

Rationale for Amendment #1 of Zeballos FSP November 2006

This document was originally prepared in May, 2006 and was part of the public review package posted on the Internet. It has been revised to reflect comments received and resulting changes to the FSP submitted for approval in November 2006.

The Zeballos FSP was approved in September 2005. Although the current amendment proposes changes, these are primarily significant only in format and structure. With minor exceptions the intent of the undertakings, results, strategies, and measures in Amendment #1 remains as originally approved. Structural and format changes are intended to improve the legal context and make the document easier to cross-reference from within cutblock and road site plans. Where possible, objectives and the explanations supporting results or strategies have been removed from the forest stewardship plan. This material is included in the supporting documents accompanying the original submission and thus repetition in the revised FSP text is unnecessary. These objectives, and new additions, are readily available at <http://www.for.gov.bc.ca/dcr/Stewardship.htm>. Thus the FSP text is primarily of interest to government C&E personnel. Others more interested in understanding a specific FRPA objective, reasoning for an associated result or strategy, and details of implementation intentions will be more interested in referring to the original supporting documents or, for additions, to this rationale.

The most significant of the changes proposed is to expand the area of the Zeballos FSP to include the surrounding operating areas, formerly called Nootka Region, and rename the plan the “Nootka FSP”. Maps and additional FDU’s have been added to accommodate this and replace the maps in the original FSP submission. Strategies referring to amount of area have been revised to accommodate the larger plan area.

For reference, material changes unrelated to structure and format are indicated in the pdf file “Nootka FSP – track changes from Zeballos FSP”. Similarly, recent changes occurring since the conclusion of the review and comment period are indicated in the pdf file “Nootka FSP – track changes from Nootka FSP review & comment draft”.

As noted above, although overall changes are minor, there are some changes that may have altered the intent of the original strategy to varying degrees. There are also additions to address objectives that were not applicable to the original Zeballos area or to address resources without legalized objectives. These changes are described and explained below:

1. A “Definitions” section was added. Most of the definitions included are related to the structural changes and streamlining and do not affect the original intent. For example, the abbreviations for the Act and regulations now refer to the date of original plan submission rather than referencing at each occurrence in the text the specific date (e.g. “December 14, 2004”) of enactment.

The “Date of Submission” definition clarifies that the actual date depends on the context of its use, with the Date of Submission being January 13, 2005 for the Zeballos Operation and the date of this amendment (#1) submission for the remainder of the Nootka operating areas.

2. Section 2.3 (2.2 previously) was altered to recognize that, in a manner similar to the previous paragraph, that the cutblocks and roads remaining under Code jurisdiction are based on a different date depending on location.
3. The change to Section 3.0 (3.0 & 4.0 previously) is basically a request to extend the term under FRPA s. 6(2) such that the 5 year term recommences on the date of approval of this amendment (#1) request. The Licensees are requesting an extension of the term of the plan under FPPR s. 28 by an amount of time equivalent to the interval between the original approval of the Zeballos FSP (September 15, 2005) and the approval of this amendment (#1) incorporating the remainder of the Nootka operating areas. This makes administrative sense as the smaller Zeballos pilot area is being absorbed into the larger Nootka operating area. In effect, the extension interval would apply only to the Zeballos operating area. With respect to FPPR 28(b), results and strategies have been revised to reflect recent GAR orders establishing visual quality and fisheries sensitive watershed objectives applicable to the Zeballos operating area; other results and strategies continue to be consistent with prior established objectives.
4. Section 4.1 is added (Figure 1 previously) to accommodate the FDUs being added by this amendment. Proposed FDU “716” is to include remaining operable timber in Timber Licence TO716 in the Tahsish Landscape Unit that has recently been acquired from Canfor. Proposed FDU “28” is a special case to allow for adoption of FSP stocking standards on old obligations remaining in Bill 28 takeback areas. Secondly FDU 28 will accommodate, as per WFP agreements with BCTS and MoFR during takeback discussions, harvesting to natural topographic breaks of those portions of cutblocks that extend out of adjacent FDUs and into FDU 28. This is particularly the case along the boundary of TO844. As per the takeback agreement, the signatory Licensees to this plan do not anticipate locating new cutblocks entirely within FDU 28.
5. With respect to Section 4.3 (5.3 previously), mapping is updated to reflect designations (Nootka trail sensitive area, WHAs, McKelvie community watershed) located in the added FDUs.
6. Section 5.4 was added to the Non-Spatial Old Growth strategy (6.1.1 previously) in anticipation of the completion of OGMA planning. The supporting table is revised to add new landscape units and is attached as Appendix 1 of this document.
7. The strategy (6.1.2, Obj. 1 previously) referring to FPPR s. 66 and 68 and addressing VILUP Objective 1(b) for SMZs was split into its two components. The part concerning WTR% refers to the applicable Section of the FSP rather than FPPR s. 66, as a conditional exemption to s.66 is being proposed with this amendment. We have also altered the wording to ensure that the 7% WTR is applicable to the cumulative cutblock average in each SMZ to better reflect the intent of VILUP Objective 1b. Otherwise, the FPPR s. 66 wording would have allowed reduced WTR% in the SMZ provided it was compensated for elsewhere within the License. Note that this eventuality was possible with the previously approved wording as well.
8. Sections 5.9 and 5.10 were added to address VILUP Order objectives 4 and 5 for SMZ 11:

B. For ... parts of Special Management Zones...11, which are located within landscape units with higher biodiversity emphasis,...:

4. *Maintain late-successional habitat elements and attributes of biodiversity in forested ecosystems with emphasis on regionally rare and underrepresented ecosystems, by retaining old seral forest at the site series/surrogate level of representation.*

where,

“late-successional habitat elements and attributes of biodiversity” includes, but is not limited to: large diameter (> 60 cm) live, decaying and dead standing trees (providing nest and cavity sites); downed wood, including large diameter pieces (50 to 150 cm); deciduous broad-leaved trees, both in riparian and upland areas, and

The level of representation of old seral forest will be applied through landscape unit planning.

5. *Retain late-successional habitat elements and attributes of biodiversity in patches of variable size.*

The strategy commits the Lead Licensee to complete landscape unit planning within the portion of SMZ 11 within the plan area. The second part of the strategy commits the Licensee in the relatively short interim period to ensure that stand level retention associated with cutblocks over-represents those sites series that are most likely to be uncommon and/or rare. Over-representation of the highest productivity site series should ensure that these stand level reserves also include large diameter trees and associated snag, cavity, and nest potential. Deciduous trees are most likely associated with riparian areas and are of little timber interest unless widespread, so should be well protected with existing riparian provisions.

9. Section 5.14 and 5.15 were added to address those objectives associated with the Nootka Trail sensitive area which are within the control of the Licensee, specifically numbers 1 and 4 below. Objectives for the sensitive area are:

1. *Maintain a wilderness setting for the trail located along the west coast of Nootka Island between Ferrer Point and Yuquot/Friendly Cove.*
2. *Ensure that any proposed trail construction and maintenance is generally consistent with a wilderness setting and allows for reasonable access and public safety.*
3. *Provide for non-exclusive recreational use of the trail area.*
4. *Maintain the visual quality of known scenic areas in accordance with the recommended visual quality classes in the visual landscape inventory, until the district manager establishes visual quality objectives for this area.*

10. The timber objective (6.2.2 previously) was refined:

- a. for Sections 5.17 and 5.18, to separate the TFL and TSA portions of the area accounting. Note that with respect to the TSA THLB, the original triggering point was based on the TSR II dataset. This has been revised to be consistent with the spatial THLB defined for TSR 3 that became the basis of the Chief Forester’s AAC determination. Both summaries have been adjusted to reflect Bill 28 “take back” and various recent reductions in THLB.
- b. with respect to Section 5.17, to restate the “-0.5%” for simplicity as an actual amount of THLB lost.

11. As the government has recently issued an Order establishing Ungulate Winter Ranges (UWRs) in the Strathcona Timber Supply Area and UWRs were previously established for TFL 19, there

is no need for the FSP to speak to UWRs as the Orders exempted Licensees from this requirement. Instead the Licensees are obligated to follow the requirements set out in General Wildlife Measures (GWMs) associated with the Orders. Thus Sections 5.22 and 5.23 are redundant. However, these Sections are retained in the text to identify that obligations exist nonetheless and to preserve Section numbering consistency to allow cross referencing to site plans as per current corporate procedures.

12. The Marbled Murrelet habitat strategy (6.2.3 previously) set out in 5.25 follows the same intent of the currently approved version, but recognizes the imminent completion of the Marbled Murrelet habitat inventory project by setting out the actual number of hectares to be maintained. With respect to the THLB portion of this amount, the strategy recognizes that agreement of all tenure holders in the Forest District on the amount to be allocated among Licensees for murrelets and other species will be needed.

In the meantime the signatory Licensees will rely on an arbitrary and precautionary THLB amount of 700 ha - almost half of the amount for the entire Forest District. FRPA Bulletin #3-Q9 has suggested that proportional targets may be appropriate in similar circumstances where habitat within a single Licensee's tenure is insufficient to meet District targets or concentration within one or a few tenures is undesirable. Discussions with MoE personnel also suggested that proportioning was an acceptable approach. The easiest calculation is a proportional allotment based on total hectares of plan area over total District area ($294,649.6/1,754,904 = 17\% = 240$ ha). However, a proportion based on total forested area, total old growth area, THLB area, MMRT modeling, local inventory (requires detailed mapping of entire District), or some other proportion may provide more effective distribution of habitat. For example, based on MMRT modeling, 23% of MaMu habitat occurs within the FSP, suggesting a proportional allotment of the THLB about of 333 ha. By defaulting to a precautionary amount, the signatory Licensees are encouraged to reach agreement with other tenure holders in the District so that local THLB impact can be equitably minimized. However if other tenure holders commit and gain approval to a less than an equitable proportion in their FSPs, then they will have no incentive to reach agreement with the signatories to this plan. In this instance, and if past experience is any example, government may expect the Lead Licensee to make up any District habitat shortfall. In any case, as there is ample habitat available in the short term there is no immediate threat to meeting government habitat goals in the areas around Nootka Sound.

Failing all of the above, the strategy recognizes that the DDM may allocate an amount to this FSP that supersedes all other THLB amounts.

13. Section 5.34 was added to recognize the McKelvie Creek community watershed and the need to address the FPPR s. 8.2 objectives, specifically:
 2. *The objective set by government for water being diverted for human consumption through a licensed waterworks in a community watershed is to prevent to the extent described in subsection 3 the cumulative hydrological effects of primary forest activities within the community watershed from resulting in*
 - a. *a material adverse impact on the quantity of water or the timing of the flow of the waterworks, or*
 - b. *the water from the waterworks having a material adverse impact on human health that cannot be addressed by water treatment required under*
 - i. *an enactment, or*
 - ii. *the licence pertaining to the waterworks.*
 3. *The objective set by government under subsection 2 applies only to the extent that it does not unduly reduce the supply of timber from British Columbia's forests.*

This strategy follows a similar format to the approved strategies for dealing with cumulative harvesting impacts (e.g. FSW strategy; maximum cutblock size strategy) and requires professional assessment of impact if proposed harvesting will affect a low-risk disturbance threshold. The thresholds are more conservative than elsewhere in the plan to recognize that a higher level of precaution is warranted where human health may be involved. As noted elsewhere, the Lead Licensee is undertaking a watershed inventory that will provide watershed specific hazard and risk evaluation and allow for better refinement of procedures in this and all watersheds.

14. Section 5.37 adjusts the earlier approved strategy for harvesting adjacent to another cutblock (6.2.6.2 previously) to also allow for harvest of leave strips less than 40 ha in size but contributing to a not-greened up area greater than 40 ha. Although substantially rewritten, there is no change in intent from the originally approved wording.

The cross linkages in regulation are convoluted and when combined with the linkages in this plan may be difficult to follow. Section 5.37 is best understood by working through it with examples, but the following paragraph attempts to paraphrase the intent by reducing cross reference numbering.

This result addresses patterns of natural disturbance and applies in respect of conditional exemption from the adjacency requirements under FPPR 12.4(2) by replacing FPPR 65(2).

Harvesting adjacent to another cutblock will be as per the adjacency requirements, except that each Licensee must not harvest timber on a new cutblock, unless at least one of the following applies:

- a) the combined area of the new cutblock and any not greened-up areas that are immediately adjacent to the new cutblock does not exceed 40 ha [same as 65(2)(b)],
- b) all existing cutblocks that are adjacent to the new cutblock have >40% BA retention or conform to 65(3) [i.e. 65(2)(a)]
- c) the cutblock is for salvage or is a VR block,
- d) if in EFZ, the new cutblock may be >40 ha if non-timber aspects are taken care of,
- e) the new cutblock may be >40 ha if wildlife reserves are established and the patch created is consistent with patch size distribution, **OR**
- f) the <40 ha cutblock plus adjacent not-greened up areas exceed 40 ha if wildlife reserves are established and the combined area is consistent with patch size distribution.

15. Section 5.39 was added to change the way the 7% annual wildlife tree retention requirement is administered. To take advantage of market conditions or adjust to other operational constraints Licensees may routinely alter cutblock harvesting sequences on short notice. Should a change in sequence near the fiscal year end result in the WTR% being below the target a Licensee may miss an opportunity or be constrained unnecessarily, or have to add retention area at the last moment in a hasty manner and perhaps ill-conceived location or configuration. Once the originally planned cutblock is harvested in the following year and the originally planned reserves are retained, the WTR% would have been back as originally planned as well. Thus it seems silly to alter the planning at the last minute to achieve the WTR% target at a biologically arbitrary point in time. Thus the Licensee proposes to maintain a cumulative average of WTR% and maintain this amount at or above the 7% threshold at all times. The Licensees will create operational flexibility for themselves by establishing a WTR% buffer in the initial cutblocks. For the Licensee this means that the buffer WTR amount need only be established once rather than every year, and from the perspective of C&E would allow inspection at any point in time rather than only at year end.

A second difficulty relates to the definition of “completes harvesting” in FPPR s. 66. There are various points in the harvesting sequence that might be interpreted to be harvest completion (prime yarding complete, prime loading complete, completed waste survey, salvage complete, deactivation, etc.) and these actions might be manipulated at fiscal year end to include or exclude specific cutblocks. Thus we are proposing to use the date of cutting permit submission to assess this practice. From a Licensee perspective this focuses this activity at the planning stage where it is more appropriately and unambiguously addressed.

16. Section 5.42(e) was modified to increase the number of cedar trees with monumental potential set aside, to reflect the inclusion of the Mowachaht/Muchalaht traditional territory and recent historical use of cedar. Records indicate that seven large cedar logs were used by the Mowachat/Muchalat over the past ten years or an average of 0.7 logs per year. Note that a single monumental tree may provide more than one log, but for the purposes of this calculation the most conservative assumption of one log per tree (arbitrarily 5m X 100 cm or approximately 4 m³/log) is assumed. Therefore for the anticipated 5-year term of the plan, the number of cedar trees set aside is increased by 4 trees (5 X 0.7). Considering rounding and the approximate one year extension of the plan for the Zeballos area the indicated amount of 24 cedar trees is rounded up to 25. The following table provided previously as supporting information is updated to include requests, donations and free use permits issued to First Nations over the past ten years as an indication of demand.

First Nation	1996 - 2005				
	Intended Use	logs	m ³	average log size (m ³)	# CE/CY > 4 m ³ /piece
Ehattesaht	canoes	3	19.6	6.5	3
	canoe	3	-	-	3
	carving	3	14.2	4.7	3
	carving	10	21.2	2.1	-
	carving	1	-	-	1
	herring roe (hemlock)	8	32.0	4.0	-
	paddles (CY)	15	3.0	0.2	-
	paddles (yew)	3	3	1.0	-
	siding	1	2	2.0	-
	longhouse (DF or CE)	50	40	0.8	-
	firewood		~150		-
Nuchatlaht	canoes	5	21.6	4.3	3
	canoe	1	-	-	1
	longhouse	6	18.3	3.1	-
	cultural building	25	10	0.4	-
	carving	1	3.2	3.2	-
Ka;'yu:'k't'h/Che:k:tle	canoes	1	12.5	12.5	1
	herring roe (hem/bal)	12	48	4.0	-
	carving (CY)	3	4	1.3	-
	carving (yew)	9	2.5	0.3	-
Mowachaht/Muchalaht	DF logs for big house	40	164.0	4.1	-

	welcome pole	1	2.5	2.5	-
	canoe logs	4	50.0	12.5	4
	other cedar logs	3	-	-	3
	boomsticks	2	6	3.0	-

Using the revised table, the indicated demand for “monumental” cedar has been 22 trees or 2.2 trees per year. This translates into 11 trees over five years and making adjustments for the proposed one year extension of the term for the Zeballos portion of the plan, calculates out to $7/10 \times 5$ (Mowachaht/Muchalaht) + $15/10 \times (5+1)$ (others in Zeballos area) = 13 trees. Recognizing that in the Table above only 13 logs are indicated and canoe logs of unknown dimension are presumed large, and recognizing that a single tree may provide more than one cultural log, the 25 trees calculated above and used in the strategy provides a significantly more generous estimate than actual demand. Thus uncertainties such as a possible modest increase in demand and/or possible undocumented donations that may have occurred over the last decades are allowed for. It is also noted that the cultural use estimate is based on pre-Bill 28 takeback area and the area under Licence providing cultural logs will be reduced going forward. Thus the commitment of 25 trees has a considerable buffer built into it.

The tables below update the cedar inventory associated with each traditional territory within the Zeballos FSP and replaces the original tables provided with the supporting information accompanying the original submission of the Zeballos FSP. With the inclusion of Mowachaht/Muchalaht traditional territories cedar standing inventory in older age classes exceeds 44 million cubic metres.

First Nation	Age Class	Area (ha)		Volume (m³)		Totals	
		THLB	NCLB	THLB	NCLB	(ha)	(m³)
Ehattesaht	1-3	3,547	138	122,971	11,619	3,685	134,590
	4-6	209	100	77,444	21,911	309	99,356
	7-9	5,313	8,594	3,007,877	3,024,557	13,907	6,032,434
	Total	9,069	8,832	3,208,293	3,058,087	17,901	6,266,379
Ka;'yu:'k't'h/Che:k:tle	1-3	7,776	472	223,519	61,879	8,249	285,398
	4-6	110	68	42,251	15,482	178	57,733
	7-9	6,989	27,136	4,387,414	10,754,564	34,126	15,141,978
	Total	14,876	27,677	4,653,184	10,831,925	42,553	15,485,109
Nuchatlaht	1-3	1,678	52	17,122	5,888	1,730	23,009
	4-6	20	135	9,214	47,820	155	57,034
	7-9	1,463	7,177	830,786	2,516,380	8,640	3,347,166
	Total	3,161	7,364	857,122	2,570,088	10,525	3,427,210
Mowachaht/Muchalaht	1-3	6,592	607	172,944	18,348	7,199	191,292
	4-6	1,615	1,076	633,590	380,354	2,691	1,013,943
	7-9	17,107	28,198	9,890,597	10,462,698	45,305	20,353,295
	Total	25,314	29,880	10,697,130	10,861,400	55,195	21,558,530

FDU	Age Class	Area (ha)		Volume (m³)		Totals	
		THLB	NCLB	THLB	NCLB	(ha)	(m³)
716	7-9	216	80	34,204	11,718	297	45,922
	Total	216	80	34,204	11,718	297	45,922

FDU	Age Class	Area (ha)		Volume (m³)		Totals	
		THLB	NCLB	THLB	NCLB	(ha)	(m³)
a	1-3	190	31	1,373	1,003	221	2,377
	4-6	7	17	889	1,495	24	2,384
	7-9	301	230	85,945	49,508	531	135,453
	Total	498	278	88,207	52,007	775	140,214
b	1-3	547	83	2,198	352	630	2,550
	4-6	10	7	1,180	441	16	1,622
	7-9	3,174	1,605	701,885	281,725	4,779	983,610
	Total	3,731	1,695	705,263	282,519	5,426	987,782
c	1-3	942	125	8,500	1,394	1,067	9,893
	4-6	14	11	3,502	2,977	26	6,479
	7-9	2,546	1,900	604,703	340,639	4,446	945,342
	Total	3,503	2,036	616,705	345,010	5,539	961,715
d	1-3	3	4	0	99	7	99
	4-6	41	33	4,976	3,731	74	8,707
	7-9	818	795	180,446	129,943	1,613	310,389
	Total	861	832	185,422	133,772	1,694	319,195
e	1-3	251	30	1,224	3,784	281	5,008
	4-6	20	9	6,140	3,190	29	9,331
	7-9	1,118	1,610	321,260	325,396	2,728	646,656
	Total	1,388	1,649	328,624	332,371	3,038	660,995
f	1-3	617	53	10,975	1,373	670	12,348
	4-6	7	2	467	126	8	593
	7-9	867	458	222,858	89,838	1,325	312,696
	Total	1,491	513	234,300	91,337	2,003	325,637
g	1-3	351	38	5,230	763	389	5,992
	4-6	7	22	579	1,595	29	2,174
	7-9	232	1,391	52,716	229,993	1,623	282,708
	Total	590	1,451	58,524	232,350	2,040	290,875
h	1-3	427	28	4,050	172	455	4,222
	4-6	24	31	1,155	1,621	55	2,776
	7-9	272	475	69,148	92,192	747	161,340
	Total	723	534	74,353	93,985	1,257	168,338
j	1-3	786	134	1,948	440	920	2,388
	4-6	9	5	1,052	509	14	1,561
	7-9	1,382	1,438	356,247	255,460	2,820	611,707
	Total	2,178	1,576	359,247	256,409	3,754	615,656
k	1-3	308	26	6,568	570	334	7,139
	4-6	7	0	972	0	7	972
	7-9	1,133	1,251	356,599	239,838	2,384	596,437
	Total	1,447	1,278	364,140	240,409	2,725	604,548
m	1-3	435	53	7,796	916	488	8,712
	4-6	0	2	22	54	3	76
	7-9	188	750	49,500	142,463	938	191,964

FDU	Age Class	Area (ha)		Volume (m³)		Totals	
		THLB	NCLB	THLB	NCLB	(ha)	(m³)
	Total	623	805	57,318	143,434	1,428	200,752
n	1-3	325	39	1,705	204	363	1,909
	4-6	0	1	10	166	2	176
	7-9	536	906	123,102	153,595	1,441	276,698
	Total	860	946	124,818	153,965	1,806	278,782
o	1-3	84	9	33	4	94	38
	4-6	0	0	52	44	1	96
	7-9	166	334	23,880	45,725	500	69,606
	Total	251	344	23,966	45,773	594	69,739
p	1-3	25	4	1	0	29	1
	7-9	108	80	24,178	11,287	187	35,465
	Total	132	84	24,179	11,287	216	35,466
y	1-3	47	7	422	3	54	425
	7-9	44	101	5,820	11,038	145	16,858
	Total	91	108	6,242	11,041	200	17,283
z	1-3	1	0	1	0	1	1
	7-9	273	178	41,697	23,830	450	65,527
	Total	273	178	41,698	23,830	451	65,528
A	4-6	55	1	5,567	154	56	5,721
	7-9	499	589	127,219	79,275	1,088	206,494
	Total	554	590	132,786	79,429	1,144	212,215
B	1-3	545	32	9,357	411	577	9,769
	4-6	157	8	18,743	745	165	19,489
	7-9	1,196	754	199,937	96,820	1,949	296,757
	Total	1,898	793	228,037	97,977	2,692	326,014
D	4-6	4	2	460	227	6	687
	7-9	60	75	8,428	8,577	135	17,005
	Total	64	77	8,888	8,804	141	17,692
E	1-3	18	2	54	2	20	56
	4-6	68	51	5,782	4,272	119	10,054
	7-9	358	647	54,610	88,607	1,004	143,217
	Total	444	700	60,445	92,881	1,143	153,327
F	1-3	251	33	3,364	943	284	4,307
	4-6	101	40	8,882	2,011	142	10,892
	7-9	1,320	1,327	265,588	179,530	2,646	445,117
	Total	1,672	1,400	277,834	182,484	3,072	460,317
G	1-3	34	6	21	5	40	25
	4-6	42	17	5,013	1,563	59	6,576
	7-9	994	810	195,114	99,759	1,804	294,872
	Total	1,070	832	200,148	101,326	1,902	301,474
H	1-3	173	12	1,102	103	185	1,205
	4-6	16	8	3,538	732	24	4,270

FDU	Age Class	Area (ha)		Volume (m³)		Totals	
		THLB	NCLB	THLB	NCLB	(ha)	(m³)
	7-9	928	501	191,197	65,843	1,429	257,040
	Total	1,117	521	195,837	66,678	1,638	262,515
I	1-3	178	16	5,428	740	194	6,168
	4-6	131	25	14,101	3,247	156	17,348
	7-9	419	540	76,124	82,026	959	158,150
	Total	729	581	95,652	86,013	1,310	181,665
J	1-3	174	14	286	11	188	297
	4-6	190	123	17,129	11,050	313	28,178
	7-9	1,395	1,919	264,611	212,500	3,315	477,111
	Total	1,759	2,057	282,025	223,561	3,816	505,586
K	1-3	138	6	687	62	144	750
	4-6	123	163	10,623	13,604	286	24,227
	7-9	1,030	1,591	187,350	212,705	2,621	400,055
	Total	1,291	1,760	198,660	226,371	3,051	425,032
L	1-3	190	21	11,316	1,695	211	13,010
	4-6	2	5	177	300	7	477
	7-9	255	502	47,194	81,581	757	128,775
	Total	447	528	58,687	83,575	975	142,262
M	1-3	30	1	0	0	31	0
	4-6	0	1	1	74	1	75
	7-9	234	153	37,329	21,939	387	59,269
	Total	264	154	37,330	22,013	419	59,344
N	1-3	132	4	136	27	136	163
	4-6	1	3	100	246	4	346
	7-9	381	639	68,916	99,453	1,020	168,374
	Total	514	646	69,152	99,726	1,160	168,883
O	1-3	2	0	0	0	2	0
	7-9	430	394	74,853	47,180	823	122,037
	Total	431	394	74,853	47,180	825	122,037
P	1-3	138	5	118	12	143	131
	4-6	7	18	599	1,482	25	2,081
	7-9	1,055	1,452	192,320	201,938	2,506	394,258
	Total	1,200	1,475	193,038	203,433	2,675	396,470
Q	1-3	59	3	77	86	62	163
	4-6	259	254	24,447	18,075	513	42,522
	7-9	915	1,221	177,460	161,098	2,136	338,558
	Total	1,233	1,478	201,985	179,259	2,711	381,244
R	1-3	204	27	490	686	230	1,176
	4-6	3	8	284	840	11	1,123
	7-9	549	649	99,582	90,514	1,198	190,096
	Total	755	684	100,355	92,040	1,439	192,395
S	1-3	241	2	3,337	0	243	3,337

FDU	Age Class	Area (ha)		Volume (m ³)		Totals	
		THLB	NCLB	THLB	NCLB	(ha)	(m ³)
	4-6	94	6	9,696	607	100	10,303
	7-9	416	156	84,423	25,479	571	109,902
	Total	751	163	97,457	26,086	914	123,543
T	1-3	75	1	3,672	6	76	3,678
	4-6	7	1	655	95	8	750
	7-9	811	218	177,833	33,422	1,029	211,255
	Total	893	220	182,160	33,523	1,113	215,682
U	1-3	148	5	229	6	153	235
	4-6	15	0	1,237	28	15	1,266
	7-9	276	273	63,520	40,714	549	104,233
	Total	439	279	64,986	40,748	718	105,734
V	1-3	56	1	985	52	57	1,036
	4-6	36	3	3,485	247	39	3,732
	7-9	158	98	25,701	14,557	255	40,259
	Total	249	102	30,171	14,856	351	45,027
W	1-3	70	2	61	5	72	67
	4-6	48	67	3,876	4,149	115	8,025
	7-9	282	728	45,259	99,580	1,010	144,839
	Total	401	797	49,196	103,734	1,198	152,930
X	1-3	95	4	392	26	100	418
	4-6	1	1	47	63	1	110
	7-9	512	577	83,134	68,961	1,089	152,101
	Total	608	582	83,574	69,050	1,190	152,629
Y	1-3	46	5	1,015	356	51	1,371
	4-6	151	30	13,448	2,428	181	15,876
	7-9	561	605	97,518	88,225	1,166	185,744
	Total	758	640	111,981	91,010	1,398	202,991
Z	1-3	303	12	7,069	740	315	7,809
	4-6	22	9	2,306	653	30	2,959
	7-9	573	490	106,362	71,835	1,063	178,197
	Total	897	510	115,737	73,228	1,408	188,965
Grand Total		39,295	32,349	6,478,169	4,806,201	71,644	11,284,402

17. Added section 5.43 complements the Cultural Heritage Resource strategy by providing for referrals as had been required by the DDM with the section 112 condition applied to the approval of the Zeballos FSP. The Licensee does not believe that this condition was necessary as it would be at our peril (delayed CPs and RPs) if we did not follow through on our commitment to refer proposed cutblocks and roads well ahead of permit submission. Additionally we are now potentially faced with enforcement action should we inadvertently submit a permit application less than 30 days after referring a proposed cutblock or road to First Nations. Whereas Section 5.43 enshrines the approval condition on the assumption that it would also be imposed on the remainder of Nootka operating areas, Section 5.44 attempts to

remove the unfair enforcement potential of the existing condition as it relates to the minimum 30 day referral period in advance of permit submission.

Hence the signatory Licensees request that on approval of Section 5.43, the condition applied to the original approval of the Zeballos FSP be rescinded under FRPA s. 112(1)(b).

18. VQO Results and Strategy (was Section 6.2.8.1, now Section 5.45)

- a. With the signing of the CRFD VQO Order under GAR on December 14, 2005 portions of the originally approved Result or Strategy became redundant. Specifically the “visual quality requirement” definition was removed from the strategy and the term was replaced by “Visual Quality Objective” to conform with the commonly understood terminology used in the GAR Order.
- b. Further to discussions in late 2005, we have added to the result and strategy to distinguish between significant and secondary viewpoints, determination thereof, and visual quality commitments specific to each type of viewpoint. Although we believe that this concept could be implicit in the originally approved version, this has been added for clarity to recognize that not all viewpoints are created equal and determination of significance is, in practice, not black or white. It was apparent that some confusion existed within (and beyond) our organization regarding how to deal with changing assumptions and use/user characteristics for viewpoints and the impreciseness of classifying these viewpoints. We note that a commitment to address viewpoints other than significant ones goes beyond the minimum requirements set out in FPPR.
- c. other changes were to reduce redundancy and to change the results defined to conform exactly to the VQO definitions provided in FPPR 1.1

19. Section 5.46 for Fisheries Sensitive Watersheds is relatively unchanged. The objectives set out in the order are:

...the objective is to provide, within the normal forest rotation, special management of the amount, timing and distribution of primary forest activities, in order to:

- i. conserve the natural hydrological conditions, natural stream bed dynamics and integrity of stream channels in the Fisheries Sensitive Watershed,*
- ii. conserve the quality, quantity and timing or water flows required by fish in the Fisheries Sensitive Watershed, and*
- iii. prevent the cumulative hydrological effects of primary forest activities in the Fisheries Sensitive Watershed from resulting in a material adverse impact on the fish habitat of the watershed.*

The words “amount and timing” were inserted to reflect these words in the objective, with the belief that the “distribution” aspects are well covered by other aspects of FRPA that ensure dispersal of harvesting activities throughout a watershed.

Note that we continue to be frustrated by the lack of site specificity associated with FSW objectives set by government which make it very difficult to develop meaningful results or strategies that will have real benefits at the level of individual watersheds. To that end we have initiated a watershed inventory of hydrological risk and hazard for all watersheds in our Nootka

operating areas which we hope will better allow us to develop strategies to specifically identify and address local issues affecting the fisheries resource both inside and outside of FSWs.

20. Forest Hydrology

The forest hydrology strategy set out in Section 5.47 indicates the Lead Licensee's intention to complete the hydrological inventory referred to above for the entire plan area. Once complete, Section 5.48 further indicates each signatory Licensee's intent to address site specific high risks that may affect fisheries or other resources throughout the plan area.

Note that the actions set out are not directly associated with an objective(s) set by government. Thus the actions are not results or strategies in the context of FRPA s. 5 and FPPR s.1 and nor should they be subject to enforcement. Although the actions may contribute in practice to achieving part of the FPPR s. 8 objective (conserve water quality and fish habitat at landscape level), it has been suggested¹ that FPPR 8 does not pertain to hydrologic stability or management at the landscape level. As well Section 5.46 was previously approved under the Zeballos FSP as adequately addressing FPPR 8, so further legal commitments ought not to be needed. Note then that these voluntary actions go well beyond minimum FRPA requirements.

Section 5.48 would become a strategy in the context of FRPA s. 5 and FPPR s. 1 with respect to new Fisheries Sensitive Watersheds that may be established, to the degree that it addresses objectives set out in future Orders. Thus this Section is enforceable with respect to new Fisheries Sensitive Watersheds. This Section has not been applied to the Artlish FSW on the premise that the existing approved strategy (Section 5.46) adequately addresses the objectives, the Lead Licensee's proportion of the overall watershed is low, and the plan area contains almost none of the watershed's sensitive fish habitats.

In watersheds or sub-basins where rate-of-harvest is anticipated to have cumulative hydrological effects that would materially affect important fish and their habitat, the Licensee is to limit harvesting to thresholds set by a qualified professional. Where terrain instability is likely and risk of deposition to fish habitat is high, a qualified professional would be consulted to design cutblocks and roads to minimize risk of impact. Where silt is likely to be generated by roads and be harmful, extra care would be employed to prevent its movement to fish habitats. Where erodible exposed soils are likely to impact important fish and their habitat, these soils will be seeded as soon as possible after disturbance to promote prompt revegetation, rather than within the two years window allowable under the practice requirements. (This provision is in effect the same as a conditional exemption, except that FPPR does not contemplate exemptions to FPPR 40.) Where funds are available from government or other sources and projects are of high priority the Licensee would undertake road rehabilitation projects to reduce the likelihood of mass wasting and/or chronic siltation. Some studies have suggested that an over abundance of vigorous, mid seral forest may exacerbate low flows in certain streams. Where this is identified as a problem, Licensees may be able to ameliorate this effect by harvesting in mid seral forests if it is feasible and economic to do so.

¹ in an attachment to an email (December 6, 2005, Subject line: *Additional information to consider - proposed FSW: Vancouver Island*) to coastal FSW stakeholders, the MoE states: "...the objective speaks only to ... riparian areas... at the landscape scale... [not]... managing the condition of forest cover... [The] strategic management of forest cover for the purposes of maintaining hydrologic stability, is not addressed..."

21. Karst

Licensees have and continue to manage karst resources encountered in the vicinity of primary forest activities. The karst strategy reaffirms the Licensees' intentions to identify and protect karst resources they may encounter during cutblock and road layout, but due to the construct of FRPA s. 5 and the FPPR s.1 definition, does not become officially active and enforceable until karst resource features are designated. Although an Order under GAR is expected soon, this strategy documents the Licensee's ongoing efforts and provides public assurance in the interim.

It is hoped that the strategy provided may be sufficient to address objectives, if any, that may be established with the Order, and thus avoid the need for an amendment. However, the adequacy of the proposed strategy is difficult to predict in advance of the text of the actual Order.

Correspondence in response to the review and comment version was received from two parties. The written responses to these submissions and comments in the "tracked changes" version of the final submission indicate the changes made in attempting to address the concerns raised or why some potential alterations were felt unwarranted.

22. Recreation Sites

The recreation site strategy documents the Licensees' ongoing intention to protect, and if desired, maintain the listed sites and potential sites. As with karst resources, the strategy is meant to provide continued assurances to the public that recreation sites will be maintained. Although an Order has been issued for recreation sites and the associated sites are protected via the "do not damage or render ineffective" concept, it is hoped that the provisions of the strategy complement the Order and will be adequate to meet objectives that may be established in future.

23. Invasive Plants Measures (was Section 8.0, now Section 6)

The original version contained a number of commitments that we believe are best left to the realm of voluntary standard operating procedures or guidance-to-staff documents, rather than be subject to compliance and enforcement. Changes include:

- a. Posting on our corporate website has been done. However, given that a number of excellent resources have sprung up in the past two years since the Zeballos plan was advertised, and more are being added every day, it is apparent that the information on our website quickly becomes dated and redundant. Most employees and others would find equivalent or better information more quickly using any of the widely available Internet search engines, hence posting on our site is unlikely to significantly add to public or employee awareness.
- b. Likewise, employee awareness hardly seems like a "practice" that would be worthy of compliance and enforcement actions per se. Education and training is something that we will do voluntarily, as it is in our best interest to do so to improve the likelihood of meeting the objective inherent in FRPA 47 and FPPR 17, and to establish due diligence with respect to various provisions of the measures stated.

- c. Similarly surveys and inspections for invasive plants are more appropriately voluntary actions in support of due diligence for preventing the introduction and spread invasive species. We note that procedures are already being developed to detect invasive species and pass findings on to the MoFR database.
- d. Inspections of illegal yard disposal sites are critical from our perspective to prevent the establishment of invasive plants within our tenures and we will continue to monitor these areas voluntarily. However, these introduction sites and the dumping that occurs there cannot be deemed “likely to be the result of ...[our] forest practices”.

We note that even with these modifications, our measures continue to be tougher and arguably more effective than measures approved to date for all other forest stewardships plans in B.C. With respect to Nootka sound, invasive species are much more problematic elsewhere, including where less stringent measures are approved.

- 24. Section 7.4 has been added to allow for stocking standards approved under the FSP to be applied to old obligations, provided the Licensee provides notice to MoFR via the RESULTS system. The Licensees expect this provision to reduce the need for administrative transactions with government and to simplify surveying procedures. The Licensees do not anticipate any material change to the management of regenerating stands as a result of this provision. WFP remains determined to promptly and effectively reforest harvested areas so as to reduce silviculture liability accounting balances, to create harvesting opportunity by improving green-up, to accelerate deactivation and reduce road under permit, and to improve timber supply and increase our own AAC.

Appendix 1 – Non-Spatial Old Growth Summary

Landscape Unit	FDUs overlapping	Biodiversity Emphasis	Lead Licensee	BEC Variant	Productive Forest Area in FSP (ha)	Old Growth Forest Total in FSP (ha)	FSP Old Target (ha)	Non-Contributing Old in FSP (ha)	Contributing Old to be retained before 2/3 drawdown (ha)	drawdown applies?	younger forest may contribute if necessary	Old Growth Target (%)	Allowable Draw Down to Maintain Timber Supply	Long Term Recruitment of "Less than Old" needed	Short Term Recruitment of Mature needed	RESULT: Min. % Old Growth Retention	THLB old forest potentially required?	
Artlish	m, n, o, p, X	Intermediate	WFP	CWH vm1	1,363.1	565.6	177.2	193.5	-	-	Y	>13%	-	-	-	13.0%	yes	
				CWH vm2	1,618.9	1,217.3	210.5	636.6	-	-	Y	>13%	-	-	-	-	13.0%	-
				MH mm1	439.6	425.2	57.1	283.0	-	-	Y	>19%	-	-	-	-	19.0%	-
Burman	A, B, D, E	Low	WFP	CWH vm1	6,660.3	3,381.6	865.8	1,149.0	-	-	-	>13%	-	-	-	13.0%	-	
				CWH vm2	2,529.7	2,216.4	328.9	867.4	-	-	-	>13%	-	-	-	-	13.0%	-
				MH mm1	457.9	406.3	59.5	210.2	-	-	-	>19%	-	-	-	-	19.0%	-
Eliza	h, l, j, k, m, n, Z	Low	WFP	CWH vh1	3,687.0	1,390.7	479.3	613.9	-	-	-	>13%	-	-	-	-	13.0%	-
				CWH vm1	21,835.3	7,927.0	2,838.6	3,659.0	-	-	-	>13%	-	-	-	-	13.0%	-
				CWH vm2	4,270.4	2,658.7	555.1	1,620.1	-	-	-	>13%	-	-	-	-	13.0%	-
Gold	D, E, F, j, k, m, n, p, Q, y, z	High	WFP	MH mm1	167.3	156.2	21.8	109.0	-	-	-	>19%	-	-	-	-	19.0%	-
				CWH vm1	15,854.6	5,091.5	3,012.4	2,497.3	515.1	-	Y	>19%	-	-	-	-	19.0%	yes
				CWH vm2	14,734.4	10,490.2	2,799.5	4,447.7	-	-	Y	>19%	-	-	-	-	19.0%	-
Kaouk	l, j, k, m, n, o, p, X, Z	Intermediate	WFP	CWH xm2	6,460.7	710.1	839.9	481.3	358.5	-	Y	>13%	-	-	2.0%	11.0%	yes	
				MH mm1	7,517.3	6,773.4	1,428.3	3,337.0	-	-	Y	>28%	-	-	-	-	28.0%	-
				CWH vh1	525.2	74.1	68.3	18.8	49.5	-	Y	>13%	-	-	-	-	13.0%	yes
Kleptee	A, F, G, h, j, k	Low	WFP	CWH vm1	9,932.7	3,072.2	1,291.2	1,790.1	-	-	Y	>13%	-	-	-	-	13.0%	-
				CWH vm2	2,742.8	2,148.5	356.6	1,440.3	-	-	Y	>13%	-	-	-	-	13.0%	-
				MH mm1	496.5	476.9	64.5	370.6	-	-	Y	>19%	-	-	-	-	19.0%	-
Nootka	A, B, c, D, E, F	Intermediate	WFP	CWH vh1	58.6	24.3	7.6	14.4	-	-	-	>13%	-	-	-	-	13.0%	yes
				CWH vm1	7,451.9	4,013.5	968.8	1,085.7	-	-	-	>13%	-	-	-	-	13.0%	-
				CWH vm2	4,493.9	3,623.7	584.2	1,449.6	-	-	-	>13%	-	-	-	-	13.0%	-
Nootka	A, B, c, D, E, F	Intermediate	WFP	CWH xm2	517.1	70.5	46.5	24.3	22.2	Y	-	>9%	66.7%	4.3%	-	4.7%	yes	
				MH mm1	962.6	946.1	125.1	642.5	-	-	-	>19%	-	-	-	-	19.0%	-
				CWH vh1	9,222.5	8,313.6	1,198.9	3,899.0	-	-	Y	>13%	-	-	-	-	13.0%	-
Nootka	A, B, c, D, E, F	Intermediate	WFP	CWH vm1	37,558.1	19,223.2	4,882.6	6,683.5	-	-	Y	>13%	-	-	-	-	13.0%	-
				CWH vm2	3,729.9	2,750.1	484.9	919.7	-	-	Y	>13%	-	-	-	-	13.0%	-

Landscape Unit	FDUs overlapping	Biodiversity Emphasis	Lead Licensee	BEC Variant	Productive Forest Area in FSP (ha)	Old Growth Forest Total in FSP (ha)	FSP Old Target (ha)	Non-Contributing Old in FSP (ha)	Contributing Old to be retained before 2/3 drawdown (ha)	drawdown applies?	younger forest may contribute if necessary	Old Growth Target (%)	Allowable Draw Down to Maintain Timber Supply	Long Term Recruitment of "Less than Old" needed	Short Term Recruitment of Mature needed	RESULT: Min. % Old Growth Retention	THLB old forest potentially required?	
Tahsis	A, G, I, L, Q, R, S, T, U, V, W, y	Low	WFP	CWH vm1	19,052.0	6,146.8	2,476.8	2,838.4	-	-	-	>13%	-	-	-	13.0%	-	
				CWH vm2	9,199.1	6,311.1	1,195.9	4,154.8	-	-	-	>13%	-	-	-	-	13.0%	-
				MH mm1	1,991.5	1,851.4	258.9	1,441.7	-	-	-	>19%	-	-	-	-	19.0%	-
Tahsish	716	Intermediate	WFP	CWH vm1	700.2	690.3	91.0	87.6	3.5	-	Y	>13%	-	-	-	13.0%	yes	
				CWH vm2	498.3	498.3	64.8	130.8	-	-	Y	>13%	-	-	-	-	13.0%	-
				MH mm1	26.0	26.0	3.4	19.5	-	-	Y	>19%	-	-	-	-	19.0%	yes
Tlupana	F, G, h, j, k, p, Q, R, S, T, U, V, W	Intermediate	WFP	CWH vm1	24,595.2	5,553.4	3,197.4	1,574.6	1,622.8	-	Y	>13%	-	-	-	13.0%	yes	
				CWH vm2	9,259.2	6,378.9	1,203.7	2,711.0	-	-	Y	>13%	-	-	-	-	13.0%	-
				MH mm1	1,771.0	1,580.0	230.2	1,140.1	-	-	Y	>19%	-	-	-	-	19.0%	-
Zeballos	G, I, L, n, o, X, y	Low	WFP	CWH vm1	7,114.8	3,219.5	924.9	1,327.1	-	-	-	>13%	-	-	-	13.0%	-	
				CWH vm2	4,962.6	4,052.3	645.1	1,968.0	-	-	-	>13%	-	-	-	-	13.0%	-
				MH mm1	1,484.6	1,452.8	193.0	974.0	-	-	-	>19%	-	-	-	-	19.0%	-
				MH mmp1	32.4	32.4	-	29.4	-	-	-	>0%	-	-	-	-	-	-