

Roundtable Engagement on BC's Forestry Sector Training Needs

Industry need for Fundamentals of Forestry Training



Photo courtesy of Vancouver Island University
Fundamentals of Forestry Harvesting Class, Woss, BC

22 October, 2018

Prepared by:

JM Talbot and Associates Contract Management Inc. and Gail Sherson Ltd

On behalf of:

Ministry of Advanced Education, Skills and Training

Canada



*Funding provided through the Canada-British Columbia
Labour Market Development Agreement.*

The views and opinions expressed in this report are those of its authors and not the official policy or position of the Government of British Columbia.

Acknowledgements

The authors would like to acknowledge and thank the following for their contributions and support:

- We acknowledge the very high level of enthusiasm and passion demonstrated by the people and organizations involved in planning and running the first “Fundamentals of Forestry” pilot training. This includes, but is not limited to, The BC Forest Safety Council, Vancouver Island University and Western Forest Products. We thank the people in these organizations for their support in preparing for the industry engagement and roundtable sessions described in this report.
- The following made a particular contribution by voluntarily joining the three regional roundtables as presenters and panelists: Kerry Jothen on behalf of the BC First Nations Forestry Council, Russel Robertson of the BC Forest Safety Council, and Paul Mottershead and Ted Dillman of Vancouver Island University. The participation by these panelists provided roundtable participants with a significant update of effort applied and knowledge and experience accumulated over recent years. In addition, Theresa Craveiro of the BC First Nations Forestry Council and Allison Thompson of the BC Forest Safety Council participated in all three engagement sessions and contributed follow-up input. The work by these organizations has been financed by the Forest Industry, and by the Ministry of Advanced Education, Skills and Training (formerly from Ministry of JTST) and Ministry of Forests, Lands and Natural Resource Operations.
- The authors requested and received significant support in planning the roundtables from the forest sector community (independent forestry contractors, major manufacturers and associations, educational institutes and Indigenous organizations). While not a complete record, the following were particularly helpful: Truck Loggers Association, Interior Logging Association, Western Forest Products, TimberWest, West Fraser, Canfor, ATCO Wood Products, KLA Logging, Interior Lumber Manufacturers Association and FPIInnovations.
- Most of the above mentioned were also keenly engaged in discussions during the roundtables as were Hamalco First Nation, Coastal ASETS representatives (NETP, NVIATS), Citxw Nlaka'pamux Assembly, AF Timber, Kalesnikoff Lumber, Interfor, Island Timberlands, Duz Cho Logging, Okanagan College/CETABC, Selkirk College, Thompson Rivers University, College of New Caledonia, North Island College, among many others.

The high level of participation by the forestry sector, especially during the summer vacation period and the peak of a very active forest fire season, leaves no doubt about the importance of this topic to the sector. Through roundtable attendance, as well as follow-up input and telephone discussions, the sector demonstrated a high level of concern regarding the need for training and attraction of qualified new employees.

Executive Summary

The purpose of this project was to confirm understanding of the forestry sectors' training needs in order to inform government regarding new program development, changes that could be made to existing programs or good practices that could be expanded.

The goals, through engagement with industry partners, Indigenous partners, educational institutions, and other stakeholders, were to:

- Gather feedback on Vancouver Island University's "Fundamentals of Forestry" harvesting practices pilot program including course content and fit with industry needs.
- Gather input on potential curriculum modifications for future Harvesting Practices offerings on the Coast and in other regions of BC.
- Discuss opportunities for adding to the Harvesting Practices Program for other forestry sub-sectors such as yarding, mechanized harvesting, road building, and transportation.

In addition to the above goals, the roundtable participants exchanged information and discussed key related issues such as:

- The need for sustainable funding for on-going institutional training programs and related on-site-training.
- Improving pathways for training Indigenous peoples and the resulting increased entry into the forest sector.
- Attracting people to careers in the forest sector through improved general public perspective of the sector.

Vancouver Island University designed and successfully delivered the 12-week Fundamentals of Forestry Harvesting Practices Pilot Program based on core competencies identified and developed by the British Columbia Forest Safety Council (BCFSC). These competencies were identified in consultation with sector experts and include the key skills, knowledge and attributes required for entry-level forestry workers. The pilot training was delivered in Woss, BC, with financial support from Western Forest Products, the Regional District of Mount Waddington, and the Vancouver Island North Training and Attraction Society (VINTAS).

Three roundtable sessions were conducted in Campbell River, Kelowna and Prince George, in August 2018, to seek industry feedback. Participants included Forestry industry employers (primary industry and logging contractors), Indigenous partners, industry associations and organizations and educational institutions. At all three sessions, the target of 15-20 participants was exceeded, demonstrating how important this topic is to British Columbia's forestry industry.

The roundtables confirmed that:

1. The Fundamentals of Forestry training is very important to launch in other BC regions.
2. The VIU Fundamentals of Forestry pilot program as delivered does not in all cases meet the needs of industry for entry-level employees across the Province. The selection of competencies and other course components needs to be modified to take into account the needs of different employers and regions.

3. There are also regional differences in terms of the highest priority sub-sectors for future training.
4. The course delivery is appropriate in terms of theory and practical, hands-on focus. It is important to industry to include practical training, not all conducted in the classroom. It is also important to train in small communities or in a camp environment so that people understand the future job expectations.
5. There should be a process for pre-screening candidates entering the regional institutional education programs for their suitability to succeed in a forestry work environment.
6. Industry should provide opportunities for field trips, industry orientation and/or practical on-site training.

In addition, the roundtables identified:

1. Sustainable funding for on-going training via the provincial education system is critical - too many pilot courses do not lead to on-going programs. It is important to continue the pilot programs and in parallel, to address sustainable funding.
2. There is also a need to address the next level of training i.e. on-the-job training following the fundamentals training. Companies need to ensure additional on-the-job training before handing a new employee over to a mentor. Whether this is conducted by 3rd party or in-house trainers, there needs to be a consistent curriculum and there needs to be 3rd party assessment of each employee following the training.
3. There are two streams of training needed - institutional, as noted via the fundamentals program, and the on-the-job training component that would include not only entry-level employees but up-grade training of the existing workforce and up-grading of skilled workers from other sectors. On-the-job-training is critically necessary for the independent contractors' immediate needs to replace experienced employees operating the more sophisticated equipment in the field. Financial support is needed to offset the cost of the on-the-job-training e.g. significant training tax credits for employers' on-site training.
4. It is strategically and practically important to forest companies that they create meaningful jobs and help grow careers for Indigenous peoples. The ideal candidate described for entry into the Fundamentals pilot program training may present barriers for Indigenous peoples. Roundtable participants recommended working with First Nations and agencies to build pre-competencies including drivers licences, English, math and life skills.
5. There is opportunity for Indigenous organizations such as Aboriginal Skills and Employment Training Strategy (ASETS) agreement holders, in close collaboration with the BC First Nations Forestry Council (FNFC), local educators (including the Indigenous Adult and Higher Learning Association (IAHLA)) and the industry, to more proactively facilitate Indigenous peoples participation.
6. The FNFC works closely with ASETS and has identified a number of actions in their Strategy to further facilitate First Nations participation in the Forest Sector.
7. There is an urgent need for attracting workers in general, with this message heard most loudly in Prince George where the situation is now considered a crisis. There is a need to focus on training people today, as well as on attracting young people for the mid and longer term:
 - o It is extremely important to attract young people to the sector including educating and attracting students in secondary schools.

- Rebranding of the sector is critical to change the negative perception of the forest sector and to make the public aware of the positive environmental and sustainable aspects as well as the broad range of career opportunities and well paid jobs.
 - Employers may need to adapt the jobs to suit young people, including a more flexible work environment.
 - Need recognised career credentials and recognised skilled trades to attract people. Without this, people will move on to other recognised trades that they view as a career, such as Red Seal Trades for Heavy Equipment Operators in the construction and mining sectors.
8. While it is clear that recognised career credentials and recognised skilled trades are needed, there is a concern that requiring workers to be certified would reduce the available labour pool and drive up costs. This is of particular concern to the small business community. As with many trades in BC, a situation where certified workers are preferred but not mandated, is desirable e.g. Red Seal trades.
 9. It is important to include an introduction to advanced technology in the Fundamentals training and as a part of sector rebranding and attracting people to the sector. Advanced technology is a big part of today's forest industry, and this is not always recognised outside the sector. It is also important to include an environmental component in the Fundamentals training, including environmental responsibilities and benefits of today's forestry sector.
 10. The Fundamentals training brings an additional benefit of providing a pathway into the forest sector for entry level people.
 11. The roundtables have enhanced local industries' and educators' understanding and appreciation of the work done by Forest Safety Council and the partners on the VIU pilot program

Recommendations include:

1. Expand the Fundamentals of Forestry pilot training to other regions of BC
2. Put in place sustainable funding to ensure on-going training
3. Improve pathways for Indigenous peoples
4. Start educating the future workforce in high schools
5. Identify an industry champion/ guiding organization

Table of Contents

Acknowledgements	2
Executive Summary	3
Project Purpose and Goals.....	7
Scope	7
Background	7
Description of the Fundamentals of Forestry Pilot Training Program.....	12
Roundtable Sessions.....	12
Overview of the Sessions	12
Campbell River Roundtable	15
Kelowna Roundtable.....	18
Prince George Roundtable.....	21
Summary of Roundtable Outcomes	24
Pre- and Post-Roundtable Engagement	28
Key Themes and Observations.....	29
General Observations	29
Industry Need for Training.....	30
Attracting Candidates	31
Indigenous Peoples Engagement	32
Training costs and sustainable funding	32
Recommendations	33
1. Expand pilot to other regions of BC.....	33
2. Put in place sustainable funding to ensure on-going training.....	33
3. Improve pathways for Indigenous peoples.....	33
4. Start educating the future workforce in high schools	34
5. Identify an industry champion/ guiding organization.....	35
References	35
Appendices.....	36

Project Purpose and Goals

The purpose of the Project is to confirm understanding of the forestry sectors' training needs in order to inform government regarding new program development, changes that could be made to existing programs or good practices that could be expanded.

The goals, through engagement with industry partners, Indigenous partners, educational institutions, and other stakeholders are to:

1. Gather feedback on Vancouver Island University's "Fundamentals of Forestry" harvesting practices pilot program including course content and fit with industry needs.
2. Gather input on potential curriculum modifications for future Harvesting Practices offerings on the Coast and in other regions of BC.
3. Discuss opportunities for adding to the Harvesting Practices Program for other forestry sub-sectors such as yarding, road building, and transportation.
4. Compile and report research findings, roundtable outcomes, observations, learnings and recommendations.

Scope

The project scope includes reviewing previous relevant forestry engagement and research reports and extracting findings, followed by organizing and facilitating three roundtable forestry engagement sessions to gather input on forestry industry needs related to the Fundamentals of Forestry Pilot Training Program. This 12-week Pilot Training Program, launched by Vancouver Island University in April 2018, is described later in this report, with additional details included in appendices A and B.

Stakeholders participating in the roundtables included forestry industry employers (primary industry and logging contractors), Indigenous partners, industry associations & organizations and educational institutions. For key partners and stakeholders unable to attend one of the three sessions, input was gathered via phone calls, emails and face-to-face meetings. Following the roundtables, outcomes, observations, learnings and recommendations have been compiled.

Background

The Ministry of Advanced Education, Skills and Training has a mandate to develop more degree and certificate programs to increase the number of skilled workers in B.C.'s forestry sector.

The BC Forest Sector needs over 3,000 new Forestry workers between 2017 and 2027, with another 8,000 new workers needed in Forest Sector Manufacturing ^[1]. As illustrated in Figure 1, these new workers are required for replacement job openings (job openings to fill positions that are generated by a permanent exit from the labour force, including retirements). To meet these evolving labour market needs, it is essential that training and education programs can supply the quality of workers needed. Most existing training programs that have been identified at post-secondary institutions in B.C. range from Technician Diplomas to Bachelor's and Master's Degrees. There is a gap in on-going, practical training programs available to prepare workers for skilled forestry positions such as fallers, hook tenders, grapple yarder operators, log load operators and logging truck drivers (Recruitment and Training in the BC Forest Sector: A Roadmap Forward, pp. 6, 13)^[2]. This means establishing and/or

updating the required standards and quality control measures for these skilled occupations and ensuring that new training programs meet industry needs and can be effectively delivered by qualified education and training entities.

Figure 1 – Forest Sector Job Openings, 2017-2027

Industry	Employment LFS 2017	Employment LMO 2017	Employment Growth		Job Openings 2017-2027		
			(2017- 2022)	(2022- 2027)	Expansion	Replace ment	Total
Forestry and Logging with Support Activities	18,600	22,500	-1.3%	-2.2%	-4,100	7,200	3,100
Forestry and logging	12,100	12,500	-2.2%	-2.9%	-3,200	4,300	1,000
Support activities for agriculture and forestry	6,500	10,000	-0.2%	-1.4%	-900	2,900	2,000
Wood product manufacturing	27,800	31,400	-1.8%	-1.3%	-5,200	10,900	5,700
Paper manufacturing	10,700	8,400	-0.4%	-2.1%	-1,200	3,300	2,100
B.C. All Industries	2,467,000	2,408,000	1.1%	1.1%	277,000	640,000	917,000

Source: BC Labour Market Information Office, Labour Market Outlook: 2017 Edition

A working group of forest industry leaders in recruitment and training articulated their vision and business case in a 2015 report titled Recruitment and Training in the BC Forest Sector: A Roadmap Forward^[2]. The four strategic priorities identified in the Roadmap are:

Strategy 1 - Position the sector for recruitment success with key target audiences

- Increase awareness, attractiveness and relevance of the forest industry (in general)
- Increase awareness of and interest in forest industry careers specifically

Strategy 2 - Ensure training and education programs can supply the quality workers needed

- Establish/update the required standards and quality control measures for all occupations in need
- Ensure the required competencies can be effectively delivered by qualified education and training entities
- Ensure adequate funding for on-the-job training

Strategy 3 – Increase the number of skilled and successful First Nations in the forest economy

- Establish/renew the required training to upgrade and ladder First Nation candidates into a forest development path
- Ensure the required counseling, mentoring and forestry sponsorship programs are in place
- Encourage partnerships and businesses involving aboriginal people, forest companies and government

Strategy 4 – Establish a Provincial entity to coalesce the efforts of all stakeholders

- Establish an entity with the mandate for coordinating the sector’s skills training and credentialing systems
- Ensure employers, educators, training providers and potential recruits are connecting
- Ensure actions are effectively executed and serve to reduce industry’s business risk

The Roadmap was followed by a number of separate Sector LMP projects focussed on discrete aspects of the report. Several key bodies of work have led us to the current training opportunities that are the focus of these roundtable sessions:

1. **The British Columbia First Nations Forestry Council (FNFC)** completed and reported a sector engagement project in 2017^[3] and a British Columbia First Nations Forestry Workforce Strategy in July 2018^[4]. The BC First Nations labour force represents approximately 5% of the total workforce. The Workforce Strategy's goal is to "double First Nations employment in the BC forest sector to 10% of total by 2027 or 5,322 of projected total employment of 53,217 by 2027. In order to achieve this, the Strategy has a target of 20% or almost 2,200 of the 10,901 job openings to 2027 or about 220 per year."^[4] The Strategy identifies the need to increase First Nation peoples participation and success in forestry-related education and postsecondary education, training, credential attainment and industry certification. The implementation section of the Strategy sets out 12 action items aimed at "increasing access to and completion of relevant forestry-related education and training and occupational certification among First Nations people, including expansion of internships":
 - 1.1. Develop an inventory and assessment of forestry-related education and training programs and certifications in BC and work with institutions to track numbers of First Nations students in and graduates of forestry programs
 - 1.2. Work with the BC Forestry Safety Council to build on and partner with it on its competency-based assessment and training model for forestry occupations
 - 1.3. Ensure safety training, certification and experience are provided for First Nations workers and safety management systems training are provided for First Nations forestry businesses
 - 1.4. Promote increasing First Nations peoples high school completion and literacy/other essential skills
 - 1.5. Increase First Nations participation in forestry-related job readiness training
 - 1.6. Establish and implement a partnership MOU with the Industry Training Authority (ITA) to increase First Nations participation and success in apprenticeships, trades foundation programs, and K-12 programming (e.g. ACE-IT, SSAP, etc.) in forest sector employment
 - 1.7. Explore with the ITA and SkillSource the Group Training Organization model to sustain First Nations apprenticeships across employers
 - 1.8. Support in-house, work-based training in forest companies, including First Nations ones
 - 1.9. Expand the Forest Technician Internship Program throughout the province and the sector
 - 1.10. Increase First Nations participation and success in forestry-related post-secondary education in certificate, diploma, degree, graduate and professional-level programs
 - 1.11. Include entrepreneurship, business management and procurement skills training in the Strategy training plan
 - 1.12. Use Elders and others to provide mentorship to increase cultural relevance and support for retention and success in education and training
2. **The British Columbia Forest Safety Council (BCFSC)** is the health and safety association for forest harvesting, sawmills and pellet manufacturing in British Columbia. The BCFSC works with

forest sector employers, workers, unions, contractors and provincial government agencies to support industry in implementing changes necessary to eliminate fatalities and serious injuries in the forest sector.

Since 2016, the BCFSC has been developing a system that supports education, training and assessment programs that will ensure a supply of qualified workers in forest sector harvesting occupations^[5]. This initiative is in direct support of one of the four strategic priorities outlined in the Forest Sector Workforce Initiative Roadmap – i.e. Ensure training and education programs can supply the quality workers needed^[2]. What sets this training system apart from many traditional courses, is that it is focused on training outcomes that are needed for someone to be able to do the job (i.e. assessment of how the trainee applies the knowledge in practice and whether the trainee is measured as competent against a set of standards).

Specifically, the BCFSC has been developing and testing units of competence and corresponding unit assessment tools for 35 forestry sector harvesting occupations spanning silviculture, integrated harvesting, and resource road building. These competencies were identified in consultation with sector experts and include the key skills, knowledge and attributes required for qualified workers. It was observed that within these competencies is a band of entry-level competencies that are common across all 35 occupations. These, described as fundamental competencies, formed the foundation of the “Fundamentals of Forestry Harvesting Practices Pilot Program” launched by Vancouver Island University and described below.

Competency guidelines have been created for yarding, mechanized harvesting, road building, faller/bucker, trucking, forklift, crew boat, boom boat and supervisor occupations. Accompanying learning resources (training materials including instructor guides and lesson plans) are currently being developed and have been completed for 7 of the 35 occupations. Next to be developed will be learning resources for roadbuilding and mechanized harvesting. The longer term plan is to enhance the on-line Learning Management System with a resource section on the BCFSC website, an electronic tracking tool and a quality assurance process. The development status is summarized in Table 1.

Table 1 – Development status of BCFSC Training Resources
(✓ = completed)

	Competency Guidelines	Learning Resources	Assessment Tools	Learning Management System	Assessment Platform
Falling	✓	✓	✓	✓	April 2019
Yarding	✓	✓	✓	✓	April 2019
Mechanized Harvesting	✓	2019/20	✓	✓	April 2019
Road Building	✓	2019/20	✓	✓	April 2019
Transportation	✓	2019/20	✓	✓	April 2019
Silviculture	✓	2019/20	✓	✓	April 2019

Testing and piloting of the training resources are also underway. For example 200 logging truck drivers have been put through the assessment tools, and contactors are being sought to field test road building tools.

3. **Vancouver Island University** developed and recently piloted an entry-level 12-week Fundamentals of Forestry Harvesting Practices Program based on selected competencies identified and developed by the BC Forest Safety Council. The course brochures are attached in Appendix A ^[6]. The competencies chosen for the pilot program were designed to provide new forestry workers with the foundational skills and knowledge required to work safely, productively and sustainably in a harvesting environment. For more details about this pilot training please see the next section of this report - Description of the Fundamentals of Forestry Pilot Training Program.
4. **The Council of Forest Industries (COFI)** completed a Strategic Plan titled the “BC Forest Sector Workforce Initiative” in January 2017 ^[7]. This report includes strategic priorities and specific goals to help position the BC forest sector for recruitment success. It also includes, as an appendix, the Inventory and Gap Analysis Report from November 2016 that includes a list of existing, publically available career information and recruitment products, programs, tools, and websites across the BC forest sector and within other jurisdictions.

Target groups for recruitment were identified within the report, with important target groups including youth, aboriginal, women and immigrants. The priority target selected by the Advisory Group for the short term was youth aged 15-23 (i.e. those who are in the initial stages of making career plans and choices). This focus is reflected in the two strategic priorities and accompanying goals which are:

STRATEGIC PRIORITY #1: Create Community of Practice Networks to Strengthen Engagement
GOAL: Forest sector employers and influencers of youth career choices share knowledge, successful practices and information related to forest sector recruitment and career development activities so they can promote forest sector career options and opportunities for youth aged 15-23.

STRATEGIC PRIORITY #2: Improve Content and Accessibility to Forest Sector Career Information and Tools
GOAL: Forest sector employers and influencers of youth career choices use up-to-date, publicly available forest sector recruitment and career development information to support their interactions with youth, aged 15-23.

5. **The BC Forest Sector Workforce Initiative** created two user-friendly databases to support employers and those who want to investigate education and training in BC and the corresponding opportunities for funding support for students. A temporary website was created to view and access the databases (<https://bcworkforce-initiative.weebly.com/educational-opportunities.html>) ^[8].

Description of the Fundamentals of Forestry Pilot Training Program

Vancouver Island University developed and delivered the 12-week Fundamentals of Forestry Harvesting Practices Program based on core competencies identified by the BCFSC. The program was designed to provide new forestry workers with the foundational skills and knowledge required to work safely, productively and sustainably in a harvesting environment. The training, focused on practical safety and operations-based activities, included off-the-shelf safety courses (e.g. WHMIS, First Aid, Fall Protection, Fire Suppression) in addition to work place and occupational skills. For an overview of the pilot program content, please refer to Appendix B.

The 12 week pilot was delivered in Woss, BC, with financial support from Western Forest Products, the Regional District of Mount Waddington, and the Vancouver Island North Training and Attraction Society (VINTAS). Classroom training took place in repurposed space at the closed Woss Lake Elementary School. Hands on training took place at WFP Englewood Division in Woss and logging operations in the surrounding area. The students had access to rental housing in Woss.

The cost to deliver the program was \$15,000 per student, however the target is to reduce that to \$10,500 per student (assuming no significant use of expensive forestry equipment).

To recruit students, the program was advertised through information sessions in the mid and north island regions, social media, radio, posters and direct communication with employment agencies and First Nation bands. All applicants were interviewed and a shortlist was developed based on assessment results, personal profiles, previous level of education and interviews. The final selection of 12 students was made by representatives of VIU, the instructor and Western Forest Products. Following the course completion it was noted that 4 of the 12 students had self-identified as First Nations. Of the 12 students who began the program, 10 were employed by the last day of the program and an 11th was employed soon after.

Roundtable Sessions

Overview of the Sessions

To achieve the project purpose through a targeted consultation approach, three roundtable sessions were organised in different regions of BC to seek industry feedback. Priority was given to ensuring industry participation (both primary industry and logging contractors), and for this reason the meeting locations chosen were Campbell River, Kelowna and Prince George.

Participation of 15 – 20 stakeholders was targeted at each session, with a balance sought between the following stakeholder groups (at least 2 – 4 participants targeted in each group):

- Forestry industry employers – Primary Industry
- Forestry industry employers – Contractors
- Indigenous partners
- Industry associations and organizations
- Educational institutions

Since the project timelines required these sessions to be held during summer months, it was recognised that this presented some challenges including people away on vacation and industry impacted by a challenging wild fire season. Taking this into account, invitations were sent to approximately 50 participants per session to achieve the target of 15-20 participants per session. The invitation lists were actively managed in the two weeks prior to each session, and contacts in the primary industry stepped up in a big way to recommend additional logging contractors and other participants.

Indigenous peoples representing First Nations bands, assemblies and forestry businesses were invited to the sessions. A meeting was held with Keith Atkinson, CEO of the BC First Nations Forestry Council (FNFC), prior to the sessions. The FNFC supplied contact information for Aboriginal Skills and Employment Training (ASET) holders across BC, and these contacts were invited to the sessions nearest to them. The FNFC also participated directly in all three sessions. Following the sessions, a conference call was held with the First Nations Education Steering Committee (FNESC), a group that works to advance quality education for all First Nations students in British Columbia and to support communities in their efforts to improve the success of First Nations students.

At all three sessions, the target of 15-20 participants was exceeded, demonstrating how important this topic is to British Columbia’s Forestry industry. The participation by session is summarized in Table 1.

Table 1 – Roundtable Participation

Location and Date:	Campbell River 14 August, 2018	Kelowna 24 August, 2018	Prince George 29 August, 2018
Total Participants*	22	27	27
Primary Industry	7	8	7
Contractors	1	5	6
Education Providers	4	5	5
Other Stakeholders**	10	9	9
Indigenous participants***	5	3	5
Follow-up sheets/ emails returned after the sessions	7	8	5

* Includes the three speakers on the panel

** Includes Associations, ASETS, Government, Unions

*** Those identified as Indigenous representatives in the contractor and other stakeholder categories above

The duration of each session was approximately 4 hours, followed by a buffet lunch that provided a networking opportunity. The sessions were designed to be very focussed yet conversational, with the participants fully engaged in the discussion topics and facilitation tools employed to gather maximum feedback in a short time.

The agenda for the sessions (Appendix C) included introductory presentations on the background and subject matter followed by facilitated discussion sessions to gather feedback. The subject matter was covered by a panel of three speakers as follows:

1. BC First Nations Forestry Workforce Strategy – speaker Kerry Jochen on behalf of the BC First Nations Forestry Council

2. Qualified Worker Due Diligence using new Competency Training and Assessment Tools – speaker Russel Robertson, BC Forest Safety Council
3. Fundamentals of Forestry Harvesting Practices Program – speakers Paul Mottershead and Ted Dillman, Vancouver Island University (Ted presented in Prince George)

One of the tools employed to gather feedback was the use of three posters that listed key questions to be addressed in the discussion sessions. The posters are shown in Appendix D. The poster topics were:

1. Fundamentals of Forestry pilot program - fit with industry needs
2. Future Fundamentals of Forestry offerings in different regions of BC
3. Adding to the Fundamentals of Forestry program for other forestry sub-sectors

Participants were given coloured dots to place their votes on the posters, indicating their perspectives and priorities. Although recognised as not a perfect process, this voting mechanism did provide a means of gathering semi-quantitative information, and certainly the trends that emerged were quite clear.

Following the discussion and voting on the three topics described above, the final facilitated discussion session was about Moving Forward, covering such topics as:

- Actions that can be taken to attract candidates, both Indigenous and non-Indigenous
- Barriers to delivery of these programs and funding mechanisms that are available
- Pathways for affordable and sustainable training programs to develop a competent workforce
- Need for a central body within the forest sector that guides this skills training and education
- Additional observations, learnings and/or good practices

Every opportunity was provided for participants to give input during the discussion sessions. In addition “follow-up sheets” were handed out at the start of the meetings (Appendix E) to provide a means for participants to submit written feedback (such as additional detail that was not covered in the discussions). The follow-up sheets were either collected at the end of the sessions or emailed in afterwards. Follow-up emails and phone calls after the sessions were also encouraged.

Expected outcomes:

The expected outcomes from the sessions were:

1. Feedback on Vancouver Island University’s Fundamentals of Forestry Harvesting Practices pilot program content and fit with industry needs
2. Feedback on potential curriculum modifications for future Forestry Fundamentals training in other regions of BC
3. Recommendations for adding to the Forestry Fundamentals training for other forestry sub-sectors such as yarding, road building, and transportation
4. Recommendations to guide next steps and improve future training offerings including:
 - Attracting suitable course applicants
 - Facilitating participation by Indigenous peoples
 - Advisory groups / processes to guide course priorities
 - Affordable and sustainable training programs

Campbell River Roundtable

This roundtable session was held at the Coast Discovery Inn, Campbell River, BC on 14 August 2018 from 8:30 am to approximately 12:30 pm, followed by a lunch and networking opportunity.

Overall participation was excellent and the balance of participants was on target with the exception of logging contractors (only one contractor participated). The list of participants follows:

Table 2 - Final List of Participants – Campbell River

Organization (in alphabetical order)	Name
BC First Nations Forestry Council	Theresa Craveiro
BC FNFC / Human Capital Strategies	Kerry Jothen
BC Forest Safety Council	Russel Robertson
BC Forest Safety Council	Allison Thompson
FPIInnovations	Colin Koszman
Homalco First Nation	Maxime Lepine
Interfor	Bill Schulte
Interfor	Ralph Friedrich
Island Timberlands	Mark Leitao
Ministry of Advanced Education, Skills and Training (AEST)	Yavhel Velazquez
Ministry of Advanced Education, Skills and Training (AEST)	Sandra Pittroff
NETP - Nuuchah-Nulth Employment Training Program	Shan Ross
North Island College	Cheryl O'Connell
North Island Employment Foundations Society (NIEFS)	Shannon Baikier
NVIATS - North Vancouver Island Aboriginal Training Society	Barbara Clarkson
School District 72 (teaches Science / Forestry / Math)	Jason Kerluck
TimberWest	Pam Jorgenson
Vancouver Island University	Paul Mottershead
Vancouver Island University	Ted Dillman
Western Forest Products	Janet Amos
Western Forest Products	Randy Boas
Western Forest Products	Kindry Mercer
Session Facilitated by: JM Talbot Contract Management Inc Gail Sherson Ltd	John Talbot Gail Sherson

Campbell River Roundtable Outcomes:

Results from Posters:

- **Strong agreement** that the Forestry Sector needs standard, consistent, 3rd party training.

- **Agreement** that the pilot program content meets the needs of industry and is appropriate in terms of theory and practical, hands-on focus.
- **Strong agreement** that the selection of competencies and other course components needs to be modified to take into account the needs of different employers, that there should be a process for pre-screening candidates and that industry provide opportunities for field trips, industry orientation and/or practical on-site training.
- **Strong agreement** that the “Fundamentals of Forestry” course is important to launch in other regions of BC.
- **Priority sub-sectors** for future training for the BC Coastal region, based on industry/contractor votes, are:
 - Yarding and Road Building (5 votes each)
 - Transportation and Falling (4 votes each)
 - Mechanized Harvesting (3 votes)
 - Silviculture (0 votes)

Highlights from Campbell River Discussion Sessions:

Industry Need:

- Industry loves that this training is available and believes it is critical for BC. Without it there is a lack of consistent training. Another benefit of the Fundamentals training is that it provides people with a pathway into the forest sector.
- There is a big demand for the Fundamentals training based on the numbers of future employees needed.
- Training requires support and buy-in from local employers and should be delivered in regions where the workers will go.
- There are real differences between companies even on the coast - entry level positions are not the same across companies. Some entry level positions identified include choker man, chaser, road crew swamper, logging crew bundler, boom man, grader/bucker on the sort, heavy duty mechanic apprentice. In some areas, mechanisation is reducing the number of entry level positions.
- There is a gap in the next level of training following the Fundamentals training. Companies need to ensure additional on-the-job training before handing a new employee over to a mentor, but it is not clear who should do this next level of training. Some prefer 3rd party rather than in-house trainers, but either way it needs to be a consistent curriculum and there needs to be 3rd party assessment of each employee following the training.
- Good idea to have a central body to guide the skills training, however must be directly plugged into industry needs – not administrators

Attracting Candidates:

- To attract candidates it is critical to plant the seed in elementary school. There is a need to start engagement with students at the grade 8 level so that students can develop the education they need and not drop out in Grade 10. Technology should be leveraged to attract young people.
- Outdoor education programs are growing in high schools and should incorporate a forestry industry focus that goes beyond the narrow conservation/ recreation angle.

- Fundamentals training should be closely linked to job opportunities to attract students.
- Expand the national “Greenest Workforce” program (<https://thegreenestworkforce.ca>) - a project of the Forest Products Association of Canada, with funding from the Government of Canada’s Sectoral Initiatives Program.

Indigenous Peoples Engagement:

- Forest companies in the BC Coastal region are very active in engaging with Indigenous Peoples, including very specific initiatives. They also work with ASETS groups like NVIATS - North Vancouver Island Aboriginal Training Society. It is important to forest companies that they create meaningful jobs and grow careers for Indigenous Peoples.
- Forest companies recommend working with First Nations and agencies to build pre-competences including drivers licences, English, math and life skills.
- ASETS are ideally positioned to facilitate Indigenous peoples participation. One ASETS group expressed that the Pilot Program could have been better promoted to Indigenous Peoples – they can help with that in future. ASETS work to address barriers to Indigenous Peoples participation in training and in the workforce.
- The First Nations Forestry Council (FNFC) also works closely with ASETS and has identified a number of actions in their Strategy to facilitate First Nations participation in the Forest Sector.
- The idea candidate described by VIU for entry to the Fundamentals training is very rigorous. It would be good if there was some flexibility. For example a valid Class 5 driver’s licence is often a barrier for Indigenous people (70% of one ASETS group participants do not have a licence).
- Locating the training in Indigenous communities will help reduce barriers, as will including cultural components in the training.

Training costs and Sustainable Programs:

- Training cost was identified as an issue. Need a combination of in-kind industry contributions (such as access to suitable training sites), government funding on an annual basis, financial support for Indigenous participants, colleges charging tuition, and tax credits for continued training once an employee is hired on by a contractor.

Technology:

- It is important to include a technology component to the Fundamentals training. Technology is a big part of today’s forest industry, and this is not always recognised outside the sector.
- Technology applications range from remote sensing technologies for improved forest inventory (e.g. satellite radar, aerial LiDAR (laser-based Light Detection and Ranging) and use of drones), to sophisticated, mechanized harvesting machines (including equipment for steep slopes) and field use of electronics and real-time information. On the forest products side, global demand for products from renewable, sustainably managed forest resources is increasing, including wood use in mass timber and hybrid buildings, and emerging biomaterials such as cellulose filaments and nanocrystals for a variety of industrial and manufacturing uses.
- These technologies can help to draw young people into the sector.

Kelowna Roundtable

This roundtable session, targeting the Southern Interior and Kootenay regions, was held at the Coast Capri Hotel, Kelowna, BC on 24 August 2018 from 8:30 am to approximately 12:30 pm, followed by a lunch and networking opportunity.

Overall participation was excellent and the balance of participant groups was on target. Particularly appreciated was the attendance of 5 logging contactors along with 8 representatives from the primary industry. This strong level of industry engagement demonstrated the importance of this topic to industry, and helped to ensure the project goals were achieved. The list of participants follows:

Table 3 - Final List of Participants – Kelowna, 24 August 2018

Organization (in alphabetical order)	Name
AF Timber	Al Fitchett
ATCO Wood Products	Mark Semeniuk
BC First Nations Forestry Council	Theresa Craveiro
BC FNFC / Human Capital Strategies	Kerry Jothan
BC Forest Safety Council	Russel Robertson
BC Forest Safety Council	Allison Thompson
Bill Todd Logging	Dan Todd
Canfor	Matthew Maddess
Canoe Forest Products	Mike Johnson
Citxw Nlaka'pamux Assembly	Lisa Luscombe
Clusko	Jared Bremner
College of the Rockies	Leah Bradish
FLNR - First Nations Relations Branch	Stefan Tack
Gail Sherson Ltd	Gail Sherson
Interfor	Larry Price
Interfor	Brad Bennett
Interfor	Geoff Bekker
Interior Logging Association	Wayne Lintott
Interior Logging Association	Todd Chamberlain
JM Talbot Contract Management Inc.	John Talbot
Kalesnikoff Lumber	Rob Giesler
Limecreek Logging Ltd	Shawn McIver
Okanagan College and CETABC	Dennis Silvestrone
R&A Logging	Ronald Volansky
Selkirk College	Tiffany Snauwaert
Thompson River University	Ray Trenholm
Tolko	Kevin Jewett
True North Forestry	Hugh Watt
Vancouver Island University	Paul Mottershead

Kelowna Roundtable Outcomes:

Results from Posters:

- **Strong agreement** that the Forestry Sector needs standard, consistent, 3rd party training.
- **Agreement** that the pilot program content meets the needs of industry, is appropriate in terms of theory and practical, hands-on focus and that the content needs modifying for different employers and/or regions.
- **Strong agreement** that there should be a process for pre-screening candidates and that industry provide opportunities for field trips, industry orientation and/or practical on-site training.
- **Strong agreement** that the “Fundamentals of Forestry” course is important to launch in other regions of BC.
- **Priority sub-sectors** for the Southern Interior and Kootenays regions, based on industry/contractor votes, are:

	Southern Interior votes	Kootenays votes
○ Mechanized Harvesting	10	13
○ Transportation	10	13
○ Yarding	5	9
○ Road building	4	4
○ Falling and Silviculture	0	0

Highlights from Kelowna Discussion Sessions:

Industry Need:

- This training is important regionally – need industry to engage regionally with local colleges and with First Nations; also need to look at regional training costs and funding.
- Recognition that the Fundamentals program delivers trained entry-level employees. Further on-the-job training by employers is needed, and FSC has the competency assessment tools available for this next step of training.
- Interior regions need entry level machine operators – hand falling is not a priority. Other entry level positions include skidder operator, choker man/chaser, log processing positions. Need truck drivers to replace those retiring.
- Important to train in small communities or in a camp environment so that people understand the future job expectations.
- A central industry body is a good idea to guide training priorities and ensure both consistency and sustainability of programs. Suggestion is to have industry engage regionally with colleges, plus a higher level industry body. Some participants recommend the Forest Safety Council as the central industry body, however FSC is a safety organisation and this would require a mandate change. Beneficial to establish a multi-sector group that includes industry and post-secondary organisations (such as the Continuing Education and Training Association of BC (CETABC) Forest Group).

Attracting Candidates:

- Extremely important to attract young people to the sector – show broad range of career opportunities; well paid, high tech jobs available today; the industry has a future; safety in today's forestry jobs.
- Employers may need to adapt the jobs to suit young people, including a more flexible work environment – for example, some other industries are talking about job sharing to cut down on long shifts.
- Need recognised career credentials and recognised skilled trades to attract people – without this, people will move on to other recognised trades that they view as a career.
- Concern that requiring workers to be certified would reduce the available labour pool and drive up costs. As with many trades in BC, a situation where certified workers are preferred but not mandated, is desirable e.g. Red Seal trades.
- Must get the message into high schools – focus some financial resources in high schools. Want high school students to see forestry as a career choice with a wide range of opportunities. In the USA, introduced in schools as early as grades 7 and 8.
- Essential that the training programs are not linked to employment insurance – otherwise people will do the training without intending to work in the sector.
- Would like to explore tapping into new immigrants in future.

Indigenous Peoples Engagement:

- Industry actively engages with First Nations however is finding that the labour pool is not there – most are working in other opportunities.
- The FNFC sees a need to increase awareness of Forestry Sector career opportunities among First Nations.
- The Interior Logging Association is seeing a lot of interest from First Nations to work in the sector.
- Industry needs to work with ASETS and Work BC offices to facilitate First Nations into the sector. The British Columbia Aboriginal Training Employment Alliance Members (BC A TEAM), a group of 14 ASETS Managers/Executive Directors, would also be a good group to work with.

Training costs and Sustainable Programs:

- Sustainable funding is critical to ensure on-going, consistent training. Not worth starting a new program without on-going funding.
- Funding needs to be joint, between industry, governments and students (tuition). Would like to see sustainable funding from the government, as with other trades. Need to explore whether forestry trades can fit under the Industry Training Authority (ITA).
- It is very difficult for logging contractors to afford to train – both in terms of people and equipment time. Cannot buy extra equipment because there is no one to operate it. The Forestry Fundamentals training plus tax credits will help the situation. Contractors have accessed the Canada Job Grant, however it is oversubscribed and runs out quickly.
- Need licensees to work with the contractors on training to help build capacity – including cost and availability of equipment for training.
- Important that students pay at least some level of tuition so that they have a vested interest in completing the training and moving into successful forestry sector employment.

Technology:

- Training needs to cover technologies such as telemetrics, GIS maps and field electronics - a lot of companies have transitioned to electronics, such as iPads for tracking skids etc.
- Selkirk is introducing technology such as LiDAR (laser-based Light Detection and Ranging) in their training. Students in the Forestry Technician program are required to have iPads.
- VIU includes heavy equipment simulator time in the Forest Resources Program. There is significant interest in sharing heavy equipment simulator time across the Province, including in First Nations communities.
- It would also be beneficial to have simulators in high school programs to get students interested – there is a big range of simulator types available, from the very sophisticated to readily available forestry related game simulators found on-line that may be suitable in schools (for example logging mods are available for the Farming Simulator 17 game at <http://www.fsmods17.com/fdr-logging-forestry-equipment-v7-fs17/>)
- Technology will also help to attract and retain Indigenous students (i.e. keep them interested in class). The FNFC would be interested in tapping into a roadshow of equipment simulators through the Province.

Prince George Roundtable

This roundtable session, targeting the Northern Interior region, was held at the Coast Inn of the North, Prince George, on 29 August 2018 from 8:30 am to approximately 12:30 pm, followed by a lunch and networking opportunity.

Overall participation was excellent once again and the balance of participant groups was on target. Particularly appreciated was the attendance of 6 logging contactors along with 7 representatives from the primary industry, once again demonstrating the high importance of this topic to industry. The list of participants follows:

Table 4 - Final List of Participants – Prince George, 29 August 2018

Organization (in alphabetical order)	Name
BC First Nations Forestry Council	Theresa Craveiro
BC FNFC / Human Capital Strategies	Kerry Jothen
BC Forest Safety Council	Russel Robertson
BC Forest Safety Council	Allison Thompson
Canfor	Tyson von den Steinen
Coast Mountain College	Lorrie Gowen
COFI	Jim Costley
College of New Caledonia	Edward Benoit
College of New Caledonia	Troy Morin
Conifex	Andrew McLellan
Conifex	Brad Evans
Dunkley Lumber Ltd	Brad Johnson
Duz Cho Logging	Robert MacCarthy

Duz Cho Logging	Karl Peet
FLNRORD	Shawn Rice
FPIInnovations	Dave Belyea
Gail Sherson Ltd	Gail Sherson
JM Talbot Contract Management Inc.	John Talbot
KDL Group	Jeff Holland
LTN/Roga	Mike Bayley
Newland Enterprises	Steve Willick
Sinclair Group	Bruce McLean
Truck Loggers Association	David Elstone
United Steelworkers	Terry Tate
University of Northern British Columbia	Che Elkin
Vancouver Island University	Ted Dillman
West Fraser Sawmills	Amanda Black
West Fraser	Stuart Lebeck
White River Contracting Ltd	Gordon Clarkson

Prince George Roundtable Outcomes:

Results from Posters:

- **Strong agreement/agreement** (8 and 7 votes respectively) that the Forestry Sector needs standard, consistent, 3rd party training.
- **Disagreement** that the pilot program content meets the needs of industry, however this is balanced by **Strong Agreement** that the content needs modifying for different employers and/or regions.
- **Agreement** that the pilot delivery is appropriate in terms of theory and practical, hands-on focus.
- **Strong agreement** that there should be a process for pre-screening candidates and that industry provide opportunities for field trips, industry orientation and/or practical on-site training.
- **Strong agreement** that the “Fundamentals of Forestry” course is important to launch in other regions of BC.
- **Priority sub-sectors** for the Northern Interior region, based on industry/contractor votes, are:
 - Transportation (15 votes)
 - Mechanized Harvesting (15 votes)
 - Road Building (10 votes)
 - Yarding (1 vote)
 - Falling and Silviculture (0 votes)

Highlights from Prince George Discussion Sessions:

Industry Need:

- Urgent need for people in the door today - this is now a crisis. Need to make people more aware of the industry. Need to focus on attracting people today, as well as on attracting young people for the future.
- Need targeted training and agree the Fundamentals training is important to launch – need practical training not all conducted in the classroom – need flexibility on how the training is delivered in local regions – need steep slope training.
- Need industry to partner with regional colleges so that they are involved in the training and know the candidates they want to hire before the end of the course.
- Examples of pilot programs in Nova Scotia are worth noting. There is a good hand-off program when the training graduate enters industry: the trainee is followed on the job and helped to work on the job and fit into the work crew environment. 3rd party coaches on the job help bring them up to proficiency.
- Selection of the right candidates for training is very important to ensure that training programs lead to jobs in the sector.
- Agree with a central industry body to guide training but must have heavy industry representation.
- Manufacturing sector needs a similar program for sawmills.

Attracting Candidates:

- Need to educate & attract students in secondary schools; other industries are going after the same people; need to make the forest industry interesting for students; industry needs to work on improving the lifestyle and work/life balance for today's young people.
- Assuming students are not accepted into the Fundamentals training until age 19, need to be aware of the gap (lost opportunity) between ages 16 and 19 for some students.
- Fighting the poor image of the logging industry – industry needs to rebrand itself – no longer our parents industry.
- COFI has a program in high schools in the Prince George area, introducing careers in the forest sector to grades 11 and 12. Also have a natural resources program where they take students into the forest for workshops (hands-on activities such as coring trees, sampling soils), and take students into mills for hands-on appreciation of manufacturing jobs.
- Industry also works with school districts in the Prince George region, including the "Heavy Metal Rocks" program that gives students the opportunity to run 26 different pieces of heavy equipment over several days. The Northern Regional Construction Association partners with School Districts, the College of New Caledonia and WorkSafeBC to coordinate "Heavy Metal Rocks" annually.
- The Truck Loggers Association has funded four forestry programs in high schools, three on the Coast and one in the Interior.

Indigenous Peoples Engagement:

- Very important for industry to recognise First Nations training needs. One employer would be happy to hit 3 of VIU's 8 criteria for an ideal candidate and then find ways to address the gaps.
- VIU's experience shows that may need pre-training for some candidates, and this applies to candidates in general, not only First Nations. For example a challenge for apprenticeships is the gap in math and literacy skills.

- Regional training delivery is very important. People will stay where they live if you bring the training to those regions.
- Need better links between contractors and First Nations.

Training costs and Sustainable Programs:

- Sustainable funding for training is critical - too many pilot courses do not lead to on-going programs. Need to do pilots, but at the same time need to secure sustainable funding.
- Contractors no longer have the capacity to train new people, although some are trying. Lost equipment time is a big issue. The Truck Loggers Association is advocating for a tax credit to help offset the financial burden of training.
- Contractors also find it difficult to retain employees after training, so are reluctant to invest.
- Need to be more realistic about the true cost of training. VIU pilot cost \$15,000 per student, but this can go higher if there is very specialized equipment involved.
- It costs \$250K for a trainee to be fully productive and at least 2 years to be fully competent (depending on the job, can be 3- 5 years to proficiency and longer on steep slopes).
- Can the skilled trades model (ITA) be applied to skilled forestry jobs? Need to find a funding model where the Ministry of Advance Education is investing along with industry, and students are paying some tuition.

Technology:

- Need to get the message out that there is a lot of technology in the forest industry today (e.g. remote sensing using laser-based Light Detection and Ranging (LiDAR), unmanned aerial vehicles (UAVs), gathering and using real time information). Logging also uses sophisticated equipment – not just working on the ground with chainsaws any more.

Summary of Roundtable Outcomes

The roundtables have confirmed that:

1. The Fundamentals of Forestry training is very important to launch in other BC regions.
2. The VIU Fundamentals of Forestry pilot program as delivered does not in all cases meet the needs of industry for entry-level employees across the Province. The selection of competencies and other course components needs to be modified to take into account the needs of different employers and regions.
3. There are also regional differences in terms of the highest priority sub-sectors for future training.
4. The course delivery is appropriate in terms of theory and practical, hands-on focus. It is important to industry to include practical training, not all conducted in the classroom. It is also important to train in small communities or in a camp environment so that people understand the future job expectations.
5. There should be a process for pre-screening training candidates for their suitability to succeed in a Forestry work environment.
6. Industry should provide opportunities for field trips, industry orientation and/or practical on-site training.

Table 5 below summarizes the industry voting results from the posters, and Table 6 summarizes the key themes arising from discussion sessions at each of the 3 roundtables.

Table 5 – Voting results from Posters – votes from primary industry and contractors only

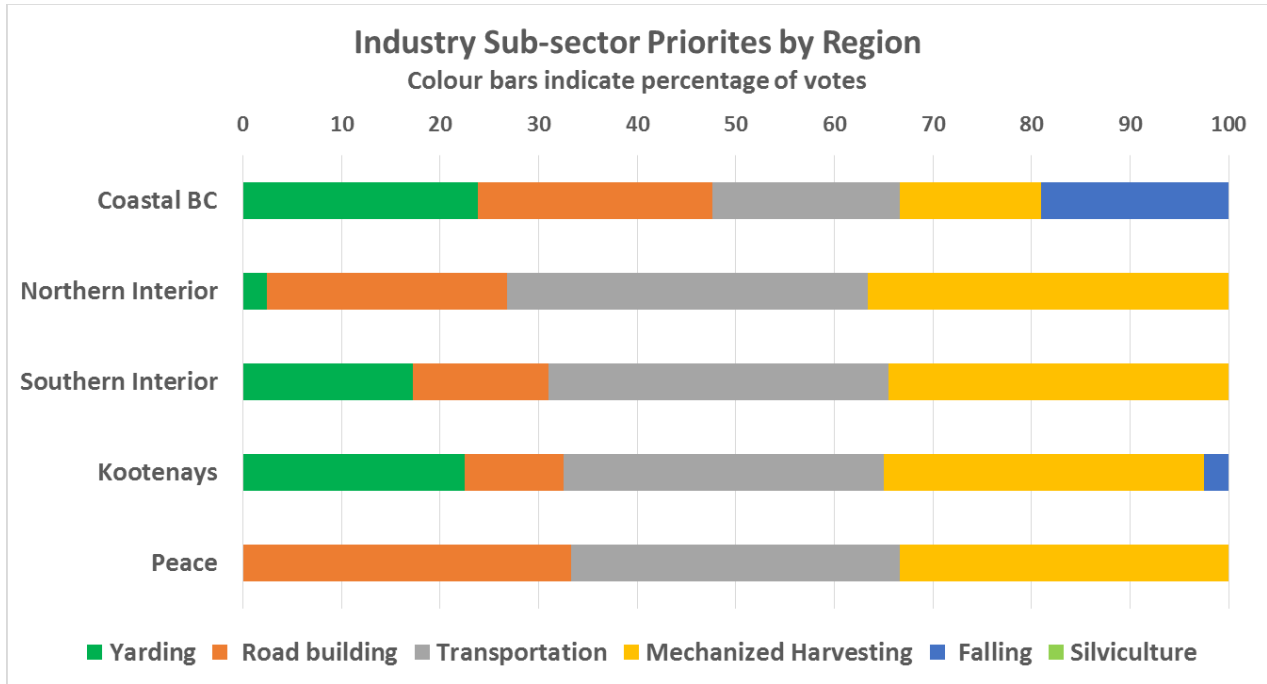
Topic:	Campbell River	Kelowna	Prince George
Pilot meets the needs of industry for entry-level employees	Agree	Agree	Disagree
The pilot delivery is appropriate	Agree	Agree	Agree
Content needs modifying for different employers and/or regions	Strongly agree	Agree	Strongly agree
Pre-screening candidates is important	Strongly agree	Strongly agree	Strongly agree
Industry should provide on-site opportunities for orientation/training	Strongly agree	Strongly agree	Strongly agree
The Forestry Sector needs standard, consistent, 3rd party training	Strongly agree	Strongly agree	Agree
The Fundamentals course is important to launch in other BC regions	Strongly agree	Strongly agree	Strongly agree

Table 6 - Key Themes Arising from Discussion Sessions

	Campbell River	Kelowna	Prince George
1	Industry highly values this training and believes it is critical for BC – additional benefit of providing a pathway into forestry industry	This training is important regionally – need industry to engage regionally with local colleges and with First Nations; also need to look at regional training costs / funding	This training is important to launch in other BC regions, with modifications for different employers and/or regions
2	First Nations engagement and partnerships are very important to coastal industries – work directly with FN and also with ASETS to build “pre-competencies”	Extremely important to attract young people to the sector – show career opportunities, well paid, high tech jobs today. Need recognised career credentials/trades	Urgent need for people in general. This is now a crisis - need to focus on attracting people today, as well as on attracting young people for the future
3	Training cost and ensuring sustainable funding is an issue	Sustainable funding is critical to ensure on-going, consistent training	Need to educate & attract students in secondary schools
4	Need to also address the next level of training i.e. on-the-job training following the fundamentals training	Need to work with ASETS and Work BC offices to facilitate First Nations into the sector. Also want to tap into new immigrants in future	Sustainable funding for training is critical - too many pilot courses do not lead to on-going programs

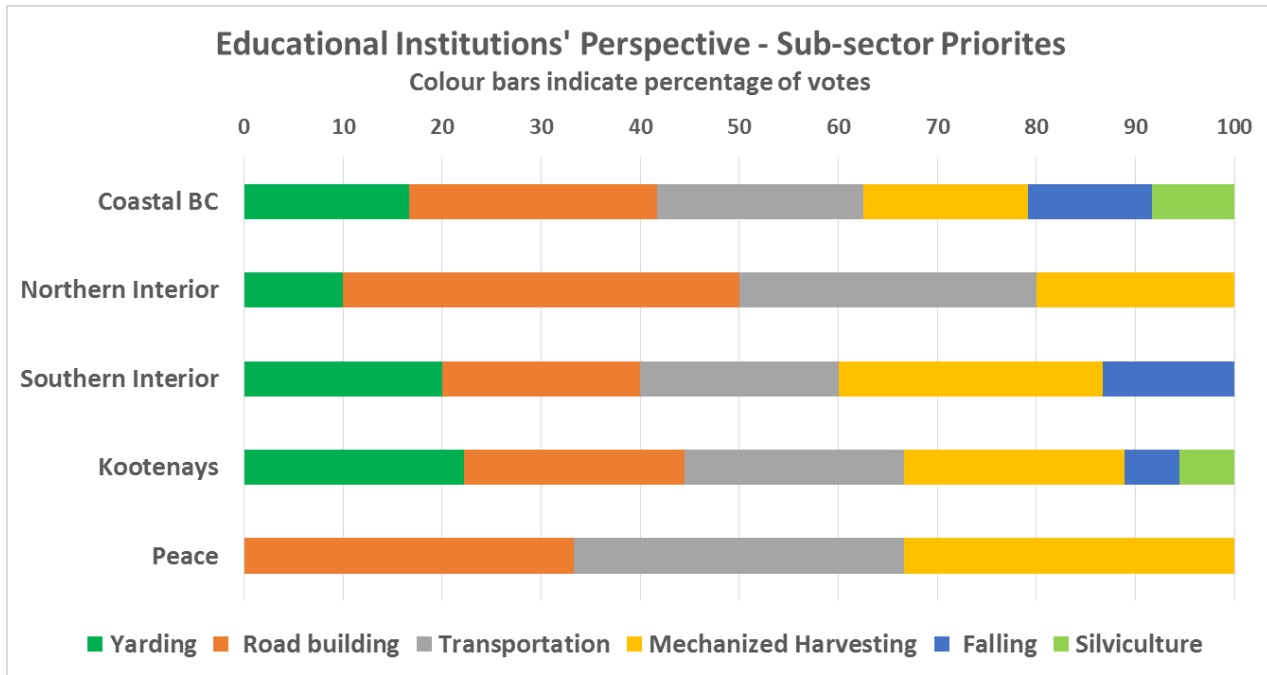
Participants were asked to prioritize training needs in other forestry sub-sectors by voting for three sub-sectors per region. The results of the primary industry and contractor votes are illustrated in Figure 2, showing some different trends on a regional basis. Silviculture was not identified as a priority by industry, likely because this was not the main focus of the roundtables or many of the participants. Note that there was limited data for the Peace region.

Figure 2 – Industry sub-sector training priorities by region



The sub-sectors as prioritised by educational institutions are shown in Figure 3. For educational institutions, silviculture entered the picture as a priority, but not in the top three for any region.

Figure 3 – Educational Institutions' Perspective - sub-sector training priorities by region



In addition, the roundtables identified:

1. Sustainable funding for on-going training via the provincial education system is critical - too many pilot courses do not lead to on-going programs. It is important to continue the pilot programs and in parallel, to address sustainable funding.
2. There is also a need to address the next level of training i.e. on-the-job training following the fundamentals training. Companies need to ensure additional on-the-job training before handing a new employee over to a mentor. Whether this is conducted by 3rd party or in-house trainers, there needs to be a consistent curriculum and there needs to be 3rd party assessment of each employee following the training.
3. It is strategically and practically important to forest companies that they create meaningful jobs and grow careers for Indigenous Peoples. The ideal candidate described for entry into the Fundamentals pilot program training may present barriers for Indigenous Peoples. Industry recommends working with First Nations and agencies to build pre-competencies including drivers licences, English, math and life skills. ASETS, in close collaboration with FNFC, local educators and the industry, are ideally positioned to facilitate Indigenous peoples participation.
4. The FNFC works closely with ASETS and has identified a number of actions in their Strategy to facilitate First Nations participation in the Forest Sector.
5. There is an urgent need for people in general, with this message heard most loudly in Prince George where the situation is now considered a crisis. There is a need to focus on attracting people today, as well as on attracting young people for the future:
 - It is extremely important to attract young people to the sector including educating and attracting students in secondary schools.
 - Rebranding of the sector is critical to change the negative perception of the forest sector and to make the public aware of the positive environmental and sustainable aspects as well as the broad range of career opportunities and well paid jobs.
 - Employers may need to adapt the jobs to suit young people, including a more flexible work environment.
 - Need recognised career credentials and recognised skilled trades to attract people. Without this, people will move on to other recognised trades that they view as a career, such as Red Seal Trades for Heavy Equipment Operators in the construction and mining sectors.
6. While it is clear that recognised career credentials and recognised skilled trades are needed, there is a differentiation between qualified versus certified workers, and a concern that requiring workers to be certified would reduce the available labour pool and drive up costs. This is of particular concern to the small business community. As with many trades in BC, a situation where certified workers are preferred but not mandated, is desirable e.g. Red Seal trades.
7. It is important to include an introduction to advanced technology component to the Fundamentals training and as a part of sector rebranding and attracting people to the sector. Technology is a big part of today's forest industry, and this is not always recognised outside the sector.
8. The Fundamentals training brings an additional benefit of providing a pathway into the forest sector for entry level people.
9. The roundtables have enhanced local industries' and educators' understanding and appreciation of the work done by Forest Safety Council and the partners on the VIU pilot program.

Pre- and Post-Roundtable Engagement

Prior to the roundtables there was an extensive series of telephone calls with prospective participants. These calls and related conversations provided a useful background and were very effective in enabling the project management contractors to better plan and facilitate the roundtable discussions. Accordingly, the comments recorded in the roundtables reflect the basis of many of these conversations. Additionally there were a number of follow-up calls and communications after the roundtables to validate the key outcomes and seek feedback from other stakeholders including industry executives. These follow-up communications included 7 with industry, 3 with post-secondary institutions, 3 with industry associations/organizations and 3 with Indigenous partners (including a conference call with the Indigenous Adult and Higher Learning Association (IAHLA) Post-Secondary Subcommittee summarized on the next page).

Additional input from these communications includes:

- Conversations with the independent logging associations highlighted their views that a focus on upgrading existing employee skills, attracting employees from other sectors of the economy and upgrading their skills while on site, was a first priority over attracting and training completely new entrants. They believed this would have a more immediate impact on resolving the skilled employee shortage. In this regard their proposal that the Province introduce a substantive tax credit for on-site training was paramount. In line with this was their support for funding to the BC FSC to complete their work on developing competencies and implementing on-line access for employers.
- The logging associations also supported the fundamentals skills training pilot program and expansion of this program to other regions in BC via adequate, sustainable funding of regional colleges and university. This view was very much reinforced via independent conversations with logging contractors.
- Post-roundtable calls with industry executives substantially validated the round table recommendations including the sense that the labour situation was at least as serious as indicated in the LMP surveys and certainly reaching the critical stage.
- It is encouraging to hear reports of new actions underway since the roundtables. Additional Fundamentals pilots are being planned around the Province. VIU is pushing ahead with the university accreditation process for the Fundamentals course so that it can be repeated in 2019. Western Forest Products is beginning to work closely with a First Nation to develop an Indigenous Fundamentals Harvesting Program. The BC First Nations Forestry Council has plans to team up with ASETS and visit First Nations communities to talk about opportunities in forestry. The BC Forest Safety Council is continuing with the development of training resources and is planning workshops in 2019 to train supervisors on using the on-line competency assessment tools.

Engagement with FNEC and IAHLA

The First Nations Education Steering Committee (FNEC) works to advance quality education for all First Nations students in British Columbia and to support communities in their efforts to improve the success of First Nations students. In its post-secondary efforts, FNEC works in collaboration with the Indigenous Adult and Higher Learning Association (IAHLA). IAHLA represents aboriginal-controlled adult and post-secondary education institutes in British Columbia. It provides a unified voice for more than

42 member institutes, and strives to support Aboriginal adult and post-secondary institutes through research, professional development, and networking opportunities. For many years, FNEESC has had an active post-secondary subcommittee that provides leadership and technical knowledge to inform this work.

At the start of this engagement project, the authors met with FNEESC by phone and face-to-face as first steps in planning the roundtable process and inviting IAHLA to participate. Unfortunately IAHLA representatives did not attend the roundtables due to some administrative issues within IAHLA and as a result a follow-up conference call was arranged with FNEESC and the IAHLA Post-Secondary Subcommittee. The Subcommittee members expressed disappointed that they did not attend the roundtables, however they provided useful insights during the call and also gained awareness of forest sector opportunities.

Key discussion points from these discussions were:

- There is limited awareness of forestry opportunities within IAHLA, although individuals within the organization will be aware. IAHLA participants on the call were not aware of the BC First Nations Forestry Committee (FNFC)
- The education system fails to prepare Indigenous students for college – the Subcommittee reported no math and science offered in the North except by correspondence, which has high failure rate
- Nothing offered in forestry in high schools - forestry needs to be part of high school career training
- College level forestry programs in the past have not led to forestry jobs
- The Subcommittee supports improved pathways to include First Nations in forestry training including financial incentives, community-based delivery, less stringent entry requirements (such as grade 12).
- The Post-Secondary Action Plan^[9] is addressing these issues but not quickly enough, especially in terms upgrading First Nations to be prepared for success in post-secondary education (e.g. need upgrading camps)
- The Subcommittee also recommends talking to FN people who have successfully made it through forestry education programs to better understand successful pathways

Key Themes and Observations

General Observations

There was **recognition and appreciation** for the work and effort ministries and associations have put into the evaluation and analysis of sector training needs. There was also strong appreciation for the lead demonstrated by the Fundamentals of Forestry fundamentals pilot project. It appears the engagement process itself was helpful in improving understanding of the investment being brought to bear on the forest sector training and the effort required to implement training programs. The participants were interested to note the ministries involved and the partners engaged to deliver the training.

The commitment and **collaboration at regional and community levels** was noted, specifically that regional and community parties had investment in the training (Western Forest Products, the Regional District of Mount Waddington (RDMW), and the Vancouver Island North Training and Attraction Society

(VINTAS) representing the local community. VINTAS is an initiative of RDMW, community stakeholders and First Nations government aimed at supporting and facilitating activities that lead to the career development, education, attraction and retention of people in the region. It is significant that WFP is unique in that it retains company logging operations whereas most other manufacturers have contract harvesting operations. The success of this partnership model may demonstrate that other regions would find value in collaborating in a similar manner.

There is general recognition, at the industry operations level, of **the urgency for training**. The lack of trained and available recruits in the sector is reaching a critical stage leading to underutilized equipment, reduced efficiency and limited supply chain effectiveness. The cost of not training was agreed to be significant and increasing to the point of having a major impact on continued business viability. The downstream cost of insufficient supply to manufacturing facilities and impact on sector global competitiveness was not discussed. There was no discussion on the cost /potential cost to the Provincial Government in terms of stumpage revenue, GDP or community economic impacts.

Industry Need for Training

- In all discussions the need for consistent, sustainable, regionally influenced and delivered training was reinforced. There was recognition that the sector is much more sophisticated than in previous decades and now requires at least core training from supporting sources such as BC Forest Safety Council and / or educational institutes. Also contributing is the reduced capacity of the industry to train internally, in part because, as experienced employees retire, there are fewer experts available to support incoming trainees.
- Important to recognize that there are two streams of training needed:
 - a. Stream 1 - Entry level training such as the Fundamentals of Forestry and industry-specific skilled trades training
 - i. Fully financed by the government, delivered by educational institutions and supported by industry in-kind contributions
 - ii. Based on BCFSC competency model and training tools (for Fundamentals)
 - b. Stream 2 – On-the-job training to bring employees up to full proficiency, retrain or upgrade existing employees, etc.
 - i. Supported by government, for example through training tax credits
 - ii. Based on BCFSC competency model and training tools, including training and support for supervisors, access to on-line assessment and tracking
 - iii. May include access to 3rd party trainers and assessors
- Putting in place recognized, certified career credentials and having recognized skilled trades is important for attracting people to the sector. There was discussion about qualified versus certified workers, including concern that requiring workers to be certified would reduce the available labour pool and drive up costs. As with many trades in BC, a situation where certified workers are preferred but not mandated, is desirable e.g. Red Seal trades.
- Discussion confirmed that institutes delivering the training should consider adding content that includes:
 - a. New and developing advanced technology (with associated career opportunities)

- b. Environmental responsibilities and benefits of today's forestry sector (sustainable forest practices, low-carbon future, environmental preference for forest building products vs. other building products, green bio-products, etc)

Given the mandate of BC FSC it was understandable that these components that were not included as part of the Forestry of Fundamentals pilot training, however they are important in responding to the need to attract more candidates and re-profile the sector.

- Very few roundtable participants appeared to be completely versed in all the existing forest sector related training and education components available. A database compiled in 2016/17 by the BC Forest Sector Workforce Initiative^[8] could be useful in this regard, and also in identifying potential funding sources for students (e.g. bursaries). A temporary website has been created to view and access this database (<https://bcworkforce-initiative.weebly.com/educational-opportunities.html>). The future of this database is uncertain as it needs updating and maintaining, and there is presently no plan or funding to update it.

Attracting Candidates

- Throughout this engagement (roundtable discussions, telephone contact calls and telephone follow-up calls) the participants recognized that the capacity of the industry to attract new recruits to forestry "jobs" has been significantly diminished in the last few decades. Long work hours, hours away from home base, poor industry public profile, competitive but not "highly attractive" remuneration, and competition from other resource industries, are all viewed as contributing factors as is the impression that school counselors are likely to direct students and parents to "new economy" careers.
- The round table participants were clear in their view that part of their challenge in attracting qualified employees was rooted in a poor perspective of the forestry sector in high schools. In their view the Ministry of Education and high schools have made little effort to develop and deliver appropriate, knowledgeable education of the sector. The sector itself is responding by providing seminars to schools interested in participating, however a comprehensive approach is urgently needed (see below under recommendations).
- The need for sector rebranding extends beyond schools to the broader public. The round table participants repeatedly asked what efforts are being conducted on a larger scale to better profile the sector. It is clear they believe there is a significant opportunity to improve public perspective of the sector and resulting interest in forestry careers in BC. There were a number of comments amongst the industry participants about their own collective responsibilities to rebrand the sector via industry associations etc. Recommendations to increase awareness, attractiveness and relevance of the forest industry were outlined in Recruitment and Training in the BC Forest Sector: A Roadmap Forward, September 2015^[2].
- A follow up by a participant who shared a video produced and published in New Zealand brings to light efforts in that country to profile careers in forestry, improve the perception of the industry and bring young people, including young Maori people, into the industry (<https://youtu.be/4UCktjKslK0>). The TLA has also produced a video profiling the sector in BC (www.tla.ca/thisismyoffice)
- There was an interesting suggestion to emphasize forest sector employment as an opportunity for new immigrants to Canada. Opportunities for women in forestry were not widely discussed although a number of contactors were interested to learn how many women were enrolled in the Fundamentals of Forestry pilot (there was one woman). A few noted that the working conditions

were “not for everybody” – perhaps the suggestions that the sector needs to adapt jobs to suit young people, including a more flexible work environment, might equally apply to attracting more women to the sector.

Indigenous Peoples Engagement

- There was very healthy interaction at all roundtables with regard to Indigenous participation in the forest sector. This was due in part to the presentation and engagement by the First Nations Forestry Council, local Indigenous forest contractors in addition to regional ASETS and First Nations Training organizations.
- There appears to be unanimity that closer business relations with Indigenous peoples are desirable and most employers (especially tenure holders) are making significant efforts to develop these business-to-business relationships. It is more challenging for small businesses, as is the case for most logging contractors, to have the internal resources for a high level of engagement.
- The Fundamentals of Forestry pilot seems to have been effective in engaging, preparing and training Indigenous graduates. The pilot’s success in this regard reaffirms the benefits of properly briefing all candidates on the sector working environment and expectations, and pre-screening candidates for their suitability to succeed in a Forestry work environment. This is another aspect of the pilot project that should be recognized and considered when implementing further regional pilot training programs.
- There was also consistent recognition that many barriers remain, and that improved pathways are needed to need to increase First Nation peoples participation and success in forestry-related education and careers (see Recommendations section below). It was conveyed at all roundtables and by all segments of participants that too many Indigenous candidates were often not well enough prepared for entry into base jobs or base training such as Forestry Fundamentals training. Many forestry operations are remote and well suited to employment opportunities for rural residents, yet the challenge of insufficient base education preparedness appears to be increased in rural and remote Indigenous communities.
- This circumstance was also clearly recognized and expressed in a subsequent call with IAHLA – First Nations Education and Training Steering Committee. The Aboriginal Post Secondary Education and Training Policy Framework and Action Plan is a reference document in this regard.

Training costs and sustainable funding

- There was significant agreement that training should be jointly financed (by primary manufacturers, independent contractors and the provincial government). This includes not only the training of new entrants to the sector, but upgrading the skills of existing employees. Financing should include both funding for institutional training and on-site training tax credits that will help offset industry’s cost of mentoring and field training of existing operating and supervisory personnel as well as new employees. Indigenous organizations have a role in proactively facilitating training pathways.
- The cost for delivering the 12-week Fundamentals of Forestry training (i.e. the basics without significant use of expensive forestry equipment) is approximately \$10,000 to \$15,000 per student. More extensive training with significant equipment incorporated was said to go as high as \$50,000 per student. Total cost to develop a proficient* level of operation using sophisticated equipment was indicated to be approximately \$250,000 and to take 2 – 5 years per employee (*contributing at

a budgeted or expected level of profitability). The typical assumption is that it takes in the range of 2 to 3 years to develop a new recruit to an acceptable (profitable) level of productivity. For more sophisticated equipment operations the term to full proficiency could be five years.

- A number of roundtable participants expressed a substantial degree of frustration with inconsistently funded training programs. Often these programs were collaborative efforts (institutes and industry plus government funding) that were valued but discontinued for lack of ongoing annual funding. The need for sustainable funding to ensure on-going training programs is considered absolutely necessary and now critical (see below under recommendations).

Recommendations

1. Expand pilot to other regions of BC

There was clear and consistent agreement that the Ministry of Advanced Education and Skills Training should extend the pilot training program to other regions of BC. Included is the recognition that regional priorities differ in terms of entry level positions and priority sub-sectors. Thus it is recommended that the balance of the forest sector competencies and training tools, as identified by BC Forest Safety Council, should be completed and prepared for delivery via institutes and/or for direct access by industry, including on-line access. This recommendation comes with caveats:

- The next training pilot programs delivered via institutes require regional industry partners' input to customize curricula and ensure focus on both fundamentals and specific regional priorities
- In parallel with the pilots, the need for sustainable funding must be addressed in order for the training to continue going forward

2. Put in place sustainable funding to ensure on-going training

There was regionally unfailing recognition that annual sustainable funding is absolutely necessary and now critical given the urgent and immediate demand for new, proficient employees, plus the significant future need projected by the labor market studies. There were strong views from industry participants that there should be sustainable funding including:

- Need to develop a joint funding model including industry, governments and students (tuition)
- Include substantive funding for institutional training such as the Forestry Fundamentals program, and to develop and maintain on-line training tools from BC FSC
- Support (such as significant training tax credits) for employers' on-site training that can have an immediate impact to improve efficiency and to continue to upgrade new and existing workers' skills
- All parties recognized a joint responsibility in paying for training. It is important that students pay at least some level of tuition so that they have a vested interest in completing the training and moving into successful forestry sector employment. This is often referred to as having "skin in the game"

3. Improve pathways for Indigenous peoples

There was consistent recognition that greater participation by Indigenous peoples in the forestry sector is important to both industry employers and Indigenous groups. Most employers (especially tenure holders) are making significant efforts to develop these business-to-business relationships. There was also consistent recognition that many barriers remain, and that improved pathways are needed to need

to increase First Nation peoples participation and success in forestry-related education and careers. Specific actions are recommended in two key reference documents:

- BC First Nations Forestry Council, A British Columbia First Nations Forestry Workforce Strategy, July 19, 2018^[4]
- Aboriginal Postsecondary Education and Training Policy Framework and Action Plan - 2020 Vision for the Future^[9]

Actions and opportunities specifically identified during this engagement project include:

- There is an opportunity for the FNFC, as a province-wide organization, to play a leadership and coordination role between First Nations, educational institutions and industry
- ASETS are ideally positioned to facilitate Indigenous peoples participation on a regional level, and industry needs to work with ASETS. Better links are needed between logging contractors and First Nations
- Forest companies recommend working with First Nations and agencies to build pre-competencies including drivers licenses, English, math and life skills
- Regional training delivery is very important. Locating the training in Indigenous communities will help reduce barriers, as will including cultural components in the training
- There were a number of conversations expressing the need to be sure the training was linked to positive outcomes and thereby re-enforce success at the local community level
- Indigenous training and funding support groups have an opportunity to co-ordinate their interests in growing employment and business interests in forestry. They have willing partners on the commercial side of the forest sector
- The existing shortage of qualified career employees presents Indigenous communities with a substantial opportunity to proactively engage directly with industry (at both operations and executive levels) for a win-win

4. Start educating the future workforce in high schools

There was clear and constant agreement that attraction and education of the future workforce must start in high schools, and that this is urgent. Given the importance of the forest sector in British Columbia, including its contribution to the BC economy and in particular to employment in rural communities, it is recommended that the BC Government budget and put into effect a constructive high school education curriculum with respect to the sector. Key aspects include:

- Increase awareness of the positive contributions of BC's forests and the forest sector to the environment (sustainable forest practices, low-carbon future, green products, etc)
- Raise the level of understanding about the BC forest sector's global level of expertise, economic aspects and contributions at community, provincial and national levels
- Increase awareness of the broad range of career opportunities in today's modern forest industry, including high-tech opportunities, increased mechanization, etc
- While grades 10, 11 and 12 are mentioned as target years, engagement with students should start at grade 8 so that younger students are informed about the sector and aware of the opportunities

- The forest industry has demonstrated its capacity in this regard and should work closely with Ministry of Education to develop and deliver the program

5. Identify an industry champion/ guiding organization

It was largely recognized by all participants that effective sector-targeted training requires a direct industry champion and industry guidance in the sector knowledge and priorities. The industry should collaborate to immediately identify and support a sector champion to provide leadership.

There is no clear recommendation as to which industry organization would be appropriate to step up to provide this direction and leadership. Some participants have recommend the Forest Safety Council as the central industry body, however FSC is a safety organization and this would require a mandate change. It was clear however that representatives on an industry-wide body must be directly plugged into industry training needs (i.e. not all administrators). Additional input from the roundtable participants includes:

- To avoid duplication and additional bureaucracy, would prefer an existing industry organization accept this responsibility
- Beneficial to establish a multi-sector table that includes industry and post-secondary organizations (such as the Continuing Education and Training Association of BC Forest Group) and First Nations representation (such as the First Nations Forestry Council)
- A central industry body would complement but not replace regional engagement between industry, colleges, and other stakeholders

References

1. British Columbia Labour Market Outlook: 2017 Edition, P40
2. BC Forest Sector Workforce Initiative: Recruitment and Training in the BC Forest Sector: A Roadmap Forward, September 2015
3. The British Columbia First Nations Forestry Council: Report on Sector Engagement, April 2017
4. The British Columbia First Nations Forestry Council: A British Columbia First Nations Forestry Workforce Strategy, July 19, 2018
5. BC Forest Safety Council: Forestry Pilot Report, August 15, 2018
6. Vancouver Island University: Course brochures for Fundamentals of Forestry Harvesting Practices pilot program (attached in Appendix A)
7. BC Forest Sector Workforce Initiative: Positioning the Sector for Recruitment Success Project, January 2017
8. BC Forest Sector Workforce Initiative: Website link to Education, Training and Financial Support Opportunities in the BC Forest Sector <https://bcworkforce-initiative.weebly.com/educational-opportunities.html>
9. Aboriginal Post-secondary Education and Training Policy Framework and Action Plan - 2020 Vision for the Future

Appendices

Appendix A - VIU Course Brochures for Industry and Students

Appendix B - VIU Fundamentals of Forestry Course Overview

Appendix C - Roundtable Agenda

Appendix D - Posters employed during the working sessions

Appendix E - Roundtable follow-up sheet



BC Forest Safety
Safety is **good** business



**VANCOUVER ISLAND
UNIVERSITY**

**ABOUT THE BC FOREST
SAFETY COUNCIL**

The British Columbia Forestry Safety Council (BCFSC) is the health and safety association (HSA) for forest harvesting, sawmills and pellet manufacturing in British Columbia. The BCFSC works with forest sector employers, workers, unions, contractors and provincial government agencies to support industry in implementing changes necessary to eliminate fatalities and serious injuries in the forest sector.

BC Forest Safety Council
420 Albert Street
Nanaimo, British Columbia
V9R 2V7

**ABOUT VANCOUVER ISLAND
UNIVERSITY**

Vancouver Island University is a comprehensive Post-secondary institute located on Vancouver Island. More than 18,000 full time and part time students are enrolled in academic, applied, career/technical, vocational, trades and developmental programs leading to certificates, diplomas and degrees.

Vancouver Island University
900 Fifth Street
Nanaimo, British Columbia
V9R 5S5

CONTACT US

Phone: 250.740.6227
Toll Free 1.888.920.2221
Email: heo@viu.ca



“We gratefully acknowledge the financial support of the Province of British Columbia”

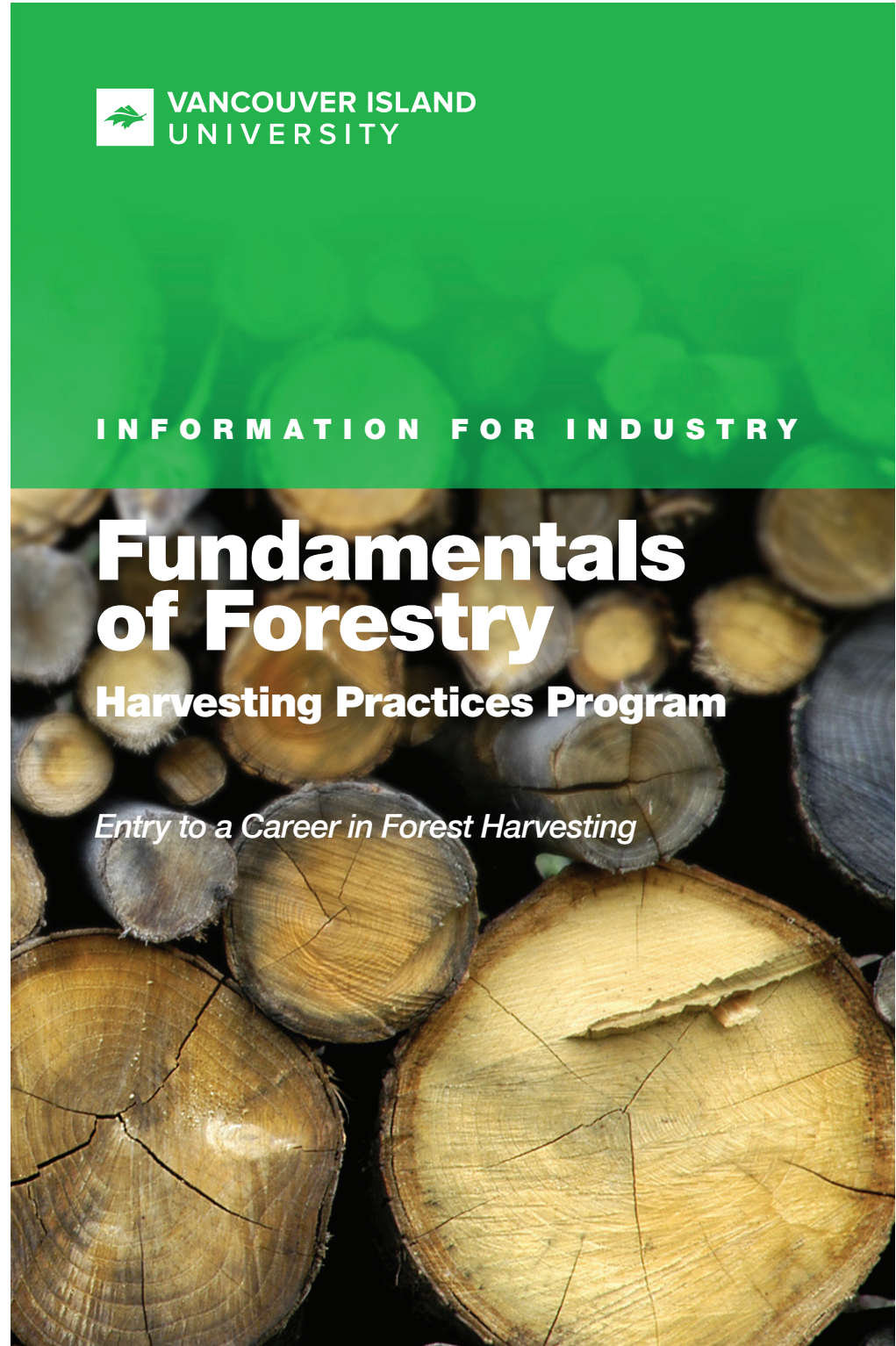


INFORMATION FOR INDUSTRY

Fundamentals of Forestry

Harvesting Practices Program

Entry to a Career in Forest Harvesting



ABOUT THE PROGRAM

The need for the forestry sector to address current and future workforce needs is significant and increasing. Many companies are already experiencing difficulty attracting and recruiting well-trained, capable individuals. Given the demographics of current employees in the forestry sector, it appears this will become increasingly difficult moving forward. Anticipated turnover rates of 60 percent are predicted for forestry and logging employees and 40 percent for the solid wood and pulp and paper sectors.

Remaining competitive in the industry requires a skilled workforce. For some time there has been a lack of identified training standards and quality control measures for training delivery. Training has often been done on-the-job, by current employees and not necessarily to a consistent standard or level of competency.

In 2015, the BC Forest Safety Council (BCFSC) began an extensive process of identifying the core competencies (skills, knowledge, and attributes) for 35 positions in the forestry sector. These competencies were identified in consultation with industry subject matter experts.

Vancouver Island University has developed The Fundamentals of Forestry -Harvesting Practices Program based on the BCFSC identified core competencies.

ABOUT THE PROGRAM

The program has been designed to provide new forestry workers with the foundational skills and knowledge required to work safely, productively and sustainably in a harvesting environment.

PROGRAM OUTLINE

In the program students will learn to identify and assess hazards, communicate and move safely as they set chokers on logs, rig stumps, buck logs and work safely around equipment. The program consists of a combination of classroom and hands on training led by instructors with over 10 years of coastal harvesting experience

PROGRAM CONTENT

- Essential and employability skills
- Forestry Operations in British Columbia
- Safe work practices used in forestry
- Communication in the forestry environment
- Hazards found in the forestry environment
- Basic rigging practices and components
- Documentation required in forestry
- Emergency Response Plan and
- First Aid requirements
- Ergonomics related to the job
- Attributes required in the forestry industry

In addition students will complete training in:

- WHMIS
- Fall Protection
- S-100 - Fire Suppression and Safety
- Level 1 First Aid with Transportation Endorsement

Upon successful completion of the program they will receive a Certificate of Completion from Vancouver Island University.

WHAT CAN YOU EXPECT FROM A NEW GRADUATE

You can expect to hire a confident individual with a solid background in the knowledge, skills and attributes necessary for an entry level logging position. Individuals who complete the program will have made significant personal and financial investments. They will have insight into the types of entry level work available, and the work conditions they will be performing under. They will have proven themselves as reliable, physically fit, and possessing strong work ethics and a strong safety philosophy. They will have been trained and assessed by a third party to consistent standards.

As an employer, hiring a graduate from the Fundamentals of Forestry – Harvesting Practices Program greatly reduces the training time and cost you as an employer need to invest in a new hire.

As the graduate starts to work they will need to continue learn from their peers, and receive on-the-job mentoring to help them work towards becoming fully competent in a specific position. Companies can use the BCFSC competencies as a support for their mentors. The competencies and other learning tools and resources are available, free of charge on the BCSFC's website. For more information on the use of BCFSC competencies and/or learning tools and resources go to www.bcforestsafe.org

ADMISSION REQUIREMENTS

Ideal candidates for the program are those with a passion for working outside in all kinds of weather and a desire to start a long-term career in harvesting. Having a strong work ethic, a proven track record of reliable work experience, and the ability to work independently are considered an asset.

REQUIREMENTS:

Must be 19 years or older
Valid Class 5 License
Physically fit
Current resume
Successful completion of assessment testing
Completion of a Personal Profile
Successful completion of interview

HOW TO APPLY

Students can obtain an Application for Admission Form, on request by emailing heo@viu.ca. You are required to submit your resume with your application. **Application Deadline: March 15, 2018**

PROGRAM DETAILS

Program length: 12 weeks
Start date: April 16, 2018
Location: Woss, BC * 1½ hours north of Campbell River*
Housing options are available in Woss:



We are looking for industry partners to help sponsor a student through the program.

For details, please contact Paul Mottershead at: paulmottershead@viu.ca
Phone 1.250.740.6123



ABOUT THE BC FOREST SAFETY COUNCIL

The British Columbia Forestry Safety Council (BCFSC) is the health and safety association (HSA) for forest harvesting, sawmills and pellet manufacturing in British Columbia. The BCFSC works with forest sector employers, workers, unions, contractors and provincial government agencies to support industry in implementing changes necessary to eliminate fatalities and serious injuries in the forest sector.

BC Forest Safety Council
420 Albert Street
Nanaimo, British Columbia
V9R 2V7



ABOUT VANCOUVER ISLAND UNIVERSITY

Vancouver Island University is a comprehensive Post-secondary institute located on Vancouver Island. More than 18,000 full time and part time students are enrolled in academic, applied, career/technical, vocational, trades and developmental programs leading to certificates, diplomas and degrees.

Vancouver Island University
900 Fifth Street
Nanaimo, British Columbia
V9R 5S5

"We gratefully acknowledge the financial support of the Province of British Columbia"



STUDENT CAREER GUIDE

Fundamentals of Forestry

Harvesting Practices Program

Your entry to a Career in Forestry

ABOUT THE PROGRAM

The future of the coastal forest sector is bright and career opportunities in forestry look promising. Working in the harvesting sector of the forestry industry provides you the opportunity to work outside in some of the most beautiful terrain in the world.

By working in a harvesting environment you become an important part of a team tasked with moving wood from the hillside to the end customer. This can involve roles in road building, falling, yarding, and transportation.

The Fundamentals of Forestry – Harvesting Practices Program is designed to provide new forestry workers with the foundational skills and knowledge required to work safely, productively and sustainably in a harvesting environment.

The program content is based on competencies identified by the BC Forest Safety Council (BCFSC). These competencies were identified in consultation with industry subject matter experts and include the key skills, knowledge and attributes required for entry-level workers to have a strong safety philosophy and be successful.

PROGRAM OUTLINE

The program consists of a combination of classroom and hands on training led by an instructor with over 10 years of coastal harvesting experience.



PROGRAM CONTENT

- Essential and employability skills
- Forestry Operations in British Columbia
- Safe work practices used in forestry
- Communication in the forestry environment
- Hazards found in the forestry environment
- Basic rigging practices and components
- Documentation required in forestry
- Emergency Response Plan and First Aid requirements
- Ergonomics related to the job
- Attributes required in the forestry industry

In addition students will complete training in:

- WHMIS
- Fall Protection
- S-100 - Fire Suppression and Safety
- Level 1 First Aid with Transportation Endorsement

You will learn to identify and assess hazards, communicate and move safely as you set chokers on logs, rig stumps, buck logs and work safely around equipment. You will leave the program confident and ready for an entry level logging position.

PROGRAM DETAILS

Program Length: 12 weeks

Start Date: April 16, 2018

Location: Woss, BC *(1½ from Campbell River)

Cost: Full Tuition sponsorship is available for successful candidates

* Housing options are available in Woss



CAREER OPPORTUNITIES

Once you have successfully completed the program you will receive a Certificate of Completion from Vancouver Island University. This certificate will demonstrate to potential employers that you have a solid base knowledge of the requirements needed to work safely and productively in an entry level logging position.

Once you are hired you will continue to learn from your peers, and receive on-the-job training and mentoring to help you become fully competent in a specific position. Examples of jobs you can grow into during your career in harvesting includes the following:

- BC Forest Safety Qualified Fallers
- Truck Drivers
- Hook Tender
- Grapple Yarder Operator
- Hoe Chucker
- Log Load Operator

HOW TO APPLY

Students can obtain an Application for Admission Form, on request by emailing heo@viu.ca.

You are required to submit your resume with your application.

Application Deadline: March 15, 2018

Once your application has been received and reviewed you will be contacted to complete an Assessment Tool. The Assessment Tool consists of Mathematics, Reading Comprehension and Combined Reasoning. You will also Complete a Personal Profile at this time. After completing the Assessment Tool you will be contacted to attend a 30 minute interview. Shortly thereafter you will be notified if you have been admitted to the program.

FOR MORE INFORMATION CONTACT US

Phone: 250.740.6227

Toll Free 1.888.920.2221

Email: heo@viu.ca



Appendix B – VIU Fundamentals of Forestry- Harvesting Practices Program Overview

Section 1

Fundamentals of Forestry-Harvesting Practices

Overview

The **Fundamentals of Forestry-Harvesting Practices** program is designed to provide new forestry workers with the foundation skills and underpinning knowledge required to work safely in the forest industry in British Columbia. General topics include:

- Essential and employability skills
- WHMIS
- Fall Protection
- S – 100
- Level 1 First Aid with transportation endorsement
- Switchback (self-awareness)
- Driving Light Trucks
- Forestry operations in British Columbia
- Safe work practices used in forestry
- Communication in the forestry environment
- Hazards found in the forest environment
- Basic rigging practices and components
- Documentation required in forestry
- Emergency Response Plan and First Aid requirements
- Ergonomics related to the job
- Attributes required in the forestry industry
- Entry level work activities found in forestry

On successful completion of the program the student will receive a Certificate of Completion. Once competency has been achieved in the workplace the student, after providing sufficient evidence may receive a Certificate of Qualification.

Receiving a Certificate of Qualification does not remove the responsibility under regulation of the employer to ensure the worker is qualified. In the context of regulation, qualified is defined as being knowledgeable of the work, the hazards involved and the means to control the hazards, by reason of education, training, experience or a combination thereof.

Program Overview

Occupational Analysis Chart

FUNDAMENTALS OF FORESTRY- HARVESTING PRACTICES

COURSES A	WHMIS A1 C	Fall Protection A2 C	S - 100 A3 C	Switchback * A4 C	First Aid Level 1 with Transportation Endorsement* A5 C	
FOUNDATION B	Describe Essential Skills B1 C	Describe and Apply Employability Skills B2 C				
OCCUPATIONAL SKILLS C	Describe Forest Industry C1 - 1002 C	Describe Safe Work Practices C2 - 1003 C	Communicate in the Workplace C3 - 1004 C	Describe Workplace Documentation C4 - 1006 C	Describe Emergency Preparedness C5 - 1007 C	Describe and Apply Workplace Attributes C6 - 1008 C W
	Describe Ergonomics C7 - 1039 C	Describe and Operate Chainsaw C8 - 1028 C W	Describe Signals used in Forestry C9 - 1068 C W	Describe Rigging Components and Apply Basic Rigging Practices C10 - 1013 C	Describe Regulations and Legislation related to General Forestry C11 - 1036 C	
LIGHT TRUCK D	Describe Hazards and Vehicle Dynamics related to Operating Light Truck D1 - 1027 C	Describe and Apply Emergency Response for Driving Light Trucks D2 - 1150 C W	Describe and Operate Light Truck D3 - 1151 C W	Describe and Tow Trailer D3 - 1152 C W		

Program Overview

HAZARDS E	Recognize, Evaluate and Control Hazards related to General Forestry E1 - 1005	Recognize, Evaluate and Control Hazards related to Yarding E2 - 1009	Recognize, Evaluate and Control Hazards related to Falling E3 - 1038
	C W	C W	C W
WORKPLACE F	Apply Chokerperson Skills F1 - 1023	Apply Rigging Slinger Skills F2 - 1024	Apply Landing/Utilityperson Skills F3 - 1025
	C W	C W	C W

C – Classroom | W – Workplace or practical

An alphanumeric designation means that a unit of competency related to the subject title has been developed with the BC Forest Safety Council.

- ***First Aid Level 1 with transportation is not listed in this outline but takes 2 days to complete***
- ***Switchback content is proprietary and information is not included in this course. The program takes 2-3 days to complete***

Appendix C – Roundtable agenda

ROUNDTABLE AGENDA Fundamentals of Forestry - Training Pilot Project

TIME	ITEM	
8:15 AM	<i>Sign-in; coffee and muffins available</i>	
8:30 AM	OPEN MEETING Introductions, meeting goals and target outcomes	John Talbot
8:45 AM	Project background and the need for more forestry training	John Talbot
8:55 AM	PANEL SESSION on “Fundamentals of Forestry” pilot training program:	
9:00 AM	<ul style="list-style-type: none"> BC First Nations Forestry Council 	Keith Atkinson, Kerry Jothen, BC FNFC
9:10 AM	<ul style="list-style-type: none"> BC Forest Safety Council 	Russel Robertson, BCFSC
9:25 AM	<ul style="list-style-type: none"> Course Content and Delivery 	Paul Mottershead, Ted Dillman, VIU
9:40 AM	<ul style="list-style-type: none"> Questions and Answers 	Panel
9:50 AM	<i>Coffee Break</i>	
10:10 AM	WORKING SESSION on “Fundamentals of Forestry” discussion topics: <ol style="list-style-type: none"> Feedback on program content and fit with industry needs Potential curriculum modifications for future Forestry Fundamentals training programs on the Coast and in other regions of BC Adding to the Program for other forestry sub-sectors such as yarding, road building, and transportation 	Facilitated by John Talbot and Gail Sherson
11:20 AM	MOVING FORWARD – discussion and recommendations (attracting candidates; affordable & sustainable programs; good practices that can be expanded, etc)	Facilitated by John Talbot and Gail Sherson
12:10 PM	WRAP UP	John Talbot
12:15 TO 1:30 PM	<i>Lunch break and networking opportunity (lunch provided)</i>	

Appendix D– Posters employed during the working sessions

YOUR OPINION ON:		STRONGLY AGREE	AGREE	DISAGREE
1.	The pilot program content <u>meets the needs of industry</u> for entry-level employees in harvesting			
2.	The <u>pilot delivery is appropriate</u> in terms of theory and practical, hands-on focus			
3.	The selection of course components needs to be <u>modified</u> to take into account the needs of <u>different employers</u>			
4.	It is important to have a <u>process for pre-screening candidates</u> for their suitability to succeed in a harvesting work environment			
5.	It is important that <u>industry provide opportunities</u> for field trips, industry orientation and/or practical on-site training			

DISCUSSION TOPIC 1

Vancouver Island University / WFP Fundamentals of Forestry pilot program

FIT WITH INDUSTRY NEEDS



DISCUSSION TOPIC 2
Future Fundamentals of Forestry offerings in
DIFFERENT REGIONS OF BC

YOUR OPINION ON:		STRONGLY AGREE	AGREE	DISAGREE
1.	The Forestry Sector needs standard, consistent, 3rd party training to complement on site employer training			
2.	The “Fundamentals of Forestry” course is important to launch in other regions of BC			
3.	Regions that need access to Forestry Fundamentals training courses are:			
	• Coastal BC			
	• Northern Interior			
	• Southern Interior			
	• Kootenays			
4.	The selection of course components needs to be modified to take into account different regional needs			

DISCUSSION TOPIC 3
Adding to the Fundamentals of Forestry Program for
OTHER FORESTRY SUB-SECTORS

Priority Forestry Sub-sectors by region are:

Please choose **top three** sub-sectors per region

	Yarding	Road building	Transportation	Mechanized Harvesting	Falling	Silviculture
Coastal BC						
Northern Interior						
Southern Interior						
Kootenays						
Peace						

APPENDIX E - FOLLOW-UP SHEET

Roundtable on Fundamentals of Forestry Training

Your feedback is important!

DISCUSSION QUESTIONS	Your answers
Which entry level positions exist in different regions of BC?	
Are there other forestry sub-sectors that should be considered?	
Are there specific competencies that you think should be added, including in different regions or sub-sectors?	
Are there actions that can facilitate Indigenous peoples' participation ?	
Do you have any suggestions related to course delivery ? (e.g. location, industry participation, balance of theory vs hands-on)	
Should industry make in-kind contributions of equipment and staff?	

(write on the back if you need more space)

MOVING FORWARD	Your answers
Are there actions that can be taken to attract candidates , both Indigenous and non-indigenous?	
What are the barriers to delivery of these programs and what funding mechanisms are available?	
Are there pathways for affordable and sustainable training programs to develop a competent workforce?	
Should there be a central body within the forest sector that guides this skills training and education?	
Can you add any additional observations, learnings and/or good practices that could be expanded?	

(write on the back if you need more space)

Your name _____

Date: _____

Please hand in at the end of the meeting or email to gail.sherson@shaw.ca
Prefer to talk? Call John Talbot at 250-308-9955

