



Boundary TSA

A G&Y Perspective on Timber Supply

Primary Sources: ®
 Timber Supply Area Analysis Report, November, 2000
 AAC Rationale, October, 2001

Short Summary: A robust timber supply dominated by pine (46%) and doug-fir/larch (38%).

Characteristic or sensitivity	Short-term	Mid-term	Long-term	Implications
Final AAC and base case harvest flow	Final AAC 0.70M, same as base case	No dip below LTHL	Initial LTHL 0.75M at 100 yrs; revised to 0.66M at 40 yrs	Revised LTHL recognizes more +/- pressures and uncertainties, a few are G&Y related
Age-class distribution under base case	Fair distribution with 51% above MHA; some near old seral	Old seral targets met in a few decades	Old seral reserves shift mostly into non-THLB	THLB 50% of total TSA and 80% of productive forest, non-THLB buffers some constraints
Alternate harvest flows	1) 0.75M max even flow; 2) 53% increase to 1.07M for 10 yrs	2) steps down to 0.66M at 50 yrs (dips below LTHL)	2) steps up to LTHL at 110 yrs (almost base case LTHL)	Revised LTHL above reduces max even-flow expectation
Sensitivity to site index of managed stands (OGSI)	Base case maintained	Base case maintained	LTHL increases 13% at 60 yrs (6% above max even flow)	Largest potential in pine, explore further flexibility in short- and mid-term harvest flows
Sensitivity to green-up ages	-33% has no effect over 250 yrs, +33% drops harvest 6.2%		+33% returns to max even flow LTHL at 120 yrs	Rare that green-up ages are underestimated (i.e., would need to be increased)
Sensitivity to managed stand yields	Base case maintained	No affect on mid-term dip below LTHL	Direct and proportional effect on LTHL at about 100 yrs	Along with site index, improving PHR yields (yield tables, OAFs, etc) mainly effects LTHL
Sensitivity to existing stand yields	+10% volume increases harvest by 10% for 100 yrs; -10% can maintain AAC		Little affect on LTHL	Little concern since audit detected no significant differences against inventory
Other issues	<ul style="list-style-type: none"> Prevalence of partial-cutting and ICH/IDF indicates root rot is likely a major unquantified G&Y issue - recent CFS info indicates chronic growth-loss may have greater impact than mortality. Prevalence of partial cutting and multi-species stands indicate the need to support improved modelling of complex stands (e.g., PrognosisBC and TASS). 			

Standard caveats	<ul style="list-style-type: none"> • A long-term G&Y data and model building strategy is needed to continually check and improve G&Y predictions. This includes a rationalized data strategy incorporating PSP's, EP's and Monitoring Plots. G&Y co-ops help coordinate these strategies across management units to gain cost and logistic efficiencies. • Under a given a set of data and assumptions, every unit has many possible timber supply forecasts depending on harvest policy and analyst prerogative. A base case and its associated sensitivity analyses represent only one perspective; there are many others. Before pursuing investments to improve the base case harvest flow, one should first determine what alternate forecasts are possible with the existing data and assumptions. • Regardless of AAC effects, G&Y investments should be pursued in their own right, as a matter of due diligence, in continuous pursuit of better information to support sustainable forest management. A balanced program looks at both positive and negative factors affecting G&Y and AAC. For PHR yields, this means moderating potential growth with realistic management expectations through appropriate application of site index, models and OAFs. • Ecosystem mapping is frequently justified solely as a spatial linkage for PHR site index estimates. It is also becoming an important management tool to support and document an ecosystem-based approach to sustainable forest management.
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Abbreviations used: AAC, Allowable Annual Cut; CMAI, Culmination of Mean Annual Increment; DWB, Decay, Waste and Breakage; EP, Experimental Plot; G&Y, Growth and Yield; LTHL, Long-term Harvest Level; M, million (cubic meters); MHA, Minimum Harvest Age; OAF, Operational Adjustment Factor; OGS, Old-growth Site Index, PHR, Post-harvest Regenerated (managed stands); PSP, Permanent Sample Plot; THLB, Timber Harvesting Land Base; TSA, Timber Supply Area; TSR, Timber Supply Review; VQO, Visual Quality Objective

Selected TSR terms: **Short-term**, harvest flow over the first couple decades relying solely on the current inventory of existing mature and over-mature stands; **Mid-term**, the gradual transition (fall down) to LTHL that occurs during the shift to managed PHR stands; **Long-term**, maintenance of the LTHL where harvesting has reached equilibrium with growth and other management objectives (harvest constraints).

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