Quesnel Future of Forestry Think Tank #4
May 21-22, 2025

Summary Report

Photo credit: Liam Irwin

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Executive Summary

The theme of the 2025 Future of Forestry Think Tank (FFTT) was "Accelerating Change" and was held on May 21 and 22 at the North Cariboo Community Campus in Quesnel, BC. Fifty-four delegates from various orders of government (Local, First Nation, and Provincial), academia, industry, and funding organizations attended the 2-day event. The Minister of Forests, Ravi Parmar, opened the event with a pre-recorded address that congratulated the attendees for championing a grassroots example of a positive, proactive, and innovative local approach to the significant challenges confronting BC's forest sector. During his address, the Minister remarked: "[The Think Tank] is an opportunity in 2025 for all of us to come together and talk about the future of forestry, to talk about how we can create a strong and sustainable forest sector; not for the next 10 years, not for the next 20 years, but for the next 100 years. I learned this from the elders here in my community…that we have to think seven generations ahead."

This year's keynote address came from Jason Fisher, Executive Director of the Forest Enhancement Society of BC. Jason talked about the complexity of the current forest sector and how everyone in the sector is facing pressure to meet changing demands and to improve benefit flows from forests to local communities at a time where the types of fibre available from our forests is changing dramatically. Creating an inclusive forest sector for more area-based tenures around communities at a time when the sawlog supply that we built our entire industry on is shrinking, is causing unique challenges, but also opportunities for innovation and more diverse fibre utilization.

Presenters at this year's Think Tank updated the delegates on: the Forest Landscape Planning (FLP) pilot in the Quesnel Forest District from both the Provincial and a First Nation Government perspective; the new Three Rivers Community Forest; a first-in-kind stand-alone biomass digesting facility that could turn bush waste into the feedstock needed to create petrochemical substitute products; and, a training program for innovative forest harvesting machine operators that will enable BC to more quickly move away from our traditional industrial clearcutting regime. The group also heard from Deadwood Innovations about their experience developing and commercialising new technology in BC and there was an announcement of a Memorandum of Understanding between Deadwood Innovations and Nazko First Nation. Participants also learned about the Quesnel Bioeconomy Development Opportunity Zone, and Foresight Canada's bioeconomy accelerator.

This year's Think Tank also included an opportunity for researchers who work in the Quesnel area to present their research findings. Researchers from Silva21 and TriaFoR as well as UNBC presented on various forestry, wildfire, and social science projects that are based in Quesnel and are contributing learnings to the health of the local ecosystems and the well-being of the plant, animal, and human communities that depend on them.

The recommendations from the content experts (presenters) of the 2025 FFTT are found in blue text throughout this report. The collective recommendations from delegates are found in blue text throughout and also collated at the end of this report. The outcomes and recommendations from the 2025 FFTT will be used to drive the activities of the City of Quesnel's Forestry Initiatives Program workplan until the next Future of Forestry Think Tank in 2027.

Introduction

Fifty-four delegates from all orders of government, industry, and academia from across Canada gathered in Quesnel for the fourth Future of Forestry Think Tank (FFTT) to learn, to deeply and collectively think about, and to discuss the following:

- Progress reports on what's underway in the 3 clusters of the forestry hub (see Diagram 1)
- Challenges to this progress
- Innovative ways to address identified challenges
- Specific actions that can be taken to address the challenges and *accelerate progress*

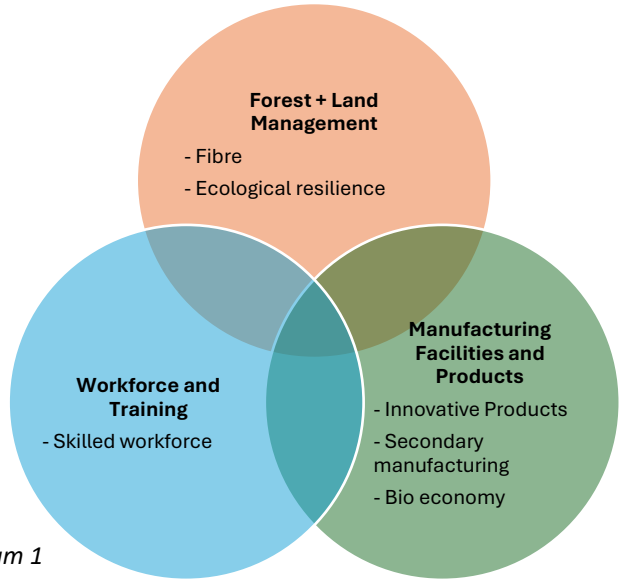

Diagram 1

Previous reports:

Think Tank #1 May 2018 – link

Think Tank #2 September 2019 – link

Think Tank #3 May 2023 – link

*Please find agenda for 2025 FFTT here

The FFTT was hosted by the City of Quesnel Forestry Initiatives Program. Organizers for the FFTT were: Erin Robinson, Forestry Initiatives Manager; Bob Simpson, consultant; Mike Simpson, consultant; and Dane Pedersen, PhD candidate, University of BC. Welcomes were provided by Mayor Ron Paull and a pre-recorded welcome from Minister of Forests Ravi Parmar.

The following were acknowledged for financial contributions:

- FFTT sponsors: Foresight Canada, Three Rivers Community Forest and Nazko First Nation
- Ongoing for City: Forest Enhancement Society of BC (FESBC) and Union of BC Municipalities (UBCM) Community Resilience Investment (CRI) for supporting wildfire risk reduction and FireSmart
- Project support: Indigenous Bioeconomy Opportunities Branch and Northern Development Initiative Trust

FFTT 2025 followed the same process as previous Think Tanks: participants listened to updates from content experts on the projects underway in Quesnel, or the Region, followed by structured conversations with pre-determined questions. Participants were broken into small groups to collectively answer the questions and record their table's top recommendations. Responses were collated to inform the outcomes and recommendations in this report, which will drive the workplan for the Forestry Initiatives Program going forward for the next 2 years.

** Please see a list of attendees and their contact information here.*
** Please see biographies of all presenters here.*

Forest and Land Management

Update 1: Forest Landscape Planning

British Columbia's new Forest Landscape Plans (FLP) will replace forest stewardship plans as part of changes to British Columbia's forest management regime including the Forest Range and Practices Act. Quesnel is one of the first pilot FLPs in the Province and all participating parties have been at the table for 5 years. The Quesnel FLP may be approved by 2026. The Ministry of Forests is working collaboratively with all First Nation Governments to manage for ecosystem health and economic resilience, while reflecting community values in forest management. Through the FLP, expectations for forest management will be clarified to meet the long-term vision for future forest conditions and provide certainly to the sector.

During the Think Tank, Josh Pressey, Regional Executive Director and Geneve Jasper, Acting Strategic Land Manager, Quesnel District, from the Ministry of Forests gave an overview of the status of the Quesnel Forest Landscape Plan (FLP). See presentation here.

The Key Conclusions and Recommendations from the Quesnel FLP

- FLP is the path to shared decision making with First Nations, which addresses reconciliation

First Nation Perspective on FLP

Chief Leah Stump, Nazko First Nation, shared perspectives on the importance of the Quesnel FLP to Nazko First Nation. Chief Stump explained how the Nazko territory has been devastated by the culture of forest management focused on timber, the Mountain Pine Beetle, and the subsequent wildfires. Chief Stump stated, "We live with constant uncertainty as a result of past forest management practices that were, and are, unsustainable…so it's not an option for Nazko: we need to do things differently and we need to restore ecological resiliency to our land". See presentation here.

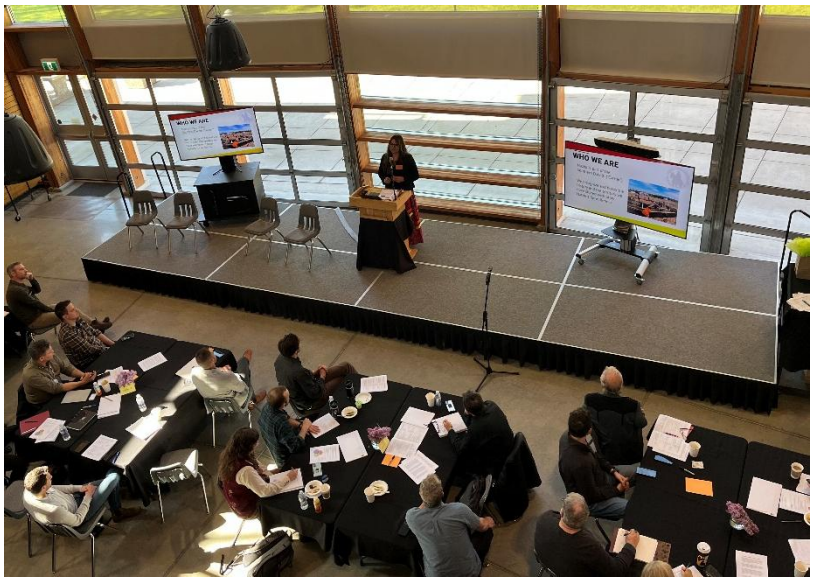

Photo: Chief Leah Stump of Nazko First Nation presenting

Key conclusions and recommendations from Nazko First Nation on FLP:

- All First Nations see inherent value in the process as a collaborative planning exercise
- All participants come to the table informed and able to keep the dialogue focussed and progressing
- BC resources the table fully (especially First Nations participation)
- First Nations must be involved in implementation for it to be a success

Update 2: The Three Rivers Community Forest

The Three Rivers Community Forest (TRCF) is an area-based tenure that is held in a limited partnership between Lhtako Dene Nation, Nazko First Nation, ʔEsdilagh First Nation, and the City of Quesnel. Nick Pickles, the Manager of TRCF gave a presentation on opportunities and challenges for a new area-based tenure in advancing aspects of the Quesnel forestry hub. Nick talked about the complexity of an area-based tenure and the challenges of breaking out of a long-standing industrial model to a forest stewardship model based on diverse and local values. He also discussed how area-based tenures are leaders in innovation. By delivering fuel mitigation, ecosystem-based planning, and training programs under real-world conditions, community forests can be leaders in accelerated local change. See presentation link here.

Key conclusions and recommendations from a Community Forest Manager:

- Communication and trust building based on strong relationships
- Pursue innovation in planning and operations
- Area-based tenures offer an opportunity to act locally, adapt quickly, have accountability, test innovation and accelerate meaningful change

Outcomes from Structured Conversations for Forest and Land Management

Participants were randomly mixed to have four structured conversations.

Question 1: With the dramatic decline in the AAC, does it still make sense for the Quesnel FLP to be focused on "ecosystem health and resiliency?" What would the consequences be if this focus is not maintained? Are there economic consequences to maintaining this ecological focus? (Ministry of Forest's goal: "Economic resilience for all.")

Roll-up from table responses:

The general responses concluded that it makes sense for the Quesnel FLP to be focused on ecosystem health and resilience because we need to think on *ecological time scales* – short term pain for long term stability via a resilient managed ecosystem. Participants agreed that the FLP is a way to manage with an ecological focus while still enabling economic diversity and resiliency, but we need agreement on a set of specific goals/targets/timelines to balance economics and ecological focus.

The FLP is seen as a way to create the possibility of achieving long term economic benefits through ecological resiliency and economic diversification. There are economic consequences to maintaining an ecological focus, therefore an incentive structure is recommended to value ecological services. The challenge of managing for ecosystem resilience are the management complexities, the large changes to legislation, and the increased communication between different area-based managers. If we choose not to manage with an ecosystem health focus, there can be huge economic impacts in other ways (e.g. cost of a landslides, floods, and wildfires etc.)

1. *Recommendation: The FLP process in Quesnel needs to focus on ecosystem health and resilience to have continued ecological services that can provide materials for the manufacturing sector.*

Question 2: What specific actions are required to ensure that the Quesnel FLP is a success (i.e. it delivers a consensus recommendation to BC's Chief Forester on an operating plan for the Quesnel Forest District in the next few months)?

Roll-up from table responses:
The general response was that thus far, the method of engaging government to government has worked, but it is a time-consuming process. To be successful, potential challenges must be identified and carefully thought through because the FLP is tied to both economic and ecological successes and outcomes. The FLP must provide for regional fibre security to both promote investment in new initiatives (i.e. mass timber, biorefining, and biodigesting) and have capacity for long term planning (forest structure, products, market certainty). Other specific actions recommended by the delegates were to move towards more area-based tenures, change the stumpage system to eliminate waste penalties and incentivize tenure holders to fully utilize fibre.

2. *Recommendation: The FLP must provide for regional fibre security to both promote investment in new initiatives (i.e. mass timber, biorefining, and biodigesting) and have capacity for long term planning (forest structure, products, market certainty).*

Question 3: Would the expansion of smaller area-based tenures (e.g. Community Forests, Woodlots, First Nations Woodland Licenses) help to achieve ecological resiliency in the Quesnel Forest District? What are the pros and cons of the province's stated objective to expand these forms of tenure? What opportunities for expansion exist in the Quesnel Forest District?

Roll-up from table responses:
Ecological resilience would be improved with expansion of smaller area-based tenures and would allow for the utilization of local knowledge, incorporation of local values, investment security, and an ability to react quickly to changing conditions in an innovative manner. The challenge of having more diverse area-based tenures managing for ecological resilience is that there would be multiple managers; coordination across jurisdictions is necessary. Multiple area-based tenures with a diversity of licenses would potentially be a challenge to the coordinated implementation of the FLP.

3. *Recommendation: Pursue expansion of area-based tenures and converting volume-based licences to area-based and look to First Nations and local communities to manage them. Ensure provincial assistance through mechanisms for coordinated implementation.*

Question 4: What's missing in the Think Tank's landbase/ecosystem resiliency discussion that would help our partners to accelerate change and ensure "economic resiliency" is achieved from ecological resiliency?

Roll-up from table responses:
Several things were noted as missing from the discussion including: clarifying what markets are available for various parties and enabling better coordination among them; the need for a full rotation management strategy and identifying what is most ecologically unbalanced. It was suggested that there is a need to create a forest focused "Economic Strategies Board" with technical expertise and local support to field investment inquiries and help chart structure and administrative info to funders and proponents alike. Having and using a "toolbox" of solutions/actions to transition to a new ecologically/economically resilient state was noted as missing.

4. *Recommendation: Create a forest focused "Economic Strategies Board" with technical expertise and local support to field investment inquiries and help chart structure and administrative info to funders. Make clear connections between ecological resiliency and long term economic resiliency and seek funding for this.*

Manufacturing – Bioeconomy

Update 3: The Quesnel Bioeconomy Development Opportunity Zone

The Bioeconomy Development Opportunity (BDO) Zone Initiative is a risk rating system allowing communities to share information on available biomass and local infrastructure with potential investors in biomass manufacturing. Development of the rating for the Quesnel area required a technical, standards-based assessment of available fibre and an assessment of Quesnel's infrastructure. The City of Quesnel is the first municipality in British Columbia to receive a BDO Zone designation. Quesnel has been awarded an "A" risk rating for wood fibre biomass. This rating indicates a low risk for bioeconomy project development.

Dr. Marian Marinescu, Senior Project Director, Ecostrat Canada gave an overview of the Bioeconomy Development Opportunity (BDO) Zone for Quesnel and area. See presentation link here.

Key conclusions and recommendations from the Quesnel BDO:

- Quesnel & Area has all the ingredients for the bioeconomy to succeed here "if it can't happen here, it can't happen anywhere in Canada"
- Explore Wildfire Bioeconomy Development Opportunity (W-BDO) zone to address wildfire risk

Update 4: Bio-digesting Hub Feasibility Study for Quesnel

One of the key areas for follow-up coming out of the May 2023 Future of Forestry Think Tank session, was to put more deliberate focus into *realistic* opportunities for Quesnel to be an innovator in the bioeconomy. Shortly after the BDO Zone was completed, the City began to have conversations with West Fraser staff about the future of their now decommissioned Hinton Pulp lignin extraction facility. Through partnership with Foresight Canada and funding from Northern Development Initiatives Trust (NDIT) and Indigenous Bioeconomy Opportunities (IBIO) Branch, the Three Rivers Community Forest, West Fraser Mills, and the City of Quesnel conducted a feasibility study that commissioned NORAM Engineering for a technical feasibility of utilizing the lignin plant in Quesnel and MNP for a financial feasibility study.

The feasibility study process made it apparent that the decommissioned lignin facility could become the core of a stand-alone biomass facility that would be capable of using clean bush waste from harvesting and fuel management residuals to produce both lignin and cellulose. Both lignin and cellulose are quickly becoming high demand feedstock for the biochemical substitute products that are needed if we are to wean ourselves off petrochemicals. The traditional feedstock for lignin and cellulose production is white-chips, but if we can find a way to utilize logging debris or "waste-wood" this would be is a game changer for BC.

Bob Simpson, consultant working for City of Quesnel Forestry Initiatives Program, gave an overview of the status of the feasibility study for a stand alone bio-digesting facility in Quesnel (that can be replicated in other areas of the province).

Key conclusions and recommendations from the bio-digesting feasibility study:

- Quesnel is as good a place as any to pursue bioeconomy options
- Public funding has always funded innovation in Western economies
- The financial scale of public funding to advance bioeconomy opportunities is small in comparison to subsidies for the oil and gas sector and the auto manufacturing sector

Matyas Kosa, Bioproducts Lead, West Fraser Mills Ltd., gave a presentation on the potential for a bioeconomy hub (or bio-cluster) in Quesnel informed by the NORAM and MNP feasibility studies. The goal for a biorefinery facility would be to more fully utilize forest residuals, preferably, softwood bush-grind and underutilized hardwood. An evaluation of available bush fibre resources in the Quesnel is currently underway, for both volume and chemical composition. The BDO Zone report looked at available volume, and now there is an ongoing seasonal evaluation of the chemical composition of both soft and hardwood bush residuals (to be completed summer 2025).

The next step is to initiate a comprehensive study of biorefinery concepts and identify the best options for the region based on the specific operating environment of this area. This next phase is by far the most complex task to date and has the highest impact on the success of bio-cluster creation and should be looked at from as many perspectives as possible to avoid past mistakes and impart good learnings. Building a Local Supply Chain Consortium of feedstock suppliers (wood, hydrogen etc.) as well as glycol and modified-lignin users, will help to determine a **hybrid system**, based on many technologies combined from 3-4 different biorefinery concepts and adapted to Quesnel. See presentation link here.

Key conclusions and recommendations from next steps to a biorefinery for Quesnel:

- Initiate a commercialization engine to support full alignment of all players (industry, academia, government, venture capitalists and start ups) to cut through the chaos and find the best, commercially viable bio-cluster options for the Quesnel area.

Outcomes from Structured Conversations for Manufacturing - Bioeconomy

Participants were randomly mixed to have four structured conversations.

Question 1: Do we have a "bush waste" problem in the Quesnel Forest District? If so, what are some specific forest management policies, pricing, and regulatory issues that are creating or exacerbating this problem? Suggest remedies to address these constraints on the utilization of this resource.

Roll-up from table responses:
Delegates agreed that there is a "waste" problem due to a lack of markets to make economical and viable use of fibre. Pricing, appraisal, and waste policies all contribute to the problem. Also contributing are silviculture policies that limit how to manage forest stands. Potential remedies to address these constraints on the utilization of bush waste include: creating demand for bush waste products; creating a centralized sort yard for merchandising; creating incentives to recover fibre; creating policies that support alternative silviculture strategies; learning from other jurisdictions that have solved this; utilizing the 5cm tops "rat-tails" to force use of smaller blocks; encouraging cut to length instead of roadside logging; increasing waste fees to incentivize use.

5. *Recommendation: Pursue multiple approaches to improve utilization of bush waste, from harvesting and sorting practices, to silviculture policies to removing penalties and increasing incentives.*

Question 2: What role, if any, should government (federal and provincial) play in facilitating the emergence of a new biomass sector in BC? How important is the existing pulp sector to the emergence of this new industry?

Roll-up from table responses:
Participants responded that federal and provincial governments should play a role in facilitating the emergence of a new biomass sector in BC. Potential roles government can play were identified as follows: provide funding to industry for biomass projects; create a conducive business environment to motivate industries to go into bioeconomy projects; provide access to fibre to industries pursuing biomass; provide a commercialization engine to put industries together to work collaboratively on bioeconomy projects; and continue to invest in fire prevention through forest management and fibre utilization to reduce suppression costs.

An integrated manufacturing sector including sawmills and pulp mills was highlighted as key for the biomass sector success. Potential federal and provincial policy instruments to facilitate the emergence of a new biomass sector in BC could include the following: faster waste assessments on waste piles; one pass harvesting and guidance on piling/drying/storing/hauling biomass; tax policy/stumpage; biomass licences to enable precommercial thinning; utilization of deciduous; make connections with carbon markets and climate smart forestry.

6. *Recommendation: Federal and provincial governments should play a role in facilitating a new biomass sector in BC through a business environment that promotes and encourages collaboration. This can be fostered through a commercialization engine that connects industries and supports a more refined supply chain from innovative forest harvesting to both traditional products as well as untapped markets.*

Question 3: Is Quesnel a good location to create a bio-cluster? If so, how can we accelerate the creation of such an innovation hub and who needs to be involved in this process?

Roll-up from able responses:
Quesnel as a bio-cluster has the following strengths: BDOs identified; pilot FLP location because of demonstrated collaboration between all actors; the Think Tank process and the Forestry Initiatives Program; integrated pulp and sawmills; microlevel economic innovation; the fact that more companies are working on secondary manufacturing (i.e. composite beam production, prefabricated high performance homes). For these reasons, it is beneficial to promote a bio-cluster in Quesnel with an emphasis on modifying the tenure system to ensure fibre supply.

7. *Recommendation: Quesnel should proceed to develop a bio-cluster with attempt to create a modified tenure system to ensure enough fibre for all facilities.*

Question 4: The "lignin" study conducted for Quesnel shows that a stand-alone biomass facility is technically feasible but would require substantial public investment to make it financially sustainable. Should we just lobby the provincial and federal governments to fund this commercial pilot as the best way to get this new sector started in BC?

Roll-up from table responses:
The general response was no, we should not just lobby government but should instead approach project and fund development as a partnership. This can be done as a Collaboration Hub Team (or committee) for advancing the biorefinery cluster in the region to build the Commercialization Engine using technical expertise from multiple disciplines. The Collaboration Hub Team should include: First Nations as strong representatives and drivers of the process, Provincial and Federal government senior staff (Executive Directors or Assistant Deputy Ministers of MoF and JEDI).

The Collaboration Hub Team would be focused on bringing together the technical expertise over 2-3 years and encompass participation from: engineering, academia, carbon specialists, biomass expertise, policy and environmental, communications, research, biorefinery, landscape analysis, economist or sector economist. The Collaboration Hub Team should highlight: action, efficiency, investment and attraction, bio-innovation, stewardship, cluster development, and technology. They should also identify and share measures of success with partners and they should clarify what products will be produced as outputs. Completing these steps could generate a value proposition/commercial feasibility study for a successful biorefinery and resulting bio-cluster.

8. *Recommendation: Strike a Collaboration Hub Team that is in partnership with government, academia, First Nations and industry to advance the biorefinery and bio-cluster concept.*

Workforce and Training

Update 5: Training Opportunities for Solid Wood Manufacturing
British Columbia's forest sector is a vital part of the provincial economy, supporting over 150,000 direct and indirect jobs across rural and First Nation communities. However, the sector is facing significant challenges—including an aging workforce, labour shortages, and evolving forest management practices that require new skills and capabilities.

Stephanie Huska, Coordinator, Cariboo Wood Innovation Training Hub, gave an overview of a nascent training program being developed for value-added manufacturing in Williams Lake. See presentation link here.

Key conclusions and recommendations for training in value-added manufacturing:

- Position the Cariboo as a leader in the value-added sector by fostering innovation through collaboration with academia and industry.

Update 6: Training Opportunities for Land based Activities
British Columbia's forestry sector is facing a growing need for skilled equipment operators trained in cut-to length (CTL) harvesting systems (single grip harvesters and forwarders)—an approach that supports a wide range of forest management strategies, enables partial harvesting treatments to increase fibre supply, and contributes to wildfire risk mitigation and ecosystem restoration. The Province of BC has taken recent steps to move the industry towards more of this type of forest practices, however there is a gap in training machine operators to carryout the work. In response, a collaborative effort is underway to design and implement a Forestry Equipment Operator Training program tailored to BC's conditions.

Dominik Roeser, Associate Dean, Faculty of Forestry, University of British Columbia, gave a presentation on the need for a training pilot for operators of non-conventional (for BC) equipment in forest harvesting and management. See presentation link here.

Key conclusions and recommendations for why training in alternative harvesting is needed:

- Holistic forest management; manage over the full rotation; value over volume on a shrinking landbase
- Value comes from full product utilization, including bioenergy and biomass
- Expand on tools and technology
- Develop capacity
- Strengthen a forestry culture
- Be willing to take measured risks

Rod Badcock from High Performance Logging, gave a presentation on the specific training pilot and program that has been developed for the Quesnel area. Built on the successful model from Eastern Canada, this initiative brings together key partners with the aim of launching a 1-year pilot, followed by 2-year program that establishes long-term delivery capacity in the province of BC.

The proposed program will train both entry-level and advanced forest machine operators. Entry-level operators will be trained through classroom instruction, simulation, hands-on fieldwork, and on-the-job coaching, while experienced operators and contractors will be supported in building new skills, particularly in commercial thinning, business practices, and operational efficiency. It is proposed that the initiative will launch with a pilot in 2025 led by High Performance Logging (HPL), transitioning to regular delivery in 2026 and full-scale implementation in 2027 when it will be led entirely by a B.C.-based team. See presentation link here.

Key conclusions and recommendations for delivery of the machine operator pilot for BC:

- Screening is essential for finding right candidate "sticky talent"
- Ensure both employer buy-in and financial commitment from the trainee "skin in the game"
- Combine new entrant training with advanced operator training for seasoned operators

Outcomes from Structured Conversations for Workforce and Training

Participants were randomly mixed to have four structured conversations.

Question 1: How essential is workforce training/retraining to revitalizing the forest sector? If "essential," how can we raise the profile of this domain so that it gets the priority attention it deserves?

Roll-up from table responses:
Participants noted that workforce training/retraining is essential to the sector. The profile can be raised by demonstrating the need for the training at multiple ministries, and we can ask Minister Parmar to help us raise the profile. The profile can also be raised by creating credentials enabling trades or professional recognition and standards for this type of training. Identifying benefits of training, and the risks of not doing training should be highlighted. Other opportunities to raise the profile of this kind of work is identifying apprenticeships, promoting on-site learning and getting PhDs who design this equipment, or forest management prescriptions, out on the ground with those implementing the work. Participants discussed the need to build a culture shift in the

industry; use young learners to be spokespeople to promote opportunity; stream their simulator usage on Twitch; use the lure of smoke-free summers to change the profile of forest sector.

The training/retraining should require integrated employer and industry participation and support through: in kind contributions, contributions to tuition, commitments to hiring, commitments to changing the job environment to attract young workers. The success of the program also needs a high level of industry support (licensees and machine dealers). Also important is ensuring eligibility for student loans, grants, sponsorship for both trainees and employers. Employers need to experience difference in trained employees vs. conventional operators to see the benefit of training.

9. *Recommendation: Revitalize the forest sector through workforce training/retraining by pushing for credentialling, promoting this type of training among multiple ministries, and raising the profile among young people and the general public.*

Question 2: What other training needs exist to advance "value-added" manufacturing in BC, and specifically in our region? (value-added encompasses both the solid wood and biomass sectors.)

Roll-up from table responses:
Multiple other training needs were identified. Entrepreneur training is needed and people need to understand the complexities of the system in BC and the process for accessing fibre and how to raise funds and secure capital. Training on risk assessment and risk management is needed because taking more risks is inherent in considering alternative value-added options. Training is also needed at an organizational or institutional level that enables continuous improvement through learning from others (different industries, provinces or countries). Train the trainer was also discussed as important for all training in BC, as we are often bringing in people from different jurisdictions to teach us, so knowledge transfer to the BC context is key.

Before any further training is identified, the enablers of value-added need to be determined: define value-added broadly as anything that adds value which requires a contextual shift of thinking; then conduct a labour market analysis to connect value to harvesting practices (more than "timber" in the bush). More generally, educating the general public on the importance of the forest industry was also identified, with a focus on youth.

10. *Recommendation: Identify multiple training needs from entrepreneurial skills to risk management to understanding the operating environment in BC (accessing fibre, securing capital). Training for both individuals and organizations and learning from other jurisdictions is critical for accelerating change in BC.*

Question 3: Do you agree that implementing an innovative harvesting machine operator training program is <u>essential</u> to achieve the provincial government's vision for a sustainable forest management regime in BC? Or, is this program just another costly "nice to do" competing with other financial pressures on the provincial budget?

Roll-up from table responses:
Given the pressures and provincial policy directions of ecological resiliency, sustainability, biodiversity and wildfire risk reduction, participants agreed that an innovative harvesting machine operator training program is <u>essential</u> However, it was also noted that this would require fundamental changes in policy, pricing, and regulations. Delegates agreed that it would be useful

to clarify the value proposition of doing this training – provincial government to fix regulations, create an investment climate with consistent volume and scales; private sector needs consistent volume which leads to justified investments in equipment and training; and the opportunity to fix retention challenges of owners (investing in training that will result in long term workers and operators). This can enable partnerships between contractors, training providers, tenure holders and governments (local, provincial). Opportunity exists to target youth and show them that forestry can be a long-term well-paying career (profession). The need to bridge the gap between forest professionals and operators was also noted.

11. *Recommendation: Promote innovative harvesting machine operator training program as being connected to multiple wins, including ecological resiliency, sustainability, wildfire risk reduction and the ability to secure and retain workers in the forest industry*.

Question 4: How can we advance the pilot and the proposed program for machine operator training with government so that it gets funded and implemented as soon as possible? What role can you/your organization play in making this happen?

Roll-up from table responses:
The pilot and proposed program can be advanced to government, funded and implemented as soon as possible through numerous mechanisms. Speak with and engage with other BC Ministers, not just Forests (Education, Trades, etc..). Seek stakeholders (contractors, community leaders, equipment dealers etc..) to voice their support and willingness to be partners of the program and explore conservation, ecological, and economic benefits.

Success can be achieved by creating a culture of growth and learning within the forest industry and contractor community while ensuring that the program is complementary to the existing "operator inventory" as well as being focused to support existing harvest methods. The forest industry can partner with the program and supply landbase/tenure for training opportunities. Post-secondary institutions can provide a location for learning, instructors and resources at the research forest.

12. *Recommendation: Advance the pilot and proposed training program with government by engaging with multiple BC Ministers, seeking others to voice their support and identify who can partner and how they can best contribute.*

Manufacturing – Solid Wood

B.C. is actively taking steps to advance the use of wood through multiple initiatives (Wood First Program, Office of Mass Timber, and Value Added Accelerators) that aim to foster the development of innovative products and to help diversify markets. Developing new uses of wood in building design and construction can help the province's forest industry remain vibrant and globally competitive.

Update 7: Developing and Commercialising New Technology in BC
Owen Miller, CEO, Deadwood Innovations Ltd., gave an overview of the business and partnerships developed in the Fort St. James area and outlined what he sees as possible for Quesnel. See presentation link here.

Key conclusions and recommendation Developing and Commercialising New Technology in BC:

- Advance solid wood bioeconomy options, including upgrading underutilized aspen, mass timber housing production cluster and upgrading margin for commodity products
- Foster First Nations equity partners to provide dividends back to community and other opportunities for community benefit

Update 8: Opportunities for Mass Timber in Rural BC

Maik Gehloff, Faculty, Wood Engineering at University of British Columbia, gave an overview of opportunities in mass timber. See presentation link here.

Key conclusions and recommendations for Opportunities for Mass Timber in Rural BC:

- Cross-laminated timber (CLT) is attainable at small scale in the glue laminated category, but has many barriers such as certification and quality control
- Mechanically laminated options (nail or dowel laminated timber, NLT or DLT respectively) are the easiest way to market, with a low risk and low entry costs

At the 2025 FFTT, a partnership was announced between Deadwood Innovations Ltd., Nazko Economic Development Corporation and Nazko First Nation in the form of a Memorandum of Understanding to explore the concept of a second Deadwood Innovations facility in the Quesnel area to turn low value wood into structural building materials, to unlock new value in the local forest industry.

Photo above: Owen Miller of Deadwood Innovations and Terrance Paul of Nazko First Nation

Outcomes from Structured Conversations Manufacturing and Solid Wood

Participants were randomly mixed to have four structured conversations.

Question 1: Why do we not have more "mass timber" production facilities in BC, or here in Quesnel? What are some specific policy, pricing, regulatory, and market hurdles in the way of seeing more investments in mass timber/value-added production facilities in BC?

Roll-up from table responses:

There were numerous reasons noted why there are not more mass timber facilities in BC or specifically in Quesnel. There is a lack of demand for mid to high level buildings (at least 8 stories). There is no culture of using or applying mass timber technologies in Northern BC especially for

single family homes. Mass timber facilities are hard to finance at banks and insurance coverage is challenging. Significant investment is needed to develop a mass timber facility with little government support. There are transportation costs/logistics with moving the final product. The "market" can produce it for themselves (i.e., log home builders that make their own). We are far from existing markets; the largest market exists in the US.

Recommendation from Conversations: None identified.

Question 2: What role can First Nations play in facilitating investments in solid wood value-added manufacturing facilities in the Quesnel area and ensuring these enterprises are sustainable over the long term?

Roll-up from table responses:
First Nations can play many roles in facilitating investments in solid wood value-added manufacturing and ensuring their long-term sustainability. First Nations, through their increasing amount of tenures, can enable fibre procurement through more certainty for value-added producers. As small tenure holders, First Nations can create a freer market for additional value and they can test things out at smaller scale and support niche markets more readily than can large industry. First Nations can identify what kind of businesses they would like to attract beyond commodity products; long term certainty can be seen through boom-and-bust cycles.

13. *Recommendation: First Nations and value-added manufacturers should explore mutual benefits of partnering on solid wood value-added manufacturing investment and opportunities*.

Question 3: What roles do the existing primary manufacturers and tenure holders need to play in supporting and/or facilitating investments in mass timber and other value-added solid wood manufacturing facilities in the Quesnel area?

Roll-up from table responses:
Existing primary manufacturers and tenure holders need to play many roles in supporting and/or facilitating investments in mass timber and other value-added opportunities. These include willingness to provide residual products through long term agreements and supporting a good market environment. Investing in research and innovation in solid wood value-added programs is also important to leverage support in experimental processes and products. Licensees can take the needs of different manufacturers into account when designing harvesting operations to improve access and utilization of speciality logs.

14. *Recommendation: Primary manufacturers and tenure holders should play many roles to support the development of mass timber and other value-added solid wood manufacturing facilities. They should recognize success of the overall forest industry, not just their own interests.*

Question 4: What are the most critical first steps we need to take to attract investment in solid wood value-added manufacturing facilities in Quesnel? Who are the key players needed to make this happen?

Roll-up from table responses:
Create a business case/plan that answers the following:

- Does a market exist for the product?
- Does labour exist?
- Do the natural resources exist, are there barriers to resources? (fibre security is critical)
- Does the infrastructure exist, or will it need to be built?
- Is there stakeholder buy in?

Get everyone to buy in including: all orders of government (First Nations, Local, Provincial, Federal), the local investment community, industry (major industry/primary manufacturing; value-added/secondary manufacturing), and enable it to be community driven.

15. *Recommendation: Quesnel needs a business plan for a new solid wood value-added facility that everyone can support and that the fibre would be available to sustain.*

Zak Miko, Manager, Forest Bioeconomy with Foresight Canada, gave an overview of the BC Net Zero Innovation Network (BCNZIN) and opportunities for future collaboration. See presentation link here.

Key conclusions and recommendations from the BCNZIN:

- Connect with Foresight Canada for support on bioeconomy options, including bioNEXT startup support, greenhouse gas reduction initiatives and more
- Foresight Canada recommends the following: Break down silos – faster decision making; Commit to more collaboration; Fast track fibre security and supply solutions; Align on transition strategies and outcomes

Next Steps

Erin Robinson noted that the input from participants from this FFTT #4 will inform the work plan of the Forestry Initiatives Program, and that she will be in touch with everyone. She encouraged ongoing collaboration of all participants.

Key Outcomes and Recommendations (from Structured Conversations)

1. **The FLP process in Quesnel needs to focus on ecosystem health and resilience to have continued ecological services that can provide materials for the manufacturing sector.**

2. **The FLP must provide for regional fibre security to both promote investment in new initiatives (i.e. mass timber, biorefining, and biodigesting) and have capacity for long term planning (forest structure, products, market certainty).**

3. **Pursue expansion of area-based tenures and converting volume-based licences to area-based and look to First Nations and local communities to manage them. Ensure provincial assistance through mechanisms for coordinated implementation.**

4. **Create a forest focused "Economic Strategies Board" with technical expertise and local support to field investment inquiries and help chart structure and administrative info to**

funders. Make clear connections between ecological resiliency and long term economic resiliency and seek funding for this.

5. Pursue multiple approaches to improve utilization of bush waste, from harvesting and sorting practices, to silviculture policies, to removing penalties and increasing incentives.

6. Federal and provincial governments should play a role in facilitating a new biomass sector in BC through a business environment that promotes and encourages collaboration. This can be fostered through a commercialization engine that connects industries and supports a more refined supply chain from innovative forest harvesting to both traditional products as well as untapped markets.

7. Quesnel should proceed to develop a bio-cluster with attempt to create a modified tenure system to ensure enough fibre for all facilities.

8. Strike a Collaboration Hub Team that is in partnership with government, academia, First Nations, and industry to advance the biorefinery and bio-cluster concept.

9. Revitalize the forest sector through workforce training/retraining by pushing for credentialling, promoting this type of training among multiple ministries, and raising the profile among young people and the general public.

10. Identify multiple training needs from entrepreneurial skills to risk management to understanding the operating environment in BC (accessing fibre, securing capital). Training for both individuals and organizations and learning from other jurisdictions is critical for accelerating change in BC.

11. Promote innovative harvesting machine operator training program as being connected to multiple wins, including ecological resiliency, sustainability, wildfire risk reduction and the ability to secure and retain workers in the forest industry.

12. Advance the pilot and proposed training program with government by engaging with multiple BC Ministers, seeking others to voice their support and identify who can partner and how they can best contribute.

13. First Nations and value-added manufacturers should explore mutual benefits of partnering on solid wood value-added manufacturing investment and opportunities.

14. Primary manufacturers and tenure holders should play many roles to support the development of mass timber and other value-added solid wood manufacturing facilities. They should recognize success of the overall forest industry, not just their own interests.

15. Quesnel needs a business plan for a new solid wood value-added facility that everyone can support and that the fibre would be available to sustain.