



# Adapting to Change Through Alternate Forest Practices



May 28, 2021



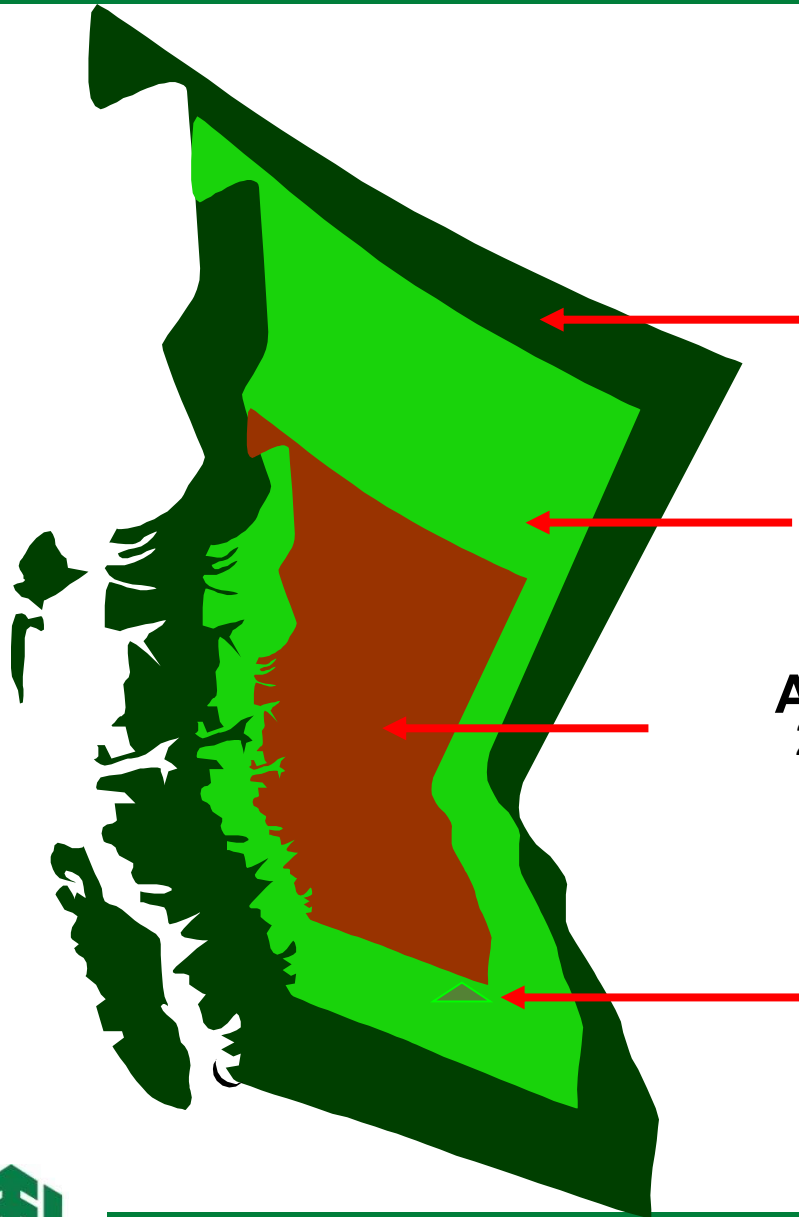
**West Fraser**  
*Resilient & Adaptable*



# Overview

- 1. BC Land Base**
- 2. AAC Agents of Decline**
- 3. Provincial Decline Metrics**
- 4. West Fraser Approach**
- 5. Alternate Forest Practices of Today**

# Current BC Landbase



**Total area of BC**  
95 M ha - **94%** Crown Land



**Crown Forest Land**  
57 M ha - **60%** of BC



**Available for timber harvest**  
20 M ha - **35%** of Crown Forest  
**40%** of THLB is Conserved



**Annual area harvested**  
~ 200,000 ha - **1%**



# Conservation Metrics Affecting Mature + Old Forest

- **65%** of Crown Forest Land Base is **NOT available for timber harvesting**
  - Parks
  - Protected Areas
  - Old Growth Mngt Areas (OGMA)
  - Wildlife Habitat Areas (WHA's)
  - Sensitive areas
  - Low site productivity
  - Operationally constrained
  - Etc.
- **52%** of the crown forests are Designated protected from timber harvesting
- **>70% of BC's Old Growth Forests exist outside the THLB**

# Conservation Metrics Affecting Mature + Old Forest

- **35%** is Available for Timber Harvesting
  
- ~ **40%** of the THLB constrained
  - Ungulate Winter Ranges (UWR)
  - Visual Quality Areas (VQA's)
  - Biodiversity - Wildlife Tree Retention (WTR)
  - Big Tree Policy – Special Tree Protection Regulation
  - Riparian Management Areas
  - Archaeology and Cultural Heritage Sites
  - Equivalent Clearcut Area (ECA) restrictions in watersheds
  - Patch size (clearcut) restrictions
  - Seral stage distribution (age diversity of patches)
  - Etc.....
  
- **<25% of BC's old growth forests occur on the THLB**
  - **The above constraints conserve old growth within the THLB**

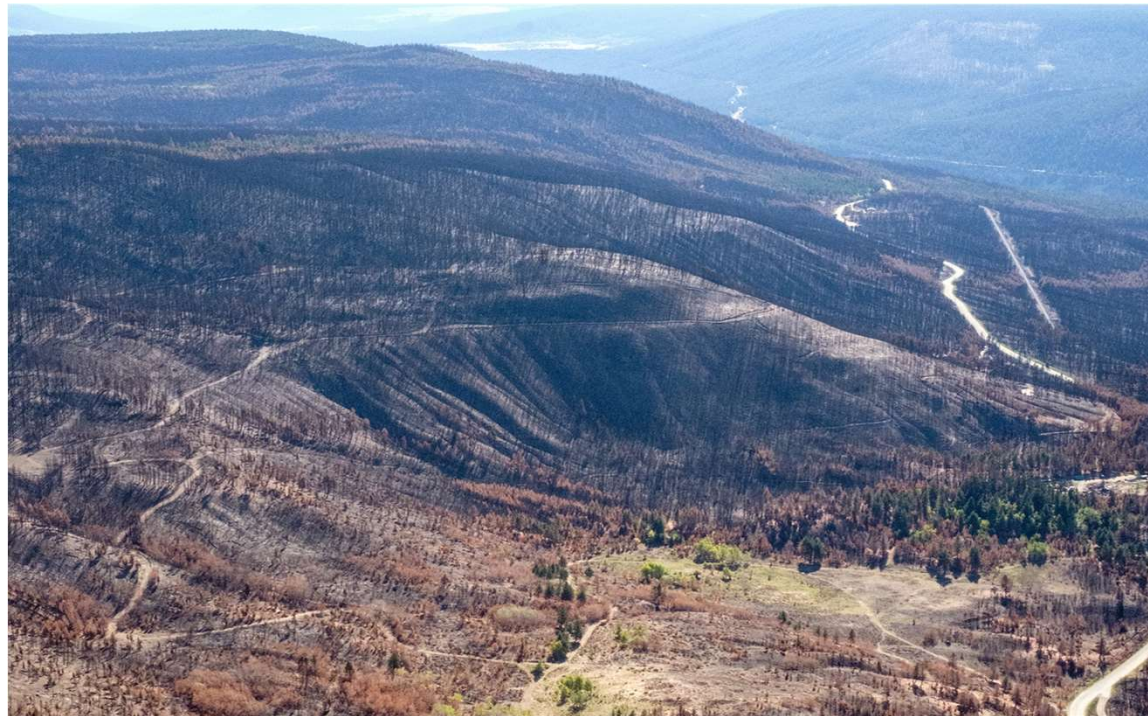
# Natural Disturbance = Mountain Pine Beetle



- >17 YSD in most areas now.
- Harvest is economically sensitive.
- Over 18 million ha
- 55% of merchantable Pli killed
- >700 million m3 impacted



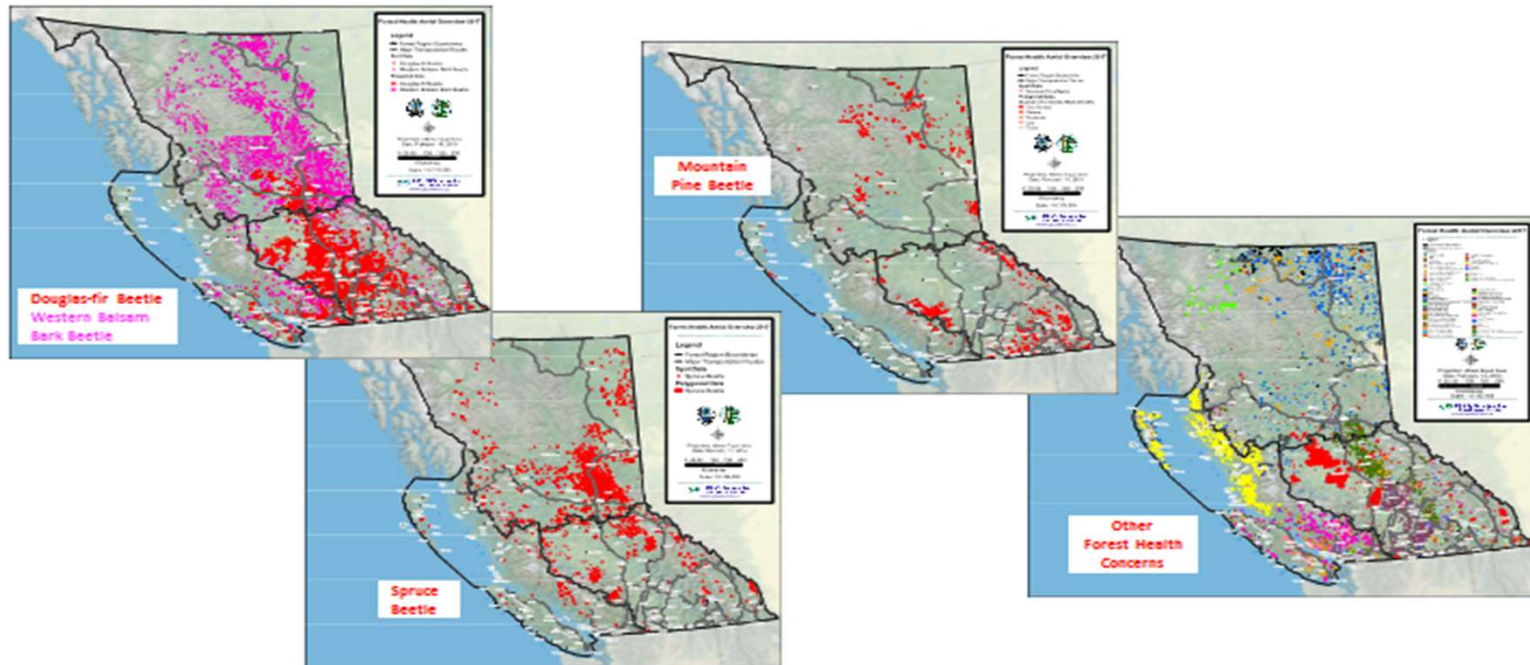
# Natural Disturbance = Wildfires



- **2.5 Million Ha** burned 2017-2018.
- Approx. **1 million ha of THLB** impacted.
- Estimate **100 million m<sup>3</sup>** of timber impacted and **only 10% may be salvaged** in the short term. Very high non-recoverable losses.

# Natural Disturbance = Climate Change Uncertainty

## Mother Nature's Indicators of Poor Forest Health and Conditions



- We have a lot of mortality occurring in our forests from factors other than fire.
- Govt not responding with increased harvest rates = risk of non-recoverable losses in the THLB.

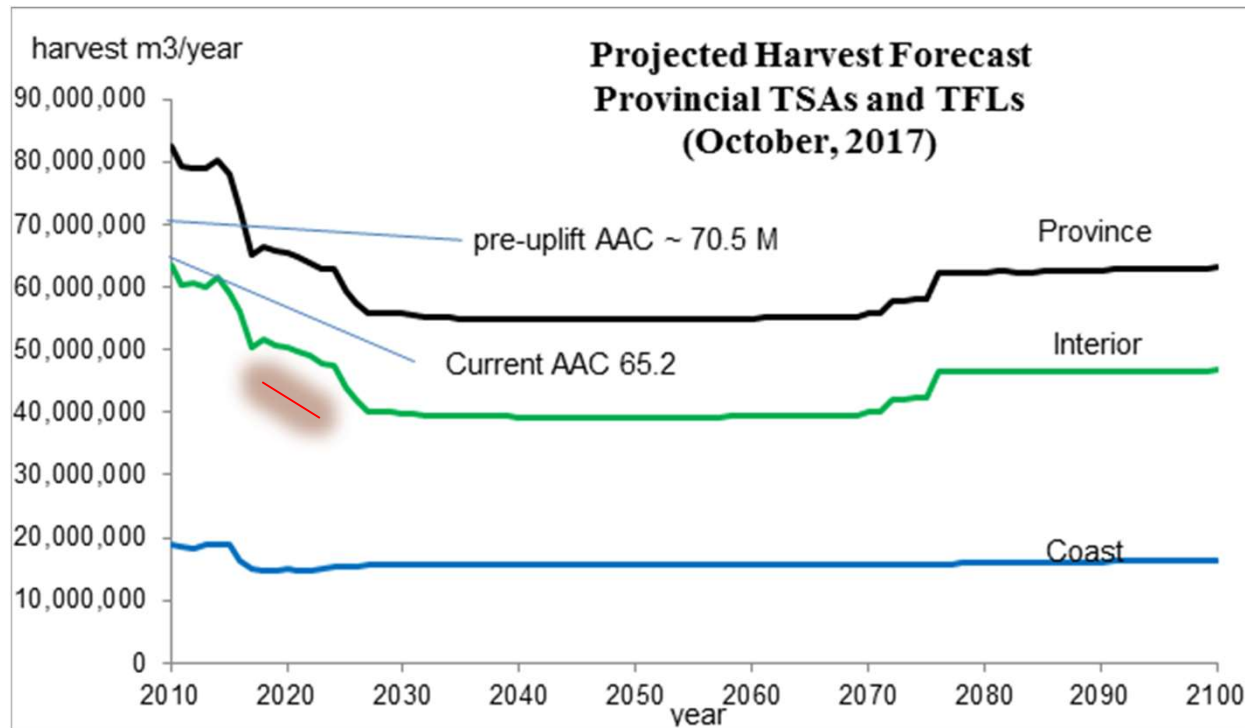


# THLB Dynamics and Uncertainty



- Downward pressure on the THLB for other resource values – **ecosystem services are marginalized** in many management units.
  - Migratory Birds.
  - Goshawk
  - Fisheries Sensitive Watersheds.
  - Wildlife Habitat Areas
  - Ungulate Winter Range
  - Species at Risk – Southern Mountain Caribou
  - Federal Govt. Pathway 2020 Protection Targets – Indigenous Protected Conservation Areas...
  - What else can you think of.....
  - OLD GROWTH

# Provincial Harvest Forecast



- 18/19 Interior Harvest is closer to **45 M** – trending down substantially toward **40 M**.
  - Projecting a **10 M m<sup>3</sup> (20%)** drop in interior harvest (from 50 M).

# WEST FRASER: THE SAME GOALS SINCE 1955



**THEN**



**NOW**



**OUR GOALS**  
are to develop and maintain...

- Excellence in Performance and People
- Leadership in our Field
- Challenge and Satisfaction
- Responsibility in the Communities in Which we Work
- Profitability
- Growth



# West Fraser Today

**A diversified company - global leader in lumber & panels**



- 10,000 employees in 60+ locations across Canada, the USA, the UK, and Europe.
- Produce lumber, engineered wood (OSB, LVL, MDF, plywood, particleboard), pulp, newsprint, wood chips, and electricity.



# West Fraser Today

## ☆ CORPORATE OFFICES

### ● LUMBER

- Canada  
 1. Quesnel  
 2. Williams Lake  
 3. Smithers  
 4. Chetwynd  
 5. Fraser Lake  
 6. 100 Mile House  
 7. Blue Ridge  
 8. Hinton  
 9. Edson  
 10. Sundre  
 11. High Prairie  
 12. Manning

### U.S.

13. Joyce  
 14. Huttig  
 15. Henderson  
 16. New Boston  
 17. Leola  
 18. Mansfield  
 19. Russellville  
 20. Maplesville  
 21. Opelika  
 22. McDavid  
 23. Perry  
 24. Lake Butler  
 25. Maxville  
 26. Whitehouse  
 27. Blackshear  
 28. Fitzgerald  
 29. Dudley  
 30. Augusta  
 31. Newberry  
 32. Armour  
 33. Seaboard

### ▲ PULP & NEWSPRINT

34. Hinton (NBSK)  
 35. Quesnel (NBSK)  
 36. Quesnel (BCTMP)  
 37. Slave Lake (BCTMP)  
 38. Whitecourt (newsprint)

### ENGINEERED WOOD

#### ■ PLYWOOD

39. Edmonton  
 40. Quesnel  
 41. Williams Lake

#### ■ MDF, PARTICLEBOARD & FURNITURE

- Canada  
 42. Blue Ridge (MDF)  
 43. Quesnel (MDF)

#### U.K.

44. Cowie, Scotland (PB & MDF)  
 45. South Moulton, England (PB & furniture)

#### ■ VENEER & LVL

46. Rocky Mountain House  
 47. Slave Lake

#### ■ OSB

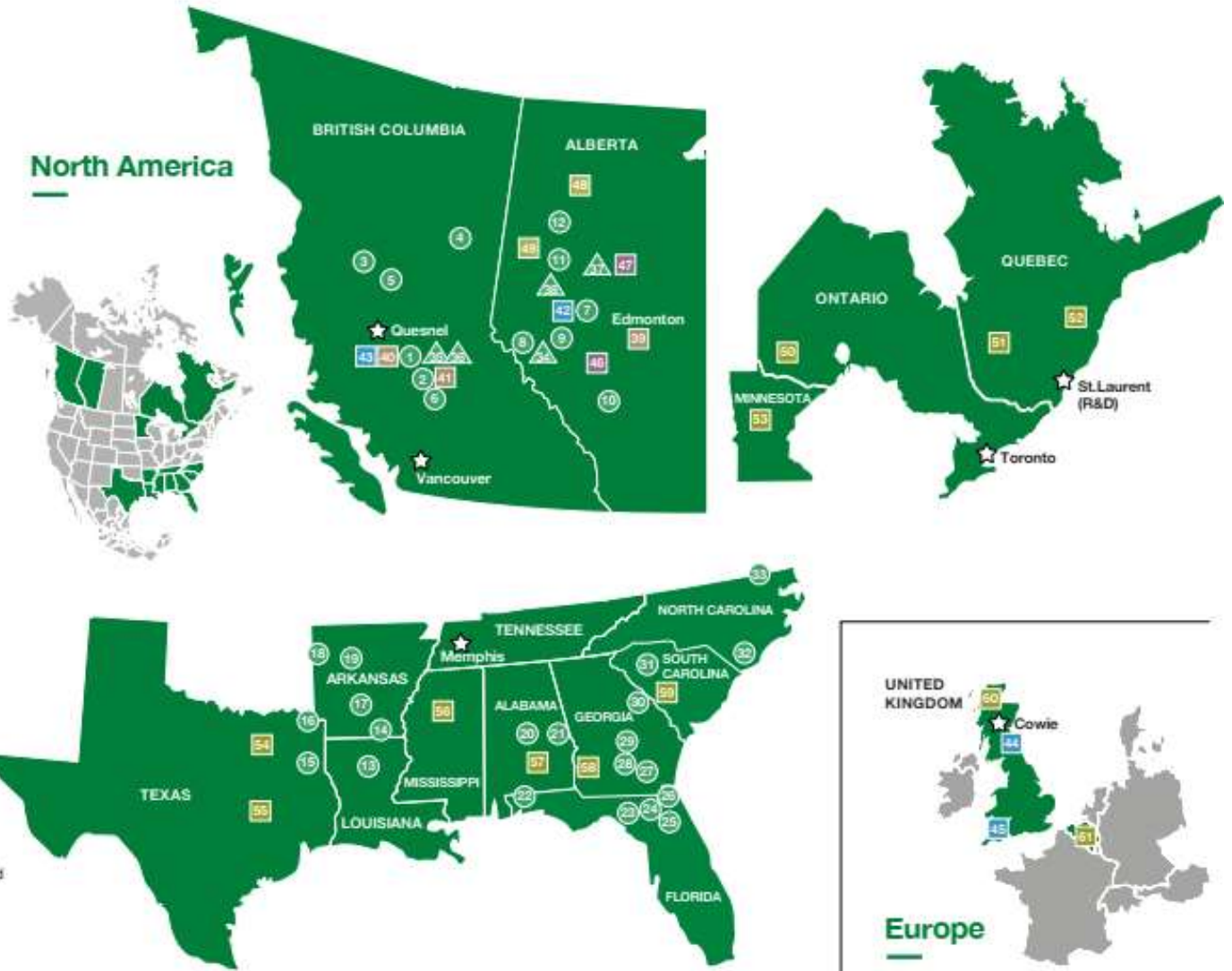
- Canada  
 48. High Level  
 49. Grande Prairie  
 50. Barwick  
 51. La Sarre  
 52. Chambord

#### U.S.

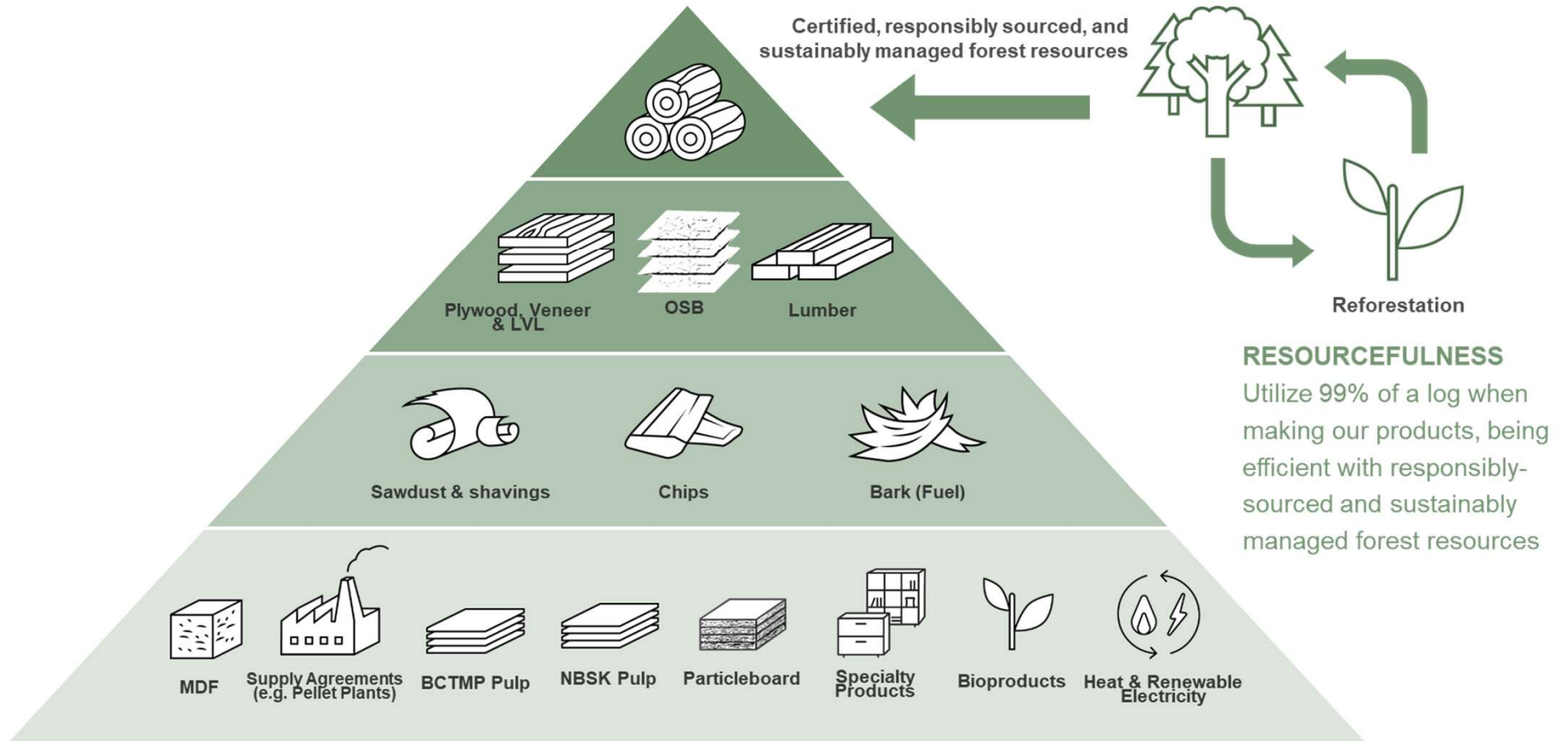
53. Bemidji  
 54. Jefferson  
 55. Nacogdoches  
 56. Guntown  
 57. Huguley  
 58. Cordele  
 59. Joanna

#### U.K. & Europe

60. Inverness, Scotland  
 61. Genk, Belgium



# THERE IS VALUE IN 100% OF OUR FIBRE



# 48% of our Lumber Business in the Southern US



- Southern Yellow Pine Forest – Plantations
- Robust Timber Supply
- Predictable and Stable
  - Short Rotation Forest Management (30-35 yrs)
- Private Forest Land Intensively Managed
- Supply Exceeds Consumption Capacity
- Known and Reliable log sources
  - 100% Purchased wood



# West Fraser in BC Today

**WEST FRASER IN BC**

- **7** communities
- **2,750** direct employees, **11** mills, **2** office locations
- **75%** of the energy we use comes from renewable resources
- **\$500+ million** invested in our BC operations since 2010



➤ Currently require ~7 million m3 annually to sustain operations



# Alternate Practice - Whole Log Chipping



- **Sawlog Production Curtailments** have increased whole log chipping programs for Pulp Mill Fibre.
- Increased utilization of the wood resource.



# Alternate Practice – Planting Densities

- We plant higher density than the Provincial average
- In 1998 we increased planting density from 1600 to 1800 trees per hectare in Tree Farm 52.
- Results in more quantity and quality of timber
  - CT options for flexibility in volume flow
  - Timber with higher ratio of heartwood
  - Smaller knots and straighter logs
- West Fraser led the way in encouraging the Provincial Government to provide incentives to all Licencees to increase planting densities.



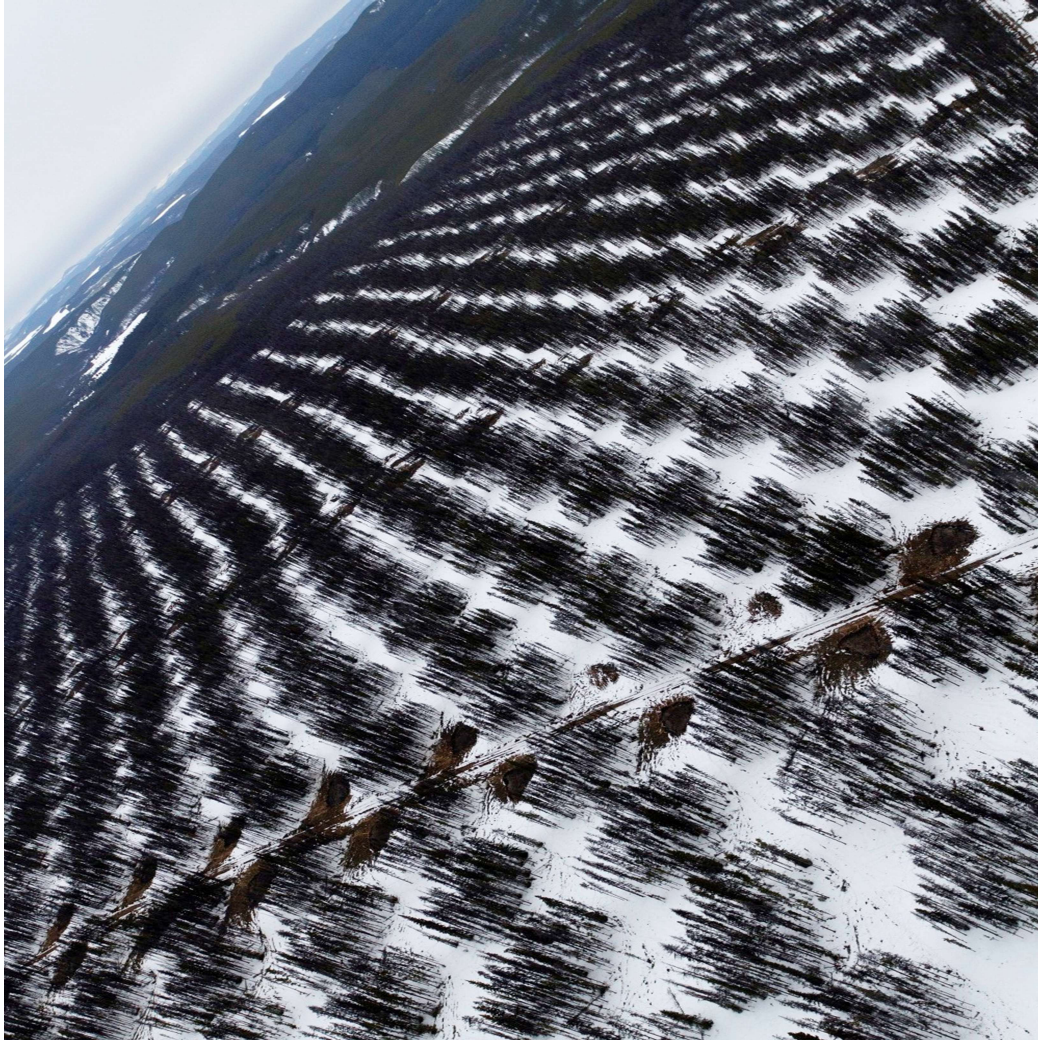
# Alternate Practice – Fertilization



- **Aerial application since 2005.**
- Enhance timber growth for commercial thinning and advanced harvest timing.



# Alternate Practice – Caribou Habitat



- **Modified Caribou Harvest**  
as per Land Use Order GWM's
- Working with Govt on an ongoing basis to develop Caribou recovery through a balanced approach.



# Alternate Practice – Partial Cutting



- **Partial Cutting** in Visually Sensitive Area
- Harvest from below targeting mortality removal
- Purpose-built harvester processor system with forwarder



- **Partial Cutting** in Mule Deer Winter Range



# Alternate Practic – Commercial Thinning



- **Commercial Thinning** on our TFL's
- More intensive silviculture management has created options to shift AAC



# Alternate Practice – Managing for Resilience



- **Treatments in the Wildland Urban Interface**
- **Need to expand to the Landscape Level**



# Indigenous Relations are Evolving



- **Working with our Indigenous Communities**
- Broad approach to understanding stewardship and Indigenous values
- Providing employment and business opportunities





# The Opportunity to Expand Forest Management

- A new debate on land use planning and innovative approaches to multiple values management?
  - Resiliency
  - Sustainability
  - Apply NRV and ecosystem-based approaches
  - Sustainable Forest Management vs Preservation, or more of both?



**The Future.....?**

