

# DAW Dawson Land System

- Area:** 68.3 km<sup>2</sup>
- Landscape:** Pediment slopes and valley between Buttamuck and Dusthole Ranges near Dawson locality. Drainage flows toward the northern end.
- Annual rainfall:** 255 – 335 mm average
- Geology:** Siltstones and shales of the Bunyeroo Formation form the upper slopes, yielding fine sediments which accumulate on lower slopes and valley floors.
- Main soils:** **D4** (56%) Loam over pedaric red clay (Pedaric Red Sodosol-Dermosol)  
**A5** (17%) Rubbly calcareous loam on clay (Supracalcic-Lithocalcic Calcarosol on clay)
- Minor soils:** **A3** (9%) Deep moderately calcareous loam (Calcic Calcarosol)  
**A2** (4%) Calcareous loam on rock (Paralithic Calcarosol)  
**RR** (4%) Bare rock  
**D1** (4%) Loam over clay on rock (Shallow Calcic-Hypercalcic Red Chromosol)
- Summary:** The Dawson Land System consists of pediment slopes and valley floor between Buttamuck and Dusthole Ranges near Dawson. Soils are predominantly pedaric, with texture contrast profiles, but gradational calcareous soils are also common.

## Soil Landscape Unit summary: Dawson Land System (DAW)

SLU	% of area	Component	Main soils	Prop#	Notes
AAA	0.6	Undulating rises	L1RRA2	D	Undulating rises with shallow rocky calcareous soils formed on fine-grained rocks. Rock outcrops are common. Relief is less than 30m, slopes are 3-10%.  Main soils: <u>Shallow stony soils on rock - L1</u> , <u>Rock outcrop - RR</u> and <u>Calcareous loam on rock - A2</u> .
AYM	1.1	Undulating rises	A2L1RR	D	Undulating rises with shallow calcareous loam on calcareous siltstone or other fine grained rocks; or bare rock. 10-50% scalded or sheet eroded. Relief is less than 30m, slopes are 3-10%.  Main soils: <u>Calcareous loam on rock - A2</u> and <u>Shallow stony soils on rock - L1</u> and <u>Bare rock - RR</u> .
EOV	0.4	Gently undulating rises	A2A6	D	Gently undulating rises with pulverulent calcareous soils formed mainly on Hawker Group Limestones. 5-10% of land is scalded, gullying affects around 5% of land. Slopes are 1-3%, relief is less than 30m.  Main soils: <u>Calcareous loam on rock - A2</u> and <u>Gradational calcareous clay loam - A6</u> .
JKYz	3.5	Flood plain	D1A3A5	D	Flood plains with texture contrast sandy loam over crumbly red clay, or gradational moderately calcareous sandy loam over clay, or gradational loam over red clay. Severely gullied (over 20% affected), moderately saline throughout profiles and 10-50% scalded.
JKo	7.8	Creek flat	D1A3A5	D	



					Main soils: <u>Loam over pedaric red clay on rock - D1</u> , <u>Deep moderately calcareous loam - A3</u> and <u>Rubbly calcareous loam on clay - A5</u> .
JLl	1.6	Pediments	D4	D	Plains and pediments with more than 20% pedaric, texture contrast (loam over crumbly red clay) soils, but less than 20% calcareous gradational soils.  <b>JLl</b> Moderately scalded (5-10%), gently sloping pediment with mostly deep red texture contrast soils. Slopes are 1-3%, relief is less than 9m. <b>JLm</b> Undulating pediment, moderately scalded. Slopes are 3-10%, relief is less than 9m.  Main soils: <u>Clay loam over pedaric red clay - D4</u> .
JLm	1.5	Pediments	D4	D	
JMG	44.5	Pediments	D4	D	Gently sloping pediment plain with stony, pedaric, red, texture contrast soils with quartz gravel on the surface.  Gullying affects 10-20% of the land. Slopes are 1-3%, relief is less than 9m.  Main soils: <u>Clay loam over pedaric red clay - D4</u> .
JNC	1.4	Undulating pediments	D4A6E2	D	Pediments with non-stony pedaric, texture contrast soils with calcareous subsoils. Surface textures are clay loamy most commonly. Slopes are 3-10%, relief is less than 9m.  Main soils: <u>Loam over pedaric red clay - D4</u> , <u>Gradational calcareous clay - A6</u> and <u>Red cracking clay - E2</u> .
JYG	32.7	Gent undulating pediment	A5D4	V	Gently undulating pediments with mostly clay loam surfaced texture contrast soils and more than 10% soils which are calcareous throughout. Gullying affects 10-20% of land. Semi-arable. Slopes are 3-10%, relief is less than 9 metres.  Main soils: <b>Pediments:</b> <u>Rubbly calcareous loam on clay - A5</u> and <u>Loam over pedaric red clay - D4</u> . <b>Rock outcrop:</b> <u>RR</u> and <u>Calcareous loam on rock - A2</u> .
		Rocky outcrops	RRA2	C	
KQH	5.0	Pediment	A5	V	Undulating pediments and basement-rise complexes with mostly calcareous gradational soils. 5-10% of land is gullied. Rises have few or no scalds and gullies. Slopes are 3-10%, relief is less than 9m on pediments and 9-30m on rises.  Main soils: <u>Rubbly calcareous loam on clay - A5</u> on pediments and <u>Calcareous loam on rock - A2</u> on rises.
		Shallow rises	A2	C	

# 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)



**Detailed soil profile descriptions:**

- A2/L1** Shallow calcareous loam (Paralithic, Hypercalcic / Lithocalcic Calcarosol) (A2) OR Shallow stony loam (Calcareous, Paralithic, Leptic Tenosol) (L1)
- A3** Deep moderately calcareous (sandy) loam (Calcic Calcarosol)  
Calcareous (sandy) loam topsoil grading into loamy-clay loamy subsoil without a significant CO<sub>3</sub> buildup in the subsoil (<20% CO<sub>3</sub> in subsoil). Pediment type Calcarosols.
- A5** Rubby calcareous loamy sand on clay (Supracalcic-Lithocalcic Calcarosol on clay)  
Calcareous loamy sand topsoil grading into loamy-clay loamy subsoil on a clayey substrate. Usually rubbly. Clayey substrate occurs at >60cm and <120cm.
- A6** Gradational calcareous clay loam (Pedal Hypercalcic-Lithocalcic Calcarosol on clayey subsoil)  
Calcareous loams to clay loams grading into brown-red clay. Often rubbly.
- D1** Loam over red clay on rock (Hypercalcic / Calcic, Red Chromosol / Sodosol)  
Medium thickness hard gravelly loam over red clay, friable and finely structured, calcareous with depth, grading to weathering basement rock within 100 cm.
- D4** Loam over red friable clay (Calcic, Pedaric, Red Sodosol)  
Thin to medium thickness fine sandy loam to loam over a finely structured friable red clay, calcareous from about 50 cm, grading to fine or medium grained alluvium.
- E2** Red cracking clay (Epicalcareous, Epipedal, Red Vertosol)  
Dark strongly structured clay grading to a well structured red calcareous medium to heavy clay continuing below 100 cm. Often containing gypsum segregations in subsoil.
- L1** Shallow stony loam (Paralithic, Leptic Tenosol)  
Shallow stony loam, often calcareous throughout or with depth, overlying weathering rock shallower than 50 cm.
- RR** Bare rock

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

