

Perspectives on Research needs to link reforestation standards to management outcomes

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Why Link Standards

- u Alberta Reforestation Standards Science Council recommendation 2000
- u Recent OAG reforestation audit noted same
- u AB For. Mgmt Planning Standard requires development of linked standard
- u “Alternative Regeneration Standards” (ARS) is focused on getting us there



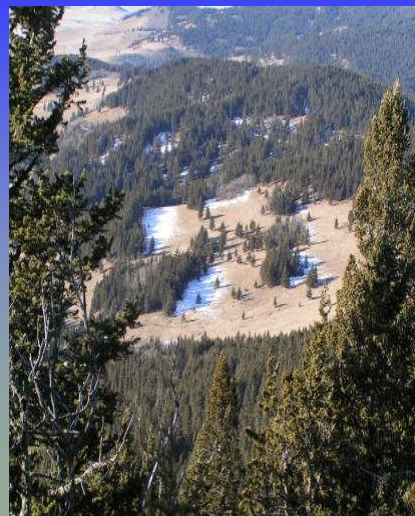
Points of linkage

1. MAI - ARS forecast culmination MAI compared to TSA assumed culmination target
2. Forest structure – Planned future forest types compared to actual – area and structure of strata
3. Voids – Area not reforested



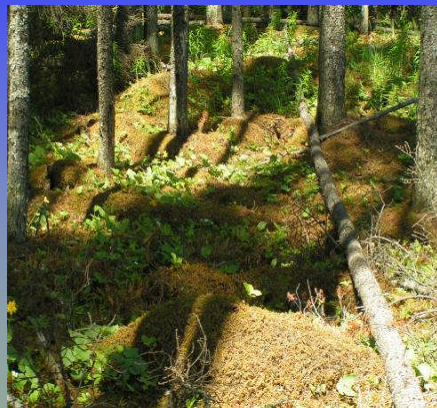
Enabling Process :

- u TM Regs changed
- u Development of credible models
- u Data sharing



Limits to Endless Research

- u Key factor is cost vs precision trade-off
- u Research must have practical application
- u Improve cost/precision trade-off, i.e. credibility
- u KISS



Research Needs: Broad



- u Continued improvement of models with new data and/or new thinking
- u Localization of 'developed' models
- u Focus on managed stands not 'old forests'

Research Needs: Specific

- u **'Small' tree dynamics**
 - u Performance survey at 14 – 20 years
 - u Forecast rotations around 60 – 120 years
 - u How much effort to expend to capture small trees?



Research Needs: Specifics

- u **Low density stands**
 - u Models perform poorly at low densities
 - u PSP data not from low density stands
 - u Low density stand value may be in area other than fibre



Research Needs: Specifics

- u **Enhanced forest management practices**
 - u Models not developed for this application
 - u Few PSPs and few measurements from EFM stands
 - u Will become important in the near future
 - u Thinning and genetics top priority



Research Needs: Specifics

- u **Competition**
 - u Models account for inter tree competition only
 - u Small tree dynamics impacted by tree and non-tree competition
 - u Competition is risk to growth that we can manage for



Research Needs: Specifics

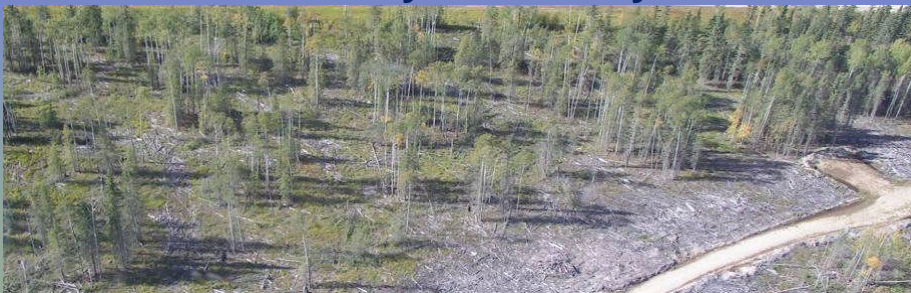
u Non clear-cut systems

- u Strip harvest, shelterwood, patch harvests
- u Range of tree sizes and spatial distributions
- u Need data/model development to account for these options



Silviculture

- u Accurate predictions of what stands result from what treatments on what sites
- u Need cost effective and administratively feasible system



Questions

