



## Kamloops TSA

### A G&Y Perspective on Timber Supply

Primary Source: ®

Timber Supply Area Analysis Report, July 2001

TSR2 AAC Rationale, August 2002; effective January 2003

**Short Summary:** A robust timber supply with inherent flexibility and options. G&Y perspective similar to Okanagan TSA. AAC includes Adams Lake IFPA's 14,870 uplift based mostly on improved site index.

Characteristic or sensitivity	Short-term	Mid-term	Long-term	Implications
Final AAC and base case harvest flow	Final AAC 2.68M; base case 2.65M	Cut drops 0.3M (11%) over first 20 yrs and again 0.1M at 70 yrs	2.25M LTHL attained in 70 yrs	Explore options to mitigate imminent falldown; THLB increased 10% from previous AAC
Age-class distribution under base case	66% of stands in THLB at or over MHA, provides flexibility		At 200 yrs, majority of THLB ≤ MHA; 11% >250 yrs	Current constraints (VQO, etc) having minimal impact under base case harvest levels
Alternate harvest flow	3.13M, 18% above base case	28% falldown over first 30 yrs, but no dip below LTHL	Base case LTHL attained in just 30 yrs	Illustrates inherent short-term flexibility
Sensitivity to site index of managed stands (OGSI)	2.78M, 10% above base case	0.3M (10%) falldown over first 20 yrs, similar to base case	2.49M, 11% over base case LTHL; 6% less than base case first decade	Documenting better PHR site index estimates would increase existing flexibility, high-elev info especially weak
Sensitivity to green-up ages	Base case maintained	Minor effect on base case	No effect on base case	No apparent site index effects here, so main site index effect likely from increased PHR yields
Sensitivity to managed stand yields	Base case maintained	Base case maintained	Direct and proportional effect on LTHL	Improved PHR yields (incl. site index, yield tables, OAFs) raises LTHL and might even have short-term effects given flexibilities
Sensitivity to existing stand yields	Base case maintained with 10% yield increase; 9% reduction with 10% decrease	10% increase adds short- and mid-term flexibility; 10% decrease dips below LTHL	No effect on LTHL	Of less concern since inventory audit seems OK. See DWB and root rot issues below.

Other issues	<ul style="list-style-type: none"> <li>• DWB maybe under-estimated for old cedar-hemlock; also some concerns ESSF volumes may be over-estimated, although overall audit OK</li> <li>• Root Rot effects need better understanding (Type I Silv Strat) – recent CFS info indicates chronic growth-loss has greater impact than mortality</li> <li>• Prevalence of partial cutting (&amp; variable retention) indicates the need to support improved modelling of complex stands (e.g., PrognosisBC and TASS).</li> <li>• AAC determination considered upward pressures (incl. site productivity) offset downward pressures over short-term, and long-term upward pressures were considered to be 10% greater than Analysis Report indicated.</li> </ul>
Standard caveats	<ul style="list-style-type: none"> <li>• A long-term G&amp;Y data and model building strategy is needed to continually check and improve G&amp;Y predictions. This includes a rationalized data strategy incorporating PSP's, EP's and Monitoring Plots. G&amp;Y co-ops help coordinate these strategies across management units to gain cost and logistic efficiencies.</li> <li>• 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.</li> <li>• Regardless of AAC effects, G&amp;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&amp;Y and AAC. For PHR yields, this means moderating potential growth with realistic management expectations through appropriate application of site index, models and OAFs.</li> <li>• 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.</li> </ul>

Abbreviations used: **AAC**, Allowable Annual Cut; **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; **OGSI**, 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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