

TRL Tarlina Land System

- Area:** 245.6 km²
- Landscape:** Gently undulating rises underlain by basement rocks covered by Tertiary sediments. The basement rocks protrude through the Tertiary cover in the south east. These areas are marked by rocky outcrops (less than 10% of the area), but elsewhere soils are formed in the Tertiary material, or alluvium derived from it.
- Annual rainfall:** 325 - 400 mm average
- Main soils:**
- Red brown earth (clayey) - D2 (Hypercalcic, Red Chromosol / Dermosol)
Medium thickness friable clay loam with a paler coloured A2 layer, over a well structured red clay, highly calcareous from about 30 cm grading to clayey alluvium or Tertiary material.
- Butler - F2 (Hypercalcic, Brown Sodosol)
Thin to medium thickness hard loamy sand to sandy loam over a brown mottled clay with strong columnar structure, highly calcareous from about 20 cm, grading to alluvial or Tertiary clays.
- Red brown earth (sandy) - D3 (Calcic / Eutrophic, Red Sodosol)
Medium to thick hard sandy loam with a massive sandy clay loam A2 layer, over a weakly prismatic red clay grading to alluvial sediments or deeply weathered granite.
- Wiabuna (rubbly) - A5 (Regolithic, Lithocalcic / Supracalcic Calcarosol)
Calcareous sandy loam to sandy clay loam grading to carbonate rubble in a sandy clay loam matrix, over heavy clay at depth.
- Minor soils:**
- Saline soil - N2a (Salic / Hypersalic Hydrosol)
Miscellaneous wet saline soil influenced by rising saline groundwater tables.
- Marginally saline soil - N2b (Sodic, Calcic, Red Dermosol)
Thick sandy loam over a sodic red clay, calcareous with depth, moderately saline throughout.
- Skeletal soil - L1 (Lithic / Petroferric, Leptic Tenosol / Rudosol)
Variable gravelly loamy sand to sandy clay loam over basement rock or massive ironstone at depths usually less than 50 cm.
- Red brown earth - D1 (Hypercalcic, Red Chromosol)
Thin to medium thickness sandy loam over a red well structured clay forming in weathering basement rock with abundant fine carbonate in fissures.
- Calcareous loam - A3 (Hypercalcic / Lithocalcic Calcarosol)
Calcareous loam grading to a highly calcareous clay loam over Class III A, B or C carbonate merging with alluvial sediments.
- Alluvial soil - M4 (Eutrophic, Red Kandosol)
Medium to thick sandy loam grading to a red sandy clay loam to clay, becoming sandier with depth.
- Semaphore - H1/H3 (Shelly Rudosol)
Very thick sand comprising mixed shell and quartz grains.
- Summary:** Gently sloping land with mainly deep fertile clay loamy soils. Sub dominant soils are poorly structured sandy loam over clay types with waterlogging, root growth and erosion potential limitations. Saline seepages are widespread although scattered, and affect approximately 5% of the landscape overall. There are some broader saline flats affecting an additional 4% of the land. Minor areas of rocky outcrop are semi arable.



Soil Landscape Unit summary: 11 Soil Landscape Units (SLUs) mapped in the Tarlina Land System

SLU	% of area	Component	Main soils	Prop#	Features	
ETA	<0.1	Low rocky rises	Skeletal / RBE	D	Rises where basement rock protrudes. There is 10-20% rock outcrop, between which are shallow to moderately deep sandy loam soils (sometimes with red clayey subsoils). Low water holding capacity, rocky outcrop and water erosion potential restrict cropping.	
ETC	4.3	Gentle rocky slopes	Skeletal / RBE	D		
ETD	2.3	Moderate rocky slopes	Skeletal / RBE	D		
HHB	19.0	Gently undulating slopes with up to 2% saline seepage	RBE clayey	E	Gentle slopes with slight water erosion potential and sporadic saline seepage. Main soils are deep and fertile, but sub dominant soils have structural problems: <u>RBE clayey</u> : Deep, fertile potentially productive clay loamy soil <u>Butler</u> : Sandy loam over poorly structured clay - moderately fertile but subject to waterlogging and poor root growth (dispersive subsoil). <u>RBE sandy</u> : Deep moderately fertile sandy loam with adequate water holding capacity <u>Wiabuna</u> : Calcareous sandy loam, moderately shallow and moderately fertile.	
			Butler	C		
			RBE sandy	L		
			Wiabuna	L		
HHL	66.4	Gently undulating slopes with 2-10% saline seepage	RBE clayey	E		
			Butler	C		
			RBE sandy	L		
			Wiabuna	L		
KHE	3.3	Creek flats with up to 2% saline seepage	Calc loam / RBE clayey	D		Deep fertile soils with high production potential.
KZT	0.9	Marginally saline flats	Alluvial	D		Soils are deep and fertile, but high water tables cause waterlogging and salinity - semi arable.
WFD	0.1	Moderate coastal dunes	Semaphore	D	Extreme wind erosion potential - non agricultural land	
ZA-	0.7	Saline flats	Saline soil	D	Non arable, but some potential for establishment of salt tolerant pasture and fodder species.	
ZB-	2.9	Highly saline flats	Saline soil	D		
ZC-	0.1	Extremely saline flats	Saline soil	D		

PROPORTION codes assigned to soils within Soil Landscape Units (SLU):

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

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

