BCCFA Conference May 28, 2025 Plenary Session: Fuel Treatment : Understanding and Assessing Objectives of Wildfire Risk Reduction

Session description:

The BCCFA is continuing its research partnership with the UBC Centre for Wildfire Coexistence to further understand whether and how fuel treatments meet diverse objectives. This interactive workshop, open to all conference attendees, will provide an overview of this partnership and seek input on two key research streams:

- Understanding diverse objectives, and perceived outcomes, of fuel treatments, including but not limited to enhancing other values, relationship building, evacuation preparedness, and/or enabling more effective response.
- 2. Expanding field assessments and modelling of fuel treatment efficacy and effectiveness.

The workshop will facilitate initial discussions on research stream #1, as well as seek guidance on preferred research methods (e.g., in person knowledge sharing forums, interviews, etc.). For Community Forests partnering on research stream #2, the workshop will focus on identifying planned and completed fuel treatments, and collating associated information, to prioritize field work in 2025 and 2026. Community Forests already partnering in stream #2, as well as those interested in partnering, are welcome.

Interest in future fuel treatment workshops focusing on PODs (Potential Operational Delineations), and other regional knowledge sharing opportunities, will also be discussed. Participants will be arranged regionally to facilitate cross-collaboration and knowledge sharing.

Speakers/Moderators:

UBC Centre for Wildfire Coexistence Team Dr. Kelsey Copes-Gerbitz Dr. Sarah Dickson-Hoyle, Dr. Lori Daniels Pete Laing, BCWS

Notes compiled by: Maeve McAllister and Rachel Pekelney

Session Summary

Regional Breakout groups feedback is at the end of this document

- 1. Fuel Treatments as a Core Mitigation Strategy
 - Community forests are using fuel treatments as a key wildfire mitigation tool, but face challenges including:
 - Limited funding and implementation capacity
 - Perceptions that treatments are "just logging"
 - Lack of expertise and clearly defined objectives
 - Treatments are often framed around economic or timber protection to secure social license and gain community support.
- 2. Community Perceptions and Communication
 - Public understanding of wildfire risk remains low; treatments are sometimes met with skepticism.
 - Clear, plain language and alignment with local concerns (e.g., water, firewood, safety) are essential.
 - Language matters—terms like "land care" can better reflect Indigenous and community values.
- 3. Indigenous Knowledge and Cultural Burning
 - Cultural fire is distinct from fuel treatment—it is rooted in land care, responsibility, and reciprocity.
 - Participants stressed reframing fire practices to support Indigenous worldviews and leadership.
 - Concerns raised about extractive practices misrepresented as wildfire mitigation.
- 4. Evaluating Success and Outcomes
 - Effectiveness of treatments is difficult to measure without fire events.
 - Success should include indicators beyond fire behavior, such as ecological resilience, cultural values, and community trust.
 - Emphasis on managing expectations: treatments won't stop fire but help communities and forests live with it.
- 5. PODs (Potential Wildfire Operational Delineations) and Strategic Planning
 - Dr. Daniels introduced PODs as a proactive planning tool that:

- Identifies strategic zones for treatments and control
- Supports integration of cultural and prescribed fire
- Aligns with landscape-scale and Indigenous-led approaches
- 6. Research and Data Collaboration
 - UBC and BCCFA's 8-year collaboration emphasizes co-production of knowledge and data sharing.
 - Lori Daniels' team is working with 30+ communities to evaluate treatments via thinning, burning, and modeling.
 - Communities are invited to participate through questionnaires and field research partnerships.
- 7. Institutional Barriers and Capacity Challenges
 - Key barriers include:
 - Permitting difficulties, especially for Indigenous communities
 - Tactical limitations in rural and remote areas
 - Insufficient long-term funding for large-scale work
 - Integrating fuel treatment with existing CWRPs could streamline implementation.
- 8. Knowledge Sharing and Regional Coordination
 - Participants expressed strong interest in:
 - Regional and ecosystem-specific workshops
 - Shared planning tools and frameworks
 - Cross-jurisdictional coordination among CFs, Indigenous Nations, and agencies
 - Using common language to support integrated approaches
- 9. Indigenous-Led Fire Governance
 - Indigenous leadership is critical in:
 - Embedding cultural fire in landscape planning
 - Rethinking forest health through relational, place-based approaches
 - Centering Indigenous jurisdiction in tools like PODs

Stream 1 (Kelsey and Sarah): Fuel treatment objectives and outcomes

Introduction to the BCCFA-UBC Research Partnership

- 8 years of collaboration (started 2017)
- Research topics: approaches to wildfire management, fuel treatment efficacy and effectiveness
- Research extension
- 24 CFs interviewed in 2019 to understand how CFs approach wildfire management
 - All approaches were enabled by strong relationships between managers and community members and government/other partners

Fuel treatments emerged as one of the most common approaches CFs use to mitigate wildfire risk

• Challenges: technical expertise (e.g., operators), capacity (financial/time), social license, lack of guidance/evidence to assess success

Fuel for Thought: fuel treatment explainer

- Partnership between UBC and BCCFA
- Input from BCWS, FNESS, SIP
- Accessible for members of BCCFA and their communities
- Online version has a glossary with co-developed definitions; includes resource links

Project purpose is to broaden understanding of success, align with landscape fire management and operational response, inform fuel treatment design, add nuance to public messaging, showcase CF leadership and innovation, facilitate knowledge sharing among fire and forest managers

Question to the group: Why do we do fuel treatments?

Responses:

 stand resilience, community safety, save homes, species conversion to deciduous stands, manage wildfire behavior, create wildlife corridors, enable reintroduction of cultural practices, improve opportunities to action wildfire when it does occur, allow more time for evacuations, build social license, biodiversity/habitat protection, water/watershed protection, recreation

- Evaluate fuel treatments against framework of goals (overall outcomes),
 objectives (specific and measurable steps), outcomes (to what extent objectives were realized)
- o If you asked this question to the community, would they list similar goals?
 - It would be a simplified version, like "stopping the fire"
 - Community members think fuel treatments are an excuse to log and are worried about other values like biodiversity, habitat, recreation etc.—they may not understand that fuel treatments can have benefits beyond wildfire risk reduction
- Wildfire risk reduction started with the primary goal of protecting timber values since timber revenue is critical to the community; once initial treatments had been done, social license had been built to do treatments closer to the community for the goal of community protection

Pete Laing (BCWS):

- POST program (post fuel management treatment and wildfire interaction assessment) at BCWS to assess all fuel treatments that interacted with wildfire
- How were treatments used in an operational context?
- Where were the treatments located? Were they anchored to be useful for firefighting?
- o BCWS supports fuel treatments with the goal of aiding fire suppression response
- o CFs have a key role to play in this because of proximity to communities
- When people say that fuel treatments are supposed to stop the fire, it is an opportunity to educate on the nuances—fuel treatments will not stop the fire
- Dual benefits of partial harvest/thinning to generate timber revenue and reduce fire hazard

Considerations for fuel treatment planning/implementation:

- Consider other values, planning contexts, legal obligations (e.g., fuel hazard abatement), operational firefighting needs, targets (e.g., surface fuel tons, stems/ha), community needs, environmental context.
- Priorities from survey: values, legal obligations, planning context, community needs, environmental context, operational firefighting, targets
- Feedback: The financial aspect is key and should be included in the considerations*** everyone ranks financial considerations 5/5

Key Takeaways: Stream 1 Sarah Dickson-Hoyle & Kelsey Copes Gerbitz Session

- Community forests are actively engaging in proactive wildfire mitigation, especially through fuel treatments, but face significant challenges related to funding, capacity, and public perception.
- There is a perceived lack of guidance and expertise in implementing fuel treatments, and ongoing debates around whether these are ecological practices or "logging in disguise."
- Fuel treatments serve multiple goals beyond fire prevention: enhancing ecosystem resilience, species composition, wildlife corridors, cultural fire practices, and community safety (e.g., extended evacuation time, better tactical fire response).
- Social license is critical—some community forests (like Harrop-Procter) have built public trust and recognition through visible treatment efforts.
- The value of timber and economic incentives often shape how treatments are framed, sometimes as a means to gain broader community or regulatory support.
- The BC Wildfire Service (BCWS) is analyzing real fire events to assess how treatments influenced suppression strategies and outcomes—marking a shift toward evidence-based evaluation.
- The new "Fuel for Thought" online resource provides educational tools and terminology support for CFs and aims to expand with more community-useful content.
- A regionalized approach is being developed to tailor support and extension services across five zones, acknowledging local context and planning variation.
- Feedback indicated gaps in addressing watershed protection and financial/resource planning, highlighting areas for future research and extension support.

Regional Breakout groups feedback is at the end of this document

Stream 2 Lori Daniels: Fuel treatment efficacy/effectiveness

Momentum for Cultural and Ecological Fire Management Is Growing

Across the breakout sessions and Lori Daniels' talk, there was clear momentum toward moving beyond suppression-based fire governance. Acknowledging fire as a necessary and culturally meaningful presence on the land is becoming a shared goal, with many participants committed to advancing this paradigm shift.

Wildfire Resilient Futures Initiative 2025-2028 - Proactive management to mitigate wildfire risk across diverse forests of BC Importance of ecosystem-specific information to inform treatments Objectives:

- Determine how well treatments mitigate fuel hazards and fire risk across diverse forests
- Find treatment configurations that increase landscape resilience to wildfire
- BCCFA is #1 research collaborator; other collaborators are First Nations' Emergency Services (FNESS), BCWS, Forest Professionals of BC
- Goal to determine: efficacy, longevity, effectiveness
- Approach: pre/post treatment or paired plot field measurements plus fire behavior modeling
- Questionnaire helps to prioritize field work for:
 - o treatments in summer 2025 to spring 2026
 - o treatments completed 2020 to 2024
 - treatments completed prior to 2020
 - treatments impacted by wildfire
- Requests to CFAs to support our fieldwork:
 - Treatment information, time of treatment, prescription summaries, shape files (for picking plot locations, determining safe access for sampling), contact person, statement of commitment
- Landscape resilience to wildfire: treatment configurations
 - PODs: Potential (wildland fire) Operational Delineations
 - Fire management + planning units
 - Delineated potential control features
 - Spatial basis for strategic wildfire management
 - How to configure landscape to enable managed wildfire?
 - Missoula Fire Lab has developed PODs, calling it the next generation of strategic wildfire planning: how to coexist with fire
- Proposed co-learning and development about PODs
 - Monthly webinars (Participants have a preference for videos available to access at leisure), regional information workshops and exchanges, facilitated 1-2 day workshops
 - Nods of affirmation for this all being helpful; can add workshops onto SISCO, etc.

Action Items: Identify tasks, deadlines, and responsible parties for any follow-up actions.

- Develop Region-Specific Extension Plans,
- Fill Out Fuel Treatment Evaluation Questionnaires,
- View and Circulate the Documentary "Evolution in Thinking"

Questions & Follow-Ups:

- How can watershed protection be more explicitly incorporated into fuel treatment objectives?
- How are financial/resource constraints being addressed in fuel treatment planning and prioritization?
- What criteria are being used by BC Wildfire Service to evaluate the effectiveness of past fuel treatments in actual fire events?
- How is 'community values' being defined or measured across different CF contexts?
- What strategies are being developed to build and maintain social license in communities skeptical of fuel treatments?
- Are PODs just a reinvention of FLPs?

Important Details/Quotes:

- "You take the safety into consideration lots of history work first thing people always talk about is are you going to impact the water."
- "We wouldn't call it fuel; we'd call it taking care of the land, too much of one thing, before the Europeans came here, we didn't have invasive species, remembering why you did that, how you get it back to where it was, the ocean and the other people that live down the road,"
- "Thin from below treatments are most interesting to the community, but most expensive and least effective.
- "You have to adapt yourself to the land and the people, not the other way around."
- "When one species overtakes another, it's always a consideration—it's about balance."
- Reference to the Scotch Creek fire: despite extensive reduction work, the fire still came through, highlighting limitations and the need for further analysis.

Connections to Other Sessions:

All three sessions, Forest Policy, Prescribed Fire and this Fuel Treatment session, confronted the limits of technical fixes without broader social legitimacy. Whether discussing the future of BC Timber Sales (BCTS), prescribed fire, or fuels treatment metrics, presenters emphasized the need to maintain or rebuild public trust and clarity around objectives.

In the Prescribed Fire session, participants tackled concerns about smoke, carbon emissions, and cultural differences in burning practices, echoing the Forest Policy Panel's emphasis on social license and community-based legitimacy. The Fuel Treatment Workshop revealed persistent tensions around perceptions of treatments as "logging in disguise," similar to the Policy panel's concern about economic efficiency versus ecological and community values.

A recurring theme was the need to integrate tactical, community-scale work (e.g. fuel breaks, cultural burning) with strategic, landscape-level planning. All three sessions expressed interest in approaches which allow multi-scale planning grounded in ecosystem conditions.

In the Prescribed Fire session, this was framed as moving from "resilience to fire" to "resilience through fire." In the Policy session, panelists debated how BCTS could support or hinder landscape-scale coordination. Fuel Treatment discussions raised landscape prioritization and the role of community forests as potential organizing units in broader wildfire management regimes.

Thoughts/Observations (Maeve):

Super exciting to hear Lori discuss PODs as a potentially useful planning structure, it's unclear how well they align with existing Indigenous governance or local planning tools like CWRPs. The emphasis on landscape-level planning and Indigenous leadership was promising, but the practical challenges of permitting, funding, and interagency coordination are significant. It would be useful to explore how the US is navigating implementation given the current administration. But I'm really excited about how the PODS structure navigates implementing landscape level wildfire mitigation, and, could amplify the voice of the CF's in their landscapes as they become more of a stakeholder in a cross-jurisdictional response and prevention plan.

Resources Mentioned:

"Fuel for Thought" paper copy and online version. <u>https://bccfa.ca/wp-content/uploads/2025/05/Fuel-For-Thought-Brochure-Online-Version.pdf</u>

"Evolution in Thinking" <u>https://research.fs.usda.gov/rmrs/products/multimedia/videos/evolution-thinking-notes-</u> <u>unexpected-fire-season</u>

Stream 1 Regional Breakout Groups

Dry Interior Break out Group

1. Defining Objectives in Fire and Forest Management

• **Community protection**; hand treatments and selective logging; motivation to implement treatments originated after a major wildfire that threatened the community

- ICHxw zone; goal of **ecological restoration** to what the valley would have looked like precontact, including bringing forests back towards grassland states; CF has done some outreach to the community to educate about pre-contact conditions; community concerns about reducing the forest harvesting land base by moving toward grasslands.
- **Ecological restoration** to open up dry Douglas-fir forests; stand resilience to wildfire; moved an OGMA area to be able to do treatments
- **Community protection**; shaded fuel break for **mule deer**, which created crown gaps but preserved wildlife habitat; sometimes these objectives conflict; making decisions about primary and secondary objectives is challenging.
- Mule deer habitat was not impacted with fuel treatments because there were still many closed-canopy areas post-treatment, but the priority of the treatment was still fuel management
- **Timber protection**: the CF has identified water availability for firefighting, expanded roads for firebreaks and evacuation, made roads contiguous for evacuation; the CF made a non-profit wildfire protection brigade that funds and provides S-100 and S-185 training on a volunteer basis every year; goal to make community members better equipped to defend their homes or assist BCWS if needed; BCWS can't be everywhere at once and so may not be able to be on the scene immediately; fuel treatments give more time for BCWS to respond; many residents are likely to stay and defend
- CFA is supporting a nearby isolated resort community to set up a volunteer firefighting society to help respond to incidents
- Question to the group- Did major close calls with wildfires helped convince the community to consider fuel treatments? People generally agreed that close calls did have considerable impact.
- The range of treatment needs are so vast and specific—some places need a lot of help, others are ok; challenges navigating problematic land management boundaries like OGMA and mule deer winter range prevent management

2. What would be most valuable for you from this research?

- 1. Regional knowledge sharing workshops
- 2. technical guidance/reference materials
- 3. expert presentations/connections
- 4. deep dives/case studies
- 5. field trips
- 6. policy recommendations
- 7. facilitating interagency collaboration/communication

3. What is your ONE biggest question about fuel treatments?

- **Effectiveness**: Questions about how effective current fuel treatments are, their impact on wildfire resistance, and their efficacy in reducing high-severity fires.
- **Resource Allocation**: Concerns about how to best allocate limited resources and justify costs, including the cost-effectiveness of prescribed fire versus other methods.
- Scale and Maintenance: Queries on achieving fuel treatments at scale, their long-term goals (10-20 years), and whether maintenance is expected or optional.
- **Specific Methods**: Interest in the effectiveness of focused cattle grazing for posttreatment grass fuel management and the best fuel management treatments for specific regions like Vancouver Island.
- **Duration and Retreatment**: Questions about how long fuel treatments remain effective and whether retreatment is necessary.
- **Optimization**: Suggestions for integrating wildfire assessments into large-scale modeling to optimize treatment areas.
- **Funding and Expansion**: Concerns about funding and scaling up fuel treatments while maintaining grassroots success.

These questions highlight the need for research on efficacy, cost, scalability, and long-term planning for fuel treatments.

Wet/Mesic Interior Breakout Group

1. Defining Objectives in Fire and Forest Management

Participants discussed the difficulty of aligning multiple, sometimes competing, objectives in wildfire mitigation. These included:

- Reducing fire risk
- Supporting cultural burning and sacred land access
- Promoting ecological balance and drought resilience
- Meeting funding requirements and gaining social license

Treatments such as "thin from below" were identified as most culturally aligned and community-supported, yet they are often the most expensive and least effective by conventional fire metrics. This highlighted tensions between ecological, cultural, and economic goals.

2. Cultural Burning and Indigenous Knowledge

The breakout session emphasized the need to recognize and support Indigenous fire practices:

- Cultural burning was presented not as fuel reduction but as land care, tied to balance and intergenerational responsibility.
- Participants stressed reframing terminology—e.g., using "land care" instead of "fuel treatment"—to better reflect Indigenous perspectives.
- Concerns were raised about extractive practices framed as fuel management (e.g., removing large trees), which can cause community distrust and anxiety.
- Discussions returned repeatedly to the need to "adapt to the land and the people, not the other way around."

3. Community Communication and Engagement

A key concern was how treatments are explained to communities:

- Emphasis on using plain language that resonates with local worldviews and avoids technical jargon.
- Community priorities often focus on water, firewood, and safety—treatment plans must speak directly to these concerns.
- Framing practices in terms of restoring balance or managing species diversity was seen as more effective than talking about fire suppression or fuel loads.

4. Evaluation, Success Metrics, and Fire Outcomes

Participants highlighted the challenge of evaluating treatment success:

- Many agreed that the only definitive test of effectiveness is a fire burning through a treated area.
- Metrics must go beyond fire containment to include broader indicators like landscape resilience, cultural outcomes, and community buy-in.
- Managing expectations is crucial treatments will not "stop fire" but help forests live with it.

Stream 2 Regional Breakout Groups

Dry Interior Breakout Group

• FLPs may be the process in which to bring PODs; preliminary PODs are in place in some FLPs and the challenge now is to figure out how to operationalize them

- Where do you put POD boundaries in flatter landscapes with no obvious delineations? For example, near Quesnel, evacuation routes can define the boundaries of a POD when there aren't large natural features to contain fire
- First Nations need to be integrated into PODs discussions, and they are already integrated into FLPs, so FLPs may be a place for implementing PODs
- CFs can decide to operate within their boundaries using a PODs framework without having to be part of an FLP
- Concern that implementing PODs within the framework of FLPs would slow wildfire risk reduction efforts
- Questions from the group:
 - What is a natural or effective scale of the landscape to include in one POD or FLP?
 - What is the role of smaller tenure holders within the larger landscape?
- The FLP process leaves a lot of people out
- FN had comments about potential POD size being smaller around the town of Quesnel and larger around more remote reserves; FNs were not happy with this since larger PODs mean fire is harder to manage within the POD

Breakout Group: Cultural Burning Is Central but Requires Reframing

Many participants noted that traditional fire practices are being revived, but the language used—such as "fuel treatments"—often fails to reflect Indigenous values. Cultural burning is not merely a management tool but a form of relational care, tied to land responsibility and sovereignty. Reframing language to reflect these values was identified as essential for community engagement.