

A photograph of a forest with tall, thin trees and a dense undergrowth of green plants and ferns. The image is partially covered by a semi-transparent grey box on the right side, which contains the title and other text.

# Developing Technical Guidance around Commercial Thinning Operations

Practical guidelines for a woodlot audience and continuous improvement of provincial guidance.

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Northern Silviculture Committee; February 19, 2025







# Thinning Guidance for BC

Recommendations for guidance updates





## Field monitoring 2024

- 9 blocks (8+1)
- Central interior
- SBS moist or wet subzones

## Data collected

- 71 full measure, 65 count
- 200 m<sup>2</sup>, 10m x 20m
- Included trail and thinning zone

## Post-thinning trends

- SI >22
- Top height 18-22m, mean ht >15m
- QMDBH >19cm
- Retained BA >20m<sup>2</sup>/ha
- Total density 500-800sph



# What is thinning?

A type of partial harvest or stand tending, but not all partial cutting is thinning.



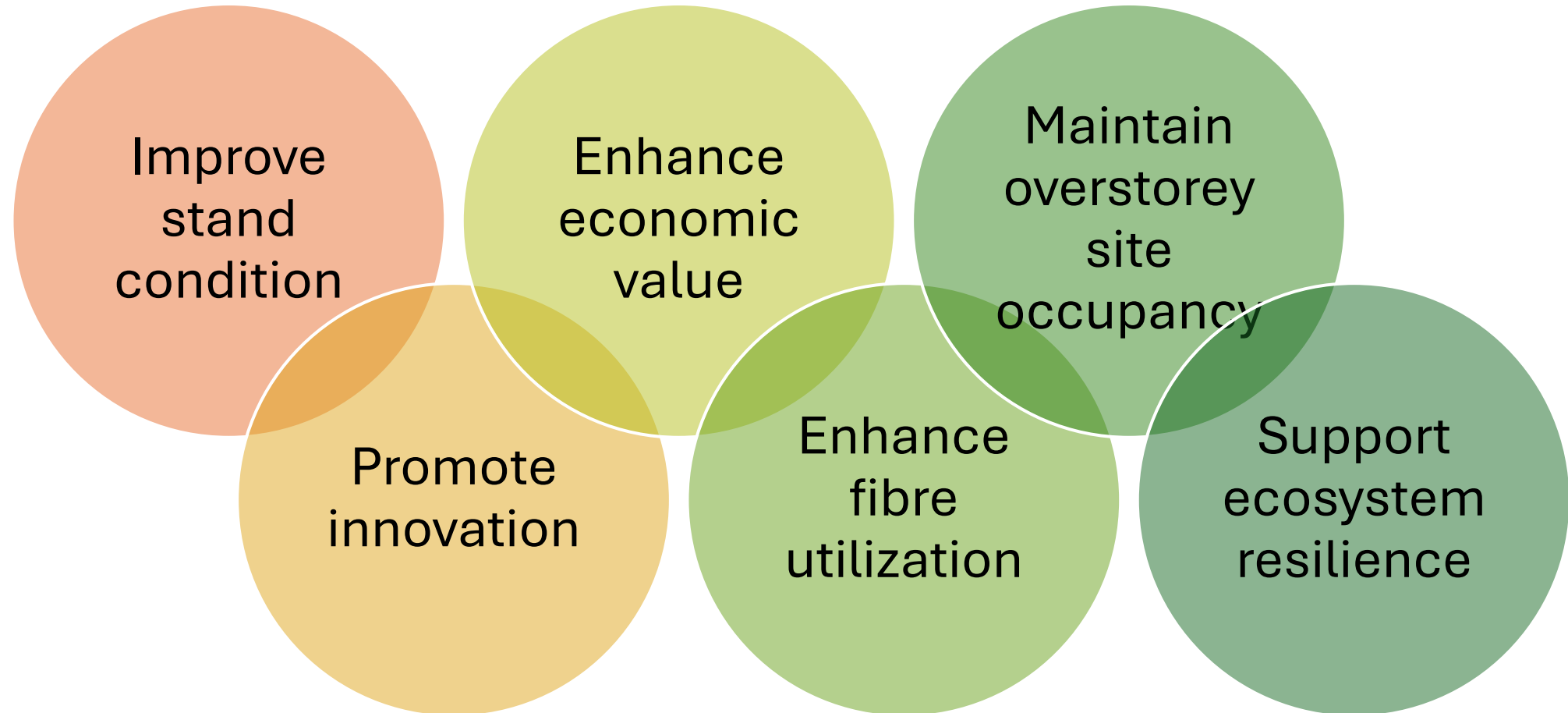
The removal of individual trees from a stand to maintain or improve the health of remaining trees.



It's commercial when material is removed or utilized.



# Thinning goals





# Support forested ecosystem resilience



- Pre vs Post-thinning similar stands near Terrace: Post-thinning densities are lower than desired for timber, but ecosystem resilience is improved.





# Improve stand condition

Pre vs post-thinning near McBride: thinned out the poor form spruce.



# Prescription & rationale development

**Collect stand data to 7.5cm dbh and a 5cm top.**

Species, heights, diameters, BA, % live crown, forks, insects or disease

Review the diagrams in Appendix 2 for stands that may benefit from thinning and the modelled volume impacts of proposed removal amount

Windthrow hazard and reaction of other damage agents (more info in Appendix 4)

Legislation/Policy/FSP direction

Maintenance/recruitment of desirable attributes

Stand history – past brushing, spacing, fertilization and future plans

Document the rationale





# Operations

**Prioritize** removal of dead, damaged, and diseased trees.

**Retain >50%** of the stand's basal area. For many stands this will be a heavy thinning, and it may be susceptible multiple damage agents.

**Minimize skid trail width:** keep to 5 m or less where possible. Trails should occupy **< 25% of the block** and contribute to the total basal area removal and retention thresholds.

Minimize impacts to the **soil**, roots and below-ground ecosystem.

Consider chains or rubber tires, brush mats or shutting down in wet weather.

Consider continuity and distribution of **surface fuels** left on site.

Slash may require management as part of a wildfire hazard reduction objective.

Maintain trees with a **sufficient live crown** to meet the expected goal.

(lifted crown, balanced with enough crown to respond to additional light, considering the windthrow risk).

Leave broadleaves or rare species standing when they are not being utilized.  
Consider stratifying/excluding mappable patches from the net area to be reforested.

FPInnovations Operational Manual for Commercial Thinning in British Columbia (2021): This is a good source of additional information.

Document your professional decisions.





# Post-thinning data collection

The professional must collect enough post-thinning data to confirm that the:

- principles were followed, (e.g. pre-thinning basal area, species and condition),
- stocking standard was achieved, (e.g. post-thinning basal area or density and species), and
- thinning harvest activity and updated forest cover label was reported to the Minister (via RESULTS).





# Practice guidance

Appendix 1 Traditional CT –  
including example stocking  
standard

In progress – Reducing wildfire  
risk – in WUI and across  
landscape



# Questions/ comments



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# What went well?

- Very little stem damage
- Retention levels high and a diversity of species
- Stable stands – no significant windthrow
- Small amounts of slash – mostly confined to trails
- Animal use observed







## Opportunities for improvement

- Stem quality (Pli especially)
- Thinning thru whole stand (not just trails)
- Trail width







# Opportunities for improvement

- Reporting to RESULTS after thinning
- Post-thinning Survey methodology
- Monitoring methodology

