

TABLE 12. Names and symbols of forested biogeoclimatic units described in this guide

<b>Symbol</b>	<b>Biogeoclimatic unit name</b>	<b>Page #</b>
<b>CDF</b>	<b>Coastal Douglas-fir Zone</b>	
CDFmm	Moist Maritime Subzone	46
<b>CWH</b>	<b>Coastal Western Hemlock Zone</b>	
CWHdm	Dry Maritime Subzone	47
CWHds1	<i>Southern</i> Dry Submaritime Variant	48
CWHds2	<i>Central</i> Dry Submaritime Variant	49
CWHmm1	<i>Submontane</i> Moist Maritime Variant	50
CWHmm2	<i>Montane</i> Moist Maritime Variant	51
CWHms1	<i>Southern</i> Moist Submaritime Variant	52
CWHms2	<i>Central</i> Moist Submaritime Variant	53
CWHvh1	<i>Southern</i> Very Wet Hypermaritime Variant	55
CWHvh2	<i>Central</i> Very Wet Hypermaritime Variant	56
CWHvm1	<i>Submontane</i> Very Wet Maritime Variant	57
CWHvm2	<i>Montane</i> Very Wet Maritime Variant	59
<b>CWHwh1</b>	<i>Submontane</i> Wet Hypermaritime Variant	60
CWHwh2	<i>Montane</i> Wet Hypermaritime Variant	61
CWHws2	<i>Montane</i> Wet Submaritime Variant	62
CWHxm	Very Dry Maritime Subzone	63
<b>ESSF</b>	<b>Engelmann Spruce - Subalpine fir Zone</b>	
ESSFmw	Moist Warm Subzone	65
<b>IDF</b>	<b>Interior Douglas-fir Zone</b>	
IDFww	Wet Warm Subzone	66
<b>MH</b>	<b>Mountain Hemlock Zone</b>	
MHmm1	<i>Windward</i> Moist Maritime Variant	67
MHmm2	<i>Leeward</i> Moist Maritime Variant	68
MHwh	Wet Hypermaritime Subzone	70

TABLE 14. Vegetation table for zonal sites of wet and very wet hypermaritime and very wet maritime CWH variants

Biogeoclimatic Unit		CWHvm1	CWHvm2	CWHvh1	CWHvh2	CWHwh1	CWHwh2	
TREE LAYER	<i>Thuja plicata</i>	■	■	■	■	■	■	western redcedar
	<i>Tsuga heterophylla</i>	■	■	■	■	■	■	western hemlock
	<i>Chamaecyparis nootkatensis</i>		■	■	■	■	■	yellow-cedar
	<i>Abies amabilis</i>	■	■	■				amabilis fir
	<i>Picea sitchensis</i>					■		Sitka spruce
	<i>Tsuga mertensiana</i>		■					mountain hemlock
	<i>Pinus contorta</i>					■		shore/lodgepole pine
	<i>Pseudotsuga menziesii</i>	■				■		Douglas-fir
SHRUB LAYER	<i>Menziesia ferruginea</i>	■			■	■		false azalea
	<i>Vaccinium alaskaense</i>	■	■	■	■	■	■	Alaskan blueberry
	<i>Vaccinium ovalifolium</i>		■	■	■		■	oval-leaved blueberry
	<i>Vaccinium parvifolium</i>	■	■	■	■	■	■	red huckleberry
	<i>Gaultheria shallon</i>	■		■	■	■		salal
	<i>Vaccinium ovatum</i>			■	■			evergreen huckleberry
HERB LAYER	<i>Blechnum spicant</i>	■	■	■	■			deer fern
	<i>Listera cordata</i>						■	heart-leaved twayblade
	<i>Maianthemum dilatatum</i>						■	false lily-of-the-valley
	<i>Cornus canadensis</i>	■	■	■	■			bunchberry
	<i>Rubus pedatus</i>	■	■					five-leaved bramble
	<i>Linnaea borealis</i>			■	■			twinflower
	<i>Polystichum munitum</i>						■	sword fern
	<i>Streptopus roseus</i>		■					rosy twistedstalk
	<i>Coptis aspleniifolia</i>						■	fern-leaved goldthread
	<i>Lysichitum americanum</i>							skunk cabbage
	<i>Dryopteris expansa</i>	■						spiny wood fern
	<i>Clintonia uniflora</i>		■					
MOSS LAYER	<i>Hylocomium splendens</i>	■	■	■	■	■	■	queen's cup
	<i>Plagiothecium undulatum</i>	■		■	■	■	■	step moss
	<i>Rhizomnium glabrescens</i>			■	■	■	■	flat moss
	<i>Rhytidiadelphus loreus</i>	■	■	■	■	■	■	large leafy moss
	<i>Scapania bolanderi</i>			■	■	■	■	lanky moss
	<i>Kindbergia oregana</i>			■	■	■	■	scapania
	<i>Sphagnum girgensohnii</i>			■	■	■	■	Oregon beaked moss
	<i>Pellia neesiana</i>						■	common green sphagnum
	<i>Polytrichum alpinum</i>						■	shiny liverwort
	<i>Rhytidiopsis robusta</i>	■	■	■				stiff-leaved haircap moss
							pipecleaner moss	

## 4.9 CWHvh1 - Southern Very Wet Hypermaritime Coastal Western Hemlock Variant

**DISTRIBUTION:** The CWHvh1 occurs in hypermaritime areas of the south coast. It is restricted to a narrow coastal fringe on the outer coast of Vancouver Island from near Port Renfrew to Quatsino Sound. It widens north of Quatsino Sound, covering the northern end of Vancouver Island. On the mainland it occupies lower elevations along the outer coast from Wells Passage, west of Broughton Island, to Smith Inlet. The elevational limits range from sea level to approximately 200 m (higher in the north).

**CLIMATE** (Table 18): The CWHvh1 is cool with very little snowfall. The proximity to the Pacific Ocean moderates temperatures throughout the year. Fog, cloud, and drizzle are common throughout the year. Precipitation varies widely in this unit, with lowest values occurring in the local rainshadow on the northeastern part of Vancouver Island at Bull Harbour. The highest values occur where air masses lift over steep mountains (e.g., 3943 mm at Port Renfrew).

**VEGETATION** (Table 14): Forests on zonal sites are dominated by Hw, accompanied by Ba, Cw, and minor amounts of Yc (in the northern part). Major understorey species include salal, Alaskan blueberry, red huckleberry, deer fern, *Hylocomium splendens*, and *Rhytidiadelphus loreus*. Evergreen huckleberry is a minor species on zonal sites, but more common on drier sites. It is a good indicator of the CWHvh1. Bog ecosystems occur commonly on subdued terrain.

**DISTINGUISHING ADJACENT UNITS FROM THE CWHvh1** (using zonal sites)

**CWHvm1** - occurs adjacent, inland throughout range; it has:

- rare evergreen huckleberry and Yc; less salal and deer fern
- some Fd on dry south-facing sites

**CWHvh2** - occurs adjacent in the northern limits; it has:

- more Yc, Pl, less Ba
- rare evergreen huckleberry
- minor amounts of fern-leaved goldthread, skunk cabbage, and *Sphagnum girgensohnii*

## 5.2 Site Classification Grids and Vegetation Summary Tables

TABLE 21. Index of site classification grids

<b>Grid no.</b>	<b>Site category</b>	<b>Biogeoclimatic unit</b>
1	General	CDFmm
2	General	CWHdm
3	General	CWHds1
4	General	CWHds2
5	General	CWHmm1
6	General	CWHmm2
7	General	CWHms1
8	General	CWHms2
9	General	CWHvh1
10	General	CWHvh2
11	General	CWHvm1
12	General	CWHvm2
13	General	CWHwh1
14	General	CWHwh2
15	General	CWHws2
16	General	CWHxm
17	General	ESSFmw
18	General	IDFww
19	General	MHmm1
20	General	MHmm2
21	General	MHwh
22	Special - Floodplains	CDFmm
23	Special - Floodplains	CWHdm,CWHds1,CWHxm
24	Special - Floodplains	CWHds2
25	Special - Floodplains	CWHmm1
26	Special - Floodplains	CWHms1,CWHms2
27	Special - Floodplains	CWHwh1
28	Special - Floodplains	CWHvh1,CWHvh2
29	Special - Floodplains	CWHvm1
30	Special - Floodplains	CWHws2
31	Special - Fluctuat water table	CDFmm
32	Special - Fluctuat. water table	CWHdm, CWHxm
33	Special - Shoreline/ocean spray	CWHwh,CWHvh

**FLOODPLAINS****Grids No: 28 - 30****Grid No. 28****CWH<sub>v</sub>h1, CWH<sub>v</sub>h2**

High Bench	08	Ss - Lily-of-the-valley
Medium Bench	09	Ss - Trisetum
Low Bench	10	Dr - Lily-of-the-valley

Medium to very rich soil nutrient regime

**Grid No. 29****CWH<sub>v</sub>m1**

High Bench	09	Ss - Salmonberry
Medium Bench	10	Ad - Red-osier dogwood
Low Bench	11	Act - Willow

Medium to very rich soil nutrient regime

**Grid No. 30****CWH<sub>w</sub>s2**

High Bench	07	Ss - Salmonberry
Medium Bench	08	Act - Red-osier dogwood
Low Bench	09	Ad - Willow

Medium to very rich soil nutrient regime

### 6.1.6 Recommended tree species grids

TABLE 24. Index of recommended tree species grids

<b>Grid no.</b>	<b>Site category</b>	<b>Biogeoclimatic unit</b>
1	General	CDFmm
2	General	CWHdm
3	General	CWHds1
4	General	CWHds2
5	General	CWHmm1
6	General	CWHmm2
7	General	CWHms1
8	General	CWHms2
9	General	CWHvh1
10	General	CWHvh2
11	General	CWHvm1
12	General	CWHvm2
13	General	CWHwh1
14	General	CWHwh2
15	General	CWHws2
16	General	CWHxm
17	General	ESSFmw
18	General	IDFww
19	General	MHmm1
20	General	MHmm2
21	General	MHwh
22	Special - Floodplains	CDFmm
23	Special - Floodplains	CWHdm,CWHds1,CWHxm
24	Special - Floodplains	CWHds2
25	Special - Floodplains	CWHmm1
26	Special - Floodplains	CWHms1,CWHms2
27	Special - Floodplains	CWHwh1
28	Special - Floodplains	CWHvh1,CWHvh2
29	Special - Floodplains	CWHvm1
30	Special - Floodplains	CWHws2
31	Special - Fluctuat water table	CDFmm
32	Special - Fluctuat. water table	CWHdm, CWHxm
33	Special - Shoreline/ocean spray	CWHwh,CWHvh

## FLOODPLAINS

## Grid No. 28-29

## Grid No. 28

## CWHvh1, CWHvh2

High Bench	08	SsCw[Ba]	Dr
Medium Bench	09	SsCwBa	Dr
Low Bench	10		Dr

Medium to very rich soil nutrient regime  
See comments on facing page

## Grid No. 29

## CWHvm1

High Bench	09	CwBa(Ss)	Act or Dr
Medium Bench	10	CwBa(Ss)	Act or [Dr]
Low Bench	11		Act

Medium to very rich soil nutrient regime  
See comments on facing page

## Site series

## CWHvh1, CWHvh2

08 Ss - Lily-of-the-valley

09 Ss - Trisetum

10 Dr - Lily-of-the-valley

## CWHvm1

09 Ss - Salmonberry

10 Act - Red-osier dogwood

11 Act - Willow

Grid No. 9: CWHvh1

Soil Nutrient Regime

Actual Relative	Soil Nutrient Regime				
	Very Poor A	Poor B	Medium C	Rich D	Very Rich E
SD 0	02 (IV) L	[Shaded Area]			
SD 1	03 (IV) M/4				
F 2	04 (II) L	05 (II) M-H/3			
F 3		06 (II) H/3			
M 4	01 (III) M/4	07 (II) VH/3			
VM 5	11 (IV) M/4	07 (II) VH/3			
VM 6	12 (IV) L	13 (IV) VH/3			
W 7	(IV) L	(IV) VH/3			

Grid No. 10: CWHvh2

Soil Nutrient Regime

Actual Relative	Soil Nutrient Regime				
	Very Poor A	Poor B	Medium C	Rich D	Very Rich E
VD 0	02 (IV) L	[Shaded Area]			
MD 1	03 (IV) M/4				
MD 2	04 (II) L	05 (II) M-H/3			
SD 3		06 (II) H/3			
F 4	01 (III) M/4	07 (II) VH/3			
M 5	11 (IV) M/4	07 (II) VH/3			
VM 6	12 (IV) M/4	13 (IV) M/3,4			
W 7	(IV) M/4	(IV) M/3,4			



# FLOODPLAINS

## Grid No. 26

CWHms1, CWHms2

High Bench	07	II	I *	VH/1
Medium Bench	08	-	II	VH/1
Low Bench	09	-	IV	VH/1

\*SI class for Act in square.

## Grid No. 27

CWHwh1

High Bench	07	I	-	VH/1
Medium Bench	08	-	-	VH/1
Low Bench	09	-	-	VH/1

## Grid No. 28

CWHvh1, CWHvh2

High Bench	08	I	-	VH/1
Medium Bench	09	-	-	VH/1
Low Bench	10	-	-	VH/1

## Grid No. 29

CWHvm1

High Bench	09	I	I	VH/1
Medium Bench	10	-	II	VH/1
Low Bench	11	-	IV	VH/1

## APPENDIX 8. Correlation of old and new biogeoclimatic and site units.

TABLE A-1. Biogeoclimatic units

<b>New symbol</b>	<b>New name</b>	<b>Old symbol <sup>a</sup></b>
CDFmm	Moist Maritime CDF	CDFa
CWHdm	Dry Maritime CWH	CWHa2
CWHds1	Southern Dry Submaritime CWH	CWHc1
CWHds2	Central Dry Submaritime CWH	CWHc2, h1, h2
CWHmm1	Submontane Moist Maritime CWH	CWHb3
CWHmm2	Montane Moist Maritime CWH	CWHb4
CWHms1	Southern Moist Submaritime CWH	CWHb5
CWHms2	Central Moist Submaritime CWH	CWHb6, h3
<b>CWHvh1</b>	Southern Very Wet Hypermaritime CWH	CWHd1
CWHvh2	Central Very Wet Hypermaritime CWH	CWHd2, CCPH
CWHvm1	Submontane Very Wet Maritime CWH	CWHb1, i1
CWHvm2	Montane Very Wet Maritime CWH	CWHb2, i2
CWHwh1	Submontane Wet Hypermaritime CWH	CWHe1, g1
CWHwh2	Montane Wet Hypermaritime CWH	CWHe2, g2
CWHws2	Montane Wet Submaritime CWH	CWHb7, f2, i3
CWHxm1 <sup>b</sup>	Eastern Very Dry Maritime CWH	CDFb
CWHxm2 <sup>b</sup>	Western Very Dry Maritime CWH	CWHa1
ESSFmw	Moist Warm ESSF	ESSFf
IDFww	Wet Warm IDF	IDFe
MHmm1	Windward Moist Maritime MH	MHa, d
MHmm2	Leeward Moist Maritime MH	MHb, e
MHwh	Wet Hypermaritime MH	MHc, f

<sup>a</sup> From Yole *et al.* (1982), Banner, *et al.* 1983, Green, *et al.* (1984), Pojar *et al.* (1988).

<sup>b</sup> Combined into CWHxm in this guide because of floristic and management similarities.