

## BEC-Tree Species Description: CWHvm2

Old forests dominate the CWHvm2 landscape (78% of the forested area consists of age class 7-9 forests), with about 11% of the forested area consisting of younger natural stands resulting mostly from landslide and windthrow events. Considerable harvesting has occurred, especially in the southern portions of the variant with about 12% of the forested area consisting of managed immature stands. Some helicopter logging, targeting yellow cedar and western redcedar, has also occurred on the mid and north coast. Old natural stands are western and mountain hemlock – dominated (41%), generally with a yellow cedar (22%), western redcedar (16%), and amabilis fir (16%) component. Sitka Spruce occurs sporadically, decreasing with elevation and Douglas fir occurs only in the southern-most portions of the CWHvm2. Subalpine fir also occurs in some higher elevation valley bottoms subject to cold air drainage. Younger natural stands also tend to be hemlock – dominated, with variable amounts of the other coniferous species, depending on the disturbance history. Some southern (probably) fire-regenerated second growth has a Douglas fir component.

Age class distribution as a % of total forest area [Source: VRIMS 2008]

Stand age class	7-9 natural forest	7-9 harvested forest	4-6 natural forest	4-6 harvested forest	1-3 natural forest	1-3 harvested forest
% of total forest area	78	0	7	0	4	12

Tree species distribution in natural old/mature (age class 7-9) and natural immature (age class 4-6) as a % of the total natural old/mature and natural immature forest cover respectively [Source: VRIMS 2008]

Species	Ba	Cw	Fd	Hw	Yc	Ss
% of total natural old/mature (age class 7-9) forest cover	16	16	10	41	22	1
% of total natural immature (age class 4-6) forest cover	15	9	18	43	10	1

Overall, managed second growth stands contain similar hemlock percentages (37 to 42%<sup>1</sup>) and lower western redcedar (+/- 10%) and yellow cedar (+/- 6%) percentages compared with old growth stands, reflecting the tendency for abundant natural regeneration of hemlock on most sites; western redcedar and yellow cedar regenerate naturally as well but tend to co-dominate or dominate only where they have been planted or where slash burning has occurred. On average, existing second growth stands contain considerably more amabilis fir (31 to 33%) than do the old-growth stands. Douglas fir has been planted on freely drained, warmer sites in the southern CWHvm2; VRIMS data shows second growth

<sup>1</sup> Range of values reflects differences between VRIMS and RESULTS data sources.

stands on average to be 13% Douglas fir while the 1988 to 2007 RESULTS data show only 2 % Douglas Fir in regenerated stands.

% species composition of post-harvested stands [Source: RESULTS 1988-2007]

Species	Ba	Cw	Fd	H	S
% of harvested area	33	22	2	42	1

Most of the harvesting impact in this variant has occurred in the south (Central Coast District and south). Within the 12% of the CWHvm2 in managed second growth, there has been some impact of tree species selection on overall tree species composition at the landscape level. The most dramatic impact has been a decline in yellow cedar (and redcedar to a lesser extent) as well as a significant increase in the amabilis fir component (and Douglas fir component in some areas). There should be greater management emphasis on yellow cedar, and (at lower elevations) redcedar in the future. The continued use of amabilis fir in the CWHvm2 is appropriate and contributes to maintaining diversity in second growth stands.

Author: A. Banner (March 2011)

Note: the above write-up does not account for TFL forest cover/regeneration information. This could impact on the tree species and age class percentages described above.