

# EUV Eurovale Land System

- Area:** 348.2 km<sup>2</sup>
- Landscape:** Gently sloping calcareous plain with broad drainage channels transgressing low angle, calcareous pediment and fan deposits.
- Annual rainfall:** 215 – 295 mm average
- Geology:** Calcreted Pleistocene gravelly alluvium is widespread with younger alluvial deposits in modern creek lines and floodplains.
- Soils:** Most soils are deep over outwash sediments. Gradational loamy to clay loamy calcareous soils are most common, with clay loamy texture contrast soils also significant.

### Main soils

- A6** Gradational calcareous clay loam  
**A4** Deep (rubbly) calcareous loam to sandy loam  
**D4** Clay loam to loam over pedaric red clay

### Minor soils

- A2** Shallow calcareous loam  
**A3** Deep moderately calcareous clay loam to loam  
**A8** Gypseous calcareous loam  
**B2** Shallow calcareous sandy loam on calcrete  
**C3** Gradational clay loam to loam

- Summary:** The Eurovale Land System consists of a gently sloping calcareous plain with broad drainage channels transgressing low angle, calcareous pediment and fan deposits. Clay loam texture contrast soils with friable subsoils occur on the broader drainage lines and flood-out areas, with variable loamy to clay loamy gradational calcareous soils (some shallow over calcrete) dominate plains and rises.

**Soil Landscape Unit summary:** 27 Soil Landscape Units (SLUs) mapped in the Eurovale Land System:

SLU	% of area	Component	Main soils	Prop#	Notes
EZC	2.0	Rises	A2	V	Undulating rises formed on limestones and calcareous shale and siltstones. Slopes are 3-10%, relief is less than 30m. Main soils: <b>Rises:</b> <u>shallow calcareous loam - A2.</u> <b>Fans:</b> <u>deep (rubbly) calcareous loam - A4</u> and <u>deep moderately calcareous loam - A3.</u>
		Fans	A4A3	C	
HKp	1.7	Flats	D4	D	Flats formed on deep unconsolidated clayey sediments or highly weathered rock. Over 50% of land is scalded. Patches of ironstone gravel. Main soil: <u>clay loam over pedaric red clay - D4.</u>
IJU	10.3	Flats	A6A4	V	Flats formed on unconsolidated clay sediments (Blanchetown Clay / highly weathered rock). Sediments are calcrete capped in places. Main soils: <b>Flats:</b> <u>gradational calcareous clay loam - A6</u> and <u>deep (rubbly) calcareous sandy loam - A4</u> , with <u>gradational sandy clay loam - C3.</u> <b>Stony flats:</b> <u>shallow calcareous sandy loam on calcrete - B2</u> and <u>deep (rubbly) calcareous sandy loam - A4.</u>
		Stony flats	B2A4	L	



IVC	0.6	Slopes	A6A4	V	Sloping plains and flats with soils formed on unconsolidated clay sediments (Blanchetown Clay or highly weathered rock). <b>IVC</b> Undulating slopes, flats and stony plains. Relief is less than 30m, slopes are 3-10%.
		Flats	D4	C	
		Stony flats	B2A4	M	
IVV	12.1	Rises	A6A4	V	<b>IVV</b> Gently undulating slopes, flats and stony rises. Moderately saline and minor scalding (up to 5%). Slopes: 1-3%, relief: < 30m. Main soils: <b>Slopes and rises:</b> <u>gradational calcareous clay loam - A6</u> and <u>deep (rubbly) calcareous loam - A4</u> , with <u>shallow calcareous loam - A2</u> . <b>Flats:</b> <u>sandy clay loam over pedaric red clay - D4</u> <b>Stony flats and rises:</b> <u>shallow calcareous sandy loam on calcrete - B2</u> and <u>deep (rubbly) calcareous sandy loam - A4</u> .
		Flats	D4	C	
		Stony flats	B2A4	M	
IYB	49.8	Rises	A6A4	V	Rises and flats formed on unconsolidated clay sediments (Blanchetown Clay or highly weathered rock). Main soils: <b>Rises:</b> <u>gradational calcareous clay loam - A6</u> and <u>deep (rubbly) calcareous sandy loam - A4</u> . <b>Flats:</b> <u>sandy clay loam over pedaric red clay - D4</u> <b>Stony flats:</b> <u>shallow calcareous sandy loam on calcrete - B2</u> and <u>deep (rubbly) calcareous sandy loam - A4</u> .
		Flats	D4	C	
		Stony flats	B2A4	L	
JLE	0.3	Depressions	D4	D	Plains formed on fine grained outwash. <b>JLE</b> Depressions
JLU	1.1	Flats	D4	V	<b>JLU</b> Plains, 10-50% scalded. Mod. Saline subsoils. 10-20% rises. <b>JLp</b> Flats, with 10-20% rises. 10-50% of flats scalded. Minor gully erosion.
		Rises	A6A4	L	
JLp	2.3	Flats	D4	V	Main soils: <b>Flats and depressions:</b> <u>sandy clay loam over pedaric red clay - D4</u> with <u>gradational calcareous clay loam - A6</u> and <u>gradational sandy clay loam - C3</u> . <b>Rises:</b> <u>gradational calcareous clay loam - A6</u> and <u>deep (rubbly) calcareous sandy loam - A4</u> .
		Rises	A6A4	C	
JPA	0.2	Flats	D4	D	Pediments and plains formed on fine grained outwash. <b>JPA</b> Flats.
JPE	0.1	Depressions	D4	D	<b>JPE</b> Drainage depressions.
JPY	1.4	Creek flats	D4	D	<b>JPY</b> Creek flats, 10-50% scalded.
Jpo	3.7	Flats	D4A6	D	<b>JPo</b> Drainage depressions. 10-50% scalded and 10-20% gullied (10-20%).
JPoo	0.3	Creek flats	D4	D	
JPp	1.4	Flats	D4A6	D	<b>JPoo</b> Creek flats. More than 20% gullied, 10-50% scalded.
JPq	0.3	Gentle slopes	D4A6	D	<b>JPp</b> Plains. More than 50% scalded.
JPy	0.5	Creek flats	D4	D	<b>JPq</b> Gently sloping fans. More than 50% scalded. Slopes: 1-3%.
JPyy	2.7	Creek flats	D4	D	<b>JPy</b> Creek flats. Moderately gullied, severely scalded. <b>JPyy</b> Drainage depressions. More than 20% gullied and more than 50% scalded. Main soils: <u>sandy clay loam over pedaric red clay - D4</u> and <u>gradational calcareous clay loam - A6</u> , with <u>gradational sandy clay loam - C3</u> .
KFB	0.1	Gently undulating plain	A6A4	D	Pediments and plains formed on fine grained outwash. <b>KFB</b> Gently sloping plains, 1-3% slopes.
KFE	0.3	Depressions	A6A4	D	<b>KFE</b> Depressions.
KFU	3.6	Gently undulating plain	A6A4	V	<b>KFU</b> Gently undulating plains with 20-30% flats. Plains 10-50% scalded, flats more than 50% scalded. Main soils: <b>Slopes:</b> <u>gradational calcareous clay loam - A6</u> and <u>deep (rubbly) calcareous sandy loam - A4</u> , with <u>deep moderately calcareous sandy clay loam - A3</u> and <u>gradational sandy clay loam - C3</u> . <b>Flats:</b> <u>sandy clay loam over pedaric red clay - D4</u> with <u>gradational calcareous clay loam - A6</u> and <u>gradational sandy clay loam - C3</u> .
		Flats	D4	C	
KVB	1.3	Gentle slopes	A6A4	V	Pediments and plains formed on calcareous outwash sediments derived from basement rock. 10-20% stony rises. Soils



		Stony rises	B2A4	L	are moderately saline.
KVp	0.7	Flats	A6A4	D	<b>KVB</b> Gently sloping plains with stony rises. Slopes are 1-3%. <b>KVp</b> Flats. More than 50% scalded. Main soils: <b>Slopes and flats:</b> <u>gradational calcareous clay loam - A6</u> and <u>deep (rubbly) calcareous sandy loam - A4</u> , with <u>gradational sandy clay loam - C3</u> . <b>Stony rises:</b> <u>shallow calcareous sandy loam on calcrete - B2</u> and <u>deep (rubbly) calcareous sandy loam - A4</u> .
KgB	1.9	Gentle slopes	A4A6	D	Gentle slopes and ridges. <b>KgB</b> Gently undulating pediment slopes of 1-3%.
KgD	<0.1	Low ridges	A4A6	D	<b>KgD</b> Low ridges with slopes of 3-10%. Main soils: <u>deep (rubbly) calcareous loam - A4</u> and <u>gradational calcareous clay loam - A6</u> , with <u>gradational sandy clay loam - C3</u> and <u>shallow calcareous sandy loam on calcrete - B2</u> .
ZM-	0.7	Lunettes	A8	D	Low jumbled gypsum hummocks, 10-50%. Soils are highly saline. Main soil: <u>gypseous calcareous loam - A8</u> .
ZR-	0.6	Lagoon	A3	D	Dry lagoon or lake bed, saline with samphire. Main soil: <u>deep moderately calcareous clay loam - A3</u> .

# 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)

### Detailed soil profile descriptions:

- A2** Shallow calcareous loam (Paralithic, Hypercalcic / Lithocalcic Calcarosol)  
Calcareous stony loam grading to soft or rubbly carbonate over weathering dolomite or calc-siltstone within 50 cm.
- A3** Deep moderately calcareous clay loam to loam (Regolithic, Calcic Calcarosol)  
Calcareous loam to clay loam grading to a loamy to clayey subsoil without a significant carbonate accumulation in the subsoil, grading to medium to fine grained alluvium.
- A4** Deep (rubbly) calcareous loam to sandy loam (Regolithic, Hypercalcic / Lithocalcic Calcarosol)  
Calcareous loam to sandy loam grading to a very highly calcareous sandy clay loam to light clay with variable rubble, continuing below 120 cm.
- A6** Gradational calcareous clay loam (Pedal, Hypercalcic / Supracalcic Calcarosol)  
Calcareous clay loam grading to a well structured very highly calcareous (sometimes rubbly) clay, over a red clayey substrate within 120 cm.
- A8** Gypseous calcareous loam (Gypsic Calcarosol)  
Calcareous loam grading to a highly calcareous clay loam to light clay over highly gypseous light clay at between 50 and 100 cm.
- B2** Shallow calcareous sandy loam on calcrete (Petrocalcic, Calcic / Lithocalcic Calcarosol)  
Stony calcareous sandy loam, often with a very highly calcareous more clayey subsoil, over sheet calcrete within 50 cm. This grades to rubbly carbonate over weathering basement rock within 150 cm.
- C3** Gradational sandy clay loam (Calcic / Hypercalcic Red Dermosol)  
Loam to clay loam grading to a friable red clay with abundant soft Class I carbonate within 50 cm, overlying alluvium within 100 cm.
- D4** Clay loam to loam over red friable clay (Calcic, Pedaric, Red Sodosol)  
Thin to medium thickness clay loam to loam over a finely structured friable red clay, calcareous from about 50 cm, grading to fine or medium grained alluvium.

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

