

Predicting Likely Timber Purchases and Offer Levels - Fiscal Year 2009
 Jan 21 2009

Elements	Notation	Limited Lumber	Expanded Lumber	Medium Integrated	High Integrated
Demand					
A. Installed and operable mill capacity (MMBF, log scale)	a	292	292	292	292
B. Industry rate of capacity utilization	b	33%	45%	66%	70%
C. Share of industry raw material provided by the Tongass	c	75%	75%	75%	75%
D. Percent usable wood in average NF timber sale	d	53%	64%	92%	92%
E. Annual Tongass timber consumption (MMBF, theoretical)	$e=((a*b)*c)/d$	135	153	157	166
F. Standard deviation of lead time (years)	f	0.69	0.69	0.69	0.69
G. Average lead time (years)	g	0.73	0.73	0.73	0.73
H. Prob. of meeting consumption (one-tailed test for 90% at infinity)	h	1.28	1.28	1.28	1.28
I. Timber inventory requirements (MMBF)	$i=(e*g)+((e*h)*f)$	219	248	253	269
J. Volume under contract as of September 30, 2008 (MMBF)	j	97	97	97	97
K. Projected harvest (MMBF), FY 09 from PNW	k	51	72	151	151
L. Projected inventory shortfall (MMBF)	$l=i-j$	122	151	156	172
M. Low range of expected timber purchases (MMBF), FY 08	$m=\text{if } l < 0, k+1, \text{ else } k$	51	72	151	151
N. High range of expected timber purchases (MMBF), FY 08	$n=\text{if } l < 0, k, \text{ else } k+1$	173	223	307	323
O. Expected timber purchases, FY 08	$o=\text{median}(m:n)$	112	148	229	237
Offer					
P. Fall-down between volume offered and volume sold	p	30%	20%	15%	10%
Q. Required offered to meet VUC sell objectives (MMBF), FY 08	$q=o+(p*o)$	146	177	264	261