

# PAP Parla Peak Land System

- Area:** 325.3 km<sup>2</sup>
- Landscape:** Gently sloping rises formed on granite, almost completely mantled by Ripon / Bakara Calcretes and highly calcareous windblown Woorinen Formation deposits. There are minor deposits of siliceous Moornaba Sands as low parallel dunes.
- Annual rainfall:** 285 – 430 mm average
- Main soils:**
- Wookata - A1a (Supravescent, Hypercalcic / Lithocalcic Calcarosol)  
Very highly calcareous (more than 40% CaCO<sub>3</sub>) soft loamy sand to sandy loam grading to very highly calcareous sandy loam with variable rubble content.
- Wookata (shallow) - A1/B1 (Supravescent, Petrocalcic, Hypercalcic / Lithocalcic Calcarosol)  
Very highly calcareous (>40% CaCO<sub>3</sub>) soft loamy sand to sandy loam grading to very highly calcareous sandy loam with variable rubble content, over calcrete at about 40 cm.
- Cungena - A1b (Supravescent, Hypercalcic / Lithocalcic Calcarosol)  
Thick to very thick very highly calcareous loamy sand to sandy loam grading to Class III A, B or C carbonate in a sandy loam matrix.
- Minor soils:**
- Calcrete - B2 (Petrocalcic, Lithocalcic Calcarosol)  
Thin calcareous sandy loam to clay loam over hard calcrete, associated with abundant surface calcrete and sheet rock.
- Moornaba - H2 (Calcareous, Arenic, Red-Orthic / Yellow-Orthic Tenosol)  
Very thick red to brown sand, becoming weakly calcareous and often grading to an orange clayey sand with depth, overlying variable carbonate (fine to rubbly, occasionally sheet).
- Skeletal soil - L1 (Lithic, Leptic Tenosol / Rudosol)  
Gravelly loamy sand to sandy clay loam over basement rock at depths usually < 50 cm.
- Calcareous loam (shallow) - A2 (Paralithic, Hypercalcic / Lithocalcic Calcarosol)  
Calcareous loam grading to a highly calcareous clay loam over Class III A, B or C carbonate merging with weathering rock.
- Summary:** Gently sloping rises with mainly highly calcareous sandy loams. Marginal fertility, some restricted waterholding capacity, slight to moderate wind erosion potential and some boron toxicity / salinity are the main limitations on these soils. Subdominant soils include shallow stony sandy loams where water holding capacity and workability become serious limitations (some areas are non arable), and sandier soils where wind erosion potential is higher.



**Soil Landscape Unit summary:** 12 Soil Landscape Units (SLUs) mapped in the Parla Peak Land System:

SLU	% of area	Component	Main soils	Prop#	Notes
AKC	1.3	Rocky outcrops	Skeletal	D	Basement rock highs with shallow stony soils and extensive rock outcrop and surface stone - semi to non-arable.
ETB	0.1	Stony slopes	Shallow calcareous loam / skeletal	D	
QDB	1.5	Stony slopes	Calcrete	D	Stony flats and rises underlain by calcrete, with limited areas of Woorinen Formation materials. The latter give rise to highly calcareous sandy loams (Wookata) with marginal fertility and slight to moderate wind erosion potential. The Calcrete soils are non-arable due to shallow depth and rock.
QSA	3.0	Stony flats	Calcrete	V	
		Sandy loam flats	Wookata	L	
QSB	4.7	Stony rises	Calcrete	V	
		Sandy loam rises	Wookata	L	
UMG	1.0	Low siliceous sandhills	Moornaba	V	Sandhills are infertile with moderate wind erosion potential. The swale soils are as described below.
		Stony swales	Shallow Wookata	E	
YAp	7.1	Sandy loam rises	Wookata / Cungena	D	Rises and flats formed on Woorinen Formation materials with highly calcareous sandy loams. Main soils are: <u>Wookata</u> : Highly calcareous sandy loam with slightly limited waterholding capacity, low fertility, subsoil boron and salt, and slight to moderate wind erosion potential. <u>Shallow Wookata</u> : As for Wookata, except that water holding capacity is reduced, and surface stone is increased to the point where it interferes with tillage. <u>Cungena</u> : Highly calcareous loamy sand with low fertility, moderate wind erosion potential and elevated subsoil boron and salt. Marginal fertility, restricted waterholding capacity, slight to moderate wind erosion potential and some boron toxicity / salinity are the main limitations.
YFL	4.3	Sandy loam flats	Wookata	V	
		Stony flats	Shallow Wookata	L	
YPP	70.3	Sandy loam rises	Wookata / Cungena	V	
		Stony rises	Shallow Wookata	C	
YcL	0.7	Sandy loam flats	Wookata	V	
		Stony flats	Shallow Wookata	C	
YdL	2.9	Stony flats	Shallow Wookata	V	
		Sandy loam flats	Wookata	C	
Yip	3.1	Sandy loam rises	Wookata / Cungena	E	
		Stony rises	Shallow Wookata	E	

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

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](#)

