



Statewide seawater interface - Cockburn groundwater area

Thompsons subarea

The seawater interface in the Thompsons subarea extends between 500 to 1,000 m inland, along the base of the Superficial aquifer. It starts where the ocean meets the water table on the coastline and forms a wedge shape that extends along the base of the Superficial aquifer to around 25 m below sea level.

The Kardinya Shale Member of the Osborne Formation acts as an aquitard and prevents movement of the seawater interface into underlying aquifers.

Not all saline groundwater in this subarea originates from the seawater interface. There are localised patches of saline water at the base of the Superficial aquifer caused by diffusion of hypersaline groundwater from the underlying Kardinya Shale. This zone of diffusion can be as thick as 5 m at the base of the Superficial aquifer.

The figure is a representative cross-section of the seawater interface in the Thompsons subarea. Full details of the investigation methods and analysis are available in the report *HR443: Cockburn seawater interface – Priority area assessment*.

To request a copy, email groundwaterinfo@dwer.wa.gov.au.

