Mentimeter

What is fuel treatment success?

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Fuel Treatment Workshop Part 1
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Instructions

I am here as a(n):

BCCFA - UBC Research Partnership

- BCCFA research partners since 2017
- CF-specific research on
  - Approaches to wildfire management
  - Fuel treatment efficacy
  - Fuel treatment effectiveness
- Extension

CF Approaches to Wildfire Management

- 24 CFs interviewed in 2019
- Wide diversity of approaches across scales
  - Homeowner preparedness & community outreach
  - Building capacity for response
  - Fuel treatments
  - Planning (WUI and landscape)
- Enabled by strong relationships and trust
- Priority: scale up, take fire lens to forest management

Fuel treatments one of most common approaches

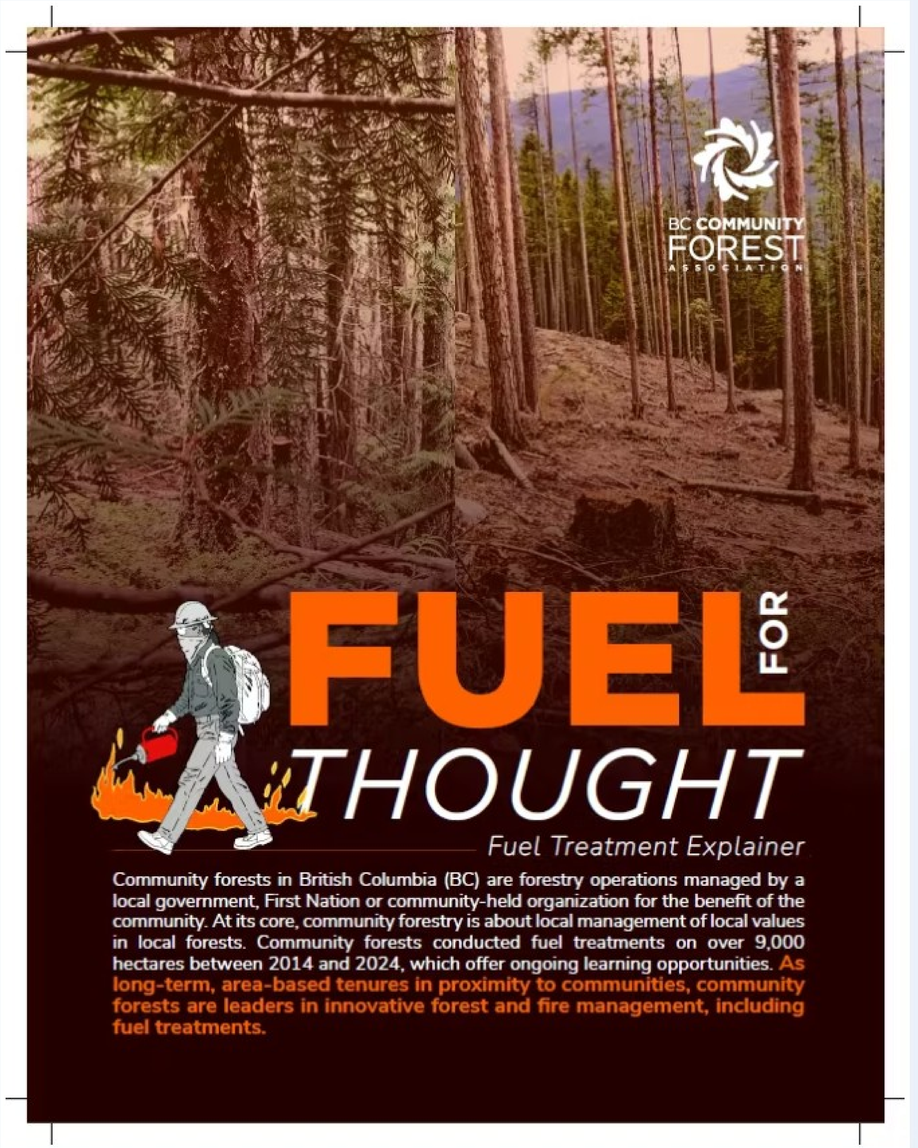
Challenges

- Technical capacity (e.g., operators)
- Financial / time capacity (to apply for funding, develop prescriptions, manage programs)
- **Social license**
- **Lack of guidance / evidence to assess success**

Fuel for Thought

Fuel Treatment Explainer

- BCCFA-UBC Partnership
- BCWS, FNESS, SIP input
- Accessible extension output for interested public
- FAQ-style
- Additional resources and information online



Research partnership - next steps

Stream 1: Fuel treatment objectives and outcomes

(Kelsey and Sarah)

Stream 2: Fuel treatment efficacy / effectiveness

(Lori)

Stream 1: Fuel treatment objectives and outcomes

- 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

Why do we do fuel treatments?

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Goals

- Overall result(s) we are trying to achieve
- E.g., reduce adverse impacts of wildfire on life, property, and other values

Objectives

- Specific and measurable steps to achieve that goal

Outcomes

- To what extent were objectives realized during a fire interaction?

What is your main objective for fuel treatments?

Community and stand resilience

Fuel reduction

Food security for the community

Defensible space for suppression crews

Climate resilient forests

Reduce fire behavior

Community safety

Community safety

What is your main objective for fuel treatments?

Community safety and social license

Evacuation route

Enhancing resilient forests and communities

Support suppression activities

Increase options for wildfire response

Hitting multiple objectives and values while creating a safe space for community and wildlife.

Improve Community safety

Reduce fire intensity to aid with suppression operations.

What is your main objective for fuel treatments?

- Community safety
- Building social license
- Fire risk reduction.
- Enable fire suppression
- Wildfire risk reduction
- Reduce the severity of potential wildfires
- Risk reduction
- Stand resilience

What is your main objective for fuel treatments?

Reduce wildfire risk.

Getting back to how the land was historically

Protect structures and timber value

Reduce risk to adjacent communities and infrastructure

Community safety through mitigation

Creating a situation where fire can be reintroduced to the ecosystems and land

Reduce fire intensity

Cyclical land management for wildlife, community protection, food security and economical security.

What is your main objective for fuel treatments?

Ecosystem restoration.

Modify wildfire behaviour. Provide opportunity for cultural burning.

Ensure retention survives fire

Restore public confidence around wildfire mitigation
Reduce fuel loading around community

Improve biodiversity/ecosystem function while reducing wildfire risk

Lower the intensity of the fire to create a dependable space

Slow down a fire to protect community

Mitigation fire intensity

What is your main objective for fuel treatments?

restore or increase forest resilience

Community safety and maintaining healthy and resilient forests.

Protecting homes and communities by reducing wildfire intensity.

Reduce fuel load: lower density stand and less shrubs that could act as ladder fuel

Modify fire behavior, reduce fire intensity

Management for healthy ecosystem for the entire forest

Social licence, community safety,

Minimizing the risk of fire

What is your main objective for fuel treatments?

Community safety in interface zones, forest health and biodiversity, wildlife and indigenous cultural values

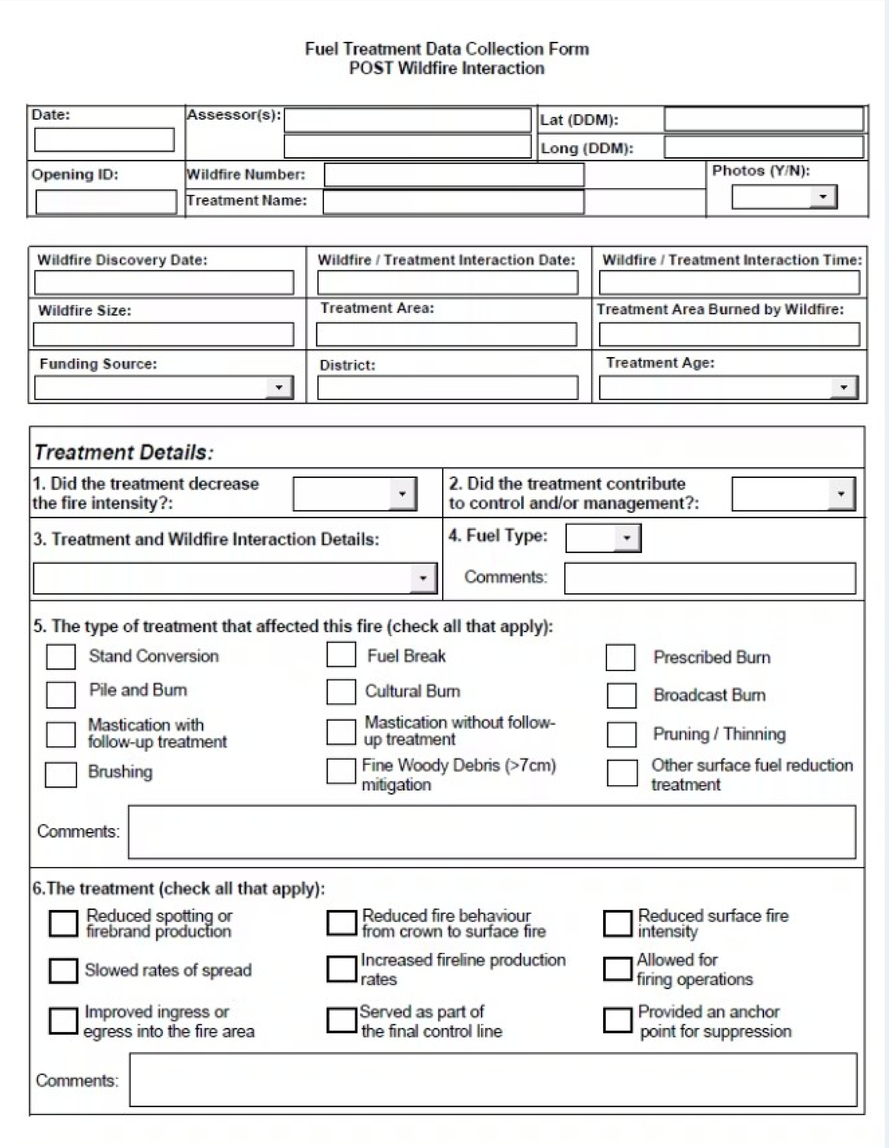
Potential objectives

- Create safe evacuation routes
- Reduce likelihood of ignition/spread
- Enhance biodiversity/habitat
- Create (safer) options for wildfire response
- Implement subsequent prescribed / cultural fire
- Create local employment / capacity
- Build social license
- Other?

Synergy with BCWS

Fuel Treatment Interactions

POST Program



Fuel Treatment Data Collection Form
POST Wildfire Interaction

Date:	Assessor(s):	Lat (DDM):	
		Long (DDM):	
Opening ID:	Wildfire Number:		Photos (Y/N):
	Treatment Name:		

Wildfire Discovery Date:	Wildfire / Treatment Interaction Date:	Wildfire / Treatment Interaction Time:
Wildfire Size:	Treatment Area:	Treatment Area Burned by Wildfire:
Funding Source:	District:	Treatment Age:

Treatment Details:

1. Did the treatment decrease the fire intensity?:
2. Did the treatment contribute to control and/or management?:
3. Treatment and Wildfire Interaction Details:
4. Fuel Type:
Comments:

5. The type of treatment that affected this fire (check all that apply):

- Stand Conversion
- Fuel Break
- Prescribed Burn
- Pile and Burn
- Cultural Burn
- Broadcast Burn
- Mastication with follow-up treatment
- Mastication without follow-up treatment
- Pruning / Thinning
- Brushing
- Fine Woody Debris (>7cm) mitigation
- Other surface fuel reduction treatment

Comments:

6. The treatment (check all that apply):

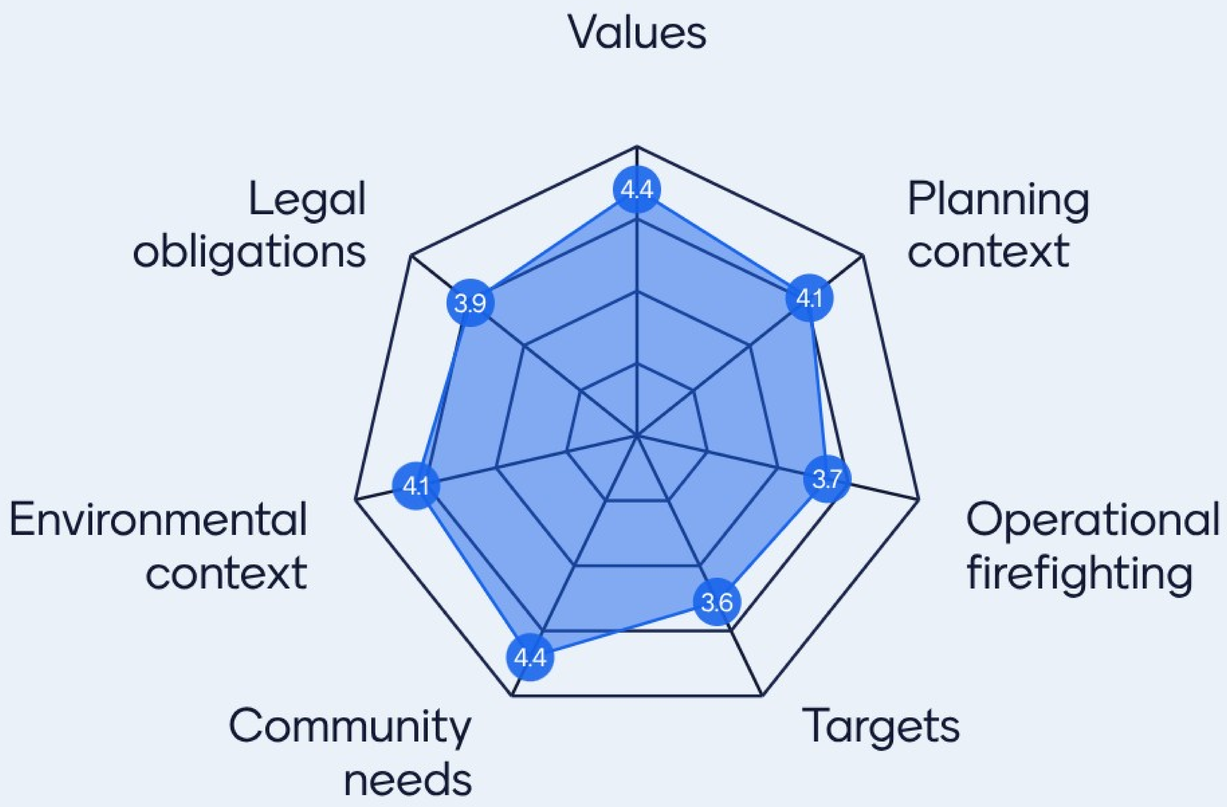
- Reduced spotting or firebrand production
- Reduced fire behaviour from crown to surface fire
- Reduced surface fire intensity
- Slowed rates of spread
- Increased fireline production rates
- Allowed for firing operations
- Improved ingress or egress into the fire area
- Served as part of the final control line
- Provided an anchor point for suppression

Comments:

Considerations for fuel treatment planning / implementation

- Values (FRPA; e.g., manage for wildfire risk, biodiversity, riparian, etc.)
- Planning contexts (e.g., Community Wildfire Resilience Plan, CF plan)
- Legal obligations (e.g., fuel hazard abatement)
- Operational fire fighting needs (e.g., safe fire fighting locations, tactics)
- Targets (e.g., surface fuels tons/ha, stems/ha)
- Community needs / assets (e.g., visuals, recreation, critical infrastructure)
- Environmental context (e.g., riparian areas, wind direction, topography)

To what extent (1-5) do you consider the following?



Please move to regional tables

(Coast, Dry interior,
Wet interior, Subboreal, Boreal)

(1) What are your main objectives?

(2) How do you / would you evaluate if you met those objectives?

20 mins + 2 min each to report to group

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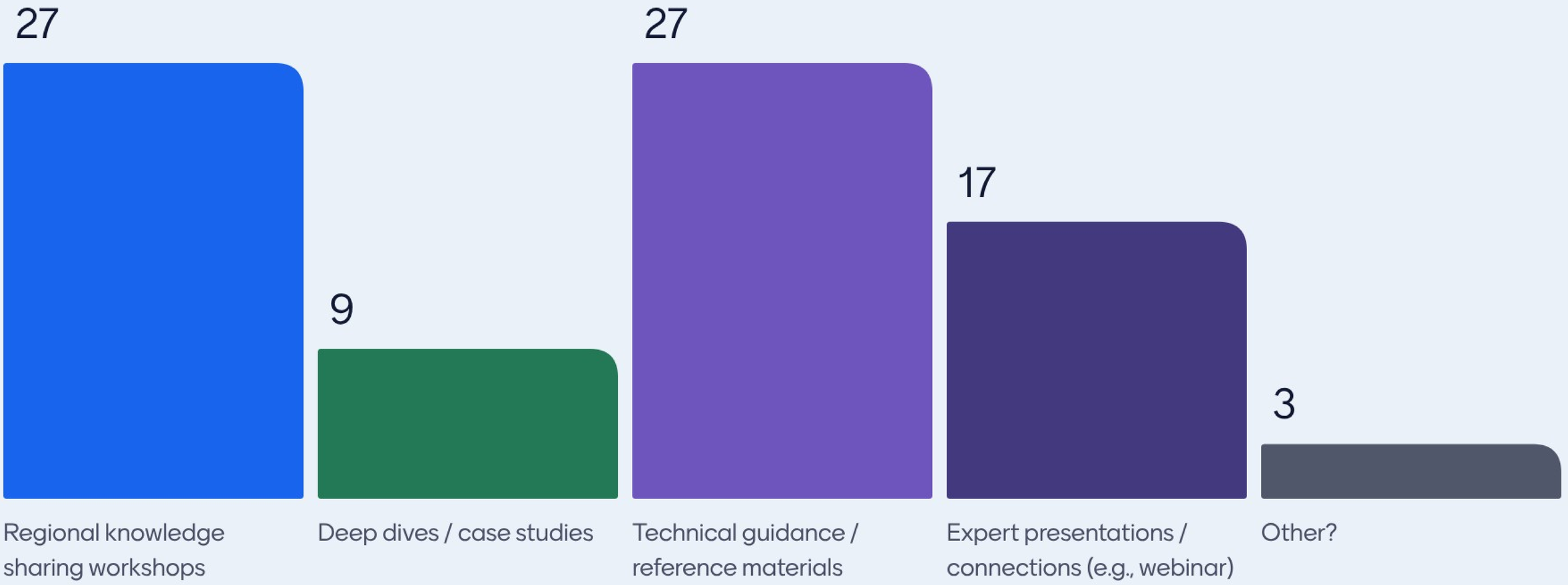
What would be most valuable for you from this research?



What is your ONE biggest question about fuel treatments?

How effective are our current treatments?

Are people doing the work competent? Do they understand the impact of their decisions?

How do we best allocate extremely limited resources?

How to justify the cost

Cost of prescribed fire, given it's longer term cycle/efficacy vs other fuel treatment methods

Effectiveness of focused cattle grazing on post fuel treatment management of grass fuels.... How, when, etc

How can we achieve fuel treatments at scale that significantly decrease the impact of high severity fires

What is the goal of these treatments to look like in 10,15,20 years - is maintenance an expectation or an option?

What is your ONE biggest question about fuel treatments?

How much fuel do we need to remove?

How effective are they.

Bringing wildfire assessments can be brought into large scale modelling to find optimized areas for treatment?

For how long do they have effect? Need to re-treat?

How can we get more fuel treatments on the landscape? More CFAs?

How do we scale up to make this a whole society approach without eroding the grass roots success that's occurring

Vancouver Island coastal. What is the best fuel management treatment.

Funding

What is your ONE biggest question about fuel treatments?

Research results on the efficacy of fire resistance around communities as a result of different approaches to fuel treatment.

Have always been curious about the efficacy of the fuel treatments we have completed if a wildfire were to impact an area where risk reduction has occurred.