



**Lillooet TSA**  
**A G&Y Perspective on Timber Supply**

Primary Source: ®  
 Timber Supply Area Analysis Report, January 2001  
 AAC Rationale, December 2001

**Short Summary:** A relatively small THLB with several socio-economic pressures. Better site index estimates might help mitigate some of the large (42%) anticipated fall down over next 100 yrs.

Characteristic or sensitivity	Short-term	Mid-term	Long-term	Implications
Final AAC and base case harvest flow	Final AAC 0.64M; base case 0.66M	42% falldown beginning at 20 yrs	0.37M LTHL reached at 100 yrs	Explore ways to moderate size of fall down, e.g., raise LTHL
Age-class distribution under base case	75% of THLB above MHA	Initially some stands in THLB held past MHA to met old-seral constraints	By 200 yrs, most old-seral met by stands outside THLB	THLB is only 54% of total productive forest, stands outside THLB eventually contribute nearly all old-seral
Alternate harvest flows	0.77M for 10 yrs possible without falling below base case LTHL; or 0.40M under even-flow	Stepping down 10% per decade	Base case LTHL attained at 70 yrs	Not much short-term flexibility apparent
Sensitivity to site index of managed stands (OGSI)	Base case maintained		0.49M LTHL 32% over base case, reached at 50 yrs	Documenting better PHR site index estimates could mitigate nearly half of the anticipated fall down.
Sensitivity to green-up ages	Base case maintained	Very little effect on base case	Very little effect on base case	Little site index related effect apparent, 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	Improving PHR yields (incl. site index, yield tables, OAFs) will help mitigate the fall down
Sensitivity to existing stand yields	Base case maintained	Step down occurs 10 yrs earlier with 10% yield decrease; 20 yrs later with 10% increase	No change in LTHL, just timing	Little concern since inventory audit seems OK on THLB; but audit said stands outside THLB were underestimated by 40%

Other issues	<ul style="list-style-type: none"> <li>Better site index estimates might also bring hectares into the THLB (low quality &amp; non-merch).</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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