

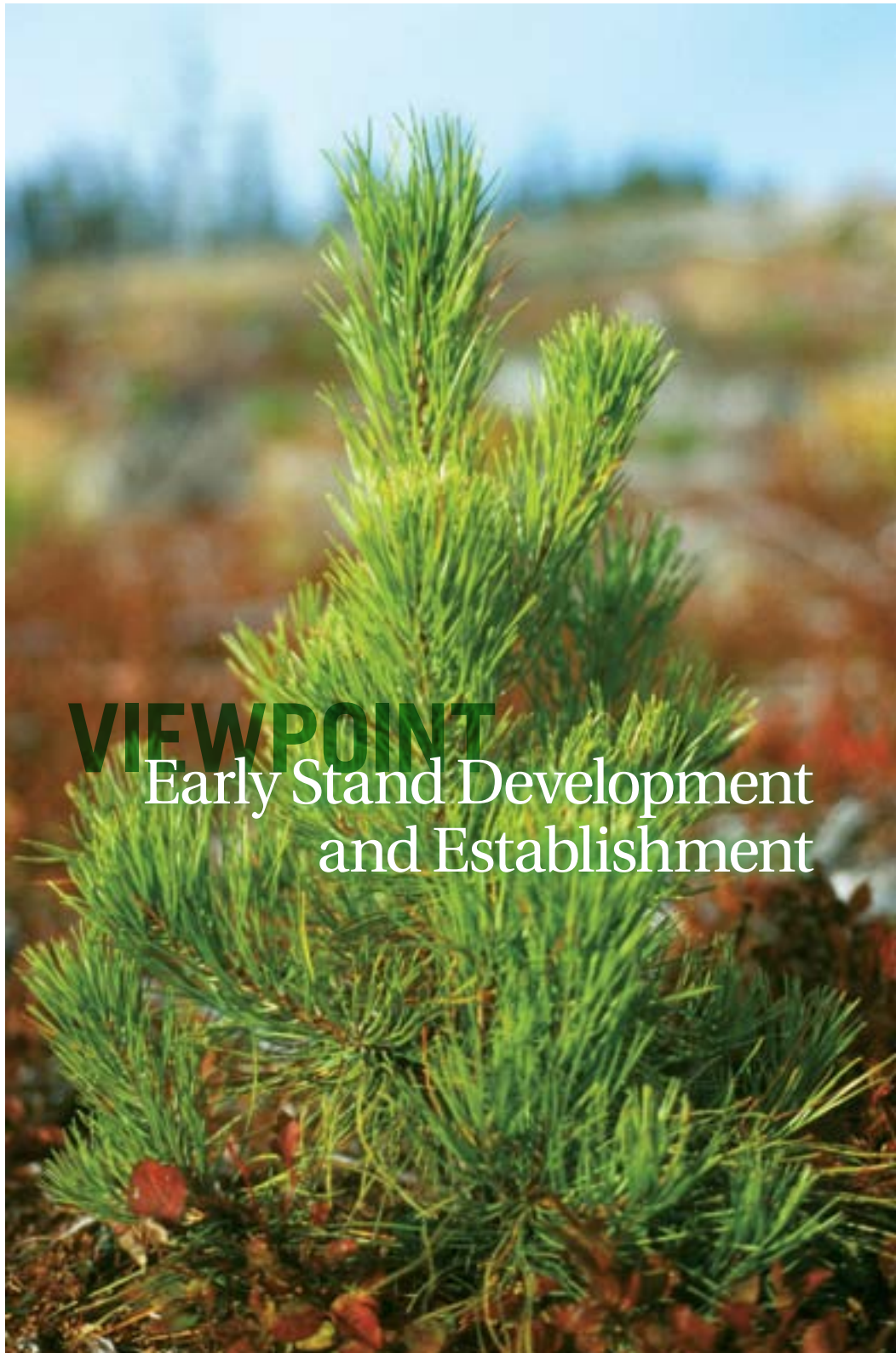
SEPTEMBER - OCTOBER 2011

BC Forest PROFESSIONAL

Special Feature
**Forestry Team in
Action**

Tips and Tricks for
Exam Writers

The Legal Perspective:
**The Inherent Neutrality
of Appraisals**



VIEWPOINT

Early Stand Development and Establishment

Use your Radar to stay safe

Controlling the dangers of your job means keeping a sharp eye out for them. But spotting a hazard is just the beginning. You need to judge the odds of it hurting you or other workers. Then you need plan and take effective preventive action.

Forest workers need to do more of this. Serious injury and fatality reports show lives disrupted or lost because hazards aren't identified, assessed and dealt with.

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Take control of your safety.



BC Forest Safety Council

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For full conference details, visit: www.apeg.bc.ca/ac2011

Growing the
Professional
Community

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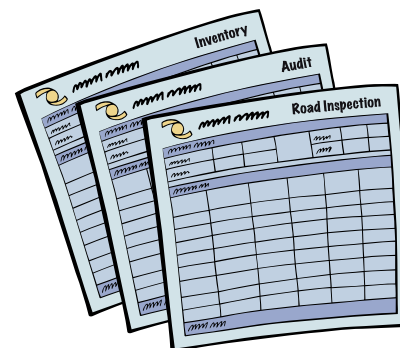
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A Perfectly Good Storm Is Brewing

Congratulations members, council and staff. We are growing and maturing as an organization. It looks like one of the early stages of this growth is going to be a 'stormy' stage. Hey, no problem. That's what it often takes for growth to occur.

I read the July/August 2011 edition of **BC Forest Professional**. All of the letters, our President's Report and the CEO's Report are worthwhile reads. The people who wrote these articles all took the 'high road' of professionalism. They presented facts in support of their opinion. They presented passion in what they believe is important. Where they disagreed with others, they kept the disagreement professional, not personal.

One last comment. In regards to the Alternate Complaint Resolution Settlement summary presented on page 29, I would like to see future presentations include a very brief 'Facts Summary.' Things like the length of road at issue, the size of the area harvested, the duration of the physical site events, etc. are relevant facts that provide important scope and context. Yes, I can go to the website to find this information. I may or may not spend the extra time it takes to do this. Perhaps future complaint resolution summaries will provide an up-front, transparent presentation of this information instead.

RODERICK BRUCE MEREDITH, RPF(RET), TERRACE, BC



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Put in Your Two Cents

The **BC Forest Professional** letters' section is intended primarily for feedback on recent articles and for brief statements about current association, professional or forestry issues. The editor reserves the right to edit and condense letters and encourages readers to keep letters to 300 words. Anonymous letters are not accepted. Please refer to our website for guidelines to help make sure your submission gets published in **BC Forest Professional**.



Send letters to:

Editor, BC Forest Professional
Association of BC Forest Professionals
330 - 321 Water Street
Vancouver, BC V6B 1B8

E-mail: editor@abcfp.ca
Fax: 604.687.3264

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MANAGING EDITOR: Amanda Brittain, MA, ABC

EDITOR: Brenda Martin

EDITORIAL ASSISTANT: Michelle Mentore

EDITORIAL BOARD:

Colin Buss, RPF; John Cathro, RPF; Frank DeGagne, RPF;

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330-321 Water St, Vancouver, BC V6B 1B8

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Important:

Deadlines for Renewing Your ABCFP Membership Have Changed

The *Membership Renewal Policy* sets out how and when members must renew their memberships each year. In 2010, council amended the policy because the existing one spanned a six-month period and consumed vast amounts of administrative resources.

Before making any changes, council reviewed ten other professions and found that the ABCFP's renewal process was much longer than most. The average length was less than three months. The ABCFP's new membership renewal process spans four months.

The new policy is now posted on the ABCFP's website and can be found from the Policies page, under Regulating the Profession, and from the Steps to Renew page, under Members' Area. Links to the new policy will also be contained in the membership renewal notices that will be sent to all members in early October.

Here are the new deadlines for the membership renewal process:

Membership Renewal Process	Old Deadlines	NEW DEADLINES
A membership renewal notice is sent to each member.	October 1 st	OCTOBER 1ST
Annual fees are due AND, where applicable, self-assessment declarations or declarations of non-practise are also due.	January 31 st	DECEMBER 1ST
Administrative fee of \$50 plus HST is added to the fees of members who have not paid their annual fee AND/OR, where applicable, have not submitted their self-assessment declarations or declarations of non-practise. Notices will be sent to those members affected.	February 1 st	DECEMBER 2ND
Final deadline for membership renewal.	March 31 st	JANUARY 31ST
Any members who have not renewed will be struck from the register and notified accordingly soon thereafter.	April 1 st	FEBRUARY 1ST

If you have any questions regarding the new membership renewal process, please contact Lance Nose, director of finance and administration at lnose@abcfp.ca.

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President's Report

By Ian Emery, RFT



President's Report: Living Safety

As I work on the engineering side of forestry, safety is always at the top of my mind. Even so, I hadn't planned on writing about safety until council had dinner with Reynold Hert, then CEO of the BC Forest Safety Council, and heard the passion he has for safety. Reynold and the Safety Council believe that integrating safety as a way of doing business will lead to a more effective and efficient work place because a safe workplace means fewer injuries, higher production, lower costs and better worker morale.

Safety—what is our role as professionals? Ask yourself—what are the implications of my work on the safety of others who rely on my work: site plans, road designs, etc.? There are some people who believe the planner is responsible for all aspects of safety, that we wear super-hero capes and have the power to be all-seeing and all-knowing. I wish this were true; however, reality is not quite as romantic and planners are actually forced to

be generalists within our specialized areas of practice. We are part of the team that must consider safety but we cannot be the experts at all times.

Dennis Bendickson, RPF, wrote an article on road safety in the last issue of BCFP. He stated that it was the professional's responsibility to understand the limitations of the vehicles which would use the roads we build.

Professional reliance comes into play here as the experts who use our plans to build the roads or to haul or harvest are relying on us to be competent and knowledgeable of the processes and phases, the equipment limitations and the hazards that may affect them. However, I believe that professional reliance is in fact a two-way street in that we in turn rely on these experts to carry out our plans and prescriptions and, through their expertise, recognize safety concerns that may arise during operations. Because we don't have x-ray vision to see in the rock or that hidden snag, there are hidden hazards and risks that we couldn't see. We are relying on them to deal with the situation and mitigate the hazard or bring us back in when it is beyond their expertise. We also need to make sure that we tap into their knowledge, promote dialogue and include them as part of the forestry team.

For example, I remember engineering a difficult area and running several different options. Later, I met with the trucking contractor and yarder operator in the bunk house and discussed the different options. The next day I had an optimized road location for hauling and yarding thanks to their help.

Our role in safety doesn't stop with the plan or prescription but flows out into a larger

part of our work and personal lives. A statement that I have taken to heart and try to live by is from my employer's safety values and beliefs: "Each of us is accountable for the prevention of injuries in our sphere of influence."

I found it interesting that I gravitated to Dennis Bendickson's article on road safety—it wasn't until I had finished the article and took a closer look at the pictures that I realized they featured roads I was responsible for. One was from a maintenance and deactivation aspect while the other was the full responsibility of the location, design, construction and use. Much like the experience Dennis wrote about in his article, I too have visited an accident site. This one was also a fatality and it was my road, I designed it and supervised the construction. The steepness of the road was a contributing factor but the equipment maintenance and driver training were the main factors. "Competences, due diligence and professional reliance: when applied to roads, the stakes are high," writes Dennis – and he is correct.

What role do you play in safety? If you answered: "None, I just write the prescription it's the logger who has to coordinate the safety." Think again, I firmly believe that as forest professionals safety begins with us. We are usually the first ones into an area collecting the information and creating the plans and prescriptions for the people following behind.

It doesn't end there. We are the visible leaders of safety, if we don't show that we consciously thought about safety in the creation of our plans how can we expect those around us to take safety serious? 🍀



CEO's Report

By Sharon L. Glover, MBA

How the ABCFP Protects the Public's Interests in BC's Forests

The ABCFP has a duty in the *Foresters Act* to serve and protect the public interest. We do this by ensuring the competence, independence, professional conduct and integrity of our members and by ensuring that each person engaged in the practice of professional forestry is accountable to the association. I thought I would spend some time explaining the range of things we do to carry out this duty.

At the core of our discipline system is a team of dedicated volunteers who work on the Complaints Resolution Committee, the Discipline Committee and the Standing Investigations Committee who assess the validity of complaints, assist the ABCFP's registrar in his determinations and decide upon penalties and costs.

We have worked over the years to ensure our discipline system is transparent, efficient and fair to all those involved.

In addition to relying on our members and the public to bring forward complaints, we also work with the Ministry of Forests, Lands and Natural Resource Operations to examine all DDM (delegated decision maker) decisions that involve members to determine if a complaint should be launched. We look at the decision from all sides and examine what roles the members involved had. In the past year, the executive has reviewed 35 decisions and have requested a 'close review' of three. One of the close reviews resulted in the ABCFP following up with the involved members to discuss our concerns about their work and scheduling practice reviews to ensure that these members are practising to a professional standard.

There are a number of things that we do proactively to ensure that members comply with the *Foresters Act* and that we enforce the Act.

- We meet with our members both in their offices and in member meetings to remind them that they have professional obligations that must be met.
- We contact the Forest Practices Board and the Compliance and Enforcement Branch when we have concerns about the practices of tenure holders.
- We meet with unions, government employees, tenure holders and others to ensure that professional forestry is being practised or supervised solely by ABCFP members.
- We maintain a confidential practice advisory service which our members can call into to get assistance with practice issues.

Members have been asking for some way of holding each other accountable that falls between an informal conversation and the formal Complaints Resolution Process, so we've created a member accountability process that is open and fair for all parties involved. The idea behind the accountability process is that it strengthens professional reliance by giving members several options which fall outside the disciplinary process. However, if the result of the process is a finding of more serious problems, a complaint may still be launched. The new accountability process has five options:

- Informal agreement between members
- Formal agreement between members — the resolution is filed with the ABCFP
- Voluntary Peer Review
- ABCFP works with members to reach a consensus
- ABCFP coordinates a work review

We are confident that members will find the accountability process valuable. You can find more information on the website.

The protection of the public interest with regards to the practice of professional forestry is a shared responsibility. The ABCFP must enforce the *Foresters Act* and ensure the competence, independence, professional conduct and integrity of the members. The members are charged with following the bylaws and in particular the Code of Ethics and Standards of Professional Practice. This includes reporting poor practice, holding each other accountable for protecting the public interest and lodging complaints when warranted. 🌱

Good Luck to Exam Candidates!

The ABCFP council and staff wish all exam candidates good luck as they get set to write the registration exams on October 7th. See the article on page 20 for tips & tricks on writing the exam.

Changes to the Registered Members Change of Status Policy Regarding Leave of Absence

Council has approved changes to the Registered Members Change of Status Policy. The policy change reflects the recent changes to the procedures for reviewing members' change of status requests. Applications for inactive status, such as leave of absence, retirement or resignation, are now forwarded to the Professional Practice Committee to determine whether the applicant is practising professional forestry.

The changes to the policy will mean that:

- All leave of absences will be effective annually only up until the end of November each year (to the end of the Association's fiscal year).
- Members wishing to stay on a leave of absence for longer than one year must re-apply before the start of each fiscal year (by November 30th) for another leave of absence.
- Members who fail to apply for a further leave of absence prior to November 30th each year will be automatically reinstated to active status as RFT or RPF on December 1st.

The revised policy is available on the ABCFP website, www.abcfp.ca.

If you have any questions please contact the registration department at admissions@abcfp.ca

Mark Your Calendars for *Everything to Everyone: The Art of Forestry*

The ABCFP's annual conference and AGM is taking place in Victoria February 22-24, 2012. *Everything to Everyone: The Art of Forestry* will feature thought-provoking speakers, exciting entertainment and lots of time to network with your colleagues. The conference will be held at the beautiful Fairmont Empress Hotel and Victoria Conference Centre. Watch the next issue of **BC Forest Professional** for the registration brochure.

Business Resolution Information Package and Voting Eligibility

Voting is now underway for the business resolution on fire management which was brought forward at our annual conference, Wood is Good 2011, in February. The ABCFP council has released an information package to help members understand the resolution. The package is available on the ABCFP website.

Online and mail voting is taking place from August 19 to September 30, 2011. The vote will determine if the resolution becomes binding to the association. All active registered and retired registered members (RPFs, RFTs, RPF(Ret), RFT(Ret)) who are in good standing on the date of record (August 5, 2011) are eligible to vote on business resolutions.

BC Forest Professional Editorial Board Seeking New Members

The BC Forest Professional editorial board provides the editor with advice and guidance on content and production. The board is made up of association members who volunteer their time every two months to review

submissions for the upcoming issue and conduct a quality control check of the previous issue. Each year, the board also chooses the Viewpoint theme for each issue and selects the recipients of the Best BC Forest Professional Article and Best BC Forest Professional Letter awards.

Over the next nine months, **BC Forest Editorial Board** will be replacing several members as current members' terms come to an end. The board has a particular interest in recruiting RFTs and on-the-ground forests professionals. However, all ABCFP members are invited to apply.

If you are interested, please submit your resume and a cover letter explaining why you would like to join the editorial board to Brenda Martin at editor@abcfp.ca by October 5, 2011.

Entire Province Shares in Forest Capital of BC Honours for 2012

In honour of BC Forest Service's centenary anniversary, the ABCFP is awarding Forest Capital status to the entire province in 2012.

In previous years, communities named the Forest Capital of BC would host a full year of forest-themed events such as art competitions, interpretive forest walks and logger sports shows. This opportunity is now available to any community in BC for 2012.

We encourage communities to work together with BC Forest Service Centenary Society, their local Ministry of Forests, Lands and Natural Resource Operations office and other local groups such as community forests, local industry or Scout or Girl Guide groups.

Send us your ideas and we'll endorse them as official Forest Capital of BC projects and promote them on our website (www.abcfp.ca), in **The Increment** and in **BC Forest Professional**.

Look out for more details in the November/December issue of **BC Forest Professional** and on the BC Forest Service Centenary Society (www.bcfs100.ca).

Nominate a Colleague for an ABCFP Award

Each year at the annual conference, the ABCFP is pleased to present several awards to both members and non-members. You can nominate a worthy individual by visiting our website, www.abcfp.ca. (Click on the About Us tab and then select Our Awards from the drop-down menu).

National Forest Week and the ABCFP

National Forest Week is September 18-24, 2011 and the ABCFP has a number of fun contests for kids—as well as a special contest for members. Children between the ages of 4 and 12 can enter the art contest the ABCFP and Truck Loggers Association hosts each year. Members' children are welcome to enter (use the contest form in this issue of BCFP). Parents are encouraged to talk to their children's teachers about having the entire class draw pictures and send them into the ABCFP. The winning child in each age category will receive a \$50 gift certificate from Chapters. Older kids—ages 13 to 17—can enter the ABCFP's essay contest. By telling us what the forest means to them, teens could win the top prize of \$300 or one of the two runner up prizes of \$150. Members can enter a photo contest and see their photo on the front cover of BCFP magazine. The winner and runners up will also receive an ABCFP prize pack containing a shirt, vest and hat. Look for more details in the September 15th edition of **The Increment**. The deadline for award nominations is November 15, 2011.

Early Stand Development and Establishment: Pre-Free Growing

Photographer: Moresby Creative

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WALKING THROUGH A STAND THAT YOU HELPED TO DEVELOP CAN BE A WONDERFUL THING. EVEN THOUGH it is unlikely you'll be around when it comes time to harvest the stand (unless you have an unusually long career!), it is still a good feeling to know you are contributing to sustainable resource management in BC. In this issue, we examine early stand development and establishment, prior to free growing.

Because of the devastating mountain pine beetle infestation, BC is seeing a lot of rehabilitation work in impacted stands. BC's Chief Forester Jim Snetsinger, RPF, discusses the issue of not satisfactorily restocked area in the province. Jeff McWilliams, RPF, and Bruce Blackwell, RPF, write about the importance of considering all the factors in beetle-affected stands before pursuing any type of rehabilitation.

Next we look at early stand establishment in the south-central Interior and on the coast. Dennis Farquharson, RPF, tackles the subject in the Interior and discusses two operational challenges – forest policy and environment – that hamper forest professionals. On the coast, Rick Monchak, RPF, urges forest professionals to incorporate new ideas into their plans.

Finally, Kathy Swift, RPF, provides a summary of the decision support tools that exist for early stand establishment. She provides lots of websites to guide forest professionals to the right tools for the job. And Al Waters, RPF, reflects on how silviculture has changed over his career.

Also in this issue you'll find an annual favorite feature: Forestry Team in Action. You'll enjoy reading about some of the more unusual projects your colleagues have been up to including creating an interpretive forest in Mission, managing forest fuels in one of Canada's most famous parks, building log stringer bridges and establishing a tree nursery in Tanzania. 🌲



Not Satisfactorily Restocked (NSR) Area in BC

ENSURING STAND ESTABLISHMENT AND ADEQUATE DEVELOPMENT AFTER harvesting and disturbance is of utmost importance in managing, protecting, and conserving the forest resources of British Columbia. Therefore, I would like to offer my perspectives regarding the issue of reforestation and minimizing not satisfactorily restocked (NSR) lands in BC, particularly in light of current catastrophic disturbances such as mountain pine beetle (MPB) and wildfire.

It is too early to definitively determine how much of the mountain pine beetle impacted area will ultimately require reforestation funding because harvesting and regeneration of dead pine stands will continue for the next few years. Also, when considering the numbers associated with actual and potential NSR, it is essential to understand the assumptions that go into the numbers being stated. For example, what is the definition of NSR, how much area will regenerate naturally, and how much area will be harvested?

In BC, there is about 715,000 ha of currently identified NSR. This includes about 479,000 ha of recently harvested areas that are managed and reforested under legal obligations by tenure holders and BC Timber Sale.

The remaining 236,000 ha is made up of 149,000 ha of 'backlog' caused by disturbances (e.g. logging, wildfire) that occurred prior to 1987 and 87,000 ha from disturbances that occurred after 1987. The 87,000 ha of post-1987 NSR is identified from surveys and as surveys are completed on the areas of catastrophic disturbance the number of NSR hectares may increase. I will describe later what we estimate this increase might be.

To date, the Forest for Tomorrow (FFT) program has surveyed over 400,000 ha of mountain pine beetle and wildfire impacted stands. The NSR found in these surveys contribute to the post-1987 NSR.

From 1990 to 2001 the Ministry provided a complete summary of the status of productive forest land. This summary included 2.1 million ha of Low Site, and low priority sites. This 2.1 million ha is not included in the timber harvesting land base (THLB) that and does not contribute to the allowable annual cut. The stocking status on most of these areas is not a result of past harvesting. Of this 2.1 million ha approximately 300,000 ha is low productivity sites (e.g. coastal lowlands), 930,000 ha of non-commercial brush, (e.g. productive sites occupied by non-commercial species) and approximately 970,000 ha of non-productive brush areas (e.g. low or non-productive sites occupied by non-commercial species). These areas are a very low priority for reforestation. They are scattered, often remote, and very costly to treat and, as I said previously, these areas are outside the current THLB.

As of 2010, 17.5 million ha have experienced some level of MPB-caused mortality. Of this, 9.9 million is in the timber harvesting land base and 5.1 million ha of this contains more than 50% pine. The forest industry is focusing their harvesting on this 5.1 million ha and it is estimated they will be able to harvest and regenerate, with associated legal obligations, between 2 and 2.9 million ha of this area.

This leaves between 2.2 to 3.1 million ha that have the potential to become NSR. However, research and operational surveys show that about 70-80% of these stands have advanced regeneration in quantities that can regenerate these sites successfully. This results in an estimate of between 525,000 to 775,000 ha that could become NSR and could likely benefit from treatment. We estimate that a significant proportion of this area will not be practical to treat due to steep slopes, worker safety and site productivity.

The FFT program has focused approximately 143,600 ha of surveys on wildfire and immature MPB impacted sites that are most likely to have little advanced regeneration or lower natural regeneration potential. Of this surveyed area, about 34,300 ha have been identified as having planting opportunities. Over the past five years, FFT has surveyed over 400,000 ha and planted over 54 million trees on both non-salvaged MPB and wildfire areas.

Through our forest health overview surveys and the collaborative work between the wildfire management branch and resource practices branch, we are assessing the degree of impact of current and past insect, diseases, and wildfires to identify feasible and practical opportunities for rehabilitation.

In 2011/12 FFT will be surveying about:

- 150,000 ha of current and past insect, disease and wildfire impacted forests (operational ratio is between 1 ha NSR for every 10 ha surveyed to 1 ha NSR for every 4 ha surveyed depending on ecosystem)
- 100,000 ha for potential to improve growth rates through thinning and fertilization to offset impacts of current and past catastrophic events
- 80,000 ha of pre-1987 backlog NSR will be reviewed for current status
- 75,000 ha of plantations burnt in the 2010 wildfires in conjunction with the major licensees

However, regardless of the numbers or definitions being used to describe NSR, reducing the impacts of catastrophic disturbances such as wildfire and pest is a primary focus of the Ministry of Forests, Lands and Natural Resource Operations Land Based Investment Strategy.

In addition, collaboration between industry and government is focusing harvesting on MPB and fire-killed stands where we can capture



Photographer: Michael Bednar

current timber value and reforest these areas in a timely manner. It is particularly difficult to predict how much additional harvesting and regeneration will occur as a result of government and industry initiatives to encourage new uses of beetle-killed wood (e.g. new capacity, new products etc.)

In areas where it is clear that harvesting will not be an option (e.g. beetle killed immature pine), we are focusing our resources and using innovative and cost effective techniques to inventory and reforest areas that currently do not have adequate stocking.

It will take the collective effort of all forest professionals to address these pressing issues and I look forward to your continued thoughts and ideas on how we might best address these stewardship issues as they arise. 🌱

Jim Snetsinger, RPF, is BC's chief forester and his main duties include: allowable annual cut determinations, setting forest stewardship policy, establishing standards for practices and providing leadership to the Stewardship Division. Jim joined the BC Forest Service in 1986 after working with BC Hydro as a forester for about five years. He graduated from the University of Toronto in 1979 with a BSc in Forestry before starting his career with a Prince George forestry consulting firm.

NSR, Wildfires and Forests for Tomorrow

Since 1998/99 about 1.4 million ha has been potentially impacted by wildfire. This figure is for the total area within the identified burn perimeters. As wildfire does not burn uniformly through areas, it will leave some areas untouched and others NSR. Similar to action on mountain pine beetle, where feasible, the burnt areas are harvested and reforested by licensees generating legal reforestation obligations.

The Forests For Tomorrow program began in 2005 and the initial focus was on reforesting non-salvaged productive areas of the 2003 and 2004 wildfires. To date, the surveying and planting of the feasible areas within the 2003 and 2004 wildfires has been completed. With the very large wildfires of 2010 the focus of FFT will once again shift more towards surveying and rehabilitating the non-salvaged areas of these fires.



Rehabilitation of Mountain Pine Beetle Impacted Stands: Thinking Critically

THE REHABILITATION OF MOUNTAIN PINE BEETLE (MPB) impacted stands is essential to mitigating the economic, environmental and social impacts of the MPB epidemic. Over 17.5 million hectares of forest are damaged or dead. What will happen to these dead stands if they are left untreated? What can and should be done to rehabilitate these stands? These are complex, important questions which need our attention.

To date, the primary response to the MPB infestation has been to accelerate the harvest of dead merchantable stands. Logging and reforestation done under existing tenures has rehabilitated a significant portion of the impacted area. However, due to the magnitude of the infestation, there is expected to be a large area of dead stands that will not be harvested. These stands will exist on the timber harvesting land base and within areas set aside for non-timber values and will consist of mature and immature stands. As the uplift harvest declines there needs to be greater focus on what might happen to remaining stands which are not expected to be harvested, and what can be done to minimize future risks and maximize future benefits.

MPB-impacted stands often have varying degrees of living trees in both the overstory and understory. Residual overstory trees typically consist of non-pine species and smaller diameter pine (relative to the size of the dead trees). Of this sub-population, priorities for rehabilitation would be the stands not expected to have enough residual overstory volume to be merchantable in the near future.

These stands also have varying degrees of stocking of understory trees. There is a wide range of densities, distribution, species composition and health among these trees. Stands that have low stocking of understory trees and limited prospects for future ingress of naturals are potential candidates for rehabilitation. Decision-making in stands that have abundant understory stocking is more difficult.

Left untreated, the risk factors to residual stocking in MPB-impacted stands include:

- damage to the residual overstory and

understory from the breakup of the dead overstory;

- losses to the residual overstory and understory due to windthrow and snow press;
- long-term resiliency and quality of understory stocking dominated by moderate to low densities of lodgepole pine (these stands are susceptible to many forest health agents and damage from animals);
- long-term risk of widespread losses due to catastrophic fire resulting from the build-up of surface fuels and the related increase in fire severity; and
- concerns for the long-term productivity and resiliency of understory advanced regeneration dominated by shade tolerant species in ecosystems where the natural fire regimes are more frequent and lodgepole pine naturally dominates.

Given the scale and complexity associated with decision-making in MPB-impacted stands, it should not be expected that the existing free growing system developed for reforestation of harvested areas will provide an adequate framework. As forest professionals, we need to understand that good decisions cannot be based on only what exists now but need to consider what is expected to happen over the long-term. Also, the complexity of addressing these risks increases in the face of uncertainty about what is going to happen without intervention. A long-term analytical approach at the stand and forest level, utilizing risk-based techniques and considering both timber and non-timber values is required. This approach must consider the health, resiliency, and quality of future managed forests (both MPB impacted and non-impacted).

For example, while it may seem that the most cost effective strategy for MPB rehabilitation is simple replanting of the dead stands, there are many risks to this strategy. In addition to the previously listed risks, underplanted seedlings face competition from brush and damage or mortality from various animals. Even with conservative estimates for losses to these

factors, the preferred decision quickly changes to more costly regimes which typically involve removing most to all of the dead overstory. This emphasizes the need to further integrate rehabilitation efforts through trying to utilize as much of the dead material as possible.

While overstory removal can be used to mitigate many risk factors, some risks, such as fire, must also be addressed at the landscape level. Creation of fire breaks and concentration of treatment regimes which involve fuel mitigation can be used to reduce the overall landscape scale fire risk. If investments are considered in isolation of major disturbances like fire, we risk losing years of investment in a single event that will have compounding impacts on the mid-term timber supply. Policies such as retention of secondary structure, while well-intended, may create more hazardous fuels in the long-term and may support conditions for the spread of existing forest health agents.

At the stand level, even though trees are green, there may be significant losses in wood quality, value, and associated merchantability if the risks of ubiquitous disease vectors are ignored when considering silviculture investments. While the path of least resistance may seem the most cost effective in rehabilitating MPB impacted stands, experience and observation tells us that future disturbance events may be as damaging as the mountain pine beetle and again undermine our best laid plans.

It is clear that existing silvicultural techniques cannot address all of the issues that we are facing in the effort to address reforestation of these complex sites. Our approach will evolve over the coming years as we learn the most effective ways to ensure a resilient future for MPB-impacted stands. 🌱

Bruce Blackwell, RPF, is the principal of B.A. Blackwell & Associates Ltd., a forestry consulting company located in North Vancouver.

Jeff McWilliams, RPF, is a senior associate with B.A. Blackwell & Associates Ltd. specializing in strategic forestry planning and practices.



Reigniting Passion for Silviculture: Minimum Free Growing Can't Be Our Goal

TODAY MORE THAN EVER BEFORE, I BELIEVE THERE IS A NEED FOR FOREST companies to become involved in executing government funded silviculture treatments that will improve future timber supplies.

There is a need to reignite the passion for silviculture that existed in BC during the 1980s and 1990s. During the years the Forest Resource Development Agreement (FRDA) program was in operation, many excellent silviculture treatments were executed through a coordinated effort between licensees and the Forest Service. Is it not possible to recreate a similar scenario today where forest professionals who are passionate about silviculture can use their knowledge and talent to execute cost effective silviculture treatment through the land based investment program?

In 1974, when I first heard the word silviculture something clicked deep within me and I knew that I would spend the rest of my life practising the art and science of growing trees. Even in first year dendrology at the University of British Columbia, I would collect seeds from a wide variety of trees species, stratify the seeds and grow them into seedlings. As a summer student in 1976, I planted over 50,000 trees in Knight Inlet and Wakeman Sound, carried out juvenile spacing, and a variety of herbicide and manual brushing treatments. After graduating from UBC in 1978, I worked for the Forest Service Research Branch in Prince Rupert and was fortunate to learn ecological classification for highly qualified mentors like Dr. Jim Pojar.

My desire to be more involved with operational forestry was satisfied when I left the Forest Service in 1980 and took a position with Eurocan Pulp and Paper at Ootsa Lake. In 1982, I survived the West Fraser/ Eurocan merger and landed a position looking after silviculture for the Ootsa Logging division in the summers and harvesting during the winters. There I gained initial expertise in broadcast burning and bark beetle management.

In November of 1985, I transferred to Quesnel to look after West Fraser's silviculture program that was three times the size of the program at Ootsa Lake. With 30% of the harvest areas east of Quesnel being Devil's club site series, the challenges and rewards of achieving successful regeneration east of Quesnel were significantly greater than at Ootsa Lake. West Fraser had recently been awarded Tree Farm Licence (TFL 52) (east of Quesnel) and the consistent direction I received from the executive was to make TFL 52 the best example of silviculture management in BC.

TFL 52 contained extensive harvesting dating back to before the early 1970s and an enormous supply of backlog NSR and poorly stocked areas that begged for silviculture treatment. For a young silviculture forester the TFL provided perfect place to go to work and there was no mistaking who was responsible for silviculture on the area. We invested millions of dollars of FRDA and Forest Renewal British Columbia (FRBC) funds to improve the quality of regeneration on these areas through aerial spraying, excavator mounding, fill planting, manual brushing and juvenile spacing. This increase in silviculture activity required additional staff and talented individuals like Steve Mitchell (currently the silviculture professor at UBC) and Doug Routledge were recruited to execute large programs of aerial spraying and other silviculture treatments on backlog areas.

To prepare high brush hazard sites east of Quesnel for successful planting, we broadcast burned all summer. We would ignite newly harvested clearcuts during every available window from the time the slash became dry enough to burn in June until conditions became too wet to burn in October. Excavator mounding was also perfected in 1988 to allow trees to be successfully established on saturated horsetail sites. I will never forget the sustained rushes of adrenaline I would experience driving up the Barkerville Highway with a pickup loaded with drums of burning fuel and all the fire fighting tools it could possibly carry. In the good

ol' days being a silviculture forester was so much exciting fun it was hard to believe you would actually get paid to do this.

For me, being a professional silviculturist has always meant achieving excellence in reforestation success on every area I manage so that future generations may be blessed with the quality of forests that I had the wonderful opportunity to manage. I find it disheartening that some, if not many, silviculture foresters see their role as achieving the minimum free growing stocking standard at the minimum possible cost. The quality of the future forests we are leaving to our children is critically dependent on our initial reforestation efforts. The quality of a silviculturist's work affects the landscape for decades and there are few greater rewards than going back to an area you reforested and seeing a thriving new forest. 🌲

Al Waters, RPF, owns and operates A.J. Waters and Associates Inc. He plans to continue growing trees in his retirement and has established a Christmas tree farm on four acres just outside of Victoria.

I find it disheartening that some, if not many, silviculture foresters see their role as achieving the minimum free growing standard at the minimum possible cost.



Photos: Dennis Farquharson, RPF

Mother Nature Suffers Fools Poorly: Early Stand Development in the South-Central Interior

A YOUNG FOREST STAND, THRIVING AND IN STEP WITH ITS ECOLOGICAL community. It's diverse, resilient and growing well. What a beautiful thing! So, if we all know what this looks like, why is it that our well-trained eye is able to see so many warts on the plantations we visit daily, weekly, monthly? I believe that many of the 'warts' are due to the operational challenges. These come in two forms: forest policy and environmental. (Forest policy—we do it to ourselves. Environmental—it gets done to us.)

The operational challenges that arise from the realm of forest policy fit into two categories: cost and obligation management. The initiative for cost management is created by both the Ministry of Forests, Lands and Natural Resource Operations (MFLNRO) and the forest licensees. The MFLNRO does so by creating an aggressive silviculture cost

estimate through the log cost survey information incorporated into the stumpage system. The forest licensees do so by trying to meet their free growing obligations at the least possible cost—hopefully less than the silviculture cost estimate. As a result, the frequency and/or intensity of most silviculture activities have been cut back more and more with notable reductions in:

- The amount and intensity of site preparation, with an emphasis on none at all
- Planting densities, frequently from 1,400 or 1,600 sph (stems per hectare) to 1,200 and occasionally 1,000 sph
- Smaller seedling stock sizes, with lower per seedling costs

The second policy related to operational challenges is the forest licensees' goal to meet their free growing obligation. In some



Viewpoint

By Dennis Farquharson, RPF

biogeoclimatic (BEC) subzones several different regeneration regimes will all allow the forest licensee to successfully meet its obligation. In many south-central interior BGC subzones, this can be achieved more quickly, with less risk and often at a lesser cost, when lodgepole pine is the leading regeneration species. Unfortunately, the long term health of lodgepole pine is often not as good as the spruce or Douglas-fir as the young forests grow beyond free growing. Several recent studies are proving this. Further, most of the local climate change studies are suggesting that Douglas-fir will be much more resilient to the future environment than lodgepole pine. With this information, some forest managers are bumping up their percentage of Douglas-fir regeneration, but most are retaining a high enough percentage of lodgepole pine to meet the minimum free growing stocking.

The forest policy related operational challenges to early stand establishment and development have led to reduced plantation density and growth performance as well as reduced natural ingress along with lower forest stand volume, value and resiliency as it matures. While some changes to forest policy are being discussed in conjunction with climate change and lodgepole pine mortality studies, the progress is slow. There is, however, no forest legislation keeping silviculture managers from creating a stronger more resilient forest stand for the future—only cost. But the question is, how much ‘extra’ money should a forest licensee spend compared with their competitors in order to provide stronger forests for 30, 50 and 70 years from now?

The operational challenges associated with the environment are many, and occasionally are built upon each other. In addition, environmental challenges can manifest themselves or be made worse because of previous forest management decisions implemented on a particular forest site. While there are some environmental challenges that are not reasonably within our ability to manage, many others are, with appropriate recognition and thoughtful assessment of the regeneration site.

For example, one environmental challenge that cannot be reasonably overcome is very droughty or wet soils. Droughty areas are generally dominated by shallow soil over bedrock, high coarse fragment content, are flat or sloped often with south and west aspects, and a low density of small sized stumps. While seedling establishment may be possible, as the tree grows its moisture demand increases and when a relatively drier year occurs, it will succumb. The trees that grew here previously established after the adjacent trees, on better soil, grew large enough to shade this area. In contrast, seedling establishment on very wet soils is possible if naturally raised, often organic, planting microsites exist. However, if these areas are already fully occupied by competing vegetation such as twin flowering blackberry or alder, move on. It is not worth the effort and we do not have a mandate to change established riparian vegetation.

Then there are the places where there is only one chance to regenerate properly. For me this is the upper North Thompson Valley

(ICHvk1, ICHvk1c, ICHwk1, ESSFwc2, ESSFwcp2) with its cold wet soils, very productive growing sites, aggressive vegetation, deep and heavy snow, and moderate to steep slopes. In these situations, full and complete execution of the regeneration plan is essential with at least PSB412 2+0 seedlings, tea bag fertilizer, likely a herbicide treatment two years after planting and site preparation if at all possible. Do it right the first time, as the opportunity to fix a mistake is very difficult, very expensive and not very successful.

Then there are the environmental challenges that manifest themselves when forest management decisions do not align with the biology of the area. Silviculture managers will do well to remember that Mother Nature suffers fools poorly and she works 24/7/52 forever, to show us our mistakes. So that broken and snaky lodgepole pine planted a bit too far into the ESSF on a north or east aspect—what were you thinking? Or, how about the north or east aspect ICH or moist IDF area planted to lodgepole pine leading that is getting hammered by needle rusts as it grows past free growing? I hope you are not surprised. And what about mid and lower elevation warmer ICH BGC subzones planted to straight spruce—how is the terminal weevil?

Over the last decade we have seen/proven that we cannot protect the forests. The only reasonable approach is to create forest stands which emulate Mother Nature’s work, so that they will have the built-in environmental resiliency of natural stands to keep them safe over time. In order to do this we need to look for what is and not for what we think should be (Albert Einstein). I believe that the degree of site disturbance, amount of residual retention and species selection are three of the key factors to manage when establishing a new forest stand. 🌿

Dennis Farquharson, RPF, is a consulting forester/owner with over 20 years of silviculture experience in Kamloops North-Thompson area.

Glossary of Terms

Biogeoclimatic Ecosystem Classification System

ICHvk1: Interior Cedar—Hemlock, Mica Very Wet Cool

ICHvk1c: Interior Cedar—Hemlock, Mica Very Wet Cool – Cold Air Phase

ICHwk1: Interior Cedar—Hemlock, Murray Wet Cool

ESSFwc2: Engelmann Spruce—Subalpine Fir, Northern Monashee Wet Cold

ESSFwcp2: Engelmann Spruce—Subalpine Fir, Wet Cold Parkland

IDF: Interior Douglas-fir

Tree Seedling Description

PSB412 2+0: Plug styro block—4 cm wide by 12 cm long—two years in the nursery and zero years in a transplant bed.



Opening Our Minds on Trees and Tenure:
Early Stand Development
on the Coast



Viewpoints

By Rick Monchak, RPF

WE ALL AGREE THAT REFORESTATION IS THE MOST IMPORTANT STEP ON the path to free growing. Coastal sites can be very complicated, both ecologically and logistically. Challenging terrain is common. We must get it right the first time, and generally, we have. But, are we taking full advantage of new ideas in a changing environment? How do we learn and what performance measures do we use? Do we have the correct goals for our tenures? These are all important questions that we need to answer.

Reforestation on the coast has been in a constant state of change since the first tree went in the ground in the 1930s. Today, in addition to budget constraints, we have some significant challenges; principally climate change and forest health that will continue to drive change. Fortunately we also have many new ideas and opportunities to help us face these challenges.

Forest professionals are just now starting to consider climate change in their planting prescriptions. The need to build resilience into future forests is becoming well understood—and reforestation is where the rubber hits the road. Incorporating more species into prescriptions will reduce risk and add very little cost. Two coastal species that should be on every forest professional's radar screen are red alder and western white pine. Both species have been maligned for one reason or another—but these labels are changing.

In the case of red alder, the recognition of climate change has served to break down the barriers to growing alder that government had long supported. In fact, government is now openly asking why we are not growing more alder. Perhaps forest professionals need a bit more time to switch their thinking from killing it to growing it. The day will come where we will be successfully growing alder and conifers in intimate mixtures.

White pine is another interesting story. By every measure except one, white pine is a great tree. Now, thanks to the success of the provincial tree breeding program, white pine is able to overcome the blister rust that has, to date, kept it out of our planting prescriptions. White pine is another climate change winner.

Weevil resistant sitka spruce is now a reality. Browse resistant western red cedar is being developed. All of these improvements offer great opportunities for forest professionals to lower both their risk and cost of achieving free growing.

On the negative side, losses due to browsing are escalating. As harvesting of second growth increases, deer and elk are impacting plantations more than ever. Elk are of particular concern as there is no cost effective solution and there appears to be no consideration of forestry costs or impacts to allowable annual cut (AAC) in the continuing government program of establishing elk into new locations.

We all have different ways of incorporating new ideas into our programs. But hopefully, we all agree it is important to always be trying something new. Just remember that experience can be a hard teacher. Set up trials annually to try new ideas—keep the scale small and slowly incorporate your learning into your program. Participating in the semi-annual Coastal Silviculture Committee meetings is a great way to share and learn. Another opportunity, often overlooked by forest professionals, is to know where your trees are coming from. When was the last time you visited a nursery or invited growers to your plantations? Every time I visit a nursery I learn something. Understanding their business will help you do a better job of yours and vice versa.

Measuring the success of our performance in reforestation has always been around. Thirty years ago, survival percentage was the yardstick of choice. Today, survival is generally less of an issue than stock performance. How our trees grow after planting determines

how much brushing we need to do and how well they will withstand browsing. It also determines how well we meet our overarching objective of growing AAC.

One performance measure that is not often used, but tells a significant story, is years to breast height (Y2BH). Timber supply makes assumptions about Y2BH that are often very conservative. In reality, for many plantations, breast height is achieved much sooner than

predicted. Determining Y2BH will demonstrate that rotations can be reduced by two to four years. This is a nice way to increase your allowable annual cut without spending any more than you do now. All the numbers are in the surveys we already do.

And finally, a quick word about our tenure system. While the coast is mostly public land, it also has the highest proportion of private land of any region in BC. On public land, the goal of silviculture is to achieve free growing with minimal risk and minimal cost. There is little or no incentive for performing above the bar. On private land, silviculture is viewed by most landowners as a strategic investment. Silviculture on private land competes with other facets of the business for capital—that's the way it should be.

What is the future of silviculture in coastal BC? It's bright. But it would be much brighter if we could find a way to incent licensees to go above the bar. I know that this is not easy on public land but we should try to find a way to make this happen. Why not award any mean annual increment grown over and above timber supply expectations to the licensee stumpage free? Let's have the debate. 🍃

Rick Monchak, RPF, is an operations forester at TimberWest Forest Corp. He is also a member of the FRPA Coast Regional Implementation Team (CRIT) and the CRIT silviculture working group.

...the future would be much brighter if we could find a way to incent licensees to go above the bar.



Decision Support Tools For Early Stand Establishment

ONE OF THE KEY STEPS IN GOOD DECISION MAKING IS TO OBTAIN ALL OF the necessary information to help support the decision process. With this in mind, I will provide a brief insight into some of the available early stand establishment decision-support tools available to BC's forest professionals.

I would, however, like to offer a small caution—when looking for decision aids, it is important to recognize that such tools can only support decision making as far as the assumptions built into these tools will allow them to go. As someone who is involved in designing early stand development decision-support tools, I have learned the value of keeping the lines of communications open with various experts. Sometimes a good conversation in concert with the various decision aids can be of immense value in helping make a good decision.

Field Guides and Field Notes

There are many examples of field guides/field notes to support early stand establishment—from various forest damage field guides to short notes on managing various vegetation management complexes.

One of the key field guides that forms the basis of many early stand establishment decisions are those associated with the Biogeoclimatic Zones of British Columbia (or BEC guides). These guides provide a range of climatic and geographic conditions that currently affect the various tree and plant species found in defined areas of the province using a structured classification which has become the cornerstone for many forestry related decisions. Updates on this information can be downloaded from the Ministry of Forests Lands and Natural Resource Operations Research Branch website.

<http://www.for.gov.bc.ca/hre/becweb/>

These biogeographic zones are also the basis for a series of field notes called Stand Establishment Decision Aids (SEDAs) designed by FORREX—Forum for Research and Extension in Natural Resources. Short summaries focus on synthesizing the latest information on silvicultural tools and practices which can help deal with environmentally limiting factors. The initial series of these notes addressed issues associated with forest health and alternative vegetation management strategies to address competing vegetation. SEDAs are available online and can be downloaded from FORREX's website.

<http://www.forrex.org/tools/sedas/>

A new series is currently underway that looks at how to use various silvicultural tools to manage for other values such as wildlife habitat.

Online Tools

With the advancement of the Internet, valuable early stand establishment decision-making tools are now obtainable online.

For the southern interior of British Columbia there is an Expert System for Site Preparation and Vegetation Management. This system predicts how the vegetation community will develop following

disturbance and evaluates the potential effectiveness of site preparation and brushing treatments.

<http://www.myacquire.com/spvegman/expertsystem/>

Another expert system that also provides guidance around vegetation management is VegTools, designed by the USDA Forest Service. This system provides a wide spectrum of resources and simplifies access to specific information regarding techniques, processes, technology and personal experience with various treatment options. Although this is an American system, it does offer some suggestions and case studies that readers may find useful.

<http://wwwlfs.fed.us/vegtools/>

If concerns exist around forest health issues, the BC Ministry of Forests Lands and Natural Resource Operations, Forest Practices Branch has an online Tree Doctor which will give specific information on high priority forest health concerns in the province.

<https://isweb.mala.bc.ca/td/pestinfo.asp>

A tree species selection tool is in development and will be released for the northern portion of the province (former Prince George and Prince Rupert Regions) by the end of March 2012. This tool will provide information on the ecological characteristics and habitat of provincial tree species. Shirley Mah, RPF, research ecologist with the Ministry of Forests, Lands and Natural Resource Operations is the team lead on this tool and updates can be found on their website.

<http://www.for.gov.bc.ca/hfp/silviculture/TSS.htm>

Modelling

In the world of modelling, British Columbia has a vast array of decision-support tools.

On the coast, researchers from the University of British Columbia have created LLEMS—Local Landscape Ecosystem Management Simulator. LLEMS is an ecologically based decision-support tool for assessing the implications of variable retention management for selected indicators of sustainable forest management. It can provide projections of spatial and temporal development of complex cut blocks.

<http://www.forestry.ubc.ca/ecomodels/moddev/llems/llems.htm>

For those professionals working in the northern part of the province, Dave Coates, RPF, research silviculturalist with the Ministry of Forests, Lands and Natural Resource Operations, and his team have been working on SORTIE-ND, the SORTIE-Neighbourhood Dynamics model. Although this model is considered a research model, it can help in early stand establishment decision making through the exploration of various forest management scenarios.

<http://www.bvcentre.ca/sortie-nd/history>

For those who are interested in more of the financial aspect of early stand establishment decision making, a beta version of the Financial

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Tips and Tricks for Exam Writers



THE REGISTRATION EXAMS WILL BE HELD ON October 7th. Until then, there will be some lively debates in study groups, all-night study sessions fuelled by coffee and panicked calls to mentors. All the anxiety and stress will be worthwhile next February when today's examinees are officially inducted into the ABCFP at the annual conference and AGM.

There have been some significant changes to the registration exams this year. For RPFs, the take-home exam is now mandatory and all examinees will write four of seven questions on the sit-down portion. Because you are answering fewer questions, the time allotted to the exam is now four hours.

New RFT candidates will also write a four-hour exam and will have to answer four of seven questions. Conditional RFTs and RFT candidates who are making a second or third attempt at the exam will write the old Part A/Part B exam. As in the past, these candidates will only have to write the Part(s) they did not pass the first time.

In 2011, both the RPF and RFT exams will focus on professionalism, ethics and forest policy. There will be less emphasis on technical forestry than in the past. The top two reasons people fail the registration exam are:

- not answering the question being asked (usually because the candidate misreads the question); and
- running out of time.

Not Answering the Question Being Asked

It is critical to take the time to read the questions carefully and make sure you know what they are asking. Be sure to not only list the applicable bylaws or section from the *Foresters Act* but to explain why this particular piece of legislation applies to the situation laid out in the question. Here's a quick formula from the *Writing the Best Exam Possible* online workshop to help you write out your answer:

- Think about what the question is asking and then state the issue.
- Next use policy and bylaws to support your decision and include information on who (or what groups) the situation applies to.
- Provide evidence for each point that you make.

Running Out of Time

Getting to the last few minutes of the exam and realizing that you still have a question (or two) to answer is not a good feeling. The key to ensuring you have enough time to finish all four questions is planning.

While it may seem counter-intuitive, taking some time to plan your exam will save you time in the long run. When you first open your exam booklet, take five to ten minutes to read each question and decide which four you want to answer. Hopefully, four questions will jump out at you because they are within

your area of expertise; however, if this doesn't happen, don't panic. Simply mark each question with a check mark (meaning that you will answer it), an X (meaning that you won't answer it), or a question mark (meaning that you could answer it but it might take you longer than a check-marked question). The next step is to answer the easiest questions first as they will take you the least amount of time.

One of the keys to getting as many marks as possible is to take the time to check over your questions. Taking 15 to 20 minutes at the end of the exam to read over your answers one more time to make sure you didn't forget anything will pay dividends. For example, missing a single word like "not" can change your entire answer. Double-spacing your answer will make it easier to make last minute corrections.

Another tip for not running out of time is to set yourself a schedule and stick to it. To help you keep on track, bring a watch or clock as electronic devices like cell phones are not allowed in the exam room. A suggested schedule might be to spend 50 minutes on each of the four questions which would leave you 10 minutes to plan at the beginning, 20 minutes to check at the end and 10 extra minutes.

Finally, plan to meet your study group or fellow exam writers after the exam to enjoy a beverage to celebrate the fact that you all made it! 🍷

The format is changing for the British Columbia registered forestry exam. WILL YOU BE READY?



The College of New Caledonia Lakes District Campus is offering a Registered Professional Forester online exam preparation course in a new format. This highly reputable course will help you prepare for the new take home and the sit down exams.

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Decision : Continued from page 18

Analysis System Including Economic Return (FAN\$IER) is currently being tested and will be available in the next Table Interpolation Program for Stand Yields (TIPSY) release of Fall 2011. This addition to TIPSY is designed to provide improved economic analysis options to aid forest professionals and planners in evaluating the impact of selected silviculture events on the discounted value returned by end products at the stand level. More information on this can be found in an upcoming article in LINK News <http://jem.forrex.org/> or by contacting Mario Di Lucca, Growth and Yield Application Specialist with the Ministry of Forests, Lands and Natural Resource Operations at Mario.DiLucca@gov.bc.ca.

Trade Off Analysis

This growing field offers a complement of tools that are mainly linked with forest estate models and larger forest planning exercises.

Scenario planning is one process that can help with trade-off analysis especially when combined with forest estate modeling tools which include optimization routines (e.g., Patchworks and Woodstock). Using the scenario process helps to compare and contrast futures under different resource management objectives. For more information on how scenarios can be used in the development of Sustainable Forest Management Plans refer to the Morice and Lake's Innovative Forest Practices Agreement (IFPA) Sustainable Forest Management Plan.

[http://www.moricelakes-ifpa.com/publications/documents/MoriceSFMPan_V3.3%20\(032509\).pdf](http://www.moricelakes-ifpa.com/publications/documents/MoriceSFMPan_V3.3%20(032509).pdf)

Multiple accounts/criteria analysis is another tool that can help with trade-off analysis. This tool is a relatively simple trade-off analysis technique that can be implemented as a spreadsheet application independent of forest modelling. The technique involves ranking and aggregating multiple criteria across multiple values by assigning relative importance scores (or weightings) to the individual criteria. An example of such a tool was used by the Forests for Tomorrow Program in 2009. They developed a multiple accounts decision-analysis (MADA) template that was used to help prioritize stands within individual management units for silviculture investment. More information on Forests for Tomorrow's MADA can be found on their website.

<http://forestsfortomorrow.com/fft/tool/multiple-accounts-decision-analysis-mada/223>

Information related to many of these growth and yield models and forest and landscape analysis tools is currently being pulled together by Steve Stearns-Smith 'RPF' for publications in the *Journal of Ecosystem and Management* (JEM). This article will also touch on a couple of models that may be of interest to those wishing to identify what options are available for early stand development decision makers.

I've touched on a range of tools here. However, the scope of this topic is very broad and there are many tools I haven't had space to mention. If you are interested in learning more about early stand establishment decision support tools, please contact me at kathie.swift@forrex.org 🐣

Kathie Swift, RPF, is a fourth generation forester and is one of the founding extension specialists of FORREX. She has recently become FORREX's new manager for knowledge exchange. She holds an Honours Bachelor of Science in Forestry from Lakehead University and a Masters of Science from UBC.

By Jeff Waatainen, LLB, MA, BA (Hons)

The Inherent Neutrality of Appraisals

“Appraisal. A valuation or an estimation of value of property by disinterested persons of suitable qualifications. The process of ascertaining a value of an asset or liability that involves expert opinion rather than explicit market transactions”.

Black’s Law Dictionary, 6th ed.

IN BC, WE DETERMINE THE PRICE PAYABLE FOR CROWN TIMBER IN accordance with the *Coast Appraisal Manual* or the *Interior Appraisal Manual* (both known as the Manual), as the case may be. In other words, we determine the price payable for timber based upon an appraisal of the timber. As much as we refer to market pricing system (MPS), appraisals are still estimates as opposed to explicit market transactions. Even under MPS, a stumpage appraisal merely incorporates accumulated transactional data from the market to estimate the value of the timber. It is still licensee neutral—meaning it is not based upon the transactions of a specific licensee. If it were, we would no longer have an appraisal system, but some sort of revenue-sharing scheme.

Since the move away from the former comparative value pricing system (CVPS) towards MPS, government is seemingly more and more interested in the actual operations of specific licensees. In its decision from *International Forest Products Limited v. Government of British Columbia* released last June, the Forest Appeals Commission described the government’s current position in this regard:

The Government maintains that the Ministry has the right to go from ‘estimate’ in the original data submission to ‘actual’ in the reappraisal process.

Regardless of whether an original appraisal or reappraisal is at issue, a stumpage determination based upon actual results is incompatible with the notion of licensee neutrality.

The concept of ‘licensee neutrality’ is a not a relic from CVPS. It did not come into existence due to the particularities of CVPS. It exists due to the fact that neutrality is inherent in any appraisal system. The more stumpage determinations focus on the actual activities of specific licensees rather than a neutral valuation of the timber, the further removed we are from appraising timber. We begin to appraise the activities of specific licensees, and Crown revenue becomes based upon the value of those activities, rather than upon the value of the timber.

Neutral valuations of timber require the valuator to consider harvest methods that the typical operator (as opposed to the specific operator) would employ and the conditions that typical operator would encounter. The typical operator will harvest timber as efficiently as possible in order to reduce costs and maximize return. The typical operator also assumes risk on account of unknown or unknowable conditions.

But not all licensees are equal. Some may spend more resources on equipment maintenance or modernization (or whatever) to improve

overall production and efficiency. As a matter of policy (and as a matter of law under the *Ministry of Forests and Range Act*) we should encourage operators to increase efficiency and productiveness. Other operators may have the good fortune of better-than-expected operating conditions that result in higher-than-expected production. However, those same operators also accepted the risk that they would find worse-than-expected operating conditions.

When government appraises the actual activities of specific licensees, or the actual conditions that a specific licensee may happen to encounter, government effectively expropriates the value of a licensee’s efficiency or good fortune. This is regrettable because it discourages ingenuity and risk-taking. Why would anyone try to improve efficiency or take a risk if government is going to claim any benefit by way of a “changed circumstances” reappraisal under the Manual, or an “inaccurate information” stumpage correction under section 105.2 of the *Forest Act*?

What is missing in our stumpage appraisal system is the “disinterested person with suitable qualifications.” Both government and industry have persons with suitable qualifications; but neither government nor industry is disinterested. Under CVPS, when an individual stumpage appraisal had no impact on overall Crown revenue, government was disinterested in the revenue consequences of any particular stumpage appraisal. Government would get its target revenue no matter what. Under MPS, stumpage appraisals have become an adversarial process, and the benefits that flow to one are at the direct expense of the other. Professionalism is the glue that is supposed to hold the system together, begging the question: is the zero-sum nature of stumpage appraisals under MPS more than professionalism can handle? 🍋

Jeff Waatainen is a past adjunct professor of law at UBC, has practised law in the forest sector for over fifteen years and currently works as a sole practitioner out of his own firm of Westhaven Forestry Law in Nanaimo.



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Phone: 250.758.9485
Cell: 250.618.5776
Facsimile: 250.758.9486
Email: jeff@bcforestrylaw.com
Website: www.bcforestrylaw.com

5359 Bayshore Drive, Nanaimo BC, V9V 1R4

Forestry Team in Action

Forest Management Regime Approach to Carbon Offsets

ON BEHALF OF BC MAJOR LICENSEES AND THE BC GOVERNMENT, AN interdisciplinary team, led by Forsite, looked into the viability of creating forest carbon offsets through implementing a range of alternative forest practices/activities at the forest management unit level. The Kamloops TSA and TFL 25 (mid-coast) were used as case study areas. The focus of the project was to understand opportunities and challenges with a Forest Management Regime approach to offsets, explore the viability of specific forestry activities under BC's draft Forest Carbon Offset Protocol (FCOP) accounting rules, and to make recommendations on improvements to the draft FCOP rules. The project found that a FMR approach offered several key advantages over smaller scale, single focus projects but care must be taken to address the added complexity/uncertainty associated with this approach. Several suggestions to enhance the FCOP document were also put forward, including an alternative approach to account for harvested wood products.

Project Lead and Contact

Cam Brown, RPF, Forsite, E-mail: cbrown@forsite.ca

Clients

Forest Sector Climate Action Steering Committee: Kelly McCloskey, RPF (Kelly McCloskey & Associates); Dave Peterson, RPF (Ministry of Forests, Lands and Natural Resource Operations); Ric Slaco, RPF (Interfor)
 Ministry of Forests Lands and Natural Resource Operations: Caren Dymond; Qinglin Li, FIT; Brian Raymer, RPF; Ralph Winter, RPF
 Tolko Industries Ltd.: Randy Chan, RPF
 Western Forest Products Inc.: Paul Bavis, RPF; Shannon Janzen, RPF

Project Team

EcoResources: Derek De Biasio, Philippe Crête
 ESSA Technologies: Sarah Beukema, RPBio; Alex Hall
 Forsite: Cam Brown, RPF; Patrick Bryant, RPF; Jeremy Hachey, RPF; Simon Moreira-Munoz, FIT
 Symmetree Consulting: Bryce Bancroft, RPBio; Ken Zielke, RPF
 Salazar Consulting: James Salazar
 Jim Thrower, RPF



Stein Valley Restoration Project



A WILDFIRE IN 2009 DAMAGED TRAILS AND ASSOCIATED FACILITIES in Stein Valley Nlaka'pamux Heritage Provincial Park near Lytton. An assessment of the nature and extent of the damage and recommendations for recovery work to restore the damaged facilities to the condition that prevailed before the fire, were required.

The wildfire covered approximately 10,000 hectares and affected about 25 km of established trails. Public Safety Canada's Disaster Financial Assistance Arrangements (DFAA) program helps provinces recover from major disasters and was utilized to provide funding for the restoration of the park facilities to pre-fire conditions.

Forsite Consultants Ltd. was retained to work with local First Nations community members to assess the damage to park facilities, provide a recovery plan and budget and implement the remediation work. An added component to the project was that the fire occurred within prime spotted owl habitat. Coordination with biologists from the BC Conservation Foundation was integral to maintaining habitat and structural components throughout the burn essential to the owl's security within the park.

The remedial work was completed by members of the Lytton First Nation community and consisted of danger tree falling and assessment, bridge repair, and trail repair, clearing, and marking.

As a result of this project, all of the affected trail system within the Stein Valley Nlaka'pamux Park has been restored to a useable state that is safe for all visitors to enjoy.

Project Team

Forsite Consultants Ltd.: Luke Gubbels, RPF; Shawn Rolston, RFT; Glenn Thiem, RFT
 Lytton First Nation: Karen Dunsten
 Ministry of Environment: Bruce Petch, P.Ag
 Ministry of Natural Resource Operations: Joel Gillis

Contact

Randy Spyksma, RPF
 E-mail: rspyksma@forsite.ca

Upstream Oil and Gas Forest Management Solutions



DEVELOPMENT OF OIL AND GAS RESOURCES CONTINUES TO GROW in importance to meet global energy needs. British Columbia has a growing role as a leader in providing secure and reliable energy sources. Working with Mark Sherrington of Shell Canada Ltd., Andrew Carpenter, RPF, is assisting Shell's development of environmental mitigation solutions. The project includes the development of workable, reliable field tools to mitigate disturbances after long linear construction such as a natural gas pipeline right-of-way.

Because the operating areas in northeast BC are frequented by sensitive animal species such as grizzly bears and northern mountain caribou, the project is specifically targeted at the establishment of plant species within its reclamation regime. These plant species will provide benefits such as soil stability, limits to white tail deer forage (e.g. grasses) to reduce wolf predation impacts on caribou, and natural soil nutritional supplementation (e.g. nitrogen fixing). To make this work, the selected plants include many traditional (e.g. *Pinus contorta*) and non-traditional species (e.g. *Alnus viridis*).

In 2009-2010, plant propagation services were secured through BC based service providers: Sylvan Vale Forest Nursery, Galahad Enterprises Inc., Windfirm Resources Inc. and the Sauteau First Nation. A total of four tree, five shrub and two forb plant species were grown from seeds or cuttings and planted into monitoring plots.

Andrew is also working with the upstream oil and gas sector to aid in the fulfillment of land management commitments to the Federal Crown, the Province of BC, regional Aboriginal stakeholders and shareholders in manners that will promote environmental protection, shared learning and continuous improvement.

Project Team

Reclaimit Ltd.: Andrew Carpenter, RPF (BC and AB)
Shell Canada Ltd.: Mark Sherrington
University of Northern British Columbia: Dr. Christopher Opio

Managing Forest Fuels in Jasper National Park

FROM 2006 TO 2011, LANDMARK FOREST MANAGEMENT LTD has worked with Parks Canada in Jasper National Park (JNP) to develop, test and implement ecologically-based methods for managing forest fuels in ways that reduce community wildfire risk while protecting/enhancing wildlife habitat and visual qualities of the forest.

The projects combined restoration of Douglas-fir and pine savannah ecosystems, FireSmart-ForestWise forest thinning, and fuel management using conventional equipment on ~ 400 ha of gentle terrain and a spyder hoe on ~ 100 ha of extreme slopes. Landmark's project responsibilities also included coordinating and supervising necessary sub-contractors and completing log marketing to supplement project funding.

In 2010, Landmark completed selective thinning treatments in JNP's signature Whistlers Campground to achieve objectives for wildfire protection and removal of trees that were potentially hazardous to campground users. Landmark's project highlights included processing wood into firewood and compost chips, designing in a stationary burn bin, coordinating the final clean up, and completing the project safely, on time and to JNP environmental standards.

According to Alan Westhaver, Vegetation/Fire Specialist for JNP, "the strong community support for this project demonstrates the benefits possible when innovative industry and agency fire managers team up to resolve community wildfire protection goals."

Project Team

Landmark Forest Management Ltd: Nicola Farrer, FIT; Charlie Gerstmar, RFT; Steve Giesbrecht, RPF; Kevin Hill, RFT; Brad Sindlinger, RFT; Rob Udy, RFT; Eric Vanderkwaak, RFT; Mark Wallace, RFT
Jasper National Park: Vern Balding, Kent Baylis, Sam Stickney, Clayton Syfchuck, Alan Westhaver
Nu Creek Developments Ltd: Len Masson

Contact

Steve Giesbrecht, RPF, Ph: 250.804.0332
E-mail: sgiesbrecht@landmark-solutions.ca



Alternative Method of Artificial Reforestation



IN JUNE 2011, THE SILVICULTURE TEAM AT WEST FRASER MILLS, Williams Lake Plywood Division, pursued an alternative method of artificial reforestation on upper elevation sites within the ESSF biogeoclimatic zone northeast of Likely, BC. Proven to be problematic to regenerate, these 'brushy,' snow press susceptible cut-blocks were looked at with survival and natural conifer patterns in mind. The convention of uniform seedling distribution was abandoned for a more natural, clustered planting arrangement.

We selected stumps and extremely elevated, natural mounds protected by logs, slash or boulders as optimal microsites. Two-year-old spruce stock was planted as close as one metre from one another on these specific microsites. Between these raised planting clusters, the highly vegetated areas including lady fern, Indian hellebore, red elderberry, thimbleberry and cow parsnip were left as unplanted gaps. Focusing these planting arrangements in groups actually mimics the natural, mature conifer distribution of the local area.

The strategy was designed to enhance other forest values in addition to timber production. Mountain caribou and grizzly bear habitat is expected to be improved as forage opportunity and habitat connectivity mirrors that of the adjacent forests. As well, herbicide use and often intrusive mechanical site preparation methods can be avoided altogether. As always, nature should provide us the best planting prescriptions.

Project Team

Corsair Field Services Ltd: Jason Lorraine

Outlook Forestry Solutions: Greg Jorgenson, RPF

West Fraser Mills: Susan Woermke, RPF

Contact

Greg Jorgenson, RPF, Outlook Forestry Solutions, Ph: 250.296.9152

Teachers Tour BC with the Festival of Forestry

THE BC FESTIVAL OF FORESTRY IS A NON-PROFIT ORGANIZATION committed to teaching elementary and high school teachers about forestry in BC through quality professional development experiences.

They run tours each year that take 20 Lower Mainland and Victoria area teachers to rural communities in BC. The tours are free to teachers and provide an interactive learning experience to enhance teachers' understanding of the complexities of sustainable forest management.

In July, Michel Vallée, RPF, and Lois McNabb led the Mountain Tops to Coastlines tour. This tour took teachers to Merritt, Lillooet, Whistler and Squamish with various activities along the way. Over the course of four days, teachers visited many different kinds of forest sector businesses and got out in the bush to see some active logging and forest management. The tour included stops at:

- Ch-ihl-kway-uhk Forestry Limited Partnership, Chilliwack. Volunteer Host: Matt Wealick, RPF
- Aspen Planers Ltd. Volunteer Host: Jerry Canuel, RPF
- Coldwater Post and Rail, Merritt. Volunteer Host: Norm Brigden
- Nicola LogWorks, Merritt. Volunteer Host: John Boys
- Forestry Field Tour I, Merritt Area. Volunteer Host: John Boys
- Squamish Lil'wat Cultural Centre, Whistler
- FraserWood Industries, Squamish. Volunteer Host: Jamie Mak
- Forestry Field Tour II, Squamish Area. Volunteer Host: Jeff Fisher, RPF
- Squamish Adventure Centre

This past July we had 74 applicants for the 20 tour spots available. Teachers are interested in learning about forestry if we give them the opportunity!



Project Team

See the Festival of Forestry website: www.festivalofforestry.org

Contact

Sandy McKellar and Brenda Martin: Festival of Forestry Co-Chairs

E-mails: sandy@treefrogcreative.com and bmartin@abcfp.ca

Log Stringer Bridge Project



RECENT LOG STRINGER BRIDGE FAILURES HAVE RESULTED IN AN increased awareness of the complexities involved in the design, construction, and assurance of these structures. More specifically, the load effects produced by tracked vehicles when travelling over these structures without the use of lowbed equipment has become a concern especially as the shift is made to smaller diameter stands such as lodgepole pine or second growth Douglas-fir.

In response, BC forest and engineering professionals have been working with both Limit States and Allowable Stress design principles to develop design aids and tools that allow a more comprehensive evaluation of previously load rated structures and in the design of proposed structures. The result is a greater understanding of the superstructure as a system and of each individual member. The professional teams involved feel strongly about the use of sustainable products (such as wood) as a working material for these and other applications such as retaining walls and abutments. Through designs specific to the situation and through professional collaboration, these structures remain in service and continue to be built. The structures provide a safe crossing while reducing operational costs and allowing access into stands of timber where classic stringer tables are now obsolete.

Project Team

Onsite Engineering Ltd.: Jeremy Araki, PEng; Michael Foster, PEng, RPF; Lyle Unwin, PEng, RPF
TimberWest Forest Corp.: Domenico Iannidinaro, MBA, RPF, RPBio, PEng
Tolko Industries Ltd.: Casey Macaulay, RPF
Western Forest Products Inc.: Justin Kumagai, RPF

Contact

Randy Spyksma, RPF
E-mail: rspyksma@forsite.ca

Mission Interpretive Forest

THE MISSION INTERPRETIVE FOREST REPRESENTS A PRECEDENT- setting 're-visioning' for some of British Columbia's Crown land. The District of Mission's Municipal Forest is a community-based Tree Farm Licence (#26) of 10,500 hectares, in operation since 1958. However, as much as it is so close to the most populous region of BC, it is still very much a rural forested area, struggling with serious social challenges with unorganized and uncontrolled outdoor recreational activities. It is recognized that without intervention, significant environmental values will continue to deteriorate.

The vision is to transform this beautiful region alongside Stave Lake, north of Mission, into a compelling destination for residents and visitors alike and to provide positive forest experiences. This involves the development of partnerships with local First Nations communities and identifying the right partners to create viable commercial recreation and tourism ventures, while also creating learning opportunities and multi-user access to a working community forest.

While we await sign-off of the Interpretive Forest status, we are working with Aboriginal Tourism Association of BC to develop First Nations tourism protocols, have secured multi-level political support, and are building mutually-beneficial tourism connections throughout the Lower Mainland.

We look forward to providing a 'before and after' update as we bring our initiatives to fruition.

Project Team

Aboriginal Tourism Association of BC: Cheryl Chapman
District of Mission: Kelly Kitsch, RFT; Bob O'Neal, RPF
North Shore Project Leadership: Terry Hood
Ministry of Forests, Lands and Natural Resource Operations: Mike Peters

Contact

Bob O'Neal, RPF
Ph: 604.820.3762

Project Funding

District of Mission
Ministry of Forests, Lands and Natural Resource Operations



Seasonal Habitat Requirements of Sooty Grouse on Haida Gwaii



LITTLE IS KNOWN ABOUT SOOTY GROUSE ON HAIDA GWAII, EVEN though they are the only mid-sized herbivore endemic to the islands. The project team has therefore initiated a study of sooty grouse to determine distribution, habitat use, nest and brood rearing site selection, and seasonal migration patterns.

While grouse are likely distributed through a range of habitat types, it is thought they thrive in sites with a patchy scrub layer and discontinuous canopy, characteristic of old-growth stands as well as some younger second-growth stands. To date, 18 grouse, both male and female, have been fitted with radio collars. The team has been following the grouse throughout the winter, courtship and nesting periods and is currently monitoring dispersal patterns. Crew members not only follow the birds using radio telemetry but also walk into the sites to note habitat characteristics.

Knowledge gained from this research will help managers interpret the effect of current landscape planning on the habitat suitability for grouse. It will also improve understanding of the availability of grouse as a prey source for recovery of the threatened northern goshawk (*Accipiter gentilis laingi*), which is a land-use plan focal species.

Project Team

Wildlife Dynamics: Frank Doyle, MSc, RPBio
 Ministry of Forest, Land and Natural Resource Operations: Berry Wijdeven, MA; Louise Waterhouse, MSc, RPF, RPBio; Melissa Todd, MSc, RPBio

Project Funding

Ministry of Forests, Lands and Natural Resource Operations, Parks Canada, Upland Bird Society, Husby Forest Products, and Council of Haida Nation

Contact

Louise Waterhouse, MSc, RPF, RPBio
 Ph: 250.751.7123, E-mail: Louise.Waterhouse@gov.bc.ca

Ulanga District Community Tree Nursery

A COMMUNITY TREE NURSERY IS BEING ESTABLISHED IN THE Ulanga District, Morogoro Region of Tanzania in East Africa. This nursery will help overcome the primary barrier to sustainable forest management in the area: a limited access to adequate planting material. The nursery, currently under construction, will be managed by the Ulanga District Council to produce 100,000 seedlings a year, empowering community members to improve their own local conditions. Supplying seedlings to enable local tree planting will not only stimulate socio-economic development but also help rehabilitate degraded sites, increase biological diversity, regulate water flow and quality, prevent soil erosion, and mitigate local and global climate change.

A diverse range of species will be produced to meet a wide range of community needs. The primary need, which is also the source of much deforestation, is the use of wood as a cooking fuel. Fuel, along with other products, like fodder, food, medicine, building materials and many more are often used by community members for subsistence purposes. The nursery will also provide educational programs to help community members select, plant and maintain trees while providing techniques to ameliorate stress to remaining forests.



Project Team

Mitchell Wilson, FIT; John Selestin; Venance Segere; Alfred Luanda

Contact

If individuals, companies or organizations are interested in being involved with this project please contact Mitch Wilson, FIT at:
 E-mail: mitwil@gmail.com, Ph. 250.932.4124, Web: www.udth.org

In Memorium

It is very important to many members to receive word of the passing of a colleague. Members have the opportunity to publish their memories by sending photos and obituaries to **BC Forest Professional**.

The association sends condolences to the family and friends of the following members:



Lorne Swannell

RPF(Ret) #6 | 1908-2011

Lorne Forster Swannell, RPF(Ret), BA '30, BA. Sc., Forest Eng. '31 (Honours), died peacefully in Victoria May 18th in his 103rd year. Predeceased by his wife, Grace, in 2004, Lorne, with the help of devoted caregivers, continued to live in his own home exercising daily, attending the symphony, opera, ballet and charity events until his death.

Lorne was born September 2, 1908 to Frank and Ada Mary Swannell. Frank, Lorne's father was a BC land surveyor

who, for many years, recorded BC history in photographs. Following Lorne's early schooling in Victoria, he left for UBC in 1927. Living in a boarding house just outside the University gates gave Lorne and his housemates' ample opportunity for cross-country runs, ingraining in Lorne a life long passion for exercise. His classes developed in him a quest for knowledge in the arts, history and music as well as science that continued to grow throughout his life. After receiving his degrees, he began 41 years of service in the BC forest industry rising from a survey crew rodman to chief forester of BC in 1963 until retirement in 1972. After retirement, Lorne travelled as a consultant, taught at Camosun College and then later became a student at the University of Victoria and Open University. Over the years, Lorne received many honours and awards. On his 100th Birthday in 2008, the province of BC created a bursary in his name at the University of Northern

British Columbia in recognition of his service to forestry.

Lorne joined the Armed Services in 1939, arrived in England 1940 then served in France, Belgium, Holland and Germany until discharged at the end of the war with the rank of Major (Battery Commander of the 2nd Survey Regiment, Royal Canadian Army). Returning to Canada, Lorne rejoined the BC Forest Service as assistant district forester at Prince George and was promoted to district forester May 1947. In September 1949, Grace Wisenden became Lorne's bride and life-long companion. Strong believers in education in Canada and internationally, both Lorne and Grace will be well remembered through their generous donations to scholarships, charities and educational institutions over the years. Lorne believed money was "no good" unless it was being used to benefit society. Living this statement until his death, is a testament to a life well lived with generosity.

Allan C. Schutz

RPF(Ret) #183
1923-2011



Al passed away after a short illness at age 88. He was born in a log cabin on a farm near Bluffton, Alberta and predeceased by his loving wife, Grace. They were married 51 years.

He was navigator on a mosquito fighter-bomber during the late stages of WW II with the Royal Canadian Air Force. He

had an Aussie pilot who partied a lot and gave him some of his early gray hairs. Al subsequently acquired the nickname "Ace."

A 1950 UBC grad with a forestry degree, Ace began a career with the BC Forest Service holding many positions including forest ranger in Blue River, fire protection in Kamloops, i/c sustained yield units in Prince Rupert, i/c tree farm licences in Vancouver, i/c timber management in Victoria and Vancouver. Ace finally retired as Assistant District Forester in Vancouver in 1981.

In his retirement years, Grace and he travelled the world including many trips

to Africa. However, Ace still found time to volunteer with Meals-on-Wheels (25 years) and gave many presentations and slideshows to retired groups, schools and organizations.

An accomplished oil painter, photographer, bird watcher, conservationist and first-class forester, he greatly added to the quality of life of all who knew him. His motto was "live life to the fullest every day." He was a genuine gentleman in every respect. Ace will be greatly missed by his two daughters, Maureen and Loa, four grandchildren, many relatives, friends and foresters worldwide.

Submitted by Don Grant, RPF(Ret) #255

ABC FP Membership Statistics

Association of BC Forest Professionals – July 2011

NEW REGISTERED MEMBERS

Kirk Edward Wolstenholme, RPF.

NEW ENROLLED MEMBERS

Morgan James Boghean, TFT; Tomas Loren Cimolai, FIT; Russell Ellis Fountain, FIT; Mahesh Kumar KC, FIT; Aline Claire Lachapelle, FIT; Brian Martin Scott, FIT; Matthew Jason Tjepkema, TFT; Kimberly Anne Walters, FIT; Christopher William Wickman, FIT.

REINSTATEMENTS FROM LOA

Peter J.D. Barss, RPF; Gary Carman Gallinger, RPF.

REINSTATEMENTS

Eugene A. Desnoyers, RPF; Rodney John Gibney, RFT; Kevin Jock Honeyman, RFT; Jean W. Mather, RPF; Kent Douglas Pincott, ATC; Shawn Torin Murray, RPF.

DECEASED

Robert M. Malcolm, RPF.

The Following People Are Not Entitled to Practise Professional Forestry In British Columbia:

NEW RETIRED MEMBERS

Brian J. Murphy, RPF

LEAVE OF ABSENCE

Matthew John Lamb-Yorski

RESIGNATIONS

Peter John Graham

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A Moment in Forestry

Submit your Moment in Forestry to Brenda Martin at: editor.acbcfp.ca



Forest Reclaiming Sawmill

Submitted by: Jack Woods, RPF, Vancouver

The forest reclaims the sawmill located south of Highway 20 near Chilanko Forks in the Chilcotin. Closed in 1971, this mill operated for about eight years at the present location. The Chilanko River, seen here in high water, drains into the Chilcotin River. Chilanko means “many beaver river” in the Tsilhqot’in language.

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