



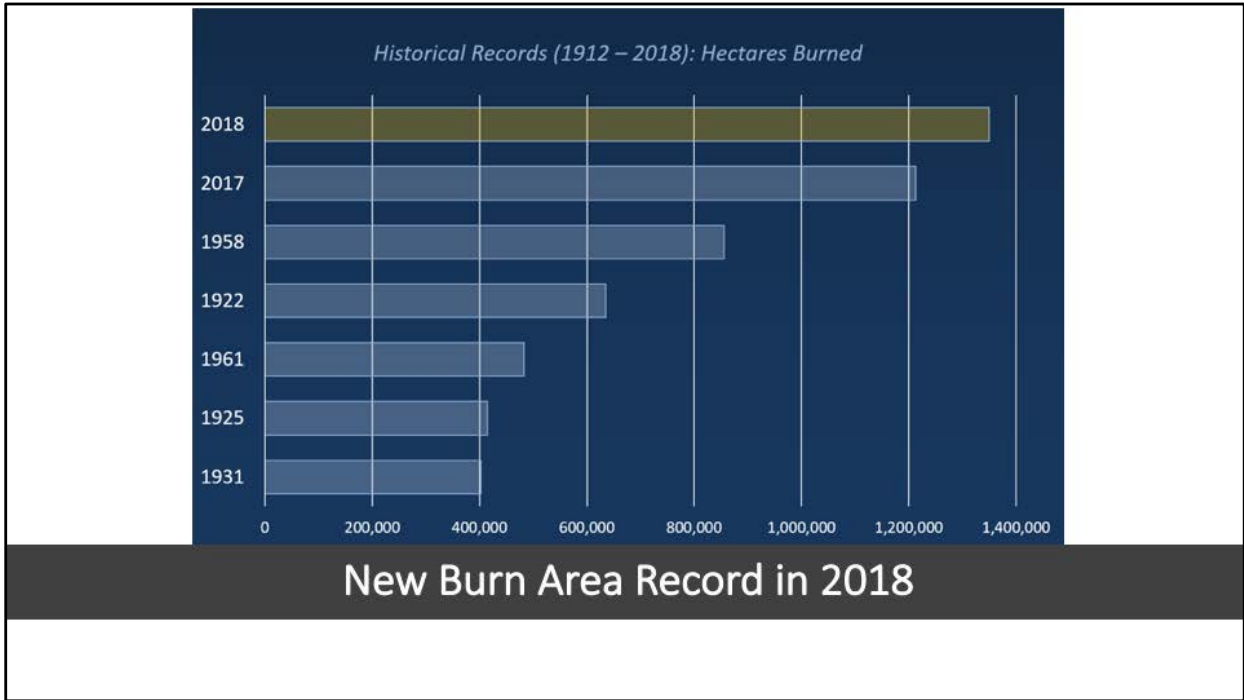
Industry Impacts &
Perspectives – 2017 & 2018
Wildfires

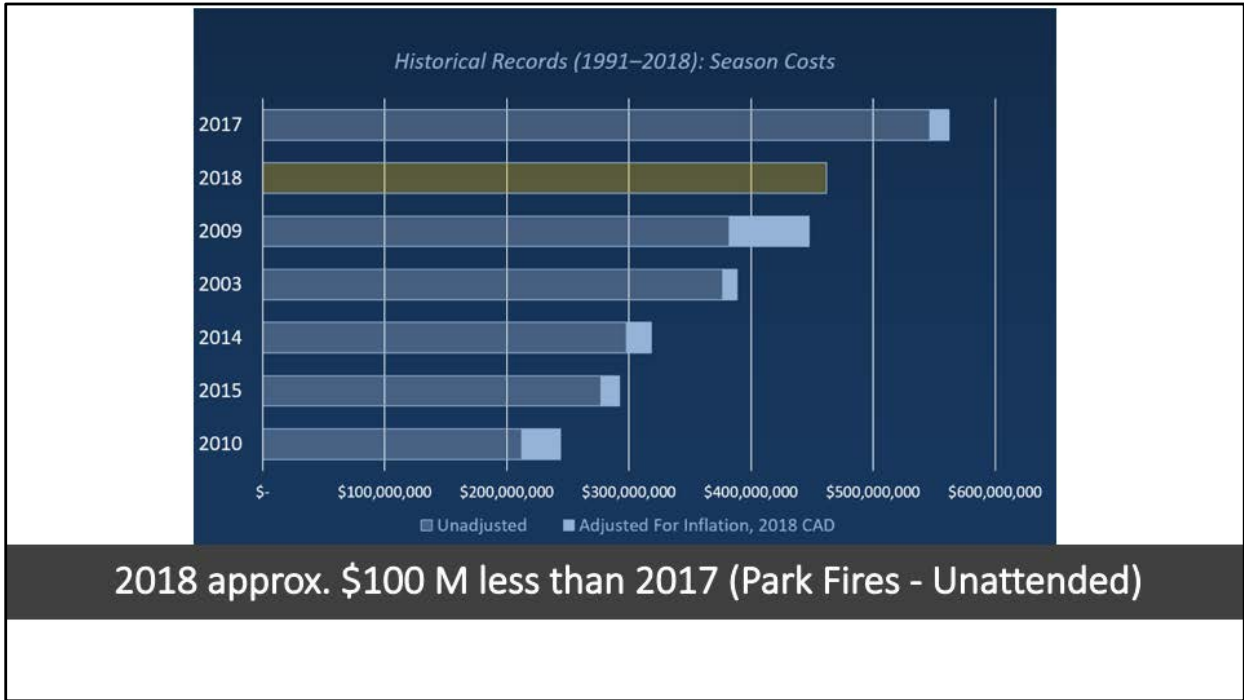
Jeff Mycock, RPF
Chief Forester, West Fraser

FBCWA – October 13, 2018



2017 & 2018 BC Wildfires
Unprecedented Scale of High Intensity Fire





Presentation will Discuss

1

Impacts to our business,
community, and forest values.

2

Perspectives on recovery and
prevention.

West Fraser in the Cariboo

4 sawmills, 2 plywood mills, 2 pulp mills, MDF.

Consume ~5.4 million m³ of logs at Cariboo facilities.

~3.2 million m³ of logs from RFL's in the Cariboo.

- We hold >60% of RFL tenure.

We purchase the balance of our volume from sources in and outside the Cariboo.

Impacts – Immediate, Short-term, Long-term

- **Immediate Impacts**

- PEOPLE & COMMUNITY- Approx. 60,000 people displaced in 2017.
- BUSINESS CONTINUITY - 2017 saw interruption at seven (7) primary facilities between Williams Lake and 100 Mile House – 4 West Fraser Mills.
 - Lost 2-4 weeks of production.
 - Approximately 1500 direct jobs affected.
- Companies focused on facility protection and employee support.
- Woods staff & contractor focus on fire fighting for extended period – significant effect on core business.
- Standing Timber Inventory and active logging developments burned.
- Record silviculture investment losses.

URGENCY





BREAKING NEWS

Evacuation Order for Williams Lake

BREAKING NEWS for Salvation Army Church in Kelowna; register with the Red Cross for more inform

Global



Urgency – Facility Protection at 100 Mile OSB



Urgency – Facility Protection at 100 Mile Sawmill



Urgency – Facility Protection at Chasm Sawmill



Urgency – October Log Yard at Chasm Sawmill

Urgency - STI

- West Fraser lost > 4 million m³ of Forest Planning investments between 2017 and 2018
 - MPB Burned timber is Non-Recoverable.
- West Fraser lost ~90,000 m³ of "in progress logging"





Active Logging site burned 2018



Urgency – Shelf Life

Urgency - Community Recovery

- Jobs- Direct and Indirect
- First Nations
- Rural Economy- Ranching, Agriculture, etc.
- Tourism
- Community Stability
- Taxes
- Other

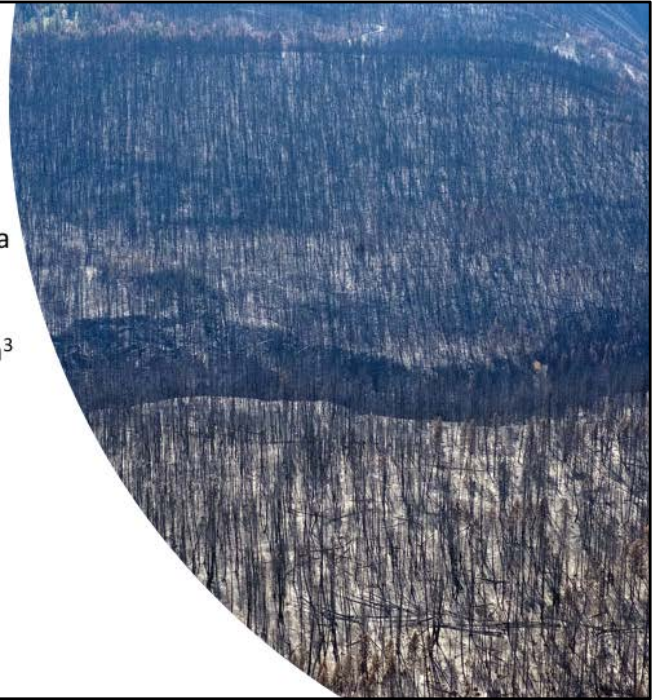




We Need the Same Level of Urgency to Continue in Post Fire Recovery

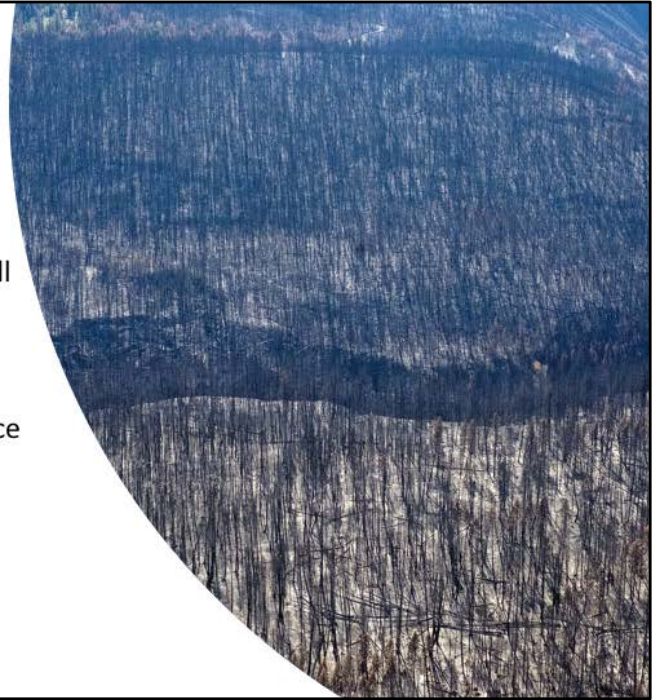
2017 Salvage - 15 Percent of Burn Area

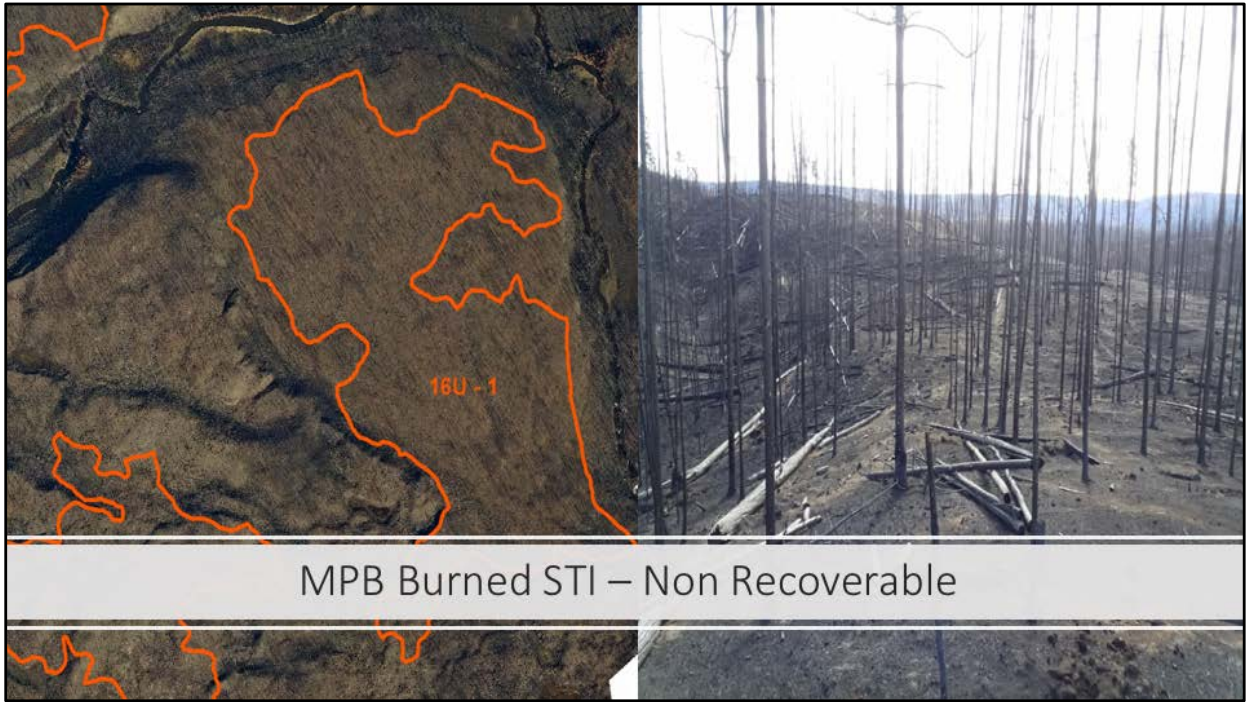
- Estimate no harvest on 85% of Burn Area
- Estimate 60% of burned timber VRI volume is non-recoverable
 - >50% is due to MPB - ~20,000,000 m³
 - Balance is due to burn severity, thin vs thick bark species, retention, operability, other resource values.
 - Potential Salvage volume estimated up to **15,000,000 m³**



2018 Salvage

- Don't have data from FAIB for reliable estimate of salvage area yet. Think it will be <20%.
- Larger total burn area.
- Less THLB burn area, 50% 2017.
- 60% of the THLB impacts are the in Prince George, Nadina, and Quesnel Forest Districts.





MPB Burned STI – Non Recoverable



Spruce Checking – Two months post fire 2017

Douglas-fir Bark Beetle

- Estimate 30% of THLB volume is live timber – most is Fdi.
- 69,418 ha infested in Cariboo prior to fires (2017)



2017 Salvage will be Focused in Douglas-fir WL and South

- IDF highly constrained with non-timber values (MDWR, VRM...).
- Significant reforestation challenges.
- Access and operability limitations.





Douglas-fir at 100 Mile House

- **Manufacturing Considerations**

- Taking stock of available supply vs current capacity
- Assessing de-barking capital requirements
- Dust management
- Log sorts by burn severity
- Chip quality risks – ZERO tolerance for supply chain interruptions
- Production and recovery decline sharply over time.





First Nations Rights, Perspectives and Input



TIMBER PRICING

—
**Principal Influence on
Salvage Levels**



Silviculture

Over 3,500 cutblocks with obligations were burned

Silviculture

- Majority of Impact in Quesnel TSA (60,000 ha)
- Estimate over 150 million seedlings required for existing obligations alone
- Seed, Nursery and Planting capacity challenges
- Competing with Govt Carbon funded programs



Long-term impacts

• Timber Supply

- Forecasting further AAC fall downs post-salvage.
 - Short shelf life in fire damaged timber.
 - More defined and abrupt fall down than MPB.
 - Est 7-14% further AAC reductions - depending on TSA.
 - Fall down will be extended due to the extent of damage in immature stands.
- FLNRORD will analyze new information in future timber supply reviews...stay tuned.

A photograph of a person wearing a hard hat and work clothes, standing in a forest. The person is looking towards the right. The forest has many thin trees and some fallen logs on the ground. The lighting is somewhat dim, suggesting an overcast day or a shaded area. The text is overlaid on the top left of the image.

What have we learned?

Do we continue with the current values management paradigm?

Will we change?

The Opportunity

- A new debate on land use planning and innovative approaches to multiple values management?
 - Resiliency
 - Sustainability
 - Apply NRV and ecosystem approaches?
 - Sustainable Forest Management vs Conservation and Preservation?





Living (Dangerously) in an Era of Megafires | Paul Hessburg | TEDxBend

TEDx Talks
6 months ago • 15,757 views

We have all seen the news—hotter summers, and bigger, badder wildfires. What's going on? How did we get here? Paul tells a fast-

Column: Public deserves an honest debate over logging and wildfires

About the same number of fires started on private land as on federal land. However, over 95 percent of the acres burned were on federal land. If it was all due to climate change, wouldn't just as many private acres burn as public?

By Mark Turner • For the Capital Press
Published on January 8, 2018 5:07PM
Last changed on January 9, 2018 5:09PM

10/17/18

Summary

- The scale and severity of 2017 & 2018 wildfires is unprecedented.
- Impacted timber volumes are substantial.
- Absolute Salvage volume recovery is not known yet.
- The amount salvaged depends on:
 - Govt objectives and policy on Timber Salvage and Economic Recovery.
 - Representative Timber Pricing and a landscape level approach.
 - First Nations perspectives & non-timber values.
 - Market, SLA, and the total salvage opportunity.
- Silviculture is very challenging – landscape level approach and cost recognition required.
- Predict more mega fires in the future.
- Will we change our management paradigm?
 - Quesnel TSA Landscape Restoration Pilot

10/17/18



QUESTIONS