Gully erosion

Much of South Australia's gully erosion dates back decades or even to the 19th century, and damage can often be attributed to a single rain event

Gully erosion refers to post-European settlement erosion channels more than 30 cm deep that transmit intermittent water flows, and may originate from natural watercourses or artificial channels. The term includes streambank erosion of existing watercourses. Artificial depressions as small as wheel tracks or cultivation furrows have the potential to develop into gullies if sufficient water is concentrated into them. Land affected by gully erosion is very fragile, has little if any productive value, and stabilisation often requires substantial time, money and effort. Once stabilised, these features affect paddock shape and access, and need protection to prevent renewed erosion. Fences, tracks, bridges and other utilities can be damaged by gully erosion, and silting, weed seed dispersal and water pollution often occur downstream. Problem areas are unsightly and reduce land values.

Land assessment in southern South Australia

This assessment aims to identify land where gully and streambank erosion have occurred in the past or is currently occurring. No attempt is made to classify severity of erosion. Except for recently cleared areas, much of the susceptible land has already been conspicuously affected by erosion, and this is the most reliable indicator of the susceptibility of similar land. However the likelihood of gully erosion on previously unaffected land should be assessed, particularly if a change in land use is anticipated.

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 *Gully erosion* class (e.g. G1, G2, etc.) have been estimated for each map unit.

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

Severe gully erosion is a safety hazard and a major limitation to potential productive land use. It requires ongoing costly management.

Area statistics

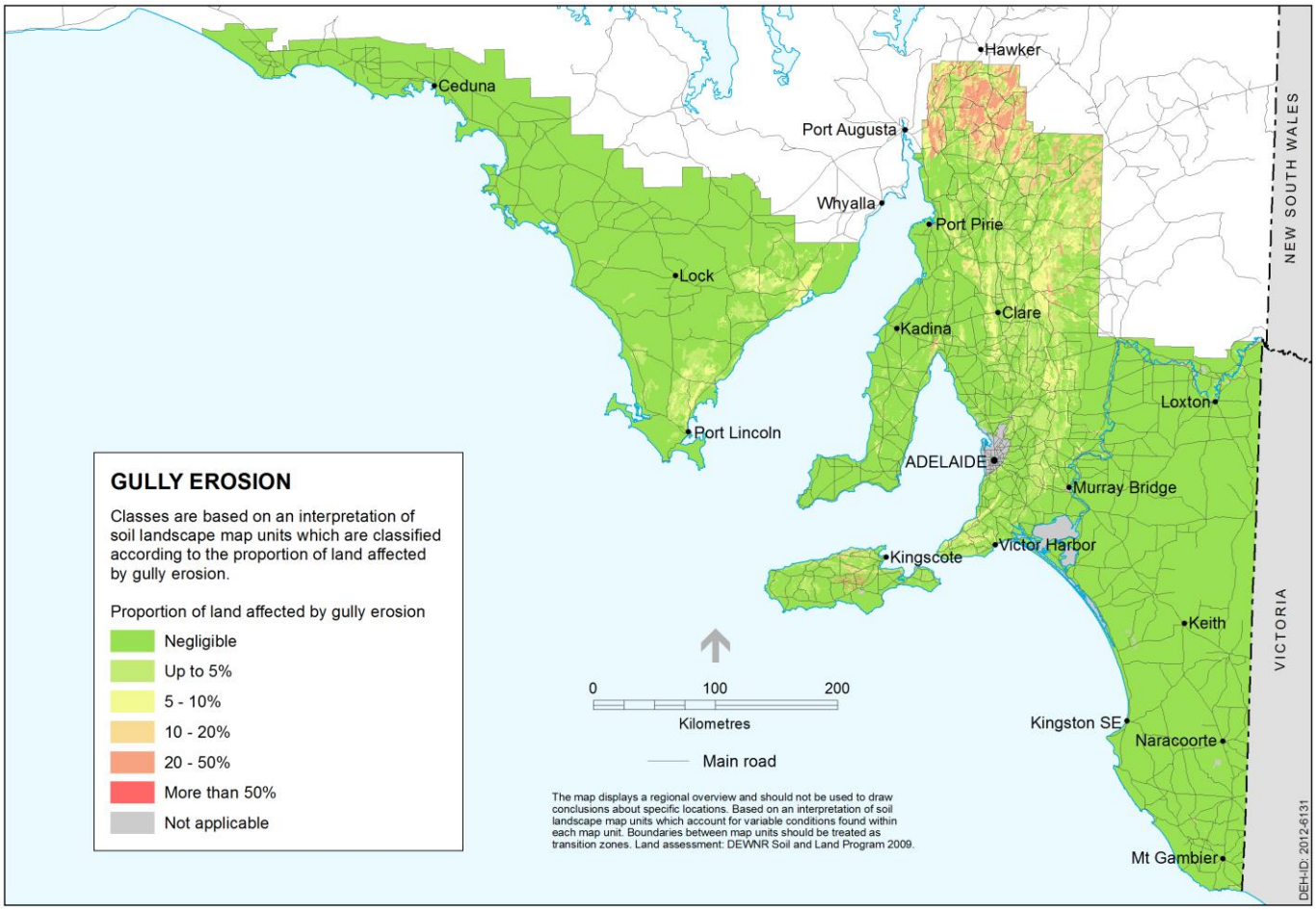
Presence of gully erosion	Area	Cleared land	Class*
Not affected	97.19%	97.66%	G1
Affected	1.42%	0.67%	G2
Not applicable	1.40%	1.67%	GX
TOTAL HECTARES	15,765,460	10,439,300	

* The letter 'G' denotes classes that are specific to *Gully erosion*

Displaying data in soil maps

Land and soil attribute maps display a simplified version of the underlying data. At the scale of mapping, it is frequently not possible to map individual watercourses, or map out eroded sections from non-eroded sections of watercourses. Map units display an estimate of the proportion of land that is or has been affected by gully erosion.

Gully erosion has severely degraded the value of this landscape



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