

# Protecting groundwater dependent ecosystems

Lower Limestone Coast Water Allocation Plan | November 2013 | Factsheet 6

The groundwater resources of the Lower Limestone Coast are unique and precious, and underpin the region's people, townships, industries and environment.

The Minister for Sustainability, Environment and Conservation adopted the Lower Limestone Coast Water Allocation Plan (the WAP) to ensure the long term sustainability of the region's water resources, bring certainty for water users, and protect water resources into the future.

Developing the WAP has involved significant research and stakeholder consultation, resulting in what is believed to be a world-first approach to sustainable water resources management in that it now includes commercial forests as a licensed water user.

The WAP identifies the most valuable and sensitive groundwater dependent ecosystems (GDE's) in the region, and protects them by:

- reducing the amount of water that can be allocated in management areas where demand on the resource is very high, in order to maintain the quantity and quality of water available to sustain the environment;
- requiring new water extraction points and commercial forests to be located where they do not reduce the groundwater level to below what is necessary to sustain high ecological value GDE's; and
- requiring assessment of the impact of transfer of water allocations to existing wells in the vicinity of these high value GDE's.

This Factsheet describes the methodology used in the WAP to protect groundwater-dependent ecosystems from further development.

## WHY PROTECT GDES FROM WATER USE?

The wetlands of the South East provide some of the most diverse habitats for biodiversity found anywhere in Southern Australia. These wetlands play a vital role in supporting a wide variety of animals and plants that need water to complete all or part of their life cycle including birds, fish, amphibians, trees, sedges and rushes.

Drainage and land clearance since European settlement has reduced the extent of wetlands from 44% of the region to just 6%. Of this reduced area, less than 10% are intact.

The vast majority of the remaining wetlands depend on groundwater for their survival.

We know that while the water table can rise and fall naturally in response to rainfall; groundwater extraction, recharge, interception and drains can also effect the water table.

The NRM Board has assessed wetlands throughout the South East to identify GDEs, and assess their ecological value and their sensitivity to reduced groundwater levels as a result of water extraction. This process identified 13 "High Priority GDE complexes" and a number of other GDEs with high ecological value.

The WAP uses this information to determine where, how, and how much water can be extracted for licensed uses, without having a detrimental impact on the precious and sensitive environments that are the GDEs.



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## HOW DOES THE WAP PROTECT GDEs?

Under the WAP the total amount of water that can be allocated across the region for licensed uses such as irrigation and forestry is proposed to be reduced by approximately 87,000 ML/year.

This means that more water will be available to sustain the groundwater resources and therefore the GDEs that depend on them.

Another way in which the WAP specifically protects GDEs is by requiring new water extraction points to be located where they do not reduce the groundwater level to below what is necessary to sustain GDEs. This is achieved by a separation distance, or setback, between the extraction point and the GDE.

The rules for setbacks from GDEs in the WAP will apply to:

- new commercial forestry;
- any new well;
- any transfer of additional water allocation to an existing well; and
- any conversion of a holding allocation to an extraction from a well or a forest licence.

The rules do not apply to:

- farm forestry; and
- wells that are exclusively for stock and domestic purposes.

The following table summarises how the WAP regulates different types of water extractions to protect the High Priority GDE complexes, as well as, where the water table has dropped in the preceding five year period, in the vicinity of GDEs of high ecological importance.

## WHAT'S CHANGED AS A RESULT OF COMMUNITY CONSULTATION?

No changes have been made to the policy for protecting groundwater dependent ecosystems as a result of community consultation.

A number of changes have been made to other parts of the WAP. Please refer to the other fact sheets available on our website for details on these changes.

## WHAT IF I NEED MORE INFORMATION ON THE WATER ALLOCATION PLAN?

If you have questions about the WAP and how it will operate, you will find further information on our website: [www.senrm.sa.gov.au](http://www.senrm.sa.gov.au)

If you are a licensee, you will also shortly receive further information including application forms from our licensing staff.

Assistance is also available from Natural Resources South East. Contact **08 8735 1177**.

## FURTHER READING

Guide to the WAP

- Factsheet 1 - Sustaining our region through water allocation planning
- Factsheet 2 - Changes to how water is allocated
- Factsheet 3 - Forest water use
- Factsheet 4 - Protecting vulnerable water resources
- Factsheet 5 - Water trade and transfer
- Factsheet 6 - Protecting groundwater dependent ecosystems
- Factsheet 7 - Managing the confined aquifer
- Factsheet 8 - Managing water in the Border Zone
- Factsheet 9 - Farm forestry



Table 1. Policy for protection of Groundwater Dependent Ecosystems (GDEs) from groundwater extraction from wells

Type of GDE	Activity	Policy
13 high priority GDEs	New wells within 2.25 km of GDE	Setback distance calculated using the Dependent Ecosystems (DE) equation. The DE equation is described on pages 24-25 of the WAP.
	Transfer of allocation to well within 2.25 km of GDE	DE equation applied to determine impact of increased extraction.
	Replacement well	No closer to GDE than the existing well.
	New stock and domestic well	Exempt from this policy
High ecological value GDE	New wells within 2.25 km of GDE	If water table has dropped in previous 5 years, then setback distance calculated using DE equation
	Transfer of allocation to well within 2.25 km of GDE	If water table has dropped in previous 5 years, potential impact of increased extraction determined using DE equation
	Replacement well	If water table has dropped in previous 5 years, no closer to GDE than existing well
	New stock and domestic well	Exempt from this policy

Policy for protection of GDEs from forestry developments

Type of GDE	Activity	Policy
13 high priority GDEs	New or expanded plantation	Setback distance as determined by the Minister (minimum 20 metres) by determining whether the use of water by a proposed commercial forest is likely to have a detrimental effect on water levels (identified as a 0.05 metre decline) in the vicinity of the wetland at the end of the forest rotation. If the Minister cannot determine a distance using this criterion, then the setback distance shall be as per Table 2.5 page 23 of the WAP.
	New rotations on the same site	Replant no closer than 20 metres from the wetland.
	Farm forestry	Exempt from this policy
High ecological value GDE	New or expanded plantation	If water table has dropped in the previous five years: setback distance determined by the Minister as described above. If the Minister cannot determine a distance, then the minimum setback distance shall be 20 metres.
	New rotations on the same site	If water table has dropped in the previous five years, replant no closer than 20 metres from the wetland.
	Farm forestry	Exempt from this policy

