

LBE Laube Land System

- Area:** 217.5 km²
- Landscape:** Dissected eastern frontal slopes of the Koppio Hills, formed on Lincoln Complex gneisses and granites. In the south, the slopes grade to undulating rises and low hills underlain by deeply weathered basement rock and Tertiary sediments. Localized alluvial outwash sediments occur in narrow creek flats.
- Annual rainfall:** 345 – 560 mm average
- Main soils:**
- Laube - D1 (Hypercalcic, Red Chromosol)
Thin to medium gravelly loamy sand to loam over a yellowish red blocky medium to heavy clay with increasing rock fragments and soft carbonate, over weathering schist of the Flinders Group at about 100 cm.
 - Skeletal soil - L1 (Lithic, Leptic Tenosol / Rudosol)
Variable gravelly loamy sand to sandy clay loam over basement rock at depths usually less than 50 cm.
 - Red brown earth - D2 (Sodic, Hypercalcic, Red Chromosol)
Medium thickness clay loam to loam over a well structured red clay, calcareous with depth grading to alluvial sediments.
- Minor soils:**
- Cleve - D3 (Hypercalcic, Red Sodosol)
Thin to medium thickness hard loamy sand to sandy clay loam over a red clay with coarse prismatic structure, highly calcareous from about 25 cm, grading to alluvial clay.
 - Stevens - J2a (Ferric, Brown Chromosol)
Medium to thick sandy loam to loam with 25-75% ironstone gravel in the paler coloured A2 layer, over a yellowish brown sandy clay loam to sandy clay with more than 50% ironstone, becoming more clayey and indurated with depth.
 - Wanilla - J2b (Ferric, Eutrophic, Brown Chromosol)
30 cm sandy loam with a bleached A2 layer containing abundant ironstone gravel, overlying a yellowish brown mottled clay grading to Tertiary sediments.
 - Greenpatch - F1 (Eutrophic, Brown / Red Chromosol)
20 cm sandy clay loam with some ironstone gravel, over a brown or red mottled clay.
 - Elson (clayey) - M2 (Eutrophic, Grey Dermosol)
Thick black fine sandy clay loam with granular structure grading to a dark grey well structured sandy clay, with increased mottling and gleying at depth.
 - Elson (sandy loam) - F2 (Calcic, Brown Sodosol)
Sandy loam over poorly structured brown mottled sandy clay.
- Summary:** Undulating to moderately steep slopes with mainly moderately deep sandy loam to clay loam soils with clayey subsoils, mixed with shallow stony soils associated with rock outcrop. The main soils are fertile and well drained with good waterholding capacity. Limitations include susceptibility to acidification, moderate to moderately high water erosion potential and sporadic salinity on lower slopes. Moderately steep slopes have 10 - 20% rock outcrop - these slopes are semi arable. About 30% of the land is too steep for cultivation. Soils here are shallower, but well suited to grazing. Ironstone rich sandy loam soils in the south are arable but are less fertile and more susceptible to acidification and waterlogging. Salinity is more widespread in these areas than on other slopes.



Soil Landscape Unit summary: 14 Soil Landscape Units (SLUs) mapped in the Laube Land System:

SLU	% of area	Component	Main soils	Prop #	Notes
AKC	9.8	Moderately steep rocky slopes	Skeletal / Laube	D	Stony slopes too steep for cultivation, but suitable for pastures. Saline seepage and watercourse erosion are sporadic problems.
AKI	20.3	Moderately steep rocky slopes with watercourse erosion.	Skeletal / Laube	D	
DVC	15.9	Gentle slopes	RBE / Cleve / Laube / Skeletal	D	Slopes with mainly moderately deep fertile sandy loam to clay loam soils. Many are acidic. Up to 2% of land is affected by saline seepage (more in DVM). Shallow stony soils associated with rock outcrop are minor. Water erosion potential and salinity are main issues. <u>RBE</u> Medium textured soil with red clay subsoil. <u>Cleve</u> Sandy loam over dispersive red clay <u>Laube</u> Sandier surface soil with brown clayey subsoil. <u>Skeletal</u> Shallow stony sandy loam – semi arable.
DVH	5.0	Gentle slopes with eroded watercourses	RBE / Cleve / Laube / Skeletal	D	
DVM	3.4	Gentle slopes with 2-10% saline seepage.	RBE / Cleve / Laube / Skeletal	D	
ETC	0.2	Gentle stony slopes	Laube / Skeletal	D	
ETD	12.8	Moderate stony slopes	Laube / Skeletal	D	Semi arable slopes similar to DV_ but steeper and with more rocky outcrop (10-20%). Soils are moderately deep to shallow and fertile, but skeletal soils are more prevalent, reducing arable area. Steeper slopes increase the potential for water erosion. Sporadic salinity occurs on lower slopes and minor creek flats. Soils are as above.
ETI	14.0	Moderate stony slopes with eroded water courses	Laube / Skeletal	D	
ETN	4.1	Moderate stony slopes with eroded water courses and 2-10% saline seepage.	Laube / Skeletal	D	
FJC	2.0	Undulating slopes	Stevens / RBE / Cleve	D	Sandy loam to clay loam soils dominated by ironstone gravelly types (Stevens). Soils are less fertile and more prone to waterlogging than in DV_ and ET_. <u>Stevens</u> Ironstone sandy loam with marginal fertility, prone to waterlogging and acidification. <u>RBE</u> As above. <u>Cleve</u> As above <u>Wanilla</u> Ironstone sandy loam, more susceptible to waterlogging than Stevens. <u>Greenpatch</u> Deep sandy loam over clay – moderate fertility, although acidic, prone to waterlogging.
FJM	6.8	Undulating slopes with 2-10% saline seepage	Stevens / RBE / Cleve	D	
FRM	4.4	Undulating slopes with 2-10% saline seepage	Wanilla / Greenpatch	D	
KJJ	0.7	Creek flats with eroded watercourses and 2-10% saline seepage.	Elson (clay loam / sandy loam)	D	Deep fertile clay loam / sandy loam soils affected by waterlogging and salinity. Watercourse erosion is widespread.
KJj	0.4	Creek flats with eroded watercourses and more than 10% saline seepage.	Elson (clay loam / sandy loam)	D	



PROPORTION codes assigned to Soil Landscape Unit (SLU) components:

- D Dominant in extent (>90% of SLU)
- V Very extensive in extent (60–90% of SLU)
- E Extensive in extent (30–60% of SLU)
- C Common in extent (20–30% of SLU)
- L Limited in extent (10–20% of SLU)
- M Minor in extent (<10% of SLU)

Further information: [DEWNR Soil and Land Program](#)

