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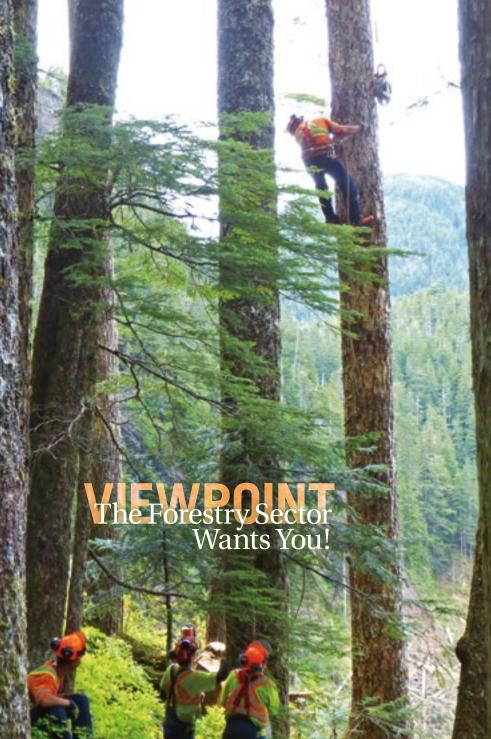
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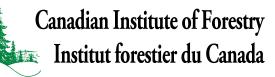
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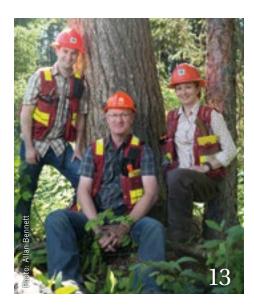
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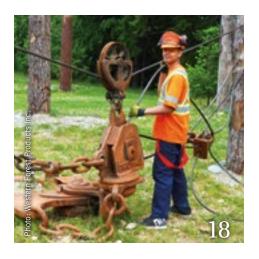






- 9 Forestry is (The) Calling By Doris Sun, MJ
- 10 Opportunity is Knocking Ву Dwight Yochim, RPF
- 12 Inspiring the Future: Getting Youth into Forestry Ву Sarah Микаі, RPF
- 14 British Columbia's Natural Gas Industry — A Place For BC's Emerging Forest Professionals By Mark Hall, AAG, MSc
- 15 Forest Sector Innovation and the Future of Skills Training By Hardy Griesbauer, RPF
- 16 Forest Products Industry Gets Out of the Woods By Monica Bailey
- 18 Training: Finding the Balance for Success By LISA PERRAULT, RFT
- 20 Urban Foresty: Oxymoron or the Next Big Thing? By Jeremy Gye and Christian Walli, RPF





Special Feature

22 ForesTrust at Work: Meet this Year's Scholarship Recipients

Interest

- 24 Is it Time for Biocultural Diversity (BCD) Zonation in British Columbia? By Michael Blackstock, RPF
- 26 Why I Volunteer for the ABCFP By Kathleen Crowhurst, TFT

Departments

- 4 Letters
- 27 Book Review
- 28 The Legal Perspective
- 29 Member News
- 31 A Moment in Forestry

Association Business

- 6 President's Report
- 7 CEO's Report
- 8 Association News

"In the field it has saved us time and simplified field surveys. In the office it has saved us a significant amount of staff time"...

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SEPTEMBER – OCTOBER 2014 I BC FOREST PROFESSIONAL

Letters

BC's Tenure Debate: Examples From the Rest of Canada

BC is one of seven Canadian provinces with the majority of forest land in public ownership. Our 10 provinces have each chosen a path in forest tenure. There are a lot of similarities.

 Table 1: Below is based on a survey of tenure systems in all provinces done by Neave and Rotherham in 2005.

 There have been some changes since then but the general pattern remains.

| Province | Total Timber Productive Land (millions of ha) | Private | Public | Volume-Based Tenures | Area-Based Tenures |
|----------|---|---------|-------------|-------------------------|--------------------|
| BC | 48.8 | 2.1 | 46.7 (96%) | 39.3 (84%) | 7.4 |
| Alta | 23.0 | 1.3 | 21.7 (94%) | - | 21.7 |
| Sask | 11.9 | 0.4 | 11.5 (97%) | 0.9 | 4.9 |
| Man | 15.1 | 1.3 | 13.8 (91%) | - | 10.3 |
| Ont | 40.4 | 5.5 | 34.9 (86%) | 0.3 | 24.7 |
| Que | 52.7 | 7.8 | 44.9 (85%) | 38.8 (100%) | - |
| NB | 6.0 | 3.1 | 2.9 (48%) | - | 2.9 |
| NS | 3.6 | 2.6 | 1.0 (27%) | 0.3 | 0.7 |
| PEI | 0.3 | 0.3 | - | - | - |
| N-L | 11.4 | 0.2 | 11.2 (97%) | 3.4 | 7.6 |
| Total | 213.2 | 24.6 | 188.6 (88%) | 83.0 (51%) | 80.2 (49%) |

Perhaps the main deciding factor in the choice between area-based and volume-based tenures has been the political philosophy of the day, rather than management efficiency. The suggestion of a forest trust by A. Mitchell sounds similar to the Algonquin Forest Authority in Ontario. It works. Do we need an 'Assembly' to oversee the performance of the trusts? An additional and costly layer of bureaucracy? The only forest area I have heard of in Canada that has responsibility for and benefits from all forest resources and recreation is the small Foret Montmorency north of Quebec City managed by Laval University Faculty of Forestry. There may be others. This model is certainly not common.

R. Travers' decision to emphasize on-the-ground performance is excellent. But some management structures deliver on-the-ground performance more efficiently than others.

An efficient management structure will deliver the forest management outcomes society chooses more effectively than a poor management structure. If we get the policy, incentives, allocation of management responsibilities, performance requirements and lines of accountability right we will have better results.

TONY ROTHERHAM, RPF (BC AND ONT)

We'd like to hear from you too...

The **BC Forest Professional** letters section is intended primarily for feedback on recent articles and for brief statements about current association, professional or forestry issues. The editor reserves the right to edit and condense letters and encourages readers to keep letters to 300 words. Anonymous letters are not accepted. Please refer to our website for guidelines to help make sure your submission gets published in **BC Forest Professional**. Send letters to: Editor, BC Forest Professional Association of BC Forest Professionals 602-1281 W. Georgia St, Vancouver, BC V6E 3J7

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Letters

Eliminate The ABCFP Exam Process

I absolutely disagree with the ABCFP's approach with their examination process. The main accomplishment of the process is the ruining of a candidate's summer/year. The process is overly long, inflexible, cumbersome and mainly tests one's ability to write an examination. I've known several very good foresters not great at writing an exam, who had to go through the process three times! Further, the idea that the examination 'tests professionalism,' in my opinion, is unrealistic. In fact the idea that one can write a test for professionalism is a better example than any I could come up with to illustrate the ABCFP bias. Seriously? We think an exam is going to prepare people for professional practice and ensure professionalism? In our world of 'results-based forestry' I believe we should eliminate the exam entirely! My take is simple: 1. Develop a 'Welcome to the Association' package with key information, key court decisions, articles from real foresters, code of ethics etc. 2. Require a candidate to assign a mentor (existing RPF or RFT) and 3. Follow up and enforce. Real results, not another examination (after so many!), will ensure professional conduct and engender public trust.

MARK SALZL, RPF

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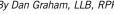




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President's Report By Dan Graham, LLB, RPF





Advocacy: A Balancing Act

Through the Foresters Act, the people of BC have granted members of the ABCFP the privilege of being self-governing forest professionals. The mandate given to the association is to regulate the profession and, since 2003, to "advocate for and uphold" principles of forest stewardship. The Act tells us that it is the first duty of the association — and by extension its members — to "serve and protect the public interest" when exercising the powers and responsibilities granted by the Act.

Since virtually everything the association and its members do must be viewed through the public interest lens, it is of crucial importance for forest professionals to be able to determine the public's interest when making forest management decisions. Also important is for the association to do the same when regulating professional practice.

In deciding when and how to most effectively exercise its advocacy mandate, the ABCFP's council and staff understand that the only monolithic, almost universally held perspective is that, as a society, we should avoid doing irreparable harm to the forested land base and its ecosystems. If we can at least do that, we will preserve the natural capital and provide options for future generations who may find a better way to realize the public interest.

The association, though, should strive to promote more than this bare minimum level of forest stewardship. The public interest demands that we optimize the benefits derived from the public forests rather than being content merely to maintain them in 'survival mode.' The question of what is optimal is where things rapidly start to get contentious.

The association has provided guidance to its members with respect to interpreting the public interest and the obligation to balance various interests (see Interpreting the Publics' Interests and Applying the Obligation to Weigh and Balance in Professional Service - both available on the association's website). Basically these documents give members some principles with which to determine the public interest and are useful to individuals making decisions at the operational level.

The question arises, though, as to whether this guidance is as useful for decisions the association must make when exercising its advocacy mandate. Sure, at this strategic level it's still vitally important to understand who the various publics are, to recognize their

various perspectives and to apply a methodology for achieving an optimal balance of social, economic and environmental outcomes. But that's not enough. Though the vast majority of operational-level decisions being made by forest professionals strike a defensible balance, the widespread concerns about cumulative impacts indicate that something is missing in forest stewardship at the strategic policy level.

Studies and reports by the provincial auditor general, the Forest Practices Board, NGOs and others suggest that the missing pieces include better forest inventory information, comprehensive land-use planning, a clear 'vision' for forest management objectives, more enforcement and accountability mechanisms, etc. In essence, however, these issues are reflections of the difficulty that policy makers face in trying to determine where the public interest lies when there are so many competing and evolving interests.

The association's advocacy role becomes more difficult when the membership is divided as to the appropriate policy approach. No matter which position the association takes on many issues, there is likely to be a significant proportion of the membership who will disagree. Even once the association is able to make a compelling determination as to where the public interest lies on an issue, it has to balance a number of considerations such as what will give the best return for the time and effort expended, and what approach to each issue will be most effective in achieving buy-especially the public's elected representatives.

All these factors make the association's advocacy mandate a challenging task. The people of BC are, however, depending on forest professionals to look out for their interests not just when making operational decisions, but perhaps even more so when we are providing strategic advice to the public policy decision-makers. 🔦



By Sharon L. Glover, MBA

Forest Road Crossings and Public Safety — A Collective Responsibility

I'm sure most of you are familiar with the report on unsafe forest road bridges and major culverts by the Forest Practices Board (FPB).

If you haven't seen it, you can find it on their website, www.fpb.gov.bc.ca, under "SIR38 March 2014." The Joint Practices Board (JPB) of the Association of BC Forest Professionals (ABCFP) and the Association of Professional Engineers and Geoscientists of BC (APEGBC) worked with the Forest Practices Board by providing input on how professional services should be delivered in forest transportation systems. After the report was issued, the ABCFP and APEGBC hired Kevin Lyons, PhD, RPF, to look at the 32 crossings the report deemed as most serious. His review focused on the FPB data for each of the crossings that were found to be unsafe or have a serious safety concern. His aim was to determine whether the professionals involved met the expected standard of practice articulated in Guidelines for Professional Services in the Forest Sector - Crossings (2005, revised 2008) by the two professional associations and the requirements under the Forest Planning and Practices Regulation (FPPR).

What We Found

1. Not all crossings were built with professional input

Forest transportation systems (which include forest roads and bridges) are areas of joint practice between the ABCFP and APEGBC. Both of our acts include aspects of forest transportation as part of professional practice so it is not legal to design and construct a forest road crossing without using the professional service of either a forest professional or engineer. Unfortunately there were a number of bridges in the FPB review which did not have evidence of professional involvement.

2. Missing or incomplete professional work

When a review is completed to see what caused a structure to fail or an accident to occur, often there is no one direct cause, but a number of small errors, missed steps, or short-cuts, that led to the failure or accident. Standard Operating Procedures (SOP) is one tool to ensure completeness occurs on the ground. Another safeguard, often contained in the SOP, are the series of professional documents that must occur throughout the development of the crossing structure.

The design, as-built/record drawings, and the crossing assurance statement, together signal the presence and approval of professional oversight provided by forest professionals and engineers. Completing all professional documents is a vital step in ensuring the forest road crossing is built safely - and these have been part of the joint guidance of the ABCFP-APEGBC since 2005. Even more significantly, the as-built drawings are required by law under the FPPR.

According to our review, a large number of bridges did not have the required professional documents completed. A preliminary review of the data showed that those that had adequate plans were 20 times less likely to be an unsafe crossing.

3. Forest professionals practising outside of their areas of competency

Forestry is a wonderful, exciting and challenging profession. It is very complex and therefore, not everyone practises every aspect of it. As a forest professional you have the authority to design and implement a forest road crossing through your professional designation; however, this doesn't mean that you have the training or experience to do so competently.

We are a self-governing profession where the public relies on our members to be competent and independent in professional practice. It is part of our social contract with the people of BC. Unfortunately, it appears that some of our members may have been providing professional service that they were not competent to provide.

4. Unwillingness, or not empowered, to stop operations

No one wants to stop forest operations. It costs a lot of money, it interferes with other company plans, and is generally frustrating. However, an unsafe bridge may fail just when a driver with a load of logs is crossing it. The Forest Safety Council says it best: "Unsafe Is Unacceptable." Virtually every forestry company in the province is Safe Certified and lists safety as its top priority. Stopping operations for a safety issue should be an immediate action in forestry culture. Instead, we've found forest professional practice in real examples where safety issues are being downplayed or risk managed so operations don't have to stop.

Does the culture of safety that everyone has worked so hard to instill come with the hidden caveat that safety is a priority - so long as it doesn't interrupt forestry operations, cost money or generate operations down time?

5. Disregard for the environment

Many of the unsafe crossings in the FPB report were built over water and many of them were built over fish-bearing streams or streams within community watersheds. The FPB report revealed crossings that had allowed silt to enter streams, streams to fill with rock, and more. The public expects forest professionals to protect values like fish-bearing streams and community watersheds. Protecting the environment falls into the category of "must do" to retain the public trust of forest professionals and the social licence of my employer."

Why should you care if you don't practice in the area of forestry operations?

If you are not a forest professional in forestry operations, why should you care about the FPB report? Well, poorly constructed crossings violate the trust the public have in you as professionals. They rely on forest professionals to build safe crossings that protect the environment. When one forest professional contributes

Association News

New Regular Column

Reflections on Ethical Requirements

The Code of Ethics (Bylaw 11) establishes the principles and rules associated with making moral choices within the practice of professional forestry. They describe one set of obligations forest professionals must meet as they fulfill practice responsibilities to the public, the profession, clients or employers and fellow members.

Among the ethical obligations there is one related to extending public knowledge of forestry to individuals or groups and promoting accurate statements on forestry matters (Bylaw 11.3.6). A fundamental characteristic of the forest professional is the science-based knowledge they develop and build upon over the course of a career. And sharing the professional expertise is a public benefit associated with having professions in BC. Therefore, as a requirement of our service to the public, members should be actively engaged in promoting forestry knowledge. Opportunities for outreach include general public dialogue, letters to the media, presentations at schools and communities and tours, helping with the school projects, etc.



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Good Luck to Exam Candidates!

The ABCFP council and staff wish all exam candidates good luck as they get set to write the registration exams on October 3^{rd} .

ABCFP Offers Online Workshops

Whether you are a new member planning on writing the exam or a well-seasoned member looking to enhance your learning, the ABCFP has a workshop for you! The following workshops are available online so you can learn at your pace and at a time that is convenient for you:

- Best Exam Possible
- eRoot Cause Analysis (eRCA) Online Course
- Learn About LiDAR
- Policy Review Seminar
- Professional Ethics and Obligations
- Professional Reliance: Is It Working? How It Should Work?

You can learn more about these courses and register for them on the Workshops page of the website.

Council Nominations Now Open

The ABCFP is seeking two RFTs and two RPF candidates for the 2015/2016 council. Members may nominate their colleagues by using the form included in this issue of the magazine or by visiting the Voting section of the website (click on About Us then Consultation and Voting). Councillors serve for a two-year term. The full council slate will be announced in November and voting will take place in December and January. The new council will take office at the AGM in February 2015.

Forest Capital Deadline is Approaching

Who will be designated the Forest Capital of BC for 2015? The deadline is November 3rd, 2014 and you can find more information on the website.

Nominate a Colleague for an ABCFP Award

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

Members can be nominated for the following awards: Jim Rodney Memorial Volunteer of the Year, Distinguished Forest Professional, Professional Forester of the Year, Forest Technologist of the Year and the new Climate Change Innovator Award. Non-members can be nominated for the ABCFP Honorary Membership and the ABCFP Award of Merit in Sustainable Forestry. The ABCFP is also pleased to present two awards jointly with fellow professional associations. The Bill Young Award for Excellence in Integrated Forest Management is sponsored jointly with the Association of Professional Biologists of BC. The Forest Engineering Award of Excellence is sponsored jointly with the Association of Professional Engineers and Geoscientists of BC.

The deadline for award nominations is November 3rd, 2014.

By Doris Sun, MJ

Forestry is (The) Calling

THERE IS NO DENVING THE ECONOMIC OUTLOOK IN FORESTRY HAS SHIFTED IN RECENT years to one of decided optimism. With international markets like China and Japan driving demand, increasing harvest levels, active research into alternative and innovative uses for wood, it would appear forestry is an appealing sector that can readily attract the next generation's young and bright minds. But experience would often suggest otherwise.

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Perhaps as a result of more young people being raised indoors dependent on their iPads, smartphones and YouTube, students are becoming immune to the lure of the great outdoors, which attracted countless current forest professionals to join the sector. Despite the challenges, many forest companies are pushing ahead with creative initiatives to, in some cases, inspire students and in others, provide practical and directly applicable job skills.

This issue of **BC Forest Professional** looks at education and the workforce from a range of different angles. Our opening Viewpoints article frames the need for recruitment, drawing on statistics that project major job opportunities as the baby boomer generation starts to retire. A trio of other articles discusses: one forest company's efforts to reach out to high school students while many begin to contemplate post-secondary career directions; one company's successful program to provide direct boots-on-the-ground logging experience; and a nationwide social media-driven initiative to get young people thinking about the forest sector in a new light.

Academia is also represented in this issue, with the College of New Caledonia sharing details on various applied research partnerships that have been made possible by the \$2.4 million in funding it received. The University of British Columbia discusses its Urban Forestry program, potentially a fitting area of study for individuals who want to pursue forestry in the comforts of an urbanized setting. An alternative industry where forestry education can be applied — in oil and gas — is also examined.

Our aForesTrust special feature also fits perfectly with this issue's theme, as it recognizes students that have benefited from grants and bursaries made possible through the ABCFP's registered charity, ForesTrust. We profile our award recipients and take the opportunity to get their perspectives on how their forestry education has made a positive impact on their lives. It is an upbeat issue with a lineup of articles we are very proud of and we hope after reading them, you will feel the same about the sector you adopted as your career.

The Principles of Stewardship¹ and the Workforce

Forest professionals are trained to think about the long term. Compared to many other career paths, ours is one that considers a wide range of inputs and outcomes for the decisions we make and the forest ecosystems that we manage. It's fair to say that this ideal is something that attracts young people into forestry programs and into the profession. The ABCFP's Principles of Forest Stewardship attempts to define the mindset that drives the forest professional; but how do we ensure that these principles actually influence our approach? Our members work in a wide range of industries and capacities, making this challenge more complex. Business objectives and deadlines also drive the day-to-day priorities and thought processes of the professional. But amongst all of those purposes, forest professionals are charged with maintaining the public trust and upholding principles of forest stewardship.

In recent years, the culture of safety has changed and improved dramatically within our workforce. This has been driven by employers and regulators, with safe work procedures often being assigned on the first day of the job. We also see that mentorship is a growing trend in the workplace, where knowledge and discernment are transferred across generations. Veteran professionals have a wealth of observations, trials and experiences to share with the younger workforce. Seasonal work experience is a keystone of the forestry career so why not integrate stewardship principles into that apprenticeship? Perhaps the best way to ensure that forest professionals understand and adopt a stewardship-based approach is to start on that first day of work.

The main document can be seen at http://abcfp.ca/publications_ forms/publications/committee reports.asp



Opportunity is Knocking

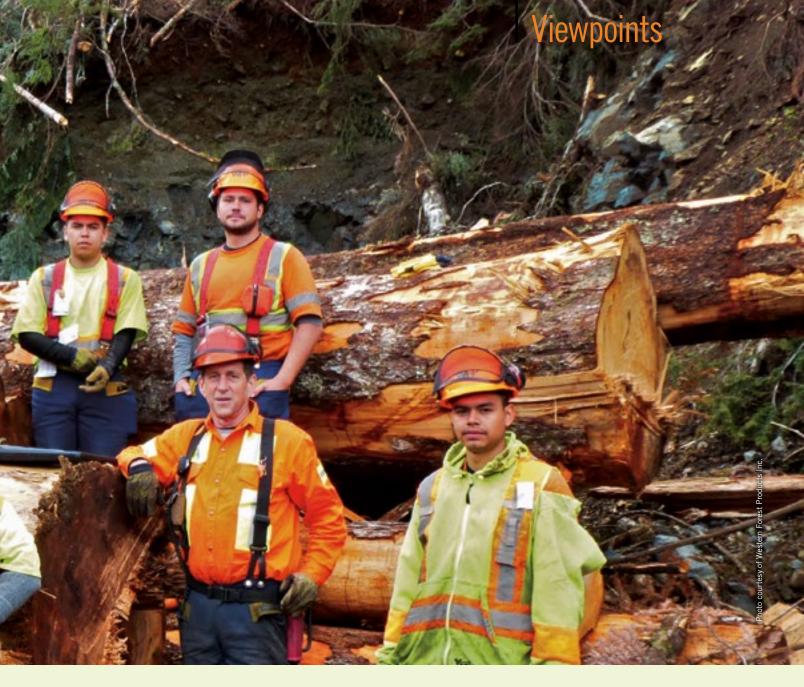
THE LONG-AWAITED BABY BOOM BUST IS UPON US. A REPORT ON THE BC labour market in forestry, available on the Truck Loggers Association's (TLA) website (www.tla.ca), shows a significant number of people working in BC's forests are about to retire. This includes everyone from fallers to foresters and technologists, to heavy equipment operators and logging truck drivers. This is a challenge for the industry but it is opportunity knocking for those seeking well-paying, sustainable jobs on BC's coast. How do we attract job seekers to our industry? Are they even aware of the numerous opportunities? Are we prepared to train them all? These are questions now being addressed.

On the coast of BC, the industry will need 4,700 people by 2022, which is 50% of today's coastal workforce. It is a daunting task to take on the recruitment and training of that many people and it is made more difficult when you look at the public opinion on forestry and jobs in the industry. A survey done in 2013 by the TLA in coastal communities (not including Victoria or Vancouver) showed that 50% of the public does not believe there are jobs in forestry and even if there were jobs available, 50% would not recommend anyone go into the industry. When I was with the Association of BC Forest Professionals, we conducted a member survey

and asked if respondents would recommend careers in forestry to their children and the majority would not. We clearly have a challenge ahead of us to change people's minds about forestry — the most sustainable industry in the province.

We also face another challenge. There are a total of five labour market initiatives in forestry (forestry, pulp and paper, solid wood, silviculture and First Nations) while all other industries have only one. Forestry's silo approach will not help us. We need one single recruitment and communications strategy. The coastal industry's tactic has been to get the ball rolling and talk to the other proponents along the way to encourage a cooperative approach to recruitment. We established a steering committee co-chaired by a licensee representative, Otto Schulte, RPF, vice president at Interfor, and a contractor representative, Don Banasky, president of the TLA. They are reaching out to the other forestry labour initiatives to coordinate communications and recruitment strategies. In fact, Keith Atkinson, RPF, and CEO of the BC First Nations Forestry Council, is part of the coastal steering committee.

The industry has changed as well. There are few entry-level jobs left in logging. Most now require a level of skill and knowledge a person can't



possess without proper training. We also need to ensure new recruits learn how to do their jobs not only productively but, more importantly, safely. We must teach these new workers how to say no when they feel their safety is compromised and give them the knowledge to make the safe decision even when it's not the quickest or easiest one. This large intake of new employees presents a great opportunity to make another leap forward in developing a culture of safety.

We have competition out there as well. In the north, oil and gas, as well as mining, see our employees as easy targets to entice over to their industries. With an average wage of \$53,000 in the forestry sector (2011 National Housing Survey) compared to an average of \$85,000 in oil and gas and \$91,000 in mining, our challenges are big. Logging wages fare a little better, at an average of \$66,000 a year. On the coast, we didn't have as much pressure until the airlines added direct flights from coastal communities to the north. We need to change that tide. We need a poster in the Fort St. John airport that says, "If you worked on Vancouver Island, you'd be home already."

And finally, we need to encourage more students to look at forestry as a career and to enrol in forestry operations programs rather than conser-

vation programs. We need people who can understand the complexity of forest management — from fish and wildlife to forest engineering and block layout. A forestry career can take you places you may never have considered. I've not only been to Russia, other parts of Europe and across the US, I've also been part of a team advising Vancouver on how to manage Stanley Park's forest and have had the opportunity to encourage countless architects and engineers to use more wood in their buildings.

Opportunity is knocking and forestry is behind the door with exciting careers in every part of the industry. Those who answer that knock and open the door will have a world of possibilities at their fingertips.

Dwight Yochim, RPF, was the national director with the US WoodWorks program where he led a dedicated team of engineers and architects in promoting the virtues of wood construction. Before joining WoodWorks, he was the director of professional practice and forest stewardship with the ABCFP. Prior to joining the association in 1995, Dwight was the provincial coordinator for the BC Forestry Continuing Studies Network through UBC. He prasticed forestry in Greater Vancouver's watersheds and, until recently, was a volunteer search and rescue manager with Coquitlam Search and Rescue. Dwight is currently the executive director of the Truck Loggers Association.



By Sarah Mukai, RPF



Inspiring the Future: Getting Youth into Forestry

WHEN YOU WERE 15, DID YOU KNOW WHAT YOU WANTED TO BE WHEN YOU grew up? Your dreams were likely influenced by your experiences and your exposure to different professions. How many young people these days are exposed to forestry as a career? Mainstream media certainly does little to encourage youth to seek employment and career options in the woods. Even in communities where forestry is a major economic driver, few students are choosing to pursue forestry jobs and post-secondary education. As a naturally cyclical industry, even family members can work to discourage young people from considering a career in forestry. Having experienced downturns, perhaps parents are less likely to champion the industry over the pursuit of more stable jobs and careers.

I believe a major obstacle is a deficit of understanding regarding forest management practices in BC. Even when young people have family members who work in the industry, I have still noticed a knowledge gap. Educating young people about what forestry is (and what it isn't) is the first, critical element in the conversation about working in the forest industry. It appears that few people realize the depth of planning — complying with levels of legislation, regulation and oversight — that occurs before a single tree is cut. Instead, the sense I get from students is that they believe forest companies log for profit at the expense of the environment. Who would want a career destroying the forest? Many leaders in the sector are working to strengthen positive messages from the forest industry, in order to promote change.

As part of my job at Interfor, I have been working to connect with students to inspire them about forestry. We employ several strategies to engage with schools, teachers, work experience coordinators and students to maximize exposure.

The key is to catch the attention of kids when they are young. Early and often is best, but I have found that students in grades 9 and 10 are receptive to talking about jobs and careers. It is a good time for students considering post-secondary options to plan senior level courses. I spend the majority of my effort on classroom visits targeting these grades. Speaking to Planning 10 classes provides a good opportunity to discuss forestry as students research career options. For these class visits I come prepared to answer questions about how much post-secondary school costs, what starting wages can be expected, and how many and what kind of jobs exist. I make sure to mention that many companies hire students for four months every summer. I emphasize that this not only helps pay for school (again, they want to know how much money they'll make!), but provides valuable work experience, networking opportunities and can lead to full-time employment following graduation. I make sure to provide lots of personal stories and experiences and have a slide presentation that is full of interesting and exciting work photos (recruitment photos are always taken on sunny days, and you can't see the bugs!).

Connecting with science teachers and developing forestry presentations that dovetail with curriculum has also been an effective strategy. Discussions of forest ecology and ecosystem management are excellent platforms for students to make the connection between what they are learning at school and jobs. I have even talked to a math class and taken them outside to measure the heights of trees and estimate their volume!

Once the seed has been planted and students are thinking about forestry, we have to be ready to support them with effective follow-up strategies. We have found a good way to connect with interested students is to develop a relationship with the work experience coordinators in each school. As well as streamlining the coordination of classroom visits, these relationships help simplify follow-up with students. While we are currently not in a position to hire high school students, we do offer work experience and job shadowing opportunities. Taking students out for a day in the field is an incredibly powerful way to solidify interest in working in forestry. Organizing this exposure through the work experience coordinators ensures that students receive the work experience hours they require for graduation and in addition, that students have the necessary WorkSafe and insurance coverage through the school district. We have taken students to the field to visit planting projects, conduct surveys, view active logging and visit log sorting facilities. The responses from students have always been appreciative and enthusiastic.

Other ways we have been reaching out to young people in the community is by participating in school and community organized job fairs. It is vitally important that the forest industry maintains a positive and visible presence as a major employer in the local community and the province.

As enrolment in post-secondary forestry programs declines, it is crucial that more effort be put into educating and encouraging today's youth to consider forestry as a fun and rewarding career choice. There is a great deal of pride in our industry and we must do more to pass on this enthusiasm to 'the next generation.' Forestry in BC boasts a rich history; let's work to make sure its future is equally brilliant. ~

Sarah Mukai, RPF, lives in Campbell River and works for Interfor as a forest professional in the Mid-coast. Sarah is passionate about forestry and enjoys sharing that passion with others.

When Forestry Runs in the Family

Guy Burdikin, RPF, is a silviculture supervisor at West Fraser Timber Co. in Williams Lake. He is one of very few forest professionals who not only has one child, but two, who decided to follow in his footsteps and pursue forestry as a career. He shares with us some of the ways he inspired his kids to get into the field.

I'm very happy and proud that my children followed into the same profession and the same company as well. They are also both university graduates in Forest Management, Erin from the University of Alberta and Derek from the University of British Columbia. I didn't have that opportunity so I'm proud of their accomplishments.

West Fraser is also very happy when this occurs and actively promotes it with scholarships and apprenticeships in trades.

Their children following me is something that I see as a 'natural fit.' Growing up, we travelled on Quesnel Lake in our crewboats and stayed in logging camps as a family. The kids attended Junior Forest Warden campouts, West Fraser family events, took high school courses in Resource Management and Junior CIFAC (fire fighting training).

Derek and Erin have also worked in our plants on cleanup crews as students; in addition, Derek has worked in production in the Williams Lake sawmill and Erin has worked in the plywood plant in the Dryers.

Forestry is truly a family affair in our household: their mom Deb is an RFT and their Uncle Ian is an RPF!



Guy Burdikin (centre), with his son Derek and daughter Erin. The whole clan are forest professionals working for West Fraser in Williams Lake, Fraser Lake and Quesnel.





British Columbia's Natural Gas Industry — A Place for BC's Emerging Forest Professionals

THE WESTERN CANADIAN SEDIMENTARY BASIN IS A 1.4 MILLION SQUARE kilometre formation of sedimentary rock extending from the Rocky Mountains in northeast BC to the eastern Canadian Shield. This geological formation encompasses a five to six kilometre thick section of the Earth's crust and contains one the world's largest oil and natural gas reserves. The most famous producing region in the basin is the Alberta oil sands; however, northeast BC contains several sub-basins that hold reserves of light crude oil and natural gas known as shale gas or tight gas.

Much of the infrastructure for the upstream oil and gas industry occurs within Crown provincial forest; therefore, stewardship of forest resources in this industry falls within the mandate of the province's forest professionals. At a field level there are three main areas where emerging forest professionals will find that their academic knowledge and field skills can lead them to new career opportunities.

- 1 Pre-Disturbance Assessments Similar to silviculture prescriptions in forestry, the oil and gas industry conducts environmental impact assessments in order to identify mitigation strategies and ensure compliance with environmental regulations, guidelines and best practices. Soil classification, plant identification, biogeoclimatic site series mapping, calculating timber volumes, identifying soil and terrain stability hazards, identifying wildlife habitat features and classifying riparian areas are skills important for completing predisturbance assessments.
- 2 Reclamation Reclamation involves the re-establishment of a self-sustaining vegetation community on land used for oil and gas activities. Knowledge of tree silvics, ecological succession, limiting site factors, soil forming processes, invasive plants and site preparation, as well as plantability, stocking, free-growing and planting quality surveys; cone and seed collecting, planting prescriptions, stock handling and tree planting are relevant skills that emerging forest professionals would develop in this area of work.
- 3 Phase 1 and 2 Site Investigations Site investigations involve the staged assessment of abandoned or inactive oil and gas sites to determine whether the sites pose a risk to the environment or people and whether remediation is required. Site investigations are part of the process of returning clean land back to the Crown at the end of the land's industrial life. Similar to Not Satisfactorily Restocked (NSR) backlog in forestry, the oil and gas industry has a large number of historical sites needing assessment; however, the scope of these assessments falls under the Contaminated Sites Regulation. Emerging forest professionals will find that their skills in conducting historical records reviews, completing aerial photo interpretation, soils and vegetation mapping and riparian classification will be applicable to site investigations.

Chances for entry into the industry will be enhanced by augmenting core forestry courses with electives in soil science, environmental



chemistry, environmental sampling and analysis and land reclamation. Self-directed studies or technical/graduate research papers involving subjects that bridge the gap between forest management and the oil and gas industry will help emerging professionals find a niche in the industry. Topics that would be valuable leading-edge concepts to explore in detail include: the application of stocking and free-growing criteria to the certificate of reclamation process, the suitability of BC's contaminated sites regulation in protecting forest values and site productivity, restoring soil productivity and the application of forest certification and sustainable forest management principles to upstream oil and gas activities.

In preparing for entry into the natural gas industry with a professional forestry background, it's important to become familiar with the regulatory framework for the province's upstream industry including the legislation, regulations and mandate of the BC Oil and Gas Commission, the Ministry of Environment's Contaminated Sites Regulation, along with its associated protocols and technical bulletins, and the science and social issues surrounding water allocation under the *Water Act*. Reviewing the ABCFP's 2006 Task Force Report on Forest Stewardship in the Oil and Gas Industry is also highly recommended as a pre-cursor to practising in the province's petroleum industry.

Completing industry-specific training courses will also improve chances for gaining employment. Key courses include the ENFORM H2S Alive, General Safety Orientation (eGSO) and Virtual Rig Experience certifications, as well as a Ground Disturbance Level II certification.

The oil and gas industry may be one of the most diverse and fast-paced industries in the province. Emerging forest professionals are poised to make a positive mark in this industry and help fulfill the mandate of the ABCFP in the province's upstream oil and gas sector.

Mark is a senior environmental specialist and project manager with Summit Liability Solutions Inc. He manages environmental compliance and environmental field services in BC's shale gas industry.



Hardy Griesbauer, RPF

Forest Sector Innovation and the Future of Skills Training

WITH A RECENT TENURE OF A 12,500 HECTARE RESEARCH FOREST facility near Prince George and over \$2.4 million in funding from government, academia and industry, the College of New Caledonia (CNC) is developing an exciting and practical education model that allows faculty and students to work with industry on applied research and innovation projects. This initiative links forest companies with expertise and facilities at CNC to address company-specific forestry innovation and applied research challenges, and uses applied research projects to enhance student training.

College-industry innovation and applied research partnerships focus on industry-relevant projects that are technical and have a relatively short timeframe (generally under two years). Natural Sciences and Engineering Research Council of Canada (NSERC) provided the bulk of funding - the largest amount CNC ever received - and is a national leader in supporting this new education model. "Through this innovative approach, the College of New Caledonia will arm students with the research knowledge and business skills needed for jobs in the forestry industry, a vital sector in this region," says Bert van den Berg, Acting Vice-President, Research Partnerships at NSERC.

These projects benefit industry partners by providing new and improved products, processes and

We acknowledge the following partners and funders:

Natural Sciences and Engineering Research Council of Canada College of New Caledonia Research Forest Society Dunkley Lumber Ltd. BC Timber Sales Lakeland Mills Ltd. Canadian Forest Products Ltd. Ecora Resource Group Inc. J.R. Canadian Mapping Ltd. Forest Genetics Council of BC BC Ministry of Forests, Lands and Natural Resource Operations BC Ministry of Transportation The Aleza Lake Research Forest and University of Northern BC Wetzin'kwa Community Forest Corporation

services; adoption of new technologies; and technical solutions, all of which lead to broader impacts including enhanced business capacity and increased employment and improved policy frameworks¹. Company research partners actively engage in the research along with CNC faculty and students, and contribute cash and in-kind resources to the project. This project team structure ensures a high level of industry engagement and effective transfer of knowledge and research outcomes between CNC and industry. Many projects also involve research collaborators with government, universities and other colleges. Outside of the research projects, research team members are encouraged to contribute to student education at CNC through guest lectures and participating on industry advisory councils. Research funding is used to hire students as research assistants, purchase specialized equipment and materials for research projects, and to release faculty from teaching to conduct research.

One of the most important benefits from CNC-industry innovation partnerships is the enhanced training of students to become highly-

skilled personnel. Our students work on applied research projects both in the classroom and as paid research assistants. Applied research and innovation projects provide students with an opportunity to apply skills learned in the classroom to real-world forestry business, technology and management challenges. This kind of experience enhances the development of student technical skillsets and expertise with traditional and technology-based solutions. By working on collaborative research teams comprised of College faculty, other students, industry partners and experts from other institutions, students are provided an opportunity to develop important team-building and project management skills. Outcomes from research projects are also integrated into curriculum, thus improving the training of future students.

The current suite of applied research and innovation projects at CNC focus on three general themes: (1) silviculture adaptation to climate change, (2) remote sensing and geomatics-based improvements to forest planning and (3) operations and research to improve forest stewardship. Following are three examples of current research projects:

Site-specific constraints on Douglas-fir, western larch, Ponderosa pine, western white pine and western redcedar seedling survival and early growth in central British Columbia as part of climate change adaptation

The College is working with BC Timber Sales, Lakeland Mills, the Wetzin'kwa Community Forest, and the Ministry of Forests, Lands and Natural Resource Operations on research to identify environmental thresholds that will help professionals identify suitable locations when planting new tree species in central BC as part of climate change adaptation strategies. CNC faculty, students and partners are planting multiple seedlots of regionally-novel tree species across a wide range of site conditions and biogeoclimatic units in areas near Prince George, Burns Lake and Smithers. By measuring the effects of absolute and relative soil moisture, aspect, air temperature and other factors on seedling survival and early growth, students will learn about effective assisted migration practice in British Columbia, climate-based seed transfer, and the relationship between species silvics, genetics and site factors on survival and early growth.

2. Different applications for LiDAR and other remote sensing technologies to improve forest planning and operations

College faculty are working with Canadian Forest Products Ltd. to research how LiDAR and other remote sensing technologies can be integrated into existing planning and operational processes and systems to improve the geospatial and forest attribute information required by forest professionals. The College is also working with J.R. Canadian Mapping Ltd. to explore the use of unmanned aerial vehicles and photogrammetry to remotely collect forest and geospatial information. Students are learning how to work with LiDAR datasets in GIS and develop best practices for integrating new geospatial data into

Forest Products Industry

WHILE THE FOREST PRODUCTS INDUSTRY IN CANADA IS ROOTED IN traditional pulp, paper and lumber, it's now about much more than the printed product — everything from cosmetics to clothing to car parts can be made from renewable wood fibre.

The industry is future-oriented in another way — it is using social media in an intriguing manner to entice young people to consider a career in the new transformed forest sector.

Vision2020 is an ambitious plan to propel the industry forward by improving its environmental performance by 35% by generating an additional \$20 billion in economic activity from new innovations and growing markets, and renewing its workforce by an additional 60,000 recruits, with a focus on women, Aboriginal peoples and new Canadians. Particular areas of focus include the skilled trades, sciences, corporate positions and woodland operations.

To attract those new workers, the industry realized it had to revitalize its brand as a modern, green industry based on a renewable resource and one that needs brains as well as brawn. The result was thegreenestworkforce.ca. This website showcases the exciting direction of the industry as a high-tech, innovative, environmentally-progressive industry listing career opportunities right across the country — from skilled trades, sciences, corporate positions, woodland operations and more.

The Forest Products Association of Canada (FPAC) also decided to take the recruiting campaign digital and launched an unusual social media contest, called The Green Dream Internship Contest, to grab the attention of young people and create a buzz about the forest sector.

"We know that we have to compete with other sectors for skilled workers and we see this online social media contest as a fun way to attract a next generation workforce," says David Lindsay, president and CEO of FPAC. "Our goal is to encourage college and university students seeking interesting work experience to look to the forest products industry, a sector they may never have considered as a potential employer."

The first contest in 2013 ran on Facebook, YouTube and Twitter and was aimed at university and college students across the country. Interested candidates were required to get creative — they had to apply via Facebook and submit a two-minute YouTube video to describe what would make them an ideal Green Dream Intern.



By Monica Bailey

Gets Out of the Woods

Then the candidates had to take to social media and have their friends, families and peers vote for their application. The videos with the most votes were granted an interview for one of the seven positions on offer.

It was a huge success as the contest went viral with about 16,500 cast votes, close to 180,000 page views at thegreenestworkforce.ca and 170,299 YouTube views of The Greenest Workforce videos.

The winning candidates not only received a four-month paid summer internship but also an iPad mini to blog about their work experience in the forest industry. They wrote about what it is like working in a forest community, what type of skills are required to perform the tasks assigned to them, what sort of education and skills the industry is looking for and what makes the sector a place to consider growing a career.

With the success of the first contest, running a second contest seemed the obvious choice and another social media contest ran this year, with 14 internships on offer. The internship positions included human resources, chemical, mechanical or electrical engineering, forest management specialists and communications personnel. In total, more than one million Canadians participated in the contest in some form— voting, sharing or applying — and helped spread the message that the Canadian forest products industry is hiring again.

Many of the students who applied did not even realize their chosen field of study was relevant within the sector. Students in chemical engineering, industrial engineering, communications and business development hadn't recognized that their education, expertise and skills were even remotely tied to the opportunities available in the forest products industry.

"These student positions give us the opportunity to experience an industry setting before we graduate from our respective universities. If it wasn't for these opportunities, many of us would graduate with our degrees without any idea of what our career would actually entail," says Robert Silliker, summer 2014 Green Dream Intern chemical engineer at AV Nackawic.

Monica Bailey is director of communications at the Forest Products Association of Canada in Ottawa. The blogs written by the Green Dream Interns can be found at www.thegreenestworkforce.ca/index.php/blog

By Lisa Perrault, RFT



SIX YOUNG MEN FROM A VARIETY OF BACKGROUNDS SIT IN A MAKESHIFT classroom in front of a well-used whiteboard and tolerantly watch a presentation, slide by slide. Possibly, they had pictured more action for their first day of 'logging school' when they signed up for Western Forest Products' (WFP) seven-week Logging Fundamentals Training Program.

However, WFP makes no apologies to the students for using a staged, methodical training style to introduce company operating priorities, values and fundamental logging skills. The approach is working effectively to produce safe, entry-level workers to fill the gaps created by the wave of baby boomer retirements currently taking place in logging operations.

The WFP program curriculum is based on WorkSafeBC handbooks and hands-on learning is achieved with progressively more time spent outside. Learning the necessary skills involves:

- · theory, classroom time, practice and homework;
- initial exposure to skills like wire rope splicing, logging signals, climbing and rigging back spars and chainsaw use;
- two weeks learning on-the-ground skills of chokermen and landingmen in a non-production highlead tower logging environment;
- three weeks of gradual exposure to and integration into production grapple yarding crews.

Woven through all stages of training is the constant building of safety skills and work habits for hazard and risk assessment that will help protect each individual and their co-workers as they set chokers, rig stumps, buck logs and work around heavy equipment, cables and logs.

The two WFP instructors are experienced loggers and timber fallers, with decades of work knowledge, good communication skills and a strong commitment to this type of learning process. With a student to instructor ratio of 3:1 the class is closely supervised and teachable moments are easily absorbed.

Further enrichment of the program is achieved through exposure to the psychology of safety, fire suppression skills, ergonomic awareness, driving skills and danger tree assessment. Also, there are visits to the class by WorkSafeBC and United Steelworkers union representatives who recognize the need to fill the growing labour gap and fully support the program.

So far, the WFP Logging Fundamentals training has produced 34 graduates over two years — almost all found immediate employment in the coastal forest industry.

Training takes place at the Englewood Forest Operation in Woss, under the guidance of operations manager, Randy Boas. For him, creating this program was a personal goal for many years as the industry became harder to enter due to changes in logging methods and equipment. He observed that training 'on the job' was often inconsistent and felt much more could be accomplished under a defined curriculum, in a controlled environment. Screening the applications, conducting interviews and running the training program is a large commitment for WFP, involving managers, supervisors, employees, logging equipment and other resources. The results have been worth it! There are only six students per class to allow for safe supervision by instructors as they break up the class into learning opportunities on the side hill and in the landing. WFP seeks the best chance for success with each trainee. Getting truly interested individuals with the right aptitude into the program to begin with is the key to them choosing to stay in the industry long term.

While graduates are not obligated to work for Western Forest Products, most of them have been recruited directly to WFP company operations or contractors who harvest timber for WFP. Western Forest Products and other stakeholders in the coastal industry continue to discuss ideas for expanding the program to serve a broader need. The program has been a wise investment. Expansion of this type of training remains a goal of many stakeholders because of the key advantage of learning in a 'real' operational environment.

The seven-week program lays an exceptional foundation for these new loggers to continue learning as new, young workers. The upfront investment in training results in an accelerated learning curve for

TRAINING

these employees, while working safely and productively.

Logging is an infinitely interesting and complicated business, constantly evolving with new technologies, equipment and work requirements. The goal for WFP is to attract the brightest and best candidates possible in the belief that they will choose careers in this challenging and rewarding work. Contrary to other recent reports, people are interested! Applications have been numerous from the beginning — over 80 applications for the six available spots in 2012; 130 for the 18 spots in 2014. Successful candidates are mostly from small towns including First Nations communities on central and northern Vancouver Island.

There is a lot of competition for skilled workers in BC and across Canada. However WFP has found many of the graduates of this program prefer to stay and work close to home. The training provides the needed balance for success: local trainees learning real skills in a controlled environment within a carefully planned curriculum — and directly entering careers in the coast forest logging industry.

WFP would like to acknowledge the Coast Sustainability Trust (CST) II, which has generously helped share the cost of conducting the program from 2012 through to 2014. As CST II funds are limited, WFP will be seeking new partners for 2015.

Lisa Perrault, RFT, has worked with Western Forest Products Inc. in Campbell River since 1998, and is currently coordinator, strategic projects, working on industry recruitment and training initiatives, communications and the WFP Logging Fundamentals Training program. She is on the Boards of the Festival of Forestry and the Campbell River Forest Education Association.

157

Finding the Balance for Success

By Jeremy Gye and Christian Walli, RPF



Urban Forestry: Oxymoron or the

AN INCREASING PERCENTAGE OF THE world's population is living in urban areas, including 80% of Canadians. Cities with abundant vegetation and natural systems tend to be healthier than those without. These natural assets are often referred to as urban forest. What is meant by this term? Should it be understood figuratively or literally? Can 'true' forest ecosystems exist within urban spaces? What does the practice of urban forestry have in common with traditional forestry, if anything? Are there opportunities for traditional foresters in this rapidly expanding and evolving field? If so, how does one prepare for a professional career in urban forestry here in BC?

Although some might argue

the point, it is fair to say that the concept of an urban forest is largely metaphorical. While in urban areas it may be more accurate to speak of forest-*like* or treed ecosystems, the term *urban forest* has a rich connotative value and is now in common parlance across much of the world.¹ Despite this trend, the somewhat paradoxical character of the term seems puzzling at first glance: a forest in a city? The term is intended to draw attention to the broader plant communities, ecosystem processes and structures associated with trees growing within human settlements. The term *urban* is to be understood broadly and refers to communities of all shapes and sizes and located anywhere along the rural–urban gradient. For some, the quizzical aspect of the term *urban forest* can provoke deeper questions and lead to greater reflection about the nature and value of treed ecosystems within our communities. Others are put off by the technical or urban-centric nature of the term.

The practice of forestry as an intimate part of settlement life has a long and legitimate pedigree with its roots in the countries and cultures of Europe, where the cultivation of trees in and around human settlements for the purpose of domestic economy has been taking place since time immemorial. Arboricultural practices like

planting, felling, pruning, coppicing, pollarding, espaliering and hedge-layering are historical examples of more domestic types of forest management, along with game-keeping and animal grazing.ⁱⁱ Today, urban forestry is generally defined as the management of treed environments at multiple scales in and around urban community ecosystems for the physiological, sociological, economic and aesthetic benefits trees provide society.ⁱⁱⁱ This includes managing for risk factors, such as wind-throw and wildfire. Urban forestry is a rapidly expanding and evolving field. In addition to their beauty, urban forests are increasingly valued as green infrastructure, providing a suite of natural services to our communities, such as rainwater management, water and air purification,

shade, energy conservation and carbon sequestration. These can be monetized using new inventory and assessment tools, such as the I-tree Tools developed by the USDA and Davey Tree Experts, and is a useful way to demonstrate the infrastructure-value of the urban forest. Urban forests are also valued for their contribution to biodiversity, human health, community liveability and place-making.^{iv} Like any asset or infrastructure, however, the value of an urban forest is dependent upon how well it is purposed, developed and maintained. Urban real estate grows more precious by the day. Treed environments are under tremendous pressure from competing land uses and must work hard to keep their place in the urban "jungle." As a consequence of these two trends, the idea of designing and growing 'smart,' high-functioning treed landscapes that 'play well in the urban sandbox' is gaining increasing support across Southeast Asia, North America and Europe. Many cities now sport their own strategic urban forest plans. This is why Urban Forests by Design was chosen as the theme for the 11th Canadian Urban Forest Conference, to be held in Victoria from September 29 to October 2, 2014.

Urban forestry in the 21st century requires more than a traditional knowledge of arboriculture or forest science. Although much of this

See http://www.theglobeandmail.com/report-on-business/torontos-urban-forest-worth-7billion-report-says/article19071376/

For an excellent overview of the etymology and historical development of urban forestry across North America and Europe, see Konijnendijk, C.C., Ricard, R.M., Kenney, A. and Randrup, T.B., 2006. "Defining urban forestry – A comparative perspective of North America and Europe". Urban Forestry & Urban Greening 4(3-4): 93-103.

and Europe". Urban Forestry & Urban Greening 4(3-4): 93-103.
 The term arboriculture refers to the management of individual trees at the site scale.

Helms, J. (Ed.), 1998. The Dictionary of Forestry. Society of American Foresters, Bethesda. P. 193.

Next Big Thing?

knowledge provides an important foundation, it is not sufficient. Other important domains of knowledge and expertise draw from disciplines as diverse as land-use planning, urban design, political ecology, community engagement, conflict resolution, fundraising, watershed management, stormwater management, conservation biology, operations management and policy development.

There are many challenges facing cities today. These include increasing urbanization, climate change, water quality and scarcity, failing infrastructure, chronic fiscal austerity, pollution, obesity, unemployment, biodiversity and habitat loss — just to name a few. All of these challenges have in common one thing — they are caused and sustained by human activity. Moving onto a more sustainable path requires fundamentally rethinking how we go about the day-to-day business of our lives: the way we manage our resources and our waste, develop our economies, and plan, design and build our cities. We are all intimately bound together in this enterprise. Urban forestry is at the centre of this work.

Whether you are someone contemplating a career in urban forestry or in one of the many other trades and professions that influence the urban forest, there is an immediate and pressing need for schooling that can address the complex and interdisciplinary demands of this emergent field. The faculty of forestry at the University of British Columbia is continuing its leadership role in professional development by proposing the first undergraduate degree program in urban forestry in western Canada. Consider a future in this exciting field. There are career opportunities in arboriculture, municipal forestry, urban planning, civil engineering, landscape architecture and other related disciplines. Whether the treed environments of our cities constitute genuine forest ecosystems or are merely forest-like, the need for innovative and competent management is real and 'the next big thing.'

Jeremy Gye is a consulting arborist and urban forester with extensive experience working with communities, municipal staff, senior levels of government, the development and design community and large institutional land holders throughout the Lower Mainland and southern Vancouver Island. As a charter member of the Capital Region's Urban Forest Stewardship Initiative, the BC Council of Urban Foresters and the Canadian Urban Forest Network, Jeremy has pioneered efforts to raise the profile of urban forest planning within BC and across Canada. Recently, Gye and Associates completed the City of Victoria's first Urban Forest Master Plan.

Christian Walli, RPF, is a community advisor for the BC chapter of Tree Canada. He works at Brinkman and Associates Reforestation Ltd., where he is involved in administrating some 40 BC community urban forestry projects per year on behalf of Tree Canada. He also advocates on urban forestry to groups involved in urban planning. Christian is a graduate of the UBC forest resource management program and, for the past 37 years, has worked in a variety of forestry jobs in the private forest.

SKILLS TRAINING continued from Page 15

existing work processes. They are also developing an enhanced awareness of the business potential of technology-based innovations such as unmanned aerial vehicles.

3. Harvest retention options to improve riparian zone management

In 2015, the College and Dunkley Lumber will establish several research plots in the CNC Research Forest to research and demonstrate harvest retention options that support the ecological attributes required to maintain fish habitat in small streams. This project will incorporate outcomes from the recent Prince George Small Streams Project², as well as subsequent research, and will help train students on using research to support and develop best management practices for riparian zone management and forest stewardship.

These projects positively impact both industry partners and students. We are generating information and data important to the forest industry, and students are applying and enhancing their technical silviculture, GIS, remote sensing and operational skillsets to unique projects that introduce them to a range of challenges and opportunities facing the industry today. Students are also helping to develop innovative approaches and technology-based solutions that can help their employers overcome challenges and capitalize on opportunities.

Graduates from forestry programs in Canada enter a challenging profession that requires innovative approaches to a wide range of complex challenges and opportunities. By linking applied research projects with technical skills training, CNC seeks to develop forest technologists who combine technical proficiency, technology literacy and an "innovation toolbox" that includes problem solving, critical thinking, communications and risk assessment skills. This initiative also provides an opportunity for forest companies to partner with CNC and engage students on applied research and innovation projects that will yield short-term benefits to their business while contributing to the enhanced training of future forest professionals. Research and training partnerships between industry, government and academia should continue to be actively pursued as they support a sustainable, competitive and innovative forest industry in BC.

Hardy Griesbauer, RPF, is the director of applied research and innovation at the College of New Caledonia. He has worked as a professional forester in the BC Interior and has conducted forestry and climate research throughout BC and Yukon.

References

- Association of Canadian Community Colleges. 2014. College and institute applied research 2012-2013: innovation for small businesses and communities. URL: http://www4.acc.ca/ xp/index.php/en/2012/doc_download/487-applied-research-report-2012-13 Page accessed: July 16, 2014
- ² Ministry of Forests, Lands and Natural Resource Operations. 2006. Prince George Small Streams Project webpage. URL: http://www.for.gov.bc.ca/hre/ffip/PGSSP.htm Page accessed: August 5, 201

Special Feature

ForesTrust at Work:

Meet this Year's Scholarship Recipients

FORESTRUST IS THE ABCFP'S REGISTERED CHARITY AND THROUGH IT THE ABCFP is able to create endowments at post-secondary institutions across the province. Forestry students around BC are the ultimate beneficiaries of these endowments, so your donations directly fund the sustainability of professional forestry practice in the province!

There are Many Ways to Support ForesTrust

Make a Cash Donation

Donations to ForesTrust are tax deductible and can be made by cheque, money order, Visa or MasterCard. It is also possible to contribute a gift in memory of a colleague.

Donate an Item to the Silent Auction

A silent auction is held each year at the ABCFP forestry conference and annual general meeting to raise funds for ForesTrust. If you are interested in contributing an auction item for the 2015 conference, which will be held February $18^{th} - 20^{th}$ in Naniamo, contact Lisa Riechel, RPF, at reichel@bcforestsafe.org

Estate Planning

Many people decide to designate a portion of their estates to a charitable organization. We encourage ABCFP members to remember ForesTrust in their wills.

Forestry's Next Generation



BCIT, Sustainable Resource Management Award amount: \$1,000 Hometown: Terrace Currently working at: B.A. Blackwell & Associates Ltd.

Based on your own experience studying forestry, what would you say to a young person contemplating a possible career in forestry but just isn't sure?

I think there's way more to forestry than most people think. When I started at BCIT, I had no idea what I might do when I finished. Even now I'm still surprised by all the different types of work and career pathways that are out there. I think if you love the outdoors and are looking for a career that's anything but mundane, give it a thought. PS - I drove home from work on an ATV today.



UBC, Forestry- Forest Resource Management Award amount: \$2,500 Hometown: Salmon Arm Currently working at: City of Vancouver - Parks Board

Tell us about a really fun forestry experience you had, either in the field or during your coursework.

Working for a summer with Interfor out of Campbell River in the BC Central Coast division for the engineering department was a very fun and rewarding experience. There are not many jobs where you can take a helicopter, float plane, or boat to work while seeing dolphins and killer whales along the way. This summer job took me to some of the most remote parts of BC I have ever been to, and gave me a chance to see the amazing, awe-inspiring wilderness that exists along the BC coast, such as long, winding inlets and massive glaciers — along with some up-close experiences with grizzly bears!



VIU, Forest Technology Diploma, then Advanced Diploma in GIS Applications Award amount: \$1,000 Hometown: Vancouver Currently working at: VIU's Forestry Department and interviewing for full-time employment on the Island.

What motivated you to pursue forestry?

I had outdoorsy parents who worked seasonally at the arts centre in Banff National Park, raising my sister and I in tents and trailers within the park, so I was quite accustomed to wandering the woods on my own at a young age. As I grew up I found myself continuing this attachment to the outdoors, so after a career in video game production to make some money for 'the next step' I decided it was time to retreat from the city and get back into the woods with some new skills. Since my grandfather worked in forestry, and my family had been on Vancouver Island since the 1850's, I decided to explore those roots and do my forestry and GIS training at VIU, with the plan to leverage my technical thinking from video game work into sustainable resource work. It's worked out great and I am happy to have returned another Ross to the Island.

Special Feature



UBC, Forest Resources Management Award amount: \$1,500 Hometown: Maple Ridge Currently working at: Forsite Consultants Ltd.

Where do you see yourself in five years? 10?

Since my mum is always right, she says hopefully not in her basement. I have recently realized the joy in not knowing! While that may seem scary to some people, I see it as a good thing. There are so many different pieces of forestry that I enjoy and so many more to discover that I can't say for certain where I will find myself in five years. With that being said, I think that I would gain a lot from continuing on into graduate studies. I feel like continuing my studies would provide me with the opportunity to have a positive influence on the area of forestry I choose to focus on.



UNBC, Forest Ecology and Management Award amount: \$1,000 Hometown: Maple Sicamous Currently working at: Canadian Forest Products

What aspect of forestry would you like to pursue the most? There are many different career paths in forestry that appeal to me. However, being a silviculture forester would be my first choice. With the looming mid-term timber supply crisis in the BC central interior, it has become quite evident that BC's forest estate now requires the use of innovative silviculture practices. I am looking forward to developing and implementing forest stewardship practices that will create healthy, sustainable forests in British Columbia.



UNBC, Forest Ecology and Management Award amount: \$1,500 Hometown: Prince George Currently working at: Canadian Forest Products

This is the second time you received an ABCFP award. What was your reaction when you found out you were the recipient again?

Since I've received this award before I wasn't really expecting to win it again, but I am focused and determined to do my best while in school which, it would seem, the ABCFP likes to reward. I was surprised, but I would be lying if I said I wasn't trying to win the award again.



CNC, Natural Resources and Environmental Technology Award amount: \$500 Hometown: Prince George Currently working at: Industrial Forestry Service Ltd.

Make a prediction about forestry in the next 10 years. How do you think the sector will look?

With a forecasted decrease in the provincial AAC (due to the decreasing volume of accessible beetle-killed pine) in the near future, I have no doubts that forestry will experience changes. While these changes may be essentially "reverting to how it was" (as I've been told), it will be new for me and the many other young forest professionals who are to replace the aging (and soon-to-be-retiring) present heads of the industry. The forest industry has adapted to changes before and with the proper preparation and mentoring, I believe that the future of the forest industry will be in good hands.



UNBC, Natural Resource Management, Forest Ecology and Management Award amount: \$500 Hometown: Chilliwack Currently working at: Canfor

What is your dream career in forestry and why?

My dream career would be as part of a company or organization that aims to continuously develop its own operation while actively seeking to add to the current scientific knowledge base. I am very interested in being a part of something that focuses on improving our current understanding of the complex interactions in forested landscapes and developing ways in which to add any insights into everyday practice.



UNBC Forest Ecology and Management Award amount: \$500 Hometown: Terrace Currently working at: TDB Consultants

What is the top skill you learned in your forestry studies?

Every skill that I have been taught in my studies has been extremely useful. From learning about soil types and plants of BC, to learning about geomorphology and weather, I have used these skills throughout my time working in the bush. Nothing I have learned will go unused.



Is it time for Biocultural Diversity (BCD) Zonation

BRITISH COLUMBIA IS A DIVERSE PROVINCE, but how diverse is its aboriginal relations and resource management policy? Forest professionals appreciate how the provincial Biogeoclimatic (BEC) Zones map portrays why British Columbia is the most naturally diverse province in Canada. This map shows the dispersal of 14 BEC zones that reflect unique combinations of vegetation, climate (zonal), site and seral classifications, of which site and climate are the most influential. Furthermore, the province's forest policy regime partially rests upon the BEC foundation that V.J Krajina initiated in 1949. In 1986, biologist E.O. Wilson converted the phrase "biological diversity" into "biodiversity." The United Nation's Convention on Biodiversity came into effect in 1992.

Curiously, British Columbia also has an "amazing" diversity of indigenous languages, about 60% of Canada's First Nations languages are found in BC. Language is an essential component of the cultural diversity of the planet. For instance, indigenous place names define their relationship to the land and often are more than just "labels." Cultural diversity is defined by UNESCO as: the set of distinctive spiritual, material, intellectual and emotional features of society or a social group that encompasses, in addition to art and literature, lifestyles, ways of living together, value systems, traditions and beliefs.

"Biocultural diversity" emerged as a term this millennium that inextricably links cultural and biological diversity, focusing on correlations between biodiversity and linguistic diversity. Most importantly, the notion of "linked" implies that biological and cultural diversity have co-evolved, are interdependent and mutually reinforcing. Cultural groups interact and influence the biological diversity of their environment, and vice versa. Climate change discourse now commonly refers to this dynamic as anthropomorphic change. Biocultural diversity is the "sum total of the diversity of life in nature and culture."

In 2007 UNESCO launched an international dialogue on biocultural diversity which is a very valuable resource for policy makers. UNESCO concluded that there is a danger in addressing biodiversity independent of cultural diversity, and vice versa. When considering the process of change, like climate change, it is important to understand time scale and historical context. Indigenous peoples around the world are acknowledged to be custodians of biodiversity and proponents of cultural diversity. So, the assumption made here is: there has been a close association and evolution of British Columbia's biodiversity and cultural diversity, which can be portrayed by interweaving BEC and linguistic zones (i.e. First Nations language groups) and thus creating Biocultural Diversity (BCD) Zone maps. As depicted in the map, indigenous language areas were interwoven with the BEC zones to create draft BCD zones. They require further and regular refinement as biodiversity and cultures co-evolve. The BCD zones were created to initiate collaborative apolitical conversations about how to incorporate biocultural diversity into resource management and aboriginal policy.

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BC's forests and cultures are not a "monoculture" and therefore, neither should its policy. Public and private sector policy makers often chase a false hope called "consistency" because it is perceived as administratively efficient and fair across the geography of large

Interest

in British Columbia?

organizations. Administrative efficiency should not be the primary public policy goal. This approach, however, does not take into account the ecological and cultural diversity of this wonderful province. A more balanced and principled policy approach could be achieved by striving for consistency within, and variability between, BCD zones.

On the resource management front, BCD zones could inform water management, in particular, because there is a strong link between water, climate and culture. Climate change and population growth are the two main global drivers of environmental change, and BCD zones would be an appropriate planning and policy foundation to address mitigation and adaptation. Additionally, land use and cultural heritage planning could be guided by BCD zones.

On the aboriginal policy front, policy makers could move away from the provincial template-like negotiations with First Nations towards an approach that respects biocultural diversity. The province's policy framework is often guided using arbitrary administrative boundaries like Timber Supply Areas (TSAs), resource office districts, Indian reserves or electoral boundaries. BCD zone planning is grounded in the interaction between culture and the land, rather than in the political tension surrounding the "land question."

One practical example of how BCDs could be implemented in BC is through the development of a "caretaker" strategy for each BCD. The purpose of a caretaker strategy is to ensure biocultural diversity and to foster resilience in the face of climate change and population growth. Now that the Supreme Court of Canada, in *Tsilhquot'in v. British Columbia*, has affirmed the coexistence of crown and aboriginal title lands, the opportunity arises for the development of collaborative caretaker strategies (i.e. by provincial and First Nations governments and interested third parties) which sets out operational principles and monitoring mechanisms for the conservation of water, nature and culture, as well as sustainable resource management.

Biocultural diversity holds a key to ensuring resilience and crafting policy that wisely responds to cumulative impacts, climate change and achieving reconciliation with First Nations.

Michael Blackstock, RPF, is an independent scholar of European and Gitxsan descent. He holds a Master of Arts degree in First Nations studies and is a Chartered Mediator. Michael was a member of UNESCO's Expert Advisory Panel on Water and Cultural Diversity for four years. Michael has conducted research with First Nations Elders on water and developed a new water-first ecological theory called Blue Ecology.

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Interest

By Kathleen Crowhurst, TFT



Why I Volunteer for the ABCFP

ONE SPRING MORNING IN 2008, I TOOK A BREAK FROM MY SECRETARIAL duties at work to gaze wistfully out of the window toward the forested landscape west of Campbell River. How I wanted to be out there, working in the forest! I enjoyed the positive work environment, task variety and creative aspects of my work at the time. But I wished for a career that also involved physical and intellectual challenge, working in nature and contributing to environmental stewardship. Did such a career exist? If so, what schooling, skills and abilities were needed to make a career change? A few weeks later, I attended a career fair in the community to find the answers to these questions. Thus began my journey toward a new career as a forest professional.

At the career fair, forestry industry representatives were recruiting. "As a forest professional, you get to work in beautiful remote places and see things that not many people get to see," I was told. We talked about various aspects of forest stewardship and work responsibilities. "Can you work in steep, brushy terrain?" a forest professional asked. "The weather, insects and brush can be tough to deal with, but if you are prepared and have a good attitude, every day can be a good day." Yes, I can do that! I was intrigued by the number and variety of career options available to forest professionals. This profession seemed to offer everything on my career wish list.

Over the next few months, I searched the internet for forestry careers, professional associations, and educational institutions offering forestry programs. I telephoned, e-mailed and visited employers to inquire about employment prospects, and they generously gave their time to help me become informed. Other RFTs and RPFs that I encountered in the community candidly shared their experiences about what it was like to work as a forest professional. All of the forest professionals I talked with seemed to enjoy their careers and were optimistic about future employment opportunities in the forestry sector.

In late 2008, I visited two campuses to preview their forestry programs. I was invited to participate in a forest health field lab, where I talked with students who were in the program. I was inspired by all these interactions and enrolled in college, determined to excel in school and contribute to forest stewardship.

Last year, I joined a group of other volunteers to represent the ABCFP at a career fair. The ABCFP sent display materials, copies of **BC Forest Professional** magazine and career brochures to set up at the booth. At first, I was apprehensive and unsure of what to expect, but it didn't take long to relax and enjoy talking with the people who stopped by the booth.

The students we talked with had a basic understanding of forestry that they had gained from family members who worked in the sector or

forest professionals who had volunteered to speak to their class about forestry. We asked them questions about their interests, career aspirations and what they knew about forestry.

When encouraged to talk and ask questions, the students had interesting questions and were genuinely interested in exploring forestry career options. For example, "What does a forest professional do when he or she is working in the forest?" We described two possible field days in the life of a forest professional. We were asked how forest ecosystems are protected when laying out blocks, and we described the fundamentals of FRPA and professional reliance. Two girls asked me about culturally modified trees that I have seen in the field and how they were protected in block layout. Another group of students expressed interest in joining a wildfire management crew. We were asked about forestry career options, required schooling, work hours and income potential. It was actually fun to volunteer with the others and share our experiences and enthusiasm about professional forestry with these interested students. By the end of the day, I felt privileged to have had the opportunity to volunteer at the career fair.

When I reflect on the forest professionals who have volunteered to help me over the past six years, I am grateful for their commitment to advance forestry. These people have positively influenced my life. And as I look forward to entering membership with the ABCFP, I am motivated to speak to the next potential generation of forest professionals. My five top reasons for volunteering with the ABCFP are as follows:

- 1. Advancing public knowledge of forestry is a privilege and professional responsibility.
- 2. Speaking to the potential next generation of forest professionals can help career seekers who have similar interests and career aspirations.
- 3. Volunteering is a great way to network, meet interesting people and make new friends.
- 4. Volunteering to speak with the public can result in personal and professional development.
- 5. It's fun to volunteer with others who enjoy helping others and want to advance forestry.

Kathleen (Janz) Crowhurst is a Trainee Forest Technologist and works as assistant development technician with Strategic Natural Resource Consultants in Port McNeill. She gratefully accepted ForestTrust scholarships while completing the Forestry Technology diploma program at Selkirk College in 2010-2011 and courses in the Natural Resources and Ecology Management degree program at UNBC in 2012-2013. She is currently preparing to write the RFT entrance exam in October 2014.

Book Review

Understanding Environmental Policy

Second Edition

By Steven Cohen

Columbia Univ. Press, 2014, vii & 211 ISBN 978-0-231-16774-1[cl:alk.pap.]; 978-0-231-16775-8[ppb:alk.pap.] 978-0-231-53768-1[ebook]

In this short, readable book that is commendably free of jargon, the author develops a framework of six topics or issues — economic, ethical, management, political, scientific and technological — for assessing and evaluating environmental policies. The framework asks half a dozen questions: What values bear on the topic; how is our way of life involved; what are the political ramifications; what role does technology play; how can environmental damage be mitigated; and, is there sufficient organizational capacity to be able to address the problem? After applying his framework to four case studies, Cohen then assesses its usefulness and general applicability.

The first case study is New York's traffic problem, which will resonate with residents of BC's Lower Mainland and their ongoing debate over politics, transit, tolls and service. Oddly, a pie chart depicting "How New Yorkers Get to Work" accounts for only 69% of them! Disposal of e-wastes is the second topic, again relevant to Canada. The third study, hydrofracking, is even more applicable locally and, by implication, raises challenging questions for Canadian authorities. Similarly, the fourth study, the risks of climate change, could be developed for Canada with such searching questions as our relation to the Kyoto Protocol.

Although obviously written for an American audience and using only local case studies (Canada barely rates a mention) the final chapters that evaluate the utility of the framework approach are not at all parochial, they have general validity. Using the framework helps to delineate the problem clearly, in some detail, and identifies its salient elements while ensuring a holistic approach. It cautions that society's values colour understanding



of a problem and influence the proposed solution. The author concludes that more widespread application of the framework

will improve environmental and sustainability policies and so is desirable. Though encouraged by the changes in attitude and understanding which have developed in the US since Rachel Carson wrote her 'Silent Spring' [1962] and with the establishment of the Environmental Protection



Understanding Environmental Policy

SECOND EDITION

STEVEN COHEN

Agency and the 1969 National Environmental Policy Act, Cohen believes improvements are still needed. One difficulty in generating positive action is that apparent benefits of activities which harm the environment are immediate and short-term while real costs and benefits occur over the long term. I fear he would be even less sanguine were he to look at Canada, especially Ottawa. ~

Review by Roy Strang, PhD, RPF(Ret)



Standing in the Shadows of Delgamuukw: Uses of Aboriginal Title Land Under the The Tsilhqot'in Decision

In last June's controversial Supreme Court of Canada decision in Tsilhqot'in Nation v. British Columbia, the court made a declaration of Aboriginal title, but did not provide much guidance with respect to how the Tsilhqot'in could use its Aboriginal title lands. In this regard, the court did little more than state that a First Nation could not substantially deprive future generations of the benefit of those lands. The court's concern with future generations relates to the collective nature of 'Aboriginal title' rights.

Similarly, the concern with future generations of Aboriginal title holders also manifests itself in the context of the Crown's ability to "justify" an infringement of Aboriginal title. Before the Crown can permit a project or pass laws in relation to Aboriginal title lands, the Crown is first obliged to satisfy a three-part justification test. The third branch of this test requires the Crown to ensure that any infringement of Aboriginal title is consistent with the Crown's fiduciary obligations to the holder of the Aboriginal title. This requires the Crown to act in a manner that recognizes the collective nature of Aboriginal title. So, just as current generations of an Aboriginal title holder cannot use its Aboriginal title lands in a manner that would substantially deprive future generations of the benefits of the land, neither can the Crown.

In Tsilhqot'in, the court does not do much to clarify the uses of Aboriginal title lands that are reconcilable with the ability of succeeding generations to benefit from Aboriginal title lands and is largely content to say that this is an issue that the law would address on a case-by-case basis as needed.

Earlier comments of the court from its 1997 decision in Delgamuukw v. British Columbia shed a little more light on the matter. In that ruling, the court explained that while holders of Aboriginal title could use their lands for a variety of non-traditional, modern purposes, any use of the land that is irreconcilable with the nature of the First Nation's original occupation of, and relationship to, the lands that gave rise to its Aboriginal title in the first place is not permissible. So, to use the court's example, if a First Nation established a claim to Aboriginal title through historical occupation of the lands for the purpose of hunting, then the First Nation may not use those lands for strip mining since this was probably irreconcilable with that First Nation's historic relationship to the lands.

When read in the context of Delgamuukw, the court's decision in Tsilhqot'in tells us that the holder of Aboriginal title cannot use, and

the Crown cannot justify an infringement, of Aboriginal title lands that is irreconcilable with the nature of the First Nation's historic occupation of and relationship to those lands. Proposed uses of Aboriginal title lands that are irreconcilable with the nature of the First Nations' historic occupation of and relationship to the Aboriginal title lands is simply not permitted and there's nothing that the First Nation or the Crown can do about it.

Except for one thing. The court made clear in both Tsilhqot'in and Delgamuukw that the holder of Aboriginal title lands may alienate those lands to the Crown for valuable consideration and, thereby, convert Aboriginal title lands to non-Aboriginal title lands. This would allow uses of (formerly) Aboriginal title lands that were irreconcilable with the nature of the First Nations' historic occupation of and relationship to the lands. One might see this as an interesting exception given that the conversion of Aboriginal title lands to non-title lands would absolutely seem to come at the expense of future generations of the First Nation.

But this gets to what is probably the court's primary objective when it comes to the reconciliation of Aboriginal rights with Crown sovereignty: to promote settlement treaties. Without the ability of First Nations to lawfully surrender Aboriginal title rights to the Crown, there is probably not much likelihood of reconciling Aboriginal rights with Crown sovereignty. 🔦

Jeff Waatainen is an adjunct professor of law at UBC, has practised law in the forest sector for over 15 years, and currently works in the Forestry Law Practice Group of Davis LLP's Vancouver office.



Davis Forestry Law Group

As one of the longest-standing practice areas at Davis, the Forestry Law Practice Group advises and represents clients across Canada and abroad on virtually all issues affecting the

Member News

In Memorium

It is very important to many members to receive word of the passing of a colleague. Members have the opportunity to publish their memories by sending photos and obituaries to **editor@abcfp.ca**. The association sends condolences to the family and friends of the following member:

Neil Sinclair Mclean RPF #406 February 12, 1927–June 28,2014

The birds on the South Thompson River have lost a great friend. On June 28 — a beautiful afternoon — the spirit of a very good man found its way to the light. Neil Sinclair McLean passed away in his own bed, surrounded by his loving family and nine grandchildren. Two turtledoves flew by the window and two deer came to graze below.

Neil (Sinc) was born February 12, 1927 in Prince George to Sinclair and Helen McLean, a pioneer lumbering family. He was the youngest son and learned many facets of the business, from river driving logs down the Fraser to every task in the mill located at Shelley, BC.

He left to attend Vancouver College, later graduated from Lord Byng High School and went on to earn a Bachelor of Forestry at UBC in 1951. He devoted his professional life to the practice of forestry. After several years in Malakwa, Taft and Sicamous country, he and his young family moved to Kamloops to work for W.W. Stevens, a forestry consultant.

In 1961, after Mr. Stevens' untimely passing, Neil and his wife E.M. Helen purchased the business that became S.N. McLean Forestry Services Ltd. The company operated for over 40 years out of the main office in Kamloops, as well as those in Castlegar and Prince George. During the 1970s, it grew to become the largest forestry consultancy in the Interior of BC. Neil sponsored numerous summer forestry students. Many who followed in his footsteps into the profession of forestry took with them the ethics and integrity he believed was necessary for every professional forester's imprint on the profession.

Neil's persistent health problems were met with equal perseverance and tenacity. He never let them overcome his joie de vivre and his passion for living a full life. He found a spiritual resonance in nature, something that brought a particular joy, whether it was the deep woods of his youth or at the edge of the South Thompson River in later years.

He truly believed in the Rotary motto "Service above self" and served as an honorary member of the Kamloops North Rotary, where he forged numerous and quality friendships. He was also a life member of the Fraser Fort George Museum, a longtime member of the Association of BC Forest Professionals and the Forest History Association of BC. He was also a member of the Eagle Valley Fish and Game Club and the Sicamous Kinsmen.

Neil is survived by E.M. Helen, who is his lifelong mate and wife of nearly 62 years, as well as his three children: son Murray McLean (Tammy Abrahamson), daughter Maureen Young (Allen) and daughter Kerry-Lynne Small. Neil also leaves behind his grandchildren: Lachlan McLean (Sayena Fariji), Lucas McLean (Jessica), Lana McLean, Zachary Young (Natalie Peace), Taylor-Marie Young (Robert Fischer), Jacob Young (Jenna Patterson), Nicholas



Small, Michael Small (Katie Almeida), Samantha Small and his cherished great grandson, Lincoln Sinclair McLean. Neil is also survived by his son-in-law Henry Small, his remaining sister Marilyn Goertsen and many nieces and nephews. Neil was predeceased by his youngest sister, Lynne Mann.

Dearest Neil — devoted husband, loving father and beloved Poppa — your flag flies at half-mast, your mountains have been climbed and your guest book, filled to the last page, is now complete.

We acknowledge the quality care provided by the physicians and nurses of Royal Inland Hospital and the Kamloops Home Support Team. A ceremony in recognitions of Neil's life was held in Kamloops.

Donations in remembrance of Neil Sinclair McLean may be made to Kamloops North Rotary (Foundation); the Crohn's and Colitis Foundation of Canada; or any charity of choice.

Online condolences may be sent to Neil's obituary at www.bowersfuneralservice.com.

Prepared by: E.M. Helen McLean, Murray McLean and Taylor-Marie Young.

Member News

Membership Statistics

ABCFP — June 2014

NEW REGISTERED MEMBERS

Stefan Albrecher, RPF Joseph Alfredo Aquino, RPF Andrew John Vander Putten, RPF Eric Michael Wahn, RPF

NEW ENROLLED MEMBERS

Brandon Anthony Albino, TFT Manuela Arnold, FIT Brett Terence Beauregard, TFT Jacob Marshall Bapty, FIT Jordan Paul Benner, FIT Treasure Grace Burton, TFT Devon Danielle Chevigny, TFT Judith Mary Cowan, FIT Brendan Matthew Forge, FIT Brian Allan Gauthier, FIT Graham Peter Gubbe, FIT Magnus Gunn, FIT Geneviève Hétu, FIT Oliver Noah Holt, FIT Juhan Lin, FIT Leland B. McKeeman, FIT Nicholas Anthony Reynolds, FIT Brody Francis Yoxall, TFT

NEW ASSOCIATE MEMBERS Lisa Beth Spingle, FIT, ATC

REINSTATEMENTS FROM LEAVE OF ABSENCE (ENROLLED MEMBERS)

Kyla Paige Ahtiainen, FIT

REINSTATEMENTS FROM LEAVE OF ABSENCE (REGISTERED MEMBERS)

Bruce William McClintock, RPF Diane Elizabeth Millar, RFT Theodore Conrad Moore, RFT Marvin G. Nowlin, RPF Jerome S. Hunter, RPF

REINSTATEMENTS

Jerome S. Hunter, RPF

THE FOLLOWING PEOPLE ARE NOT ENTITLED TO PRACTICE PROFESSIONAL FORESTRY IN BC:

NEW RETIRED MEMBERS Carrie Ann Lee Breisch, TFT

DECEASED Donald Hill MacLaurin, RPF(Ret)

ABCFP — July 2014

NEW ENROLLED MEMBERS

Christopher Harold Adams, TFT Stefanie Margaret Bulmer, TFT Ashley Francis Bunker, FIT Grace Nichole Chomitz, FIT Chantelle Marie Forseille, FIT Justin Davis Galbraith, FIT Jerin Stanley Hobbs, FIT James Michael Hogan, FIT Qing Nan Kong, FIT Joshua Alexander McQuillin, FIT Jonathan James Murkin, TFT Glenn Thomas Shortreed, FIT Jamie Blair Somerville, FIT Christine Dawn Taylor, TFT Brenden Carl Tostenson, FIT Douglas Daniel Wiggill, TFT

REINSTATEMENT FROM LEAVE OF ABSENCE (REGISTERED MEMBERS) Earl Simon Johnson, RPF

REINSTATEMENT FROM RETIREMENT Esa A. Aatelma, RPF

FOREST ROAD CROSSINGS continued from Page 7

to poor quality work, all forest professionals get painted with the same brush.

Recent environmental disasters should be a stark reminder and serve as a warning that all it takes is one incident to undermine public trust and social licence. The dedicated and independent service of forest professionals significantly reduces the risk of these occurrences. As a forest professional your actions and behaviour contribute to the collective trust and respect from organizations and administrations. We should all be concerned when short-cuts in forest practice ignore and undermine ABCFP guidance or forestry regulations.

What is the next step for the ABCFP?

Both the ABCFP and APEGBC are concerned about professionals not being hired to work on forest road crossings. Both organizations are working with government and talking with licensees — especially the smaller ones who may not be aware of the need for professionals.

The association is also looking into member conduct and practice associated with forest road crossings.

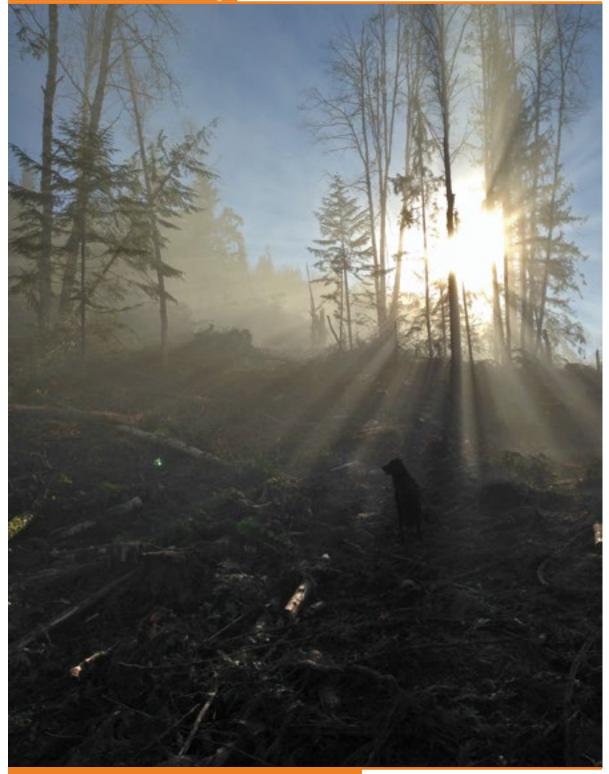
In addition, the ABCFP council is recommending that the *Guidelines for Professional Services in the Forest Sector* – *Crossings* become a reference in an Operations Standard of the ABCFP Bylaws. These guidelines have been around since 2005 and — in some cases — are not being followed. For years the ABCFP has heard the refrain — they are just guidelines so we don't have to follow them. By making them part of the bylaws, members who do not make the time to become current and competent, or who feel pressured by their employers to take short-cuts with respect to forest road crossings will have the strength of the *Foresters Act* to support them.

We will be having a ballot on this issue so members will be able to decide whether or not to reference the crossings guidelines as part of the ABCFP Standards of Professional Practice. We hope everyone will recognize forest road crossings safety as the public trust issue it is and vote in favour of including them during the bylaw ballot. ~



A Moment in Forestry

Submit your Moment in Forestry photo to Doris Sun at: editor@abcfp.ca



A Foggy Start By Daniel Scott, RPF The sun breaking through the fog on an active cut block in Vavenby

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