

Recharge potential

Recharge boosts groundwater supplies for subsequent re-use, but can also cause salts to rise into the rootzone in lower-lying areas

Recharge potential refers to the potential for unused water (surplus to plant requirements) to infiltrate via the soil profile down to groundwater systems. The assessment is based on the assumption that recharge is a function of soil profile waterholding capacity, substrate porosity and rainfall. Position in the landscape, depth to watertable, and the presence of soil layers that restrict drainage are also considered. The nature of substrates (i.e. geological materials that underlie soil) is commonly estimated from local knowledge and an understanding of regional stratigraphy. In fractured rock environments, such as the Mount Lofty Ranges and Flinders Ranges, steeply dipping rock strata and consequent spatial variability across the landscape complicate these estimates.

Land assessment in southern South Australia

Actual recharge rates are highly dependent on vegetative cover. It is not the purpose of this assessment to measure actual rates, but rather to make qualitative estimates of *Recharge potential* as a function of inherent landscape properties.

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 *Recharge potential* class (e.g. Q1, Q2, etc.) have been estimated for each map unit.

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



Sandhills are typically high recharge potential zones

Area statistics

Recharge potential	Area	Cleared land	Class*
Low	48.33%	54.01%	Q1
Moderate	33.54%	28.56%	Q2
High	16.78%	15.79%	Q3
Not applicable	1.35%	1.64%	QX
TOTAL HECTARES	15,765,460	10,439,300	

* The letter 'Q' denotes classes that are specific to *Recharge potential*

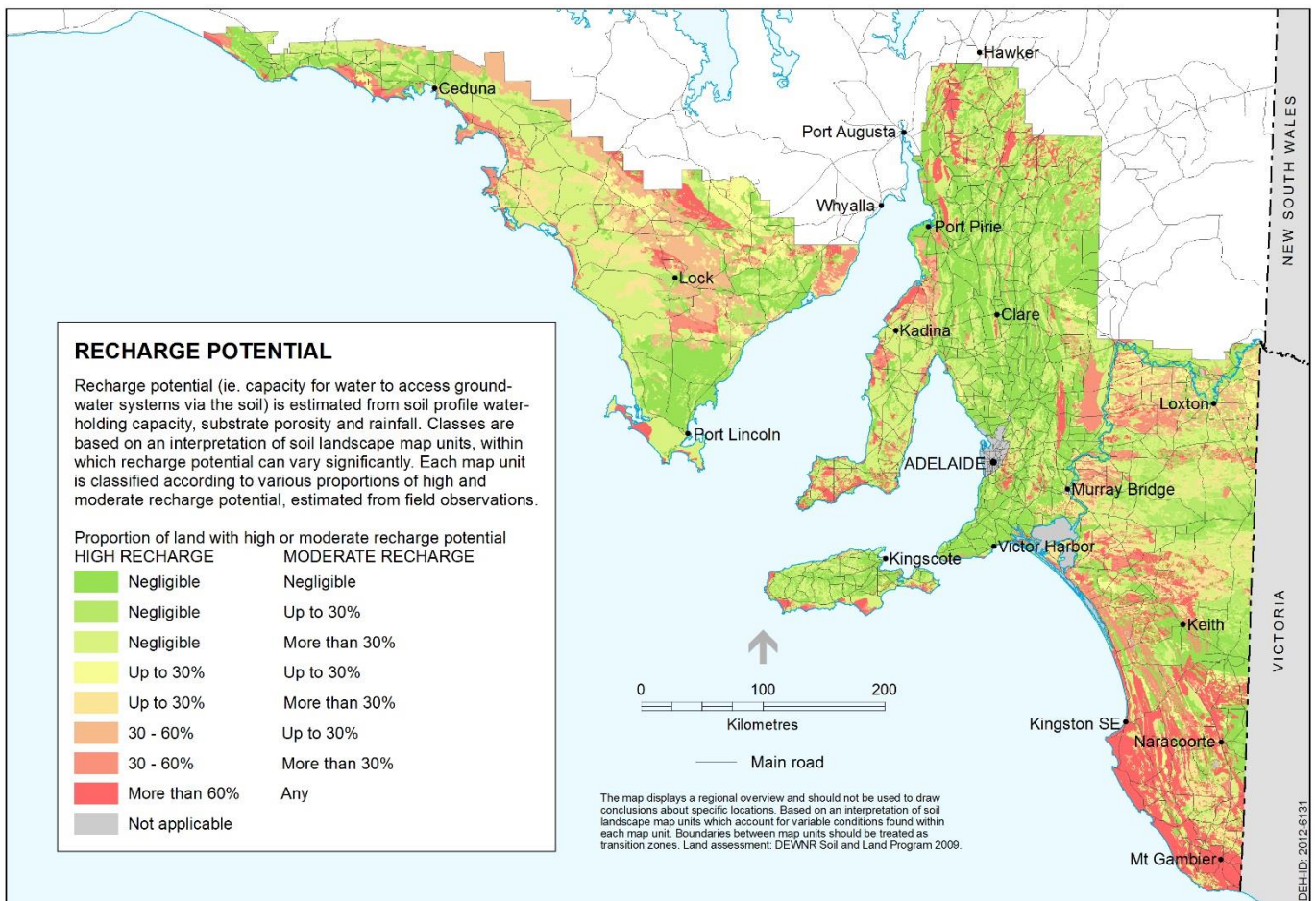


Displaying data in soil maps

Soil and land attribute maps display a simplified version of the underlying data. Mapping classes are based on an interpretation of soil landscape map units, which often contain different landscape elements of varying *Recharge potential*. Each map unit has been assigned a mapping class according to the area proportion of high and moderate *Recharge potential*.



Deep clayey soils typically have low recharge potential



Further information

- View data on [NatureMaps](#) (→ Soils)
- Read the [metadata](#) for this layer
- Read more about [soil attribute mapping](#)
- Contact [Mapland](#)

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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