

# ALE Alexandrina Land System

Lake Alexandrina and Lake Albert

**Area:** 902.5 km<sup>2</sup>

**Annual rainfall:** 370 – 530 mm average

**Geology:** Virtually the entire area is underlain by black lacustrine clays. These are sporadically overlain by sands which have accumulated along old shore lines. The clay varies in thickness from less than 30 cm to more than a metre. They overlie interbedded mottled clays and sands, with sands being more common around the fringes of the lakes. Buried soils from older landscapes also occur on the margins. The most common of these older soils are bleached sands over mottled grey clays and limestone.

**Topography:** The vast bulk of the area is the water of Lake Alexandrina and Lake Albert. Reed beds adjacent shorelines or on shallow mud banks are included, as are minor isolated islands which are essentially outliers of mainland Systems.

**Elevation:** 0 m at lake level to 10 m on isolated islands

**Relief:** Up to 10 m, but usually nil

**Soils:** Over 94% of the area is under water, and most of the rest is mud flat. There are very minor calcrete rises with shallow stony loamy sands.

**Main features:** The Alexandrina Land System includes the lake itself, associated reed beds, mud and sand banks, and slightly higher elevation saline flats (old lake beds). These flats are characterized by medium to fine textured black soils with variable levels of salinity, but usually too high for cultivated agriculture or conventional pastures. Low sandy ridges representing old shore lines provide the only significant topographic relief. Their soils are infertile and prone to wind erosion.

**Soil Landscape Unit summary:** 7 Soil Landscape Units (SLUs) mapped in the Alexandrina Land System:

SLU	% of area	Main features
-L-	94.1	Lakes Alexandrina and Albert.
Mvm	0.03	Low lying islands with minor swamps and variable sandy soils, shallow or deep over calcrete.
MzB	0.1	Islands formed on calcreted calcareous sands of the Bridgewater Formation. Slopes are up to 10% and relief is less than 10 metres. There is extensive surface calcrete stone and sheet rock. Soils are generally shallow and calcareous over sheet calcrete. Main soils: shallow calcareous loamy sand ( <b>B2</b> ) and shallow gradational sandy loam over calcrete ( <b>B3</b> ). These islands have no agricultural significance.
QzZ	0.04	A resistant calcrete rise, separated from the mainland by shallow lake waters. The soils are shallow and stony over calcrete.
Vr-	5.7	Reed beds, mud flats and sand banks in the shallow waters on the margins of the lake. No soils data. These areas, although reclaimed in places, are essentially wetlands of significant conservation value.
Vt-	0.01	Reclaimed lake edge flat.
ZB-	0.03	Mud flats near the Murray Mouth.

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

