

BCTS Chinook Operating Area**Fraser TSA**

246,745 M3/Yr

Tuesday, September 12, 2017

A General Comments

- 1 Changes in operating area have resulted in an overweight position in volume opportunity within the moderate economic zone.
- 2 Age class opportunity remains marginally higher in the second growth profile as compared to the residual TSA.
- 3 The ground based harvest profile using the slope criteria is only slightly higher than the residual TSA.
- 4 Species distribution is well correlated to the residual TSA.

B BCTS Reservation Volume Summary

The current portion of BCTS Core AAC Fraser allocation based on 8 draft FNWL:

94,300 M3

C Residual Core Allocation

The core aac allocation for BCTS Chinook for this analysis is:

152,445 M3

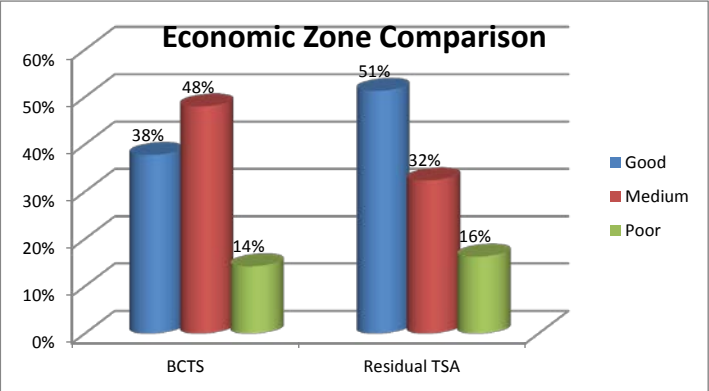
D Comparison Position

	<u>BCTS Chinook</u>	<u>Residual TSA</u>
Total THLB Volume:	11,074,311	57,074,507
AAC Estimate	152,445	1,030,449
% of THLB Volume	19%	100%
% of AAC	15%	100%
Years of AAC	73	55
Other Comparisons Requested by Tenure Holders:		
Ave Market Value	\$ 98.91	\$ 99.30
Volume per THLB Ha	437.9	461.8
% old HB>70%	9%	8%

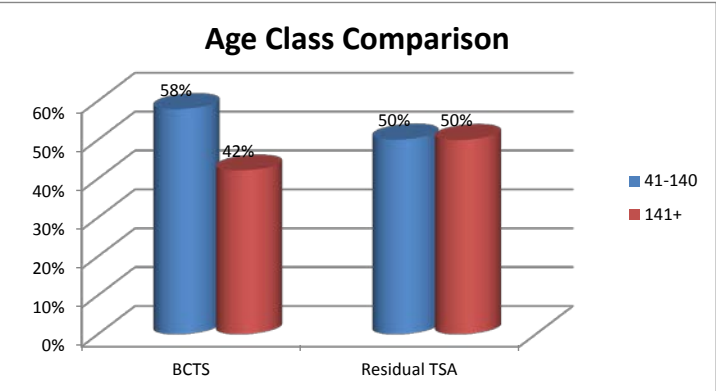
*Residual TSA apportionment estimate D.Campbell**Note: When the BCTS residual TSA volume opportunity is combined with the 4 FNWLs, the combined volume opportunity becomes 68 years of AAC***E Summary:**

Revisions, consolidation and release of BCTS operating areas re-assigned over 9,406 ha of THLB containing over 4 million m3 of volume older than 41 years of age since benchmarking. The current profile as compared to the residual TSA is only marginally overweight in the moderate economic zone, second growth profile and lower slope profile. All other comparative measures are in line with the residual TSA. The overweight in total available volume (estimated at 2.6 million m3) within the Residual TSA should be available for re-distribution if all other factors remain stable and the estimated reservation volumes become established within the FNWLs.

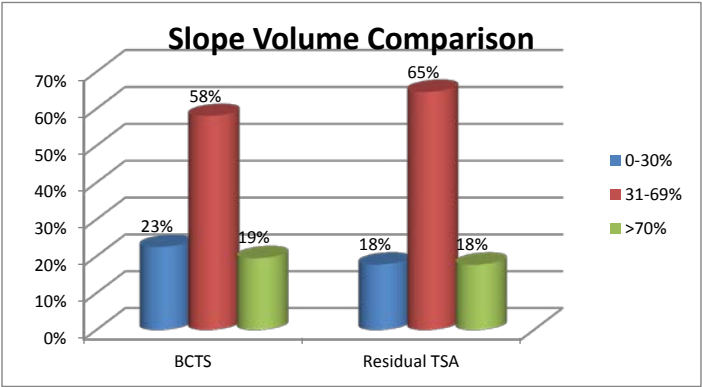
Comparison Graphs - BCTS Chart Areas Compared to Residual Fraser TSA



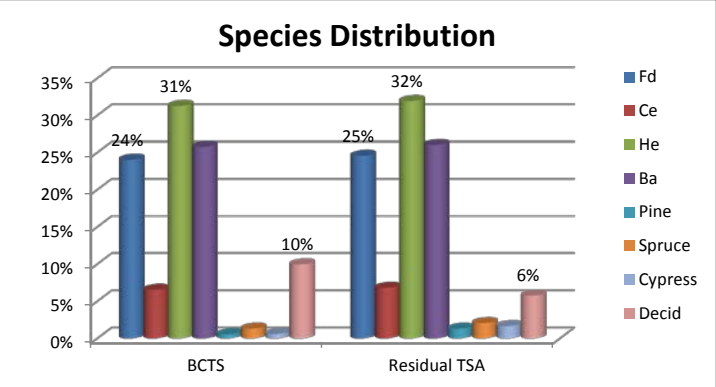
Column1	Column2	Column3	Column4	Column5
Economic Zone thlb Volume				
		Good	Medium	Poor
BCTS		38%	48%	14%
Residual TSA		51%	32%	16%



Column1	Column2	Column3	Column4
Age Class thlb Volume			
		41-140	141+
BCTS		58%	42%
Residual TSA		50%	50%



Column1	Column2	Column3	Column4	Column5
Slope thlb Volume				
		0-30%	31-69%	>70%
BCTS		23%	58%	19%
Residual TSA		18%	65%	18%



Column1	Column2	Column3	Column4	Column5	Column6	Column7	Column8	Column9	Column10
Species thlb Volume Distribution									
		Fd	Ce	He	Ba	Pine	Spruce	Cypress	Decid
BCTS		24%	7%	31%	26%	1%	1%	1%	10%
Residual TSA		25%	7%	32%	26%	1%	2%	2%	6%

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

Change Summary	Total THLB Area	Total THLB Vol	Slope Criteria		
			<30%	31-69%	>70+%
B.C. Timber Sales					
Good - Economic Zone					
41-140 Years	-6,853	-2,637,057	-265,760	-1,846,447	-524,850
141+ Years	-1,540	-990,812	-60,124	-696,162	-234,526
Good - Economic Zone Total	-8,393	-3,627,869			
Medium - Economic Zone					
41-140 Years	253	65,767	-9,257	29,986	45,038
141+ Years	-373	-288,649	-30,953	-261,520	3,824
Medium - Economic Zone Total	-119	-222,882			
Poor - Economic Zone					
41-140 Years	-351	-70,081	-3,256	-54,901	-11,924
141+ Years	-542	-255,740	-40,106	-196,698	-18,937
Poor - Economic Zone Total	-894	-325,821			
B.C. Timber Sales Total	-9,406	-4,176,572	-409,455	-3,025,742	-741,374

check -9,406 -4,176,572 -409,455 -3,025,742 -741,374

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

Check	123,579	57,074,506
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Check	57,074,507
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HB Old 947,550 TSA

Licensee - Geographic Location		2015 Benchmark Details using THLB Volumes																													
		AAC (m³)	Total THLB	Total THLB Vol (m³)	Slope 0-30%								Slope 31-69%								Slope 70+%										
					THLB Volume (m3)								THLB Volume (m3)								THLB Volume (m3)										
					FIR	CEDAR	HEMLOCK	BALSAM	PINE	SPRUCE	CYPRESS	DECID	Volume	FIR	CEDAR	HEMLOCK	BALSAM	PINE	SPRUCE	CYPRESS	DECID	Volume	FIR	CEDAR	HEMLOCK	BALSAM	PINE	SPRUCE	CYPRESS	DECID	Volume
B.C. Timber Sales	246,745																														
Good - Economic Zone																															
41-140 Years	14,765	5,786,514		495,915	85,599	448,874	135,655	5,787	2,015	1,627	273,492	1,448,964	1,469,909	200,270	955,583	273,515	16,031	2,448	5,111	475,170	3,398,037	448,957	63,632	256,114	70,324	2,164	214	1,401	96,708	939,514	
141+ Years	3,235	2,023,044		63,126	19,234	87,365	57,785	1,599	185	19,179	3,428	251,901	184,718	119,926	466,737	377,567	686	2,197	35,019	6,008	1,192,857	94,596	78,733	239,808	151,236	391	455	12,424	644	578,287	
Good - Economic Zone Total	17,999	7,809,559		559,041	104,833	536,239	193,440	7,386	2,200	20,806	276,920	1,700,865	1,654,627	320,196	1,422,320	651,082	16,716	4,645	40,130	481,178	4,590,893	543,553	142,365	495,923	221,560	2,556	668	13,825	97,352	1,517,801	
Medium - Economic Zone																															
41-140 Years	8,193	2,571,364		63,240	15,174	127,429	158,185	1	1,791	594	36,297	402,711	401,665	76,580	564,562	545,088	15	3,484	1,361	161,228	1,753,982	144,843	25,196	149,956	68,174	39	60	309	26,094	414,670	
141+ Years	4,353	2,969,496		17,747	7,474	98,420	88,201	156	1,202	1,229	21	214,450	139,629	70,017	740,628	902,466	106	3,810	14,124	940	1,871,719	90,135	58,756	403,624	323,920	0	517	5,571	805	883,327	
Medium - Economic Zone Tot	12,546	5,540,860		80,987	22,648	225,849	246,386	156	2,992	1,823	36,318	617,160	541,294	146,597	1,305,190	1,447,554	121	7,294	15,485	162,167	3,625,702	234,977	83,952	553,579	392,095	39	576	5,879	26,899	1,297,998	
Poor - Economic Zone																															
41-140 Years	1,861	695,286		250,058	24,721	18,486	13,241	11,352	1,243	5	12,352	331,457	216,070	17,757	10,835	33,095	39,629	479	19	22,472	340,355	14,743	213	1,346	3,431	3,399	137	3	201	23,474	
141+ Years	2,292	1,205,179		29,891	17,085	70,566	98,075	3,447	32,192	1,835	5	253,097	215,637	38,019	254,421	246,238	20,543	105,080	14,405	897	895,240	19,980	870	11,535	17,507	1,056	5,057	565	272	56,842	
Poor - Economic Zone Total	4,152	1,900,465		279,949	41,807	89,051	111,316	14,799	33,435	1,840	12,358	584,554	431,707	55,776	265,256	279,332	60,172	105,559	14,424	23,368	1,235,595	34,723	1,083	12,881	20,939	4,455	5,194	568	473	80,316	
B.C. Timber Sales Total	34,698	15,250,883		919,977	169,287	851,131	551,142	22,341	38,627	24,469	325,595	2,902,579	2,627,628	522,569	2,992,765	2,377,968	77,009	117,499	70,039	666,714	9,452,190	813,254	227,399	1,062,383	634,593	7,050	6,439	20,273	124,723	2,896,114	

Yrs

62

Weighted Average Market Value of THLB Volume Postion

11,074,311

Source 3month Vancouver Log Price

BC Timber Sales

BCTS Residual TSA Volume Total

11,074,311

Species	%	Volume	\$/m3	Total Value
Fi	24%	2660092	\$ 164.86	\$ 438,542,789.32
Ce	7%	724173	\$ 232.55	\$ 168,406,428.10
He	31%	3460653	\$ 58.68	\$ 203,071,138.12
Ba	26%	2853130	\$ 58.68	\$ 167,421,665.50
Pine	1%	60948.35	\$ 49.15	\$ 2,995,611.37
Spruce	1%	144233.7	\$ 64.88	\$ 9,357,880.47
Cypress	1%	69101.07	\$ 122.81	\$ 8,486,302.81
Dec	10%	1101980	\$ 88.11	\$ 97,095,454.94
<i>Check</i>		<i>11074311</i>		\$ 1,095,377,270.65
			AMV	\$ 98.91

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%
<i>Check</i>		<i>57,074,507</i>
		AMV \$ 99.30