

An aerial photograph showing a large, dense cluster of green trees in a dry, open landscape. The trees are concentrated in the lower-left and center of the frame, while the surrounding area is a vast, flat, brownish-yellow plain. The sky is a pale, hazy blue.

EP
WATER
ALLOCATION
PLAN
REVISION

Groundwater for the environment

The 2016 WAP protected aquifers & groundwater-dependent-ecosystems.

Groundwater-dependent-ecosystems (GDEs):

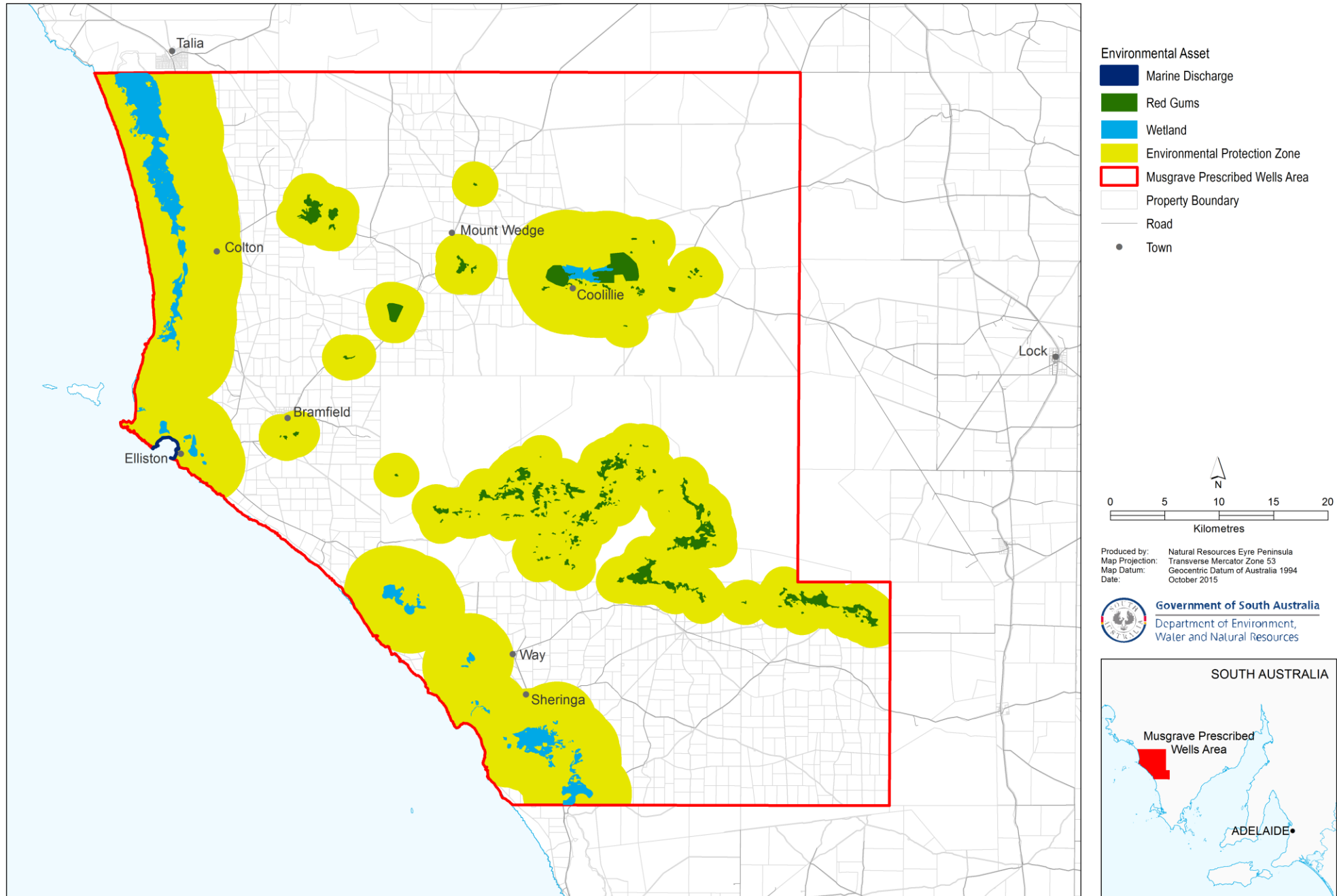
- Five categories of GDEs were identified & mapped:
 - Wetlands
 - Vegetation that uses groundwater, e.g. redgums
 - Baseflow in creeks and groundwater soaks
 - Subterranean ecosystems, e.g. in caves and within aquifers
 - Marine discharges, e.g. coastal springs, marine upwellings
- Environmental water requirements were estimated for these GDEs, objectives were set, and provisions were made to deliver some of the environmental water requirements.

Aquifers:

- Flow through aquifers was protected, e.g. by establishing Environmental Protection Zones around groundwater-dependent wetlands
- Water quality in aquifers was protected, e.g. by limiting extractions that might draw saline water up into the fresher aquifers
- Extraction from deeper aquifers was prevented where it was likely to impact on the overlying fresher Quaternary Limestone aquifer
- Groundwater Protection Zones protected the Quaternary Limestone aquifer in the Southern Basins Public Water Supply management areas.

Musgrave Prescribed Wells Area

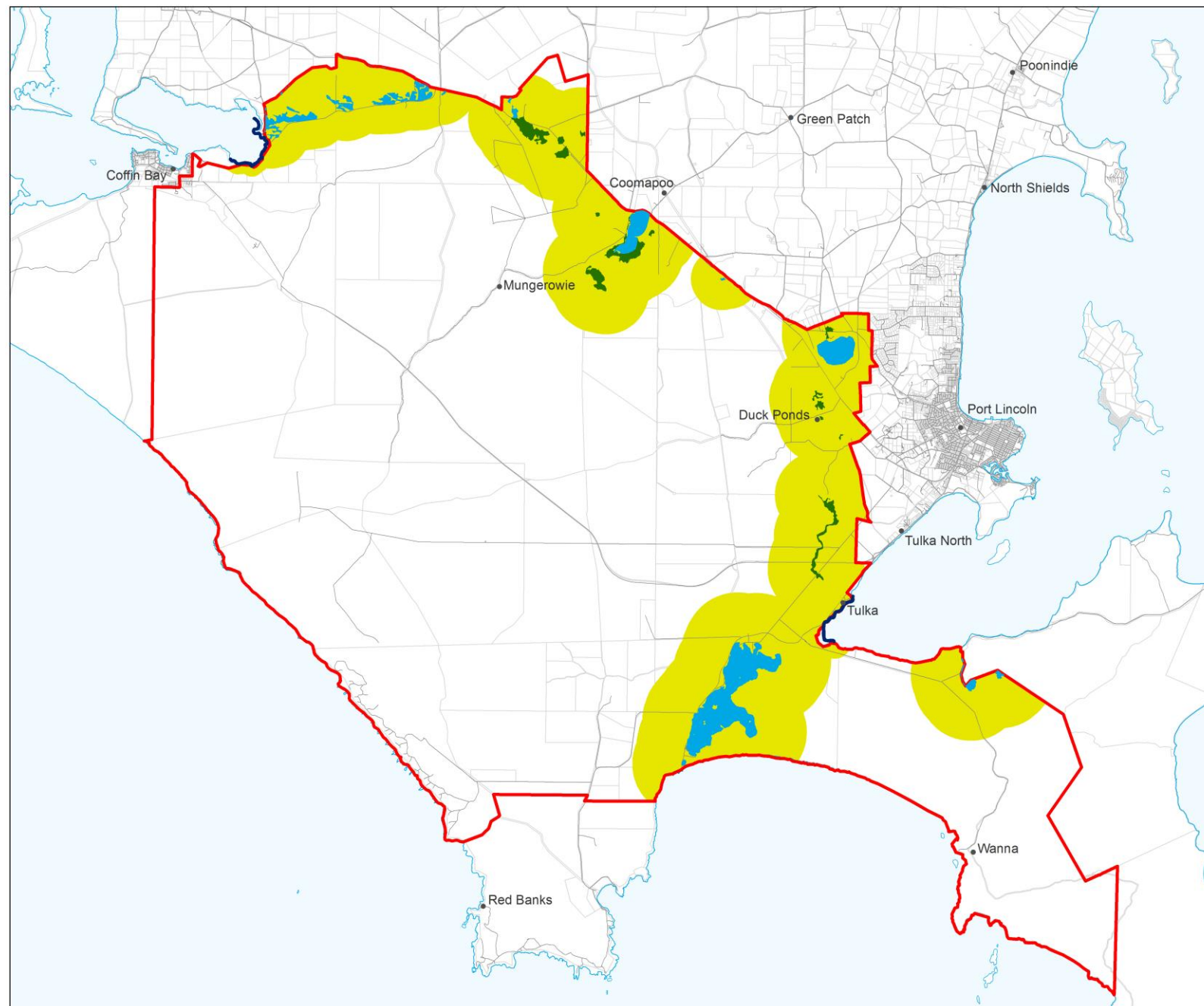
Environmental Protection Zones around environmental assets



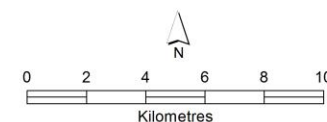
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Southern Basins Prescribed Wells Area

Environmental Protection Zones around environmental assets



- Environmental Asset**
- Marine Discharge
 - Red Gums
 - Wetland
 - Environmental Protection Zone
 - Southern Basins Prescribed Wells Area
 - Property Boundary
 - Road
 - Town



Produced by: Natural Resources Eyre Peninsula
 Map Projection: Transverse Mercator Zone 53
 Map Datum: Geocentric Datum of Australia 1994
 Date: October 2015

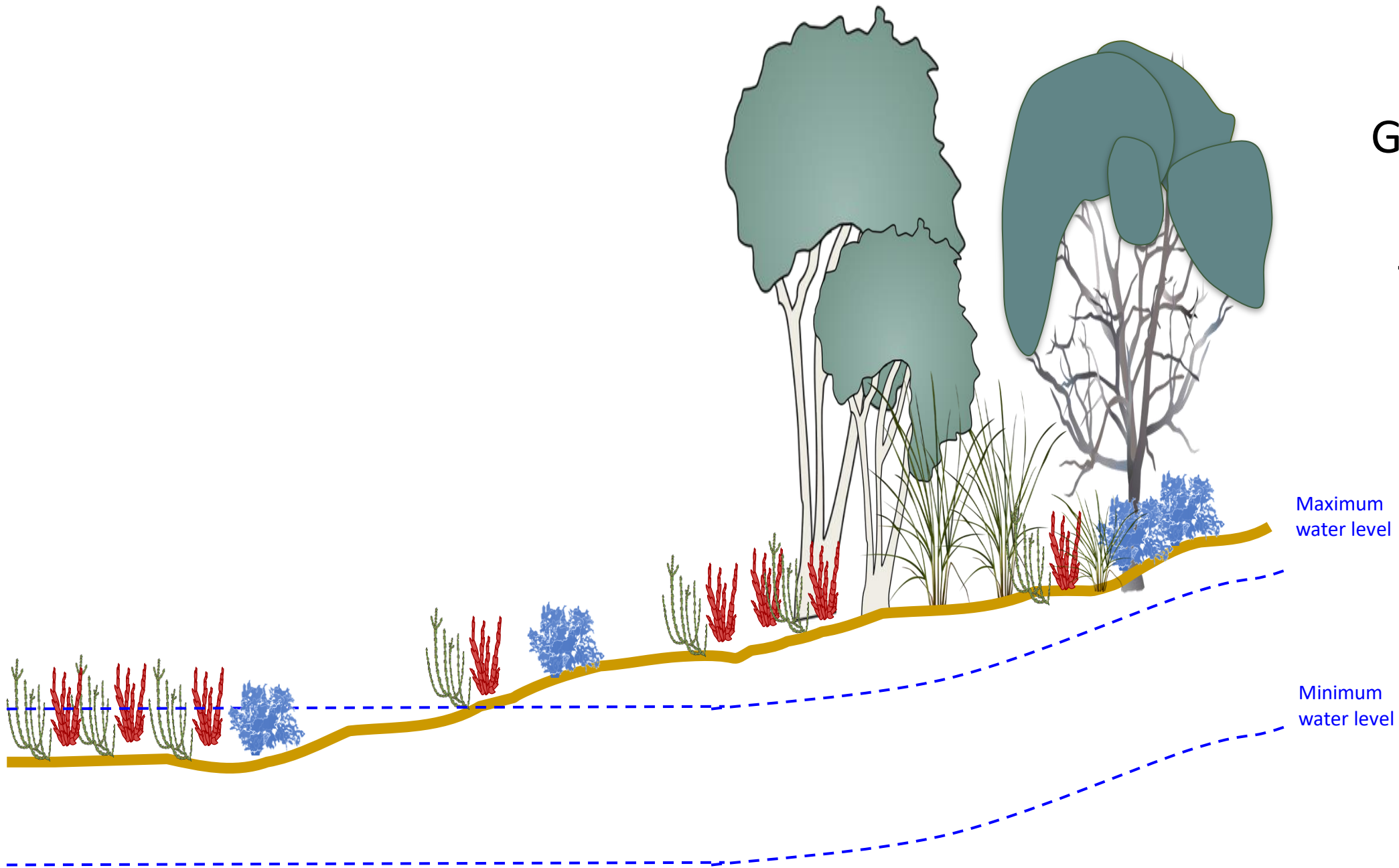


Government of South Australia
 Department of Environment,
 Water and Natural Resources

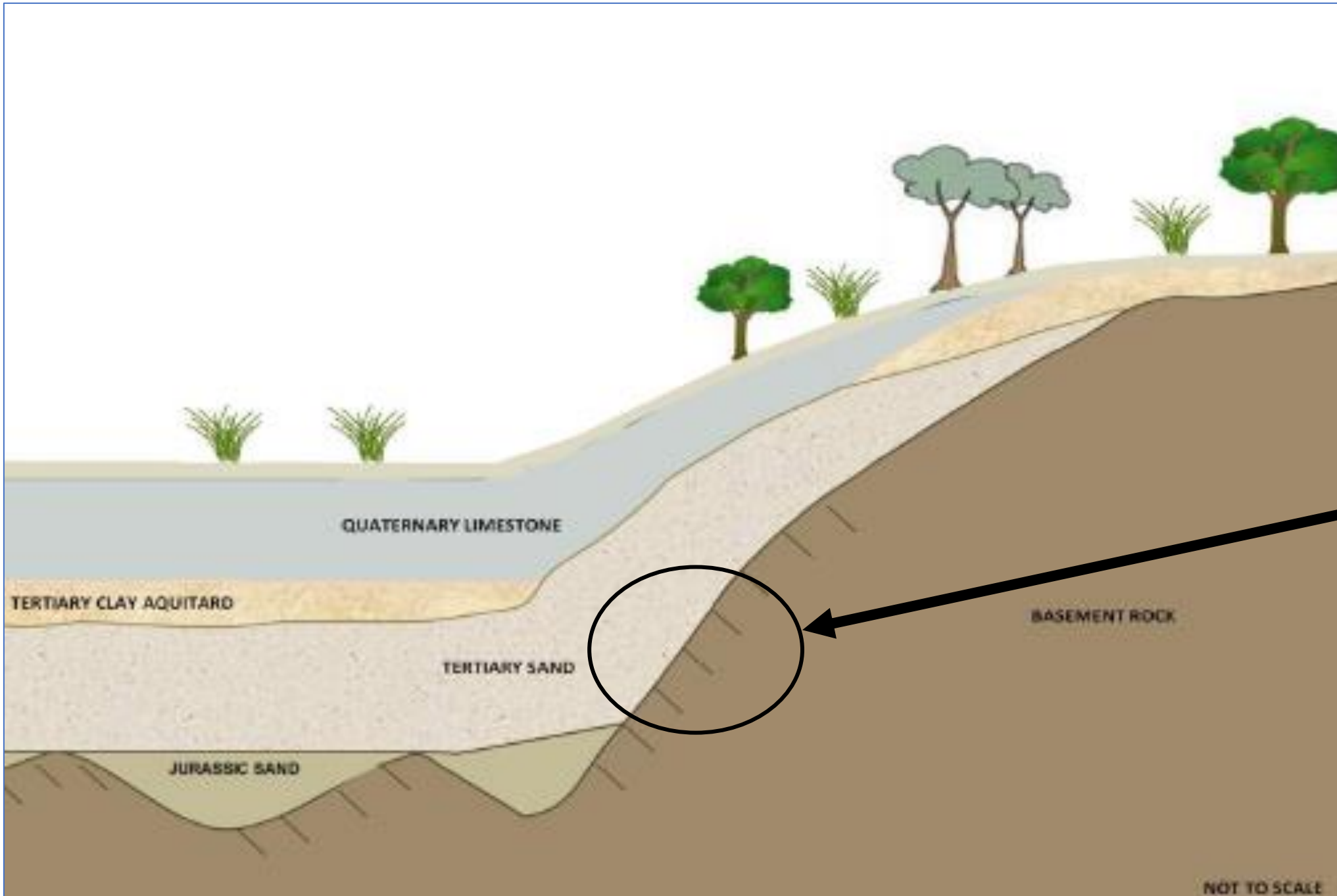


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Groundwater levels in a temporary wetland

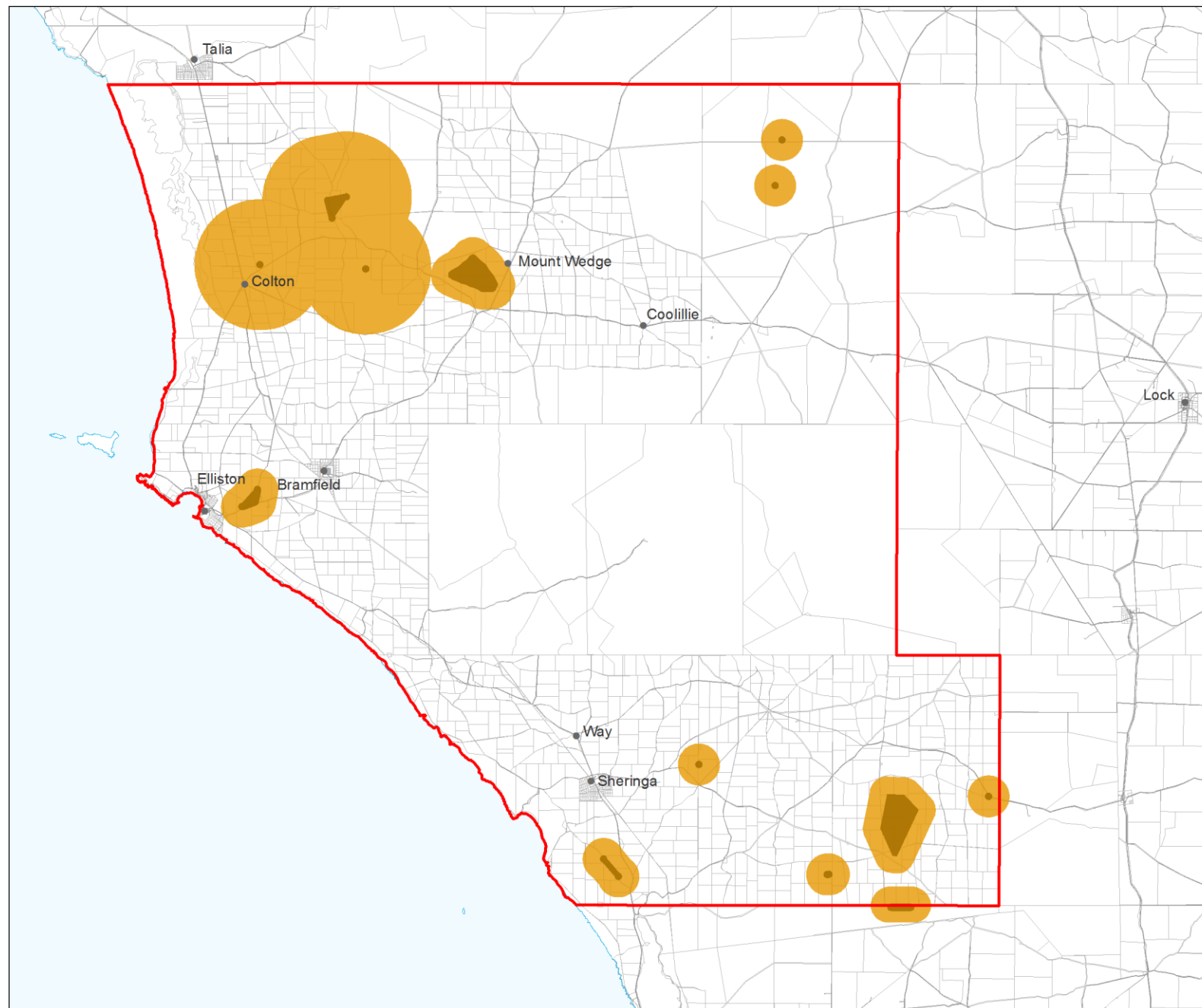


When the clay layer is absent, pumping from the Tertiary Sands or Basement aquifers could draw water down from the fresher Quaternary Limestone aquifer

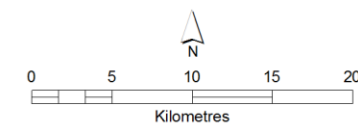


Musgrave Prescribed Wells Area

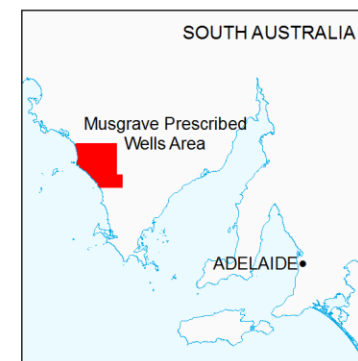
Buffers to
protect water
in the shallow
Quaternary
Limestone
aquifer



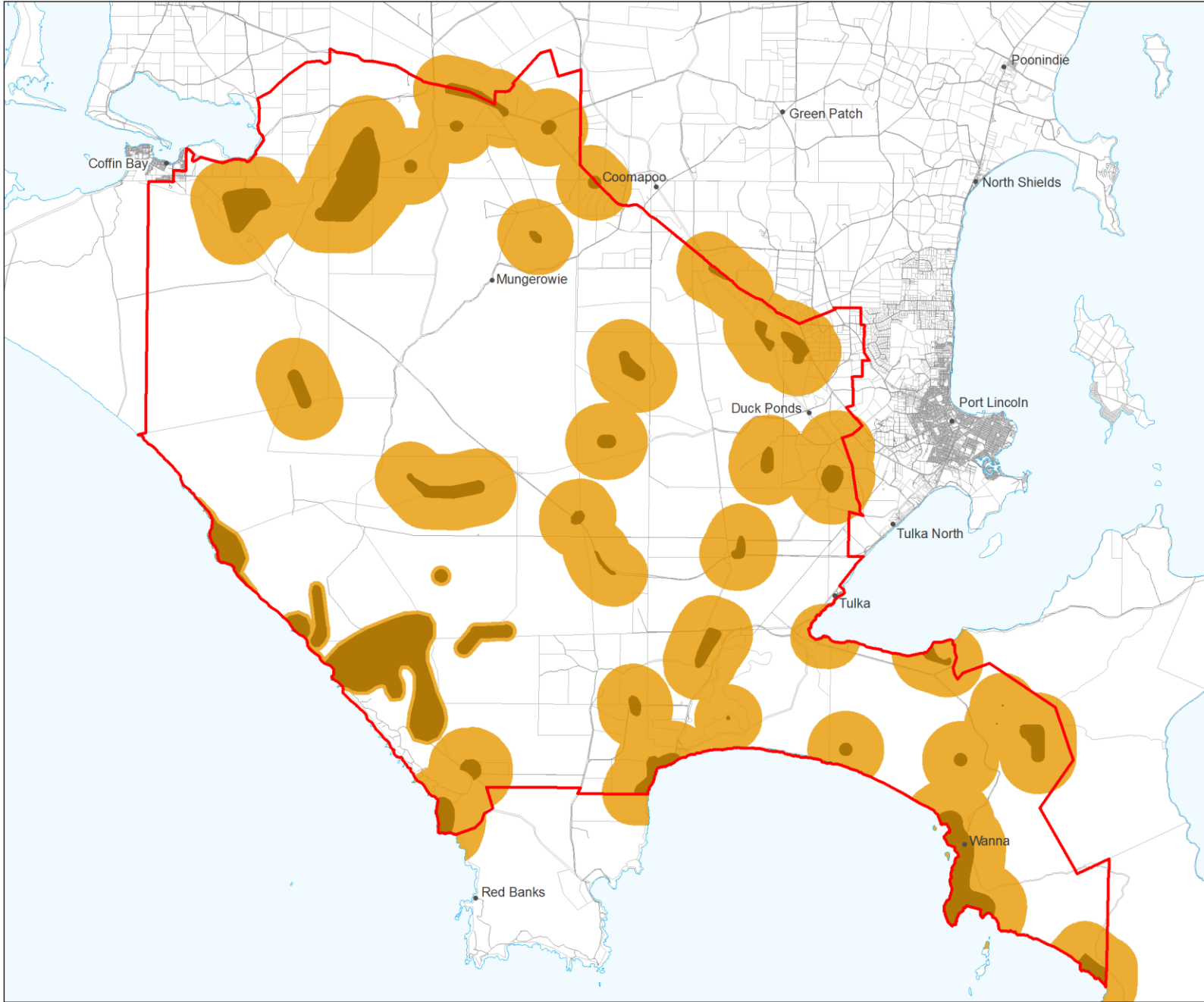
- Clay Absence
- Clay Absence Buffer
- Musgrave Prescribed Wells Area
- Property Boundary
- Town



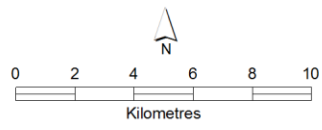
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- Clay Absence
- Clay Absence Buffers
- Southern Basins Prescribed Wells Area
- Property Boundary
- Road
- Town



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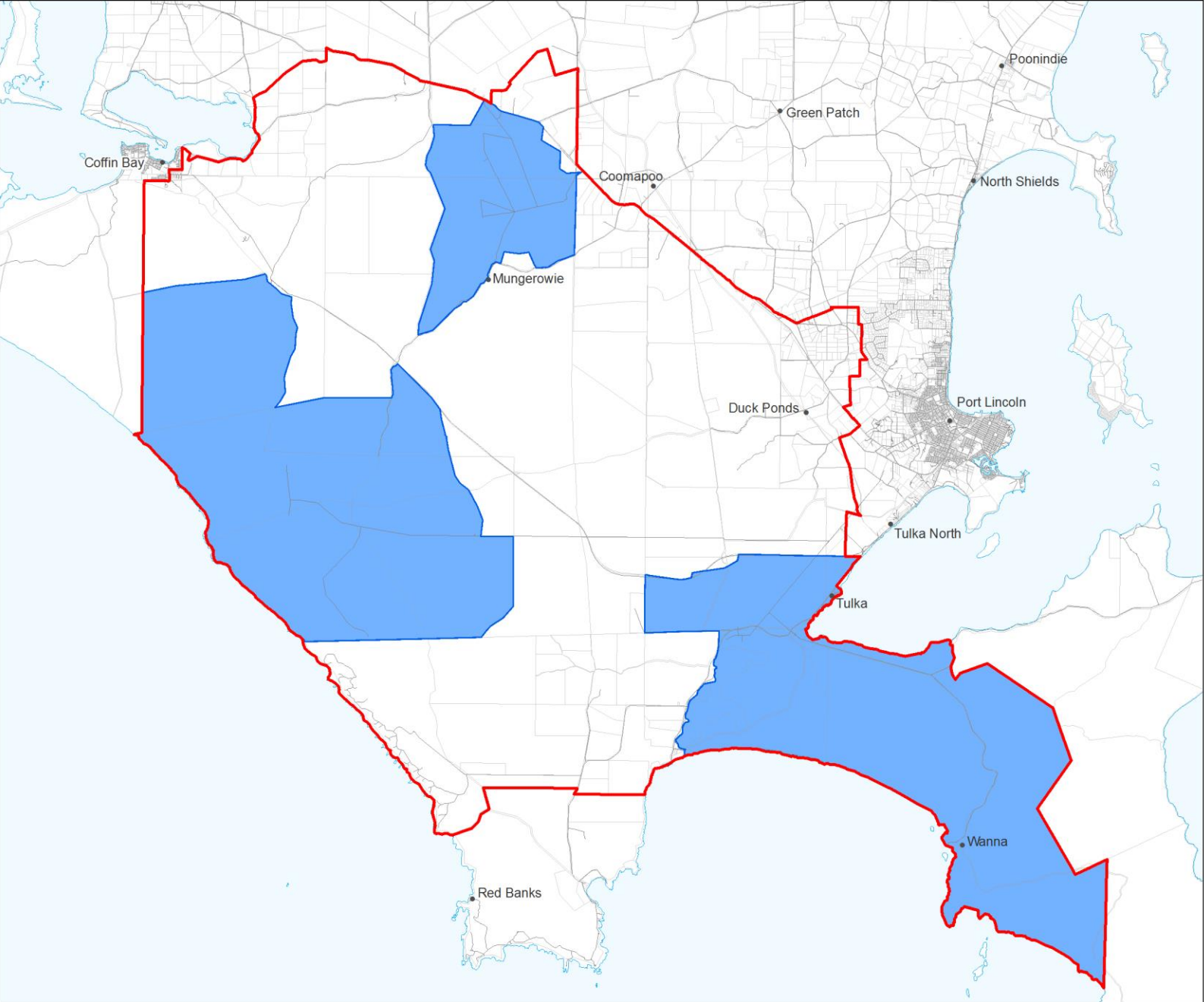
Southern Basins Prescribed Wells Area

Buffers to protect water in the shallow Quaternary Limestone aquifer

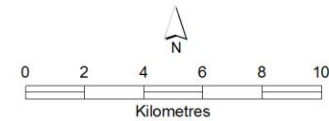
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Southern
Basins
Prescribed
Wells Area

Groundwater
Protection
Zones to
protect public
water supply



- Groundwater Protection Zone
- Southern Basins Prescribed Wells Area
- Property Boundary
- Road
- Town



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For the revised 2026 Water Allocation Plan:

- Legislation requires the provision of environmental water to protect aquifers and groundwater-dependent-ecosystems (GDEs)
- The previous identification and mapping of GDEs is still relevant
- Estimates of environmental water requirements and provisions made to deliver these are still relevant
- As the estimate of resource capacity for some aquifers will drop, the amount of groundwater being extracted will need to be reduced
- Unless there are any changes to the estimate of stock and domestic needs, this reduction in groundwater extraction will need to come from water licence holders.