

BC

JANUARY – FEBRUARY 2015

Forest

PROFESSIONAL

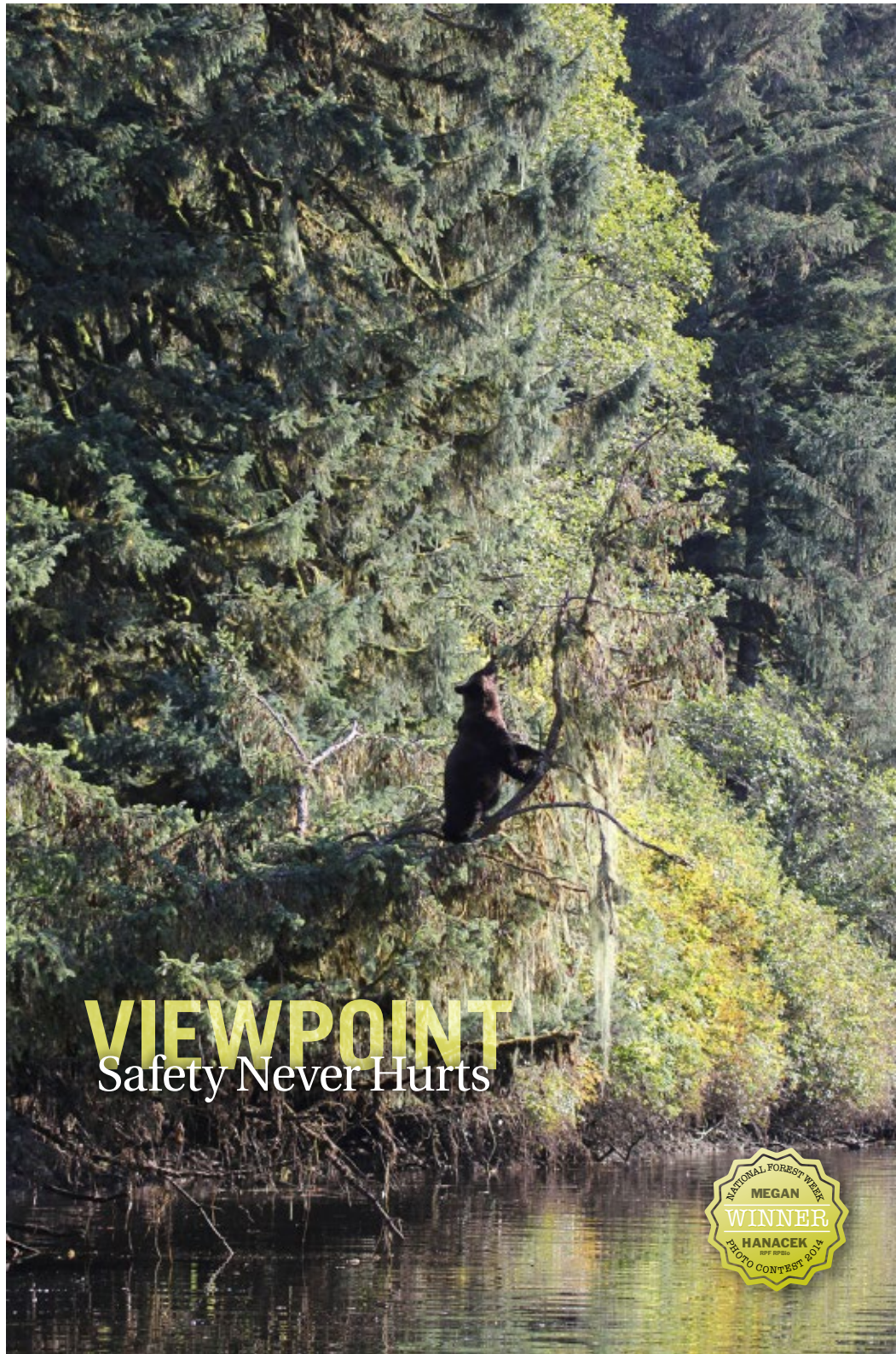
The Forest Practices
Board's Report on
Forest Road Bridges:
An Update

**Keep Your Staff
Safe with the Latest
and Greatest Safety
Innovations**

Shifting Gears in
Silviculture Safety Thinking

More Than Just Numbers:
**Calculating the
Cost of Safety**

National Forest Week:
**All the Winners
and Festivities!**



VIEWPOINT

Safety Never Hurts



STAY SHARP



BC Forest Safety Council
Unsafe is Unacceptable

Slips, trips and falls are the second most common workplace injury. Stay on your feet with proper footwear, being aware of where you step and carrying only what is needed.
It's easier to stay well than get well.

www.bcforestsafe.org

Forestry Through Your Eyes

We want to see forestry in BC through your lenses!

If you capture a great shot and want share it with your colleagues, send it to Doris Sun at: editor@abcfp.ca for a chance to get published.

BC Forest
PROFESSIONAL

Index

January – February 2015

BC FOREST PROFESSIONAL | Volume 22 Issue 1

Viewpoints

- 9 Work Safe in 2015 **By DORIS SUN, MJ**
- 10 A Case Study on Safety Promotion: Tolko's Woodlands Safety Peer Group
By SANDY ARSENEAULT
- 12 Safety in the BC Silviculture Sector: Taking a Safety II Approach
By JOHN BETTS
- 14 The "Gravity" of Steep Terrain
By ROBERT (TOM) JACKSON, RFT
- 15 The Cost of Safety
By REYNOLD HERT
- 16 Tools that Help Build a Safety Culture By Gerard Messier, RPF
- 18 Successful Planning for Safe, Productive Operations — Have We Got the Right Formula?
By PAM JORGENSEN, RPF
- 20 After the Dust Settled: Revisiting the Safety of Forest Road Bridges in BC
By GARTH LORD, PENG, AND CHRIS OMAN, RPF
- 22 Effective Safety Management — A Way of Doing Business
By DARSHAN SIHOTA, RPF, BSF, MBA



Special Feature

- 25 2014 National Forest Week Highlights

Departments

- 4 Letters
- 24 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

Cover photo by 2014 National Forest Week photo contest winner: Megan Hanacek

forestry
university of british columbia

master of sustainable forest management

*Pursue your RPF and
launch your career*



The Master of Sustainable Forest Management (MSFM) program is the first professional graduate degree to be accredited by the Canadian Forestry Accreditation Board.

"My new employers are very impressed with my MSFM education. Spending the past 9 months in grad school might have been my best decision ever"

— recent MSFM graduate.

For more information of the MSFM program see: www.forestry.ubc.ca/students/graduate/programs/

**University of British Columbia
Faculty of Forestry**

2424 Main Mall, Vancouver, BC
V6T 1Z4, Canada

604.822.6784
mfm.program@ubc.ca



a place of mind

Tempered View of Climate Change is Necessary

I applaud president Dan Graham's advice about communicating climate change in the November/December issue of **BC Forest Professional**. It was not too long ago that even trying to temper the zealotry of the adherents of catastrophic anthropogenic global warming (CAGW) was considered heresy.

However, I am disappointed that there are still glaring errors in that issue. For instance, the Viewpoints article written by Harry Nelson, Kathy Hopkins, and Casey Macauley refers to "increasingly variable weather patterns" as if this were fact. Furthermore, Alex Woods' article states that we have an "unstable climate" and that "predictability and stability are luxuries of the past" as if these were facts.

None of these statements are true and constant repetition simply spreads misinformation. If you read the latest IPCC report (AR5 WG1 Chapter 2 on Extreme Weather) you will find these key statements:

- "There is limited evidence of changes in extremes associated with other climate variables since the mid-20th century."
- "Current datasets indicate no significant observed trends in global tropical cyclone frequency over the past century ... No robust trends in annual numbers of tropical storms, hurricanes and major hurricanes counts have been identified over the past 100 years in the North Atlantic basin."
- "In summary, there continues to be a lack of evidence and thus low confidence regarding the sign of trend in the magnitude and/or frequency of floods on a global scale."
- "In summary, there is low confidence in observed trends in small-scale severe weather phenomena such as hail and thunderstorms because of historical data inhomogeneities and inadequacies in monitoring systems."
- "In summary, the current assessment concludes that there is not enough evidence at present to suggest more than low confidence in a global-scale observed trend in drought or dryness (lack of rainfall) since the middle of the 20th century due to lack of direct observations, geographical inconsistencies in the trends and dependencies of inferred trends on the index choice. Based on updated studies, AR4 conclusions regarding global increasing trends in drought since the 1970s were probably overstated. However, it is likely that the frequency and intensity of drought has increased in the Mediterranean and West Africa and decreased in central North America and north-west Australia since 1950."
- "In summary, confidence in large scale changes in the intensity of extreme extratropical cyclones since 1900 is low."

In short, there is no link to weather extremes and CAGW.

There are many other dubious claims in November/December issue that unfortunately cannot be addressed due to letter length limitations. Suffice it to say it will be difficult for professionals to use the "latest climate-science" when misinformation is being published in seemingly reputable publications.

ROBERT MOHR RPF

BC Forest Professional is published six times a year by the Association of BC Forest Professionals

602-1281 W. Georgia St, Vancouver, BC V6E 3J7

Tel: 604.687.8027 Fax: 604.687.3264

E-mail: editor@abcfp.ca Website: www.abcfp.ca

MANAGING EDITOR: Amanda Brittain, MA, ABC

EDITOR: Doris Sun, MJ

EDITORIAL ASSISTANT: Michelle Mentore

EDITORIAL BOARD:

Nathan Davis, RPF; Ben Filewood, ASFIT; Ron Hart, RPF;

Erika Higgins, RPF; Tom Hoffman, RPF (council rep.);

Pam Jorgenson, RPF; Marie-Lou LeFrancois, RPF;

Lindley Little, RPF; Kelly Osbourne, RPF;

Roy Strang, RPF (RET); William Wagner, RPF

DESIGN: Massyn Design

PRINTING: Rhino Print Solutions

DISTRIBUTION: Rhino Print Solutions

ADVERTISING SALES MANAGER: Doris Sun, MJ

602-1281 W. Georgia St, Vancouver, BC V6E 3J7

Tel: 604.639.8103 • Fax: 604.687.3264

E-mail: forest-ads@abcfp.ca

ISSN:1715-9164

Annual subscriptions: Canada; \$44.80 incl GST

U.S. and international; \$80 Canadian funds

Publications mail agreement no: 40020895

Return undeliverable Canadian addresses to:

ABCFP Circulation Department

602-1281 W. Georgia St, Vancouver, BC V6E 3J7



PRESIDENT Dan Graham, LLB, RPF

VICE-PRESIDENT Jonathan Lok, RFT

PAST PRESIDENT Christine Gelowitz, RPF

LAY COUNCILLORS

Rod Visser, Tom Walker

COUNCILLORS

Gail Brewer, RPF; Mauro Calabrese, RPF, RPBIO;

Douglas Campbell, RFT; Tom Hoffman, RPF;

Robin Modesto, RPF, PENG; Michael Sandvoss, RFT;

Christopher Stagg, RPF

CHIEF EXECUTIVE OFFICER Sharon L. Glover, MBA

REGISTRAR AND DIRECTOR OF ACT COMPLIANCE

Casey Macaulay, RPF

DIRECTOR, PROFESSIONAL PRACTICE

AND FOREST STEWARDSHIP

Mike Larock, RPF

DIRECTOR, FINANCE AND ADMINISTRATION

Lance Nose

DIRECTOR, COMMUNICATIONS

Amanda Brittain, MA, ABC

DIRECTOR, PROFESSIONAL DEVELOPMENT

AND MEMBER RELATIONS

Brian Robinson, RPF

BC Forest Professional is the professional magazine of the Association of BC Forest Professionals (ABCFP). Editorial submissions, comments, letters to the editor, articles and photos should be sent to the editor, address above. The opinions expressed in **BC Forest Professional** do not necessarily represent those of the ABCFP, its council or other members. Reprinting and copying of **BC Forest Professional** articles is encouraged. Please include a credit to both the author and **BC Forest Professional**.

Re-framing the Climate Change Question

In the article *How Can BC's Forest Sector Help Keep Climate Change in Check?* in the November/December issue of **BC Forest Professional**, the authors pose the question, "What can forest professionals do now to help reduce BC's long-term GHG emissions?" A question of equal importance is "What can forest professionals in BC do now to reduce the impacts of climate change while contributing to BC's GHG emission reduction goals?" This broader question is of relevance to BC forest management because science organizations, management agencies and international bodies now almost universally recognize that addressing climate change requires an integrated and coordinated approach to both adaptation and mitigation. This message is present in the most recent AR5 report of the Intergovernmental Panel on Climate Change, in the United Nations Framework Convention on Climate Change Cancun Adaptation Framework, in work recently completed by the Canadian Council of Forest Ministers Climate Change Task Force (<http://www.ccfm.org>), in the BC Ministry of Environments Climate Change Adaptation Strategy, in the Ministry of Forests, Lands and Natural Resource Operations' Climate Action Roadmap and in a host of manuscripts published in international scientific journals.

The contemporary challenge for forest management is to learn how to achieve sustainable forest management (including carbon goals) under a dynamically changing climate. This clearly implies and requires consideration of both adaptation and mitigation in climate response

strategies. And there are two main reasons. The first is that adaptation and mitigation both require resources and ultimately choices need to be made about what allocations are in the public's best interests. The second reason is that, ironically, climate change modifies the risk part of carbon accounting because of the potential increased likelihood and severity of inventory loss. This underscores the duality of climate change as it relates to forest management. The inevitability of climate change means that carbon stocks, as well as a host of other forest-based goods and services and values important to BC society, are more vulnerable to loss than if the climate was not changing. The degree of vulnerability is higher without adaptation than with adaptation. And so there is a widely-acknowledged and well-recognized case for understanding the merits of both adaptation and mitigation in forest management.

Delivering on adaptation and mitigation is much easier said than done. There are uncertainties, complexities, unknowns and challenges. Moreover, there are diverse viewpoints about climate change and forest management and multiple sources of knowledge and expertise. A logical approach is to initiate conversations to determine adaptation and mitigation requirements, options and challenges. It is encouraging to see **BC Forest Professional** acknowledging the issue and starting conversations on how best to approach this new driver of change in forest management.

TIM WILLIAMSON

Have a Compliment or Concern? Write us!

The **BC Forest Professional** letters section is intended primarily for feedback on recent articles and for brief statements about current association, professional or forestry issues. The editor reserves the right to edit and

condense letters and encourages readers to keep letters to 300 words. Anonymous letters are not accepted. Please refer to our website for guidelines to help make sure your submission gets published 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
E-mail: editor@abcfp.ca
Fax: 604.687.3264



The Forest Professional's Role in Safety

A few years ago, during a period of unusually high numbers of fatalities in the forest sector, the association amended its Standards of Professional Practice to include an express safety standard. This standard — which is Bylaw 12.7.1 — states that: “Members maintain safe work practices and consider the safety of workers and others in the practice of professional forestry.”

Recently, members of the association approved a related bylaw, 12A — the Forest Resource Operations Standard — which establishes safety related standards for stream crossings.

Forest professionals naturally have an interest in ensuring that they and their co-workers are practising their craft in a way to ensure that they get home to their families safely at the end of each workday. However, their responsibilities go beyond themselves and their immediate colleagues. They have to design logging layout with consideration for the safety of the fallers, road crew, and loggers who will be implementing their plans. If they are responsible for contract management they have a responsibility to take reasonable steps to determine that contractors are conducting their operations appropriately. Forest professionals also have to consider the safety of the general public who may be put at risk by their activities. The public uses the roads and bridges that forest professionals design, build, and maintain, and may be impacted by landslides caused by harvesting operations that forest professionals design or supervise. Forest professionals who don't adequately consider safety in their practices can cause very serious consequences for their clients/employers. In most cases, a client/employer relies on the forest professional to uphold professional standards. A failure on the professional's part may result in regulatory liability for the client/employer (for example, fines or other sanctions), as well as civil liability (that is, being sued by someone who suffers a loss as a result of the client's operations). If forest professionals haven't practised in accordance with standards, they may be held accountable for the client/employers' losses as well as for their own liabilities. In those rare circumstances where the client/employer may not be willing to provide the time and resources to support the professional in practising to appropriate standards, forest professionals have an obligation to advise the client/employer of their responsibilities, and then to either practise according to standards or withdraw services. Putting workers or the general public at greater risk by knowingly ignoring standards is not an acceptable option. Forest development and harvesting activities are among the highest risk elements of professional practice. It's unlikely that anyone will experience physical injury if the wrong stocking standard is prescribed for a cut block. However, lives and property are at stake if forest professionals fail to make road and bridge safety a priority. Fortunately, forest professionals in BC generally have an outstanding record when it comes to diligent practice. Steps recently taken by the profession and its members with respect to stream crossings demonstrate a commitment to safety. Maintaining a focus on safety is essential to sustaining the profession's well-earned reputation and public trust. 🌲



CEO's Report

By Sharon L. Glover, MBA

Resolve to Be Safe

It's January — a time when many of us make New Year Resolutions. We can resolve to go to the gym more often or stop checking work e-mails on the weekends or even to get to out of the office at a reasonable time every night, but we all know that we'll probably break these resolutions before the month is out. Instead of having lots of little resolutions, try focusing on one big one. Why not resolve to be safe?

I was reading the BC Forest Safety Council's newsletter, *Forest Safety News*, and came across a column that highlighted the poetry of Don Merrell. Don's poems are all about safety and the one called '*I Chose to Look the Other Way*' really struck a chord with me. I'm sure we've all been in a situation — at work or other places — when we've seen someone doing something unsafe. Sometimes it's easier to say nothing. But is that the right decision?

No employee wants an unsafe workplace and no employer, WorkSafeBC, the BC Forest Safety Council or the ABCFP wants anyone to not come home from work. It's not up to any one person or organization to make the workplace safe — it's up to all of us.

Safety is inscribed in our bylaws. Bylaw 12.7 requires all members "...maintain safe work practices and consider the safety of others..." If you are involved in planning, make sure your plans incorporate safety. If you are working in the bush, don't look away if you see an unsafe practice. Step up and say something if you see something unsafe even if that means stopping operations. Take the time to train new employees — especially young people — on the correct and safe way to do something. Remember, as a forest professional, you are expected to protect your own safety as well as the safety of others on the job.

Here's to a safe and healthy 2015! 🌲

I Chose to Look the Other Way

I could have saved a life that day,
But I chose to look the other way.
It wasn't that I didn't care,
I had the time, and I was there.
But I didn't want to seem a fool,
Or argue over a safety rule.
I knew he'd done the job before,
If I spoke up, he might get sore.
The chances didn't seem that bad,
I'd done the same, He knew I had.
So I shook my head and walked on by,
He knew the risks as well as I.
He took the chance, I closed an eye,
And with that act, I let him die.

I could have saved a life that day,
But I chose to look the other way.
Now every time I see his wife,
I'll know, I should have saved his life.
That guilt is something I must bear,
But it isn't something you need share.
If you see a risk that others take,
That puts their health or life at stake.
The question asked, or thing you say,
Could help them live another day.
If you see a risk and walk away,
Then hope you never have to say,
I could have saved a life that day,
But I chose, to look the other way.

Don Merrell

Reflections on Ethical Requirements

Forest professionals can face hazards in their everyday work and are therefore obligated to follow the safe standard of their employer. Safety is the primary responsibility of employees, supervisors and employers. A member is required "to have proper regard in all work for the safety of others" (Bylaw 11.3.10). This ethical obligation specifies the importance of making the commitments to the safety of those directly or indirectly involved in forest treatment activities: workers, employers and the public.

The forest professional can apply his/her knowledge of forest science to site-specific circumstances in the practice of professional forestry that can help others understand aspects of the forest environment where there might be safety concerns (Bylaw 12.7.1).

Implementation and continuous improvement of a safety process is an essential ingredient of professional practice. Forest professionals are expected to incorporate safety as a foundation of their professional work and to implement safe practices in everything they do.

Congratulations to the Valedictorians

This year's valedictorians are Andrew Flegel, RPF, who scored an average 86% on the RPF exams, and Tasha Brekkas, RFT, who scored 85% on the RFT exam! Congratulations on these phenomenal results!



HUB International Insurance Brokers is pleased to offer a specialized insurance program designed specifically for members of the **Association of BC Forest Professionals**.

With HUB International, you receive the best coverage, service and value, based on the strength of our vast global resources and solid local relationships.

Use Our Insurance to your Advantage.

Jordan Fellner

T: 604.269.1888 TF: 1.800.606.9969 E: tos.vanprof@hubinternational.com

www.hubprofessional.com

Andrew and Tasha will be attending the *Today's Choices, Tomorrow's Forests* conference in Nanaimo in February as guests of the ABCFP and will be speaking at the Inductees' Recognition Luncheon.

Randy Trerise Retires

Randy Trerise, RPF, former registrar and director of act compliance, has retired after seven years with the ABCFP. Randy and his wife plan to spend time travelling, golfing and spoiling their grandchildren. The ABCFP council and staff wish Randy all the best in the next phase of his life.

Casey Macaulay, RPF, has been appointed the new registrar and director of act compliance. You may already be familiar with Casey as he's been with the ABCFP for three years in the role of resource operations specialist. Casey worked closely with Randy in 2014 to ensure that he's ready to take on the role of registrar.

All Members Welcome at the AGM

The ABCFP's 67th AGM will take place on February 19th from 1:45 to 2:30pm as part of the *Today's Choices, Tomorrow's Forests* conference in Nanaimo. All members are invited to attend the AGM portion of the conference free of charge and pre-registration is not required. The AGM will take place in the Vancouver Island Conference Centre at 101 Gordon Street in Nanaimo. The agenda will include the following items:

- Adoption of minutes of the previous annual general meeting;
- Adoption by resolution of the annual report;
- Adoption by resolution of the audited financial statements;
- Appointment by resolution of auditors;
- Appointment by resolution of one (1) or more of the returning officers and scrutineers for the purposes of Bylaw 4.9;
- Reporting of council election results;
- Ratification by resolution of actions taken by council and staff on behalf of the association in the preceding year; and
- Any other business specified in the notice of meeting.

Only registered members in good standing may vote at the AGM.

The 67th ABCFP Conference and AGM —Register Now

The 2015 conference, *Today's Choices, Tomorrow's Forests*, promises to be an eye-opening event, as we look at how the decisions we make today will impact future forest resources. The full conference package is being offered at a discounted rate of \$395 until January 15th, after which it will increase to \$495. For the latest information on rates, program and speakers, see our conference website (www.abcfp.ca/conference.asp).

Don't Forget to Reserve Your Accommodations for Upcoming ABCFP Conference

If you plan on attending *Today's Choices, Tomorrow's Forests* from February 18-20 in Nanaimo, book your room now to take advantage of the best room types and rates. We negotiated a group rate at the Coast Bastion Hotel and reservations can be made online or over the phone, by quoting code CBI-GFC12762. Please note some members have notified us that they were contacted by companies offering special room rates and claiming to be affiliated with the ABCFP. We have not and will not call you to solicit hotel bookings so please only book using our code. We'll see you in Nanaimo!



Work Safe in 2015

WE PROBABLY DON'T NEED TO MAKE A CASE FOR PURSUING SAFETY AS A VIEWPOINTS THEME in BC Forest Professional because statistics speak volumes on the relevance of this topic in our sector. WorkSafeBC's Industry Safety Information Centre (ISIC) has been keeping tabs on injury rates and claims by subsector for the last decade and the picture it paints of forestry certainly supports us re-examining our safety practices. Notably, forestry ranks second in injury rate over the last 10 years, coming in slightly better than general construction and at much higher rates than heavy construction, transportation and warehousing.

Compared to other primary resources sectors like agriculture, fishing and oil and gas/minerals, forestry ranked highest in work-related death claims in the last 10 years, most days lost from work and most short-term and long-term disability claims. In 2014, WorkSafeBC paid over \$29 million in long-term and \$10 million in short-term disability claims — higher than the oil and gas, petroleum, agriculture, fishing, heavy construction and road construction industries.

It's no wonder, then, that the subject of safety is viewed so passionately by contributors in this issue. Our articles span the spectrum of forestry as we examine: safety issues and mitigation efforts from a silvicultural perspective; the costs of safety; the challenges of maintaining safety in steep terrain; and the steps required to plan for safe and successful operations. We also recognized the importance of revisiting the issue of safety at forest bridge crossings in light of last spring's Forest Practices Board's (FPB) report and are pleased to have an update from the FPB. We also look at how safety is practically applied in two forest industry settings — at Tolko through its Woodlands Safety Peer Group and at Island Timberlands, where safety is incorporated into every level of practice. Finally, a photo spread of the most current safety innovations rounds out the issue.

While we have packed the magazine with Viewpoints-focused pieces, we also included a comprehensive re-cap of 2014 National Forest Week festivities. From forestry visits at elementary schools, kids' loggers sports day and Campbell River taking the Battle of the Networks of Forest Professionals (NFPs) win for the second consecutive year, festivities were vibrant and fun for all ages.

We hope you enjoy this first issue of 2015 and that you all have a safe year ahead. 🌲

The Principles of Stewardship¹ and Safety

Keeping people safe is everyone's responsibility. For forest professionals, it is part of our bylaws. Like good forest stewardship, safety consideration is the responsibility of every forest professional in each job decision made through the course of a day.

Forest management planning can help achieve a safer forest environment by focusing on maintaining healthy forests, managing brush and understory and reducing fuel loading around homes and recreation sites. Such actions will help minimize forest health risks and consequences as well. Planning should include provisions for on-the-ground actions including up-to-date safety plans, emergency response plans and provision for first aid.

Stewardship also requires management strategies that foster human well-being. This goes beyond safety. Good forest stewardship can help provide economic, aesthetic, cultural and spiritual benefits to workers, employers, communities and the province. Careful planning, good information, up-to-date systems, models and being flexible in practice will help achieve these outcomes. Adapting your practice over time as events occur and as systems change is critical to keeping current and ensuring best practices are used in all systems, including those that keep our forests safe for everyone.

¹ The main document can be seen at http://abcfp.ca/publications_forms/publications/committee_reports.asp



A Case Study on Safety Promotion: Tolko's Woodlands Safety Peer Group

IT COULD BE THAT SAID THAT THE WORK OF A HEALTH AND SAFETY (H&S) professional is never done. Across a wide variety of industries and organizations, H&S practitioners tend to share the common philosophy that creating and maintaining a safe work environment is a perpetual and ongoing effort that starts with the individual and requires a long-term commitment across the entire organization to be successful.

That philosophy and mindset rings true with Tolko's Woodlands Safety Peer Group, an enthusiastic team of professionals who represent Tolko's Woodlands employees across western Canada. Tasked with a mandate to develop strategic initiatives that promote safety and reduce injury rates, the group has been steadfastly working towards building a stronger safety culture within Tolko's Woodlands division by fostering a collaborative environment where communication and information-sharing is encouraged.

Barry Gladders, general manager BC Woodlands, says that by ensuring all of Tolko's Woodlands divisions are fairly and appropriately represented on our Safety Peer Group, they can bring significant value by discussing common challenges and working together to come up with effective, company-wide, solutions. David Bickerton, general manager Prairies Woodlands, says that this year, the Peer Group has focused its efforts on consolidating all of Tolko's provincial Woodlands Safety Manuals into one comprehensive document.

This massive undertaking kicked off with the assignment of a full-time, dedicated person, Christine Wolstenholme, to conduct a detailed review of all of the divisions' current manuals. Starting in early 2014, Christine began by merging all the information from the various manuals together into one document, distinguishing each section by activity, making sure to capture each province's respective safety regulations.

Throughout the development process, Christine remained in close touch with the other group members, meeting with them regularly to maintain momentum and keep everything on track. Once the first complete draft was ready, they conducted a thorough review of each Standard Operating Procedure and provided Christine with suggestions and feedback. With the group now putting its final touches on the manual, they feel it was a worthwhile effort that took the participation of every member to succeed. According to Christine, the group was very effective at being able to create standardized rules and policies wherever possible while

understanding that the needs of all provinces needed to be met.

Christine says that the biggest challenge she and her group faced during this process was trying to merge and reconcile the differences between very specific provincial regulations. Certain details, such as what items are required in a First Aid kit, or whether or not a prime contractor must possess a professional designation, are all things that

had to be standardized as much as possible across the organization.

James McLeod, Tolko's manager, occupational health and safety, says that working collaboratively on this initiative has given the Woodlands groups more opportunity than ever before to synchronize their safety values and create a common structural foundation that will provide a more consistent and measurable base from which to launch their other common initiatives.



The group is also in the midst of developing customized safety training for Woodlands field staff. Barry says that the intent is to tailor the training program to align with each individual's role and duties. They're also encouraging employees to participate in safety training that could benefit them at home, something they call the "24/7 Safety" concept, since they believe safety starts in the home.

The Peer Group's ongoing efforts to reinforce good safety behaviours in the workplace centre on creating a 'culture of caring.' David explains this concept by saying that proactive safety behaviour, in his opinion, means focusing on training individuals to think about how their activities might result in an incident and ensuring they make the necessary changes to prevent it. They want people to act safely because they care about themselves and their co-workers and not just because a policy says they have to. It's a culture shift focused on the behaviour of individuals empowered to act safely at all times. Since the creation of the Woodlands Safety Peer Group in the spring of 2014, they have observed a year-over-year decrease in their Recordable Incident Rates (RIRs), which now sit at 1.24 as of November, 2014 compared to 1.56 during the same month in 2013.

All of this effort to create a safe workplace couldn't succeed, however, without a sincere desire to move Tolko's safety culture from 'good to great' through a commitment to continuous improvement on the part of the Woodlands Safety Peer Group, Tolko's senior management and all employees. 🌱

10 Safety Tips for the Winter Worker

Living in Canada means you will inevitably have to go outside in the winter. It also means there are people who have no choice but to work outside in some of the toughest weather this country has to offer. With this in mind, it is integral to recognize the risks and hazards working outside in the winter brings. Failure to acknowledge or respect the dangers winter brings is a recipe for potential bodily harm or death.

- Wear layered clothing. Wearing multiple layers of clothing allows the worker to adjust their protection based on current temperature. Take off layers as you get too warm and put them on as it gets colder.
- Take extra clothes. Bring a change of clothes in case you get wet. Dry clothing always helps keep workers warm, especially when working outdoors.
- Take a break. During extremely cold or windy weather, take regular breaks to warm up before continuing work. If possible, take shelter indoors from time to time, to warm up that body. If it gets extremely cold, stop working immediately and get inside to warm up. Do not risk your life for a job.
- Drink up. Even though it's cold out, keep hydrated by drinking water or other warm drinks. You will still sweat when working, even in cold temperatures. Avoid caffeine and alcohol.
- Take shelter. In windy conditions and if the workspace allows it, set up a shelter to block the wind. This will help alleviate some of the difficulties of working in the cold.
- Know the signs. Learn to recognize the signs and symptoms of frostbite and hypothermia. Get inside if you begin to experience them. If you see a co-worker showing symptoms, take them inside immediately.
- Anti-slip shoes. To avoid slipping on ice, wear winter boots with a strong tread. Spread sand or rock salt on the ice to provide a rough surface for footwear to grip.
- Clear the path. Shovel pathways where employees, clients and/or the general public will be walking.
- Heat ventilation. If using a non-electric heater to heat a shelter, ensure the shelter is ventilated to let gases like carbon monoxide escape. Or, use a heater where the heat generator can be placed outside while the heated air is pumped into the shelter.
- Drive safely. When driving in winter, ensure your vehicle's fluids are topped up. Be aware that the road can become icy, so drive slower and pay attention to changing conditions.

Reprinted with permission of Canadian Occupational Safety
© Copyright Thomson Reuters Canada Ltd., (December 13, 2010) Toronto, Ontario,
1-800-387-5164. Web: www.cos-mag.com.

Sandy Arseneault is a communications coordinator with Tolko Industries Ltd., based in Vernon. Sandy brings over 10 years of communications experience from a variety of industries and organizations, including municipal government, the not-for-profit safety sector and most recently, the forest products manufacturing sector. Contact her at: sandy.arseneault@tolko.com.



Safety in the BC Silviculture Sector: Taking a Safety II Approach

EACH YEAR UP TO 6,500 SILVICULTURE WORKERS TAKE PART IN THE annual forestry field season across British Columbia. More than half of them are tree-planters, the rest being plantation brushers-spacers and contract wildfire suppression crews. The seasonal and transient work, the demographics of the workforce and demands of employers and clients tax the sector when it comes to keeping workers safe. Nevertheless, compared to 10 years ago, the standard of care has advanced considerably. Not only has this trended in terms of reduced injury rates, there is a measurable change in safety culture and attitude among workers and leading employers. Today the industry leads in terms of using social science, sports kinesiology and other human factors-based approaches to reduce harm and injury to workers.

Notwithstanding these advances, the sector continues to post significant and disproportionate injury claims for musculoskeletal injuries, among others. At least half of the industry's injury claims come from strains, sprains and exertion, costing the sector \$1.5 million annually in compensation costs. Fortunately silviculture fatalities have been few. But each year workers log over 15 million person kilometres of resource road commuting. Much of it is done in trucks loaded to their Gross Vehicle Weight Rating (GVWR), driven by drivers who may not be fully trained — many of whom are likely as tired as their passengers. Remote worksites pose a particular threat. In a report released earlier this year the BC SAFE Silviculture Program warned that workers suffering serious injuries in many workplaces risk more severe consequences because of the lack of better preparation and practices in emergency treatment, transport and transfer of care. Within this mix of threats, barriers to entry for new employers remain low, ensuring there are always uninformed operators. This was the case in the Khaira Enterprises fiasco. The scandal received nationwide coverage when the BC Human Rights Tribunal found Khaira, a tree planting company, guilty of violating various safety and employment standards regulations and of treating their mostly immigrant workers like slaves — showing in dramatic fashion that the market sometimes has difficulty shedding criminals, scofflaws and incompetents who find ways to populate the industry.

These circumstances probably don't make the silviculture sector any more unique than the rest of the forest industry or other resource sectors. Workplace safety is generally a complex domain with competing and conflicting interests. But what might set the sector apart is its emerging approach to the various safety conundrums it faces. With respect to silviculture safety strategy, for example, the sector is seeing a move from Safety I to a Safety II approach.

In Safety I, which is the traditional concept, safety is seen as the absence of things going wrong. The goal is to keep incidents and accidents to a minimum. Failures have technical, human and organizational causes and in this context, humans tend to be seen as a hazard or liability. The dominant management principle, then, is to respond to incidents or unacceptable hazards. Investigations work to identify causes and contributing factors. Interventions are designed to eliminate these causes or design defenses against them.

Gains can be made to safety in this model of cause and effect.

In fact, the silviculture sector put Safety I into practice early on by developing fitness, hydration and nutrition regimes, which did initially reduce injuries and increase worker capacity by focusing on worker behaviour. It also contributed to the voluntary compliance strategy of the BC SAFE Company Certification Program, which ensures that acceptable safety systems are present in work operations.

But Safety I has limits. In the worst cases it can lead to blaming workers for failures, even criminally prosecuting them. By simply ensuring 'nothing bad happens' as its main indicator of success, Safety I can place an inordinate focus on lagging indicators at the expense of noticing other key signals. It also tends to oversimplify systems as if they only have two modes: correct or incorrect. Generally it denies the complexity that contributes to the occurrence of accidents and incidents.

In the case of silviculture, one example of the limits of Safety I was the continuing persistence of high musculoskeletal injury (MSI) claim rates in spite of some groundbreaking and excellent work. It was this apparent stall in improving safety performance, along with some others, that made the silviculture sector reconsider its approach.

Safety II considers the obvious, but often overlooked, fact that almost all the time, things go right. Interestingly it explains things going right not by people doing what they are told exactly, but by their ability to adjust to their work conditions. Those successful adaptations become the building blocks for safety. This heterodox view turns Safety I on its head. In Safety II workers become resources to be harnessed rather than individuals to be corrected. Interventions focus primarily on changing workplace conditions as opposed to changing worker behaviour. And safety becomes measurable by the presence of positive adjustments or variations, instead of the absence of accidents. This does not imply abandoning Safety I. But it suggests we need to better adapt our approach to safety to account for the variability and flexibility workers successfully find and apply everyday on the job.

To test this hypothesis the BC SAFE Silviculture Program is implementing a number of pilots using what's called the Participatory Action Research (PAR) approach. PAR's principal tools are appreciative inquiry and collaborative problem solving. Its main goal is to identify positive adaptations to problems the industry faces and then expand those practices across an activity or region.

Appreciative inquiry relies essentially on an unscripted interview process in which the subjects share their narratives of how they deal with work. In initial worker and contractor interviews a number of promising practices emerged including: employers using graduated shift schedules to reduce the risk of MSI at the beginning of the season; workers redesigning their footwear by installing caulks on hiking boots to match footing risks on planting sites; employers moving from piece work production to day rates on hazardous sites to allow workers to concentrate more on working safely; supervisors and mentors training novices to plant ambidextrously, to name some.

Collaborative problem solving involves setting up workplace improvement teams (WITs) comprised of workers, contractors and



Photo: Willem Betts

Tree planters often have to hike into blocks adding to the demands of their day. In many cases gaps in the planning process have led to premature or excessive road deactivation blocking normal access. New working groups comprising contractors and licensees are piloting a collaborative problem solving method to design better planning and practices aimed at reducing work conditions like this and others that contribute to high injury rates in the sector.

More About Safety II

The theory and practices supporting and explaining Safety II can be found in the works of various authors and academics including Sydney Dekker, Erik Hollnagel, Nancy Levenson, David Woods and Neville Stanton to name a few. Their theories are being put into practice in health care delivery, aviation safety, the US military, forest wildfire fighting and other settings demanding high reliability. An excellent overview and exposition can be found in the recent article From Safety I to Safety II — A White Paper at <http://www.skybrary.aero/bookshelf/books/2437.pdf>

clients to deal with more complex problems. These include, for example, mitigating the MSI problems associated with screefing, reducing the number of times workers have to transport excessively water-laden seedlings, ensuring roads are deactivated so they don't create logistical and safety hazards for silviculture crews, reducing the hazards of planters' exposure to fertilizers and establishing enhanced practices for emergency response. Sometimes the WITs function as an opportunity for cross-talking; directly sharing innovations such as using climbing helmets for planting crews rather than the problematic hard hat.

Now in its second year, the PAR Safety II approach can be considered fairly new. Because the method is an organic and emergent process, it sometimes runs counter to typical corporate planning measures. Indicators of success become more complicated if you

are engaged in changing the culture and systems that create the conditions leading to incidents. Nevertheless with four active pilot working groups across the sector focusing on road deactivation and access, emergency response guidelines, overweight tree box handling and reducing MSIs, there is an encouraging commitment coming from front line workers and managers. That has to be taken as a promising achievement. Continuing that success will depend on how well participants can apply complex safety theory practically and collaboratively in the workplace. So far it looks promising. 🌱

John Betts is the executive director of the Western Silvicultural Contractors' Association and a director of the BC Forest Safety Council. He has worked in BC forestry as a silviculture worker, contractor and organizer since 1975. He lives and works from Queen's Bay on Kootenay Lake.



The “Gravity” of Steep Terrain

HAZARDS THAT CAUSE TRAUMATIC INJURY ARE THE RESULT OF UNCONTROLLED energy: steep terrain combined with gravity can quickly provide that energy. When you add the human factor of placing a person in the area, you have the potential for a dangerous combination that can result in serious injury or worse. Steep terrain, which can be commonly found in BC, is further complicated by forest cover that is damaged. These damaged stands can contribute to unpredictable energy release that can catch workers off-guard. But assessing the potential for energy release on these sites can be a daunting challenge.

Steep terrain is not a new challenge. Many techniques have been developed to reduce the associated risks. Cable and aerial harvesting, terrain stability assessment and full bench road construction are commonplace. A new culture is developing in the forest sector that questions the serious injury and fatality rates of the past. One serious injury is unacceptable. Our past efforts related to steep terrain has done much to protect workers but more effort is needed to prevent the ongoing incidents that continue to place workers at risk.

In recent years a number of slides caused by road construction have been occurring on the coast. In each of these cases workers could have been exposed. It is no surprise to professionals that activities with significant alteration of the land (e.g. mechanical harvesting, road construction) can cause destabilization but what is also becoming increasingly commonplace is lower-intensity activities resulting in serious incidents — even fatalities. In 2013 a salvager was fatally injured when conducting shake blocking activities and a firefighter had a very close call when conducting manual mop-up operations. Common to both of these incidents was the low-intensity manual operations. These seemingly inert activities further destabilized individual trees already pre-loaded with potential energy due to the terrain characteristics. No mass wasting occurred in these situations but trees toppled, setting off chain reactions, the worst of which resulted in fatal injuries. Have we fully considered the implications of this terrain? Given these were manual operations, workers may be more exposed. Has our education and awareness of these implications reached the right audiences? What more can we do as a community of professionals?

The ABCFP Bylaws (11.3.10 – To have proper regard in all work for the safety of others and 12.7.1 – Members maintain safe work practices and consider the safety of workers and others in the practice of professional forestry) are clear, the safety of workers is a factor that must be considered but how can we do this if we do not control all phases of an operation? Extensive professional influence exists in the planning and development of operations. This can be the best opportunity to influence safe operations if we consider the hierarchy of safety controls. Let’s break it down: To have a safety incident we need a hazard and exposed workers. This naturally begs the question: can we first eliminate the hazard? Typically not, if it is inherent with the terrain we have. Next, we must consider substitution or avoidance. Can we remove the worker from the equation?



Damaged stands can contribute to unpredictable energy release that can quickly catch workers off guard.

We must provide the tools and understanding to identify the dynamic hazards and pragmatically consider the control hierarchy. As a team we can achieve more effective results and save lives!





The Cost of Safety

IN THE FOREST SECTOR WE OFTEN THINK OF THE COST OF SAFETY AS something separate from everything else we do to deliver products. This is partly understandable since safety is often presented as a program. We separate it and put a price tag on that specific program as a standalone issue. Various contractors, depending on their size, will tell you safety programs range from \$1 to \$3 per cubic metre. However, we are misleading ourselves when we think of safety in this way.

Managing injury reduction is a more concrete way of thinking of the issue. The best companies in the world recognize that managing and reducing injuries makes them more money. That's right — a key driver for them is it reduces the cost of running their business. Simply put, an injury tells them that they have a problem in their design, knowledge, methods, training, tools or messaging about what's important for running the business successfully. When they do an incident investigation, the focus is more on what's wrong with the business process versus questioning how we prevent that one injury.

If you ask people whether they would rather invest in a company that regularly reviews its design, knowledge required, methods, training, tools, risks and management messaging to provide reliable, surprise-free, on spec, on time, on budget delivery versus one that reacts and does not review its methods and has unpleasant surprises — they would naturally choose the first company. Why? It will be more reliable with lower costs and more profit.

Reliable, well-planned and predictable operations run smoothly. When they do, their people are not fighting with the system or getting unpleasant surprises. Unreliable operations with poor systems are constantly fighting to get the production out, resulting in on-the-spot troubleshooting and makeshift solutions; this leads us to the true cost of safety we should be concentrating on. Unreliable operations have a higher basic cost of running due to poor planning, design and knowledge. Each day they have higher production costs that add up significantly over time. One of those costs is the unexpected cost of an injury the day it happens — but let's be clear, the real cost is the poor process that was being used for many days, months or years before it happened to catch the person this time. Rarely is a person injured the first time he/she put him/herself into an awkward, at-risk position to get a job done.

The best companies regularly ask people where they feel they are at risk or feel awkward doing a job. They want to highlight the areas of poor design, knowledge, tools or methods to make improvements; including the training required, to make the job run smoother. Their 'safety management system' is not a separate item, but rather an integrated part of ensuring they are ready to do business effectively, without surprise, every day.

Forestry has one of the highest injury rates of any industry. This means we also have the highest opportunity to improve our profitability by closely examining how we do our work and improving it. Forest professionals have a key role since they have strong skills in analyzing what is wrong with the process and how management needs to change in order to support a better approach.

Being blunt, if you view your safety management system as separate from your business, but something you have to do for safety, you are probably wasting your money. For example, there shouldn't be a separate safety tailgate meeting and production tailgate meeting in the morning. There should be one "how do we achieve effective production without injury" meeting. Highlighting where there is a risk of injury usually highlights awkward operating layout, conditions and techniques. Take care of it before someone is caught by it and production slows, equipment gets stuck or damaged and someone possibly gets hurt. A business improvement audit used properly, whether ISO 14001, environmental, or SAFE Certification, helps a business identify where they are at risk and gives guidance to business improvement processes. These audits are not simply scores, they help determine if your operation is ready for business.

The best companies use their incident investigations to penetrate into their process. They ask questions like, "Why would someone think that is right to do here?" "How do we change that part of the process to make it run smoother?" "Do we need to change the type of tools we have to make that flow better?"

A brief example: a feller buncher operator fell off the boom while greasing the main pin. That led to the installation of remote grease lines to the ground. Not only was the risk and time reduced for the operator, but boom pin changes decreased since pin greasing improved. The purchasing process was reviewed to determine why this opportunity was not picked up at the time of ordering the equipment. If people had stopped at "tell the operator to be more careful," the business improvement opportunity would have been lost.

The bottom line is not to do a 'safety program' that is a separate component of the business, but rather a holistic business improvement program that uses injury analysis, risk awareness and prevention to increase profitability. If you are measuring the cost of a safety program as the cost of safety, you are missing the point. The real cost of unsafe operations is the ongoing underlying causes that lead to injuries and unreliable costly operations. 🐾

Reynold Hert is chair and CEO of the BC Forest Safety Council following a career spanning more than 30 years in the forestry industry. Reynold has held senior operating roles in major Canadian and US companies, including as vice president and chief executive officer.

Tools that Help Build a Safety Culture

WHAT IS ONE OF THE FASTEST WAYS TO HELP BUILD A SAFETY CULTURE IN YOUR ORGANIZATION?

Provide the right tools and equipment for the job. I've seen this approach succeed in many organizations and it not only reduces the risk of someone getting hurt, it also increases staff satisfaction and production.

Now is a great time to be a forest professional as advances in technology are providing us with solutions to challenges that we've struggled with for years. Notebooks and heavy cruise vests are being replaced with tablet computers and purpose-built chest packs. Your check-in system can be based on satellite communication technology rather than relying on someone noticing if you didn't show up for dinner.

We approached suppliers to share some of their most interesting safety innovations. Have a look and see if you can use them — not only to reduce the chance of injuries but to be more efficient and productive at your job.

DIGITAL ACTION TRACKING SYSTEM (DATS)

What is it? An employee training system that helps employees track their responsibilities through a Learning Management System (LMS). The LMS has

an optional e-Learning Library with a list of courses including, among others, Workplace Hazardous Materials Information System (WHMIS), Transportation of Dangerous Goods, S100A and Fire Extinguisher Use. DATS also helps schedule and/or track the completion of pre-work risk assessments, hazard reporting, meetings, inspections and investigations.

How does it promote safety? Employees each have their own user friendly page that shows at-a-glance whether their training requirements are in compliance, at risk, or overdue. DATS works with each customer to ensure that the system is set up to meet employees' specific needs. In addition, extensive statistics can be mined from almost every angle.

Price: \$1 to \$8 per user per month

Find out more: www.GetDATS.com



TABLET EX GEAR - TABLET COMPUTER CHEST PACKS

What is it? Two chest packs designed to carry tablet computers (one for a 10" and one for a 7" to 9" tablet) while maintaining visibility and functionality.

How does it promote safety? For forest professionals who carry tablet computers as standard equipment, wearing chest packs that provide storage serves the dual function of protecting the tablet and ensuring that employees are not be injured if they fall on it. The orange colour and reflective tape provide improved visibility.

From an ergonomics standpoint, using the top of the pack to support the tablet is more comfortable when having to hold it for extended periods of time. In addition, some users have reported that back, neck and shoulder soreness caused by heavily-laden vests are alleviated when one chest pack is used in combination with a back pack.

Cost: The "Cortes" Pack (designed for 10" tablets): \$129.95

The "Stirling" Pack (designed for 7" to 9" tablets): \$109.95

Find out more: www.Tablet-EX-Gear.com



QUADBAR

What is it? A technology that can be fitted onto ATVs and protect riders using a Crush Protection Device (CPD), which prevents serious injury or death from a rollover.

How does it promote safety? In the event of a crash, Quadbar creates space between the ground and the ATV and also has the ability to stop the ATV from rolling further. The unobtrusive Quadbar sits below the rider's head to avoid snags on trees.

Price: \$595

Find out more: www.quadbarsafety.com



INREACH SE

What is it: A satellite communicator that sends and receives text messages and allows for in-field access to maps, even when outside of wireless coverage zones.

How does it promote safety? The device provides 100% global coverage, an SOS panic button, geo-fencing and an employee check-in schedule for WorkSafeBC lone worker safety compliance. It allows forestry professionals working in remote locations to stay connected and traceable in the event they become lost or injured.

Price: \$309

Find out more: www.inreachdelorme.com/product-info/inreachse.php





PHILIPS HEARTSTART FRX DEFIBRILLATOR COMPLETE

What is it? An Automated External Defibrillator (AED) is a small and portable device that delivers an electric shock through the chest wall of a person experiencing sudden cardiac arrest. An AED is made up of a small computer (microprocessor), electrical circuitry and adhesive electrode



pads. The microprocessor is the part of the AED that interprets the rhythm. If the heart is in an abnormal rhythm (ventricular fibrillation or ventricular tachycardia), the microprocessor tells the user that a shock is advised. The shock runs through the electrode pads, through the victim's chest, and into the heart by momentarily stunning the heart and stopping all activity. This gives the heart a chance to restart normal electrical activity and resume an effective rhythm.

How does it promote safety? The HeartStart FRx is an AED designed to withstand the elements. Its high dust and water resistance rating make it practical for forestry professionals to take into the field. The device was also built to surpass rigorous testing requirements: it can withstand jetting water, crushing loads of up to 500 pounds, function at over 4,500 metres and survive a one metre drop onto concrete.

Cost: \$1,998

Find out more: <http://shopsafetyproducts.ca/description.php?sid=1&cid=1&id=6>

THE READIBAND

What is it? A wrist-worn device that automatically detects a wearer's sleep and wake periods and analyzes the quantity and quality of sleep. It is used by managers in professional sports and heavy industries to understand how fatigue is affecting the safety and performance of their teams.

How does it promote safety? As a standalone tool, the Readiband can collect sleep data and convert it into an effectiveness score, which is viewable by the user at any time with the push of a button. If a score is encroaching on 70% the user is considered fatigue-impaired.

As part of the Readiband system, managers can review aggregated team sleep and performance data, filtering by specific groups and dates or exporting from a web app for further analysis.

Cost: Varies. Contact Fatigue Science for the latest pricing information.

Find out more: <http://fatiguescience.com/>



THE PROTOS® INTEGRAL HELMET BY PFANNER®

What is it: A helmet that integrates ear and eye protection inside its shell so no part gets lost, wet or caught. Ear and eye protection, as well as the visor and venting system, can be adjusted with two fingers while worn.

How does it promote safety? The shape of the helmet offers increased coverage at the base of the head and 30% more visibility than other helmets. The design also provides vertical and horizontal protection, while the size adjustment feature ensures a perfect fit without squeezing pressure points.

Cost: \$337.99

Find out more: Call Savoy Equipment Ltd. at 250.878.5346



TASKSAFE

What is it: A software application that allows field and mill workers to quickly fill out Health Environmental and Safety (HSE) paperwork. It is a Windows-based system that runs on PCs or tablets and can withstand harsh environments.

How does it promote safety?

HSE paperwork is completed easily on the touchscreen tablets and, when digitally signed and closed, forms are sent to a data vault where they are available to head office within seconds. One of the features is a knowledge base of risks and safety mitigations, which helps keep employers WorkSafeBC compliant. The safety protocols are always current and available 24/7 even if the tablet is not connected. The built-in workflow logic makes sure the correct risks are identified for the job and that proper actions are taken if mitigation is necessary. Providing known hazards is a benefit for newer employees who don't always know the risks.

Cost: TaskSafe License: \$3 per day

Hardware: Ranges between \$300 for consumer-based tablet to \$3,000 for ruggedized, military grade tablet.

Find out more: <https://www.tasksafe.ca/>



Gerard Messier, RPF, has worked as a logging supervisor, planner and silviculture forester in BC and Alberta since 1998. His interest in health and safety began while working as an instructor for volunteer fire departments. He moved into a full-time health and safety role in 2012 when he joined the BC Forest Safety Council as a training advisor.



Successful Planning for Safe, Productive Operations – Have We Got the Right Formula?

IF YOU HAVE SEEN THE WORKSAFEBC VIDEO, *Faller Safety, It's Everyone's Responsibility*, you may recall the words of a young field engineer:

"It's a great summer job, I was lucky to score it. University is expensive, and this pays really well. I am the layout engineer. It's my job to ribbon out the block. All you really have to know is how to read topographical maps and I love the outdoors. So, it's perfect."

The story in the video goes on to explain that the young field engineer included a skinny finger of timber in the block, which a faller reluctantly deals with, even though he knows it is not well designed and is dangerous. The faller narrowly escapes.

Although this scene is fictional, it can, and does occur. Consider the article written by Dennis Bendickson, RPF, in the July/August 2011 issue of the **BC Forest Professional**. After attending an incident where a driver lost control on a steep switchback and becoming involved in the investigation, he asks these questions: "How many foresters, engineers or technologists consider the fact that the way they lay out a road could be a significant factor in a fatality?" And, "...is something missing in the training, understanding, communication, responsibility or accountability of the people involved?"

In the past two years I have had the opportunity to attend numerous meetings where logging contractors, fallers and forest professionals sat together to discuss their safety issues. At some of these gatherings, I heard loggers or fallers request that planning or engineering be done with more lead time and with more expertise in order to make their people safer and more productive.

This message is not new, but it appears that there are some operations in BC where the loggers have concerns about the professional forestry group, potentially because of the situations they face that are unsafe or impractical for the machinery or fallers at work. Why does this disconnect between planning and operations sometimes exist?

Summer students, new recruits and professionals coming from a logging or falling background, or who have the benefit of getting boots on the ground in a logging setting, have a much better ability to understand the limitations of machinery and intricacies of falling to prevent this disconnect. But for others, and particularly a group of young grads and summer students who are spending a great deal of time in the office and less time in the field, there is a gap. It is rare today to find a student who has had experience setting chokers, or working on the rigging. So how do these future professionals develop an understanding of where machines can and can't go, and what difficulties fallers will face given a certain, challenging block design?

Like many others, I spent early days in my career hanging ribbon to capture the big trees, excluding the non-merchantable wood, and minimizing our impact on riparian areas. I built prescriptions that

marked machine-free zones (to avoid site degradation), stratified the different site series, and set up the silviculture department for success in stand regeneration.

My focus on ecology and environment was natural. My schooling, when thinking back, was five years heavily focused on the science and business of forestry: soils, landscape level planning, ecology, forest economics, biology, fire, wildlife, mensuration... but there were only a handful of operations courses.

My field experience as a student or FIT included research data collection, planting, surveys and road and block layout. I worked with some amazing mentors, but never tackled logging supervision and rarely talked to a logger. And many of my peers progressed through similar stages of training.

When I wrote my RPF exam, we focused on professional ethics and scenarios relating to the *Forest Practices Code*, woodlot management and more. But if there had been a question on limitations of certain machinery, I most definitely could not have answered it outside of saying I would get help from a person who had the expertise.

We all know we can't be experts in everything. So as professionals, and under the scope of professional reliance, we must recognize our limitations and be sure that someone with the right expertise reviews our plans to ensure they are sound.

Yet we still come back to the video of the young layout engineer making the call in the woods to wrap in a long, skinny finger of timber. This is happening somewhere. Will there be a qualified person in your office to train the new workers, reviewing where they hang their ribbons, and pointing out the risks? Is there a person with falling expertise evaluating the plan? Is everyone involved in layout considering the safety of the loggers and fallers at the next phase?

There are a few things that can help all forest professionals (particularly new recruits) ensure their planning/engineering programs are sound:

- Only employ well-trained workers in layout and engineering — individuals who understand the limitations of the machines and logging systems in their area. It may be challenging to find skilled workers given our current labour shortage; regardless, layout engineers must understand how their choices can create hazards for fallers and operators and how to set the whole system up for success. Make sure they're properly trained and encourage them to spend some time with a logger or faller to hear their concerns.
- Recognize the place of safety in all operations. Though the majority of a professional's schooling and work experience might focus on economics and environment, safety is key. All workers should remember that when they complete their phase of block development, someone with loved ones is coming in after.

- Encourage loggers to identify operational issues. They should know they have alternatives if they come up against an unsafe condition.
- Make sure people working in different phases of the operation have a chance to hear each other's concerns. The road builders should hear about it if they've left an unsafe condition behind for the fallers. The field engineers need to know if they've included an inoperable area (And they should also hear about it if they've done a great job).
- Be certain that any on-site hazards are communicated through all phases.

There have been times in the past year when I've heard positive feedback from fallers, saying that communication has improved with licensee engineers and that both sides understand what needs to be in place to be safe and productive. But I have heard the opposite as well. I've heard

frustration around things like questionable layout, inadequate investments in road maintenance, lack of standing timber inventory increasing phase congestion — a feeling that forest professionals were sending loggers, at times, into questionable situations. Let's work to eliminate this negative talk by asking for help when it's needed, providing opportunities for new recruits to spend time in the bush around operations, listening to concerns and ultimately being proactive about any improvements that will help bring everyone home safe at the end of the day.

Pam Jorgenson, RPF, has been the training manager at the BC Forest Safety Council since 2013. Prior to relocating to Nanaimo, she worked as a forestry consultant in the Williams Lake area, focusing on silviculture, operations and planning.

STEEP TERRAIN continued from Page 14

Potential exists here but how often do we actually reflect upon our options? Do we consider alternate harvest systems, new technologies or pure avoidance? Next, we have engineering controls typically intended to separate, buffer or otherwise control the potential energy and protect workers. Examples of this may include roll-over protection system (ROPS) cabs, full bench excavation, or bucking damaged stands to the ground to reduce the dynamic of energy release. Care must be exercised when using alternate approaches as new hazards may be created which are less understood. Lastly, we should consider administrative controls. These controls include training, practices and other elements that are dependent upon discharge by people. This is why these controls are less preferred as their reliability is dependent upon the human mind. Some would argue that all incidents are the result of human error. Others would argue the human mind is the greatest safety device we have. What is certain is the idea that the human element creates complexity. In practical application, hazards are often managed by several control types. Together they provide redundancy and failsafes.

Once we have decided to expose workers to the hazard we must consider the dynamic of how their actions and activities might affect or influence the circumstance. We have seen that low intensity manual activities on this terrain can have catastrophic results. Manual activities or more intense activities such as road construction can both alter these sites sufficiently to make potential hazards real. Many of the practices and decisions regarding this terrain are often in the hands of the 'practitioners' (non-regulated professionals engaged in works on or about these sites, like

equipment operators, loggers, salvagers, etc.). So how might we achieve more reliable (safe) results?

A wise man once told me, "an expert is not someone who merely understands the complexities but one who can help others understand." This definition places upon the expert an onus of positive influence. To have such influence, respectful relationships and positive communication must exist. This is founded in trust which is achieved in part through a fundamental communication tool — listening! This seems to resonate with what it means to be a professional. Concerning oneself with influence and positive results beyond what we might directly control, is expert leadership. In safety plans we include a wide array of potential documents that drive or guide an operation. So whether they be professional applications or on-site prescriptions they must influence positive practice. To do so, they must be understandable and feasible for the practitioners. We must integrate what they know to ensure expectations are realistic. We must understand the nature of their work and how it may influence risk. We must provide the tools and understanding to identify the hazards and pragmatically consider the control hierarchy. As a team we can achieve more effective results and also save lives!

Tom Jackson, RFT, has worked in diverse roles, from labour to management. His forestry career has taken him to all regions of the province in positions that include cedar salvager, logger, silviculture worker and contractor. As a forest professional and manager, his career includes practice in wildfire, range, recreation, tenures, road construction, harvest planning and enforcement.



After the Dust Settled: Revisiting the Safety of Forest Road Bridges in BC

IN MARCH 2014, THE FOREST PRACTICES BOARD PUBLISHED A REPORT on forest road bridge planning, design and construction that raised many eyebrows in government, the forest sector and among forestry and engineering professionals. There were over two dozen bridges had safety concerns and 40% were non-compliant with legislation and professional guidance. These were startling results. So what was the reaction to the report and what has happened since? What have we seen in recent audits, and what have we been hearing from fellow professionals?

The investigation found a number of unsafe structures and that is where the media focus went. But just as troubling was the fact that 40% of the bridges did not have complete plans and one-third did not have an assurance by a qualified professional that the bridge was designed and built correctly. In some cases, forest professionals designing and building bridges were not aware of the professional practices guidelines for crossings that have been in place since 2005, or that failing to follow them could be considered unprofessional conduct.

When the report was released, government reaction was swift. The Minister of Forests, Lands and Natural Resource Operations immediately requested a 60-day action plan from licensees and BC Timber Sales (BCTS) to remedy the situation. All of the unsafe structures were examined as soon as field conditions permitted.

One major licensee that was not even part of the special investigation told the Board that it planned to immediately review all of its structures and records to ensure legal and professional practice requirements were met. Ultimately, it completely revamped its internal processes and instituted new standard operating procedures for bridge maintenance and construction. For its part, BCTS committed to immediately addressing safety concerns and also to reviewing its planning, contracting and documentation processes through its Bridge Safety Action Plan. It has since reviewed every bridge built in the past two years to ensure documentation is complete and professional practice guidelines were followed. In the future, and where practical, BCTS intends to build bridges under contract and also intends to minimize the number built by timber sale licence holders.

In recent years, new bridge construction in the forest sector has not been a focus when government's compliance and enforcement staff prioritize inspections. Based on the the outcome of this investigation, the Board said that it expects the compliance and enforcement branch to increase its attention to the integrity of bridges. The ministry's engineering branch has since prepared training material for compliance and enforcement staff for bridge inspections on resource roads.

Meanwhile, the Joint Practices Board has completed an update of the *Guidelines for Professional Services in the Forest Sector – Crossings*. The update includes revisions made in response to the special investigation. During the investigation, we heard some professionals say that the guidelines are simply that, and one does not have to follow them. That argument is now moot as the ABCFP membership has overwhelmingly voted in favour of endorsing a bylaw that members will follow the crossings guidelines and produce a written rationale when they

deviate from the guidelines. A professional is still free to use his or her judgment to vary from the crossing guidelines, but those decisions need to be documented and be consistent with professional standards.

One example where we rarely saw documented reasons for varying from the bridge design involved approach barriers, which are required by WorkSafeBC's Occupational Health and Safety Regulation (see sidebar.) In cases where approach logs or barriers were not installed but the approach was elevated or uncompacted and there was potential for serious injury if a vehicle left the road, we called the approaches unsafe. Often there was no rationale for not including approach barriers in the design or barriers were designed but not installed. Another example relates to temporary structures. Designating a crossing as temporary does not relieve a professional of the requirement to consider hydrology and the period of time the structure will be in place.

Bridge Approach Safety

Most professionals familiar with the Forest Planning and Practices Regulation know that section 72 requires a person who constructs or maintains a road to ensure that the road and the bridges, culverts, fords and other structures are structurally sound and safe for use by industrial users. However, the Occupational Health and Safety Regulation provides specific guidance about bull rails. Section 26.81 states:

The open sides of bridges, elevated truck weigh scales and associated elevated ramp approaches and other elevated structures used by logging trucks must be equipped with substantial and well-secured continuous timber or log curbs or bull rails of sufficient height to prevent vehicles from running off the structure, but not less than 25 cm (10 in).

In the Board's investigation, a professional engineer considered the bridge approaches and the bridge design. If the approaches were elevated, there were no approach barriers and the engineer was concerned about the risk of a vehicle leaving the approaches or bridge, he noted it as a safety concern.

Government and industry have responded and our recent audits have seen fewer bridge problems, but there is still work to do. During the 2014 field season, Board auditors examined another 32 newly constructed bridges through our regular compliance audits and found concerns with three of them. One had no design, no load rating, an improper bearing, no lashing and no guard rails. A second had no design and no consideration of hydrology. For the third structure, the record drawing did not accurately reflect what was built — the structure was bearing on an undersized log sill, ballast walls were not as designed and, as a result, sediment was entering the stream.

At a resource roads conference in May 2014, a professional commented that, based on his experience, the report was a message that needed to be sent. Somehow, despite clear professional practice guidelines and legislation, it had become acceptable in certain



Photos: Chris Oman, RPF

Above: An Acrow bridge in the Chilliwack forest district in September 2013. Investigators had concerns with the lack of documentation, the bridge approaches, sedimentation and improper installation as the chords were resting directly on the sill logs.

Below: In June, 2014, guard logs, rocks and delineators had been installed and the bridge was resting on proper bearings. Additional rip-rap has also been placed.





Effective Safety Management – A Way of Doing Business

“WE HAVE AN EXCELLENT SAFETY PROGRAM HERE!” “WE WANT EVERYBODY to go home safe at the end of the day!” “Safety is our first priority!” We have all heard these statements many times in our careers. On first read, they all sound good, but what is the real substance behind them? Are the words backed up by universal commitment and, more importantly, action? Do the collective actions of everyone in the business result in sustainable improvements in performance?

It is actually fairly easy to spot whether or not an organization's safety program is designed for success. One leading indicator is that talk of safety or safe procedures permeates every discussion about every issue. The discussion takes a common form: “What is the risk and how can we mitigate?” or “What went wrong — and how can we ensure it doesn't happen again?” Safety issues are freely discussed and debated, always with an unrelenting focus on improvement. Root cause analysis is a way of thinking that drives the focus on improving future outcomes.

Commitment and Attitude

Unfortunately motherhood statements abound in our industry. How do we know whether or not there is a genuine commitment on the part of management and employees to improve safety performance? And how do we know that this commitment is supported by a robust business framework that can guarantee results?

“We have a good attitude in our operation.” Easily said, but are workers truly serious about safety? If they are, they will openly confront difficult issues with solutions aimed at solving problems. They will avoid looking for scapegoats or excuses. They will always be keenly aware that it is up to everyone to be on the lookout for the warning signs that complacency is setting in.

The journey to zero incidents is a long one — some would say a road without an end. Against this challenge, commitment needs to be unwavering, regardless of inevitable setbacks along the way. There needs to be an organizational resolve to continue the journey that is founded on a firm belief that zero really is possible. A fierce tenacity that drives an ever-increased focus on improvement even in the aftermath of success is also required.

Being “Bush Smart”

When we go out to our worksite in the morning, do we sense and feel the environment that surrounds us? Are we acutely aware of what is happening and what might happen? This is the essence of identifying and assessing risks around us and is the starting point for constructing mitigation strategies. We can probably all remember our first day on the job in the woods — feeling like a fish out of water. With experience, we gain a heightened sense of awareness about the

risks in our environment. With further experience, complacency sets in. Companies that have routine and effective risk assessment protocols in place, encourage their employees to continually maintain a high level of situational awareness. It is this situational awareness that supports effective risk mitigation across the wide range of variable environments in which our industry operates.

Basics Done Well

Being good at the basics requires an ability to deconstruct activities into their constituent parts and to clearly see the importance of managing process relationships. A sharp focus on the details and a transparent sense about how one phase affects another is a critical success factor.

Any successful sports team has a good playbook — one that is well thought out and fastidiously studied by all players. In the context of safety management, these are the safety procedures and job safety breakdowns. Are they well written? Do they adequately address how to identify and mitigate risks? Are they live documents that are used continuously and updated frequently? Or do they gather dust on the shelves, only to be dusted off during mandated semi-annual reviews?

Analysis and Feedback

What kind of information is collected about safety performance? Do we know why incidents happened and have we put in place preventative actions to eliminate the chance of repeat occurrences? All too often we rely on general incident statistics to track progress. While this is helpful to show trends, it is not particularly helpful in focusing improvement efforts. Root cause analysis is a well-recognized approach that focuses attention on eliminating process mistakes that lead to incidents.

It is difficult to clearly see for ourselves where we really are. Feedback, internal as well as external, is critically important. Companies that excel in safety management ask for feedback and take it without offense. They actively listen to suggestions and implement positive change. They regularly seek assistance from accredited third-party certifiers, like the BC Forest Safety Council to identify areas of focus for improvement. They religiously track performance and communicate freely where systems or processes are failing to achieve expected results.

Finding Ways to Continuously Improve

In the continuum of safety improvement, can your company remember where it was, identify where it is now, recognize the difference and attribute the difference to actions initiated? This is the essence of continuous improvement. Organizations that are good at this are highly self-critical, and have a strong focus on tracking actual results against stated goals. They recognize that managing an effective

That is Good for Business

tive process feedback loop is at the core of any effective continuous improvement initiative. With this in mind, they always maintain a healthy pipeline of ideas that will be translated into improved results.

Merger and Integration

Taken as a whole, these elements add up to a professional approach to safety management. Does this sound familiar? It should because it is also the basis of environmental, quality, sustainable forestry and financial management processes that are used in our industry universally around the world. Any company that has an environmental management certification, a sustainable forestry certification, a safety certification, or a quality management certification employs these basic principles of effective management.

Operational Example

At Island Timberlands, we decided in 2011 to streamline our environmental management system. This was a system that relied on a stack of manuals with very detailed (and repetitive) prose. We found that there was a significant amount of effort involved in maintaining these manuals and in ensuring accurate version control. In the end, all of this effort was lost on employees because the manuals were far too long to read, let alone effectively digest and comprehend. In annual audits, although our marks were good, we found that the sheer weight of paper was impairing results.

As the streamlining project progressed, we came upon the idea of merging our environmental management system with our safety management system (another stack of manuals full of safety protocols, job safety breakdowns, and the like). The output of this streamlining and combination process is our current Timberland Management System (TMS).

In formal and ad hoc reviews with our staff, employees and contractors we have found that not only do they universally like the TMS format, but they also display a significantly improved level of engagement and critical thought in the areas of safety and environmental management. All of this results in improved performance in these areas not only for our company, but also for the many contractors and suppliers that we work with every day.

Effective safety management really is a way of doing business that is good for business. 🌱

Darshan Sihota is president of Island Timberlands Limited Partnership, a Vancouver Island-based company that grows, harvests and delivers high quality timber to buyers in Pacific Rim markets. He holds an Honours BSF from the University of British Columbia, an MBA from Royal Roads University and is a BC Registered Professional Forester.

TD Insurance

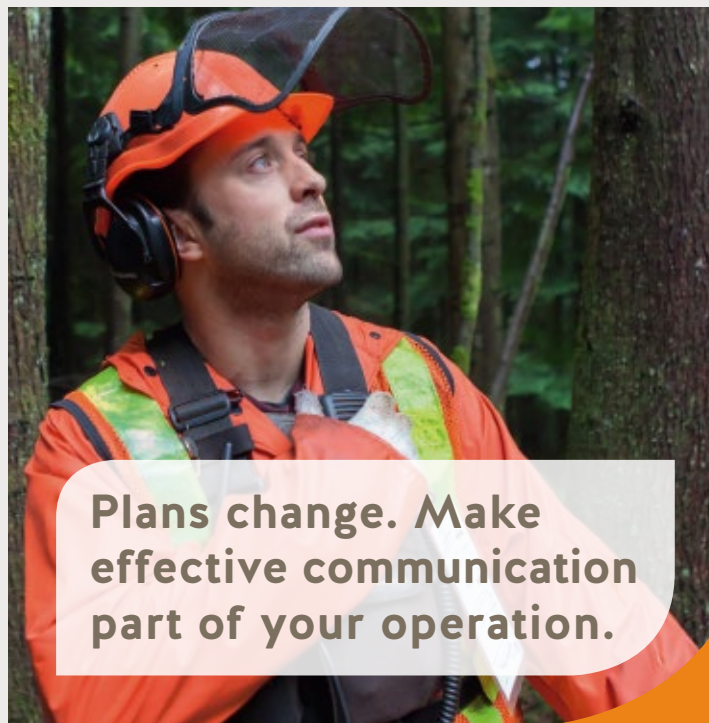
You've paid your dues. Start paying less with TD Insurance.

Request a quote today
1-866-269-1371
melochemonnex.com/abcfp



The TD Insurance Meloche Monnex home and auto insurance program is underwritten by SECURITY NATIONAL INSURANCE COMPANY. The program is distributed by Meloche Monnex Insurance and Financial Services Inc. in Quebec and by Meloche Monnex Financial Services Inc. in the rest of Canada. For Quebec residents: We are located at 50 Place Crémazie, Montreal (Quebec) H2P 1B6.

® The TD logo and other trademarks are the property of The Toronto-Dominion Bank or a wholly-owned subsidiary, in Canada and/or other countries.



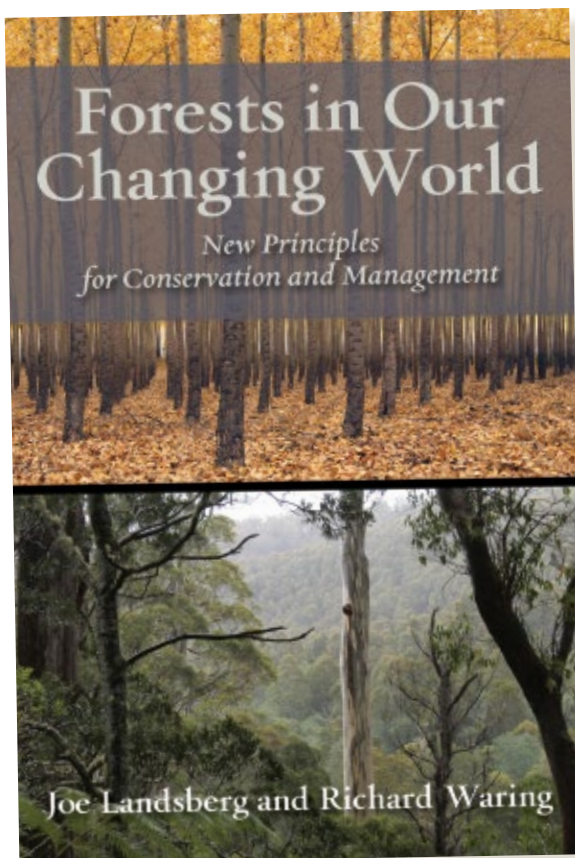
Plans change. Make effective communication part of your operation.

The planning decisions you make today can affect the health and safety of workers tomorrow. Find resources at worksafebc.com/safetyatwork.

WORK SAFE BC

Forests in Our Changing World: New Principles for Conservation and Management

Landsberg, J. & R. Waring. Xiii 7 208 2014
Island Press, Wash., D.C.
ISBN 978-1-61091-495-6 (cloth. alk.pap.)
978-1-61091-496-3 (pbk. alk.pap.)



In just seven chapters this readable book presents an overview of the whole gamut of forestry and forest-related activities today and looks to the future in a changing world. The lengthy introduction begins, “Our objective...is to describe and discuss forests and their significance in our world” and this aim is repeated in the concluding chapter “...one of our objectives was to provide science-based knowledge and information as a contribution to political and commercial actions and decisions...” The authors seek to achieve their objective with a broad introduction followed by interlocking chapters on forest types, weather and climate, climate change, uses of forests, a lengthy one on management and money, and a conclusion that looks at future possibilities. There’s a preliminary overview and summary for each chapter, with commendably clear diagrams, but a surprisingly limited bibliography.

My impression is that this book is intended for interested lay readers, not trained forest professionals, though it would make a useful primer for beginning undergraduates and provide a valuable broad background canvas for school teachers or narrowly focused forest specialists. It will be very helpful for any uninitiated politician who wants to acquire some grasp of the complexity of forestry.

Although it is apparently intended as a once-over-lightly treatise, [after all, Schlich’s classic *Manual of Forestry*, written in simpler times over 100 years ago, required five volumes] the book occasionally delves into details such as an explanation of variations in composition of tall Eucalyptus stands in Australia’s Blue Mountains. Such a shift in focus can be a bit of a surprise and leaves one wondering about the intended audience. Perhaps the last chapter, “The Future of Forests”, is the most interesting and informative. The authors are clearly amongst those who attribute climate change to human industrial activities and they envisage well-managed forests as influentially ameliorative factors. They see lack of public comprehension of the value of forests and “... the tendency in both business and political worlds to make decisions and take action on the basis of short-term economic considerations ...” as fundamental obstacles to forest conservation. That message is worth frequent repetition and their assertion that “A forest is not necessarily destroyed when all the trees are cut down. It is destroyed when the land is no longer allowed to support trees...” should also be widely promulgated.

This book will be successful only if it is read and heeded by the decision makers in our world. Is it our task to ensure it is given the attention it merits? 🌲

Review by Roy Strang, RPF (Ret)



Back-to-Back Wins for Campbell River NFPs!



FOR THE SECOND YEAR IN A ROW, CAMPBELL RIVER TOOK THE WIN IN THE Battle of the Networks of Forest Professionals (NFPs). Drawing on the momentum from last year's win, volunteers were out in full force the week of September 21 to 27, 2014, with the single-minded goal of increasing awareness of the importance of forests in communities. Highlights of the action-packed week included:

- **Coverage in the Campbell River Mirror:** Over 20,000 copies of a National Forest Week feature were distributed in the Campbell River Mirror. Stories in the 10-page feature included an article by a young forester about her growing career in the sector; a story written by Minister Steve Thomson about his intents to grow National Forest Week; a piece about logging and tourism on Maurelle Island; and more.
- **Proclamation of National Tree Day:** September 24 is now also known as National Tree Day and to mark the occasion, local mayor Andy Adams planted a tree at city hall. Sylvanvale Nursery and Western Forest Products donated over 300 tree seedlings, which were distributed to children throughout the community.
- **Lunch and Learn Opportunities:** Two lunchtime learning sessions looked at professional reliance and the positive impact

that volunteering can have on a forest professional's career. Among those in attendance was the ABCFP's director of professional practice and forest stewardship, Mike Larock, who spoke at the professional reliance session. Former ABCFP president, Ian Emery, also participated and spoke about his experience volunteering on the ABCFP council.

- **School Field Trips:** Despite the unforeseen challenges presented by the provincial teachers' strike, a number of forestry field trips were successfully planned, including one which saw Thomas Hartz from FLNRO lead the Campbell River Christian School's Grade 10 class on a walk along the Beaver Lodge lands. The class spent hours exploring forest processes, ecology and forest soils. The school's grade 6/7 split class was also led by Thomas on a walk that included an up-close look at spawning pink salmon.
- **Forestry Fair:** National Forest Week wrapped up with a Forestry Fair, where a number of forestry organization, including the BC Forest Safety Council, Western Forest Products and Nanwakolas First Nation, set up information booths.

We applaud the passion and collaboration demonstrated by Campbell River NFPs on their latest win. 🐾

National Forest Week

This Year's Budding Young Artists

THE ABCFP'S AND TRUCK LOGGERS ASSOCIATION'S (TLA'S) NATIONAL Forest Week Art Contest always showcases aesthetic talents and a refreshing perspective of what forestry means to today's young; this year's entries were no different. From drawings depicting wildlife, campsites, hard hats and families enjoying the outdoors, entries were at once diverse but also repetitive in theme: that forests play an important and valuable role in the lives of children across the province.

Wonderful entries were many and the job of selecting winners was a painstaking one. But after much thought, the panel narrowed down the following entries. In addition to appearing here and on our website, winners will also appear in the TLA's magazine and website. The first place winner in each age group received a \$50 Chapters gift certificate. Thanks to everyone who entered and congratulations to all our winners and runners up! 🌲

Age Group	Winner	Runners Up
4-5 years	Cedric Chewter, age 5, of Nelson	Ila Paisley-Tolson, age 5, of Maple Ridge and Olivia Shen, age 5, Nelson Elementary, Burnaby
6-8 years	Robin Bennett, age 8, of Simoom Sound/Port McNeill	Finn Luoma, age 6, of Black Creek and Leif Richter, age 7, of Coldstream
9-12 years	Gabrielle Mergaert, age 12, of Campbell River	Amélie Brulotte, age 11, of Prince George and Zachary (last name withheld), age 11, of Prince George

Age Category 9-12 years



1 Gabrielle Mergaert, age 12, of Campbell River



2 Amélie Brulotte, age 11, of Prince George



3 Zachary (last name withheld), age 11, Prince George

Age Category 6-8 years



4 Robin Bennett, age 8, of Simoom Sound/Port McNeill



5 Finn Luoma, age 6, Black Creek



6 Leif Richter, age 7, Coldstream

Age Category 4-5 years



7 Maese Shea, age 5, of Quadra Island



8 Ila Paisley-Talson, age 5, of Maple Ridge



9 Olivia Shen, age 5, of Burnaby

Occupational Health and Safety in the Forest Industry: A Matter of Superordinate Importance

THOSE WHO WORK 'ON THE GROUND' IN THE BC FOREST INDUSTRY ARE required to manage occupational health and safety issues that are, for the most part, completely foreign to the rest of us. And the unique dangers of working in the woods have, unfortunately, resulted in tragedy from time to time over the years and subjected the forest industry's health and safety performance to intense media scrutiny. As someone who practises law in the forest industry (tucked safely behind a desk and computer monitor in my office), I would suggest that, in recent years, no single field of legal liability has come to concern those who work in the forest industry more than occupational health and safety.

Much of the focus in the BC forest industry with respect to occupational health and safety is placed upon 'prime contractors.' Under the *Workers Compensation Act* and Regulations (the 'Act'), prime contractors must ensure that the health and safety activities of employers and workers at any 'multiple-employer workplace' are coordinated, and must do everything reasonably practicable to establish and maintain systems or processes to ensure compliance with the occupational health and safety requirements of the Act.

That noted, the Act actually places primary responsibility for the health and safety at a workplace upon others. 'Employers' (who probably have the biggest slice of the occupational health and safety pie) *must* ensure the health and safety of its own workers and all other workers at the workplace. 'Owners' *must* provide and maintain lands and premises that are used as a workplace in a manner that ensures the health and safety of "all persons at or near the workplace." 'Supervisors' *must* ensure the health and safety of all workers under their direct supervision. Even 'workers' themselves *must* take reasonable care to ensure their own health and safety, as well as that of other workers who may be affected by their acts or omissions. Each of these actors are potentially subject to prosecution under the Act if they fail to discharge their respective responsibilities for health and safety at the workplace.

As well, every officer and director of a corporation "must" ensure that the corporation complies with its health and safety obligations under the Act. So, if a corporation is an 'employer' or an 'owner' and the corporation fails to comply with the obligations that are imposed upon employers or owners under the Act, every director and officer of the corporation is potentially subject to prosecution on account of that failure, subject to a defense of due diligence. Moreover, the Act provides that if a corporation contravenes a provision of the Act related to health and safety, then

any director or officer of the corporation who "authorizes, permits or acquiesces" in the commission of the offence also commits the offence. In other words, corporate directors and officers are exposed to personal liability for the corporation's contraventions of the occupational health and safety requirements of the Act.

Occupational health and safety is also of particular concern to BC's forest professionals. As an ethical matter under the ABCFP's *Code of Ethics*, a member's responsibility to the public is to "have regard for existing legislation." Presumably, this would include the Act. More specifically, a member must "have proper regard in all work for the safety of others." In terms of the ABCFP's *Standards of Professional Practice*, "members maintain safe work practices and consider the safety of workers and others in the practice of professional forestry." Not only is health and safety a moral and legal issue in the work lives of forest professionals; it's also matter of ethics and practice enforceable through the imposition of discipline under the *Foresters Act*. Anyone who is a practising forest professional, sits on the board of directors of a forest company and is responsible for employees has plenty of motivation to exercise rigorous diligence when it comes to occupational health and safety. Little wonder why legal liability for health and safety has become of such superordinate importance in the forest industry. 🌲

Jeff Waatainen is an adjunct professor of law at UBC, has practised law in the forest sector for nearly 20 years, and currently works in the Forestry Law Practice Group of Davis LLP's Vancouver office.

DAVIS LLP
LEGAL ADVISORS SINCE 1892

Davis Forestry Law Group

Jeff Waatainen
Associate

DIRECT 604.643.6482
MOBILE 250.618.5776
FAX 604.605.4876
EMAIL jwaatainen@davis.ca

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 forest sector.

www.davis.ca | Vancouver | Toronto | Montreal | Calgary | Edmonton | Whitehorse | Yellowknife | Tokyo

Membership Statistics

ABCFP — October 2014

NEW REGISTERED MEMBERS

Gavin Edward Thomas Anderson, RFT
Keiko Arakawa, RFT
Leah Anneliese Ballin, RPF
Curtis John Lincoln Bennett, RPF
Tara Leigh Bergeson, RPF
Todd William Blewett, RPF
Sarah Margaret Rose Bowers, RPF
Tasha Dawn Brekkas, RFT
Derek Bryan Burdikin, RPF
Sarita Beth Burgoon, RFT
Owen Stewart Coombes, RPF
Kathleen Louise Crowhurst, RFT
Shaun Michael Da Silva, RPF
Janelle Mary Aiko Dale, RPF
Aaron Nicholas Day, RPF
Jordan Arthur deGraaf, RFT
Stefan James Feldmann, RFT
Viviana Flores, RFT
Amanda Kathleen Harvey, RPF
Michael Edward Hoar, RPF
Loreen Carole Hodgkinson, RPF
Cindy Nicole Holland, RPF
Ye Huang, RPF
Molly Halliday Hudson, RPF
Amy Victoria Irvine, RPF
Francis Wilfred Johnson, RPF
Roseanne Bridget Keatley, RPF
Matthew Melvin Lebron, RPF
Brent Douglas Lipinski, RFT
Charlotte Marie Mellstrom, RPF
Carlos Molina, RPF
Laurel M. Priest, RPF
Heidi Elizabeth Reinikka, RPF
Jeffrey Douglas Reyden, RPF
Joel Patrick Richards, RFT
Alexandra Louise Ryland, RPF
Lauren Hanna Thompson, RPF
Emilie Lindell Thy, RPF
Joseph Nicholas Vanderzwan, RPF
Troy Joseph Van Skiver, RFT
Steven Leslie Ward, RPF
Peter Andrew Wright, RPF
Wenli Xu, RPF

NEW ENROLLED MEMBERS

Donna Annette Bailey, FIT
Tony Botica, FIT
Christopher Dawson Britton-Foster, FIT

Kathleen Dawn Coupland, FIT
Erika Julia Driedger, FIT
Brent Elliot Fukumoto, FIT
Dak Giles, TFT
Benjamin Humphrey, FIT
Cody Don Jackman, TFT
Andy Kwan, TFT
Bryce Mitchell Laven, TFT
Heidi Patricia Marks, TFT
Michael Robert Matichuk, TFT
Tara Caitlin Morris, TFT
Brett Daniel Nelson, FIT
Jeffrey Nathan Palatnick, FIT
Patrick Sarsfield Palmer, FIT
Alexander Edward Soukup, TFT
Michael Thomas Von Buttler, TFT
Haojing Xie, FIT
Ziyan David Zhong, FIT

REINSTATEMENT

Julianne Trelenberg, RFT

REINSTATEMENTS FROM LEAVE OF ABSENCE (REGISTERED MEMBERS)

Tara Marlene Reimer, RPF
Lindsay Alison Vandesteeg, RPF

DECEASED

Irvin J. Penner, RPF

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

RESIGNATIONS (REGISTERED MEMBERS)

Roar Gjessing

RESIGNATIONS (ENROLLED MEMBERS)

Jeffrey John Lewis Crossley
Shaun Michael Da Silva, RPF
Jordan Edward Kirk

ABCFP — November 2014

NEW ENROLLED MEMBERS

Joel Christopher John Grant, TFT
Aleksandar Ognjanovic, FIT

NEW ASSOCIATE MEMBER

Antonio Varias Pega, FIT, ATC

REINSTATEMENTS FROM LEAVE OF ABSENCE (REGISTERED MEMBERS)

Donna Elizabeth Myketa, RPF

TRANSFERING FROM TFT TO FIT

Louis Eugene Orieux, FIT

DECEASED

Allan H. Dixon, RPF(Ret)
George J. Kibblewhite, RPF(Ret)
William John McCuaig, RPF
George W. Minns, RPF(Ret)
C. Frank Mosher, RPF(Ret)

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

CANCELLED SPECIAL PERMIT

Curtis Aaron Ofstie, RFT *

REMOVALS (ENROLLED MEMBERS)

Beaumarck Jason Annunziello
David Joseph Dame

RESIGNATIONS (REGISTERED MEMBERS)

Daniel T. Biggs
David Bruce McGlashan
Susan R. Rankin

MEMBERSHIP WITHDRAWAL

Stuart B.K. Brackenbury
Arthur E. Sherman

*entitled to practice as an RFT

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 members:

William (Bill) M. Bradshaw

RPF #213

February 28, 1923 – March 21, 2014

William (Bill) Bradshaw passed away suddenly in Victoria on March 21, 2014, surrounded by his immediate family. Born in Winnipeg on February 28, 1923, Bill was the second of seven children. His family moved to BC when Bill was 10 years old and soon settled in White Rock. After graduating from Cloverdale High School, Bill enlisted in the Royal Canadian Air Force and completed two operational tours in World War II — in Europe and North Africa. He would later receive the Distinguished Flying Cross for the bravery and courage he exemplified while serving in the war.

In 1951, Bill graduated from the University of British Columbia with a degree in Forestry. He joined the BC Ministry of Forests that same year and would provide 32 years of service in various roles



with the Ministry. Bill started his career at the Air Classification department running survey crews throughout the province. He also worked in the Volume and Decay department and Valuation Branch in Victoria, where he was in charge of cruising.

Bill was a member of the Association of BC Forest Professionals since 1954 and was a proud forest professional, mentor and friend to countless people over the course of his career. Following his retirement in 1984, Bill spent time gardening, golfing, travelling and enjoying the company of his two grandchildren.

Bill is lovingly remembered by his beloved wife of 61 years, Carol, as well as his daughters Elizabeth and Jane (Randy), and grandchildren, Sarah and Daniel.

Submitted by Elizabeth Bradshaw

William (Bill) John McCuaig

RPF #2947

May 5, 1950 - June 20, 2014

Our dear Billie died Friday, June 20th, 2014 at home, at the age of 64, predeceased by his loving parents Ian and Marion McCuaig. This comes as a sudden and sad shock for those of us who knew Bill as a vibrant, gentle and wholehearted person. Bill was born and raised in Summerland along with his sisters Mary, Nancy and Margaret. He worked in the orchards, hiked in the hills, swam in the creeks, graduated from Summerland Secondary School and went on to study forestry. His deep and abiding love of trees and the land led him to complete his Master's degree in Forestry at UBC. In his 18 years with the District of West Vancouver as community forester, Bill was most happy outside: in the old growth, in our



parks, cleaning up logs with a backhoe on West Vancouver beaches or advising residents on urban bear issues. One of the other communities he touched was the Squamish Nation in North Vancouver. He co-founded and built a traditional medicinal garden there with community elders and youth. Whatever the subject — human rights, medicinal plants, forests, trees, wildlife, or hydrology — Bill touched people with his integrity, infectious passion, wit and ability to craft a good story. We will miss you, Bill, for your depth of insight, vast knowledge, sense of humour, huge compassion and caring heart. You will be lovingly remembered by family, colleagues and many friends who hold you dear in their hearts. A celebration of Bill's life was held July 2, 2014.

Submitted by Margaret McCuaig

A Moment in Forestry

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



Just Dropping By

Marianne Eriksson, RFT

A majestic lynx shows up in the backyard of a member's home on the Bakerville Highway in Quesnel. The curious creature walked right up to the home's window to investigate — much to the delight and awe of those inside.

ROAD BRIDGES continued from Page 20

circles to install a bridge with minimal planning, documentation or professional care and thought. In fact, some employers seemed to think that the Registered Professional Forester designation means that an individual is automatically equipped to design and install bridges. We need to change that culture. Only those professionals with the required knowledge, skills and experience should be planning, designing and constructing forest road crossings. As professionals, we owe it to workers, the public and each other. 🐾

Garth Lord has been a Professional Engineer in BC since 1995. In 1997 he began working with the Forest Practices Board as a consulting engineer, specializing in roads and structures. In 2013 he joined the Board full time. Garth lives in Salmon Arm.

Chris Oman has been a Registered Professional Forester since 1991. In 1998 he began work for the Forest Practices Board investigating complaints and he currently works on audits and special investigations. Chris lives in Victoria.

Paper-Free Forms for your Operation!

Let us modernize your paper checklists, inspections, and audits!

Smart Devices 
Ready to run on your iPads and iPhones or Android devices.

Cloud Syncing 
Deploy forms for mobile employees and sync data seamlessly without a trip to the office.

Complete Data Collection   
Enhance your forms with photos, voice clips and GPS coordinates.

Works Offline 
Ensure accessibility of your forms without internet connectivity.

TESTIMONIAL
"In the field SNAP has saved us time and simplified field surveys by summarizing sampling data and calculating confidence levels. In the office it has saved us a significant amount of staff time through its ability to summarize and compare data, generate reports and transfer and compile information from other district offices."
Ricardo Velasquez,
District Silvicultural Forester
Ontario Ministry of
Natural Resources

Call today or visit us online for more information
or to schedule your **free** demo.
Toll Free 1-800-535-2093 · www.snapdcs.com

