



APPLICATION FOR A PERMIT TO DRAIN OR DISCHARGE WATER INTO A WELL

Pursuant to Section 135 of the Natural Resources Management Act 2004

A person who furnishes information to the Minister or other authority under the Natural Resources Management Act 2004 (the Act) that is false or misleading in a material particular is guilty of an offence. Maximum penalty: \$20 000.

1. APPLICANT(S) DETAILS

Form section for Applicant(s) details including fields for Name(s), ACN, Residential Address, Postal Address, Contact Name, Telephone No, Mobile, Fax, and Email. Includes notes about legal entities and electronic copy forwarding.

2. LAND DETAILS

Land on which the activity is proposed to be carried out, being land the applicant has a legal entitlement to use in the proposed manner. Refer to Property Location Browser: http://maps.sa.gov.au/plb/ for land details and a map.

Table with 6 columns: Land Title Reference Volume No and Folio No, Plan No, Allotment or Section No, Hundred of, On Land or Adjacent Road Reserve, Pastoral Lease No if known.

Note: An application is required for each well.

Return Application and Payment to: DEPARTMENT FOR ENVIRONMENT AND WATER (DEW)

Table with 3 columns: Mount Gambier, Berri, Other Areas. Each column contains address and telephone enquiry information.

Table for office use only with columns: Application No, Payment Method, Invoice No, Batch No. Includes fields for Date Received, Amount Paid, and Area.

3. SOURCE OF WATER

Indicate the proposed source(s) for drainage or discharge to the well (please tick):

3.1 Directly from a watercourse/stream (an environmental assessment may be required)

3.2 Directly from a dam (if YES go to 3.9)

3.3 Rain captured as: roof runoff pavement/road runoff

Is this a sealed rainwater collection system? Yes No

Details: _____

3.4 Rain captured as surface water runoff

Describe land use from which surface water runoff is generated:

3.5 Water taken from the River Murray as authorised by a water licence

Licence Number: _____

3.6 Township (Mains) SA Water BIL Water

3.7 Other:

3.8 The water is Treated Untreated

3.9 Is any of the water to be drained or discharged from the proposed source/s stored in a dam?

Yes No

If YES state the source/s:

4. WELL DETAILS

4.1 What is the estimated annual **volume** of water to be drained or discharged? _____ kilolitres

4.2 What is the estimated rate of discharge? _____ Litres per second

4.3 What is the estimated method of filtration discharge? _____

4.4 Is the water to be drained or discharged into an existing well? Yes No

If YES please provide the relating well unit number (if known): _____

4.5 Is the well endorsed on an existing water licence? Yes No

If YES state water licence number: _____ or well permit number: _____

4.6 The water will be discharged through a: silt trap oil trap other

Details of trap: _____

Details of settling pit: _____

NOTE: If you do not have an existing well or have not applied for a well construction permit, a separate permit is required to authorise the construction of a well. Application forms are available on the department's website or the numbers provided on the front of this application.

5. DETAILS OF PROPOSED WATER USE

5.1 Is it proposed to extract the water that is being drained or discharged into the well?

Yes No (Please note: Aquifer Storage Recovery may not be available in your area)

5.2 Please indicate the proposed use of the water:

i) Irrigation

ii) Industrial

iii) Stock

iv) Domestic

v) Recreation

vi) Environmental

vii) Other If OTHER provide details:

6. OTHER APPROVALS

6.1 Will this activity be carried out by another Government Agency? Yes No

Details: _____

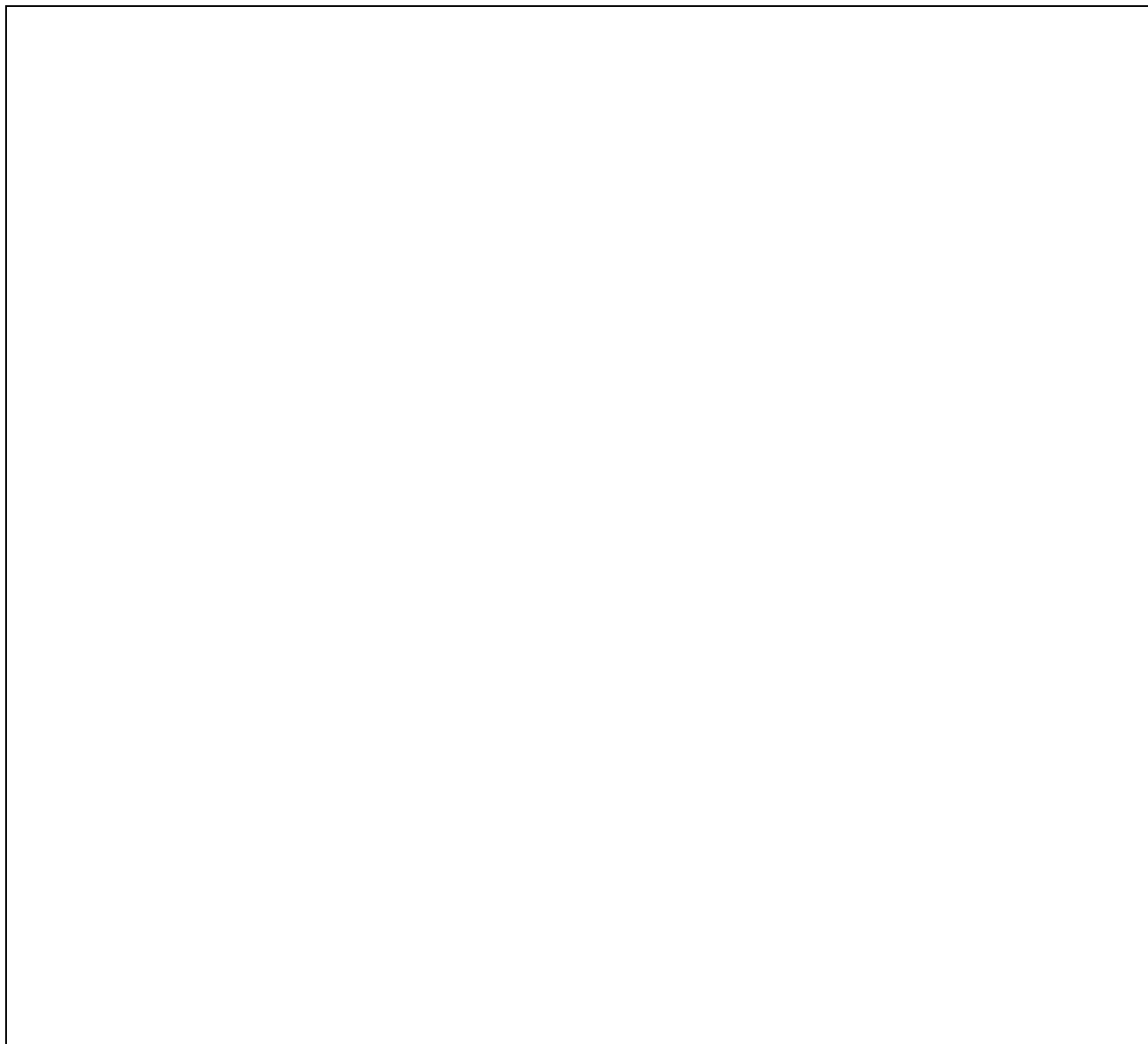
6.2 Do you have an EPA Licence Number? Yes No

Details: _____

7. PROPERTY PLAN AND ANY OTHER RELEVANT INFORMATION

Please draw a plan of your property showing the following information:

- Property boundaries and buildings (e.g. houses, sheds, adjoining roads)
- All watercourses and streams
- Other significant features (e.g. trees, vegetation)
- The precise location of the proposed discharge point on the property and with the distances to property boundaries
- North point



8. ANY OTHER COMMENTS

9 SIGNED BY THE APPLICANT

Note: The applicant must complete only one of the following alternatives:

Note: If signing as a company, two position bearers must sign e.g. Director, Secretary. If only one Director then Sole Director must be stated as position held.

I/We declare that the information that has been provided on this application is true and correct.

SIGNED:

1. Where the applicant is an individual or two or more persons:		
Print Name:	Sign Here:	Date:
Print Name:	Sign Here:	Date:
Print Name:	Sign Here:	Date:
Print Name:	Sign Here:	Date:
2. Where the applicant is a company or an incorporated association the authorised person(s) duly authorised to sign for and behalf of the organisation:		
Name of company or incorporated association:		
Print Name:	Sign Here:	Date:
Position Held:		
Print Name:	Sign Here:	Date:
Position Held:		
3. Where the applicant is a company or an incorporated association and the Seal is affixed:		
The Seal of _____		Affix Seal in Box
[Write name of company or incorporated association]		
was hereby affixed in the presence of:		
Print Name:	Sign Here:	
Position Held:	Date:	
Print Name:	Sign Here:	
Position Held:	Date:	

Note: To process this application we require some or all of the following documentation (see the current Water Allocation Plan in your area to see which of the following apply to your application. If there is no current Water Allocation Plan in your area all of the following is required):

- A full chemical analysis of the water to be discharged into the well, unless the water source is imported water to be directly discharged into the well and is not stored in any way prior to discharge (see procedure fact sheet for definition of imported water)
- A full chemical analysis of the ambient groundwater (if recharge has occurred in the last 3 months please consult the Water Licensing Officer - Permits on 8463 6876)
- Aquifer test results including a report by a professional hydro-geologist

PROCEDURE FOR APPLYING FOR A PERMIT TO DRAIN OR DISCHARGE WATER INTO A WELL

1. APPLICATION

A formal application is required in the form of an Application for a Permit to Drain or Discharge Water into a Well. Please note that one application is required for each well proposed as an injection well.

If you are in a prescribed wells area and intend to extract water from the well, a water licence with the well endorsed is required. If the injection well is not currently endorsed on a licence, you must either apply for the injection well to be endorsed on your current water licence or apply for a new water licence.

2. HYDROGEOLOGICAL DATA

In addition to your Application for a Permit to Drain or Discharge Water into a Well, and in accordance with the Water Allocation Plan for the area, you may be required to:

- Obtain a sample of the ambient groundwater and, depending on the source of the drainage or discharge water, a sample of the water that is being drained or discharged;
- Undertake a chemical analysis of the water sample(s);
- Undergo an aquifer test on the proposed injection well if the Water Allocation Plan for the area requires this. If the well is not located in an area where a Water Allocation Plan applies a pump test must be undertaken;
- Submit results of the chemical analysis, and the aquifer test (if required), with your application for a Permit to Drain or Discharge Water into a Well to this Department.

Chemical Analysis

The chemical analysis is required to ensure that the water being drained or discharged is equal to or better in quality than the ambient groundwater. This must be undertaken to provide evidence that the injection will not have a detrimental impact on the aquifer, ecosystems or neighbouring groundwater users.

In order to provide this chemical analysis, please follow the procedure outlined below:

Step 1: Contact a suitable testing authority for advice on collecting water samples

Prior to collecting any water samples, it is important that you contact an organisation accredited by the National Association of Testing Authorities for the chemical and biological testing of water (such as the Australian Water Quality Centre – telephone 1300 653 366) to discuss collection of your water samples.

They will advise you on the method of collecting your water samples and can also collect the samples for you (please note a fee is involved). If your samples are not collected correctly, this will result in inaccurate analysis and may require you to submit a new sample for testing.

In order to provide advice on the collection of your samples, you may need to provide the testing organisation with the parameters that must be analysed (see Step 4).

Step 2: Obtain a sample of the Ambient Underground Water

To ensure that the sample taken and analysed is the ambient underground water, your sample will need to be taken from either:

- a) If you have not drained or discharged water into the subject well since the end of the pumping (irrigation) season – you may obtain your sample from the subject well prior to draining or discharging any water; OR
- b) If you have drained or discharged water into the subject well since the end of the pumping season or you have not yet drilled a well into which the discharge will be occurring – you may obtain your sample from a nearby well located up gradient of the subject well and completed in the same/proposed aquifer. Please contact this Department prior to undertaking any sampling to confirm a suitable well from which a sample can be collected.

Step 3: Obtain a sample of the water being drained or discharged

a) If you are draining or discharging imported water – a sample is not required

Where the water directly drained or discharged is taken directly from an imported water source (i.e. not stored on site prior to discharge), either SA Water off-peak, SA Water on-peak or through a private scheme (i.e. the BIL scheme in the Barossa Prescribed Water Resources Area) you are not required to sample this water. The Department will source the chemical analysis results of these water sources on your behalf.

b) If you are draining or discharging watercourse water - a sample is required

Where the water being drained or discharged is taken directly from a watercourse, a sample should be collected representative of the water to be drained or discharged into the well from the exact extraction site. The sample should be taken during peak winter flows rather than from the first flows for the season.

c) If you are draining or discharging dam water – a sample is required

Where the water being drained or discharged is taken directly from a dam, three samples from different parts of the dam should be taken, mixed and sent for a single analysis.

d) If you are draining or discharging rainwater – a sample is required

Where the water being drained or discharged is in a commercial area, or where the water is not drained or discharged down the well through a 'sealed' rainwater collection system.

If you propose to use two different sources of water to drain or discharge into the well (e.g. roof runoff and dam water) then it is required that a sample of each drainage water is submitted for chemical analysis.

Step 4: Submit the water samples for chemical analysis

The samples of both your ambient groundwater and the water being drained or discharged (if applicable) must then be submitted to an organisation accredited by the National Association of Testing Authorities for the chemical and biological testing of water (such as the Australian Water Quality Centre - telephone 1300 653 366) to conduct the chemical analysis of the water sample(s). Please note that a fee is involved.

Please do not send your water samples to this Department.

The parameters to be chemically analysed in the water sample(s) are as follows:

- pH, total dissolved solids, turbidity, ammonia, nitrate, nitrite, total phosphorous, sodium, chloride, sulphate, calcium, magnesium, bicarbonates, iron, total arsenic, total boron, total cadmium, total chromium, total lead, total manganese, total zinc, total coliform and faecal coliform.

In addition where the water to be drained or discharged comes from a source likely to contain pesticides;

- Giardia, Cryptosporidium, volatile organic compounds and petroleum hydrocarbons (including but not limited to water from land used for intensive agriculture or industrial purposes) those substances, materials and characteristics

In addition where the water to be drained or discharged has been treated by chlorination;

- Trihalomethane

Step 5: Submit the results of the chemical analysis to the Department

Upon completion, the testing organisation will forward you the results of the chemical analysis of your water sample(s). The chemical analysis of both the ambient groundwater and the water to be drained or discharged will then need to be forwarded to the Department with your application for a permit to drain or discharge water into a well, for assessment at the following address:

Water Licensing Officer
Department for Environment and Water
GPO Box 1047
ADELAIDE SA 5001

The Department will undertake an assessment to determine if the water quality parameters of the ambient groundwater and discharge water comply with the relevant water allocation plan. If the results do not comply, a more specific assessment of the groundwater system will be required to ensure that the recharge water does not represent a long-term threat.

Aquifer Test and Hydrogeological Report

Refer to your relevant Water Allocation Plan to see if this applies to your application. If the injection well is not located in an area where a Water Allocation Plan applies the following is to be undertaken.

Step 1: Site Analysis

An in-depth assessment of the groundwater aquifer system at the proposed site is required. This will involve a site analysis to determine if recharge will have a detrimental impact on the water resources, the ecosystems or neighbouring groundwater users. This site analysis must include an assessment of the aquifer attributes outlined below:

1. Construction details of the proposed injection well (i.e. the unit number, if it is pressure cemented, the screen intervals, the current standing water level, total drilled depth)
2. The proposed injection volume per annum (kL) and rate (L/sec)
3. An accurate map of the land showing the source of recharge water, where and how the volume recharged is to be metered, the location of the injection well(s) and irrigation well(s) (if they are separate wells), any off takes between the recharge source and the injection well and any other information of relevance.

Step 2: Aquifer Test

The site analysis must include a test of the target aquifer, which must observe at least 18 hours of pumping on the proposed injection well with 6 hours of recovery. The aquifer test is undertaken to identify aquifer properties such as transmissivity, storage coefficient, effective porosity, and maximum injection pressures and rates. It also enables observation of the groundwater level in surrounding wells to ensure the integrity of the target aquifer is not compromised.

Following the completion of the aquifer testing the data should be provided in tabular and graphical format, along with a Hydrogeological report by a qualified consulting hydrogeologist (stating the required aquifer parameter estimates and an estimated rate of injection for the tested site), to the Department.

3. SUBMISSION OF YOUR APPLICATION

A copy of your completed 'Application for a Permit to Drain or Discharge Water into a Well' along with the results of the chemical testing, aquifer testing and Hydrogeological report (if required) and the prescribed fee/s should be submitted to the Department for assessment at the following address:

Customer Service Centre
81-95 Waymouth Street
Adelaide SA 5000

Department for Environment and Water
GPO Box 1047
ADELAIDE SA 5001

PLEASE NOTE: The undertaking of draining and discharging water into an aquifer is solely at the risk of the well owner. No liability will be accepted by the Department for Environment and Water or its officers should the well fail or water quality deteriorate as a result of injection.

Please make reference to the:

EPA Code of Practice for Aquifer Storage and Recovery

http://www.epa.sa.gov.au/data_and_publications/legislation/codes_of_practice

Australian Drinking Water Guidelines

<http://www.nhmrc.gov.au/guidelines-publications/eh52>