



THE DIRT

FLNRORD

INTERNAL NEWSLETTER

Are you a "Star Gazer?"

Submitted by: Melissa Tupper, Crown Land Registry Analyst, Lands Branch

The Royal Astronomical Society of Canada (RASC) is a national society established in 1903 that is dedicated to bringing information about astronomy to the general public. The Victoria Centre was formed in 1914 and quickly developed into one of the largest centres in the country. There are currently over 200 members and most are amateur astronomers with some professionals from the Dominion Astrophysical Observatory and the University of Victoria. After funding was cancelled for the Centre of the Universe facility in 2013, the RASC helped to form a non-profit (Friends of the Dominion Astrophysical Observatory) that restored public science outreach activities in 2014.

As a member of the RASC Victoria Centre, I often volunteer at Saturday evening Star Parties at the Dominion Astrophysical Observatory. The parties run April 27th to September 7th from 7:30pm to 11:00pm. Some of the activities include solar and nighttime observing with telescopes provided by RASC volunteers, tours of the historic Plaskett telescope, children's programmes, guest speakers and more! Rain or shine, there is something for everyone to experience.



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Advisory Group Vision:

"True to our proud histories, informing ministry staff through balanced and timely communication"

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On July 20th, there will be a special Moon Landing Star Party to celebrate the 50th Anniversary of the Apollo 11 Moon landing. There will be a Barbeque and a range of children's activities including Virtual Reality machines, face painting, robots and a video presentation of the entire first moon walk by Neil Armstrong with commentary by internationally recognized space historian, Chris Gainor. Free tickets for this event are available to reserve beginning July 6th.

For more info see: <https://centreftheuniverse.org/star-parties>

To reserve a free ticket see: <https://www.eventbrite.ca/o/friends-of-the-dominion-astronomical-observatory-12071364164>



Success at the Northwest Trade Show

Submitted by Michelle Larstone, Community Engagement Specialist, Skeena Region

The Skeena Region had a successful weekend at the Northwest Trade Show May 3 and 4, 2019. We were very well received by the crowd, and the booth was expertly staffed by a biologist, a project manager, a forester and many others who volunteered their time on a weekend.

Some stats:

- Over 200 visitors to the booth.
- 45 FLNRORD North Area mugs distributed.
- 100 pens taken.
- 100 paracord bracelets taken (and loved).
- 100s of brochures on different topics distributed.
- 100 packages of gummy fruit enjoyed by children and adults alike.

The best part was winning the “Best in Show” ribbon at the exhibitor’s reception! Ryan Chandler, who served his co-op term with me in Smithers, did an amazing job of making the booth interesting, inviting and educational. His term finished May 10 so it was quite a way to cap it off.

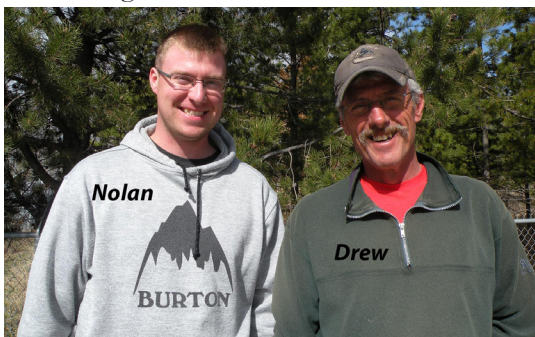


Ryan Chandler, Junior Engagement and Communications co-op student for the Skeena Region, proudly displays the “Best in Show” ribbon alongside Minister Doug Donaldson (who also took a shift in the booth).

2nd Generation Ministry Member

Submitted by: Nolan Buis, FIT, Stewardship Forester, 100 Mile House Natural Resource District

My father, Drew Buis, began his career with what was then known as the Ministry of Forests in 1978. Initially drawn to the forest industry through his love of the outdoors, he started his career by working on wildfire suppression crews for the ministry. After becoming a Registered Forest Technician, he has since held many different roles with the ministry, from Compliance and Enforcement to Silviculture, and most recently working as a Range Technologist in 100 Mile House since 2006.



Growing up in the small town of Clinton, my father’s love for the outdoors quickly wore off on me, from our various times spent fishing, camping, or hiking through the forest together. I remember when my dad would bring me to his office when I was a kid and show me around; I always thought that he had the coolest job! I grew to love spending my time outside learning about trees and forests, so pursuing a career in forestry came naturally.

My forestry career began in Silviculture, working as a summer student for West Fraser Mills in 100 Mile House, the same town where my father works. We would spend many days commuting to and from work together, where he would share many of his experiences in the forest industry with me, and give me pointers and advice on working in forestry and Silviculture specifically.

After nearly three years with West Fraser, I received an opportunity this March to join FLNRORD as a Stewardship Forester in 100 Mile House. I was very excited to join the team, and expand my knowledge and experience as I work toward obtaining my professional designation. Although I’ve only been in the office for just a short time, everyone has been very welcoming and helpful; which has made the transition from licensee to ministry as smooth as possible. It has also been pretty cool working in the same office as my father, and hopefully I can spend some days in the field with him over the next few years before his retirement!

50 New Trails in 50 Weeks

My name is Brittany Wilson; I have been working as a Correspondence Coordinator for FLNRORD since January. My New Year's resolution was to hike 50 new trails in 50 weeks. It has been 25 weeks (half way there) and I have accomplished 34 new trails. Two of these trails are part of our Rec, Sites and Trails; Old Baldy Mountain and Rim Rocks.

Most of these hikes are approximately 1 hour long. I would suggest having a good pair of hiking shoes, always bring plenty of water, a snack (I usually bring a protein bar), a whistle and something like bear spray or pocket knife is always a good idea.

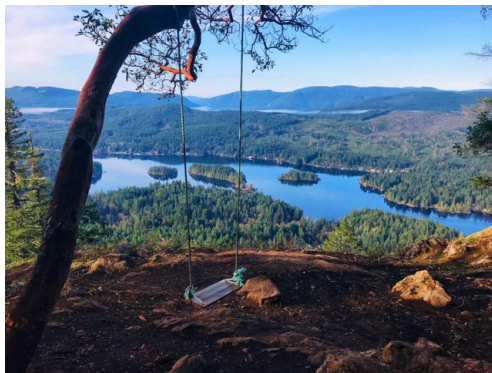
I started this challenge for myself to help alleviate stress

in my life, and to get out of the same old routine. This year I have explored Vancouver Island, where I have lived my whole life, and found so many places I had never been or even heard of. The advice I would give to anyone who is trying to have a more active lifestyle is to start slow. Start with things that make you happy not with what you think is going to be the best workout. I find that if I'm doing something that I enjoy that it keeps me coming back for more. I have attached a few pictures from my favorite trails this year.

Check out the fitbalm blog with more information on some of my hikes.

<https://fitbalm.com/blogs/news/april-lifestyle-feature-brittany-wilson>

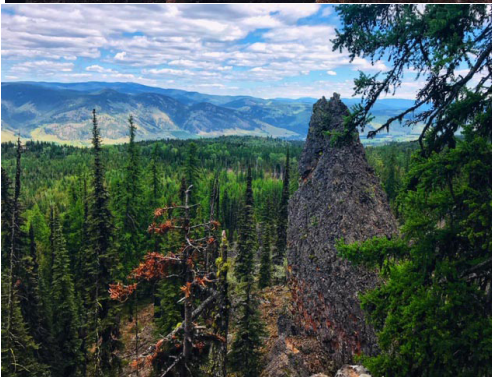
Old Baldy Mountain in Shawnigan Lake



Stocking Creek in Chemanius



Rim Rocks in Vernon



Kinghorn Cabin in Mount Work Park



Interested in reading past newsletters?

You can find archived ministry newsletters dating all the way back to 1922 at:

https://www.for.gov.bc.ca/ftp/HEX/external/!publish/Web/News_Letters/

We hope you enjoy reading about the past!

Kevin Johnston- Passing



Kevin Allan Johnston passed away on June 4, 2019. Despite many challenges during the last three years of cancer treatment, he was positive and grateful for the time and the efforts of those that cared for him. Family and friends were always the essential heartbeat of his life and he was so well-supported by them right to the end. Kevin was, to the core, a good man who "walked the walk" and looked for opportunities to assist and build up those around him. He connected with so many because of that constant, genuine care.

Kevin was born and raised in Barrie, Ontario (1962), rocking high school and keeping busy with many sports, clubs and jobs. He came to BC to study forestry at U.B.C. and play hockey for the Thunderbirds. He met a girl - Jane - at a forestry dance and they married in 1987, honeymooning in a remote forestry camp in Northern BC. After completing university, they lived for a short while at Douglas Lake Ranch before

settling in Kamloops. He worked in a number of forestry jobs in the area, starting with private timber management, but spending most of his career in roles within the district and regional forestry offices. Kevin took enormous pleasure and pride in being a father to his two sons Trent and Ryan and he cheered them on in everything they did. Many of our great friendships were forged inside those arenas where we spent so much time. He enjoyed many sports, but focused his time on the ones he could do as a family, slow-pitch and skiing. Kevin volunteered for a number of causes, but coaching hockey was his passion.

He coached both his sons from those early days of puck chasing to skilled teenagehood. Even after his own children graduated to men's hockey, Kevin continued volunteering and mentoring with Kamloops Minor Hockey and the T.R.U. Hockey program, taking a great interest in all the varied young athletes he worked with. Kevin was always a fantastic life partner and best friend to Jane and they enjoyed exploring and laughing, making some epic road trips, camping adventures and travel memories together.

Kevin's closest family includes Jane, his sons Trent (Megan) and Ryan (Brynn), his siblings Heather (Brad), Greg (Laurie) and Patti (John), his parents Don and Norma and parents-in-law Mike and Trudy. Thank you for all the kind, heartfelt thoughts and messages you have shared with us. His passing will leave an unfillable hole in many of our lives, but his actions and love will live on in us.

A special thank you to the amazing nurses and doctors who work in the Kamloops Cancer Ward and to those of you who have donated to cancer research. Kevin benefited from some great recent treatments developed from that research.

A Celebration of Life will be announced and held at a later date.



Skeena's 2018 Wildfire Rehabilitation Program

Submitted by: Michelle Larstone, Communications and Engagement, Skeena Region, Regional Initiatives Division



The devastating wildfire season of 2018, when more than 1.3 million hectares burned and a provincial state of emergency was declared for the second year in a row, is just a memory for most people. However, for ministry staff, First Nations and communities in northwest B.C., the effects of the fires are still part of daily life.

Once wildfires are declared out, the work on the wildfire sites and in the communities begins in earnest. It is a multi-agency effort that involves Emergency Management BC, BC Wildfire Service, Rural Development, Regional Operations and District staff, Indigenous Services Canada and the Red Cross, as well as local government, community organizations and First Nations.

The responsibility for post-wildfire, land-based rehabilitation was recently transferred from BC Wildfire Service to Regional Operations. Wildfire rehabilitation is defined as the treatment to disturbances caused by the suppression of a wildfire. These disturbances are most commonly created by heavy equipment or hand tool usage, like building fireguards and staging areas.

The Skeena wildfire rehab team has been busy learning about and carrying out the many aspects of rehabilitation. There are 14 fires in Skeena that require rehabilitation from fire suppression damage, and each fire has its own unique landscape and community features, so there is no shortage of learning opportunities.

The initial work on a wildfire is referred to as “emergency works,” which is intended to stabilize the area before the onset of winter. These priority works are considered to be essential for public safety and environmental protection, and usually begin immediately after a wildfire is declared to be under control. Examples of this are dealing with danger trees, stabilizing slopes, and grass seeding fireguards to prevent invasive species.

It's also important to get the necessary rehab field work done before the snow, so that the winter can be spent writing prescriptions, planning for rehabilitation, and meeting with stakeholders and First Nations. Archaeological work needs to be carried out before planned rehab can begin, so getting that in place is really important in order to hit appropriate weather windows.

Our team is collaborating with affected First Nations on the planning and the rehab work. For example, a Lake Babine Nation (LBN) crew received some training and were able to assist with the emergency works. Now that rehab planning is complete, LBN is ready to get started on the machine work on both the Torkelsen and the Hautete fires.

In the north, we worked closely with the Tahltan Nation on the emergency work and the rehab plan for the massive Alkali fire. A contract will soon be finalized with the Tahltan Nation Development Corporation for the planned rehab work.

The team has also worked with District tenures staff on salvage plans and the harvest of areas within some of the fire perimeters. As the Cariboo Region folks can tell you, rehabilitating wildfire sites is a huge amount of work! It has been a steep learning curve for Skeena staff, and the team has embraced it with professionalism and creativity.



Iconic whitebark pine

Submitted by: Kendra Bennett, P.Ag, Species at Risk Implementation Coordinator, Resource Stewardship Division



The iconic whitebark pine (*Pinus albicaulis*) is found in high elevation forests and rugged sub-alpine ecosystems of BC, Alberta, and the western USA. It is an important high-calorie food source for many animals, including Clark's nutcracker, bears, foxes and squirrels. This keystone species plays an important role in watershed function by aiding soil stability and regulating snowmelt and relies on Clark's nutcracker to extract and bury seeds for regeneration. In BC, whitebark pine is designated as threatened (blue listed) by the Conservation Data Center and is Endangered under the federal *Species at Risk Act* (2012). Threats to the species include pests (e.g. mountain pine beetle) and disease (white pine blister rust) fire, and climate change. The most damaging of these threats is white pine blister rust, a non-native disease introduced to BC in the 1920s.

Cooperation and coordination across provincial and federal borders is an important component of managing the threats for this species. To foster cross-border recovery actions, staff from three branches of FLNRORD attended the 2018 Whitebark Ecosystem Foundation (WBEF) conference in Stanley, Idaho. The conference delegation included geneticists, pathologists, entomologists, ecologists, forest fire managers, academics, government staff, WBEF members and residents of the Sawtooth National Forest.



Day one of the conference was packed with technical talks, including information on the American National Whitebark Pine Restoration Plan, the role of fire in whitebark pine ecosystems, pest and disease resistance, and silviculture treatments and research. The following two days were field trips through whitebark pine stands in the Sawtooth range to experience first-hand the many threats affecting whitebark pine persistence. The field trips included sites of low and high intensity fires, whitebark blister rust infection, mountain pine beetle attack, and encroachment on stands by sub-alpine fir. During the field days discussion was lively and productive as delegates contemplated the issues and possible solutions to maintaining whitebark pine on the landscape.

Attendance at the conference strengthened cross-border relationships and may enable some alignment between the US restoration plan and the B.C. Implementation Plan that is currently in development.

If you are interested in recovery efforts for the whitebark pine please visit the Whitebark Pine Ecosystem Foundation of Canada (WPEF) website (<http://www.whitebarkpine.ca/>) for information and upcoming events and consider becoming a WPEF member yourself!

Research Talks

Submitted by: Francesco Cortini, PhD RPF, Research Management Lead

The [FLNRORD Research Program](#) recently started a series of informative Research Talks videos that were recorded at St. Ann Academy in Victoria. The first event was on November 21, 2018, and the second one on May 29, 2019. The Research Talks from the first event are available [online](#):

- **Alex Bevington**, Research Earth Scientist, talks about natural resources management in the age of remote sensing, LiDAR, and drone technology. “When I Fly I Always Pick the Window Seat”. <https://youtu.be/WBWnnkhrCIA>.
- **Pamela Dykstra**, Research Leader, Forest Ecology Interpretations, talks about the past, present and future of the Biogeoclimatic Ecosystem Classification (BEC). “The Secret life of BEC”. <https://youtu.be/167H8bncw8o>.



- **Garth Mowat**, Provincial Large Carnivore Specialist, talks about our current knowledge around Grizzly Bears. “Grizzly Bears in BC”. <https://youtu.be/Qkt0RqLD7pc>.
- **Greg O’Neill**, Adaptation and Climate Change Scientist, talks about tree adaptation under the current climatic changes. “Do Trees have a Happy Place?” <https://youtu.be/WJZFfL4ybqk>.
- **Dave Wilford**, Team Lead Hydrologist, talks about the available water management tools. “BC Water Tool”. <https://youtu.be/ePXd-IeHD5s>.

For more information and videos go to the [Increment newsletter](#).

Have a Story idea?

Send *The Dirt* Advisory Group your ideas!

Don’t forget about the Facebook page
<https://www.facebook.com/groups/flnrnews/>

2nd Generation Ministry Member?

Are you a 2nd generation ministry member, or maybe a 3rd?

If you are, or know of someone who is, we would like to feature your story in *The Dirt*.

Please submit your suggested story to

FLNRNews@gov.bc.ca.

FLNRORD Research Program – Brief Summary of Achievements – North Area

Submitted by: Francesco Cortini, PhD RPF, Research Management Lead, Forest Improvement and Research Management Branch

The North Area includes: Skeena, Omineca and Northeast regions, and the Research Program is represented by 17 research scientists that conducted 51 research projects during the recent fiscal year (2018-19). These projects fall under the Research Program's portfolios as follows: Water (12), Ecosystem Health and Disturbance (9); Ecosystem Stewardship (9); Timber (5); Species and Habitat (4); and Bioeconomy (1). The researcher scientists from the North Area also worked on 10 additional research projects funded outside the program.

The Skeena and Northeast regions provided a strong contribution in advancing our knowledge on topics such as: watershed management (e.g., [BC Water Tool](#)); applying the Biogeoclimatic Ecosystem Classification (BEC) system for climate change adaptation; silviculture systems; and moose population changes. Moreover, the Omineca region also delivered on topics such as: landslide succession and restoration; drought stress; and spruce beetle's impact on our forests.

A good example of this work from the Skeena region is

the [BC Water Tool](#). This tool supports Water Management Staff in adjudicating water-use applications. The BC Water Tool is publicly available at no charge and currently covers 70% of the province. A Water Management Officer can now select a point of interest on the map inside the BC Water Tool and generate a lengthy report with the following watershed information: watershed area, vegetation cover, and topography; long term monthly flows estimates; flow sensitive months; existing upstream and downstream allocations; annual and monthly available water allocations; and influence of climate change on water availability.

It was determined that the opportunity value of each report generated by the BC Water Tool equals to \$5,000. In 2018 alone, 5,874 reports were generated for an opportunity value of \$29.4 million representing a remarkable rate of return given the initial investment of \$1.2 million over 7 years. The BC Water Tool developed by the Research Program, in collaboration with others, has had a substantial economic impact on environmental management in BC.

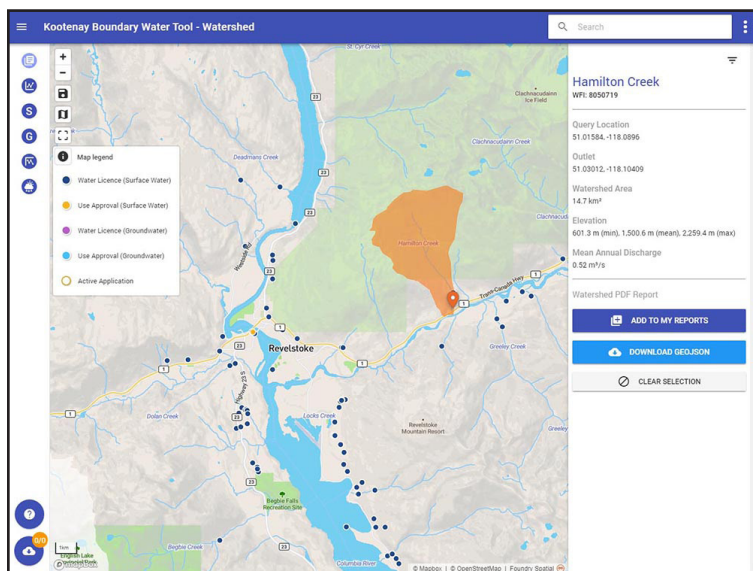


Figure 1. Screenshot of the BC Water Tool.

A good example from the Omineca region is the Drought Risk Assessment Tool. Climate change will alter regional temperature and precipitation patterns as well as their extremes including floods and drought. Drought caused by recent regional warming, is believed to be a

leading cause of tree mortality. To identify potential influence of drought on forest stands a collaborative research project involving ecology, soils and climate researchers was initiated in 2009 under the future forest ecosystems program. This research led to the development of a drought risk assessment tool that predicts tree species mortality risk by BEC variant for projected climatic conditions in 2050 and 2080. It does so by modeling future water balance as relative to absolute soil moisture conditions to identify tree species drought risk at the stand level. Currently the tool is available for the Prince George, Cranbrook and Williams Lake TSA's with hopes of expanding to other areas. The tool can provide valuable information when planning for future forests. To enable its broad application, the tool is available online with details on the project provided in an extension note (Foord et al., 2017).

continued...

Research Program - North Area continued...

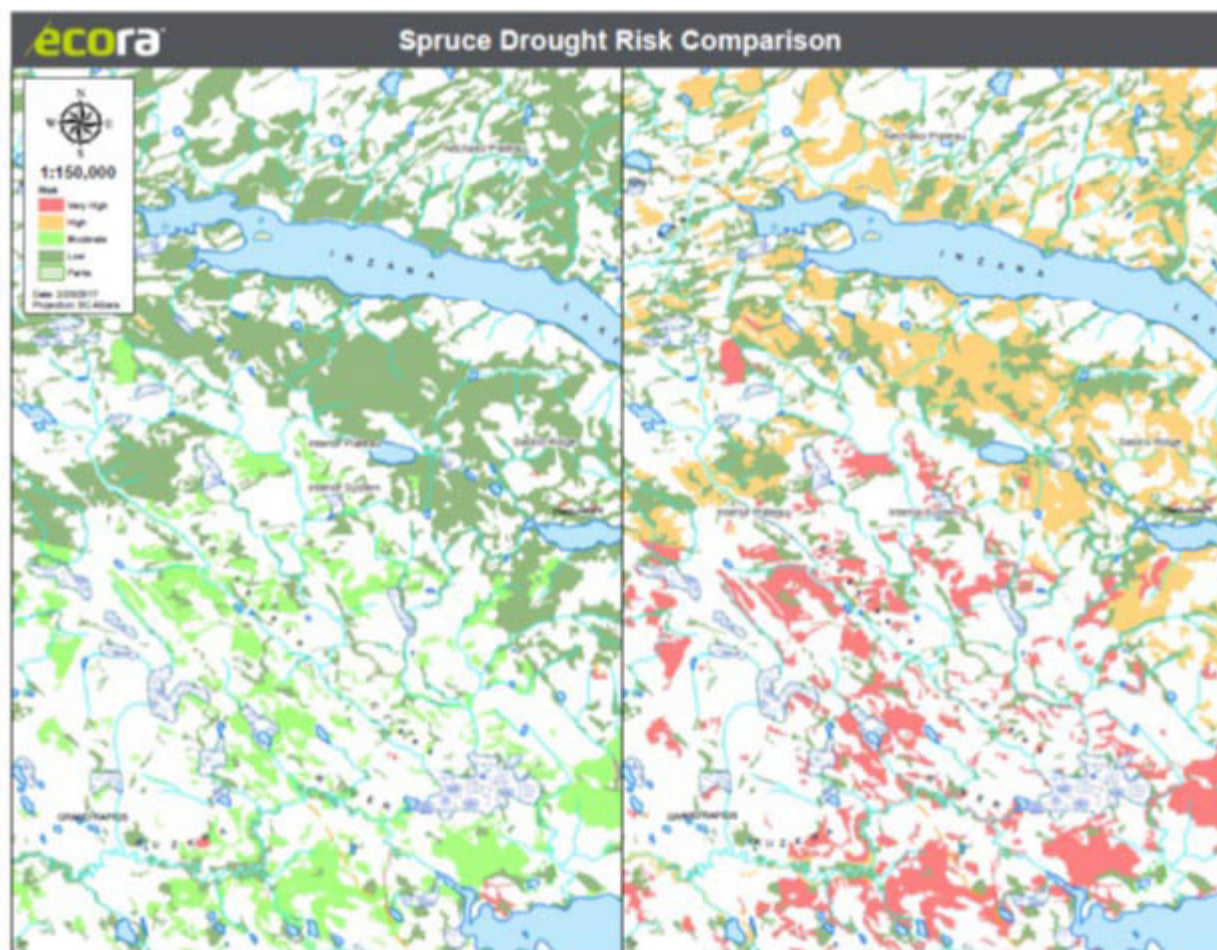


Figure 2. Drought risk assessment tool projections for current (left) and 2080 (right) drought risk to mature hybrid spruce in the Inzana Lake area of the Stuart-Nechako District (from Foord et al., 2017)

Reference:

Foord, V., Delong, C., Rogers, B. 2017. A Stand-Level Drought Risk Assessment Tool for considering climate change in forest management. Prov. B.C., Victoria, B.C. Exten. Note 119. www.for.gov.bc.ca/hfd/pubs/docs/en/en119.htm

If you are a former employee and want to keep up with the latest Dirt, please contact Michelle Larstone, provide her with your email and she will add you to the retiree's email distribution list.

You can contact Michelle directly at Michelle.Larstone@gov.bc.ca. Don't forget our Facebook page!

Safety: Engage, Assess, Act

Submitted by: Stephanie Wilkie, Communications Coordinator, Corporate Initiatives Division



On a day in June 2015, something wasn't sitting right with FLNRORD Manager Andrew Ashford. During one of his regular building safety inspections, he had an employee point out a ripple in some carpeting of the two-storey office building where his staff were working. He inspected the ripple more closely and found that there were cracks in multiple places in the concrete floor of the second storey. He then contacted the owners of the building, who told him that everything was safe, as the building had been built recently, in 1997.

Something occurred to Ashford. Some days earlier, he had shared a chuckle with a colleague working on the first floor over a comment that she often heard what sounded like geese honking in the ceiling. And, some time before that, another colleague had asked to move her desk due to frequent jostling of her computer monitor causing her vertigo-like symptoms. He continued to examine what was quickly mounting to serious safety concern in his head: Ashford used his network and called knowledgeable people to come in and look. After hearing concern in the voices of all these individuals—among them a building maintenance professional and a contractor—Ashford took initiative and evacuated the building. As it turns out, incorrect engineering of the building's trusses had made it structurally unsound—the “geese honking” sound had been the nails being pulled out of the trusses that sat above that colleague's work station and kept the second storey from collapsing. The second storey floor of the building was torn out and rebuilt.

Though it was no small cost to the Port McNeill provincial government team in terms of productivity and convenience; imagine the cost of not addressing this concern. Ashford knew that safety was the primary concern. Who knows what kind of impacts might have resulted in remaining in that unsafe building.

Andrew Ashford and the North Island Central Coast District/BCTS Seaward-tlasta team's experience is a great example of some fundamental safety points:

- Pay attention to little details in your work environment.
- Be proactive about safety—regular safety inspections prevent potentially catastrophic accidents.
- If you see something, say something. It is better to point out things and have them not be a concern than ignore them and have them result in injury or, at worst, loss of life.
- If something doesn't feel right, persist. When it comes to safety, there will never be repercussions for reporting a safety concern.
- Having a comprehensive and functional safety plan allows for a system for noticing, reporting and acting on safety related concerns.

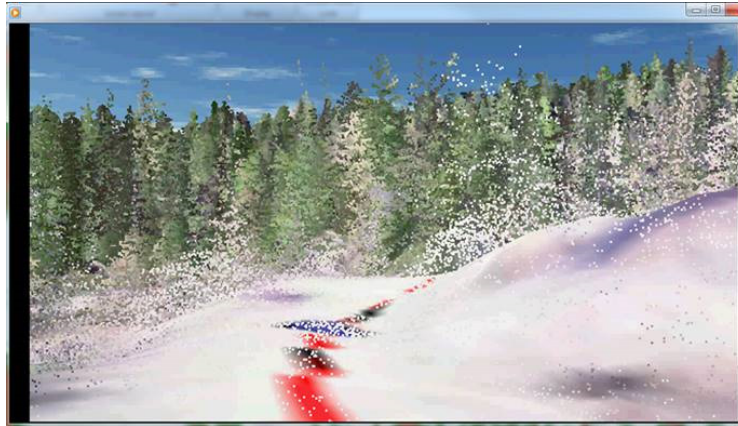
As humans, aspects of our psychology result in everyday occurrences becoming background noise or wallpaper—things we no longer take notice of. To keep a SAFE environment (one that is both “safe” as an adjective and SAFE Certified) we must try to see everyday things with fresh eyes. Regular safety inspections provide a means to do this.

Government is planning border to border lidar acquisition for government and the public!

Submitted by: Noel Carawan-Hubin, Information, Innovation and Technology Division

What is the NRM Lidar Program?

Lidar is laser-based remote sensing technology that provides digital 3-D terrestrial information (“lidar data” and “lidar data products”) that is used in many fields in government, academia and industry.



For an automated rendering of this image, please navigate to: <https://spc-csnr.gov.bc.ca/LWG/Lidar%20Visitor%20Information%20Toolbox/Communications/Rosewall3D-video.zip> and extract.

The NRM Lidar Program builds upon existing divisional programs for lidar in the Natural Resource Ministries to coordinate and collaborate lidar acquisition, processing, storage, distribution and use. Its focus is to:

- *Coordinate:* for internal benefit and sharing, including licensing.
- *Liberate:* Open access to data in line with [BC Open Data Policy](#).
- *Accelerate:* Seek partners and opportunities to accelerate acquisition.

Who is Participating in the NRM Lidar Program?

As lidar programs exist at the divisional level, the NRM Lidar Program is building on this and bringing together the key stakeholders as it works to expand its service offerings to the Natural Resource Ministries. For example, Forest Analysis and

Inventory Branch (FAIB) and BC Timber Sales (BCTS) along with GeoBC are heavily engaged in lidar acquisition, analysis and interpretation activities.

Current Status

Some of the key updates for the program include:

Storage & Distribution: Partnering with Office of the Chief Information Officer (OCIO) and Advanced Solutions (a DXC technology company), the NRM Lidar Program is pursuing adoption of the Object Store Service. This includes the development of a lidar metadata service as well as a distribution solution to offer up the lidar to all interested parties. More information on the Object Storage Service is available [here](#).

Acquisition Assessment: this assessment has been completed to determine potential options for a more broadly-based, cost effective acquisition model for lidar for the entire province. Preliminary findings of the assessment are being reviewed currently to determine next steps.

Analysis & Interpretation: the program development team, in conjunction with a broader working group will be looking at the development of a roadmap for internal government analysis and interpretation of lidar data. Preliminary discussions on this topic will commence in the Fall 2019.

Timeline

Phase 1 of the program development initiative was completed in Jan 2018; Phase 2 is well underway. This timeline is updated and posted regularly [here](#).

For more details on the project activities underway, check out the [Communications](#) folder for published updates, under the Lidar Visitor Information Toolbox on the [NRM Lidar Program SharePoint site](#). This can be accessed with an idir account.

More Information

If you are interested in being involved with the program, or would like more information, please email the program at lidar@gov.bc.ca or check out our SharePoint site.

NRPP – That's a Wrap

Submitted by: Christoph Dettling, Communications Coordinator, Information, Innovation and Technology Division



Long before the Natural Resource Permitting Project (NRPP) was created in 2013, staff—including the late Butch Morningstar—recognized that there was a better way to do business through collaboration. This desire for change resulted in the formation of a natural resource sector and FrontCounter BC, among other achievements. However, government innovators soon realized that collaboration was only the beginning. In order to bring this dream to the next level, a plan was needed to deliver real results. Enter NRPP in 2013.

A Transition to a New Way

For the majority of its tenure, NRPP was overseen by the Natural Resource Transformation Secretariat but last summer, the Information, Innovation and Technology Division (IIT) was created and tasked with bringing NRPP to a conclusion. This shift to IIT redefined what transformation looks like. IIT committed to develop the projects that met three key criteria: a focus on citizen and client benefits; business area readiness; and the right project methodology.

Within NRPP, the focus on clients was evident in the work done around the [Natural Resource \(NR\) Online Services website](#). Instead of clients having to submit paper applications to multiple offices, the website offers a single point of access where clients can explore natural resource-based opportunities on the land base (using maps) and digitally submit applications.

NR Online Services has not yet realized its full potential but presents a solid foundation for future innovation. There will continue to be enhancements to the website using customer-centric design to deliver innovative solutions.

Common Services – a Foundation for the Future

Since the inception of NRPP, there have been many bold attempts to create efficiencies that have resulted in a number of important successes. One of the more important developments pertains to the Common Services that are found in many of the features available on NR Online Services.

The Common Services are a collection of technology components that can now also be leveraged by developers, instead of redeveloping the similar technology in new systems. This is an important step in adding continuous improvement in the most efficient manner.

Innovation, Collaboration and Successes

Over the final stretch of NRPP, there was a renewed focus on the deployment of innovative methodologies. The use of Agile project management created closer links between project teams and the business, delivered functionality in smaller chunks, and added frequent feedback loops to ensure better product fit.

Some other highlights from NRPP include the following:

- Over 110,000 active hunters can now apply for the new digital [Limited Entry Hunt](#) draw with an estimated 175,000 online applications per season—saving more than 180,000 pieces of paper and weeks of time for the applicant.
- Through [MyRangeBC](#), 1505 holders of range tenures in BC can review range plans electronically—at home or in the field.
- Approximately 60,000 members of the public will be able to go online to the [Applications, Comments, and Reasons for Decision](#) (ACRFD) website and see real-time data and information on Crown lands applications of interest to them. An estimated 25,000 members of the public will engage with government through the open comment period using this new website.
- Citizens can explore online 24/7 for land-based opportunities in the province by accessing the latest land information on the [NR Online Services](#) website.

continued...

NRPP – That’s a Wrap continued...

NRPP Ends, Support Continues

NRPP played a vital role in continuing the tradition of innovation and transformation across the NRM. While NRPP may have come to a close, the lessons learned and the successes that came together will help shape the future innovation in the NRM.

With over 1,400 people contributing to NRPP over the years, this post wouldn’t be complete without a heartfelt expression of appreciation. So thank you. NRPP wasn’t simply a collection of technology projects, but the result of dreams and hard work that will continue through guidance of IIT—ultimately extended from NRPP’s founding father, [Butch Morningstar](#).

If you have any questions on the project, please email NRPP@gov.bc.ca.



Reduce Fire Risk in Cariboo Region

Submitted by: Andrea Klassen, Communications Officer, Cariboo Region



Cariboo Staff, FESBC representatives and other partner organizations toured the 100 Mile Community Forest in June.

Following the devastating 2017 wildfires, which burned about 1.1 million hectares of land in the Cariboo region, the directors of the 100 Mile Community Forest felt a social responsibility to reduce fire risk to their community.

In June, FLNRORD Cariboo staff and representatives from the Forest Enhancement Society of B.C. and other partner organizations got a look at their response—a series of fuel treatments planned in the areas of the forest closest to homes.

The treatments call for the removal of many of the fine fuels, like dried twigs and bark that accumulate on the forest floor, as well as ladder fuels like shrubs, dead trees and tall grasses. Buncher operators are thinning the forest, targeting smaller trees and preserving older specimens.

The goal of these types of treatments is to modify fire behaviour, ideally discouraging the kinds of out-of-control canopy fires that are fast-moving and difficult to

suppress. When wildfires remain grounded, firefighters have more options for suppression and community defense. But the process isn’t just about cutting down trees and picking up sticks. Steve Capling of DWB Consulting Services Ltd. told FLNRORD staff he had to consider many other factors when writing fuel management prescriptions for the community forest. These included other land-use designations, such as Mule Deer Winter Range, balancing the cost of treating areas with lower timber volume and creating simple harvest instructions that could be followed by contractors.

“There’s a lot of moving pieces and they’re still moving,” Capling said.

Steve Capling of DWB Consulting Services Ltd. details a fuel management treatment underway in the 100 Mile Community Forest.



Following the tour, staff talked about how to improve the approval processes that must take place before a proponent like the community forest can begin to work.

Capling noted there’s also a need for government and tenure holders to continue to educate the public about fuel management and wildfire mitigation, and the visual changes to the landscape they will require.

“We have to get support from the neighbours,” he said.

BC Timber Sales Provides Cultural Cedar Log to Campbell River Secondary School

Submitted by: Christi Howes, BC Timber Sales, Communications and Engagement Specialist

Last fall, when the Nanwakolas Council requested assistance locating a 5 x 30 foot western red cedar log from BCTS' Strait of Georgia Campbell River operating area for Carihi Secondary school's canoe carving project, BCTS operations technician, Dave Hamilton, took on the logistical tasks of locating, banding, falling and delivering the log to the school grounds. The large cultural log will be used by students and staff to carve a traditional canoe under the guidance of Indigenous students, artists and elders.

With the assistance and expertise of carver and instructor Max Chickite, a member of We Wai Kai First Nation residing in Campbell River, Hamilton found a suitable tree located in the Eve River Valley, in the traditional territory of Tlowitsis First Nation and We Wai Kai First Nation, both of which fully support the

project. Large cultural cedars are old-growth cedar trees of high enough quality to be used in traditional First Nations practices such as canoe and pole carving or for traditional-style longhouses. Dave had several potential trees in mind in the Eve River valley he thought could work.

At the end of November, Dave led the Carihi Secondary School forestry class, staff and Carihi audio visual students into the field to have the carver assess several large cultural cedar trees BCTS has inventoried and reserved for First Nations to access under permit. The forestry class students were treated to an informative field day that included learning the process of inspecting, marking, mapping and documenting the key characteristics of monumental and legacy trees.



The tree chosen is approximately 170 cm in diameter and was delivered to the school ground in February. The carving project will provide Indigenous students with an opportunity to take on a leadership role with other students and staff across School District 72. For a video of the log being delivered to the school, visit: youtu.be/X9imZpum5Mw



Dave Hamilton, BC Timber Sales Operations Technician

continued...

Cultural Cedar Log continued...

On April 30, the log received a traditional blessing, as is customary before any carving begins, organized jointly by Wei Wai Kum and Wei Wai Kai. For a news clip on the traditional log blessing ceremony at the school, visit: www.cheknews.ca/800-year-old-western-red-cedar-to-be-turned-into-first-nations-canoe-in-campbell-river-556750/. Bark removal and carving is planned to begin on the log in 2019 school year, shortly after the students return from summer holidays.



Inspired by the Qatuwas, the gathering of the canoes in Campbell River, Carihi Secondary School principal Fred Schaub and teachers Ray Wilson and Jeffrey Lontayao began planning the project two years ago. BC Timber Sales is thankful to the companies that lent their expertise and equipment in the successful delivery of the log to the school: Holbrook Dyson Logging Ltd. for yarding and loading, Sibola Mountain Falling Ltd. for falling, Fearless Trucking for trucking, Strategic Natural Resource Consultants for log banding and Discovery Crane for unloading the log at the school.

The Nanwakolas Council represents and provides support to six local First Nations including the Mamalilikulla, Tlowitsis, Da'nada'xw Awaetlala, Wei Wai Kum, Kwiakah and K'omoks. The project is endorsed by local First Nation Wei Wai Kum, Wei Wai Kai, Homalco, and Klahoose band councils, and the Metis National Council.



Interested in reading past newsletters?

You can find archived ministry newsletters dating all the way back to 1922 at:

https://www.for.gov.bc.ca/ftp/HEX/external/!publish/Web/News_Letters/

We hope you enjoy reading about the past!

BC Timber Sales' Commitment to Environmental Stewardship and Sustainability

Submitted by: Allan Powelson, A/Director Sustainability and Forestry, BC Timber Sales



Sustainability is an overarching principal of everything BC Timber Sales (BCTS) does. At the link below, please find BCTS' inaugural environmental stewardship and sustainability [report](#).

The report highlights the successes and innovations BCTS has achieved in sustainable forest management—successes and innovations that provide social, economic and environmental benefits from British Columbia's renewable forest resources for communities throughout the province.

With respect to BCTS' Coastal Old Growth Management, there are many mechanisms and initiatives which BCTS manages and protects Old Growth (OG). OG on the Coast is defined as those forest stands that are greater than 250 years of age. Old forest retention is a requirement under the *Forest and Range Practices Act* (FRPA) and a key consideration with regards to biodiversity. BCTS manages OG through a number of policies consistent with legislation, regulation and other forest management provisions. Some examples of these management activities are:

Forest Stewardship Plans (FSPs)

– Under FRPA, BCTS is required to have an approved FSP prior to harvesting Crown timber. All holders of an FSP are subject to old-growth retention requirements. FSPs are legally binding.

Ecosystem-Based Management (EBM)

– EBM is an adaptive approach to managing human activities that seeks to ensure the coexistence of healthy ecosystems and human well-being. Following extensive collaboration among First Nations, industry, government and environmental groups, EBM was implemented with the establishment of the Great Bear Rainforest (GBR).

- GBR – The Great Bear Rainforest (Forest Management) Act and the GBR Land Use Order support an EBM regime on the north and central coast.
- Haida Gwaii – The Haida Gwaii Land Use Objectives Order (2010) established EBM on Haida Gwaii and balances cultural, ecological and social and economic objectives.

Forest Certification – 100% of BCTS' operating areas are

certified under the Sustainable Forestry Initiative (SFI).

Certification includes criteria and indicators for old growth, such as old-growth retention, that must be achieved in order for certification to be maintained.

Order Establishing Provincial Non-Spatial Old Growth Objectives (2004) (the Order)

– The Order establishes provincial non-spatial old-growth objectives and assists in clarifying the amount of area available for timber harvesting.

Vancouver Island Land Use Plan (VILUP)

– BCTS incorporates the VILUP, Higher Level Plan Order (2000) in those FSPs covering applicable landscape units. That content drives the planning and development activities for those units, including the maintenance or recruitment of OG forests.

Old Growth Management Areas (OGMA)

– OGMA's are defined areas of old-growth forest, or old-growth recruitment. BCTS' staff contribute to the planning and protection of OGMA's. BCTS is required to maintain legally

continued...

Commitment to Environmental Stewardship and Sustainability continued...

established and spatially defined OGMAs and meet the targets of the provincial old-growth order (the Order) when preparing FSPs.

Wildlife Habitat Areas (WHA) and Ungulate Winter Ranges (UWR) – WHAs and UWRs occur at the stand level scale and can occur throughout the timber-harvesting land base. Examples include WHAs on Vancouver Island in place for marbled murrelet, northern goshawk and red-legged frogs. WHAs often overlap with OGMAs because they protect similar values.

Wildlife Tree Retention Area (WTRAs) – BCTS conducts stand level field reconnaissance to confirm forest cover types and to identify features that may be of concern or require special management. WTRAs are identified and mapped to ensure their integrity over the long term. WTRAs can be anchored to special features such as culturally modified trees, animal dens and large legacy trees.

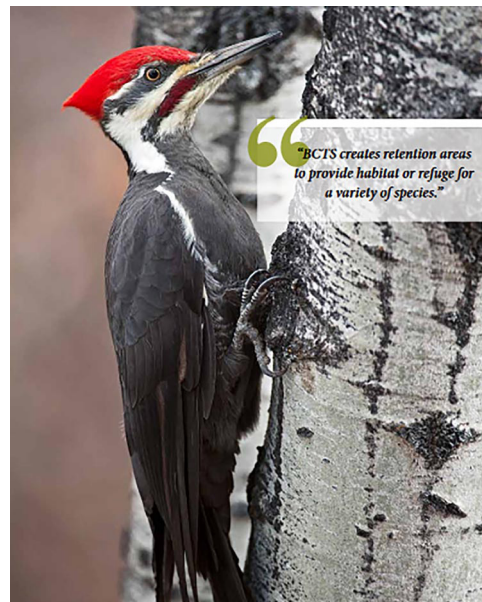
Riparian Management Areas (RMAs) – RMAs maintain ecological linkages throughout the forest landscape. These areas can be comprised of old-growth trees, making them ideal for locating large cultural cedar trees or legacy trees, plus providing unique stream and riparian habitat features.

Legacy Tree Best Management Practices (aka Legacy Trees, Iconic Big Trees) – BCTS voluntarily developed and implemented an internal operating procedure to protect and track exceptionally large-diameter single trees during forestry operations.

Veteran Tree Retention in 2nd growth stands – BCTS, in some second-growth stands, particularly near communities or areas with high stakeholder interest, retains large veteran trees during second-growth harvesting.

Large Cultural Cedar (LCC) – LCC is a unifying term that represents the general specifications of First Nations for cedar required for cultural use (larger cedar intended for longhouses, canoes, totem poles, carvings, etc.). BCTS has incorporated the management of LCC into its FSPs strategies and their Large Cultural Cedar Field Data Collection Standard Operating Procedure guides field staff and contractors in the collection LCC data.

In addition to BCTS' Coastal Old Growth Management, their forestry research addresses climate change impacts and species at risk considerations, and staff apply adaptive forest management to both long-term planning and day-to-day decision-making.



Have a Story idea?
Send *The Dirt* Advisory Group your ideas!

Don't forget about the Facebook page
<https://www.facebook.com/groups/flnrnews/>

Premier's Awards - 2019 Regional Finalist

BCTS' Forest Technologist Entry Level Program (FTELP): An on-the-job training program for new graduates

Submitted by: Craig Tilander, BC Timber Sales, Manager Business Excellence



BCTS' newest FTELP cohort from left to right: Catherine Singh (FIT), Dylan Tripp (BCTS Forest Operations and Training Specialist), Brenden Voysey (FIT), Wes Van Camp (TFT), Dylan Matheson (TFT), Alyssa Skaalid (TFT), Becca Chettleborough (TFT), Megan Yelland (TFT), Rachel Witt (BCTS Coordinator of Business Excellence), Milan Mi (BCTS FTELP Team Lead).

Since the recession and forest industry consolidation, BCTS has had significant recruitment and retention challenges, particularly in the north. Some locations experience vacancy rates of over 20% and turnover rates of more than 10% per year. Together with the PSA, BCTS has tried numerous standard and targeted recruitment initiatives and strategies over the years to attract qualified staff. None were successful at drawing or retaining people with the required education, professional designations and work experience.

A new approach was needed and a task team was formed. The team asked themselves, "If we cannot recruit people that already have the experience needed, why not target inexperienced people and develop our own qualified staff by providing them with the experience they need?" In other words, switch the strategy from recruiting from a shrinking pool of existing forest sector workers to recruiting from college graduates with little to no experience and give them on-the-job training to provide them with the required experience, followed by at least two years of full-time regular employment with BCTS in northern BC.

Planning for the FTELP began in 2014. The team had to move from concept to the first cohort arriving in Mackenzie in June 2016. There were no staff resources, no job profiles, no program curriculum, no work plans, no participants, no facility space to house 12 participants and 6 staff, no office or field equipment, no place to store the field equipment. Over the next two years, the team obtained approvals and resources and built the program from the ground up.

The FTELP offers practical hands-on experience as forest technologists in an operational environment and support in achieving required technologist designations. Located in Mackenzie, the program attracts young people to the north where they establish ties with the community, some participants have become members of the volunteer fire department, search and rescue and other community groups in Mackenzie. They have also built a relationship with BCTS and the broader ministry.

In 2016, the first cohort of six participants started the program. In 2017, the program was opened to university students pursuing a degree in forestry and their Register Professional Forester (RPF) designations, and the second

continued...

Premier's Awards - 2019 Regional Finalist continued...

cohort, a mix of university and college graduates, started the program. The program is now fully operational and produces about six new fully qualified Forest Technologists for BCTS in the north each year. The first six participants graduated in June 2018. All obtained their Registered Forest Technologist designations from the ABCPF, and all became fully qualified and high performing Forest Technologists in BCTS. At least two of the graduates have already earned promotions within BCTS in the north. The next cohort completed the program at the end of June 2019.

The program is located in Mackenzie to promote northern recruitment, retention and a northern lifestyle. The curriculum includes: Cut-block and road design, TSL preparation and monitoring, check cruising, silviculture activities including planting and surveys, appraisal preparation, contract preparation and monitoring, GIS training, forest health, safety and Indigenous Peoples awareness training.

BC Timber Sales is pleased to have the FTELP recognized as a 2019 Premier's regional awards finalists for Organizational Excellence. The premier's regional awards recognize BC Public Service employees, work units, branches and ministries that worked on projects that impact a specific region, resulting in substantial benefits to clients, the public service or citizens.



Do you sit at work all day? Is your work causing physical pain? Staying in one position while doing repetitive motions is typical of a desk job. Here are a few simple exercises to do at your desk. Even better get up from your desk and go for a walk--sitting is the new smoking...

[Government of Canada - Canadian Centre for Occupational Health and Safety.](https://www.ccohs.ca/osh/safety/ergonomics/ergonomics.html)

48th BC Forest Service Trap Shoot

Submitted by: Brian Rosengren, Stewardship Forester, Cariboo Natural Resource Region

The 48th BC Forest Service Trap Shoot was held at Alexis Creek's Chilcotin Rod and Gun Club Range on Saturday, May 25; it started off rainy, but improved, except for the mud.

It was a great turnout with 55 shooters comprised of 11 five-person shotgun trap and skeet teams, and individual .22 calibre rifle shooters.

Alexis Creek and Williams Lake staff from the Cariboo-Chilcotin District of the BC Ministry of Forests, Lands, Natural Resources and Rural Development, organized the event and the Ravens unit crew setup the tents, tables and chairs. Sam Davis ensured our vintage clay pigeon throwers were operational for the day.

Barry Jenkins and Mike Carlson (BC Forest Service retirees and have been present for most of the 48 years) served as range masters—Barry for the shot-gunners, and Mike for the rifle shooters. Adam Veley also served as range master and gave the safety briefing.

Quesnel Quality was the highest scoring trap and skeet team and awarded the Jack Lynn Memorial Trophy. The Quesnel Quality team comprised of Terry Street, Gord Wall, Ted Traer, Andres Street, and Adam Veley, that scored 104 out of a possible 125 points.

Adam Veley was the Top Gun with a 23 out of 25. Connie Haley was the female Top Gun with 17 out of 25.

Reid Fitchner was the last man standing on the first Annie Oakley trap shoot line.

Oleh Chapman triumphed on the second Annie Oakley line.

The .22 calibre rifle shooting winners, listed first to third, were: Connie Haley, Peggy Menning, and Andrea Robinson for the women and Rio Eidse, Meacham Carlson-Campbell and Rune Eidse for the youth.

Team "Drop Kick Murphy" won a hard fought battle for the lowest-score trophy, the Broken Shotgun, and Bob Lomavatu won the corresponding 179th fastest gun trophy.

Everyone enjoyed the competitive fun, great food and camaraderie; to me it is like an Alexis Creek Forest Service reunion every year!



More photos on the Trapshoot can be found [here](#)

The Dirt Photographers!

Time to get out and snap some photos! *The Dirt* Advisory Group increasingly requires good quality digital photos for the quarterly newsletter. We acknowledge that there are skilled photographers among ministry staff and would like to showcase your photos in each quarterly edition.

Categories

Photos can consist of:

- Workplace images – individuals or groups/teams in office and field settings; health, wellness and social activities;
- Community involvement;
- Wildlife; or
- Scenic.

Submission Details

- Deadline for submissions is changed with each edition and will be noted on the previous edition.
- Images can be submitted to: FLNRNews@gov.bc.ca
- The contest is open to all ministry employees and retirees.
- Interested staff can make submissions to as many editions (season/category) as they want, but there is a limit of 5 images per category.
- We are looking for recent photos; please limit your entries to shots taken within the past 2 years.

Don't forget to try your hand at writing a limerick or poem. Send [The Dirt](#) Advisory Group your ideas!

Prizes and Judging

- There will be an overall “Best” image in each category;
- Judging will be done by the Advisory Group;
- Images will be judged on composition, clarity, exposure, creativity, relevance to the ministry and category fit;
- The winner of the “Best” image in each category will be sent a prize for their photo (see Prizes available);
- Individuals can win only one prize; and
- All winners will be announced with their photo in the edition of the newsletter.

Technical Specifications/Requirements

The following specifications and requirements have been established to ensure that images can be used in a variety of applications.

1. All images must have relevance to the ministry and be submitted in digital format.
2. All images must be in full colour or black and white.
3. Photo dimensions (image size) should be at 300 dpi and preferably in a JPG format and sent to FLNRNews@gov.bc.ca.
4. Images can be digitally enhanced (i.e., colour/exposure adjusted composite photos are okay), but not digitally altered (i.e. NO “Photo-Shop” images must portray subjects and/ or material in photo as they were captured).
5. When submitting images, some descriptive information is to be included – category or image and location.
6. All images submitted, whether or not selected as a winning image, may be published in future issues of the newsletter or potential other sources (The [Dirt Facebook](#) account)

For further information, contact:
FLNRNews@gov.bc.ca

DEADLINE IS SEPTEMBER 13, 2019.

June Edition Photo Contest Winners

Wildlife Category - Mature Sharp-shinned Hawk in Powell River, Sunshine Coast Natural Resource District. Immature Sharp-shinned have yellow eyes that gradually turn red as they get older. Remnants of the hawk's last meal/victim can be seen on its beak.

Photo taken by: Thomas Rost, RFT | Senior Engineering Technologist, Sunshine Coast Natural Resource District



Have a photo for the next “Photo Contest?” Review the contest guidelines and send to [The Dirt Advisory Group!](#)

Scenic Category - I couldn't just pick one so there are three for scenic.

Louis Thomas, Mt. Ida

Photo taken by: Jeff Samuel, First Nations Relations Advisor, Okanagan Shuswap Natural Resource District



Spius Falls near Merritt, BC

Photo taken by: Ed Grayston, RFT, Tenure Technician, BCTS - Merritt Timber Sales Office



Scenic Category - As an avid adventure seeker for the most serene locations in Kamloops, it is my pleasure to share a spring storms evening from Tranquille Beach, over looking the mouth of Kamloops Lake accompanied by our sweet model dog, Diesel."

Photo taken by: Kathryn Finlay, Regional Services Lead | Thompson Okanagan Region
Client Services Branch |CSNR



Photographers, please contact the [Advisory Group](#) to claim your prize or contact [Kimm Magill-Hofmann](#) directly.

Workplace Category - Mark Reiter, Manager with FLNRORD in the Coast Management District as he acts as a ski patroller on Shames Mountain ski hill near Terrace BC, late March 2019.
Photo taken by: Norm Parry - retiree



Photographers, please contact the [Advisory Group](#) to claim your prize or contact [Kimm Magill-Hofmann](#) directly.

BERG'S EYE VIEW

by Shane Berg



The Dirt is a quarterly newsletter for all employees and former employees.

Sonia Donison is providing management, coordination and production for the newsletter. Questions or comments about the newsletter should be directed to Sonia at 778 974-5834 or via [email](#).

Call for Stories/Ideas

The success of the newsletter depends upon the active engagement of staff throughout the organization. One way for people to support the newsletter is to share your ideas, news, stories, successes, experiences with revitalization and learning, celebrations and photos for use in future editions of the newsletter. People are asked to check with Sonia at 778 974-5834 or via [email](#) about their idea or ideas for an article prior to writing the story. Stories are to be submitted no later than 2 weeks prior to each quarterly edition (June, June, September, December). Article deadlines for the next edition is September 13, 2019.



[SUBMISSION GUIDELINES](#)