

Western Canadian Timber Products**Fraser TSA**

222,500 M3/Yr

Wednesday, September 20, 2017

A. General Comments

- 1 Economic Zones are in balance in comparison with the residual TSA, with only a slight increase in volume opportunity within the good economic zone and slight under representation in the medium Zone.
- 2 Age Class is 3% overweight in the old forest profile as compared to the residual TSA profile.
- 3 Harvest method criteria using slope class is well matched to the residual TSA profile.
- 4 Species distribution is 4% higher in Fd and 1% lower in Cedar, all others are well matched.
- 5 WCTP has an increased opportunity since the Benchmark (2015) with the addition of over 5 million cubic meters and access to an additional 11,643 ha containing timber >41 years of age in this process.

B. WCTP Consortium Volume Summary

The AAC used in this comparison is the sum of all replaceable forest licences under the control of WCTP of 205,000 plus 17,500 for the Seabird 225,500 M3 Island Nation. For this analysis 4,000m3 of the total 21,500m3 AAC of Seabird Island allocation was assigned to the draft Hicks Lake, as part of the proposed Woodlot.

C. Unresolved Issues

- 1 Hicks Lake access through the provincial park continues to create a deferral for pursuing development.
- 2 Transitions from within the draft FNWL are impacting immediate term authorisations. (Alouette, Deroche, Blacklock, Skagit)
- 3 The Historic McMahon operating area above the Scowlitz First Nation community has been re-assigned as First Nation Volume Based Operating Area. The outcome of this decision may be revisited upon resolution of the Silver Springs Ltd entity.
- 4 Ts'elqxweyeqw Tribe has expressed its desire to direct all forest management activity within the entire Chilliwack River Valley.

D. Comparison Position:

	<u>WCTP</u>	<u>Residual TSA</u>
Total THLB Volume:	12,899,583	57,074,507
AAC Estimate	225,500	1,030,449
% of THLB Volume	23%	100%
% of AAC	22%	100%
Years of AAC	57	55
Other Comparisons Requested by Tenure Holders:		
Ave Market Value	\$ 101.70	\$ 99.30
Volume per THLB Ha	473.4	461.8
% old HB>70%	7%	8%

Summary:

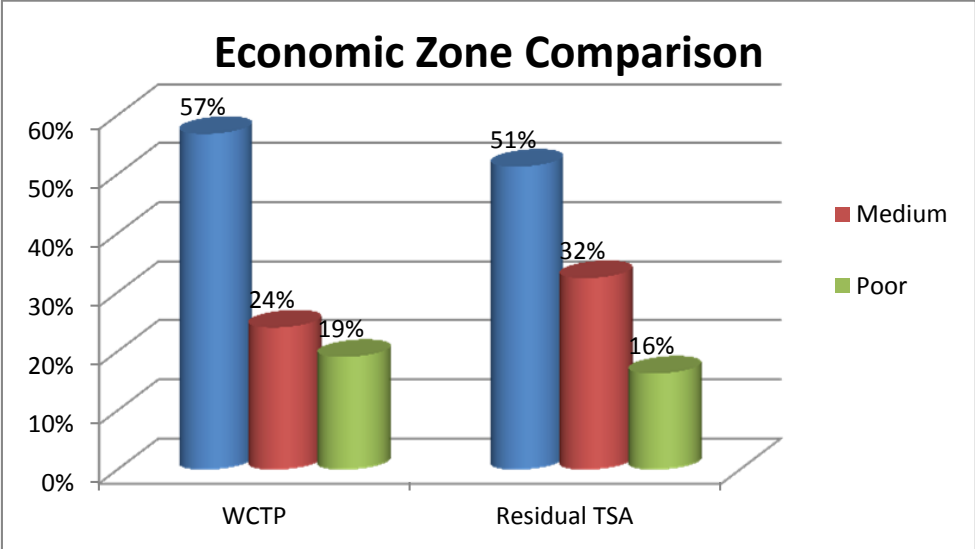
Through the re-assignment of over 5 million M3 of THLB volume the target of >50 years of AAC opportunity has been achieved under the V3.1 Operating Area Reallocation project. The overall profile is reasonably matched to the Residual TSA.

Net change of Version 3 Operating Area as compared to 2015 Benchmark

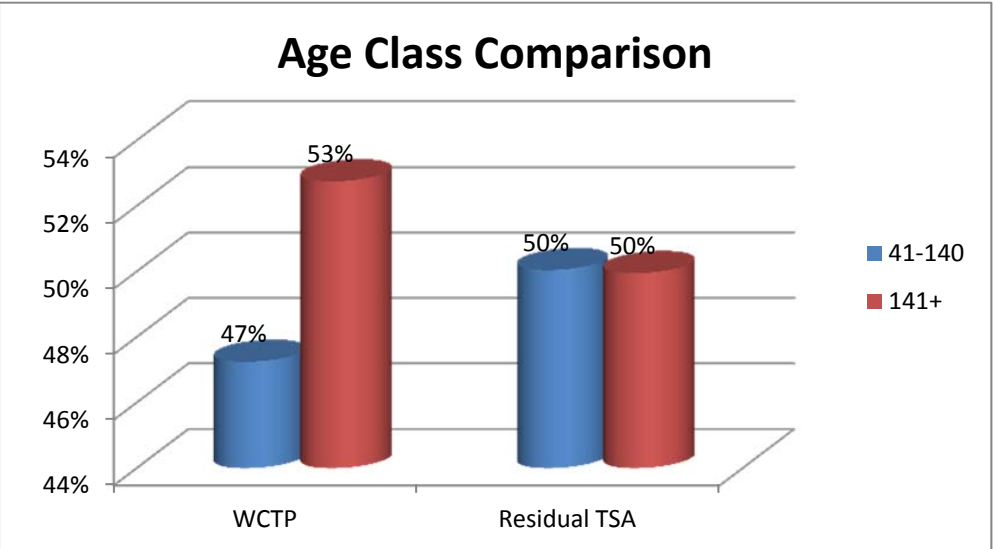
Change Summary	Total THLB Area Difference +/-from Benchmark	Total THLB Vol	Slope Criteria		
			<30%	31-69%	>70+%
Western Can Timber Products					
Good - Economic Zone					
41-140 Years	4,544	1,282,652	406,699	800,652	75,302
141+ Years	2,178	1,469,794	202,351	682,766	584,677
Good - Economic Zone Total	6,722	2,752,446	609,050	1,483,418	659,979
Medium - Economic Zone					
41-140 Years	3,069	863,037	66,652	680,878	115,507
141+ Years	1,522	1,046,798	207,335	704,550	134,913
Medium - Economic Zone Total	4,592	1,909,835	273,987	1,385,428	250,420
Poor - Economic Zone					
41-140 Years	192	69,871	18,382	46,664	4,825
141+ Years	137	284,204	127,587	159,402	-2,784
Poor - Economic Zone Total	329	354,075	145,968	206,066	2,041
Western Can Timber Products	11,643	5,016,356	1,029,006	3,074,911	912,439

check 11,643 5,016,356 1,029,006 3,074,911 912,439

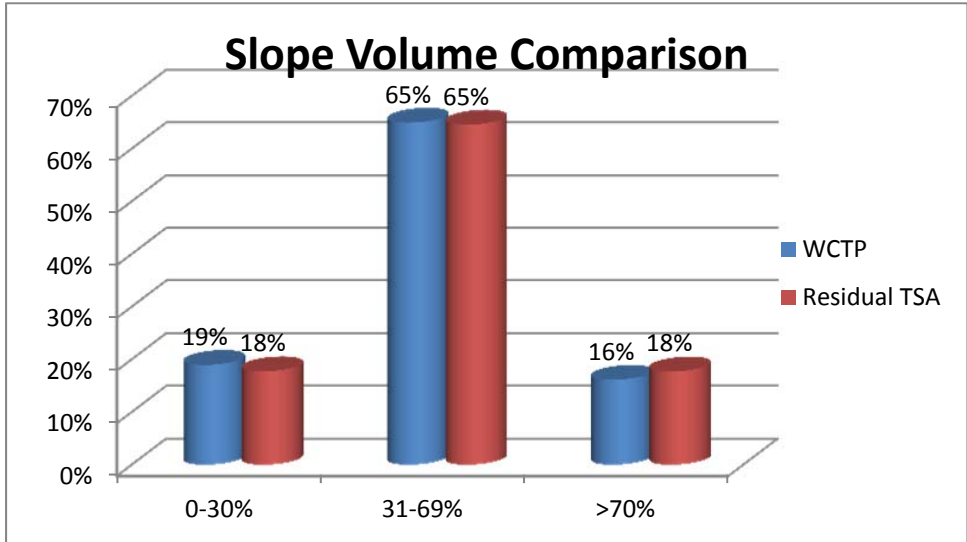
Comparison Graphs - WCTP Chart Areas Compared to Residual Fraser TSA



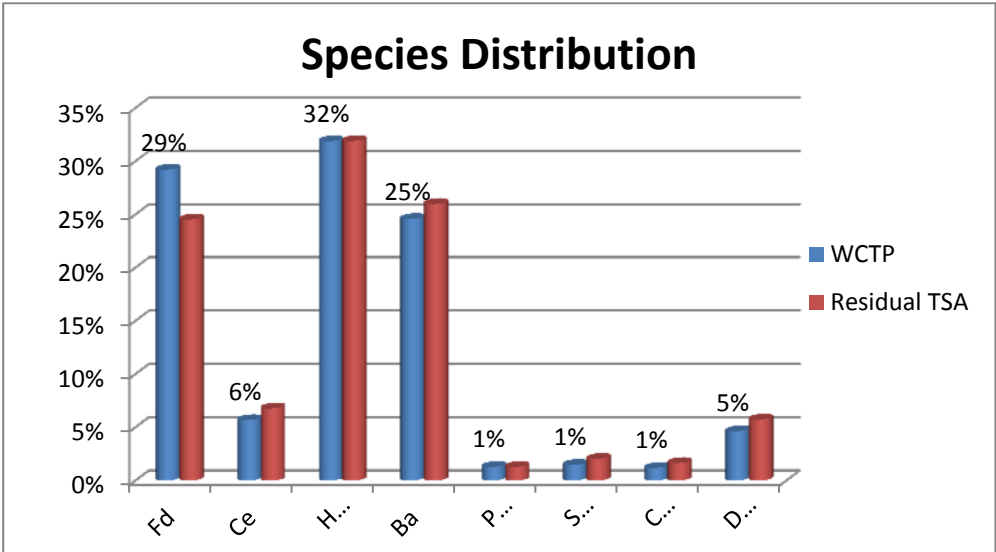
Economic Zone thlb Volume			
	Good	Medium	Poor
WCTP	57%	24%	19%
Residual TSA	51%	32%	16%



Age Class thlb Volume		
	41-140	141+
WCTP	47%	53%
Residual TSA	50%	50%



Slope thlb Volume			
	0-30%	31-69%	>70%
WCTP	19%	65%	16%
Residual TSA	18%	65%	18%



Species thlb Volume Distribution								
	Fd	Ce	He	Ba	Pine	Spruce	Cypress	Decid
WCTP	29%	6%	32%	25%	1%	1%	1%	5%
Residual TSA	25%	7%	32%	26%	1%	2%	2%	6%

100%

Timber Harvesting Land Base (THLB): Based on Fraser TSA TSR 4 Timber Supply Analysis using a compilation of the best available information.

August 2017 Version 3 - Licensee Operating Area Analysis Forest Cover Data Sources:

Vegetation Resource Inventory: Attributes projected to 2016

Change Detection Mapping: Denudation current to April 2017 using RESULTS forest_cover_inv_svw dataset and Landsat imagery

Burn Severity Mapping: Wildfire V10247 (Cougar Creek) & V10370 (Wood Lake) forest cover updated for Low, Medium & High severity burn

August 1, 2017 Licensee - Economic Zones	Total THLB Area (ha)	Total THLB Vol (m3)	Total Annual Yield (m3/yr)	Slope 0-30 %										Slope 31-69 %										> 69%												
				Slope THLB	THLB Volume (m3)								Slope THLB Volume m3	Annual Yield	Slope THLB	THLB Volume (m3)								Slope THLB Volume	Annual Yield	Slope THLB	THLB Volume (m3)									
					FIR	CEDAR	HEMLOCK	BALSAM	PINE	SPRUCE	CYPRESS	Decid				FIR	CEDAR	HEMLOCK	BALSAM	PINE	SPRUCE	CYPRESS	Deciduous				FIR	CEDAR	HEMLOCK	BALSAM	PINE	SPRUCE	CYPRESS	Deciduous		
Western Canadian Timber Products Partnership																																				
Good																																				
41-140 Years	10,287	4,229,027	49,584	2,117	303,739	81,202	327,757	95,895	5,807	1,571	3,543	135,967	955,481	10,243	6,824	996,555	167,352	803,777	355,947	20,167	10,830	16,457	324,646	2,695,731	32,892	1,346	304,514	26,071	165,213	33,582	5,696	99	796	41,844	577,815	6,448
141+ Years	4,436	3,105,325	19,984	587	147,323	39,669	99,783	68,186	4,907	221	6,283	5,206	371,576	2,627	2,752	443,501	123,132	672,367	574,839	3,299	1,784	67,683	6,488	1,893,092	12,564	1,098	187,891	81,237	307,519	233,442	800	434	28,401	933	840,657	4,793
Good Total	14,723	7,334,352	69,568	2,704	451,062	120,871	427,540	164,080	10,714	1,791	9,825	141,173	1,327,057	12,871	9,576	1,440,056	290,484	1,476,144	930,785	23,467	12,614	84,140	331,133	4,588,823	45,456	2,448	492,405	107,308	472,733	267,024	6,496	532	29,197	42,777	1,418,472	11,241
Medium																																				
41-140 Years	4,735	1,468,723	19,287	715	79,344	9,712	55,962	82,214	1,853	2,429	11	17,776	249,300	2,928	3,326	520,062	48,464	244,855	158,997	4,980	5,468	118	46,117	1,029,060	13,619	694	116,888	8,315	42,300	18,703	194	225	32	3,706	190,363	2,739
141+ Years	2,462	1,635,664	10,106	394	9,581	12,313	86,311	156,507	0	25,093	935	7	290,747	1,619	1,701	126,031	45,813	398,531	515,182	699	31,065	8,229	486	1,126,036	6,989	368	48,108	10,561	80,717	77,815	388	628	357	307	218,880	1,498
Medium Total	7,198	3,104,387	29,393	1,109	88,925	22,024	142,272	238,721	1,853	27,522	946	17,783	540,048	4,547	5,027	646,093	94,276	643,387	674,179	5,679	36,532	8,347	46,603	2,155,096	20,608	1,062	164,996	18,876	123,017	96,517	582	852	389	4,014	409,243	4,237
Poor																																				
41-140 Years	2,116	397,056	7,012	512	46,830	4,049	18,509	5,147	23,342	126	13	7,400	105,417	1,738	1,415	133,840	5,660	27,556	20,502	70,453	1,146	146	3,468	262,771	4,641	190	15,110	652	4,905	3,429	4,145	45	0	583	28,869	633
141+ Years	3,214	2,063,788	9,605	663	42,475	15,048	183,824	182,096	3,721	39,711	2,088	3,242	472,205	1,962	2,173	209,647	44,901	522,330	501,364	13,022	62,853	15,539	462	1,370,119	6,592	378	38,943	9,258	71,749	87,469	3,049	7,998	2,941	58	221,464	1,050
Poor Total	5,330	2,460,844	16,617	1,175	89,305	19,097	202,333	187,243	27,063	39,837	2,100	10,642	577,621	3,700	3,587	343,487	50,561	549,887	521,866	83,475	63,999	15,685	3,930	1,632,889	11,234	568	54,053	9,910	76,654	90,898	7,194	8,043	2,941	641	250,333	1,683
Western Canadian Timber Products T	27,250	12,899,583	115,578	4,987	629,292	161,992	772,146	590,045	39,630	69,150	12,872	169,598	2,444,726	21,118	18,190	2,429,636	435,321	2,669,418	2,126,830	112,621	113,145	108,173	381,666	8,376,809	77,298	4,074	711,454	136,094	672,403	454,439	14,273	9,428	32,526	47,432	2,078,049	17,162
HB Old																																				
858,711																																				
Residual TSA																																				
123,579 57,074,507 504,598																																				
22,405 2,386,056 632,253 2,965,440 2,515,389 158,785 332,649 110,617 1,020,192 10,121,380 90,264																																				
18% 24% 6% 29% 25% 2% 3% 1% 10% 100%																																				
81,315 8,884,561 2,270,328 11,670,255 10,194,944 523,773 787,622 617,496 1,900.58 36,849,560 332,780 19,859 2,736,092 972,868 3,579,996 2,130,710 57,285 49,341 218,877 358,397 10,103,566 81,554 66% 24% 6% 32% 28% 1% 2% 2% 0% 100% 66%																																				
16% 27% 10% 35% 21% 1% 0% 2% 4% 100% 16%																																				

RESIDUAL FRASER TSA PROFILE			
Economic Zone			Species Distribution
Good			Species Volume % Dist
41-140 Years	16,600,506		Fd 14,006,709 25%
141+ Years	12,682,955		Ce 3,875,448 7%
Good Total	29,283,461	51%	He 18,215,691 32%
Medium			Ba 14,841,044 26%
41-140 Years	9,207,428		Pine 739,842 1%
141+ Years	9,298,700		Spruce 1,169,611 2%
Medium Total	18,506,128	32%	Cypress 946,990 2%
Poor			Decid 3,279,171 6%
41-140 Years	2,755,539		Check 57,074,507 100%
141+ Years	6,529,378		
Poor Total	9,284,918	16%	

Check 57,074,507

Total Age Class			Slope Criteria
41-140 years	28,563,473	50%	0-30 10,121,380 18%
>140+ years	28,511,034	50%	31-69 36,849,560 65%
Check	57,074,507		>70+ 10,103,566 18%
			Check 57,074,507

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Benchmark 2015 - Licensee Operating Area Analysis Forest Cover Data Sources:

Vegetation Resource Inventory: Attributes projected to 2014

Change Detection Mapping: Denudation current to April 2014 using RESULTS_forest_cover_inv_svw dataset and Landsat imagery

Benchmark 2015 Licensee - Economic Zones	Total Summary					Slope 0-30%													Slope 31-69%													Slope >69%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
	AAC (m³)	Yrs Supply	Total THLB	Total THLB Vol	% Total Vol (m³)	Slope THLB	THLB Volume (m3)								Slope THLB	% of Total Volume	Yrs Supply	Slope THLB	THLB Volume (m3)								Slope THLB	% of Total Volume	Yrs Supply	Slope THLB	THLB Volume (m3)								Slope THLB	% of Total Volume	Yrs Supply																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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Weighted Average Market Value of THLB Volume Position

10,121,380

Source 3month Vancouver Log Price

Western Canadian Timber Products Ltd

Residual TSA Volume Total

10,121,380

Species	%	Volume	\$/m3	Total Value
Fi	29%	2958349	\$ 164.86	\$ 487,713,377.65
Ce	6%	575452.3	\$ 232.55	\$ 133,821,421.92
He	32%	3227935	\$ 58.68	\$ 189,415,239.62
Ba	25%	2488303	\$ 58.68	\$ 146,013,646.02
Pine	1%	130659.4	\$ 49.15	\$ 6,421,909.26
Spruce	1%	150431.1	\$ 64.88	\$ 9,759,968.41
Cypress	1%	120495.9	\$ 122.81	\$ 14,798,107.18
Dec	5%	469753.9	\$ 88.11	\$ 41,390,014.34
Check		10121380		\$ 1,029,333,684.40
			AMV	\$ 101.70

TSA Total

Species	Value	% Dist.
Fd	\$ 164.86	25%
Ce	\$ 232.55	7%
He	\$ 58.68	32%
Ba	\$ 58.68	26%
Pine	\$ 49.15	1%
Spruce	\$ 64.88	2%
Cypress	\$ 122.81	2%
Decid	\$ 88.11	6%
Check		57,074,507
		AMV \$ 99.30