

# Water Users' Frequently Asked Questions about the new Water Allocation Plan

The following frequently asked questions are to inform existing and future water licensees and stock and domestic water users about the features of the new Water Allocation Plan for the Southern Basins and Musgrave Prescribed Wells Areas. It is recommended that you familiarise yourself with the definitions whilst reading the frequently asked questions.

Topics of questions and their page number includes:

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## Drilling or repairing a well

### 1. Where can I drill a new well for stock and domestic use?

If the rate of extraction for a proposed stock and domestic well is less than 1 Litre per second, the new well can be drilled anywhere within the Southern Basin and Musgrave PWA.

If the rate of extraction is expected to be greater than 1.0 L/s then the following conditions apply to the location of the new well:

- not within 300 m of an existing production well that accesses the same aquifer;
- not within an environmental asset (see Figure 34 or 35 on pages 77 and 78 of the WAP);
- not within in an area where there is an absence of clay aquitard above the tertiary aquifer or basement aquifer (see Figure 30 or 31 on pages 71 and 72 of the WAP);
- not proposing to extract groundwater from the Tertiary sand aquifer or basement aquifer in the Groundwater Protection Zones of the Southern Basins PWA (see Figure 29 on page 70 of the WAP).

It is recommended that you read principles 30 to 32 (pages 109 and 110) of the Water Allocation Plan as a number of exemptions exist for where you can drill a well.

A well construction permit will be required prior to drilling the new well, [click here](#) for the form and fees details. A licensed driller will be required to drill the new well.

A water resource works approval will be required prior to taking water from the new well, [click here](#) for the form and fees details.



## 2. Where can I drill a new well for licensed purposes?

You can drill a new well for licenced purposes in the Southern Basins and Musgrave PWA provided its:

- not within 300 m of an existing production well that accesses the same aquifer;
- not within an environmental asset (see Figure 34 or 35 on pages 77 and 78 of the WAP);
- not within in an area where there is an absence of clay aquitard above the tertiary aquifer or basement aquifer (see Figure 30 or 31 on pages 71 and 72 of the WAP);
- not proposing to extract groundwater from the Tertiary sand aquifer or basement aquifer in the Groundwater Protection Zones of the Southern Basins PWA (see Figure 29 on page 70 of the WAP).

Licensed purposes includes water extracted for irrigation, industrial, commercial, recreation or public water supply uses. It is recommended that you read principles 30 to 32 (pages 109 and 110) of the WAP as a number of exemptions exist for where you can drill a well.

A well construction permit will be required prior to drilling the new well, [click here](#) for the form and fee details. A licensed driller will be required to drill the new well.

A water access entitlement and a water resource works approval will be required prior to taking water from the new well, [click here](#) for the form and fee details.

## 3. My well no longer works, where can I drill a replacement well?

You can drill a replacement well in Southern Basins or Musgrave PWA provided:

- the well to be replaced is authorised to take water by having a current water licence and a water access entitlement;
- the new well is less than 50 metres from the well to be replaced;
- is constructed in the same consumptive pool as the well being replaced;
- is used for the same purpose as the existing well;
- the volume proposed to be extracted from the well is equal to, or less than the existing well;
- if the new well is located within an environmental protection zone or a clay absence buffer zone, the replacement well cannot be located closer to the environmental asset or area of clay absence. For concerned areas refer to Figures 30, 31, 34 and 35 on pages 71, 72, 77 and 78 of the WAP.

A well construction permit will be required prior to drilling the replacement well, [click here](#) for the form and fee details. A licensed driller will be required to drill the replacement well.

A water resource works approval will be required prior to taking water from the new well, [click here](#) for the form and fee details.



# Water licencing, transfers and Gazette notices

## 4. How much water will I get under the new WAP?

A current water licence granted under the previous WAP is entitled to a water access entitlement under the new WAP. The amount of water granted will be determined by converting the maximum volume of water allocated for any one year between 2000/01 and 2013/14, into the units of a water access entitlement. The conversion rate is one unit for every kilolitre. For example, if the maximum volume of water allocated was 10,000 kilolitres (10 ML) then the number of units granted will be 10,000 units. The maximum volume may however be reduced proportionally if the consumptive pool's volume is less the sum of all water access entitlements.

It is worthwhile to note the water available for use from a water access entitlement is dependent upon a water allocation determined by the Minister. All water allocations will be published in the South Australian Government Gazette.

## 5. Will my licence ever expire?

For most licences there is no expiry date. There are however instances where an expiry date may be specified, including licences granted for authorised mining activities. These licences will expire on the 30 June following the cessation of the activity authorised under the *Petroleum and Geothermal Energy Act 2000* or the *Mining Act 1971*.

## 6. Can I use my water licence for the purposes not specified on my licence?

No, a water licence is granted for a specific purpose and cannot be used for other purposes. This includes a water licence for mineral exploration purposes cannot be used for mineral production purposes. A water licence's purpose may however be varied provided an application form is submitted and approved by the Department of Environment, Water and Natural Resources. [Click here](#) for the form to change a water licence's details.

## 7. The Minister used to Gazette recharge rates, what will be gazetted now?

The Minister will publish notices about the volume and level of storage (as percentage) for the consumptive pools of Southern Basins and Musgrave PWAs. Notices will only be published for the consumptive pools of the saturated Quaternary Limestone Aquifer, as other consumptive pools' volumes are fixed for the lifetime of new WAP. Notices will be published in the South Australian Government Gazette on or about the 1<sup>st</sup> June of each year.

Should a consumptive pool's level of storage be below a trigger level, the Minister will publish a notice about the volume available for allocation from a consumptive pool; and the calculated value of a unit share of a water access entitlement.

It is recommended that you read Section 6.1 (pages 95 to 103) of the WAP for details about trigger levels for each consumptive pool.



## **8. Where can I transfer water to?**

A water licence, a water access entitlement and/or water allocation may be transferred within the consumptive pool where it was originally granted. Transfers cannot occur between different consumptive pools.

## **9. How long does the transfer last?**

A water licence and/or water access entitlement can be transferred on a permanent or temporary basis. The duration of a temporary transfer is to the discretion of the transferor and transferee.

A water allocation can only be transferred for the period of time that the water allocation is valid, or for a shorter period of time.

## **10. How do I apply to transfer water to someone else?**

You must complete an application form and pay the required fee to the Department of Environment, Water and Natural Resources. [Click here](#) for the water transfer application form(s) and fees.

## **11. How do I apply for excess water?**

Excess water occurs when the total demand from licensed and non-licensed water use is less than the consumptive pool's volume. In these instances, an existing licensee can apply for this excess water by amending their water access entitlement. Someone without a water licence will need to obtain a water licence before they can apply for excess water. [Click here](#) for the required application forms and fee. Please note the Minister may impose additional procedures for the application of excess water.

Please refer to Table 24 (page 107) of the WAP for the amount of excess water for each consumptive pool in the Southern Basins and Musgrave PWA.

It is worthwhile note that if the proponent makes a request for excess water that is less than 10 ML per year, a simple assessment will be undertaken. This assessment will ensure the location of water take will not pose a risk to water users or environmental assets. If the request for excess water is greater than 10 ML per year, a resource assessment will be required to be undertaken which may include a pump test and/or groundwater numerical model.

## **12. Can I create a new consumptive pool?**

The new WAP specifies 15 consumptive pools where water can be taken provided you have a water access entitlement. The new WAP also allows a new consumptive pool to be created provided:

- A hydrogeological investigation discovers additional capacity for a defined consumptive pool or an undefined groundwater resource is discovered in a prescribed wells area; and
- It is demonstrated to the Minister that the taking of this additional water will not impact existing water users, an environmental asset or the prescribed water resource.



It is recommended that you read Section 6.3 (page 104 and 105) of the Water Allocation Plan for further details on creating a new consumptive pool.

Should a new consumptive pool be discovered, the Minister must proclaim the new consumptive pool in South Australian Government Gazette before it can be accessed.

## Monitoring and meter reading

### **13. How frequently will groundwater levels be monitored?**

Groundwater levels will be monitored every six months for wells within the monitoring network. In addition, there are several telemetry based monitoring wells, which record groundwater levels every hour. Please visit the WaterConnect website for groundwater level data ([click here](#)).

### **14. How frequently will groundwater salinity be monitored?**

Groundwater salinity will be measured annually for a number of selected wells from the monitoring network.

### **15. Will the coastal interface be monitored?**

Yes the coastal interface will be monitored annually by measuring the salinity gradient in wells adjacent to the coastline. This interface will be monitored for the following consumptive pools: Uley South Public Water Supply, Coffin Bay Public Water Supply and Lincoln South Public Water Supply.

### **16. Is rainfall still being monitored?**

Yes, the Bureau of Meteorology currently operates five rainfall stations in and around the Musgrave PWA, and three rainfall stations in and around the Southern Basins PWA. In addition to this, pluviometers (e.g. rainfall stations that measure total rainfall and rainfall intensity) are located in the Poldas Basin, Uley South Basin, Coffin Bay, Uley Wanilla and Lincoln South Basins. Please visit the WaterConnect website for this rainfall data ([click here](#)).

### **17. How can I help monitor groundwater resources?**

The Department of Environment, Water and Natural Resources are keen to support water licensees and stock and domestic users collect additional groundwater monitoring data. Details of future citizen science projects will be provided on the Natural Resources Eyre Peninsula website as they are developed. If you would like to register your interest in these monitoring activities please contact Monitoring, Evaluation, and Reporting and Improvement officer on 8688 3111.

### **18. Will someone still come and read my meter?**

Yes, an annual meter reading will be undertaken to ensure your water take is in accordance with your water access entitlement and any associated water allocation.



# Managed aquifer recharge

## 19. Can I undertake managed aquifer recharge?

Yes, you can purposely drain or discharge water into a well for recharge purposes, however the proponent must follow these procedures:

- Obtain a water affecting activity permit for draining or discharging into a well, [click here](#) for required form;
- Undertake a risk assessment as a part of the water affecting permit application. Risk assessment must be consistent with the *National Water Quality Management Strategy – Australian Guidelines for Water Recycling: Managing Health & Environmental Risks, Phase 2*; and
- Ensure water that is drained or discharged into a well complies with the *Environmental Protection Act 1993* and any associated policy.

## 20. Do I require a permit if I am only recharging water from roof runoff?

Yes you do require a water affecting activity permit. However you are not required to undertake a risk assessment as part of the permit application if the recharge water is from roof runoff only; and water is drained or discharged into the well via a closed pipe system that is equipped with a first flush diverter.

## 21. Can I take water from one aquifer and put into another?

Draining or discharging groundwater sourced from one aquifer to another aquifer can only occur where the proponent has proven to the satisfaction of the Minister that the activity will not impact:

- the water quality of the receiving aquifer;
- the integrity of the receiving aquifer;
- an environmental asset;
- existing water users;
- surface and near-surface drainage including waterlogging of soils, creating a perched watertable(s) or excessive increase in the height of the watertable;
- buildings, roads and infrastructure (directly or indirectly);

Water that is drained or discharged into the receiving aquifer must also comply with the *Environmental Protection Act 1993* and any associated policy.

## 22. Can I take my recharge credits from a different aquifer?

No, the recharge credits can only be taken from the aquifer in which the recharge water was drained or discharge into.



## Further information and hydrogeological assessments

### **23. Where can I find further documentation on the WAP?**

A number of technical investigations are available on the WaterConnect website ([click here](#)).

### **24. Where can I find a hydrogeologist to undertake a hydrogeological assessment?**

There are a number of companies in South Australia that provide hydrogeological assessments, and it is suggested that you search Yellow Pages or Google using the search terms "environmental consultants" or "groundwater consultants".

It is recommended that you speak to the company and/or browse their websites to confirm their capability to undertake the required investigation. Staff from the Department of Environment, Water and Natural Resources will be able to assist you with defining the type of service you require. Please contact (08) 8463 6876 for general inquiries, and call (08) 8735 1134 for drilling related inquiries.

It is also recommended that you contact a number of companies to compare prices for the required investigation(s).

# Definitions

**Aquifer:** An underground layer of rock or sediment that holds water and allows water to percolate through.

**Aquitard:** A layer in the geological profile that separates two aquifers and restricts the flow between them.

**Consumptive pool:** The water taken to constitute the resource within a particular part of a prescribed water resource for the purposes of Chapter 7 of the *Natural Resources Management Act 2004*. A consumptive pool is further defined for the saturated quaternary limestone aquifer in the *Water Allocation Plan for Southern Basins and Musgrave Prescribed Wells Areas*:

- By geography, using the management areas (Figure 18 and 19)
- As a volume of water determined annually for each consumptive pool

**Environmental Protection Zone:** An environmental buffer defined as the desirable set-back distance that any water affecting activity must be from an environmental asset, so as to mitigate the effect of groundwater use on the environmental asset.

**Excess water:** water that may be granted on account of a new Water Access Entitlement under a water licence, or additional water that may be granted on account of an existing Water Access Entitlement, but which is yet to be granted.

**Environmental Asset:** Ecosystems that are protected by Environmental Protection Zones (EPZs) because they require access to groundwater (groundwater dependent ecosystems), opportunistically use groundwater or are not groundwater dependent but may be adversely affected by new wells (Big and Little Swamp).

**Groundwater Dependent Ecosystem (GDE):** An ecosystem that requires access to groundwater, on a permanent or intermittent basis, to meet all or some of its water requirements to maintain the community of plants and animals, and the ecological processes and ecosystem services they provide.

**Hydrogeology:** The study of groundwater, which includes its occurrence, recharge and discharge processes and the properties of aquifers.

**Managed aquifer recharge:** The intentional draining and discharging of water to aquifers for subsequent recovery or environmental benefit.

**Minister:** The Minister responsible for the administration of the *Natural Resources Management Act 2004*.

**PWA:** prescribed wells area



**Resource capacity:** The capacity of a groundwater resource, calculated by multiplying the recharge area (km<sup>2</sup>) by the recharge rate (mm). Also known as the total amount of water available for consumptive demand and non-consumptive demand, that is, total demand.

**WAP:** water allocation plan

**Water Access Entitlement:** An entitlement of a licence holder to gain access to a share of water available in the consumptive pool or pools to which the licence relates, as specified by the licence and after taking into account any factors specified by the relevant water allocation plan or prescribed by the regulations.

**Water Allocation:** An allocation of water under the terms of a water licence in accordance with Chapter 7 Part 3 Division 2 of the Natural Resources Management Act 2004, and includes the water available in connection with a Water Access Entitlement.

**Water allocation plan:** A plan prepared by a natural resources management board and adopted by the Minister in accordance with the Act.

**Water licence:** A licence granted by the Minister under section 146 of the NRM Act.

**Water-use year:** A water use year runs from 1 July to 30 June in the following calendar year.

**Well:** Defined in the *Natural Resources Management Act 2004* as (1) An opening in the ground excavated for the purpose of obtaining access to underground water; (2) An opening in the ground excavated for some other purpose but that gives access to underground water; (3) A natural opening in the ground that gives access to underground water.