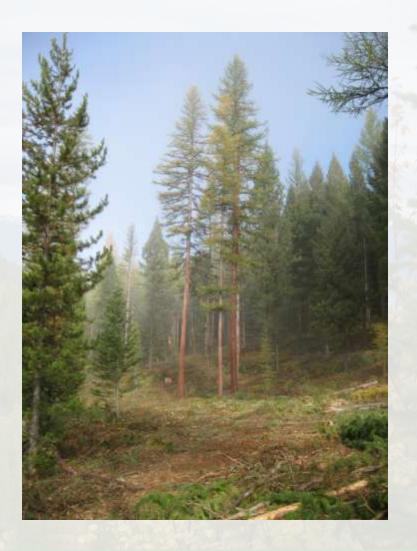
Montana DNRC Program for Selling Timber By Weight Challenges of **Conversion and Valuation** Presented by: Sarah Lyngholm

Presentation Overview

- Background and History
- SOP for Measurement and Valuation
- Positives vs. Risks
- Future Opportunities





DNRC Forest Management

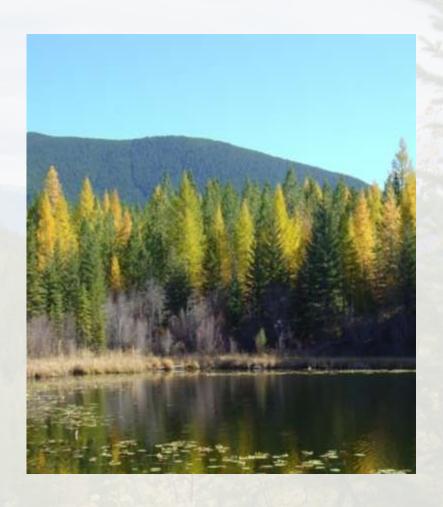
- ~ 730,000 acres of forested School Trust Lands
- Fund education through timber sales
- 57.6 MMBF Annual Sale Target
- ~\$10 million annual revenue





History

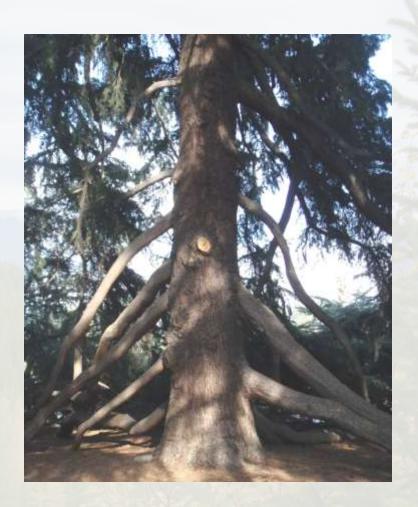
- Sold primarily by MBF
- 1995 Sustainable Yield
- Late 1990s: switched from selling by MBF to tons
 - Consistent metric
 - Small diameter material
 - Simple accounting
 - Save scaling cost





Cruising

- Standard field procedure
- MT Cruiser
- Champion tariffs
- Ft³ Volume → Tons
 - Long term averages by species





Assumptions

- Log weight correlates to volume
- Montana is homogenous
 - Geography
 - Temporal





Appraisal → **Minimum** bid price

- Transactions evidence
- Location
- Diameter
- Stand density
- Harvest system
- Index prices
- Costs to purchaser



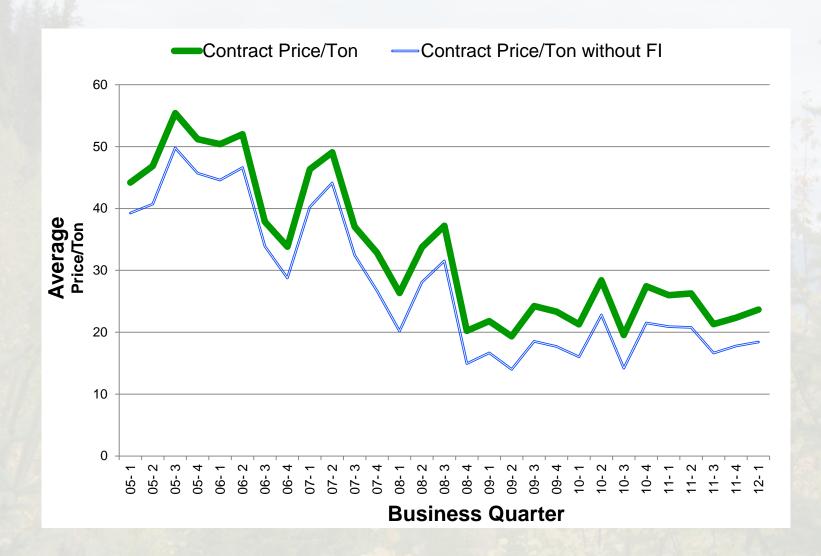


Bidding

- 30 day ad
- Sealed bids
- Disclaimers
- 1 no-bid sale in 12 months









Contract

- Specifications
 - Utilization
 - Weight ticket requirements
 - Schedule





Positives

- Easy measurement
- Easy accounting
- Consistent with industry
- Cost savings





Positive

 Purchaser pays for everything they haul

Risk

 Purchaser pays for everything they haul





Risks

- DNRC
 - Full value from bidders?
- Purchaser
 - Good information from DNRC?





Challenges with Conversion

- Variation
 - Season
 - Manufacture
 - Age
 - Size
 - Defect



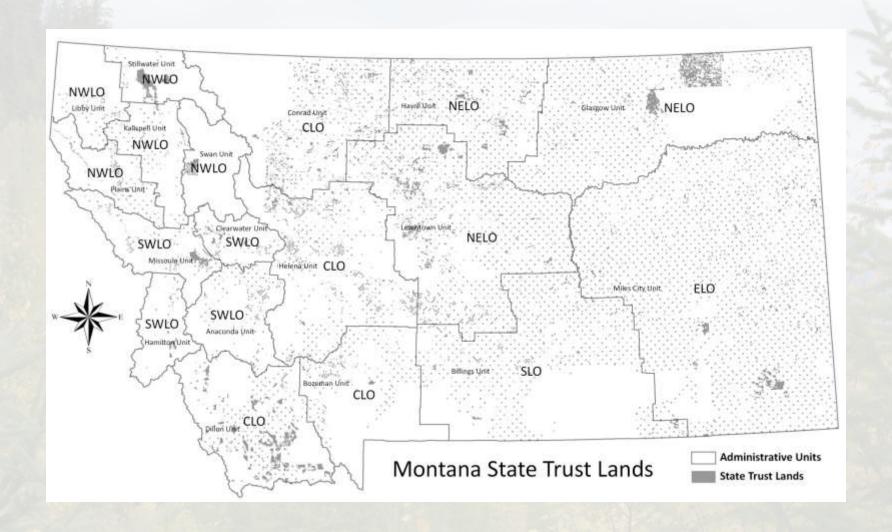


Challenges

- Salvage
- Climate
- Old growth
- Variation around State









Challenges

- Small diameters
- Special products







Challenges

- Utilization
- Administration
- Lost expertise
- Quality





How are we doing?

- Underrun
 - By tons
 - By MBF?
- Why?
 - Cruising?
 - Utilization?
 - Timber Character?





Why do we care?

- Sustainable Yield Target
 - \$\$ for the school children
 - Long term growth
- Customers Needs
 - Planning
 - Appraisal
 - Consistency





Trust Land Revenues by Program

Resource Program	201	1 Revenue
Agriculture and Grazing	\$	20,714,158
Forest Management	\$	10,496,231
Real Estate Management	\$	3,245,037
Minerals Management	\$	41,781,055
Recreational Use	\$	1,043,707
Land Management Revenue	\$	77,280,188



Future Expectations

- Scaling study –
 adjust cruise
 program?
- Sustainable yield
 - Ft³? M³?
 - MBF and Tons?
 - Biomass?
- Tailored sales





Conclusion

- Purchasers prefer consistency over accuracy
- Everyone benefits from shared information
- Changes based on systematic assessment





Montana DNRC Questions?

