

CSC Winter Workshop - 2014

TSR 101

Patrick Bryant (Foresite)

- objective - to provide a **basic** review of Timber Supply Analysis
- discuss some details for analyzing: Assumptions - Initial Conditions, Growth Rules, Natural Disturbance and other Netdowns
- DON'T OVER-FORECAST!
- Harvest Flow and Metrics....y'know, the graphs with the dips and peaks
- some ways to influence timber supply (Monitoring, Regen SI, Species Selection, Harvest Age, Density, Distribution)
- ACE – Allowable Cut Effect (Raise AAC based on future predicted forest....needs influence, this forward looking, TSR looks at the past)
- Need good inventory, RESULTS needs to have good data, Climate Adaptation strategy, Better G&Y, research to support assumptions

Forest Health and TSR

Stefan Zeglen (Forest Pathologist), Jim Brown (Senior Analyst)

- Operational Adjustment Factors (TASS needs these as it is based on fully stocked healthy stands)
- Mostly bugs and disease
- Complex influences – affects are short term and long term
- Unsalvaged loss estimates (contributes to over 26,000 m³/yr in Fraser TSA alone)
- 1 Project suggested inventory site index and TIPSy volumes are underestimated

Forest Health and TSR

Gordon Weetman (UBC)

- ACE - Allowable Cut Effect - Is it happening? Can it happen? Should it happen?
- Coast of BC. The best place to grow trees in Canada
- Lubar Peterson Thesis – Ontario

These results suggest that it is not profitable for forestry companies to invest in intensive silviculture if the forestry company is to bear the full cost of the silvicultural treatments. However the results also suggest that there are benefits to the public to intensive silviculture in terms of longer mill operating life as well as reduced areas needed for harvesting activities. Thus the Government may be able to justify assisting the forestry companies' investments in intensive silviculture without complicating trade relations with the United States.

- Auditor General – We need to commit to Clear Timber Objectives, Stewardship Principals and Established Performance Measures
- JD Irving , NB Longest term silviculture in Canada - enhance silviculture actually paying off
- Let's cut at 60 years
- Let's get serious about cedar!
- BC lagging behind Alberta, NB and Ontario in Timber Supply Planning – We need strategic planning
- AAC is based on m3 not value
- No incentives for investment under BC's current tenure system
- We need long-term investment from companies – we need to go area-based tenures

Basic and Incremental Silviculture Effects on AAC

Annette van Niejenhuis, (WFP)

- Really think about what you are doing and where you are doing it
- Plant: Good – Definitely; maybe
- Hemlock: Good – If you have it
- Genetic gain: Good – 4% ROI anyone?
- Fdc: Good, but also Pw, Ss and broadleaves
- Higher plant density: Good, it depends
- Site prep: Good – possibly
- Fertilization at plant: It depends, cost?
- Brush: cost?
- PCT: Not Good, most likely
- Fertilization: Good – two thumbs up

AAC and Species

Paul Barolet, (Stewardship Officer)

- Cw leading Heli-logged stands are converting to Hw
- RESULTS information is inaccurately reporting the actual forest structure/inventory
- Multi-layer stands represented as even-aged stands in RESULTS
- Disconnect between reality and inventory/timber supply
- Gordon Baskerville "if stands in the real forest function with yields curves that are different from those in the model forest, then the forecast is wrong."
- Garbage in = Garbage out
- Bottom Line: accurately survey and report basal area when $>5 \text{ m}^2/\text{ha}$ is retained.
- Low – Net Value stands (HA) excluded in TSR3, but may make up a significant contribution to the timber supply in the future
- In many cases Heli-logging isolates lower value (HA) stands that could have been harvested economically had a road been constructed instead of heli-logging

Young Stand Monitoring

Rene de Jong, (FLNRO)

- Stand Development Modelling – used for Leg. And Practice
- Young Stand Monitoring – used for TSR (FIAB)
- Morice case study – provided characteristics of stands 15-50 years old

Early Harvesting – Coastal and Interior

Jeff and Eleanor McWilliams, (Consultants)

- Good or Bad: it depends – objectives, constraints; financial vs. biological
- PG case study – best sites best bet
- Harry Smith Trials – Cw beats Fdc handily
- Age class distribution, species composition
- Climate change and risk
- Early height growth, OAFs and the need for **Monitoring**