

Depth to watertable

Watertables generally rise in the decades following land clearance due to decreased water use by plants

Depth to watertable highlights landscapes where watertables may be sufficiently shallow to affect plant growth. Impacts occur from soil salinization and/or waterlogging, and are exacerbated under irrigation. This assessment refers to ground-watertables, and does not include water which ‘perches’ temporarily below the surface in wet winters. No distinction is made between saline and non-saline watertables. This mapping is intended to highlight potential soil conditions for plant suitability and shouldn’t be taken as a literal map of watertable levels (which will change over time).

Land assessment in southern South Australia

Depth to watertable is assessed on the maximum level maintained for at least two weeks per year. This timeframe is relevant as most plants will be affected by watertable-induced waterlogging that persists for more than two weeks. Watertables respond to long term wetting and drying cycles, so assessments are indicative only. It should be noted that this information has been derived from soil landscape mapping (using estimates based on local knowledge of land resource assessment specialists), and does not represent a specific watertable survey.

Soil properties can vary across the landscape in a subtle or dramatic fashion. [Mapping at a regional scale](#) is not able to display this level of variability, however proportions of each *Depth to watertable* class (e.g. O1, O2, etc.) have been estimated for each map unit.

Further information can be found in [Assessing Agricultural Land](#) (Maschmedt 2002).



Groundwater within ~200 cm depth can rise by capillary action, bringing moisture (and often salt) into the plant rootzone and surface soil

Area statistics

Depth to watertable (estimate of maximum level maintained for at least two weeks per year)	Area	Cleared land	Class*
More than 200 cm	89.44%	87.86%	O1
100–200 cm	3.63%	4.44%	O2
50–100 cm	1.92%	2.32%	O3
0–50 cm	1.33%	1.15%	O4
Above surface for up to 3 months	1.11%	1.27%	O5
Above surface for 3–10 months	1.11%	1.20%	O7
Above surface for more than 10 months	0.99%	1.08%	O8
Not applicable	0.48%	0.68%	OX
TOTAL HECTARES	15,765,460	10,439,300	

* The letter ‘O’ denotes classes that are specific to *Depth to watertable*

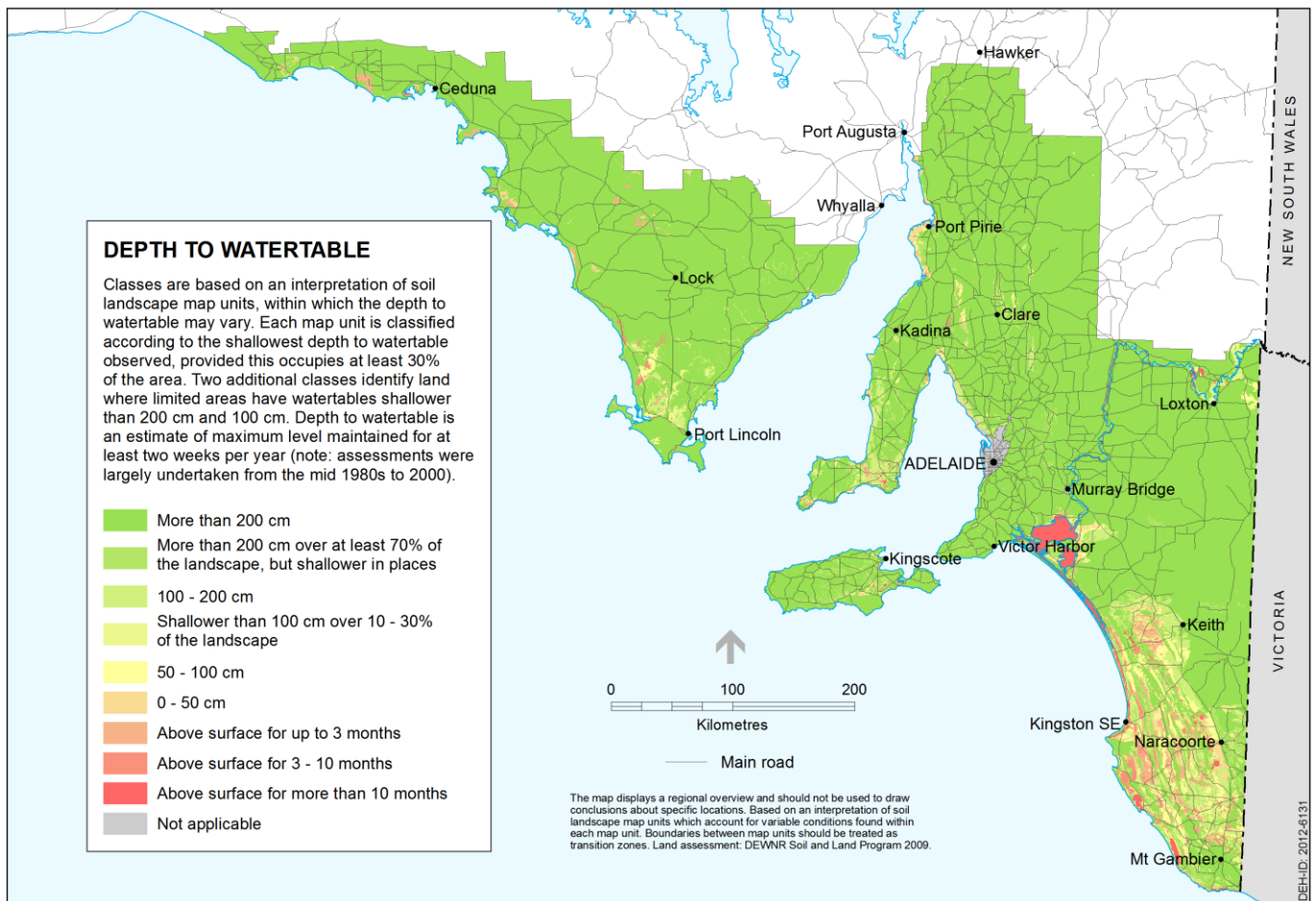


Displaying data in soil maps

Land and soil attribute maps display a simplified version of the underlying data. This is because, at the scale of mapping, a number of landscape elements with variable *Depth to watertable* may be captured in each map unit. Here map units highlight the shallowest *Depth to watertable*, provided it accounts for at least 30% of the map unit area. Additional map legend categories identify land where limited areas have watertables shallower than 100 cm or 200 cm. No distinction is made between saline and non-saline watertables (the *Salinity – watertable induced* attribute describes the extent and severity of impact of shallow saline watertables).



Shallow watertables can limit the types of native vegetation, crops or pastures that can be grown



Further information

- View data on [NatureMaps](#) (→ Soils)
- Read the [metadata](#) for this layer
- Read more about [soil attribute mapping](#)
- Contact [Mapland](#)
- Enviro Data SA > [groundwater information](#)
- [Groundwater dependent ecosystems](#)

Download from Enviro Data SA:

- [Statewide map](#) and [spatial dataset](#)
- [Assessing Agricultural Lands](#) (Maschmedt 2002)
- Soils of Southern SA book [Part 1](#) and [Part 2](#)



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