

The background of the image is a dense, overlapping pattern of numerous analog wall clocks. Each clock has a white face with black numerals from 1 to 12, black hands, and a red second hand. The clocks are arranged in a way that creates a sense of depth and repetition, with some in sharp focus and others blurred in the foreground or background. The overall color palette is a cool, light blue-grey.

# **Time to Renew your Membership**



# Your Practice Makes a Difference: Be Sure to Renew Your Membership On Time.

## There are three steps to renew membership for:

- Active RPFs or RFTs
- RPFs and RFTs on LOA who are employed and work in BC
- Associate Members
- Transferring Forest Professionals
- Limited Licensees

**Step 1** Submit your 2016 Self-Assessment Declaration

**Step 2** Notify the ABCFP if there has been a change in your indictable offence status.

**Step 3** Pay your fees.

**NOTE:** If you wish to change your status (e.g. go on leave of absence, retire, resign, or reinstate), please note you cannot do so using the online membership renewal process. More information on changing your status can be found on the website (Members > Status & Name Changes).

► **Your membership will not be renewed until you have completed all of the required steps.**

## There are only two steps to renew membership for:

- FITs or TFTs
- Retired Members
- Special Permit Holders
- Registered Members on LOA (who are unemployed or work outside of BC).

**Step 1** Notify the ABCFP if there has been a change in your indictable offence status.

**Step 2** Pay your fees.

**NOTE:** If you wish to change your status (e.g. go on leave of absence, retire, resign, or reinstate), please note you cannot do so using the online membership renewal process. More information on changing your status can be found on the website (Members > Status & Name Changes).

► **Your membership will not be renewed until you have completed all of the required steps.**

## How to Renew Your Membership

### Renew online

The quickest and easiest way to renew your membership is to complete all the steps online (Members > Manage My Membership). You'll need to sign in to access this page.

### Renew by mail, fax or in person

You can also renew your membership by mail, fax, or in person using the forms available on the Forms page.

## Membership Renewal Timeline

Membership Renewal Process	Dates
A membership renewal notice is sent to each member.	September 30, 2016
Annual fees are due AND, where applicable, self-assessment declarations are due.	December 1, 2016
An administrative fee of \$55 plus GST 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. Notices will be sent to those members affected.	December 2, 2016
Final deadline for membership renewal.	January 31, 2017
Any members who have not renewed will be struck from the register and notified accordingly soon after.	February 1, 2017

## Top Practice Areas

The ABCFP is asking you to tell us your top three practice areas when you renew your membership in order to ensure that we have a representative cross section of the different aspects of professional forestry when we select members for practice reviews.

## FAQs

### When is my self-assessment declaration due?

If you are required to submit a self-assessment, your declaration is due on December 1, 2016. If you submit your declaration after December 1, 2016, additional charges will be applied to your membership renewal fee.

### What happens if I don't submit my self-assessment declaration?

If you fail to either pay your membership fees or complete your declaration (if required) by December 1, 2016, you will be assessed an administrative fee. If you fail to pay your membership fee or complete your declaration (if required) by January 31, 2017, you will no longer be allowed to practise forestry in BC.

### Can I submit my self-assessment declaration online?

Yes, an online self-assessment declaration is part of the membership renewal process. Sign in to the manage my Membership page (Members > Manage My Membership) and click the renew membership button.

# BC

# Forest PROFESSIONAL

NOVEMBER - DECEMBER 2016

## **Spruce Beetle Outbreak:**

The Iceberg in Our Forests

## **Adapt and Act –**

Genomics, Forests, and  
Climate Change

## **Wildfire Hazard Mitigation:**

We're Not Thinning Enough

## **Lessons from the Field:**

Visual Quality Fundamentals

## **Changing Landscapes, New Opportunities:**

2017 ABCFP Conference and  
AGM Program Unveiled

**VIEWPOINT**  
The Future of Forests



**Advocating for Growth and Yield – What’s Next?**

With the business resolution calling on the ABCFP to advocate for the creation of a Growth and Yield Cooperative ratified, association staff are now working on the content and method of this initiative.

Next steps in the process are to establish a team of experts in the science, regulations, and field practice of growth and yield; understanding of the detail and complexity of growth and yield issues; and to provide options for advocacy.

**Hitting the Road to Talk About the ABCFP**

ABCFP CEO Christine Gelowitz, RPF, has spent the past six months crisscrossing the province to meet with members, forest industry executives, local decision makers, and other forestry stakeholders.

“My aim is to not only hear from our members about the issues facing forestry and their views on the association but to also raise the association’s profile with others within the forest sector,” she said.

In October, Christine was in Merritt to meet with administrators at the Nicola Valley Institute of Technology, which focuses on post-secondary programs for Aboriginal Peoples. In August, Christine joined Chris Stagg, RPF, president; Mauro Calabrese, RPF, vice president; and Brian Robinson, RPF, director of professional development and member relations, for a series of meetings with ABCFP members and employers in Northern BC. A few of the issues discussed included supply and demand of forest professionals for the future, how we ensure forest professionals

are competent, opportunities to strengthen professional reliance, and discussions about the state of public support for forest professionals in their communities.

In late September, Chris and Christine were at the 2016 Union of BC Municipalities (UBCM) conference in Victoria. The conference brings together mayors and councillors from communities across BC.

**ABCFP News Release Responding to FPB Report on Visual Resources Management**

The ABCFP issued a news release on September 9 responding to a Forest Practices Board (FPB) investigation and report on the effects of logging on views in Port Alberni Inlet.

You can read the news release on our website at [abcfp.ca/web/Files/](http://abcfp.ca/web/Files/) (Media > News & News Releases.)

**ForesTrust Establishes New Scholarship for UBC Students**

ForesTrust, the ABCFP’s registered charity, is establishing a \$30,000 endowment to create an annual scholarship for students enrolled in the University of British Columbia’s Masters of Sustainable Forest Management (MSFM) program. The scholarship will be awarded based on the candidate’s motivation and aptitude for professional forest land management, scholastic ability, leadership potential, as well as financial need and intention to enroll with the Association of BC Forest Professionals. Plans are to have the scholarships available for the 2017-18 academic year.

**REFLECTIONS ON ETHICAL REQUIREMENTS: FUTURES**

*By Anna Shcherbinina, PhD, FIT and Mike Larock, RPF*

Forest stewardship requires long-term planning of forests and forest ecosystems “by balancing present and future values against the capacity of the land to provide for those values” (Bylaw 12.6.1). One of the obligations of forest professionals is to ensure benefits for future generations while advocating and practising “good stewardship of forest land based on sound ecological principles” (Bylaw 11.3.1).

Forest professionals apply their knowledge of the science of forests and their skill regarding the use of forest resources in order to provide social values and solve real world problems today and over the long run.



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# Index



Photo courtesy of Natural Resources Canada

20

## Viewpoints

- 9** The Future of Forests  
**By Cheryl Waddell**
- 10** Something Old, Something New:  
Combating the Spruce Beetle  
**By Heather Wiebe**
- 12** Genomics, Forests, and Climate  
Change – Understand, Adapt, and Act  
**By Catalina Lopez-Correa, PhD, MD, MG**
- 20** Wildfire Hazard Mitigation:  
We're Not Thinning Enough  
**By Robert W. Gray and  
Bruce Blackwell, RPF, RPBio, MSc**

## Special Feature

- 14** ABCFP Climate Change  
Survey: Next Steps  
**By Megan Hanacek, RPF, RPBio**
- 15** ABCFP's 69<sup>th</sup> Annual Forestry  
Conference and AGM Brochure



Photo: The Roadside Debris Working Group

26

- 24** Talking About The Future  
of BC's Forest Sector: An Interview  
with Shannon Janzen, RPF  
**By Cheryl Waddell**

## Interest

- 22** Visual Quality Management:  
Lessons from the Field  
**By Mark Haddock, LLB and  
Del Williams, RPF**
- 26** What Can You Do to Eliminate  
Hazardous Roadside Debris?  
**By the Roadside Debris Working Group**

## Departments

- 4** Reflections on Ethical Requirements
- 8** Letters
- 9** Principles of Stewardship
- 19** The Legal Perspective
- 28** In Memoriam
- 29** Reflections on  
Occupational Health and Safety
- 30** Membership Stats
- 31** Moment in Forestry

## Association Business

- 4** Association News
- 6** President's Report
- 7** CEO's Report

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# Interest in Forestry Careers Increasing

**Although you're reading this column in November, I'm actually** writing it near the end of September, a time when the leaves have started changing colour and the mornings have the crisp feel of fall. September is also notable as the return to campus for many forestry students resuming their studies.

I've been thinking about forestry students a lot recently, not because I'm reminiscing about my care-free student days or lamenting about how long ago they were, but because of some interesting trends that we're seeing. Enrolment in forestry-related programs has increased.

This fall, UBC has approximately 870 undergraduates enrolled in all of its forestry-related programs. At UNBC, 130 undergraduates have enrolled this fall in its natural resource programs. In fact, enrolment in both accredited and non-accredited forestry-related programs has been increasing over the past three years and in some instances, schools this year have established waiting lists.

Given the theme of this issue of *BC Forest Professional* is *The Future of Forests*, I would say the demand for post-secondary education in forestry-related programs is one indication that the future of forests is bright.

This is also an interesting development in light of a commonly-voiced concern from ABCFP members about the association's membership level. That is, many think the association is shrinking.

It's easy to see why members would think that. We have an older demographic and there's no denying the number of retired members is increasing. Overall, our membership level has held steady at around 5,300 for the past few years with very little variation. However, there are some interesting changes happening within different member classes. For example, over the past five years we've seen the number of active RPFs decrease, mainly due to retirement. The same holds true for RFTs, although the number isn't as noticeable. On the other hand, over the same five year period the number of FITs has steadily increased, while the number of TFTs has almost doubled.

What this tells me is that we are going through a slow, steady, and manageable change. As long-time members retire from the profession they are being replaced by new or (in some cases) re-turning members. And if forestry program enrolment numbers are

anything to go by, we should continue to have a steady inflow of new people into both the profession and the association.

That brings me to my final observation.

Many of the potential new members coming to the ABCFP are arriving from non-accredited pathways. And perhaps we shouldn't be surprised. Many post-secondary institutions revised or rebranded their forestry-related programs to downplay the harvesting aspect of forestry and instead emphasize sustainability and environmental management. Today's forestry programs are often part of environmental studies and peppered with courses on hydrology, fish, and wildlife ecology; environmental and social benefits of forests; community engagement; habitat management; and First Nations cultures.

The increasing number of ABCFP enrollees from non-accredited programs poses some problems, not the least of which is the increasing workload for ABCFP staff and committee volunteers who have to assess a candidate's credentials and educational background. A greater issue is the apparent lack of career guidance offered to students in non-accredited forestry programs; the lack of any sort of guide that maps out the necessary educational requirements and expectations needed to set a student on the path to becoming an RPF or RFT.

Many of us entered the profession because we share the same values as today's graduates: a love of the outdoors and desire to do a better job of stewarding our forest resources for both humans and wildlife. But where we often had the benefit of clear guidance that pointed us towards a career path where we could work within the established system to improve forest management, many of today's students face a baffling array of choices and seemingly little direction about how their educational decisions will affect future employment opportunities within forestry.

Without such guidance, we run the risk of people turning away from our profession out of frustration with the lack of ways to enter and apply the skills they've learned. With increasing enrolment in non-accredited forestry-related programs, this situation is likely to worsen. This issue will likely be discussed in detail at council's October strategic planning session.

So, while the horizon looks bright with plenty of people enrolling in forestry-related programs, the association has an opportunity to play a pivotal role to provide guidance to these students to help them make the appropriate choices that will more easily lead them into this great profession. ✪



# This is My Forest: Proud Foresters, Proud Legacy

**One of the best parts of my job is talking with members.** Since joining the staff of the ABCFP, I have talked to hundreds of forest professionals at conferences and other events. I have taken road trips to meet foresters in places where they live and work. The conversations have been both inspiring and insightful. These conversations generated insight into how to strengthen the value of membership, which I was able to share with council during its October strategic planning session.

The conversations also helped answer a question I have pondered since February, which was whether our profession had a healthy sense of pride. I tried to imagine eavesdropping on a conversation of a forest professional at a dinner party — did they boastfully talk about what they did, about the pride and honor they felt working in their community, managing the forest for years to come? Or did they shy away from the conversation and change the topic when asked?

In August I took a road trip through the northern Interior along with our council's president and vice president, and our director of professional development and member relations. We began in Prince George, travelled to Vanderhoof, Burns Lake, Houston, and ended in Smithers. Meeting in a number of industry and government offices, we talked

about the supply and demand for forest professionals in the future, how we can better ensure forest professionals are competent, the opportunities to strengthen the professional reliance framework, and the state of public support for forest professionals in their communities. I heard about things that both frustrated and worried members. In every conversation, whether discussing things they liked or disliked, the conviction in their voices made it abundantly clear how much members care about this profession.

In September I had the privilege to tour around southern Vancouver Island with a group of senior forest professionals. It was an impressive cast — including many former ABCFP presidents, several former industry chief foresters, senior government officials, and a long-standing university academic. We went out into the field to meet and talk with practising professionals about the work they

are doing, how they are doing it, the tools they use, and the changing circumstances they regularly encountered in today's operating world. Several on the tour were retired and life members, so the conversations were rich with the insights that come from reflecting back on a long career. They spoke about how forest age class balance was a big challenge in the past, and how forestry is under increased scrutiny, which challenges forest professionals even more to engage the public in conversation. We spoke about the impressive amount of information forest professionals today have at their fingertips in the field; almost too incredible to have ever imagined decades ago. At one point when looking out on a valley of second growth, a member of the tour said, "This is my forest." It wasn't the first time I heard a forest professional say this when seeing an area where they had planned the harvest and regeneration. That day reminded me about one of the great sources of pride in the profession: the connection to the land that many forest professionals feel.

Also, the conversations I had with the senior forest professionals I toured with, as well as other members I've met over the past months, highlighted another type of pride felt by those who occupy senior management and policy roles. Even when their work no longer takes them into the woods on a regular basis, the decisions forest professionals make (or used to make before retirement) around planning, land use, and the creation of new policy — like helping design the community forest agreement tenure instrument — sparks the same sense of pride as those who spoke about "their forest." While it may not be as easy to observe, the significance of this part of our work, given its impact on the big picture of forest management in BC, is equally important.

Today I have no doubt that deep pride exists within our profession. I also realize part of the reason I was struggling to imagine a forester boastfully talking about what they did at a dinner party is because I was imagining the wrong setting. While foresters of course do attend dinner parties, if you want to see a forest professional come to life, take them outdoors. Stand on a forest road overlooking a valley a forester worked in or planned — whether 40 years ago or four years ago — and you will witness firsthand the pride and respect they have for the impact their work has on BC's landbase. ❖



## Re: Quick Facts on the Migratory Birds Convention Act

Here are a couple of additional "facts" based on research published by the Canadian Wildlife Service.

Cats, both domestic and feral, are the most important cause of bird mortality: 72.4 per cent. But it is a lot easier to regulate forestry and agriculture, jointly responsible for 1.6 per cent of total bird mortality than to try to deal with the politically explosive problem of cats responsible for 72.4 per cent of mortality.

**Tony Rotherham, RPF, Knowlton, QC**

**Editors Note:** For further information on the research published by the Canadian Wildlife Service and to view a summary of bird mortality in Canada due to human activity or structures, please visit [www.cafo-acpf.ca](http://www.cafo-acpf.ca) and go to Position Papers > Canadian Wildlife Service Studies on Bird Mortality in Canada.

## Re: Advocacy vs Patronage

President Stagg, Chris.

Like similar replies to previous queries, yours to Michael Meagher in the July-August issue of *BC Forest Professional* continues to be completely unsatisfactory. The questions we have raised and the sentiments expressed are straight forward enough and do not need "monitoring of related external events."

What I can conclude from your replies to date: 1) Council is either determined not to, or embarrassed to clarify the use of the association's funds used for advocacy purposes; 2) Despite the unethical nature of funds being used for political access, council has no plans to change such policy; 3) This council is being opaque and oblique in its dealing with the membership over this issue.

I suggest you re-read M. Meagher's letter, deal with the points raised, and reply to the membership in an upcoming issue of *BC Forest Professional* to the effect that upon review of funds for advocacy purposes the association will no longer contribute to any political party.

**David A. Smith, RPF (Ret)**

## Reply to David A. Smith, RPF(Ret), Re: Advocacy vs Patronage

Over the past year, we have heard from a few members questioning the association's attendance at events organized by BC's two main provincial political parties. This issue was discussed openly at our last AGM, in addition to being the subject of several Letters to the Editor in *BC Forest Professional* (BCFP) magazine where members have expressed support for and opposition against the practice.

Opposition to our attending these types of events has been framed as "making political donations." To clarify, the association does not make political donations or contributions to any political party. We have purchased tickets to attend events hosted by political parties. Under Elections BC guidelines, registered political parties or candidates are required to report revenue from these events as "political contributions."

In 2016, we purchased tickets to attend one event hosted by the BC Liberal Party and one event hosted by the BC NDP Party, with costs similar to those incurred in past years.

In the May-June 2016 edition of BCFP, we printed a summary of expenses, as well as the business rationale supporting council and staff's decision to attend paid events to engage with elected officials and policy makers. In that issue, Jonathan Lok, RFT, and ABCFP past president wrote, "Effective advocacy takes strong relationships and a multi-pronged approach. These events are just one small part of what we do but have, without a doubt in my mind, improved our working relationships and ability to engage with key people on difficult challenges when they arise."

While we have a good working relationship with the current minister of forests, lands and resource operations, consider for a moment what could happen if there was a cabinet shuffle and a new minister was appointed. Or, what if a new government is elected in 2017 with a corresponding new minister? By attending events hosted by BC's two main political parties, we make connections both across the government and the opposition and they become familiar with us and what we stand for.

We also recognize that some ABCFP members are opposed to the very concept that registered political parties in BC can use these types of events as fundraising mechanisms. However, that is a very different discussion than whether or not the ABCFP should attend these events. Until there is a change in the current BC elections regulations, registered parties can hold these types of events. Other organizations attend them to meet with and lobby elected officials and we feel we would be remiss and doing our members a disservice if we were not also present to represent our members and advocate for them.

Since this is an issue on which some people obviously have very strong opinions, it's doubtful there will ever be complete agreement on it. However, please be assured that all activities undertaken by ABCFP Council and staff are done with the members best interests at heart.

**Chris Stagg, RPF, ABCFP President**

## Have a Compliment or Concern? Write us!

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. Send letters to:

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# THE FUTURE OF FORESTS: A Brave New World

**The winding down of another year lends itself nicely to reflection about what's passed and what's to come; quite fitting for our theme, *The Future of Forests*. So, take a moment to kick-off those boots and put your feet up, because it's time to tuck into another edition of *BC Forest Professional*.**

We begin with Heather Wiebe, biologist and Omineca spruce beetle project manager with FLNRO, sharing the collaborative efforts of forest sector players in combating the spruce beetle. In the coming years, Skeena and the northeast regions will be looking to the successes with trap trees and sanitation harvests in the Omineca region, because as Wiebe says, "In the face of climate change, bark beetle outbreaks of all kinds will occur with a higher frequency."

Chief scientific officer at Genome BC, Catalina Lopez-Correa, PhD, MD, MG, guides us through the importance of environmental management through genomic technologies in adapting to climate change. "...climate change is rapidly creating a mismatch between native populations and the environments they inhabit," says Lopez-Correa. "To better adapt our reforestation choices to new climates, we need to understand the adaptation of trees to temperature and moisture regimes."

Fire ecologists Robert W. Gray and Bruce Blackwell, RPF, RPBio, MSc, discuss strategies for reducing wildfire hazards in the wildland-urban interface; frankly stating we're not thinning enough, risking the effectiveness of treatments and potentially leading to significant consequences.

This edition also contains a summary of the ABCFP's summer 2016 climate change survey, including next steps to overcome the barriers in various forestry disciplines; lessons from the field on visual quality management (VQM) from the Forest Practices Board, including VQM fundamentals and resources; and the findings and recommendations of the Roadside Debris Working Group on how to mitigate the impact of hazardous roadside debris in forestry operations.

As well, be sure to check out the ABCFP's 69<sup>th</sup> annual forestry conference brochure. Registration details and a schedule of events begin on page 15. Our Prince George Host Committee has been busy planning a fantastic program and we'd love for you to join us in Prince George on February 22-24, 2017.

With another editorial year at *BC Forest Professional* coming to an end, I'd like to thank you all for your continued readership. It's been a delight engaging with you since I started working with the ABCFP in April. I wish you all the best for a wonderful season. Have fun, stay safe out there, and I'll catch you all in the new year. ☘



## The Future of Forests and the Principles of Stewardship<sup>1</sup>

By Megan Hanacek, RPF, RPBio

Forest stewardship is an ethical approach to management of trees, forests ecosystems, and regional landscapes to protect ecological function, integrity, and resilience. Along with past and current conditions, anticipated future conditions need to be incorporated into decision making through sound science modelling and trend data.

How does a forest professional balance current decision making pressures (economics, biodiversity considerations and others) with projected future conditions and articulate these factors to their employer for adequate consideration? A changing climate is a key driver for impacts to the forests of British Columbia. We are seeing increasing impacts from forest health agents, wildfires, drought and intense precipitation events. The 2016 ABCFP Climate Change Adaptation Survey found that 25 per cent of the respondents believe that a lack of knowledge (easy to apply tools and data) is the top barrier to their ability to adapt to a changing climate.

The ABCFP is working on closing this knowledge gap for our members by making many resources available. The ABCFP is working to increase the uptake of knowledge, tools, and data that can be easily incorporated into forestry planning and operations by offering regular webinars; presenting research at the AGM/conference, in the magazine and website guidance documents; and by ongoing work with external organizations to shape and expand this knowledge library. It is through diligent use of these ever evolving tools and applications of knowledge that we as forest professionals will help to ensure sustainable use of forest resources for current and future generations.

<sup>1</sup> The main document can be seen at [http://member.abcfp.ca/WEB/ABCFP/Practising\\_in\\_BC/Practising\\_in\\_BC.aspx](http://member.abcfp.ca/WEB/ABCFP/Practising_in_BC/Practising_in_BC.aspx)

## Something Old, Something New:

# Combating the Spruce Beetle

Photo: FLNRO

**“BC has not seen a spruce beetle outbreak of this magnitude in decades.”** When I use this statement from BC’s Chief Forester Diane Nicholls, RPF, in meetings or presentations, professional foresters in the room take a collective deep breath. *Another bark beetle! Can we get ahead of it? How big is the threat to the midterm? Can industry switch gears from pine to spruce? Tools from decades ago... are they still applicable?* Ultimately, the question is asked: *Will we be successful?*

In the face of climate change, bark beetle outbreaks of all kinds will occur with a higher frequency. An evaluation of the contributing factors to the current outbreak shows a statistically significant increase in the mean winter temperatures, rise in the number of catastrophic windthrow events, and decrease in annual precipitation over the past few years. For spruce beetles this means less winter kill/greater ability to be present in both two and one year life cycles, ideal host (downed spruce) for populations to thrive, and stressed forests. It’s the perfect storm.

Entomologists akin spruce beetles to icebergs: only a fraction of what is really there is visible. Aerial detection teams look for past homes of beetles — successfully attacked trees that have changed colour or dropped needles. This is tricky. Spruce trees may retain their needles or the colour of their needles for 13 to 15 months post successful attack. When flying in the fall, we don’t see the trees infested this year, only trees from one or two years ago (depending on the lifecycle of the population). What needs to be done is to get boots on the ground to survey, and then probe what may appear to be healthy trees from the air to understand the current location of the outbreak in “green attack” to focus suppression efforts. This trickiness is exasperated by the sheer size of the outbreak.

In 2015, an outbreak was declared for the Omineca Region. The area of the infestation detected by the provincial annual overview survey (AOS) was of course a concern, but it was the trend in population concentration — high numbers of beetles in an area that could successfully infest neighbouring stands — that drew the attention of the forest professionals. In 2013, the AOS detected endemic populations. In 2014, the area impacted spiked to 200,000 hectares but only in trace and low concentration levels. Then in 2015, the area decreased to 156,000 hectares but the severity of damage increased with more areas of moderate and severely damaged stands being observed. It was like a drawn bow, and the potential energy was the concern.

FLNRO district managers reacted by providing letters of expectation and subsequent guidance, timber supply area working groups were formed, training was conducted, funding for detection bolstered, staff were reassigned, a public advisory group was assembled, extension materials were developed, and a project manager was assigned. Luck favours the prepared and the intention of FLNRO is to be well prepared.

Back to the collective deep breath.

Forest professionals took tools out of the box and put a shine on them. The Omineca Region Spruce Beetle Beneficial Management Practices<sup>2</sup> incorporated the expertise found in the Bark Beetle



Photo: FLNRO

Forestry crews are now decking spruce timber differently by providing shade for infested large diameter spruce, either by stacking long lengths of smaller diameters on top to form an umbrella or creating high walls of uninfested timber alongside. This not only provides shade to reduce temperatures to keep beetles from flying, but absorbs any spillover of beetles that may fly from infested wood within the deck.



Photo: FLNRO

Management Guidebook (October 1995)<sup>3</sup> and reflected heightened sensitivities needed in special management areas, ground survey techniques were modified to collect the best data in the shortest time, and aerial surveyors traded in their wax pencils for iPads. New pheromones, traps, and lethal trap tree agents were field tested in 2015 and 2016. Discussions are ongoing to bring cable logging back to the northern Interior. Too little too late? Definitely not. Omineca is in the early stages of this seven-year outbreak cycle, while Skeena and Northeast Regions — experiencing the same perfect storm — could see outbreaks in the coming years.

Our efforts moving forward are built on the experience of the past. BC entomologists, academics, researchers, licensees, stakeholders, and First Nations all have lessons to learn from past bark beetle outbreaks; it was important to combine this wisdom. It is here we are seeing the biggest success; all the players are at the same table planning, sharing resources, and efficiently treating growing populations with trap trees and sanitation harvesting.



*Heather Wiebe is a biologist with nearly 20 years' experience building collaboration between industry and government on natural resource issues. Heather is a resource manager for the Ministry of Forests, Lands and Natural Resource Operations (FLNRO) in Mackenzie and was appointed as Omineca spruce beetle project manager in February 2016. Heather is coordinating the provincial response to this forest health issue including detection, prioritization of treatment, and engagement (which includes a public advisory committee).*

As we anxiously await the results of this year's surveys, we are gauging the efficacy of tactics employed this past year. In areas with low to moderate populations, the primary treatment of conventional trap trees has been successful; evidenced by trap trees loaded with spruce beetles from this year's flight whilst the susceptible forest surrounding them showed minimal successful attack. Other areas with higher populations had small blocks

harvested to bring epidemic levels back to endemic. If successful, additional harvesting in the area may not be necessary. However, if the harvest did not contain the growing populations, a second round of treatment may be required. Each situation is different. Each area has its own set of challenges, whether they be access, steep slopes, or terrain stability.

Over the next year we will be better positioned to understand the potential impact to the annual allowable cut (AAC). Timber supply reviews will include potential impacts. Harvesting schedules will be implemented to maximize suppression efforts while optimizing the merchantability of salvage stands.

So, while the first statement from BC's chief forester caused the collective inhale, the second alludes to where success in this forest health issue will be found: "FLNRO will continue to build strong connections with industry and the public to mitigate impacts from this outbreak and work as a team together for best results. It is important to maintain integrity, consistency and science in our collective approach on sanitation harvests."<sup>4</sup>

It is the collective learning from the past, adapting tools, efficient harvest, and a collaborative approach that will sustain success.

For more information about this outbreak, go to the BC government web page at <http://www2.gov.bc.ca> and follow this path: Farming, Natural Resources & Industry > Forestry > Forest Stewardship > Forest Health > Forest Pests > Bark Beetles > Spruce Beetle. ❌

#### References

- 1 BC's Chief Forester, Diane Nicholls, RPF, at a spruce beetle operational plan meeting between licensees and FLNRO staff in the Omineca Region on March 30, 2016
- 2 [http://www2.gov.bc.ca/assets/gov/environment/air-land-water/land/forest-health-docs/spruce-beetle-docs/spruce\\_beetle\\_omineca\\_bmps.pdf](http://www2.gov.bc.ca/assets/gov/environment/air-land-water/land/forest-health-docs/spruce-beetle-docs/spruce_beetle_omineca_bmps.pdf)
- 3 <https://www.for.gov.bc.ca/tasb/legsregs/fpc/fpcguide/beetle/betletoc.htm>  
BC's Chief Forester, Diane Nicholls, RPF, at an in-house virtual learning event for FLNRO staff on April 20, 2016
- 4 <http://www2.gov.bc.ca/gov/content/industry/forestry/managing-our-forest-resources/forest-health/forest-pests/bark-beetles/spruce-beetle/omineca-spruce-beetle>

## Genomics, Forests and Climate Change –

# Understand, Adapt, and Act

**Genomics, the study of the fundamental building blocks of life — DNA — can help us understand, adapt, and act on the global challenges of climate change.** Revealing the information programmed into the genomes of plants, animals, and microorganisms can provide valuable insights into the diversity of all species on the planet and how species adapt, survive, and thrive in various climate conditions. Environmental management is already benefiting from BC's global leadership in research and the application of genomic technologies to mitigate and adapt to climate change.

Foresters have long known local is safest when collecting seeds for reforestation and current seed transfer policy in BC restricts seed movement between collection and planting site locations. This approach has historically maintained the genetic match that natural selection has generated between populations and the historic climates they are adapted to. However, climate change is rapidly creating a mismatch between native populations and the environments they inhabit. The optimal seed sources for today's environments are different than those of 50 years ago, and in another 50 years, climate models suggest they will be from even more distant populations. This is why BC is moving towards new climate-based seed transfer systems, and may consider strategies such as composite provenancing that use the increased genetic diversity of mixed seed sources to buffer against the uncertainties of future climates. Just as planting more than one species buffers risk, planting more than one seed source for a species may also mitigate risks.

To better adapt our reforestation choices to new climates, we need to understand the adaptation of trees to temperature and moisture regimes. Traditional field-based provenance trials provide

in weather. Building on the genetic understanding of why some trees are better adapted to new environmental conditions, we can now incorporate genomics into breeding and selection programs and climate-based seed transfer strategies that will improve forest health and productivity under new climates.


### New Seed Transfer Strategies and Tree Breeding Tools

In BC and Alberta, over 200 million spruce and lodgepole pine trees are planted annually by forest companies and provincial agencies. Typically, foresters use local seed from breeding programs or from wild stand populations for this planting. In the past, the resulting seedlings were well adapted to the locations in which they were planted. However, a rapidly changing climate threatens forest health and productivity and is predicted to result in widespread maladaptation of trees.

An ongoing research project called AdapTree, led by University of British Columbia's (UBC) Sally Aitken, PhD, has undertaken a large-scale effort to apply state-of-the-art genomics and climate-mapping technologies to climate-based seed transfer (CBST) of Interior spruce and lodgepole pine. CBST also uses information from provenance trial experiments, but genomic data can provide similar knowledge of climate adaptation more quickly than traditional field-based approaches. This research was conducted in collaboration with the Ministry of Forests, Lands and Natural Resources Operation (FLNRO) and other organizations, with co-funding from Genome Canada, Genome BC, and through the cooperative programs of the Forest Genetics Council of BC. By working with professional foresters, tree breeders, and policy makers, researchers are using genomic tools to understand adaptation to climate change and to guide reforestation strategies.

Genomic tools can deliver new information that relate to interventions that match reforestation stock to anticipated future environments. Such actions need to be informed by carefully developing and contextualizing scientific information, and applied through appropriate provincial reforestation policies. Reforestation seedlots from seed orchards that are selectively bred for increased growth rates and wood quality under current climatic conditions are the genetic and economic basis of tomorrow's harvests. These select genotypes need to be spatially reallocated to climatically suitable habitat over vast areas through operational tree planting.

The AdapTree project is providing scientific information for new climate-based seed transfer policies currently being developed by FLNRO. The data collected by the AdapTree research group will generate recommendations for consideration in developing new seed transfer limits for Interior spruce and lodgepole pine. The team has also sifted through millions of genetic markers in



*Dr. Catalina Lopez-Correa is vice president, sector development and chief scientific officer at Genome BC. Catalina holds an MD from UPB University in Colombia, a Masters in Genetics from Paris VII/Pasteur Institute, and a PhD in Medical Biosciences-Genetics from KULeuven in Belgium. At Genome BC she is responsible for developing competitive teams for national and provincial research projects, and raising the profile of Genome BC on the global stage.*

excellent information on survival and growth, but they take a long time, require considerable resources, and do not reveal the genetic basis of adaptive trait differences among populations. BC has scientists who are world leaders in forest genomics, as well as world-class provincial tree breeding programs. Projected temperature increases have already brought the threat of new insect and disease outbreaks, more frequent droughts, and greater variability

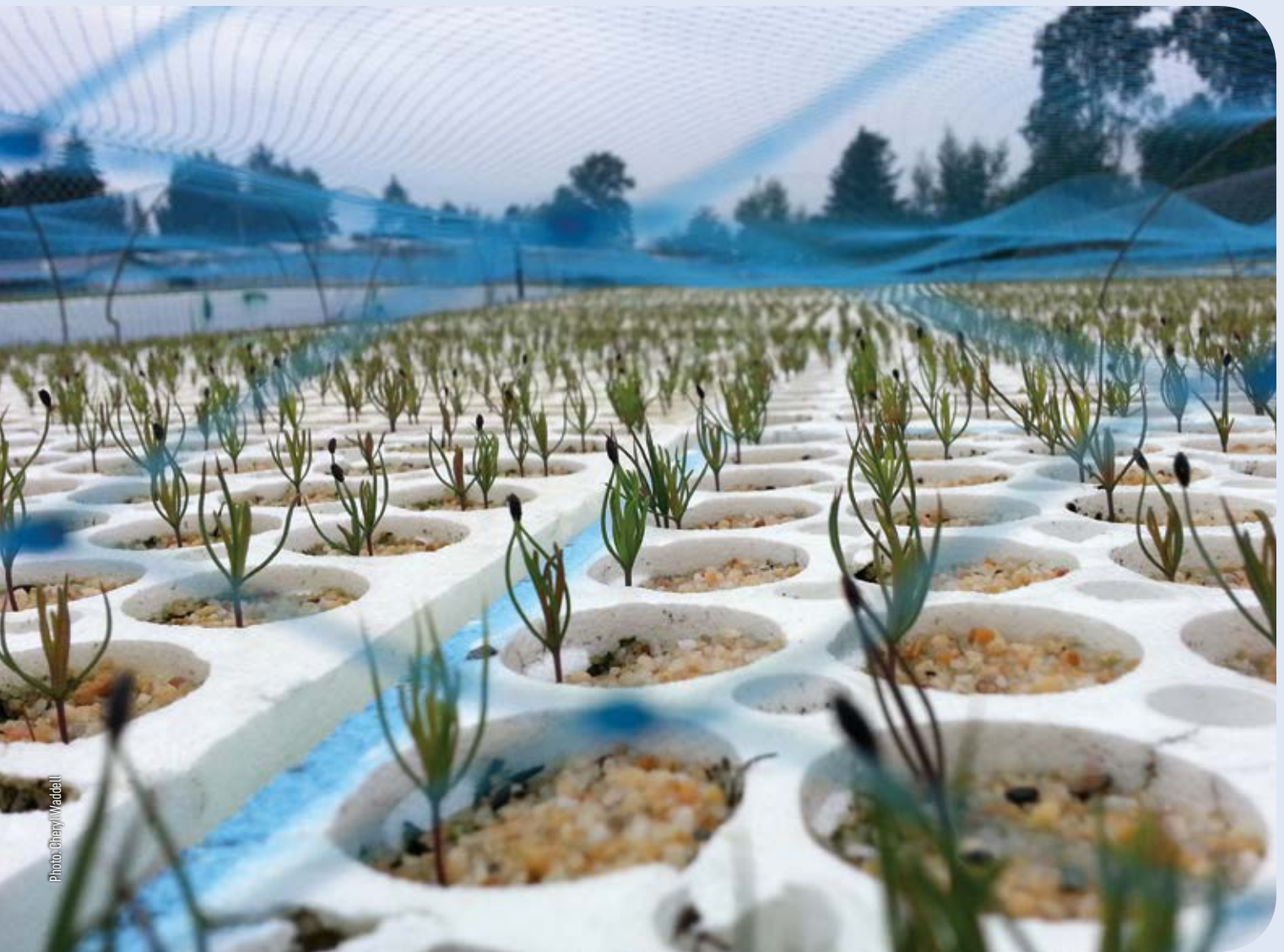


Photo: Cheryl Waddell

each species and selected tens of thousands involved in climate adaptation and growth that are already being used in lodgepole pine and Interior spruce breeding projects.

### **Mapping the Way**

Another advance from AdapTree has arisen from the work of co-project leader. Andreas Hamann, PhD, at the University of Alberta on the velocity of climate change. His team has incorporated climate modeling with geography and topography to determine distances and directions for climate-based seed transfer, and assesses where this practice can have the biggest impact on planted forests. Such breakthroughs in methodology can then be built into new geographic mapping tools to help foresters and conservation managers plan for future climates.

### **Understanding Impacts**

With new climate-based seed transfer policy, foresters will be better able to make informed reforestation decisions regarding seed source and climate change, thereby improving the long term forest health. The economic impact of the improved benefits from these forests could be up to hundreds of millions of dollars annually.

Building directly on geospatial and visual representations of

possible climate change scenarios, part of the AdapTree project involving the UBC research team of Robert Kozak, PhD, has been studying the potential economic, social, and cultural impacts (positive and negative) of different regeneration strategies. The values and perceptions of various stakeholder groups regarding different ecological outcomes were analyzed to understand limits of acceptability, trade-offs, and different perceptions for public and forest-professional groups.

### **Adaption and Action**

Adapting our forests to climate change will be crucial for reducing risks that arise. Genomics is a useful tool for understanding natural adaptability of species and populations, and for informing the development of more climate-resilient crops and forests, managing disease resistance and outbreaks, and developing new risk management and decision-making strategies. Novel monitoring tools, breeding techniques, clean technology innovations, waste conversion, and improved environmental sustainability are only a few examples that are being increasingly facilitated through the use of genomics in BC and Canada. These genomic tools will help scientists and policy makers determine the best approaches and solutions to the challenges facing our communities. ❖

# ABC FP Climate Change Survey: Next Steps

The Association of BC Forest Professionals (ABC FP) conducted a summer 2016 climate change survey on barriers to adaptation and options to overcome the barriers in various forestry disciplines throughout the province. Two similar surveys were conducted in 2014. The purpose of this 2016 survey was to look at trends in data and to extract detailed data based on participants' forestry practice areas.

The survey generated 1,197 responses and 900 open format written comments. The respondents were from government (33%), forest industry (25%), consulting (21%), retired (10%) and 11% (other). The respondents were active RPFs (54%), active RFTs (24%), retired (9%), FIT/ASFIT (5%) and other (8%).

Data from the questions and compiled comments (by general topic) showed that the **top barriers affecting forest professionals' ability to adapt to a changing climate** (Figure 1) include:

- Knowledge deficit – lack of data in an easy to use format (25%);
- lack of legislation/policy from the province (18%);
- limited resources – including time and money (16%); and
- persistent planning and monitoring procedures that do not incorporate climate change (10%).

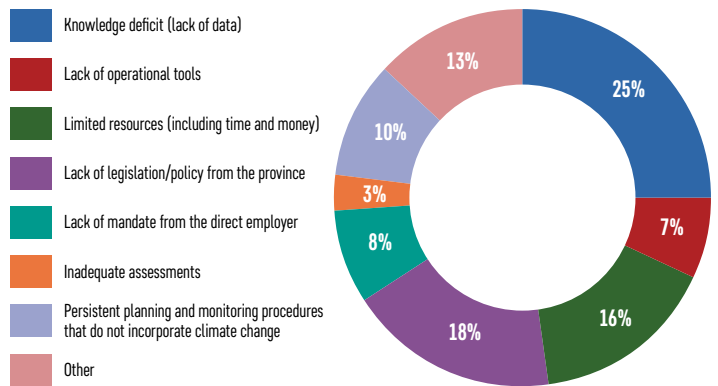
**Taking stock of current climate change knowledge**, the respondents either agreed or strongly agreed with the following statements:

- It is important to consider climate change in the management of forests (87%).
- Climate change impacts will pose future threats for BC forests (80%).
- Climate change has already impacted BC's forests and forest ecosystems (78%).
- The current pace of climatic change is significantly affected by emissions of carbon dioxide and other gases (74%).
- Globally and at continental scales, the climate is changing faster now than it has changed for millennia (70%).

In regards to **balancing multiple priorities and potentially making tradeoffs**, the most important considerations today for respondents are:

- Long term ecosystem resilience (32%);
- maintaining long term timber supply (20%);
- employer mandate being met by assigned work duties (8%); and
- adequate consideration of all 11 *Forest and Range Practices Act* (FRPA) values and stakeholder values are completed (7.1%).

Figure 1



In terms of **scientific data and application**, the respondents either agreed or strongly agreed with the following statements:

- I know where to find information to inform my management decisions relative to climate change impacts, risks and opportunities (35%).
- I have a good understanding of how to assess climate change risks and minimize its impacts (22%).

Both the 2014 and 2016 surveys found the area of silviculture to offer many solutions to adapting to a changing climate. Respondents that primarily worked in silviculture believe the biggest changes to be gained are through:

- Allowing cost recognition (appraisal incentives) for enhanced basic silviculture stocking standards (14%);
- creating tighter linkages between silviculture activities and climate change impacts to integrate into the timber supply review (TSR) processes (14%); and
- having government develop further tools to guide stocking with climate change adaptation scenarios in mind (13%).

Many other valuable pieces of information (especially by practice area), were gathered in this survey and will be available on our website. The Association of BC Forest Professionals is a key player in ensuring our membership is set up for success in the application of climate change adaptation measures. The ABC FP is currently working on continued climate change adaptation topical webinars, joint workshops with Ministry of Forests, Lands and Natural Resource Operations (FLNRO) and a new section of *BC Forest Professional* dedicated to closing the data gap as outlined by these survey results. ☘

Join us for the ABCFP's 69<sup>th</sup>  
Annual Conference and AGM  
in Prince George

**FEBRUARY 22, 23 & 24**





changing landscapes  
new opportunities

The ABCFP's 69<sup>th</sup> annual forestry conference and AGM, *Changing Landscapes, New Opportunities*, will examine the new challenges and opportunities facing BC's forest sector. Among the challenges speakers will discuss are the BC forest sector competitiveness agenda, engaging the public, and cumulative effects. Featured speakers will share First Nations perspectives on land use planning and building a forest industry, new uses for BC timber and fibre products, and identifying tree species that can adapt to a changing climate.

# WEDNESDAY

February 22, 2017

## AFTERNOON EVENT

12:00PM Registration Desk Opens

1:00 – 4:30PM

### RESEARCH SYMPOSIUM

Presented by ABCFP, FLNRO and NRCAN

#### **How Managing for Risk, Wildlife Habitat, and Growth and Yield Impacts Timber Supply**

A dialogue between FLNRO and NRCAN researchers and forest professionals to highlight the latest research and identify additional knowledge gaps and information needs of practitioners.

## EVENING EVENTS: CONFERENCE KICK-OFF

6:15 – 7:00PM

### PLENARY KEYNOTE

#### **Using Research and Science to Shape Future Forests**

Plenary

Chief Forester Diane Nicholls, RPF  
Chief Foresters' Leadership Team members

7:00 – 11:00PM

### Icebreaker and Trade Show

Meet new colleagues or catch up with old friends. It's sure to be an unforgettable night.





# THURSDAY

February 23, 2017

## MORNING EVENTS

7:00AM **BREAKFAST**  
Registration Desk and Trade Show Open

7:30 – 8:00AM **OPENING WELCOME**

8:00 – 9:00AM **OPENING KEYNOTE**  
**Truth, An Inconvenience**  
Jay Ingram, science broadcaster and writer  
Plenary

9:00 – 9:30AM **COFFEE BREAK**

9:30 – 10:30AM **BREAKOUT OPTIONS: NEW OPPORTUNITIES**

- Option A** **Forests as a Source of Economic Development: How First Nations are Building a Forest Industry**  
Chief Councillor Robert Dennis, Huu-ay-aht First Nation
- Option B** **Illuminating the Forest Sector: Why Public Engagement Matters**  
Brian Frenkel, Avison Management Services and District of Vanderhoof councillor
- Option C** **What I Love About The Forestry Profession**  
Aspiring Foresters Education Program

10:30 – 10:45AM **COFFEE BREAK**

10:45AM – 11:45PM **BREAKOUT OPTIONS: CHANGING LANDSCAPES**

- Option A** **First Nations Perspective on Land Use Planning**  
TBA
- Option B** **Cumulative Effects: How Do We Manage for Everything that Happens on the Land?**  
Dr. Chris Buse, project lead, Cumulative Impacts Research Consortium
- Option C** **What Do Foresters Do?**  
Aspiring Foresters Education Program

## AFTERNOON EVENTS

12:00 – 1:30PM **INDUCTEES' RECOGNITION LUNCHEON**

1:45 – 2:30PM **69<sup>TH</sup> ABCFP ANNUAL GENERAL MEETING**

Plenary

2:30 – 3:00PM **COUNCIL HOT SEAT**

Plenary

3:00 – 3:15PM **COFFEE BREAK**

3:15 – 5:00PM **Round Table on the BC Forest Sector Competitiveness Agenda**

- Plenary
- Doug McArthur, SFU professor of public policy and director of the School of Public Policy at UBC
- Ben Parfitt, Canadian Centre for Policy Alternatives
- Jason Fisher, RPF, Associate Deputy Minister – Forest Sector, FLNRO

## EVENING EVENTS

5:30 – 6:30PM **PRESIDENT'S AWARDS RECEPTION**

6:30 – 11:00PM **PRESIDENT'S AWARDS BANQUET**

# FRIDAY

February 24, 2017

## MORNING EVENTS

7:00AM **BREAKFAST**  
Registration Desk and Trade Show Open

8:30 – 9:30AM **The Right Tree in the Right Place: Adapting to a Changing Climate**  
Sally Aitken, PhD, AdapTree Program  
Plenary

9:30 – 9:45AM **COFFEE BREAK**

9:45 – 10:45AM **More Than 2x4s: New and Emerging Uses for Wood and Fibre-based Products**  
Lynn Embury-Williams, RPF, WoodWORKS!  
Bill Downing, RPF, president, Structurlam Products  
Plenary

10:45 – 11:15AM **COFFEE BREAK**

11:15AM – 12:15PM **RESOLUTIONS SESSION**

## AFTERNOON EVENTS

12:15 – 1:30PM **MINISTER'S LUNCH AND CLOSING REMARKS**  
Steve Thomson, Minister, FLNRO

1:45 – 2:45PM **Optional Tour of Wood Innovation and Design Centre**

*Keep an eye on our website, [abcfp.ca/web/ABCFCConference/](http://abcfp.ca/web/ABCFCConference/) for the most up-to-date information, including session summaries.*



# REGISTRATION FORM

## 69<sup>th</sup> ABCFP Forestry Conference and AGM FEBRUARY 22 – 24, 2017



ABCFP Member #: \_\_\_\_\_ Name: \_\_\_\_\_ Affiliation (for your badge): \_\_\_\_\_  
 Select all that apply:  RPF  RPF(Ret)  RFT  RFT(Ret)  FIT  TFT  FP  Associate Member  Guest/Partner  Other  
 Mailing Address: \_\_\_\_\_ City: \_\_\_\_\_  
 Province: \_\_\_\_\_ Postal Code: \_\_\_\_\_ E-mail: \_\_\_\_\_  
 Phone:  Work  Home  Mobile

### Registration Contact

Michelle Mentore  
 ABCFP  
 Ph: 604.639.9186  
 E-mail: mmentore@abcfp.ca

### Please Note

- Discounted early-bird registration is available for inductees (Full Conference packages and Thursday One-Day package) and START Subscribers (all registration packages).
- You are not registered until payment is received.
- Receipts will be sent to you via e-mail.
- A \$50 administration fee will apply to all refunds. Alternate delegates may be sent without penalty if you are unable to attend. Please advise us of any substitutions by February 3, 2017 to allow time for new name tags to be generated.
- Refunds will not be granted after January 21, 2017.

### Registration Packages

		FEE By Jan 16	FEE After Jan 16	PAYMENT
<b>1 Full Conference Package</b> (Kickoff plenary and Icebreaker on Wed, all sessions and meals on Thurs and Fri) <i>Does not include Research Symposium.</i>	Regular	\$425.00	\$525.00	\$
	START Subscriber	\$300.00	\$375.00	\$
	Inductee	\$395.00	\$495.00	\$
<b>2 Wednesday One-Day Package</b> (Kickoff plenary and Icebreaker on Wed) <i>Does not include Research Symposium.</i>	Regular	\$50.00	\$ 75.00	\$
	START Subscriber	\$25.00	\$ 40.00	\$
<b>3 Thursday One-Day Package</b> (All sessions and meals on Thurs)	Regular	\$310.00	\$375.00	\$
	START Subscriber	\$155.00	\$190.00	\$
	Inductee	\$280.00	\$345.00	\$
<b>4 Friday One-Day Package</b> (All sessions & meals on Fri)	Regular	\$210.00	\$245.00	\$
	START Subscriber	\$105.00	\$125.00	\$
<b>Research Symposium</b> <i>An extra charge applies to attend the research symposium.</i>				
<b>How Managing for Risk, Wildlife Habitat, and Growth and Yield Impacts Timber Supply</b>		\$60.00	\$75.00	

### Extra Meals

*These meals are in addition to those included in the registration packages. Purchase standalone tickets for yourself or guests.*

		# OF TICKETS	FEE	PAYMENT
Icebreaker	Wednesday		\$30.00	\$
Breakfast	Thursday		\$22.00	\$
Inductees' Recognition Luncheon	Thursday		\$30.00	\$
President's Awards Banquet & Reception	Thursday		\$60.00	\$
Breakfast	Friday		\$22.00	\$
Minister's Lunch	Friday		\$30.00	\$
ABCFP GST Registration # 130786692			Add 5% GST	\$
TOTAL PAYMENT DUE				\$

### Payment Options

**Register and Pay Online:** [abcfp.ca/web/ABCFCConference/](http://abcfp.ca/web/ABCFCConference/)  
**Credit Card:** Visa or MasterCard accepted  
**Cheque** (payable to): Association of BC Forest Professionals  
**Mail to:** Association of BC Forest Professionals  
 602 - 1281 West Georgia Street  
 Vancouver, BC V6E 3J7  
**Fax to:** 604.687.3264

### Credit Card Information

Card# \_\_\_\_\_  
 Visa  MasterCard Expiration Date: (MM/YY) \_\_\_\_\_  
 Full Name: \_\_\_\_\_  
AS IT APPEARS ON THE CARD  
 Signature: \_\_\_\_\_



# Visual Quality Objectives and the Rule of Law

**This past summer the Forest Appeals Commission (FAC) released** its decision in the appeal of Interfor Corporation v. Government of British Columbia. The appeal considered a contravention determination under the *Forest and Range Practices Act* (FRPA) that the appellant did not achieve the intended results specified in its forest stewardship plan (FSP) in relation to visual quality objectives (VQO), contrary to Section 21(1) of FRPA.

The case is interesting from a legal perspective given the almost impossibly subjective standards the FAC was called upon to apply in order to dispose of the appeal. At issue was whether the appellant achieved a VQO of partial retention after completion of its harvesting activities in a particular cutblock (as required in the FSP), or whether the appellant, instead, achieved a VQO of modification.

Without getting bogged down in the legislative linkages, the requirements of the various categories of VQOs for altered forest landscapes are defined in Section 1.1 of the *Forest Planning and Practices Regulation* (FPPR) from the lowest degree of alteration

*Jeff Waatainen is an adjunct professor of law at UBC, has practiced law in the forest sector for nearly 20 years, and currently works in the Forestry Law Practice Group of DLP Piper (Canada) LLP's Vancouver offices (formerly Davis LLP).*

(preservation) through to the highest (maximum modification). In between these two poles exist retention, partial retention, and modification. In large measure, these VQOs are defined in terms of scale within the altered forest landscape, and in terms of visibility. So, already, one might suggest that a problem exists insofar as scale and visibility are closely linked. In this respect, the FAC determined that visibility is assessed with reference to human perception (literally, an eyeball test) and scale is, instead, assessed relative to the landscape.

However, the terminology gets even more slippery. Under Section 1.1 of the FPPR, a VQO of partial retention is an alteration that is “easy” to see in terms of visibility, while modification is “very easy” to see. And a VQO of partial retention is “small to medium” in scale, whereas modification is “large” in scale. The problem is that the FPPR does not provide any guidance as to the difference between “easy” and “very easy” to see, or between “small to medium” and “large” in scale. It does not give any indication of how one person’s description of an alteration as “very easy to see” is more apt than another person’s description of the same alteration as merely “easy to see”, or

how one person’s description of the alteration as “large in scale” is more accurate than another person’s description of the alteration as “small to medium.”

Nevertheless, these are the sort of issues that the FAC had to deal with in the appeal. Of course, the assessment of VQOs has existed since long before the FPPR came into existence, and so the FAC had the benefit of expert evidence of VQO assessment practice. Yet, the extent that this past practice was applicable under the FPPR was not entirely clear. For example, expert opinion before the FAC was unanimous that visual quality assessment occurs on the basis of landforms; yet, as the FAC acknowledged, under Section 1.1 of the FPPR the categories of VQOs are defined in terms of landscapes. Moreover, the evidence suggested that there were no accepted working definitions of the terms “easy to see” and “very easy to see”. No working definitions of “small to medium” or “large” in scale were apparent in the evidence either.

The fact that the VQO category descriptions in Section 1.1 of the FPPR are not tied to working definitions or some other broadly accepted industry standard means that when a dispute arises over the actual content of those descriptions, the FAC is left, in effect, to make something up as best as it can after the fact. The problem with this approach is that it tends to undermine a fundamental principle of the rule of law: advance knowledge of the law. Under the rule of law, persons subject to a law are entitled to know the content of the law before they act. Given that VQOs are defined in Section 1.1 terms of, apparently, content-free adjectives and adverbs, persons required to meet those VQOs will have difficulty knowing in advance whether their plans will succeed. ☒



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Effective April 17, 2015, Davis LLP combined with DLA Piper LLP, and adopted the name DLA Piper (Canada) LLP.

## Forestry Law Group

The DLA Piper (Canada) LLP Forestry Law Group advises and represents clients across Canada and abroad on virtually all issues affecting the forest sector.

**In efforts to reduce wildfire hazard in the wildland-urban interface,** are enough fuels being removed to effectively reduce potential wildfire behaviour and protect values at risk? This is a simple question which should have an equally simple answer. However, observations of fuel treatments throughout western North America would suggest that in many areas the level of fuel removal has been too low to effectively address the level of hazard.

Fuel treatments are designed and carried out in order to mitigate potential fire behaviour, as well as mitigate potentially adverse fire effects. By mitigating fire behaviour we create conditions that improve the chances of initial attack being successful: a ground-crew can safely work there, the resources at hand will be sufficient to arrest the spread of fire, the use of aerially-delivered retardant and water has a higher probability of success because it can penetrate the forest canopy, etc. Mitigating fire effects results in increased resilience. If the treated forest doesn't survive the fire, there is a significant cost incurred by the community and the province: salvage of fire-killed trees (at a loss over the value of green timber), replanting a forest, control of invasive plants, long-term density management, erosion, debris flow and/or landslide mitigation, etc. The reasons for not treating intensively enough are highly varied, but the consequences are the same. If a treatment doesn't meet the stated objectives for hazard mitigation, in many cases firefighters lives are put at risk, initial attack is often unsuccessful, adjacent values are damaged

- a significant separation between surface and canopy fuels, and
- the stand canopy should be quite open.

Strategies used to meet these fuelbed conditions include pre-commercial thinning (provided the thinned canopy is removed), commercial thinning, chipping/mastication, and species conversion — such as shifting a stand from conifer to pure deciduous. Any manual or mechanical entry results in the creation of surface fuels so a follow-up treatment of either pile burning or broadcast burning is required.

Reasons for not removing enough fuel in a treatment can be attributed to a lack of understanding of potential fire behaviour and fire effects, treatment cost, and pressure to incorporate social and biological trade-offs. Regardless of the reasons, the result can seriously compromise the effectiveness of the treatment. There is a definite point where the proposed fuel treatment can be rendered ineffective if too many trees or too much surface fuel is left on site. Efforts to compromise and incorporate wildlife habitat constraints (too much coarse woody debris on the forest floor or snags) or visual quality objectives, for example, can lead to fire behaviour that not only endangers firefighters but also is a poor use of scarce economic resources to protect values at risk. The goal behind fuel treatments is not to have a marginal or slight impact on potential fire behaviour but to have a significant impact.

This issue of treatment effectiveness and pressure to compromise might best be considered from the perspective of professional

# Wildfire Hazard Mitigation:


or lost, and the treatment area — including the investment — is potentially lost. The long-term consequence is the erosion in public and government support for fuel treatment programs.

To be effective at mitigating fire behaviour, fuelbeds should consist of the following:


- surface fuel beds with a low loading of fine fuels (widely scattered logs and some branchwood is acceptable),

engineers designing structures intended to mitigate other natural disasters such as earthquakes and floods. When designing seismic upgrades for earthquake mitigation or dykes for flood mitigation, professional engineers are not similarly constrained and due to their professional obligations (and liability exposure) would not be permitted to design something that would not have a high likelihood of success. In other words, they could not design a dyke that is constrained by the need to incorporate sociological or wildlife objectives — the dyke is designed to meet a singular objective — flood mitigation.

Fuel treatments to mitigate fire behaviour, especially in the wildland-urban interface, is a relatively new practice for professional foresters in BC. Since the fires of 2003 and the development of the *Strategic Wildfire Prevention Initiative* within the Union of BC Municipalities, there has been regular funding steered to communities to reduce fire behaviour. Similar programs have been developed in other jurisdictions throughout the west, giving us an opportunity to look back over a decade of practice to see what's working and what isn't. In many cases, and for many reasons, treatments have not removed enough fuel, leading to potentially significant economic, sociological, and legal consequences should a wildfire impact the treatment area. We recommend those developing hazardous fuels mitigation prescriptions seek a deeper understanding of fire behaviour and fire effects. Such knowledge is critical to limit liability exposure. As well, a strong knowledge base is integral to addressing issues of sociological and biological compromise. ❖



*Robert W. Gray is an internationally-recognized fire ecologist and the president of R.W. Gray Consulting Ltd. Robert has over 30 years' experience in the research and application of many facets of fire science, including fire regime reconstruction, fire behaviour and effects analysis, national and international fire management policy, and hazardous fuel management. R.W. Gray Consulting Ltd. clients include: US Forest Service, The World Bank, Parks Canada, FLNRO, University of Washington, University of Idaho, University of British Columbia, and many others.*



*Bruce Blackwell, MSc, RPF, RPBio, has more than 28 years' experience as a professional forester and biologist, primarily focused in fire and forest ecology, forest and fire management, wildland-urban interface planning, forest policy, and practice audits and reviews. Bruce is a provincial expert in fire and fuels management and has managed numerous innovative fire risk identification and mitigation projects in the public and private sector.*



*An example of a stand treatment carried out to reduce surface fire intensity, reduce the likelihood of a surface fire transitioning to a crown fire, and to improve the likelihood the stand survives a wildfire. The treatment involves manual thinning of small-diameter trees, piling slashed trees plus large diameter surface fuels, followed by pile burning. This area was slated for a low intensity prescribed burn in the spring of 2016. The intensity of the treatment (density removed) makes prescribed burning much less complicated.*

# We're Not Thinning Enough

*An example of a treatment that is not ideal. Looking at the treatment through the lens of key treatment objectives (i.e. reduced surface fire intensity, reduced likelihood of active crown fire, improved resilience), this stand would not meet those objectives. There is still enough density, especially in small-diameter stems, to propagate a crown fire and the majority of the stand would not survive even a moderate intensity fire. There are also issues of leaving a snag, plus expending money on pruning small-diameter, fire-intolerant trees.*



## Visual Quality Management:

# Lessons from the Field

Photo: Del Williams, RPF

*Landform that was at issue in Forest Practices Board recent report on visual quality on Alberni Inlet.*

The Forest Practices Board (FPB) regularly examines visual quality management during compliance audits, and sometimes receives complaints from the public. While the audits often reveal examples of good visual management, recently the FPB has seen an increasing number of concerns brought forward. These have come from businesses that rely on scenic views, members of the public engaged in outdoor recreation, and forest professionals. The increasing concerns may be the result of a diversifying tourism industry, growing public participation in outdoor recreation, or a gradual shift in timber harvesting from more remote areas to sites where logging is more visible. Whatever the reasons, it points to a need for professionals to pay particular attention when working in visually sensitive areas. A recent Forest Appeals Commission (FAC) decision and the results from recent FPB investigations yield some valuable lessons for forest professionals working in scenic areas.

The fundamentals of visual quality management have remained fairly constant over time. Code-era guidance is still commonly used by foresters and can continue to be used with the knowledge that visual quality objectives (VQO) must be met, whether they are specified as results in forest stewardship plans or practice requirements in the woodlot regulation.

In addition to complying with the law, forest professionals should ensure VQOs are met for other reasons:

- Poor visual quality management reflects poorly on the forest industry and forest professionals. The public may interpret poor management of visual resources to mean other forest resources are poorly managed.
- Poorly designed cutblocks can reduce the available timber supply by making it difficult to meet the VQO for the next pass on that landform. Conversely, well designed cutblocks allow foresters to maximize the amount of timber available and may make it easier to meet VQOs in the next pass, once visually

effective green-up has been achieved on the landform.

- Good management of visual quality supports the coexistence of forestry with tourism-related businesses and the recreational enjoyment of BC forests.

A July 2016 decision by the FAC addresses many of the challenges that foresters face in meeting VQOs, and provides a thoughtful approach to assessing compliance.<sup>1</sup> Some of these challenges include the following:

- **Significant public viewpoints:** The *Forest Planning and Practices Regulation* (FPPR) sets out results that must be achieved “when assessed from a significant public viewpoint.” While public consultation can be a good means of determining significant viewpoints, the consultation should not be selective. Foresters should not substitute their own views of importance for significance. The results must be achieved from any significant public viewpoint (which can be especially challenging to determine in marine settings where vessel traffic along straits and inlets provides several vantage points). The VQOs for adjacent areas may provide context that informs the identification of significant public viewpoints.
- **Visual impact assessments (VIAs):** Although VIAs are no longer legally required, they remain a standard practice and are useful in predicting whether VQOs will be met and in demonstrating due diligence. However, the act of preparing a VIA alone is not sufficient to establish a defence of due diligence under the *Forest and Range Practices Act* (FRPA). The FAC looked to a number of factors, including the qualifications of the person undertaking the assessment, the rigour of the analysis, peer reviews, and whether the activities were carried out as prescribed.
- **Use of simulations and photographs:** Forest professionals have sophisticated means of predicting and measuring potential

### The fundamentals of visual quality management include:

- understanding the legal VQO definitions in FRPA regulations;
- understanding the concepts of existing visual condition, visual sensitivity, and absorption capacity;
- selecting significant public viewpoints;
- carrying out visual impact assessments to determine how a cutblock will look against the landform in question;
- recognizing how different harvesting methods can be employed to meet the VQO obligations; and
- monitoring field operations and adapting as necessary.



An example of good visual design off the Coquihalla Highway, north of Hope.

visual impacts. However, care must be exercised to ensure these are reasonable representations of what the public will actually see. The size, field of view, and viewing distance of a photo, for example, can be very important when assessing compliance with a VQO.

- VQO terminology: The FPPR defines five VQO classes. Read in isolation, it can be challenging to determine whether a cutblock is “easy” or “very easy” to see, or whether it is “natural in appearance.” Fortunately, there is a considerable body of guidance to applying these terms, including a VQO poster published by government<sup>2</sup> which provides examples of the five VQO classes and code-era guidebooks that remain relevant. The FAC decision provides a thoughtful analysis and approach to applying this terminology when assessing compliance. It also discusses the relationship between these terms and the numerical “per cent alteration” guidance as a useful predictor of the visual condition achieved post-logging.

The FPB has also published several reports on visuals management in recent years. These include:

- *Visual Quality on Alberni Inlet* (September 2016)<sup>3</sup>
- *West Cracroft Island Visual Quality* (February 2016)<sup>4</sup>

- *Haida Gwaii Visual Quality Objectives* (November 2014)<sup>5</sup>
- *Audit of Forest Planning and Practices: BCTS and Timber Sales Licence Holders - Chilliwack Natural Resource District portion of the Chinook Business Area* (April 2015)<sup>6</sup>
- *Forest Stewardship Plans: Are They Meeting Expectations?* (August 2015)<sup>7</sup>
- *Audit of Visual Resource Management: Campbell River Forest District* (May 2005).<sup>8</sup>

When planning harvesting and road-building operations in scenic areas, professionals should:

- Understand the significance of the visually sensitive areas to the public and businesses.
- Adequately understand visual quality management. Training is available<sup>9</sup>, or can be made available if there is a demand. As well, the FAC decision and the aforementioned FPB reports can be instructive.
- Use qualified personnel when completing VIAs.
- Consider engaging a knowledgeable peer to review the work.
- Monitor the harvesting as it progresses and be prepared to modify plans on the go.

The FPB strives to emphasize solutions, and for this reason, its most recent report on the Alberni Inlet includes recommendations to government and the Association of BC Forest Professionals, calling for a review and update of guidance and policy documents to ensure consistency of approach and use of best practices in the management of visual resources. ☒



**Mark Haddock is the Forest Practices Board's (FPB) general counsel, providing legal advice and managing the appeals program. Mark graduated from the University of British Columbia's Faculty of Law with an LLB in 1987, and joined the FPB after several years of teaching at the University of Victoria's Faculty of Law. While in private practice he worked on a broad range of forestry, natural resource, and environmental matters over the years, and served as a part-time member of the FPB from 1999-2001 and 2004-2008.**



**Del Williams, RPF, is a manager of audits and investigations with the BC Forest Practices Board and has been a RPF since 1987. His current responsibilities include investigating complaints, doing special investigations, and participating in audits for the FPB. His past experience includes working as general manager and operations forester for the Revelstoke Community Forest Corporation and as a silviculture forester on Haida Gwaii. He also co-owns and manages a woodlot license near Revelstoke.**

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# Talking About the Future of BC's Forest Sector

Since the creation of the Chief Foresters' Leadership Team in the summer of 2015, chief foresters across the province have been busy working together on forest sustainability in the context of current resource management challenges.

Since the theme of this edition of *BC Forest Professional* is *The Future of Forests*, it felt like the perfect time to dive into *BC Forest Professional's* new series of interviews with Chief Foresters' Leadership Team (CFLT) members.

We kick-off the series with Western Forest Products vice president and chief forester, Shannon Janzen, RPF — an Association of BC Forest Professionals member since 1999.

*It's a classic question, but why did you choose professional forestry as a career?*

Before university I had no knowledge about forestry. I signed up for the wildlife management program at UNBC because I loved being outdoors and had a strong interest in the environment. So looking back, a career in forestry wasn't as much of a choice as it was a discovery.

The turning point started when a neighbour suggested I meet her brother, Allan Banner, a research ecologist with the BC Ministry of Forests in Victoria. To my knowledge Allan was the first RPF I had ever met. I was struck by his passion, his scientific approach, and his care for people and the environment. While I learned a lot about forestry that day, Allan had one piece of advice: become a forester, you won't regret it. It took two years and a summer job for me to switch majors. Now more than 20 years later, Allan was right, I have no regrets.

*What do you feel is the biggest challenge the forest sector is facing right now?*

The mountain pine beetle and economic downturn made us insular — focusing on our businesses at the expense of external communication. This has created a challenge for our sector. In the absence of consistent communication, public perceptions have shifted.

A recent survey conducted for the Coast Forest Products Association demonstrated that the majority of coastal communities believe tourism is the most important economic driver in our province. There is also a general belief that forestry and tourism are in competition — one must decline for the other to flourish.

Forestry remains a foundational industry in our province, employing more than 145,000 British Columbians. I believe that tourism and forestry can co-exist. In fact, this relationship is necessary for our economy to grow.





Photo: iStock.com

We can't simply rely on our legacy and expect the public to understand our role in their future. We need to start telling our story — reigniting the passion and excitement about forestry and its contribution to the wellbeing of all British Columbians.

***Tell us about some of the main goals of the Chief Foresters' Leadership Team?***

The purpose of the Chief Foresters' Leadership Team is to create a strategic and common understanding about the future of our forests. The team has defined focus areas, including increased awareness and recognition of the sector, First Nations engagement, landscape level planning, and forest management goals and objectives.

The vision of the Chief Foresters' Leadership Team is to “*create unified leadership to help shape the future forests through management rooted in science – promoting healthy, ecologically diverse, resilient forests that sustain a strong forest sector in BC.*”

It is my goal that through this work we will create a new energy for forest professionals, reinforcing a vision for sustainability that is based on science — guiding our decisions as we work together to manage the most sustainable and renewable resource on the planet.

***Outside of forest-dependent communities, forestry doesn't seem to be on the public's radar. What's one thing about forestry you think people in BC's cities should know?***

The Coast Forest Products Association survey I mentioned earlier reinforces that there is a general lack of public understanding about forestry, especially for people living in urban centres.

On a positive note, the survey showed urban dwellers generally understand that forests are renewable. However, less positive is that urban dwellers think the amount of harvest in BC is too high.

Based on this, I think people in BC's cities need to know that the amount of harvest is set through a disciplined scientific process — regulated by government and set by the provincial Chief Forester. This process balances the amount of harvest with how much forest is grown each year in BC's working forests.

***Was it important to you to gain the RPF designation?***

Yes, the *Foresters Act* that governs our profession creates a unique privilege in BC. Through this legislation I not only have the right to practice, it also allows me to hold the title of Chief Forester for Western Forest Products. I believe in the professional reliance model and the need for an association with both practice requirements and professional ethics.

As a vice president responsible for sustainability, I also rely on more than 80 other forest professionals for their high standard in achieving Western's own forest strategy requirements in conjunction with BC's complex and stringent environmental laws and regulations.

***Tell us about something funny or wild that's happened to you while working in the field.***

I spent five years in the town of Holberg — essentially a logging camp with less than 100 residents, where the “volunteer” fire department wasn't so much of a choice as it was a requirement.

What made this funny was the unexpected complications of having two women join the team for the first time, at the same time. Turns out the small, medium, and large fire gear sizes were no longer appropriate for us tiny humans. So the catalogue came with an insert and a drawing that looked like something out of a 1950's magazine. We had three choices of gear: apple, pear, or stick.

Whether it was the Justice Institute live fire training courses, car fires, or controlled burns, we rocked that pear-shaped (or was it apple? – definitely not stick) fire gear. ☒

# What Can You Do to Eliminate Hazardous Roadside Debris?

## Submitted by the Roadside Debris Working Group

**Hazards created from road construction on steep slopes, usually in the form of unstable debris, are an ongoing safety concern in the forest sector.** This hazardous roadside debris has a broad impact on forestry operations, as it can endanger hand fallers, and any other phase that follows road construction, from harvesting through to silviculture. The issue is most prevalent on the coast where roads are built on steep sideslopes and hand fallers are required to fall the road right-of-way (R/W) and the block.

In the fall of 2015, the Falling Technical Advisory Committee (FTAC) asked major licensees and organizations on the coast to find ways to eliminate hazardous roadside debris. The Coast Harvesting Advisory Group (CHAG) responded by creating the Roadside Debris Working Group (RDWG) to tackle the issue. The group consists of a cross section of industry workers including fallers, road building contractors, licensee contract supervisors, and engineers. The RDWG's findings and recommendations are included here.

- stumps and debris cart-wheeled into the setting below (Figure 1)
- snags and trees pushed over and leaning into the standing timber (Figure 2)
- unstable cut slopes and undermined trees/stumps (Figure 3)
- shot rock embedded in, or damaging standing timber (Figure 4).

### What Can We Do About It?

The RDWG circulated a survey to determine phases that are involved with and impacted by road construction. There were several key findings in the survey.

#### Raise Awareness

Bringing awareness of the issue of hazardous roadside debris to everyone involved will go a long way to making a safer workplace. Many of the hazards that are being created could be easily avoided. The RDWG has prepared a number of free resources to help get the message out to industry, including a poster, pamphlet, and short slideshow<sup>1</sup> that can be used for start-up meetings, tailgates, or shop/camp settings.

#### Improve Forest Road Layout and Design

Many forest professionals involved with operations and road construction are well positioned to help reduce hazards created from road construction. These professionals are relied upon to layout, survey, design, and produce plans for forest roads that consider the safety of all users. As outlined in *Guidelines for Professional Services in the Forest Sector – Forest Roads*<sup>2</sup> this should include establishing an appropriate clearing width for the road prism, including spoil sites/quarries and organic debris.

Professionals must consider the location of the ribboned centerline carefully, because it dictates where the right of way is felled. Consequently, if the road builder has to deviate significantly from the flagged centerline on steep slopes it can lead to debris and timber being out of reach from a machine working on the built road. Accurately mapped spoil site and endhaul



*The Roadside Debris Working Group (RDWG) is made up of contractor and licensee representatives from Coastal BC operations, including road builders, licensee foresters, engineers, and fallers. The RDWG includes Michael Lee, RPF, PEng, Interfor; Kevin McKamey, RPF, Pilldolla Creek Contracting; Chad Campbell, Ryder Contracting; Aaron Steen, RFT, TimberWest; Don Cleaver, Island Timberlands; Steve Kerrone, Island Pacific*

*Logging; Don Holmes, RPF, TimberWest; and is facilitated by Pam Jorgenson, RPF, Outlook Resource Solutions. This group was created at the request of the Falling Technical Advisory Committee (FTAC), and guided by the Coast Harvesting Advisory Group (CHAG).*

### Where Does Hazardous Roadside Debris Come From?

Hazardous roadside debris comes from many sources. These include:

- unstable boulders/rock on fill slopes
- R/W timber out of reach for loader
- R/W timber stacked up against standing timber to be hand felled



Figure 1



Figure 2

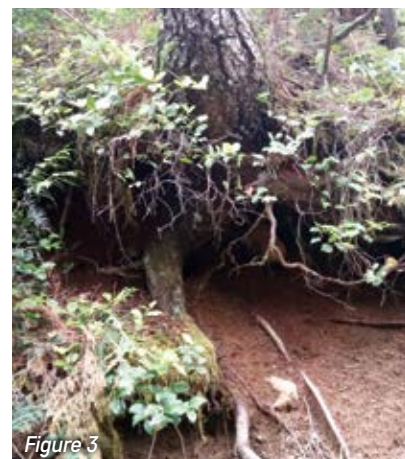


Figure 3

Owners, employers, supervisors, and designated prime contractors have an obligation (under the *Occupational Health and Safety Regulation*) to prevent and remove roadside hazards.

#### **OHSR 26.80 Creating Additional Hazards**

"Road or skid trail construction, including any blasting activity, must be carried out in a manner that prevents hang ups, hanging broken tops or limbs, leaners, sidebind of pushed tress, or similar hazards which could endanger fallers or other workers."



Figure 4

locations allow the road builders to better plan how to manage the material and ensure a wide enough clearing width has been established.

#### **Supervise Construction Effectively**

Effective construction supervision and sign off on construction by a qualified person will help to ensure roads are generally built to the plan and are safe for industrial use. Professionals in this position should be considering safe placement of materials and roadside debris when reviewing and signing off built roads. This stage is the ideal time to deal with roadside debris hazards, before the road building phase is completed and fallers move in to the setting.

#### **Improve Communication Between Phases**

If a phase is unable to prevent hazardous roadside debris, they must share hazards with the next group of workers. Effective communication and improved hazard documentation between phases is critical to ensure everyone is made aware of the hazard and a plan

is made to either eliminate the hazard or safely work around it.

When supervisors are notified ahead of time, a plan can be made to deal with the hazard. Contract supervisors are in a position that is quite often the link between phases (i.e. a road building contractor and a falling or logging contractor) and are a critical part of this process.

#### **Conclusion**

Forest road building operations may create roadside debris hazards, but it is not just the excavator operator or driller/blaster that can help prevent them. Every phase can do their part to help mitigate roadside debris, from planners to engineers to fallers and road builders. By raising workers' awareness of the hazards, providing good training to workers, improving communication across phases, and thoroughly identifying hazards, we can all do our part to limit the development and impact of hazardous roadside debris.

#### **References**

<sup>1</sup> <http://bcforestsafesafe.org/node/2858>

<sup>2</sup> <https://www.apeg.bc.ca/getmedia/b76d39fb-f39c-4939-8bc7-2c48013c4895/APEGBC-Guidelines-Professional-Services-Forest-Roads.pdf.aspx>

# STAY SHARP



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# In Memoriam

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 [editor@abcfp.ca](mailto:editor@abcfp.ca). The association sends condolences to the family and friends of the following members:

## Laurence "Larry" Andrew Hope

RPF #350 (Retired)

November 7, 1931 – March 5, 2016

Laurence "Larry" Andrew Hope was raised at the farm in Fort Langley, BC; graduated from the University of British Columbia in 1955 with a Bachelor of Forestry Degree; and became Registered Professional Forester #350 in 1960.

Larry married Lilly Sater in 1958 and they had five daughters. Lilly died in 1985. Larry worked in the BC forestry industry from 1955 to 1987, in areas including Haida

Gwaii, Giscome, and Burns Lake. He also started a small sawmill in 1967, Decker Lake Forest Products Ltd., which he sold in 1986.

Larry cherished the friendships made during this time. In 1988, he married Hope Mavis Poole and built Redwoods Golf Course, which opened in 1994. Larry worked with the Township of Langley to ensure the golf course property would never be developed and remain green space for the residents to enjoy in perpetuity.

Larry loved to collect information and share stories. For the last 12 years he had been researching and writing the history of his grandfather Hope and it morphed into interesting side stories of the history of BC and Canada during those times. He was a voracious learner and this story is a legacy that will be enjoyed by generations to come.

He was a strong supporter of communities and charities that he believed in. A private service was held. A public celebration of life open house was held on Monday, March 21, 2016 at Redwoods Golf Course in Langley, BC.

In lieu of flowers, donations can be made to Peace Arch Hospital Foundation, White Rock; St. George's Anglican Church, Fort Langley; or your local Salvation Army.

*Based on an obituary originally published in The Vancouver Sun and/or The Province on March 14, 2016*



Photo: Langley Times

## Pieter "Piet" Broersen

RFT #1677 (Retired)

March 25, 1956 – July 29, 2016

It is with extreme sadness the family of Pieter "Piet" Broersen announces his death on July 29, 2016.

Pieter was a true forestry professional, dedicated to his profession since he started his career as a junior forest warden in Alberta, in 1975 (earning seven dollars a day).

Following graduation from Northern Alberta Institute of Technology and the Hinton Forest Technology School in 1977, Pieter began his career with the Alberta Forest Service (AFS). In 1981, he supervised a 10 person regional initial attack crew in Swan Hills — the first helitack type fire crew established in Alberta. His forestry experience with the AFS expanded while he worked at various locations, including Manning, North Star, and Hines Creek, Alberta.

In 1994, Piet crossed the border to BC, where he began his 21.9 year career in forestry. His first job in BC was with the Horsefly Forest District at the Likely Field Office on beautiful Quesnel Lake. It was at this time that Piet raised concerns about the mountain pine beetle infestation, before other authorities recognized it. In 1999, Piet journeyed to northern BC, settling in the beautiful Peace country. In 2012, Pieter was a Glen Evely Memorial Award of Excellence nominee. His diverse career ended in Charlie Lake with Compliance & Enforcement. Pieter strongly resisted retirement; forestry was his passion and his true calling in life.

Pieter was much more than just a forestry professional. He was a multi-faceted man, delving into music; photography; sketching; gardening; fly tying; making axe handles; and collecting forestry memorabilia, caps, stamps, and Chinese coins. He also made a mean pot of chili. Throughout his life, Piet's dogs Dusk, Gus, and Trapper were his devoted companions.

Most importantly, Pieter valued genuineness, sincerity, honesty, loyalty, integrity, and a strong work ethic. To those who sincerely took the time to get to know Piet, they discovered a kind and gentle man with a huge heart. As one friend described him, a "very good hearted soul." He was an awesome brother and a unique and loyal friend to many.

*Submitted by Ingrid Thompson, sister of Pieter Broersen*



Reflections on Occupational Health and Safety:

# The Future of Forests

By Carole Savage, RPF, and Mike Larock, RPF

As BC forest professionals, we envision a future in forestry as a workplace free of injury, disease, and death. The ways we can help make this happen are to:

- recognize and communicate how the attributes of a forest and prescribed work affects worker safety
- stay current with changes to occupational health and safety legislation
- promote a culture of safety in our workplaces
- apply these measures in our daily professional work.

Creating a safe environment for forestry workers now, means that future generations can continue to use and enjoy the many benefits our forests provide.

In order to improve workplace health and safety for forest workers, we are looking for input on how you communicate your knowledge of forests to improve safety in the workplace. Send your comments to Mike Larock, RPF, at mlarock@abcfp.ca.

To help you stay informed about the latest health and safety information, subscribe to WorksafeBC's monthly e-news<sup>1</sup>. You'll receive updates on changes to the *Occupational Health and Safety Regulation (OHSR)*, guidelines, and policies, as well as information on new health and safety resources and upcoming events.

References

<sup>1</sup> Home > About Us > News & Events > Enews (<https://www.worksafebc.com/en/about-us/news-events/enews?origin=s&returnurl=https%3A%2F%2Fwww.worksafebc.com%2Fen%2Fsearch%23q%3Dsubscribe%26sort%3Drelevancy%26f%3Alanguage-facet%3D%5BEnglish%5D&highlight=subscribe>)

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**Membership Statistics: ABCFP August 2016**

Note: Individuals may have applied for a change to their status since this posting. Check the membership directory on the ABCFP website at [abcfp.ca/web](http://abcfp.ca/web) for the most current list of members.

**NEW REGISTERED MEMBERS**

David Brunelle, RPF  
 Richard Jason Cane, RPF  
 Nicholas Brian Fast, RFT  
 Gavin John Hallan Lane Fox, RPF  
 Ross Lee Hobbs, RPF  
 Justin Alexander Lenze, RPF  
 Lan Mi, RFT  
 Jonathan James Murkin, RFT  
 John Tyler Rodgers, RFT  
 Abram R. Y. Seargeant, RPF  
 Andrew Rubin Harry Talbot, RFT

**NEW ENROLLED MEMBERS**

Anna Cecilia Elena Almero, FIT  
 Michael Alan Anderson, FIT  
 Sarah Lane Anderson, TFT  
 Conor Patrick Corbett, FIT  
 Devin Murray Dake-Outhet, FIT  
 Ryan Matthew De Visser, FIT  
 Jordan Wilfred Gabriel, TFT  
 Caitlin Marie Gendur, TFT  
 Dayna Nicole Griffiths, FIT

Jason Micheal Hamilton, TFT  
 Hona Healey, FIT  
 Christopher P.N.R. Joseph, TFT  
 Devin Keith Kite, TFT  
 Jiahang Li, TFT  
 Geoffrey Matheson, TFT  
 Sarah McLeod Miller, FIT  
 Melissa Dawn Mjolsness, TFT  
 Amanda Mae Simoes, TFT  
 Kara Grace Tebo, FIT  
 Rachel Brant Telfer, TFT  
 Jack Morgan Toma, FIT  
 Paul Murray Williams, TFT

**NEW ASSOCIATE MEMBERS**

Mark Edward Siemens, TFT, SAS

**TRANSFERRED FROM FIT TO TFT**

Christopher Paul Leitao, TFT

**REINSTATEMENTS (REGISTERED MEMBERS)**

Arron James Straub, RFT

**REINSTATEMENTS FROM LEAVE OF ABSENCE (REGISTERED MEMBERS)**

Brian William Atwood, RFT

**REINSTATEMENTS FROM LEAVE OF ABSENCE (ENROLLED MEMBERS)**

Raquel Evelyn Helene Gilstead, TFT  
 Scott Matthew Howard, TFT

**DECEASED**

Pieter Broersen, RFT(Ret)

The following people are not entitled to practise professional forestry in BC:

**RESIGNATION - FP**

Sally Victoria Bardossy, RFT\*

\* Entitled to practise as an RFT

**Membership Statistics: ABCFP September 2016**

Note: Individuals may have applied for a change to their status since this posting. Check the membership directory on the ABCFP website at [abcfp.ca/web](http://abcfp.ca/web) for the most current list of members.

**NEW REGISTERED MEMBERS**

Grace Nichole Chomitz, RPF  
 Gillian Mathieson Harrison, RPF

**NEW ENROLLED MEMBERS**

Leslie Linnaea Brown, FIT  
 Yu Chen, FIT  
 Trevor David Chernoff, FIT  
 Tyler Lawrence Dergousoff, FIT  
 Cody Andrew Gold, FIT  
 Joshua Muskqua Laboucane, TFT  
 Nicholas Laramee, FIT  
 Jarret Christopher Lontayao, TFT  
 Cody Jonathan Schedel, TFT  
 Matthew Gordon Shields, FIT  
 Shawn Ryan Tougas, TFT  
 Josee Monique Andrea Trudeau, TFT  
 Brencis Alexandre Upitis, FIT  
 Zoe Paige Woolcott, TFT  
 Tong Yeung, FIT

**NEW ASSOCIATE MEMBERS**

Daniel Douglas Armstrong, ATC  
 James Robert Lagerquist, ATC  
 Devin Robert James Sanborn, ATC  
 Michael Travis Stumpf, ATC

**REINSTATEMENTS (REGISTERED MEMBERS)**

Nathan Noah Bauman, RPF

**REINSTATEMENT FROM LEAVE OF ABSENCE (REGISTERED MEMBERS)**

Anne Marie Emily Fonda, RFT  
 Erin Naomi Hunter, RPF

**REINSTATEMENT FROM LEAVE OF ABSENCE (ENROLLED MEMBERS)**

Claire Louise Errico, FIT

**DECEASED**

Gerald Glen Young, RPF(Ret)

The following people are not entitled to practice professional forestry in BC:

**NEW LIFE MEMBERS**

Bronwen M. Beedle, RPF(Ret)  
 Dennis F. Bendickson, RPF(Ret)  
 Brian D. Downie, RPF(Ret)  
 Janna W. Kumi, RPF(Ret)  
 Donald W. Laishley, RPF(Ret)  
 Dennis E. Rounsville, RPF(Ret)  
 Rodney A. Willis, RPF(Ret)  
 Ralph Winter, RPF(Ret)

**RESIGNATIONS - RPF**

Allan J. Dupilka

**REMOVAL NON-PAYMENT - TFT**

Karen Ann Short



A Moment  
in **Forestry**

**Great Horned Owl Fledgling** by *Claude Schweizer, RPF*

The highlight of a day working in the forest: a surprise encounter with a great horned owl fledgling.

# Bringing Tactical Planning Software to the Forest Industry



**FOREST**  
**OPS**<sup>TM</sup>

*Simplify. Organize. Manage.*

Forestry operations today require detailed forecasting of woodflow and financial outlooks.

**FOREST OPS**<sup>TM</sup> takes the guess work out of **tactical planning** by making it simple to update your **schedule**, visually confirm you are meeting all of your operational **targets** and analyze **profitability**. **FOREST OPS**<sup>TM</sup> gives better control to forest managers by reducing the time and complexity associated with detailed operational harvest planning.

## **QUICK OVERVIEW**

### **Planning**

Checklist of operational planning tasks with milestones.

### **Scheduling**

Assigning harvesting dates, contractors, and delivery destinations.

### **Targets**

Compare log production with target mill consumption or sales obligations.

### **Profitability**

Review and adjust default contract rates, and forecast log values.

### **Mobile**

Access your **FOREST OPS**<sup>TM</sup> data anywhere on our mobile app.

To set up a meeting contact [sales@jrpltd.com](mailto:sales@jrpltd.com)

[forestOPS.jrpltd.com](http://forestOPS.jrpltd.com)

For more information and online demos on all our products, visit [jrpltd.com](http://jrpltd.com)



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