FOREST (SAFETY News

ABCFP 2018 conference:

Increasing awareness about wildlife/dangerous trees for field workers





Safety is Good Business

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Welcome to the April edition of Forest Safety News, covering news about safety topics in forestry. This is YOUR safety newsletter. We look forward to your input and feedback! Email the editor at editor@ bcforestsafe.org or call 1-877-741-1060.



Left: Gerard Messier, BCFSC program development manager, talks with delegates at the 2018 ABCFP annual conference about the awareness needed around wildfire and insect-kill stands for field workers. The slide image credit for the search and rescue helicopter goes to Canadian Joint Operations Command. Centre: the mountain pine beetle killed trees at an interior lake photo was taken by AJ Schroetlin. Right: the wildfire boundary flagged trees image is from www.Replant.ca.

The BC Forest Safety Council's program development manager, Gerard Messier RPF, kicked off one of the conference breakfast sessions with a short presentation on the potential hazards posed by wildfire and beetle-kill stands. Gerard used an example of a serious injury – and the 11-hour extraction of that injured field worker in 2016 – to highlight the need for all workers to be trained to anticipate and recognize hazards. He said this was especially important with activities such as recce, surveying and other field work often done by technologists, foresters and field workers, in fire destroyed/damaged and insect killed stands.

"There is a significant threat to health and safety when field work is done in wildfire and insect killed stands. With 1.2 million hectares lost to wildfires last year alone, exposure to hazards in unstable stands is increased," said Gerard.

He said on July 9, 2016, two forestry consultants were out in a stand with beetlekilled trees, with no significant wind. At 9:10 am, one of the workers heard a crack but didn't know from where and took cover as best he could. He was struck by a dead fall pine which injured him and knocked his radio out of his vest pocket. About 500 metres away his colleague was unaware of the incident at the time. The injured worker managed to retrieve his radio and summon his colleague who provided first aid and then went back to their pickup to use a satellite phone to contact emergency services. But, it took till 8:40 pm that night to get the worker to hospital in Prince George. Fortunately, the worker did recover from his serious injuries several broken bones.

To be able to properly respond to an incident in a remote location, an effective and tested emergency response plan (ERP) is critical, including an understanding of how long extraction can take, even when a helicopter is able and available to assist with the extraction. Also ask yourself: what if weather makes heli-evacuation impossible?

Please see two related safety alerts:
http://www.bcforestsafe.org/node/2825
(forestry consultant serious injury, Aug
2016) and http://www.bcforestsafe.org/
node/3065 (working around fire and
beetle killed trees, Nov 2017) as well as
these website resources: http://www.
bcforestsafe.org/node/2585 and a
WorkSafeBC video on Every Minute Counts:
Emergency Response Planning in Forestry:
https://www.youtube.com/watch?time_
continue=7&v=oMsIWOAWEws

For more information about wildfire and insect kill tree hazards, please see story on page 4.

ABCFP 2018 annual conference, tradeshow and AGM:

Deputy Minister Sheldan puts safety first & Minister Donaldson thankful no lives lost in 2017 wildfires



Deputy Minister of FLNRORD. Tim Sheldan.

Deputy Minister of Forests, Lands, Natural Resource Operations and Rural Development (FLNRORD), Tim Sheldan moderated a public lecture on "The future of wildfire in BC" at the ABCFP 2018 conference. Dr Scott Stephens, Professor, Wildland Resource Science, University of California, Berkley, shared what BC can learn from California's recent wildfire experience. During question period Deputy Minister Sheldan was asked if contractors who helped out in the past BC wildfire

season would be considered to support fire suppression activities in the future. He responded: "Yes, but safety has to come first. We have to make sure that people are fit, healthy, capable, and trained to be able to support" before we can consider utilizing their skills on the land base.



Doug Donaldson, Minister of FLNRORD. expressed his gratitude that no lives were lost during the 2017 wildfire season at the 2018 ABCFP conference.

During a luncheon address, Minister of FLNRORD, Doug Donaldson, expressed his sincere appreciation to all for the efforts made in fire response and said: "No lives were lost in response to the 2017 wildfires

and everyone involved all deserve a round of applause for that."

Health of the people linked to health of the land

He went on to summarize his policy plans consistent with his mandate letter from Premier Horgan, and includes increasing jobs for every cubic metre harvested and expanding BC's innovation in wood products. In response to wildfires and the insect kill, he said a five-member panel had been formed to review the province's forest inventory program and ensure it reflects and addresses the latest changes that impact inventory. The panel includes a former academic, three professional foresters and an environmentalist.

He also invited all foresters to help win back public trust, highlighting wildlife management and land use planning, reminding delegates that people want to know and understand what the plans are for their forests in their back yards and that "the health of the people is linked to the health of the land around them." (

WFCA 2018 annual conference, tradeshow and AGM:

1-year forestry safety advocate report back



Dr. Jordan Tesluk provided the 2018 WFCA conference with an update after one year in his role as the BC Forestry Safety Advocate.

Western Forestry Contractors' Association (WFCA) executive director, John Betts. explained that the role of the BC Forestry Safety Advocate was created as a pilot to ensure all the great safety information created by the BC Safe Forestry Program was getting out into the field to silviculture and consulting companies. Dr Jordan Tesluk, BC Forestry Safety Advocate, visits forestry operations (by invitation) to spend time talking with workers and sharing safety best practices, information and resource tools.

In the year, Jordan did 21 visits at camps, offices, on the block, at home and via Skype, delivering resources to both silvilculture and First Nations forestry operations, adding consulting foresters as well. He conducted interviews in person and held meetings with WorkSafeBC.

Input from field

He said the greatest concerns from the field continued to be around MSIs and driving. Positive shifts include overall

culture and a generally positive assessment that everyone feels part of the same safe system, with improvements such as drills, better communication, better camp conditions, new treatment approaches, improved injury management, and increased disease and hygiene awareness.

Opportunities for further improvement include rectifying persistent gaps in enforcement; resources needed to be made relevant; and overcoming some joint health and safety committee training challenges.

Part of Jordan's role as advocate is to research issues raised by workers and then bring that back to SAC with recommendations – so a two-way flow of output and input to better inform and resolve emerging safety related issues. For example, when an issue was raised about some practical applications of the joint health and safety committee representative requirements, Jordan met with WorkSafeBC to clarify options and confirm workable solutions. The pilot will continue in 2018.

WFCA 2018 annual conference, tradeshow and AGM:

Getting injured workers the care they need in the golden hour



Miles Randell, of TEAAM, shares his vision for providing a service to fill the gap in Helicopter Emergency Medical Services in BC.

Miles Randell, of Technical Evacuation Advanced Aero Medical (TEAAM) shared his organization's vision for effective Helicopter Emergency Medical Services (HEMS) in BC.

He said to get a sense of what's missing in BC, he said Alaska, with 760,000 residents, has 31 air ambulance helicopters (one air ambulance for every 24,516 residents) compared to BC where there are 4.6 million residents and just four air ambulance helicopters (one air ambulance helicopter for every 1.15 million residents).

"We can bring the emergency room to the patient in a logging setting," said Miles. Created last year TEAAM is supported by a group of like-minded medical professionals/ paramedics highly experienced in prehospital retrieval medicine. "We starting to build the model and someone said there is a part missing - industry - and we got passed a copy of the Roger Harris HEMS report, read it twice and realized that what he was advocating was exactly what we were

The TEAAM model is built copying the success of Two Bear Air (Whitefish Montana); Westpac Australia; STARS (in Alberta, Saskatchewan and Manitoba) and Air Zermatt Switzerland, which Miles describes as the "top tier operational model undoubtedly the best model in the world, funded by patronage."

He said apart from patient benefits, there are hard bottomline benefits to government as support can save the healthcare system and WorkSafeBC a lot of money in ensuring timely treatments for patients that impact patient outcomes and long term healthcare and social costs significantly.

Learn more: www.teaam.ca or email miles. randell@teaam.ca.

Update

Rob Moonen, BC Forest Safety Council CEO, also provided an update on the status of Roger's HEMS report, saying that the Union of BC Municipalities (UBCM) had unanimously endorsed it last year and that government was reviewing it carefully, and a response was expected in 2018.

In a March 8, 2018 Black Press article published in several of the media group's publications https://www. northislandgazette.com/news/healthminister-says-coming-changes-willmake-difference-in-rural-communities/, Health Minister Adrian Dix acknowledged the BC Forest Safety Ombudsman Report and said he thought the ombudsman had "done a thoughtful report and we need to respond to it – and we will", indicating that improvements were expected in the coming months.

WFCA 2018 annual conference. tradeshow and AGM:

Taping works in prevention and early treatment of MSIs



Physiotherapists Jared Lalik (left) and Mike McAlanon, of Total Physiotherapy, presented on how best to prevent and treat MSIs in tree planters, and hosted two workshops on how to tape thumbs/ wrists/arms, knees and the lower back to help prevent strains becoming injuries and/or prevent a minor injury becoming a more significant one.



One of the taping workshops where delegates where taught how to tape themselves and others.



Robin McCullough, Chair of BC Safe Forestry Program and occupational health and safety coordinator for Brinkman, was a participant in one of the workshops to learn how to tape to help prevent thumb tendonitis. When applied correctly, taping is also a prompt tool to help the wearer self-correct to the right postures to prevent injuries.

Mike McAlanon and Jared Lalik, of Total Physiotherapy, along with Darrell Skinner, of the Okanagan College, shared some findings of research they had recently done and some practical applications to help prevent, and more effectively manage, MSI injuries in tree planters.

See two videos and other support materials here: www.totalphysio.ca. Go to the injury and disability management section and type in: wfca (username) and plant (password).

The Total Physio program covers: before season, during season, and injury management. They built supplemental tools to Dr. Delia Roberts' Fit to Plant work including a 20-minute self-administered work out. Through reverse engineering, using biomechanical analysis of planters at work, they identified 15 injuries and specifically what tree planters were doing to get injured

in those ways, and then found ways to prevent those injuries, and translating those tactics into entertaining videos to inform and educate tree planters on the simple things they can do to keep strong and healthy at work during the season so that they can really enjoy their skiing, surfing and other activities during the off-season, without

Using Facetime, the physiotherapists are able to consult with the planter, first aider and the supervisor to find resolutions that work well for everyone. "Planters want to plant but they also want to make sure they are not getting injuries that will affect them in the off season and from an employer perspective it allows them to give a planter options on what to do," said Mike.

To take the learnings and make them more broadly available, they focused on the prevention aspects of 40% of what they treat in tree planters: generalized lower back pain from all the bending; and, wrist and hand tendonitis.

In addition, the "Efficacy of Prophylactic Taping in Managing Tendonitis of the Thumb in Tree Planters" research project was undertaken for three key reasons:

- Tree planters experience a high incidence of shovel-sided tendonitis, called de Quervain's tenosynovitis
- This condition is most prevalent in the first month of the planting season
- Current treatment strategies include taping, immobilization, education and technique modification and have been effective in allowing planters to continue planting or return to planting quickly.

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Darrell explained that the research, done last summer and made possible by a National Science and Engineering Research Council of Canada grant, involved 113 planters from two Windfirm Resources and two Summit Reforestation camps. The results found that a planter who was not taped was 5 times more likely to develop thumb tendonitis than a planter who was taped.

The injury prevention takeaways include:

- All 1st and 2nd year planters should tape for at least their first three weeks. (Must be Leukotape and watch the video closely for proper application to prevent unintended consequences.)
- Hydration (maintaining appropriate water-salt balance) is key in prevention of tendonitis.
- 3. Walk like a cowboy.
- 4. Include proper stretches throughout the day.

It is very important that you see the videos and other materials for details and implement exactly as directed to ensure the desired outcomes.

WFCA 2018 annual conference, tradeshow and AGM:

Be aware and recognize the hazards in fire- and beetle-kill blocks

Dean McGeough, RPF, coordinator for the Wildlife Tree Committee (WTC), said it was critical that all silviculture and other forestry workers be aware and prepared for the hazards in fire- and beetle-kill blocks, especially given the recent wildfire season and increasing insect kill hectares across the province.

While the WTC's mandate is the conservation of wildlife habitat trees that 80 BC species depend on, safety is paramount. Some of these trees are expressly protected by law, and safety is expressly dealt with in OHS Reg 26.1.

A dangerous tree is a tree with a hazard when workers are exposed to this hazardous part. Evaluating the "hazard" is done according to WTC specified criteria which is dependent on the type of exposure that a worker's activity creates. Workers

may be doing very low risk activities, low level disturbance activities, or moderate to very high disturbance activities.

For very low risk (VLR) activities, situational awareness is required. These activities include: walking and hiking; surveying & recce; travel by PU, ATV, horse, bike; sample plots and cruising; forest and stream assessments, etc. For VLR activities:

- Look up, around and down
- Consider access and egress
- Look for clues of instability
- Avoid exposure to hazards
- Avoid contact with trees
- Consider weather and season
- Observe wind effects on trees.

For low level disturbance activities, a pre-work assessment by a qualified person is required.

For moderate to very high disturbance activities, a pre work assessment by a certified assessor (two-day course run by the University of Northern BC) is required.

There are five steps to do an assessment:

- 1. Determine what you are going to do and the activities' level of disturbance
- 2. Perform a site assessment overview

WFCA 2018 annual conference, tradeshow and AGM:

Ticks carry more than just Lyme Disease



Janet Sperling, Entomologist, and Jim Wilson, President and Founder, Canadian Lyme Disease Foundation, at the WFCA annual conference.

Janet Sperling, who studies tick DNA, said that bacteria, from a tick bite, is under diagnosed in Canada and this leads to serious disease because the bacteria affects all the human body's systems. She said it was the tick's protein-rich saliva that allowed the bacteria to get beyond our immune systems.

The only way to avoid Lyme Disease is to avoid tick bites. The high risk time in BC is winter. The ticks spend most of their lives underground and come up for two weeks to find a host. Climate change is impacting seasons too so for different parts of the province tick season varies. BC currently has 20 of Canada's 40 tick species which means there are many bacteria harmful to health, not just Lyme Disease. Entomologists are also seeing some hybrids as a result of migration, e.g. dogs get walked in Saskatchewan, come home to BC, and hybrid ticks occur. Janet's DNA sequencing has found that ticks are different from coast to coast, so if bitten one should be tested for the diseases that are carried within that particular region.

Things to do when out in the woods, and especially in higher risk exposure areas such as fire burned stands:

- Regular tick checks
- Shower at the end of the day
- Use DEET/Icardin repellent (note that you need a higher level of DEET for ticks than for mosquitos)

- Consider using Permethrin treated clothing (very new in Canada and only licensed for mosquitos)
- Wear long pants and sleeves; don't allow ticks to get underneath pants (seal off around boots; no open exposure areas)
- If bitten, take the tick off, keep the sample cool and freeze it when you can. There is no guarantee on whether the tick will be tested, and if a Lyme tick carrier, the blood test is unreliable as it tests for a reaction only
- Take all bites seriously and don't dismiss symptoms as flu or fatigue/age aches and pains. The sooner a course of antibiotics is started the better, with a good prognosis for a full recovery. Late intervention creates longer term health challenges. Learn more here: www.CanLyme.org

For all the presentations at the 2018 WFCA, please see:

https://wfca.ca/wsca-annualconference-tradeshow/ conference-2018/



Dean McGeough.

- 3. Conduct tree assessment
- Prescribe appropriate safety management decisions
- 5. Document and communicate safe work procedures.

Dean said that for fire stands, safety risks include roots burned out. Variables include whether it was a high or low intensity fire, burning green or dead wood and if a year has passed since the fire then a winter may well have taken out all the hazards.

With Mountain Pine Beetle killed stands, trends are that in certain areas one is dealing with 20-year old kills (where it started), and as one moves south one is dealing with more recent dead trees and one needs to understand the difference in dealing with new and old kill trees in terms of hazards and risk.

Dean said that stand history and exposure, age and decadence, battered tops, and canopy structure all provided clues to the hazards but that often wind risk was the biggest hazard and there needed to be recognition that a hazard can be the whole stand not just individual trees.

Thinking about drop zones, if the tree does fall, and being 1.5 times the tree length out of those zones is important too, along with possible domino reaction and always knowing the prevailing wind direction.

The first question to ask is: do you really need to go there? Plan for safety. Use the tree assessment process. Know your Wildlife tree objectives and constraints. Have a plan. Check weather forecast before heading out and establish a wind speed shutdown limit. And, don't just consider access and egress; consider where crew camping and parking areas are located; utilize no work zones; document and communicate so everyone is aware of the hazards.

For more information, please see: https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/wildlife/wildlife-habitats/wildlife-tree-committee and for assessor courses please see: https://www.unbc.ca/continuing-studies/courses/wildlife-danger-tree-assessor-certificate-forest-harvesting-and-silviculture-module.

WorkSafeBC's high risk strategy for forest harvesting 2018-2020 focuses on five areas:

falling, hauling, cable yarding, mechanized harvesting and silviculture

WorkSafeBC's 2018-2020 Forestry High Risk Strategy (HRS) is a renewed three-year strategy for prevention activities in harvesting and related operations. The intent of their strategy is to direct focused and impactful inspectional activity in the industry activities that "represent exceptional risk to workers".

These activities typically fall into five areas of timber harvesting:

- · Manual tree falling
- · Log transportation
- Cable yarding
- · Mechanized harvesting
- Silviculture

Silviculture has been included as one of the main focus areas as this sector generates a high volume of serious injuries. In addition, emergency response planning (ERP) has also been identified as a critical target area because of a number of serious ERP failures that have occurred at forestry workplaces.

New: dedicated falling inspection team

(see page 13 to meet the team)

Due to the continuing high injury rate in hand falling, a dedicated inspection team will focus

on employers in this classification unit with high injury rates, a sequence of high risk injuries, and/or poor compliance rates.

Hearing loss prevention, phase congestion and roadside debris will continue to also be integrated into WorkSafeBC officers' inspectional and outreach activities, whenever opportunities arise.

The goals are to continue to raise awareness and promote adherence to best practices and to reduce the serious injury and fatal injury rates in the top risk exposure categories in forestry harvesting.

Industry and Labour Services Manager, Tom Pawlowski, said that given the seasonal nature of forestry work, WorkSafeBC officers in different regions of the province will continue to have the latitude to shift their inspectional focus to reflect seasonal variability.

He said one of the most important things about sustained compliance was that it "requires the commitment and support of on-site employers as well as those parties with higher-level responsibilities related to proper planning and execution of the work. When repeat or high-risk violations occur, officers will review the roles and activities of all worksite parties to ensure their responsibilities are being fulfilled."

Activities (2018–2020)	Details
Inspections: Manual falling	 Falling cuts Danger tree windfall assessment and plans Unnecessary brushing practices New faller training programs, new faller safety, and adherence to training requirements Roadside debris endangering workers Phase congestion
Mechanized harvesting on steep slopes with a specific focus upon tethered and traction assist machinery	 Maintenance work plan and lockout Three-point-contact procedures Steep slope assessment plans Safe operation of traction assist and tethered equipment
Cable yarding	Clearing the turnYarding anglesLanding the log
Log transporting	Driving and road assessment Loading, offloading, and securing of load Best practices for maintenance work (lockout, access, and egress) Cab guards (bull boards) and seat belt use Three-point-contact procedures
Silviculture	ERP elements (as on the next page) Planning and conducting operation Driver training and policies Musculoskeletal injury (MSI) risk assessment MSI program management MSI education of workers



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Activities (2018–2020)	Details
Emergency response planning (ERP)	 First aid assessment Lack of ERP practice and testing Daily plan for helicopter-only access ERP review: ERPs properly communicated to workers and service providers, and routinely practised through realistic emergency drills
Hearing loss	Measure or review noise levels by location and job role, and assess existing mitigation strategies Complete hearing conservation program assessments of existing, new, and young workers to identify exposure areas and risk-control opportunities
Other WorkSafeBC Forestry HRS activities, not related to inspections:	
Faller Technical Advisory Committee (FTAC)	Act as a point of contact on Forestry HRS manual falling elements with FTAC
Resources for industry	Develop and distribute prevention resources designed to create awareness of the Forestry HRS, and awareness and tools for addressing risk and mechanisms of injury in the Forestry HRS focus areas, assisting with compliance with the OHS Regulation
Forest Industry Advisory Group (FIAG)	Facilitate two FIAG meetings in support of Forestry HRS content

Related resources:

- Forestry Steep Slope Logging Checklist: https://www.worksafebc.com/en/resources/ health-safety/checklist/forestry-steep-slope-logging-checklist?lang=en
- Log Transporter Inspection Checklist: https://www.worksafebc.com/en/resources/healthsafety/checklist/log-transporter-inspection-checklist?lang=en
- Forestry High Risk Strategy Compliance Guide: https://www.worksafebc.com/en/ resources/health-safety/books-guides/forestry-high-risk-strategy-complianceguide?lang=en
- Forestry High Risk Strategy overview: https://www.worksafebc.com/en/resources/aboutus/hrs/high-risk-strategy/forestry-overview?lang=en

WorkSafeBC inspection numbers and key findings in 2017

In 2017, WorkSafeBC carried out 2,721 inspections under the Forestry HRS. Out of these, 1,976 were initiating inspections and 745 were follow-up inspections. A total of 2,727 orders were issued, along with nine warning letters and seven penalties.

Some of the most notable deficiencies systemically observed at forestry operations by WorkSafeBC officers included failure to ensure safe operation of machinery and equipment. Deficiencies around overall planning and conducting of a forestry operation in a manner consistent with safe work practices were frequently documented. It was also found that many forestry employers fail to ensure that workers exposed to noise exceeding exposure limits undergo the required annual hearing tests.

WorkSafeBC working on hearing loss challenges in forestry

Work-related hearing loss has been identified as a serious issue in the forestry sector and in response, WorkSafeBC is planning on doing some work on the topic to help shape improved outcomes.

"This summer we plan on hiring a masters level student from the UBC occupational hygiene program to do some field work in this area, such as collecting noise levels and information on prevention programs, and will develop some industry specific resources," said Tom Pawlowski, WorkSafeBC industry and labour services manager.

See WorkSafeBC's Sound Advice: A Guide to Hearing Loss Prevention Programs document (60 pages, published Dec. 2017): https://www.worksafebc.com/en/resources/health-safety/ books-guides/sound-advice-a-guide-to-hearing-conservation-programs?lang=en. @

Manufacturing HRS focuses on seven key areas

According to WorkSafeBC, the injury rate and serious injury rate in the manufacturing sector are above the provincial injury rate, and the risks that drive serious injuries in this sector are highly fragmented. The top 15 general risks represent 56 percent of all the manufacturing claims, and the top risk (caught in or struck by machinery or conveyors) represents 18 percent of all serious injury claims in manufacturing.

Combustible dust, particularly in sawmills and pellet mills, has been a critical issue over the past several years. However, other fire and explosions hazards may also be present in other manufacturing subsectors. Inspections associated with the Manufacturing High Risk Strategy (HRS) will address fire and explosions hazards, including combustible dust, where appropriate.

The 2018 strategy will address the risks of serious injury from these seven strategic focus

MAG's SAFE Companies audit 2018

A project team has been set up to build an audit program tailored to best support wood manufacturing entities that will meet SAFE Companies program requirements. The objective is to secure continuous improvement in the safety programs for members of the Manufacturing Advisory Group (MAG).

The project team has already identified 12 required SAFE Management System elements and 15 additional high risk audit elements. The development of audit protocols is currently underway.

It is expected that the new audit will be piloted later this year. Following feedback and revisions, it is anticipated that the final audit will be ready for broad distribution within the manufacturing sector in 2019.

"This was a request brought forward by MAG members and has overwhelming support from manufacturers. They are committed to ensuring safety is a priority and that they have an audit best suited to appropriately address the risks in a manufacturing environment," said Director of SAFE Companies, Cherie Whelan.

The BC Forest Safety Council became the health and safety association for MAG members on a permanent basis earlier this year, following a trial period. @

- 1. Safeguarding and lockout
- 2. Powered tools
- 3. Hand tools (knives)
- 4. Material handling (falling objects)
- 5. Falls from elevation
- 6. Falls on same level
- 7. Mobile equipment

Additional risk areas include fires and explosions.

WorkSafeBC Officers will focus on the top 15 classification units that are at risk for serious injury, and evaluate whether the employer:

- · Identifies hazards and risks
- Implements effective and compliant controls
- Develops safe work procedures, programs, and policies
- Provides related instruction, training, and supervision
- · Conducts effective inspections
- · Performs effective accident investigations
- Engages the joint health and safety committee or worker health and safety representative.

Manufacturing inspections in 2018		
Inspection-based engagements	 All locations selected will be inspected at least once by their regional officer. The inspection will focus on the serious injury risks from the seven strategic focus areas that are most applicable to each location In addition, all locations will have fire and explosion risks evaluated as a part of the inspection Officers will follow up as needed to assist employers in strengthening their safety management systems to reduce their risks 	
Combustible dust workplace inspections	All sawmills will receive at least one inspection by the combustible dust team officers	
Employer self-evaluations	Locations selected for employer self-evaluations will be engaged by their regional officer starting in Q2 and provided an option to self- evaluate their safety management system in relation to one or more of the serious injury focus areas and their fire and explosion risks	
Safeguarding manual distribution	Distribute the revised safeguarding manual (Safeguarding Machinery and Equipment) to employers and industry groups	
Safeguarding resource development	Develop and distribute machine- and industry-specific safeguarding safety bulletins Facilitate at least two industry workshops on safeguarding and lockout	
Lockout manual revision	Conduct review of current resource and make revisions to support employers in effective lockout	

For more information, please see: https://www.worksafebc.com/en/about-us/what-we-do/high-risk-strategies/manufacturing. https://www.worksafebc.com/en/about-us/what-we-do/high-risk-strategies/manufacturing.

MAG tests its injury and incident analytics tool

The Manufacturing Advisory Group (MAG)'s injury and incident analytics dashboard went live in February 2018, with all members planning to be signed up the beginning of March.

Most MAG members have integrated the new system with their own internal incident reporting systems and/or data submission processes. Confidential data sharing agreements are in place between all the member companies.

Supporting the belief that there is no competition in safety and that everyone benefits from the sharing of incident data that can help improve safe performance, save lives and prevent injuries, this step is significant for the BC sawmill industry.

"We can learn on our own, take longer to do it and potentially miss things, or we can choose to learn from each other's experiences. BC's forestry industry believes it performs best when it shares safety experiences. In sharing both incidents and incident reporting we can do better analysis, spot early trends and potentially take more timely and effective action to anticipate and proactively address issues before they become incidents and injuries," said Rob Moonen, CEO of the BC Forest Safety Council.

"These are the early days of data sharing, but it is something other sectors in industry are exploring as well. Several of the industry safety working groups are working on tailored dashboards for incident data to help support incident data to help support better safety outcomes for all workers and overall improved performance for industry," said Rob.

TLA'S 75th convention and trade show 2018: Steep slopes, climbing higher

For a couple of years now the Truck Loggers Association has included a session at the annual convention and trade show on steep slope harvesting. This year a panel: Tyson Lambert of T-MAR Industries; John Ligtenberg, of WorkSafeBC; Ken Dodd of TimberWest; and moderated by Dzhamal Amishev, of FPInnovations, provided delegates with an on-the-ground perspective of the progress that had been made in BC so far.

Dzhamal said that within the context of known risks and hazards – a very high faller serious injury rate and average age of 58 years – and following the New Zealand (NZ) vision "to have no hand on the chainsaw and no man on the slope", the BC forestry industry had been fast adapters to steep slope machines. He said that there will always be a need for fallers, but in terms of safety, steep slope mechanical harvesting created a safer industry going forward.

Tyson shared his observations from NZ and Chile and the differences between operational machine preferences, emphasizing that "winch assist is going strong and here to stay". He said cameras were certainly a growing trend (they had built 60 so far) and drones were being tested to fly synthetic (as strong as steel) cable faster, safer and more precisely than someone walking the cable out.

John recalled how in August 2013, a licensee approached WorkSafeBC to bring in a piece of equipment from NZ and asked how could they do that? Now there are 40 different manufacturers and models (in less than 5 years in BC.) He said there were 2,000 active fallers in BC with an injury rate of 27.3 compared with the rest of the province rate of 2.21 and a serious injury rate of 11.2. Claims costs for fallers totalled more than \$100 million in the past 15 years. He shared the regulatory framework currently in place that applied to steep slope mechanized harvesting and said to date, the issues they had seen in field related most often to rigging. He said there was recognition that planning and designing blocks needed to also be done slightly differently, but it was the rigging that was really important. A few previous quarding issues had been satisfactorily resolved. He did caution that we still don't have all the answers yet and more work and experience would help inform the best practices for rub trees/catching (we don't know how it impacts tension monitoring); adequate planning and best management practices; anchor stump selection; and, training and operator availability, as well as specific standards for both traction assist (the cable only assists and the machine can work safely without the cable) versus tethered machines (where the machine's stability relies on the cable). "We do need standards for both systems," said John. Other areas of learning include cable tensions and shock loading; 6-point harness and ergonomics impacts (pressure points are currently being worked on) and impacts of used equipment purchases where there will be a gap to fill if operators do not receive new machine manufacturer training, for example.

Continued on page 8...



Continued from page 7...

The good news is, the identified gaps are all being worked on with many resources either in final development or in progress, for example, checklists from WorkSafeBC and best practice manuals from FPInnovations.

Current resources include:

WorkSafeBC's traction-assist logging equipment inspections checklist: https:// www.worksafebc.com/en/resources/healthsafety/checklist/traction-assist-loggingequipment-inspection-checklist?lang=en; FPInnovations' steep slope materials: http:// steepslopeinitiative.fpinnovations.ca/ best-management-practices/guides/; and BCFSC's steep slope logging resource package: https://www.bcforestsafe.org/ node/1938.

Ken said that in 18 months, TimberWest had gone from one to 10 machines on the land base. He said that the tethered machines from a health and safety perspective were significant – taking people off the hill and putting them in a machine. He said that seven of their contractors are running four different systems and there were good reasons for running each of them. He said some of the operating consistencies across all systems include: rocks are to be avoided; road to road is desirable; decking is critical; uniform slopes (no undulating valleys) are necessary for optimal performance; and use of LIDAR important to identify and plan accordingly. He said falling was not going to be eliminated and "the interface must be managed really well because one can create far more difficulties for fallers if not done well."

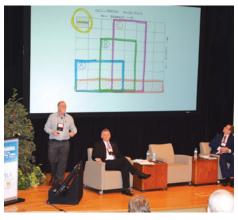
Questions from the audience included need for specific shutdown regulations for rainfall stability (right now best practice is site by site and high degree of variability); absence of seeing any safety alerts in three years from 40 machines in operation - does it mean incidents aren't happening or people just aren't talking about them? What about learning and sharing? Panel members said they were not seeing incidents in field; and, WorkSafeBC is not seeing them.



The Steep Slopes – Climbing Higher panel at the 2018 TLA annual conference and trade show in Victoria earlier this year.

TLA'S 75th convention and trade show 2018:

Who is going to do the work?



A panel moderated by Vancouver Island University's Paul Mottershead discussed the future forestry labour force. BC Forest Safety Council (BCFSC)'s Director of Training and Program Development, Russel Robertson (standing), explained the development of the organization's virtual Forestry Learning Centre, built on the concept of competency-based training, with each occupation in forestry sharing one band of common competencies (bottom row of the graphic in the photo).

The BC Forest Safety Council's Training and Program Development Director, Russel Robertson, explained why industry had chosen to support a competency-based training system.

He said work had been completed on approximately 35 occupations - that is the initial competency guidelines and assessment tools, and that work would be underway in 2018 to complete the training resources for each of these occupations, subject to government funding. He said the system allows for the maximum transferability of skills and training across occupations, ensuring forestry has safe, qualified workers for the future who have been trained within a defensible system that can prove trainers and assessors are qualified and that participants have appropriately proven their knowledge

He said contractors were needed to test some of the learning resource materials in field for all of the occupations and anyone interested should contact him at toll-free 1-877-741-1060 or email training@ bcforestsafe.org.

TLA'S 75th convention and trade show 2018:

Where is our safety net?

In a safety session, moderated by the BC Forest Safety Council CEO, Rob Moonen, panelists Miles Randell, of Technical Evacuation Advanced Aero Medical (TEAAM); Roger Harris, BC Forest Safety Ombudsman; and Murray Ritchie. of the First Nations Safety Council of BC. discussed several topical issues including worksite helicopter evacuations; phase congestion safety challenges and aligning the relatively new (established 2015) First Nations Safety Council with First Nations culture and traditions to best support Occupational Health and Safety.

Murray shared that the biggest challenges his organization sees are around prime contractor and phase integration/congestion. On the latter, he said First Nations take it a step further in that their forestry operations not only interact with other logging phases but also with traditional harvesting of food, medicines and traditional living on the same land.

Roger spoke about some of his preliminary observations around phase integration or congestion, saying he was close to finalizing his report which he had done at the request of the BC Forest Safety Council to independently assess the current status for industry.

Miles shared his vision for better supporting workers and anyone else in remote locations get better access to emergency helicopter medical support (see page 3 as he presented on the same topic to the Western Forestry Contractors' Association).

Minister's safety moment

"Last but not least: remember to be safe out there – you and your employees,"

said Minister of Forests, Lands, Natural Resource Operations and Rural Development, Doug Donaldson, as he closed his remarks at his first TLA breakfast presentation.

Prevent seacans used in forestry operations from exploding!



Earlier this year, there was an explosion which seriously injured a person inside a shipping container. As forestry operations sometimes use shipping containers (seacans) for storage, offices or workshops, it is important to be aware of the hazards. Please see the WorkSafeBC bulletin on preventing explosions in shipping containers: https://www.worksafebc.com/en/resources/health-safety/hazard-alerts/preventing-explosions-shipping-containers (published Jan. 2018) and a video: https://www.youtube.com/watch?y=U2GYL95FL3c.

Silviculture companies to pilot new app this year for health and safety reporting



A recent meeting of the BC Safe Forestry Program, Strategic Advisory Committee, and guests held in Kelowna earlier this year.

What's in an app? Potentially a whole lot of benefits including time saved reporting, robust analytical tools, and an ability to take the pulse of the silviculture industry's incidents in real time.

Starting this month, thanks to an initiative by the BC Safe Forestry Program, Strategic Advisory Committee, silviculture companies are going to be part of a pilot program to test the ease of use and effectiveness of electronic forms to record injury incidents, investigations and corrective actions.

The ultimate goal of the program is to provide the BC silviculture industry with advanced electronic forms to enhance safety performance. The application is intended to reduce administration, standardise data collection and give participating companies the ability to effectively analyze safety data, and identify areas for improvement to help inform appropriate responses to reduce injuries and incidents. Users will be able to record incidents, investigations and corrective actions on a mobile device.

Recognizing that contractors have a myriad of forms they must fill out when an incident occurs, the project design group's guiding principle is "once only" so that there is one sector-standardized submission process to different licensees and/or WorkSafeBC.

Participating companies remain in control of their data. It is never sent or shared with a licensee, client or WorkSafeBC without the company initiating the transfer.

"We're rolling the app out to a pilot group because we want the forms to work well for all silviculture users. With feedback on usability and performance, particularly in the field, we will be able to create a final product that will meet our sector's needs and be well adopted by the wider Western Forestry Contractors' Association membership," said Robin McCullough, Chair, BC Safe Forestry Program, Strategic Advisory Committee and Brinkman & Associates Reforestation's Occupational Health and Safety Coordinator.



Dave Lehane is new BCFSC Chair

The Board of Directors of the BC Forest Safety Council (BCFSC) is pleased to announce that Dave Lehane has been appointed Chair of the BCFSC, effective March 22, 2018. Dave takes over from Ken Higginbotham, who retired at the end of 2017.

"I am looking forward to supporting both the BCFSC and industry as we work towards the elimination of work-related deaths and serious injuries. We have an obligation to ensure that all forest workers return home safely each day," said Dave. "I believe our industry has an exciting future, built firmly on the cornerstone of safe and healthy workplaces."

Dave retired from the forest industry in 2016, with more than 35 years of diverse experience. From the woods to the mill floor and the boardroom, Dave's experience includes reforestation, harvesting, mill management, fibre supply, government and community relations.

He has held a number senior executive positions including Vice-President of Woodlands for West Fraser and Vice-President of Alberta Operations for Weldwood of Canada. Earlier in his career, he held senior management positions including Woodlands Manager, General Manager and Operations Manager.

He has worked in British Columbia, Alberta and the south-east United States. Dave holds a Bachelor of Science in Forestry and a Masters of Business Administration in International Business.

New Health & Safety section in Tree Frog Forestry News





Screenshots of a recent edition of Tree Frog Forestry News, a daily email service, and the recently introduced "Health & Safety" section.

The BC Forest Safety Council is pleased to have partnered with Tree Frog Forestry News to introduce a new "Health and Safety" section to help ensure that relevant safety topics stay top of mind with the broadest possible BC forest industry audience. The daily email service covers all topics relevant to the forestry industry from the latest innovation to climate change, company performance, trade, labour, and conferences, etc. – a one-stop shop for all news relevant to the forest industry especially in BC and the greater Pacific North West.

Tree Frog Forestry News has 34,000 unique visitors each month, 72% of whom (in 2017) were from western Canada, 10% from eastern Canada, 12% the USA and 6% international. Readers are from forestry product companies, logging and forestry companies, consulting firms, industry associations, research and education sectors, government and other groups.

Please sign up here for your free subscription to this comprehensive forestry news service: https://www.treefrogcreative.ca/news/subscribe/ and be sure to share with colleagues.



Work-Related Deaths & Injuries

One direct harvesting, no manufacturing work-related deaths in 2018 year-to-date

- · Log truck driver died near Fort St. James
- · Two harvesting associated deaths
- One forestry worker died on way to work

There has been one direct harvesting work-related death in 2018 year-to-date (as at March 14, 2018). There have been three other deaths: two associated (members of the public) and a death of a forestry worker while he was driving to work at about 4:30 am.

Direct harvesting work-related death

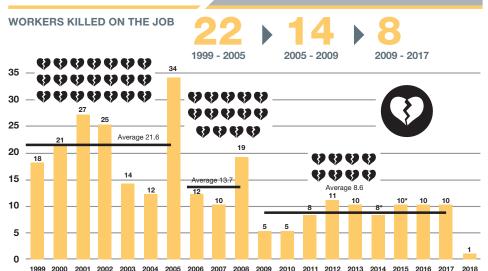
March 7, 2018: A log truck driver died after logs shifted into the cab when his log truck left the 100 Forest Service Road north of Fort St. James around 6 am and went down a 15-foot embankment. See the safety alert: https://www.bcforestsafe.org/node/3087 and media coverage: http://cfjctoday.com/article/611787/merritt-mankilled-logging-truck-crash and http://www.princegeorgecitizen.com/news/local-news/logging-truck-driver-killed-north-of-fort-st-james-1.23194861.

Associated deaths

In the first associated death incident, a logging truck in the passing lane was overtaking a semi, clipped the semi, and swung across highway 97. A member of the public died and a youth was injured; both were in a passenger vehicle travelling in the opposite direction. Media coverage included: http://www.cbc.ca/news/canada/britishcolumbia/lac-la-hache-accident-1.4483635; https://www.bclocalnews.com/news/ logging-truck-jack-knifed-in-fatal-highway-97-crash/: https://www.castanet.net/news/ BC/216050/Killed-in-truck-crash; http:// cfjctoday.com/article/604674/rcmp-releasedetails-fatal-highway-crash and https:// www.wltribune.com/news/motorist-killedafter-logging-truck-jack-knifes-near-lac-lahache/

In the second associated death incident, according to police, at approximately 7 p.m. near the 100-km mark of Hwy 16, an eastbound empty logging truck struck a moose before losing control and colliding

WORK-RELATED DEATH CLAIMS



The data (above) for 2016 is based on WorkSafeBC accepted claims and incidents that the BCFSC is aware of that happened in 2016. Please note that this is preliminary harvesting data. *There were 4 fatalities the BCFSC is aware of that occurred in 2014 and 8 fatalities that occurred in 2015. WorkSafeBC tracks fatalities by the year in which they accept the claim. The BCFSC uses the WorkSafeBC data of accepted claims for trends as it is the only long-term data base for comparative purposes.

with a federal government SUV travelling in the opposite direction. The victim, a passenger in the vehicle, died at the scene. Media coverage included: https://www.bclocalnews.com/news/update-prince-rupert-woman-killed-in-logging-truck-collision/.

Drive to work death

In the drive to work incident, a forestry worker in his 30s lost his life while driving to work on Vancouver Island on Highway 19. Black ice road conditions were being considered as a factor: https://www.cheknews.ca/fatal-single-vehicle-rollover-near-black-creek-thursday-morning-424210/. In the news clip, the North Oyster fire chief reminds everyone to slow down. Even with their lights and sirens going to get to the incident site at 4:30 am, vehicles were passing them on the highway, driving too fast for iced road conditions.



Forest Safety News extends sincere condolences to the family, friends and

colleagues of the deceased and our thoughts are with first responders and others directly affected by all of these incidents.

Safe driving tips include:

- · always drive for the road conditions
- reduce speed when road conditions and/or visibility are not ideal
- · wear your seatbelt
- give yourself extra time and space in winter/spring ice conditions
- dusk and dawn can be peak times for wildlife; and, they are harder to see in reduced light
- secure loads and secure loose items inside the cab/vehicle
- · leave the phone alone
- slow down; better late than never.

Other (plywood) forest product manufacturing death

We learn not only from our own industry incidents but from related industry incidents. Here is a recent fatality alert about a plywood plant worker who was responding to a small fire when he came into contact with running equipment that had not been locked out: http://www.bcforestsafe.org/node/3062.

Recent work-related incidents reported to WorkSafeBC

HARVESTING

Injury Type: Fractured arm

Core Activity: Manual tree falling and bucking Location: Vancouver Island/Coastal B.C.

Date of Incident: 2018-Feb

A faller had just finished a backcut and was moving along the escape trail to a safe location when a tree limb (20 feet by 3 inches) fell and struck him. The faller was transported to hospital by a crew boat, then a company vehicle.

Injury Type: Undetermined internal and head

injuries

Core Activity: Dry land sort Location: Vancouver Island/Coastal B.C. Date of Incident: 2018-Feb

A front-end loader was carrying a metal sweep for cleaning debris on a dry land sort. The metal sweep fell from the loader's forks to the ground. The loader's front tires rolled over the sweep, causing jarring movement of the loader. The operator, who was not wearing a seat belt, was injured.

Injury Type: Crush injuries

Core Activity: Integrated forest management

Location: Northern B.C. Date of Incident: 2018-Jan

A worker was checking the operation of the motor on a feller-buncher. The engine compartment hood (weighing about 1,000 pounds) fell, striking the worker and trapping the worker between the hood and the top of the engine. The worker was treated on site by a Level 3 first aid attendant, then transported by ETV and ambulance to hospital.

Injury Type: Close call Core Activity: Log hauling

Location: Vancouver Island/Coastal B.C.

Date of Incident: 2018-Jan

A worker operating a self-loading logging truck unloaded logs at a mill. The worker then left the mill with the self-loader in the fully upright position. The self-loader contacted 25 kV overhead power lines and pulled the lines, transformer, and power pole onto the truck. The worker stayed in the truck's cab until the lines were grounded and a representative of the electrical utility instructed the worker to exit the truck.

Injury Type: Fractured leg

Core Activity: Mechanized tree falling

Location: Lower Mainland Date of Incident: 2018-Jan

A worker performing maintenance on a fellerbuncher fell from the track of the machine to the around.

Injury Type: Fractured vertebrae

Core Activity: Manual tree falling and bucking Location: Vancouver Island/Coastal B.C.

Date of Incident: 2017-Dec

A faller was hand-falling old-growth trees. The faller was struck by a top portion of a small-diameter tree that had been brushed and broken off its base by adjacent falling activities. The faller was attended to by a level 3 first aid attendant, then transported to hospital by helicopter.

MANUFACTURING

Injury Type: Fatal

Core Activity: Veneer or plywood

manufacture

Location: Lower Mainland Date of Incident: 2018-Jan

A worker removed a metal panel while responding to a fire in a wood chipper. The panel struck and fatally injured the worker.

Injury Type: Injury to hand Core Activity: Sawmill Location: Lower Mainland Date of Incident: 2018-Jan

A worker was dressing the upper flywheel of a band saw with a fixed grinder. The worker's gloved hand was pulled between the grinding wheel and the flywheel by the grinding wheel.

Injury Type: Amputated fingers Core Activity: Shake or shingle mill **Location:** Lower Mainland

Date of Incident: 2017-Dec

As a worker tried to adjust the guide on an automatic shake resaw, his sleeve became entangled in a rotating shaft. This resulted in his hand being drawn into the shaft. As he tried to pull his arm away, his other hand was also drawn into the shaft.

Injury Type: Amputated finger Core Activity: Sawmill

Location: Vancouver Island/Coastal B.C.

Date of Incident: 2017-Dec

A new worker was clearing debris from the blade area of an up-cut circular trim saw when one of the worker's fingers was injured. 🐠

April 28: **Day of Mourning**



You may order these stickers by completing the order form: http://www. bcforestsafe.org/files/ps_ InjuryPreventionResource OrderForm.pdf

Each year, we remember those who go to work and never return home.

In the weeks coming up to Canada's national day of mourning on April 28, 2018, may each of us take a moment to not only remember all our fallen colleagues but to also focus on one thing that we know we can do, or do better, or, more consistently to help improve our own safety and those around us. May each of us always find the time, the patience, the caring and the courage to do whatever we must do, each and every day, to be safe, stay safe, and create safe places at work for ourselves, our colleagues and our industry.

For more information about local Day of Mourning events being planned in your area – or to list an event you plan on holding - please see: http://www.dayofmourning.bc.ca/. To order the posters and decals (below), please see: http://www.dayofmourning.bc.ca/ decals/







Faller supervisor training delivered to Tl'azt'en First Nation

Nine members of the Tl'azt'en Nation near Fort St. James, BC completed a week of Falling Supervisor Training earlier this year (Jan. 22-26), hosted by BC Forest Safety Council Falling Safety Advisors Jeff Mackenzie and David Adshead.

The session was scheduled at the request of Tl'azt'en Nation to enhance the knowledge of their supervisors in supporting workers active in brushing and fall and burn activities.











The five day falling supervisor training course combines classroom and in-field experience to ensure that supervisors have the best mix of skills to become knowledgeable, trusted supervisors who support safety.



Rushton named lead falling safety advisor

Scott Ruston. Lead Falling Safety Advisor.

Scott Rushton, Certified Faller, QST, Certified Falling Supervisor, has been appointed Lead Falling Safety Advisor at the BC Forest Safety Council (BCFSC), effective January 29th. In his new role, Scott will liaise and work with the falling community and various stakeholders on injury prevention initiatives and inquiries.

He will ensure the BCFSC continues to provide a high level of support to industry for falling programs and services until a decision is made on the Falling Manager position that remains vacant. Scott will also lead and provide oversight for all the falling programs and ensure that high standards are maintained for faller and faller supervisor certification activities and related processes. He will also play a larger supporting role to the Falling Technical Advisory Committee going

Scott started out in forestry more than 30 years ago as a chokerman, landing man in 1985 with Dougan Logging before moving onto MacMillan

Bloedel / Weyerhaeuser where he was chokerman, landing man, hooktender boom man, hoe operator and faller from 1988 to 2004. From 2004 to 2015 he was a faller / falling supervisor starting with Vernon Ridge Holdings (2004-2006), then Antler Creek Logging (2006-2012) and Black Summit Falling (2012-2015). Scott joined the BCFSC in 2015 as a Falling Safety Advisor.

"I look forward to expanding my role and continuing to support fallers and industry in keeping all fallers safe. We have come a long way but have further to go," said Scott. "I would like to remind all fallers that no safety concern is too small. We are here to help and support fallers in every safety matter - confidentially, and focused on outcomes we can all feel good about. I really encourage fallers and supervisors to also call me and share their ideas on ways to improve our processes."

You may reach Scott toll-free at 1-877-741-1060 (you will be connected to his cell) or direct cell **250-735-2850** and email srushton@bcforestsafe.org @

Falling department activities year-to-date

As at March 2, 2018, falling safety advisors had completed the following in-field activities:

- 1 Faller Certification (challenge)
- 65 Faller visits
- 3 CFS quality assurance visits
- 4 CFS visits

(Note: this summary does not include requested and regularly scheduled training that the falling safety advisors may host or support.) 🔑

REMINDER: Faller and falling supervisor forms updated

FTAC would like to highlight that some trainees who took the falling supervisor training course in the past might not be aware of updates to the forms, and could be using forms that were out of date.

To that end, last month (March 2018) an email was sent by the BCFSC training department to all participants who had previously taken the falling supervisor course. If anyone missed the email, please bookmark this link, as at any time, the current forms may be found here: http://www.bcforestsafe.org/safety_info/ forms_templates/fallers.html @

WorkSafeBC introduces its falling team to industry

At the Falling Technical Advisory Committee (FTAC) meeting on March 2, 2018,

WorkSafeBC introduced the members of its newly formed Forestry High Risk Strategy falling team. The value of a dedicated falling team was recognized when faller certification was first introduced, and finally, with a lot of credit to Terry for running with it, the team will start visits on April 4, 2018.

All the officer members of the team are certified fallers and have many years of production falling between them, across the province. They are all passionate about faller safety.

The key goal and focus of WorkSafeBC's high risk strategy is to reduce serious injuries and fatalities in the top risk activities in forestry harvesting which includes manual tree falling. (See page 5 for more information on the other activities.) In 2017. manual tree falling and bucking generated 452 WorkSafeBC inspection reports, with the top two regulation subsections cited being OHS7.8 (69 reports) and OHS26.24 (40 reports). See the chart below for more information on the top 10 regulation subsections cited.

2017 Manual **Tree Falling** and Bucking

Inspection Reports CU 7030013

CO 7030013	
Number of Reports	
382	
70	
452	

Top 10 Regulation **Subsections Cited**

Order Cited	Written
OHS7.8	69
OHS26.24	40
OHS8.25	16
OHS26.2	11
OHS3.16	10
OHS26.26	6
OHS8.12	4
OHS4.3	4
OHS3.15	4
OHS26.65	4
All Others	47
Total:	215

According to WorkSafeBC there are 4,514 employers in BC's forestry sector, with an estimated 18,522 workers; an overall injury rate of 5.2 and a serious injury rate of 1.3 (2016 numbers). The team's mandate is for three-vears and the success of the team will be measured against how they can best assist industry moving the hand falling CU that has the highest provincial injury rate in 2016 of 27.3 and a serious injury rate of 11.2 down significantly. In the past 15 years, WorkSafeBC claims costs for hand falling has exceed \$100 million.

The team shared some recent examples of inspection reports and the top 10 regulation subsections cited in those reports. An example of an OHS26.24 observation from an actual inspection report: "When falling a tree, the worker did not ensure that the undercut was complete and cleaned out. As evidenced by: there were several stumps with dutchman's observed at the worksite."

In 2018, the inspectional focus by WorkSafeBC for manual fallers will be as follows:

- 1. Falling cuts
- Danger tree and windfall assessment and plans
- 3. Unnecessary brushing practices
- 4. New faller training locations
- 5. Roadside debris endangering workers

The four OSOs will have the following geographic area of responsibility:

Dave Bedard, Certified Faller, QST, Forestry OSO - Southern Interior/Vancouver Island/ South and Central Coast

Chris Miller, Certified Faller, OSO – Lower Mainland/Vancouver Island/South and Central Coast

Dean Redknap, Certified Faller, Forestry OSO - Thompson Okanagan/Central Interior/Wildfire

Kevin Legros, Certified Faller, Forestry OSO – Northern Interior/Haida Gwaii/North Coast/Oil & Gas

Terry Anonson, Team Lead, Provincial and Budd Phillips, Manager of Interest, Provincial.

Their focus will be on inspecting, consulting, educating, auditing, and enforcing handfalling employers, Prime Contractors and land owners.

One of the roles of the task team is to also support other OSOs by mentoring and supporting new and existing officers to promote improved, consistent knowledge and application across BC.

"Our sole purpose is to reduce the injury rate," explained Terry Anonson, WorkSafeBC's Falling Team Lead.

"We are still going to have regular officers doing their regular visits; but part of the role of the team members is engagement. We want to have a dialogue and receive feedback from fallers and industry," said Budd Phillips, WorkSafeBC's Provincial Manager of Interest. "We put together the plan and are now going to be putting boots on the ground to implement. We want to measure quality not quantity. The team will spend the time with the employers, the workers and managements to bring change to sustainable compliance. When we leave we want you to be able to sustain that compliance over time, then we have a greater appreciation that you are managing risk appropriately and looking after your people," Budd said.

What will be different is the falling team members will be spending a lot more time (up to a week) doing a much deeper level of inspection, not just writing up an order, but understanding the issues and factors that affect the faller - looking at every element from the top down and the bottom



The WorkSafeBC falling team members are (from left) Terry Anonson, Provincial Team Lead; Kevin Legros, Certified Faller, Forestry OSO (and a former FTAC member); Dean Redknap, Certified Faller, Forestry OSO; Chris Miller, Certified Faller, Forestry OSO and Budd Phillips, Provincial Manager of Interest for falling and forestry. Missing is Dave Bedard, Certified Faller, Forestry OSO.

up including the faller, faller supervision, contractor, prime contractor and land owner.

Terry committed to FTAC that he will report back regularly to the group on what the team finds in the field and that WorkSafeBC is looking for feedback too after team members have visited falling operations.

FTAC members to review the competency based new faller learning resources

At the March 2018 Falling Technical Advisory Committee (FTAC) meeting, a number of members expressed concern that FTAC had not yet had the opportunity to review the new faller learning resources that will be used for the pilot phase of the program.

Following the meeting, the BCFSC explored how to put a controlled review in place to allow for FTAC members to review all the content concurrent to the pilot phase and how to effectively manage any feedback that might result during that broader review. To that end, three FTAC members have volunteered (who are not already involved in the development) to review and share their feedback. This feedback will be incorporated along with the feedback received during the pilot phase prior to submitting to WorkSafeBC for final approval in the fall of 2018. WorkSafeBC has reviewed the learning resources and provided approval to the BCFSC to pilot them.

"At the end of the day, this is FTAC's direction. so they must feel 100% comfortable with the process and the final product," said Rob Moonen, BCFSC CEO. "We are all focused on one thing – achieving the best learning resources for faller trainees who will be the future BC falling profession. We want them to have the best learning experience along with the best safety outcomes," said Rob. "It's important to get this right for everyone." (



Talkin' SAFEty with Mike Sexton:

Why do you keep asking me those two questions on the audit?



Mike Sexton, senior safety advisor.

There are two questions (different versions for different sizes of companies) that we get asked most about when companies complete their annual audit submissions. The first question is:

13. What is the most important hazard in your company? Why?" (ISEBASE/SEBASE companies)

or

8. What is the most important hazard in your job? (IOO companies)

There are two reasons for this question: Firstly, we want all companies to ponder for a bit on what might get them or their workers out there. Unfortunately, we can't prepare for a hazard if we have no idea it is there. Secondly, we want to hear from you as much as we can to help shape better safety outcomes.

The second question is:

14. What could your company be doing to help further reduce industry fatalities and serious injuries? (ISEBASE/SEBASE companies)

or

What could you be doing to help further reduce fatalities and serious injuries? (IOO companies)

This question is sometimes interpreted as "What can you do to save the world?" Well, it's not the world, but it is everyone in your world. If you can keep yourself safe, that is the first step. Helping less experienced people recognize hazards, or be more prepared for hazards, is always a good thing. If everyone does their part for a SAFE and productive workplace, everybody wins.

What good do the answers to this question do?

Well, to be honest, we've been asked that a lot. As reviewers of audits, Safety Advisors read all the answers in the audit and discuss them internally at weekly meetings. This

feedback helps keep the BC Forest Safety Council up to date with the realities and challenges that workers, contractors and companies are facing each day. We also (while protecting the privacy of individuals and companies) share some of the general or trending examples during future site visits to help shape possible solutions to safety challenges or create increased awareness of specific operational safety issues.

Recently, we decided it would be good for us to also regularly share a selection of audit question answers back directly with industry. Here are some recent examples:

- 13. Industry hours and changing site and upset conditions are likely the largest hazard contributing to most injuries in our industry additionally complacency and rushing can be significant contributors.
- **13.** Working in remote locations because communication, transport and access may prohibit or delay emergency aid when necessary.
- 13. Slips and falls is the single biggest hazard facing our drivers. Normal job routines like getting in/out of the cab, climbing up/down from the loader and just walking around on slippery uneven road surfaces carry hazards that require drivers to maintain 'mind on task' at all times. The hazard increases significantly when drivers are working in mud or winter conditions.
- 13. The different sites we visit are our company's most important hazard. We are always changing worksites and as contractors we have a responsibility to understand the individual sites safety program and emergency response. We are ultimately responsible for ourselves, but we need to understand how to summon first aid quickly and work in a manner that we are aware of all the hazards around us.
- 13. The complete lack of consequences for any unsafe driving behaviour. Over the last 8 years I've seen the most aggressive and unsafe driving of my 24 year career and have not even heard of contractor or driver held accountable for their behaviour.

13/8. The roads.

13. Always steep and icy roads, excessive grades with switchbacks with little to no maintenance. Focusing on more regulation and paperwork like this when the major licensees are not made accountable.

- 13. Our biggest hazard is resource road construction. Many roads are old and not built for tri-drive trucks and b-train log trailer or tri-axle lowbeds. Many roads in this area are not driveable when it rains because of surface material.
- **14.** Ensuring all individuals onsite are competent for their tasks hiring, onboarding, training, assessing. Creating a dialogue with crew rather than telling them what to do.
- **14.** Continue to vocalize with the tenure holders about the issues surrounding industry work hours, scale hours, financial constraints and decreasing wood and site conditions.
- 14. The reinforcement of a safety culture with both new (young) and veteran employees. The continual improvement cycle and mentoring of younger and new employees by seasoned staff. Periodic refresher training for all employees to aid in emphasizing the hazards and risks workers are exposed to on a daily basis. Unsafe is unacceptable.
- 14. Always promote a culture of safety in our encounters with other people in the industry. Report accidents or incidents that could cause harm to other workers in the industry. Always follow Safe Reliable Methods where known hazards exist. Where a unique SRM is developed then share that with other workers in the industry. Be aware of current developments regarding safety and use that information to keep Safety Plan current. Follow the procedures in the Safety Plan!
- **14.** Reporting close calls on road with logging trucks report to forestry Co.
- 14. I try to explain that overloading and speeding just to make to (blank) rate is unacceptable. But most refuse to listen so they break their trucks and some crash just so they can make the most money possible.
- 14/9. Stop work.
- 14. Promoting safety to workers and to other contractors and clients is one way of helping reduce fatalities and injuries. By following a good safety plan a company or individual can at least maybe have a chance at not causing any serious injuries or fatalities.
- **14.** Take time and listen to our workers on an individual basis.
- 14. We are very selective who we hire, we don't want seat fillers. We are very proud of our crew and their commitment to safety. We maintain our equipment and make sure our drives have the tools needed to do their job safely.

So please keep answering the questions fully because your input does directly help shape better awareness. Hazard awareness is the first step to effective hazard control. Please don't hesitate to talk about hazards, especially if you're not sure. If you have any questions about our services or your audit, please contact any Safety Advisor at toll-free 1-800-741-1060 or 250-741-1060. Safety is

good business! 🌑

Want to change your company's audit due date?

Each year a few small SAFE Companies request a change to their audit due date. Why? Because it just fits better with their work schedules, their peak production times, or their operational flow.

The good news is, it's really easy to change your audit date provided you follow a couple of simple rules. You may change your regular audit date by submitting a recertification audit at the time of your choosing in 2018 as long as there is at least six months between your 2017 audit submission date and your 2018 submission date the date when you upload your audit, email it or ship it (post-marked date).

Regardless of when your audit is due, that date must be when your company and WorkSafeBC account are both active. Keep in mind December is the month when the BC Forest Safety Council receives the highest number of audits. The one month that is not recommended is January, simply because companies would be using content that is from the previous calendar year rather than the current year.

You may upload your audit directly on our website: http://app.bcforestsafe.org/ upload/. If you need to submit a paper copy, we have to scan each page on receipt so please send loose papers without staples, binding, glue or plastic sleeves. And, if you have any questions, please call SAFE Companies toll-free at 1-877-741-1060 or email safeco@bcforestsafe.org.

BASE companies:

Choosing an internal or external auditor in a maintenance year

In maintenance years, any BASE company has a choice to use either an internal or an external BASE auditor. The decision should be looked at each year as there is no answer that is always best for any company. Every company's situation is different, and things may change year to year.

External auditors offer a wealth of independent experience, while internal auditors are far more readily available. Internal auditors know the company inside-out, but external auditors take far fewer hours of company labour.

Major considerations include:

	Internal Auditor	External Auditor
Pros	 Readily available Reasonably flexible with timing and scheduling Really knows the company system and its issues from the inside Recommendations usually can include personnel and timing commitments 	 The least interruption of the company's work The least time spent by the safety person/department Fresh eyes looking for ways to help reduce risk Experienced safety professional
Cons	 Estimated minimum 80 hours away from regular duties for the auditor per year. Does the company have that time? Each interview usually takes longer because auditing is not an internal auditor's everyday job and are generally less proficient Complacency – they may not see some issues as important Variable experience and quality 	 Auditor fees Requires scheduling well in advance Recommendations usually don't include personnel and timing suggestions If done by an external auditor, any internal auditor does not get to count the audit as 1 of their required 2 audits every 3 years

Revised Internal and External BASE 4 auditor training



By Martin Ridgway, CRSP, senior safety advisor.

A revised BASE auditor training program is being piloted by the BC Forest Safety Council, in response to feedback received from course participants.

After completing the BASE 4 auditor training course, some trainees said it was too expensive, took them away from their companies for too long to attend classroom sessions, and did not adequately prepare them to perform a full BASE audit to the necessary standards.

To address these concerns, the delivery model is changing to be mostly online, with classroom work reduced to one day focusing on interviewing and audit preparation. We are also changing to a competency-based model that teaches and evaluates specific skills and knowledge that an auditor needs in order to be successful. Competency is a yes/no system rather than '80% is good enough'. In the same way that it is unacceptable for a pilot not to pass the key skill of 'landing a plane', auditors need to pass all their key skills to be effective.

To determine the skills and knowledge that an auditor needs to have in order to be successful, we worked with a competency specialist and a panel of internal and external BASE auditors last fall for two days to develop an Occupational Analysis Chart for BASE auditing. The panel included both experienced auditors with a perspective on long-term success and newer auditors for an outlook on how the current course was preparing them.

A total of seven units of competency were developed out of this information, six about auditing and one about quality assurance on auditors. These units contain the mandatory items that each auditor must know and be able to demonstrate in order to be successful, for example, planning site and interview sampling; interview skills; and, report writing.

Competency-based training has several standard components. One component is a competency conversation, which is similar

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to an oral test or interview. We will be having a competency conversation twice with each student. Once, at the beginning of the process to determine if the student can be granted equivalence for any of the units and once at the end to ensure that the student learned all the necessary knowledge items. As with most courses, the online units will have quizzes throughout to help the student succeed. The in-person day will also give the student practice and evaluation time with a focus on interviewing – a key skill that was not well covered previously.

After the final competency conversation is successfully concluded, the student auditor will then perform a student audit, just as they do currently. However, the instructor or another BCFSC Safety Advisor will shadow the student for at least one day for assistance, coaching and evaluation.

A course description and application process for internal or external BASE auditors: http://bcforestsafe.org/training/ safe_companies/internal_auditors.html

http://bcforestsafe.org/training/safe_ companies/external auditors.html

While the online and classroom sessions are the same for internal and external auditors, the evaluation standards are higher for external auditors and the experience required to qualify for the external auditor course is higher.

If you have further questions please contact me at toll-free 1-877-741-1060 or email ridgway@bcforestsafe.org

SAFE audit submissions

at the ILA in Kamloops: May 3-5

SAFE Companies in the greater Kamloops area are invited to submit their audit in person. This enables you to have your audit reviewed by a safety advisor, get your results right away, and ask any questions you might have. The audit review process takes about half an hour to 45 minutes, depending on company size and/or how many topics you'd like to discuss or ask questions about.

To book an appointment, please contact Clare Craig at craig@bcforestsafe.org or call toll-free 1-877-741-1060.

Annual real-time SAFE audit reviews for Weyerhaeuser contractors in Princeton



Christopher Pemberton (left) of Corvid Consulting talks with Martin Ridgway, BCFSC senior safety advisor, during his company's audit review at Weyerhaeuser offices in Princeton (photo by Clare Craig).

One of the services that SAFE Companies provides is Real Time Reviews. This is where safety advisors and an admin staff person travel to wherever a group of companies are working together so that we can review their annual audits in real time, face-to-face. Often the area licensee hosts the review space. This interaction gives the contractor an opportunity to speak directly to a safety advisor so that they can get instant feedback on their safety management system. This is an excellent opportunity for our safety advisors to provide support to the contractors on how to make improvements to their safety management systems.

It is also a great opportunity for the licensee to show that they want to help support their Contractors' Safety Management and SAFE Companies audit submission requirements.

In late February, SAFE Companies visited Weyerhaeuser and their contractors in Penticton and Princeton for real time review sessions in the office and in-site field visits. Nearly 40 audits and three days of field visits were completed, with positive reviews. Several companies stated that they had made changes in how they did safety based on the audit feedback. The field portion also acted as a catalyst for solving a safety and operational problem that came to light while a safety advisor was present.

We are very interested in working with licensees or larger Prime Contractors to arrange similar sessions. If you are interested, please call our office toll-free at 1-877-741-1060 or email safeco@bcforestsafe.org.



Save the date for the annual Interior Safety Conference:

1st time in Kamloops on May 3

The fourth annual Interior Safety Conference: Safe Behaviours = \$mart Business is being held for the first time in Kamloops on May 3, 2018 at the Colombo Lodge http://www.colombolodge.com/.

This year's safety conference is being held in partnership with the Interior Logging Association (ILA) annual conference and trade show. It will focus on how practicing safe behaviours at work leads to successful and profitable businesses and the conference will provide practical information and tools for workers, supervisors and managers.

Free for delegates thanks to industry sponsorship

There is no charge for delegates to attend the conference, thanks to generous industry sponsors. Sessions include fatigue management, managing distraction, and safety leadership - topics selected by the conference steering committee made up of industry, WorkSafeBC and the BC Forest Safety Council representatives.

The Interior Safety Conference has previously been hosted in Prince George and Vernon and has been attended by between 75 and 120 delegates.

For more information about the safety conference, please call Gerard Messier at toll-free 1-877-741-1060 or email messier@ bcforestsafe.org. To register: https:// www.bcforestsafe.org/ISC. And, for more information about the ILA 2018 conference, please see: http://www.interiorlogging. org/2018-conference-trade-show.









Some of the machinery on display, and activities at the 2017 annual ILA conference and trade show.

Upcoming training

If you would like to see how a training course can meet your organization's needs, please let us know. We are committed to working with you to find the right training solution. We may be able to tailor a program to your specific needs and deliver it in a way that is most convenient for your operations.

Basic Incident Investigation training

Apr 23 Terrace Apr 25 Houston Apr 26 Vernon May 7 Parson Fort St. John May 10 May 24 Campbell River May 28 Fort St. James Prince George June 19 Kamloops June 19 Nanaimo.

Falling Supervisor training

Apr 9 Williams Lake Apr 30 Campbell River May 28 Prince George

Forest Supervisor training Module 1: Due Diligence (1)

Module 2: Communications (2) Module 3: Leadership &

Professionalism (3)

Apr 4 Cranbrook (1) Apr 5 Cranbrook (2) Cranbrook (3) Apr 6 Apr 18 Prince George (1) Prince George (2) Apr 19 Apr 20 Prince George (3) Fort St. John (1) Fort St. John (2) May 7 May 8 Fort St. John (3) May 9 May 9 Campbell River (1) May 10 Campbell River (2) May 11 Campbell River (3) Kamloops (1) May 16 Kamloops (2) May 17 May 18 Kamloops (3) May 30 Fort St. James (1) Fort St. James (2) May 31 Fort St. James (3) June 1 June 25 Langley (1) June 26 Langley (2) June 27 Langley (3)

Joint Occupational Health and Safety

Committee training Apr 5 Chilliwack Gibsons Apr 11 Apr 24 Terrace Apr 26 Houston Apr 27 Vernon Fort St. John May 11

May 25 Campbell River May 29 Fort St. James May 30 Campbell River Prince George June 8

Small Employer OHS training & Refresher training

Kamloops Apr 12 Apr 12 Nanaimo Apr 12 Prince George Apr 19 Langley June 14 Vernon June 18 Prince George June 21 Campbell River

Individual Owner Operator OHS training & Refresher training

Apr 28 Teleconference May 26 Teleconference June 23 Teleconference

View the full 2018 training calendar here: www.bcforestsafe.org/fscapps/calendar/ calendar.php. Please check back often as course dates may change if there are insufficient participants. All training is offered on a not for profit, cost-recovery basis. Email training@bcforestsafe. org or call toll-free 1-877-741-1060 for general information, or email Gary Banys at banys@bcforestsafe.org to answer any questions you might have about course content and/or about tailoring courses to meet your company's needs at a location of your choice.

Countdown to 2020: **ELD** requirements

Teamsters Canada, the Private Motor Truck of Canada and the Canadian Trucking Alliance have called on the federal and provincial governments to move quickly in the implementation of the electronic logging device (ELD) mandate and all commit to a process that would see a publication of the final rule by June 2018 and the ELD rule enforced in each province by December 2019.

In a press release distributed March 8, 2018, the major groups representing trucking interests across Canada said the safety benefits of ELDs cannot be delayed and that an 18-month transition will allow industry and governments to properly transition to the mandate.

The three groups said in a joint statement: "The majority of carriers and drivers have and will always put safety first. However, ELDs will end the supply chain encouraging and turning a blind-eye to companies and drivers breaking hours of service (HOS) rules to meet shipment needs by falsifying paper log books. By forcing all companies and drivers to obey federal hours of service rules we are making Canada's roads safer. As a result of ELDs, drivers and carriers will be more compliant with HOS regulations, contributing to reduced collisions and other negative activity associated with distracted driving. We are encouraging all levels of government to expedite this regulation through their legislative process by making it a top priority."

In addition to the above, there have been several media articles on the topic recently including:

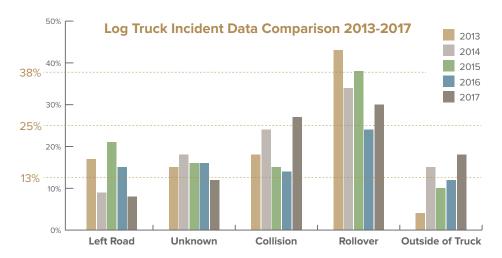
- Canadian ELD mandate to harmonize with US: https://www.trucknews.com/ regulations/canadian-eld-mandateharmonize-u-s/1003083975/
- A comparison and links included in this article comparing the Canadian and US ELD requirements: https://www.geotab. com/blog/transport-canada-eld-mandate/
- Truck freight rates soar in the US as more stringent rules exacerbate a driver shortage: https://www.foodbusinessnews. net/articles/11415-truck-rates-soar-amidnew-e-log-regulations

What are your views on ELDs for log haulers in BC? Better, bad, or different? **Email editor@bcforestsafe.org** or call toll-free **1-877-741-1060.**

TAG data shapes how to achieve improved safety outcomes

The Trucking and Harvesting Advisory Group (TAG) is focused on improving safety outcomes in both the log hauling and harvesting sectors. One of the key inputs TAG relies on to inform the initiatives they undertake is incident data. TAG members collaborate to collect and share log hauling and harvesting incidents from their member organizations and then analyze the data overall. This helps aid in determining key focus areas for improving safety performance within the sectors. In addition, TAG works to continuously improve the data and analysis to better understand the root cause(s). The key is to ensure the data analysis helps shape the best responses to further reduce and prevent injuries and fatalities.

The 2017 TAG member log truck data trends are provided and include a comparison in the type of incidents annually compiled between 2013 and 2017 and monthly comparison between 2016 and 2017. Note that the 'unknown' category represents incomplete data.



40% decrease in log hauling incidents in 2017 over prior year

The Trucking and Harvesting Advisory Group (TAG) data should be viewed in the context of actual logging activity to effectively measure performance.

To this end, consider:

In 2016 there was one incident per 2,182 loads

In 2017 there was one incident per 3,734 loads

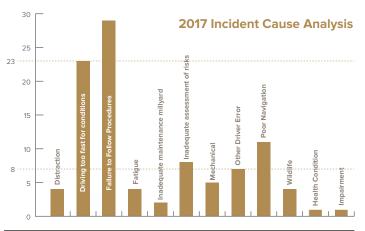
which equates to a 40% decrease in log hauling incidents in 2017 compared to 2016.

Recent log hauling incidents in the media

- Recent incident involving an unloaded log truck and SUV resulted in injuries and Highway 4 closure NEAR Port Alberni: https://www.ladysmithchronicle. com/news/accident-closes-highway-4-near-coombs-junction/; https:// vancouverisland.ctvnews.ca/highway-4-reopened-after-crash-between-semitrailer-suv-1.3819581; https://www.cheknews.ca/crash-closes-highway-4-nearcoombs-drive-b-c-expects-to-reopen-at-130-p-m-423067/ and https://www. albernivalleynews.com/news/accident-closes-highway-4-near-coombs-junction/
- Single vehicle loaded log truck incident results in 30 homes losing power near Williams Lake: https://www.wltribune.com/local-news/loaded-logging-truckplunges-down-steep-embankment/

Also see page 10. 🌢

2017 Tag Log Truck Data Summary

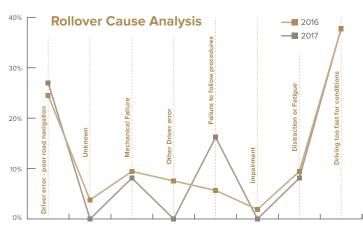


Failure to follow procedures	Driving too fast for conditions
Radio / road calling procedures: 56%	Speed (no other contributing factors noted in the incident description): 55%
Loading/unloading: 27%	Traction (ice or snow contributing factor): 32%
Chain up: 5%	Traction (mud contributing factor): 5%
Lockout: 5%	Traction (rough surface contributing factor): 10%
3 Point Contact: 5%	

Rollover Analysis 2013 2014 2015 2016 2017 100 Total Incidents Rollover %

Key Points:

2017: 171 incidents compiled
2016: 201 incidents compiled
2015: 148 incidents compiled
2014: 121 incidents compiled
2015: Rollovers: 39%
Rollovers: 34%
Rollovers: 34%
Rollovers: 34%
Rollovers: 43%





Heart health and the forestry worker



By Dr. Delia Roberts

Heart disease is the second most common cause of death in Canada. If you are male you are twice as likely to have a heart attack than a woman. The risk of heart disease increases with age, smoking, lack of exercise, diabetes, being overweight or obese, and dietary factors like drinking more than two servings of alcohol per day, eating salty food and excess consumption of some fats. You can't change your genetics, but even if heart disease runs in your family, making the lifestyle choices described in this article can help keep your heart healthy.

The heart is a fist sized muscular pump that provides the pressure to circulate about six liters of blood through a whopping 100,000 kilometers of blood vessels. The entire volume circulates about once per minute when you are at rest, delivering oxygen, nutrients, hormones and other signals, as well as transporting the body's defense system. Blood also picks up carbon dioxide and other wastes as it circulates around the body. That's a lot of work for one small organ! In order to fuel this amazing pump, we have to keep the heart supplied with an uninterrupted flow of oxygen and fuel. Thus, the heart has its own delivery system, a set of small blood vessels that surround it, called the coronary arteries.

When doctors assess the health of the heart they look at a number of important measures:

Blood pressure refers to how much pressure the heart generates when it contracts to force blood out through the arteries (systolic blood pressure or the top number in a blood pressure reading), as well as how much pressure remains in the blood vessels when the heart is at rest (diastolic blood pressure or the bottom number in a reading). When the large blood vessels exiting the heart are healthy, they are elastic and can expand to receive the blood that is forced out with each beat, keeping pressure lower. When the blood vessels are narrowed due to fat deposits or become rigid with age or disease, the heart has to generate more pressure to force blood into the system. Muscle also needs more blood than fat (think red meat, white fat), so obesity increases pressure the same way blocking the outflow from your garden hose does. High blood pressure is dangerous because it makes the heart work much harder, but also because the extra pressure can destroy the very small, very thin walled blood vessels (called capillaries) where the exchange of material between the cells of the body and the blood supply actually takes place. This is especially dangerous for organs like the kidneys and the brain.

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Heart sounds and EKG or ECG

provide information on how well the heart is functioning as a pump. The heart actually consists of four chambers; two receive blood (atria), and two pump it out to the body (ventricles). At rest, blood flows into the atria. When they are full, they contract to fill the ventricles. As the pressure rises with contraction, the force pushing back towards the atria closes one-way valves so that the blood can't flow backwards (this makes the lub sound). Similarly, when the ventricles relax, blood is prevented from flowing back into the heart by another set of differently shaped valves (the dub sound). When a doctor listens to your heart they can get an idea of the health of your heart by both the rate and sound of your heartbeat. If the valves are damaged or leaky, the flow of blood makes different sounds. An electrocardiogram provides more information on how effectively the heart is beating because it shows the pattern of how the muscle contracts, and whether there are any areas in the muscle of the heart that are not working properly.

Blood tests include the levels of various forms of fats, markers of inflammation, and certain proteins that are released from heart muscle when it has been damaged if a heart attack is suspected. The most commonly done is a lipid profile, which tests for both good cholesterol (high density lipoprotein or HDL) and bad cholesterol (low density and very low density lipoproteins or LDL and VLDL), as well as another form of fat called triglycerides. HDL is responsible for collecting excess cholesterol and delivering it to the liver for disposal while LDL and VLDL carry cholesterol out to the cells in the body where it is needed to make certain hormones and other structures. Triglycerides are a form of fat used for energy and the construction of cell walls as well as cell signaling and other functions. These fats are needed by the body for normal function, but when too

much is present they can be deposited on the inside of blood vessels and restrict blood flow. When this happens in the blood vessels that supply heart muscle or brain it creates very dangerous conditions that can lead to heart attack or stroke.

There are some genetic factors that can lead to problems with the heart, blood vessels and blood lipid levels, but even when these systems are diseased, lifestyle factors can slow down the progression of the illness and greatly reduce the risk of death. If you are lucky enough to have a healthy heart, following these recommendations can keep your heart, and the hearts of the people you love, strong for years to come:

- Get some exercise. If you drive a truck or a desk or operate a machine you have to sit for long periods at work. This is one of the greatest risks to your health. Take frequent breaks to get up and move, schedule walking meetings and make your social get-togethers activity based. The minimum recommendations for good health are 150 minutes of moderately vigorous activity per week, though you can break it up into 10-minute segments if you don't have time to get out for longer in one go.
- Stop smoking. Tobacco is deadly and very addictive. There are lots of great programs to help you quit, so make sure to get help. Start with your family physician, HR at work or on-line resources like https://www.quitnow.ca/
- Limit your alcohol intake to two servings per day or less. People often think that alcohol helps them relax but it actually makes it harder to recover from a hard day at work and get a good night's rest.
- 4. Find a healthy weight. Carrying a few extra pounds is not a problem if you regularly get exercise, but be cautious of the gradual year-to-year gain. And if you already have a waist that is bigger than your hips your risk of heart disease

- is greatly increased. Losing weight and keeping it off is not easy but it can add years to your life. Again, start with your family physician or See the Fit to Log manual for more information on how to achieve and maintain a healthy weight.
- 5. Increase the number of servings of fresh fruits and vegetables and other high fibre foods in your diet, while reducing the amount of salt and sugar that you eat and drink. One way to do this is to choose fewer processed and prepackaged foods whenever you can. For fats, make sure that you don't eat more calories than you burn and stay away from anything that contains trans fat (very few products in Canada contain trans fat any longer). The healthiest fats for your heart are the omega-3polyunsaturated fats (ALA or alphalinolenic acid. DHA or docosahexaenoic acid and EPA or eicosapentaenoic acid).
- 6. Manage the stress in your life and get enough sleep. Sounds simple, but life is always full of challenges and things that need to be done before bed. Combini ng physical activity with socializing is a good way to burn off excess stress, strengthen your heart and manage your weight all in one. It also improves your energy level and the quality of the sleep that you do get. Build some quiet time into your bedtime ritual, it will help you slow down enough to fall asleep.

Heart disease is real, everyone knows someone who has suffered from this life threatening illness. But remember that more often than not, it's preventable. Make a commitment to put into practice at least one of the powerful lifestyle protectors described here. Today.

For more good quality information visit the following websites:

Hypertension Canada: www.hypertension.ca

Heart and Stroke Foundation: www.heartandstroke.bc.ca

HealthLinkBC:

www.healthlinkbc.ca

British Hypertension Society: www.bhsoc.org/

ABOUT Forest Safety News

Forest Safety News is published six times a year: February, April, June, August, October and December. All submissions – letters to the editor, safety tips, photos, safety stories, concerns etc. – are welcome. The opinions expressed in the newsletter are not necessarily those of the editor, staff or board of the BC Forest Safety Council. All decisions to publish materials rest with the editor. 12,000 copies of each edition are distributed via mail or email. Additional copies are distributed at industry events.

Subscriptions

If you would like to continue to receive a hard copy or would prefer to receive an electronic copy of this newsletter, please email **editor@bcforestsafe.org** and ask to be added to the print copy or email distribution lists. Email subscriptions are encouraged.

Have a story, letter to the editor, safety tip, ideas or photos? Please send all submissions to:

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