve Kozuki, Allan Bennett and Charles Klasen) who are now comfortable after more

than a year in their positions.

Murray Stech (Past Timber Pricing Director) Memorial:

Murray Stech passed away on September 20, 2016, after slightly more than a year of retirement. During the celebration of life, the standing room only crowd got a good chance to hear many stories of our past Timber Pricing director’s life. Murray will be missed.

New Appraisal Issues – Continuous communication

The Coastal Timber Pricing portfolio provides assistance to Woodlot Licensees upon request. If you have any concerns or issues I can be reached at 778-424-6129 or by email at ehughes2@shaw.ca. ♦

FBCWA Vision

Woodlot holders/owners will participate in a healthy and diverse forest industry with woodlot licences and private forest lands, making significant contributions to local communities and providing a sustainable supply of forest products. The FBCWA will have a voice in forest and economic policy. BC’s woodlots will be models of forest management excellence, and world-renowned for their social, economic, recreational, cultural, and educational contributions to rural communities. ♦

► From page 5

year there are no sample loads. The MFLNRO maintains records for stratum from previous years and generally sets starting stratum conversions close to where the new year of samples is expected. However it is important to note that starting stratum will change. This can have an impact on the stumpage you pay.

Another fact is that with a sampling frequency of one load in 66, as in the above example the chance of many or any of your loads being selected is very low. It is entirely possible that you will be paid on a log conversion even though none of your loads may have contributed to the sample population. This is why being in the correct stratum is critical. You must be paid on a log conversion based on logs with similar characteristics to yours.

Next Almanac I will focus on more detail of log conversions. In the mean time if any questions, please feel free to call or email at Debbie@woodlot.bc.ca ♦

► From page 1

They've walked every square metre of their woodlot and know the ground well, but also have detailed data regarding the density and species mix, thanks to Marselle's diligent mapping and the use of the Province's orthophotographic imagery captured by radar-equipped airplanes.

The Sjoden's were able to log a significant amount of their pine beetle kill while it was still viable timber. Since the family conducts all the logging themselves, they were also able to log more selectively around the healthy stands of spruce and balsam.

Their replanting efforts have focussed on rehabilitating the timber inventory but also on restoring the health of the forest. The vast majority of their plantings are spruce – a preferred species in lumber mills – which has the natural advantage of sharp needles, less appealing for the deer and rabbits who graze in the woodlot. The remainder is planted to pine, a “weed species” in Carl's words because it grows so voraciously on its own. It's rich in carbohydrates and, therefore, a favourite of ungulates. The fragile balsam, which relies heavily on protection against the elements from its sturdier cousins, continues only with the support of Mother Nature. By allowing some natural selection

and regeneration to occur the forest is given the opportunity to balance itself in the wake of such extreme deforestation, creating an ecosystem that will be more sustainable in the decades to come.

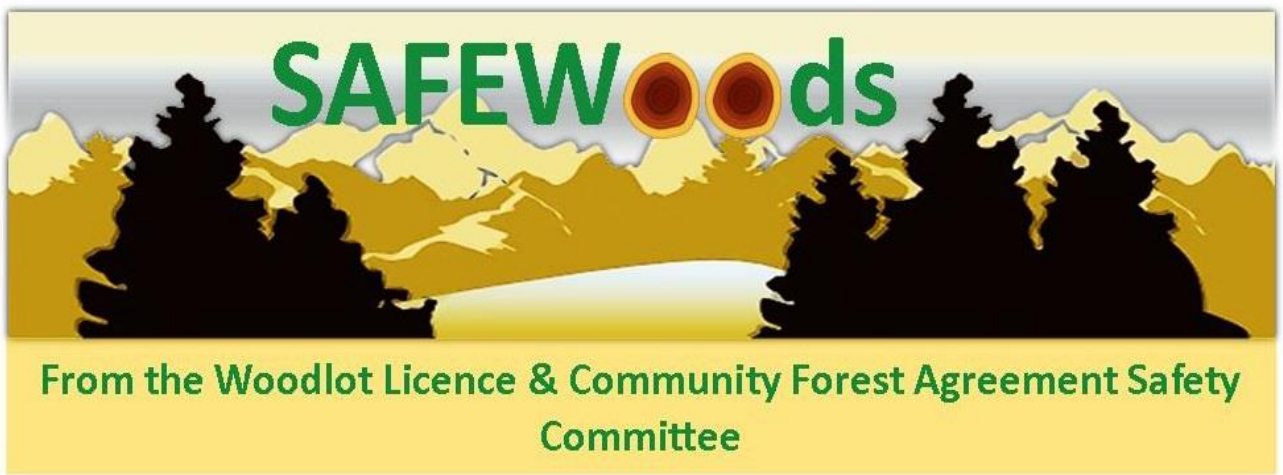
Planting is challenging. The woodlot is on a south-facing slope. The terrain can be extremely rocky, as well. The Sjoden family, including Carl's son Michael, along with a great many friends, have planted an estimated 182,715 trees since clearing out the pine beetle infestation.

Registered Professional Forester Alison Patch, who works with the Sjodens, marvels at the knowledge Carl and Marselle have when it comes to their plantings. They know each plot, when it was planted and by whom. Like diligent farmers they are invested in their woodlot very personally, looking decades into the future, and we will all reap the benefits of their healthy, thriving forest.

Note: An **orthophotograph** is an aerial photograph that has been geometrically corrected to compensate for the curve of the Earth's surface. It takes into account factors like topographical relief and camera tilt, unlike a traditional aerial photo, so the distances are completely accurate. Moreover, the images can be overlaid and refined by technicians after the data has been downloaded; these specialists will assess the orthophotographs and identify specific stands of trees, extrapolating from information provided through “ground truthing” (comparing the technician's assessment to actual conditions after walking the terrain.) This results in an extremely detailed and accurate snapshot of the forest floor, and is very valuable tool for professionals working in BC's forests. ♦

Purpose of the WPDC

The primary purpose of the WPDC is to ensure that levy fees are spent on woodlot licensee priorities to benefit and promote the woodlot industry throughout BC. Funds are collected through powers granted to Council under the Farming and Fishing Industries Development Act. ♦



Are you a Worker?

“Worker” includes;

A person who has entered into or works under a contract of hiring, written or oral, express or implied, including:

- i) Those persons undergoing training or probationary work specified or stipulated by the employer as a preliminary to employment
- ii) an independent operator




The key worker responsibilities are as follows.

Every worker must:

- 1) Take reasonable care to protect their health and safety and the health and safety of others.
- 2) Carry out his or her work in accordance with established safe work procedures as required by OHS acts and regulations.
- 3) Use or wear protective equipment, devices and clothing as required by the regulations and /or by operating procedures.
- 4) Ensure that you, the worker, are not impaired by alcohol, drugs or other causes.
- 5) Report the absence of or defect in any protective equipment, device or clothing, or the existence of any hazard.
- 6) Not remove or disable any protective device (e.g. guards, lockout devices).
- 7) Consult and cooperate *with all* worker health and safety representatives.

You have the right to:

- **Refuse Unsafe Work**

<p>1. Report the unsafe condition or procedure</p> 	<ul style="list-style-type: none">• As a worker, you must immediately report the unsafe condition to a supervisor or employer.
<p>2. If a worker views work as unsafe after a supervisor or employer has said it is safe to perform a job or task</p> 	<ul style="list-style-type: none">• Supervisors or employers must investigate the problem and ensure any unsafe condition is fixed.• This investigation must take place in the presence of the worker and or worker representative.
<p>3. If a worker still views work as unsafe, notify WorkSafeBC</p> 	<ul style="list-style-type: none">• If the matter is not resolved, the worker and the supervisor or employer must contact WorkSafeBC. A prevention officer will then investigate and take steps to find a workable solution.

- ***A Healthy and safe workplace***
- ***Safety training and orientation*** so that you are able to perform your duties in a safe manner, which includes being informed about any actual and potential hazards in the work place.
- ***Participate*** in workplace health and safety activities (e.g. safety meetings)
- ***Exercise these basic rights without reprisal***

Resources:

[WorkSafeBC](#)

[BC Forest Safety Council - Safety Resources](#)

[WorkSafeBC- Rights and Responsibilities](#)

[Employment Standards Act](#)



Woodlots: Beyond the Beetle with a Look to the Future

BC's woodlot owners gathered for their Annual General Meeting in Prince George this year, a fitting location given that it is the heart of the interior forest industry and has one of the largest concentrations of woodlot licences. And it isn't surprising that the theme was "*Beyond the Beetle*" with a look to the future for these forest managers now that the Mountain Pine Beetle (MPB) epidemic has run its course.



possible."

The good news story is that an inventory has been conducted on what remains of the forest and there is a "healthy"

mid term timber supply. However a new threat has been identified - the Spruce Beetle, with an infestation which has grown more rapidly than expected. "The Spruce Bark Beetle, biologically, doesn't operate the same as Pine Beetle. The beetles don't react the same way. So it should not spread the same way the Pine Beetle did. But it's not something that we're taking lightly, by any means" says Peterson. "The Spruce Beetle is going into some of the trees that were the mid-term timber supply and so it's just that much more important to be focused on it."

has everyone concerned. Bioenergy makes up a small part of the interior market by using waste material, but is a limited market for woodlots as the material must be close by and available in large volumes.



For many, silviculture (the growing and cultivation of trees) was of interest as licensees are required to re-establish the forest after harvesting. Not only are licensees from MPB country managing large plantations but they may also be faced with heavy brush competition from aspen. Hugo McLeod, Spectrum Resources explored brush control options to achieve "free growing" on woodlot plantations such as non-herbicide brushing techniques, herbicide treatments including aerial with helicopter and a combination of both.

The field tour on Day 2 took woodlot owners into the forest to three local woodlots impacted by the pine beetle where key points from the presentations the day prior were highlighted as well as management of a woodlot with a low annual allowable cut and various beetle salvage logging practices.



Top of mind was future timber supply as woodlot licensees looked to the folks of the Ministry of Forests, Lands and Natural Resource Operations (FLNR) in attendance to get a sense of post beetle harvest levels. FLNR Tenures Forester from the Prince George Region, John Pousette's presentation looked at all areas of the interior impacted by the MPB and predicted that wood fibre supply to mills will decrease with a deficit of 11 million cubic metres of timber in the interior by 2020 - 2022.

Dave Peterson, the Assistant Deputy Minister for Tenures, FLNR and former Chief Forester of BC was on hand for questions saying "they have known this for five to ten years but the focus has been on harvesting and taking as much pine beetle wood as

As a woodlot licence is a fixed area of land managed on a sustainable basis, a decrease in regional annual allowable harvest levels will not impact how much a licensee is able to harvest from their own woodlot licence. But the market into which they sell their logs will be impacted. Log buyers from local mills spoke on markets; current and future log demands and their need to continue purchasing wood for mills even in the face of an uncertain timber supply. They can no longer rely on dead pine beetle wood due to the poor quality, so are travelling greater distances to find wood. Log prices are strong right now but the expiry of the SLA



The independent watchdog for BC's sound forest and range practices, the Forest Practices Board, provided an informative



presentation on their audit process and what they look for under the Forest, Range and Practices Act (FRPA) regime, implemented over 10 years ago, touching on trends and findings in woodlot management.

The slate of speakers was rounded out by Murray Henry, Deputy Director of Wildfire Services who spoke on the importance of wildfire prevention and mitigation, wildfires on woodlots, many of which are located at the urban/wildland interface, prioritizing wildfires and allocating resources.



The stewardship video which throws a spotlight on woodlots exemplifying the mandate of the program featured the Willow River Demonstration Forest and Woodlot Licence #272 in the Prince George area managed by the Canadian Institute of Forestry. It is a leader in forest education offering public tours to adults and has been host to “A Walk in the Woods” to school children for decades.

Each year the Institute enlists volunteers from all parts of the forest industry, from silviculturalists to tree planters to loggers. While they get an education on the ways a forest is managed and subtle lessons about the pressures on BC’s forests



Minister’s Woodlot Awards for Innovation and Excellence

(Source: Province of BC Media Release <https://news.gov.bc.ca/releases/2016FLNR0234-001872>)

The Province is recognizing three woodlot operators for innovation and excellence in woodlot management.

Big Bull Enterprises, owned by Brian Harding and Darcy Nygaard, the Hupačasath First Nation and Bob and Dan Davidson have each been presented with the Minister’s Award for Innovation and Excellence in Woodlot Management for the north, coast and south areas, respectively. Big Bull Enterprises has also been presented with the provincial Minister’s Award for Innovation and Excellence in Woodlot Management.



In addition to the recognition, the three award recipients take home \$2,500 for each award presented to them.

Mike Morris, MLA for Prince George-Mackenzie, presented the recipients with their awards on behalf of Minister of Forests, Lands and Natural Resource Operations Steve Thomson while at the Federation of BC Woodlot Associations’ 29th, and the Woodlot Product Development Council’s 19th annual general meetings in Prince George.

“This year’s Minister’s Award for Innovation and Excellence in Woodlot Management recipients are exemplary in their leadership, innovation, forest stewardship and local community involvement. Congratulations to Bob and Dan Davidson, the Hupačasath First Nation and Brian Harding and Darcy Nygaard for setting environmental and social models for all woodlot licensees to follow.” ♦

such as the urban /wildland interface, climate change, wildfire and pests like the Mountain Pine Beetle – the most important lesson these hikers, young and old, take away is a deep appreciation for the sheer pleasure of walking in the woods.



BC’s woodlotters strive to keep our Crown forests thriving and healthy even in the face of the Mountain Pine Beetle and other challenges. It’s part of the social contract they signed when they agreed to manage one of the 860-plus parcels of timber that make up the woodlot community. ♦

Woody Debris and Connectivity Across Cutblocks

by Thomas Sullivan

Mammalian Carnivores

In terms of mammalian biodiversity, carnivores such as coyotes, red foxes, lynx, cougars, weasels, and American martens use woody debris, particularly logs, as habitat for denning, nesting, and foraging. Marten and small weasels (Fig. 1), in particular, are impacted negatively by clearcutting with loss of preferred prey species, den sites, and other components of forest stand structure. Habitat selection by these mustelids appears to be determined by the availability of appropriate food (small mammal prey) and access to nesting and resting sites, particularly in the winter. These attributes are essential for population maintenance. Mustelids are very dependent upon subnivean sheltered sites, and voles (genera *Microtus* and *Myodes*), notably red-backed voles are primary food items of marten and weasels. Resting sites and den sites for marten are associated with large snags, live trees, and downed hollow logs, underground access (especially in winter), and in constructed slash piles.



Short-tailed weasel.

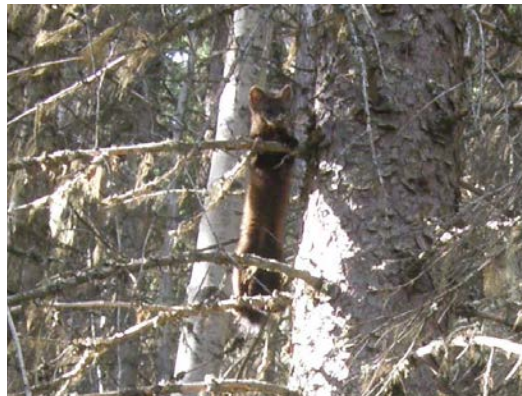


Figure 1. American marten.



Long-tailed weasel.

Response of Mustelids to Woody Debris Structures

Several studies suggest woody debris provides important microhabitat for foraging and cover attributes for these mustelids. Provision of debris piles and windrows on clearcuts (Fig. 2), and subsequently in young forests, may provide habitat for small mammal prey and marten and weasels. In work with prey species and winter tracking of some mammalian carnivores, significantly more prey species occurred in piles and windrows, while weasels and coyotes appeared to be more active near these structures. In addition to snow tracking, mustelid activity was measured by (a) direct observations of marten and weasels, (b) fecal scats; and (c) predation disturbance of small mammals. Populations of forest-floor small mammal prey species were monitored by live-trapping. Overall, activity patterns by both marten and weasels were more common where woody debris was constructed into windrows, as connective habitat between reserves of uncut timber, than in sites where woody debris was dispersed over a clearcut area.



WoodSourceBC.com is BC's online wood marketplace! Connect with over 350 members searching for an opportunity to buy and sell more wood products and services than ever before. WoodSourceBC.com is a free tool AND it's easy to use. Create your profile and start listing items for sale, items you want to buy, and searching for new business opportunities. Over 95 listings posted this last quarter. Join this growing network today. Visit www.woodsourcebc.com. ♦



Figure 2. Piles and windrow.

What to do? When and Where?

Plan piles and windrows for habitat structure and connectivity:

- Structures need to be created at the time of forest harvesting and log processing to reduce costs, maintain continuity of habitat, and provide sufficient woody debris.
- Create debris structures as piles or windrows up to 2 m in height and 5 m in width or diameter.
- Position wherever possible, particularly on sites remote from processing facilities + less fire danger from people.
- At least one windrow or a series of piles should connect patches of

mature forest and riparian areas to allow marten, fisher, small weasels, and prey species to access and traverse clearcut openings.

- Windrows should have openings about every 100 m to allow passageways for ungulates and silviculture activities.
- Where possible, harvesting plans will maximize retention of piles and windrows when operational roads are perpendicular to the main haul road system.
- Strategic need for habitat particularly important on large openings (> 10 ha) in conventional, but also much larger (> 100 ha) salvage harvesting

operations in beetle-killed as well as burned forests.

Thomas P. Sullivan
Applied Mammal Research Institute
Summerland, BC
tom@appliedmammal.com
www.appliedmammal.com ♦

Please help us out! If you are transferring or selling your woodlot make sure the new licensees get their own copy of the Almanac by asking them to send their contact information to the WPDC Coordinator. Also if you wish to remain on the Almanac's mailing list let Cathy know. ♦

MEMBER Reflections

The Woodland Almanac is always looking for creative submissions for "Member Reflections" related to small-scale forestry. We'd like to hear from you on stories from the woodlot or see your photos from the block. "Member Reflections" can also be used to share obituaries on licensees who are no longer with us. If you'd like to submit an article or photo, contact Cathy McClary at cjmccclary401@gmail.com.

Forest Industry Safety Alert

Resource Road Radio Channels Bulletin

This information bulletin was prepared by the BC Forest Safety Council (BCFSC); Ministry of Forests, Lands and Natural Resource Operations (FLNRO); and Innovation, Science and Economic Development Canada (ISED) clarifying the adoption and use of resource road radio channels in BC, as of October 26th, 2016.

Location: British Columbia

Date: October 26, 2016

Details: Revised resource road radio channel standard protocols have been introduced to BC in the last few years. The objectives have been to standardize and simplify a provincially consistent approach to radio communications in order to improve safety of travel on resource roads.

Most of the province has initiated and implemented new resource road radio communication protocols which consist of simplified and consistent procedures, standardized signage, standardized radio call protocols (including use of “up/down”), and establishing a standard bank of resource road radio (RR) channels.

The introduction of standardized resource road radio protocols has been a collaborative effort including: the FLNRO, ISED (formerly Industry Canada), FPInnovations, WorkSafeBC, BCFSC, forest and resource industry sectors, and other stakeholders.

The standard bank of RR channels has been assigned to FLNRO by ISED, to be managed and administered in conjunction with ISED. FLNRO will be responsible for operational administration, tracking and application of channel assignments in the field.

- The standard bank of RR channels consists of 35 road channels and 5 loading channels. The road channels are for communicating location and direction when travelling on resource roads. The 5 loading (LD) channels are for communicating on landings and staging areas to avoid congestion of RR channels. In addition to the RR channels, there are the 4 LAD channels which can also be used for communications. Any of the RR channels may be used for emergency communications such as in the case of incidents. Idle chit-chat is to be avoided when using any mobile radio channel or frequency which is intended for safety communications.
- It is important to note that there are only a relative few roads that are “radio-controlled” where use of a mobile radio is mandatory to communicate location and direction when travelling on a resource road. Most resource roads in the province are “radio-assisted” and there is no requirement to have and use a mobile radio. Additionally, resource roads on Crown Land, with some exceptions, are open to use by the general public that typically do not have mobile radios.
- **Those travelling on radio-assisted resource roads should not rely solely on mobile radio communications, and must drive safely according to road and weather conditions.**

Things to bring to your attention: Use the Resource Road radio channels or radio frequencies that are posted in the field. Do not solely rely on channel maps. What is posted in the field will govern over any map. Those using mobile radios for communicating on resource roads must call according to posted channels/frequencies and protocols.

- Not all resource roads around the province have been converted to the standard set of RR channels; some industrial users are still using pre-existing frequencies; for some roads, RR channels are being adopted as they become industrially active.
- The RR channels are available to all mobile radio users, and can be obtained through commercial radio shops, provided they have a radio license with the RR Appendix. Radio licenses are issued by ISED.
- RR channel maps have been developed as planning tools. However, these should not be solely relied upon to determine the appropriate channels in the field; what is on a map may not be posted in the field; mobile radio users should be relying on what is posted on the roads they are traveling on. Link to RR channel planning

maps: https://www.for.gov.bc.ca/hth/engineering/Road_Radio_Project.htm

- Programming of select channels into mobile radios (“cherry picking”) of channels is discouraged; all users are encouraged to have the full standard RR channel bank programmed into their radios by commercial radio shops.
- All resource road users in the affected areas should exercise additional caution during the transition period to new resource road radio communication protocols.
- A procedure has been developed for permanent and temporary changes to RR channel assignments. All changes require approval by the MFLNRO District Engineering Officer as well as ISED. This is a link to the [Channel Change Procedure](#)
- RR channel 13 has been removed from service due to conflict with an electronic system in certain Kenworth trucks. RR 13 should not be assigned or used until further notice; if assigned, please move to change the channel following the channel change procedure.

Frequently Asked Questions:

Do the new resource road radio (RR) channels affect private radio channels ownership and use?

A: The new RR channels do not impact private channel ownership & use. However, radio channel or frequency use must reflect that posted on the road being used or area being accessed.

Are there channels available for use in addition to the RR channels?

A: Yes, LAD channels can be used as an addition to existing RR loading channels when radio congestion is an issue.

Is the use of old channel/frequencies (i.e. legacy channels/frequencies Appendix 6) allowed?

A: Yes, the use of existing/legacy road radio channels/frequencies should be used where signage indicates. As the transition of the roads within the province to the RR channels will take significant effort & time, the ongoing use of traditional channels/frequencies is anticipated to decrease.

Can an RR channel assigned to a road be changed?

A: Yes. There is a procedure in place which details the required process to change/assign a temporary RR channel. Link: [Channel Change Procedure](#)

Who should I contact for additional information regarding the RR channels or communication protocols?

A: Contact: MFLNRO District Engineer within your area via Service BC 1-800-663-7867 or the BC Forest Safety Council’s Transportation Safety Program 1-877-741-1060.

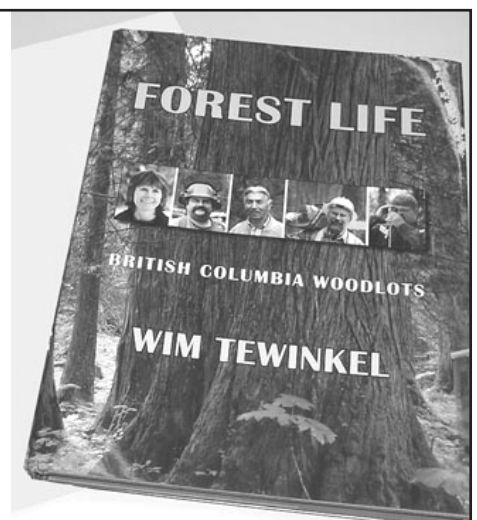
Additional information and maps on the initiative can be found at: https://www.for.gov.bc.ca/hth/engineering/Road_Radio_Project.htm

“Forest Life” makes a great gift

Are you looking for a great gift idea? Look no further! Forest Life: British Columbia Woodlots by Wim Tewinkel showcases and celebrates BC’s woodlots, woodlot licensees, and their families.

Through beautiful photos and a few words, this book captures the seasonal beauty of coastal and interior woodlots and portrays the landscapes and diversity of our forests as well as the stewardship of those who manage them.

You can order it from www.woodlot.bc.ca for only \$39.95, or woodlot licensees can buy it from their woodlot associations for only \$20.00 ♦



School House

This building has been the home for hundreds and hundreds of students of the Port Alberni Valley. It is solar powered for its electricity, has rain water collection system, heated by wood grown in adjacent forest and generates its own income from attached Christmas tree farm. It was built in 2008-9 with help from the grade nine students who continue to receive education at this fine structure. Today was yet another fine day of outdoor learning.

Funding to assist with the Project Based Learning program in Port Alberni is supported by the Woodlot Product Development Council. ♦

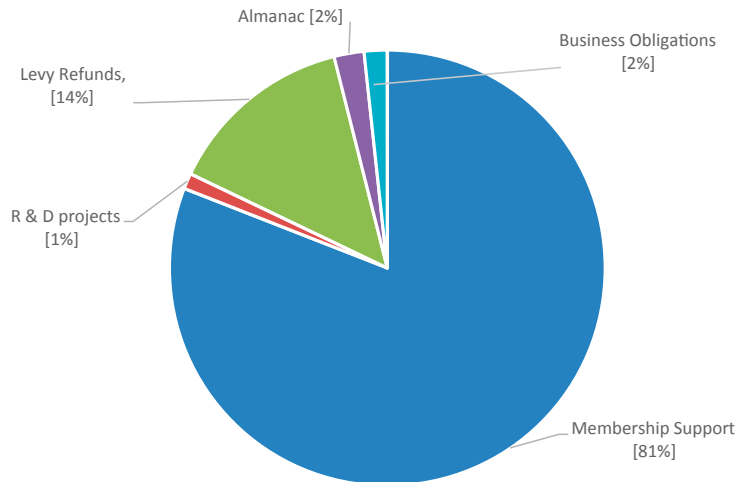


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Where your \$0.25 annual levy goes

The Woodlot Product Development Council has a responsibility to ensure funding originating from the woodlot levy is prudently managed and used only for work and activities consistent with the Purpose of the Council which are to: Promote a positive image of the woodlot industry and its products; educate the general public and buyers about the benefits of BC woodlots and small-scale forest management and initiate and support research programs for the development and enhancement of the woodlot industry in the province. The pie chart shows a breakdown of where the levy is used. ♦



Contractor's Corner

The FBCWA contracts a number of qualified people to work on projects that benefit all woodlot licensees. Projects are consistent with the activities approved in the annual work plan and are funded by the WPDC levy. In each issue of the Almanac this space will be dedicated to introducing the contractors, or FBCWA committee heads and executive members who oversee the contracts. Watch for a profile next issue!

Notice:

2017 SISCO winter workshop, to be held in Kamloops at the Coast Hotel, **Monday Jan. 30th - Wednesday Feb. 1st.** For more info email: April Anderson aaa@netidea.com or website: www.siscobc.com

Please note:

The opinions expressed in the Almanac do not necessarily reflect those of the Federation, the Council, or their members.



Links of Interest

- Our own website: <http://woodlot.bc.ca>
- The Working Forest newspaper offers an e-newsletter and a newspaper on small-scale forestry across Canada: www.workingforest.com ♦



The FBCWA has several items that would make great gifts for Friends, Family, Contractors and others on your list. Items in stock include Screen-printed logo on T-shirts and Coffee Mugs, Embroidered FBCWA logo on golf shirts, oilskin ball caps and knitted toques. Order through the WPDC coordinator, Cathy McClary. ♦

Selection Harvest: Does it Work?

by George Delisle, President Boundary Woodlot Association

Selection cutting or partial harvesting. Some cringe at the thought and some think that all our forests should have partial cut prescriptions. The truth is that only some of our forested landscape lends itself to selection cutting for various reasons. Approximately 20% in the Boundary Timber Supply Area are ideally suited, with another 20% requiring extra special efforts.

It is just as big a mistake to “Partial Cut” some thing that should have been “Clear Cut” as it is to “Clear Cut” stands that should have been “Partial Cut”.

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Some of the reasons that Partial harvesting may not work are as follows:

- 1) The terrain may be too steep for equipment to work in a safe manner and still save the residual stems.
- 2) The species mix is such, that some of them are shade intolerant and will not respond in a positive manner.
- 3) Some species will sun scald if suddenly opened-up to direct sun due to the shade tolerant needles that have developed under the general canopy.
- 4) Depending on the degree the canopy is opened-up, the impact will vary depending on the aspect. A south facing steep slope will present real problems if it has a heavy canopy and is suddenly open to full sun light.
- 5) Depending on the stem to diameter ratio, stem collapse from snow load is a very real threat.
- 6) Wind throw is also a major

concern with poor height to diameter ratios with narrow crowns as their root system is generally equivalent to the crown diameter above them.

- 7) The main reason that partial cutting fails is that the prescription was wrong in the first place and then all these other factors come into play. What will work on one side of a hill will not necessarily work the same on the other side.

What are the benefits of partial harvesting?

- 1) The time frame until green up is reduced significantly, and with the right prescription, can be eliminated.
- 2) Biodiversity is best served with partial cuts.
- 3) Most “forest dweller” species respond better to disturbance, in areas with significant remaining cover to hide, breed and forage in.
- 4) Areas that are off limits to “clear cutting”, suddenly become a source of extra fibre.
- 5) Public acceptance is much higher for partial harvest systems in visual landscapes.
- 6) The rotation period to the next pass is a much shorter time frame.
- 7) Partial cutting opens-up the canopy, so more snow can reach the ground, and in the spring, makes for a slower and more even run off helping to reduce peak flow events.
- 8) Moisture from rain can also penetrate the canopy and more can reach the ground, especially the light rains which is especially important in low rain fall periods during the summer. With the right

prescription, the browning-off of the understory can be delayed by up to 3 weeks due to the shade on the ground from the remaining overstory, thus shortening the peak fire hazard period.

- 9) Partial harvest can reduce the fuel load and risk of catastrophic stand replacement fires.
- 10) Partial harvesting can treat much larger high fire hazard areas for the equivalent volume, compared to clear cutting, depending on the level of removal and significantly reduce the cost per hectare.
- 11) Initially road building costs are higher as more roads are needed, but this is partially offset at the next harvest entry. If roads are used as permanent cut block boundaries, lay-out costs can be reduced.
- 12) Easier long term planning since the roads and block boundaries are already established.
- 13) Allows for relatively easy application for a hundred-year rotation pattern. This idea may horrify some people, but it is possible.
- 14) One aspect, often over looked, with the advent of climate change and its potential to significantly impact future timber supply models, is that we can leave fully stocked stands with current species that may grow “off site” by the end of a full rotation if climate continues to change. These stands are still available for harvest in a partial rotation, avoiding the potential of investing in reforesting areas with today’s accepted species that will die off before the full rotation and the investment will be lost. The stand can be replaced at that period-in-time, with a

species more suited to the climate conditions at that point in time or expected to develop.

- 15) Most trees maximize their ability to store carbon at the semi-mature growth period. Partial harvesting can ensure optimum carbon storage and help reduce the carbon in the air.
- 16) On steeper slopes, snow creep can result in “hockey stick” butts on young trees, but with leaving enough stems on site, this can anchor the snow. There is a limit to what can be done on real steep slopes and the costs go up exponentially.
- 17) Bark Beetle trap tree programs work very well with partial harvesting.
- 18) With the right prescription, silviculture costs are reduced dramatically.

Enough of the good reasons, time for the down side of partial cuts.

- 1) Areas with root rot become a real challenge. Treatment for root rot becomes more limiting as the slope increases.
- 2) Depending on the type of root rot, partial cutting can make the problem much worse to the extent that very little commercial product is available at rotation age. This may be good for wildlife, but poor from a timber perspective. It can also increase fire risk due to fuel loading if infected dead trees are not removed.
- 3) Higher up front harvest costs, logging can cost up to \$8.00/cubic meter for felling and decking. The average extra cost should be in the \$3.00 to \$4.00 range. This can

be off set somewhat by reduced silviculture costs.

- 4) “Worksafe” people are usually unhappy with partial cutting for safety reasons.
- 5) Many examples of “Where it did not work”. Poor prescriptions result in the “Green Illusion” perception.
- 6) More certainty (we think) with our modelling process for clear cutting than for partial cuts.
- 7) Higher initial lay out costs.
- 8) Higher initial road building costs for first pass areas.
- 9) Blow down events make salvage much more difficult and expensive.
- 10) Reforestation can be more expensive if the blow down event and subsequent salvage takes the remaining stems below minimum stocking.
- 11) More volume loss can occur in blow down areas due to breakage, demonstrating why it is very important to start with the right prescription.
- 12) Bark Beetle problems are magnified in damaged stands that are not salvaged right away.
- 13) Multilayered stands are much more susceptible to defoliators that spread by the wind and gravity on small silk lines to the understory below. However, a well spaced multilayered stand recovers very quickly and generally has very little mortality. It is one of nature's methods of pruning, all be it rather a crude approach.

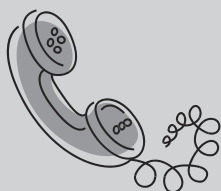
The Bottom Line.

The bottom line is there is no “Black and White” in forestry. There are

only shades of “Gray”. It all depends on which shade you like, and which shade will work best in your area. If we can demonstrate to the public just how well partial harvests can work, it may open the prospect of starting to have harvesting in our park systems where the objective should and must be “Forest Health”.

We can all point to poor examples of selection harvest but how many people point to good examples and learn from what worked? Every area is different and the harvest prescriptions need to reflect that. I can show you good examples of partial harvest in a stand that contained a good cover of Cedar understory underneath a stand on mature Douglas Fir, Lodgepole pine, Western Larch in the transition zone to the IDFdm and the Msb biogeoclimatic zone. Where the Cedar was spaced out after harvesting the over story, the Cedar released dramatically. I can also show you Douglas Fir/Western Larch stands that have preformed beautifully. Even high elevation Spruce/Balsam stands that have done well. At the end of the day, nothing is free, and every thing is worth trying to figure out what is the best approach, given the constraints we must deal with. For a change, ask the forest what it is saying, instead of trying to force the forest into the “Virtual Forest Management World” that has developed.

I would be more than happy to set something like this up through the Federation, should there be enough interest in going out for a couple of days to view different examples of good success and examples of failures. I welcome your participation. ♦



Telephone Support for using the Woodlot for Windows AAC program is available to all woodlot licensees or their representatives.

Contact Mike Bandstra ph: 250-847-4822 fax: 888-273-0209
email: mbandstra@forsite.ca ♦

Woodlot Wanted in Southern Interior

If you are interested in selling your Woodlot license in the Southern Interior, please contact Ryan Potter 250-306-9995 or sleddr@gmail.com

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Thank you to our contributors for this issue:

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Thomas Sullivan
Debbie Zandbelt

Advertising Rates

As a service to FBCWA members, the Woodland Almanac will make space available for non-commercial ads, free of charge. Commercial advertising space is also offered to enterprises at the following rates:

Business card.....	\$50	Quarter page	\$135
Half page.....	\$175	Full page.	\$250

There is a 10% discount for ads appearing in two or more issues. A complementary annual subscription is mailed to all advertisers.



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