

Site Code¹ CLRA 7

Location Curlewis Golf Club (Geelong Portarlington Road), Drysdale district, Bellarine Peninsula



Landform Dunes

Geology Quaternary Aeolian: coastal and inland dunes: *dune sand, some swamp deposits*

Element Crest

Slope 8%

Aspect North-west



Melacic, Sesquic, Aeric Podosol

Cutting in side of dune at Curlewis Golf Club

Horizon	Depth (cm)	Description
A11	0–10	Very dark grey (10YR3/1); loamy sand; weak medium subangular blocky structure; rough ped fabric; very weak consistence; pH 4.5; smooth clear boundary to:
A12	10–20	Very dark grey (10YR3/1); light loamy sand; apedal single grain structure; sandy fabric; very weak consistence; pH 4.5; smooth gradual boundary to:
A2	20–50	Light yellowish brown (10YR6/3), conspicuous bleach (10YR7/2); sand; apedal single grain structure; sandy fabric; very weak consistence; pH 5.0; wavy clear boundary to:
Bhs	50–90	Brown (7.5YR4/3); heavy sand; apedal massive structure; sandy fabric; very weak consistence; pH 6.0; wavy diffuse boundary to:
C1	90–140	Yellowish brown (10YR5/4); sand; apedal single grain structure; sandy fabric; very weak consistence; few argillaceous laminae; pH 6.0; wavy diffuse boundary to:
C2	140–195	Very pale brown (10YR7/4); sand; apedal massive structure; sandy fabric; weak consistence; few argillaceous laminae; pH 7.0; wavy diffuse boundary to:
C3	195–210+	Brownish yellow (10YR6/8); sand; apedal massive structure; sandy fabric; strong consistence; pH 6.5.

¹ Source: Robinson et al (2003) A land resource assessment of the Corangamite region. Department of Primary Industries, Centre for Land Protection Research Report No. 19

Analytical data²

Site CLRA7 Horizon	Sample depth cm	pH		EC dS/m	NaCl %	Ex Ca cmol _c /kg	Ex Mg cmol _c /kg	Ex K cmol _c /kg	Ex Na cmol _c /kg	Ex Al mg/kg	Ex Acidity cmol _c /kg	FC -10kPa %	PWP -1500kPa %	KS %	FS %	Z %	C %
		H ₂ O	CaCl ₂														
A11	0-10	4.8	3.9	0.09	N/R	1.9	1.4	0.21	0.25	16	10	12.3	12.7	16.6	74.9	1	3
A12	10-20	4.6	3.8	0.05	N/R	0.8	0.5	0.1	0.13	28	6.2	8.1	3.5	14.8	71	4.5	8.5
A2	20-50	4.6	4	<0.05	N/R	0.38	0.26	0.05	0.08	23	2.4	9.2	1.6	16.6	71.3	6.5	4
Bhs	50-90	5.4	4.6	<0.05	N/R	0.49	0.43	0.1	0.09	32	2.9	9.7	1.8	13.1	83.2	0.5	4
C1	90-140	5.9	5.2	<0.05	N/R	0.22	0.42	<0.05	0.08	<10	N/R	7.3	0.8	13.5	82.6	0.5	1.5
C2	140-195	5.9	5.1	<0.05	N/R	N/R	N/R	N/R	N/R	N/R	N/R	5.9	0.5	30.4	66.2	0	2
C3	195+	6.3	5.2	0.13	N/R	0.47	2.1	0.13	0.95	N/R	1	7.2	2.8	34.1	55.1	0.5	9.5

Management considerations

This soil has a strong consistence contrast between the loose/weakly coherent deep sandy soil and the coherent subsoil which is sodic. It is important to maintain or improve the upper soil by increasing organic matter (particularly in the subsurface soil). The organic carbon content of the upper surface (A11) is 5.5% and the surface (A12) is 2.9%. This surface organic layer is important for soil stability as is the maintenance of a vegetative cover is important particularly where the surface soil is light and susceptible to water and wind erosion and variable slope (dunefield in this case).

Root penetration of the “coffee rock” at depth may be difficult with the hardsetting nature of the layer, but the sandy soil above provides a suitable physical medium for growth though with little water and nutrient holding capacity.

² Source: Government of Victoria State Chemistry Laboratory.