



Government of **Western Australia**
Department of **Water**

Murray

groundwater allocation plan
Statement of Response

Department of Water

April 2012

Murray groundwater allocation plan

Statement of response

Looking after all our water needs

Department of Water

April 2012

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Statement of response - Murray groundwater allocation plan

This statement is the Department of Water's response to the comments received on the *Murray groundwater allocation plan: for public comment* (DoW 2010).

Introduction

The allocation plan was open for a two month public comment period from 16 April to 18 June 2010. We notified 72 stakeholders, licensees, organisations and other government agencies that the plan was open for public comment and invited their feedback.

An invitation to comment and an explanation on how to make a submission was also advertised twice during the two-month comment period in the following publications:

- *The West Australian*
- *Bunbury South Western Times*
- *Mandurah Coastal Times*
- *Harvey Reporter*
- *Farm Weekly*.

In addition, we held two information sessions at the Kwinana Peel regional office after the plan was released for public comment. Questions asked during these sessions are provided in Appendix A, the department's response can be found in this document.

Two additional information sessions were requested by and delivered to the Pinjarra Rotary Club and the Dandalup and Districts Community Association Inc. Questions raised during these sessions were similar to those listed in Appendix A.

Respondents

We received 12 submissions during the public comment period. The respondents and their associated interest group are listed in Table 1. Respondents representing a specific interest group have, in some cases commented on other areas of interest in the plan.

Table 1 List of respondents, their interest group and number of responses from each group

| Respondents | Interest group | Number of responses |
|--|------------------------------|----------------------------|
| Individual | Individual | 1 |
| Peel–Harvey Catchment Council | Conservation and environment | 1 |
| Department of Planning Peel Development Commission Department of Mines and Petroleum Department of Agriculture and Food | Other state government | 4 |
| Keysbrook North Dandalup Action Group Dandalup & Districts Community Association Inc. | Community | 2 |
| Water Corporation | Public water supply | 1 |
| Murray River Country Estates Port Bouvard Limited | Industry and development | 2 |
| Shire of Murray | Local government | 1 |
| | Total responses | 12 |

Comments received and the department's response

All of the comments received were considered in completing the plan. This statement outlines where the *Murray groundwater allocation plan* (DoW 2012b) or *Murray groundwater allocation limits method report* (DoW 2012a) have changed due to public comments.

The following tables summarise the main issues and questions raised in the submissions and the department's response. The comments are grouped according to the water issue they relate to.

Table 2 General comments on the plan

| Comment | Department of Water response |
|--|--|
| <p>Support for the plan</p> <p>Three respondents expressed their support for the plan stating it is a useful tool to integrate groundwater allocation and land uses in the plan area (urban, industrial, residential and agricultural activities).</p> | Noted. |
| <p>Intention of the plan</p> <p>Two respondents queried the overall intention of the plan.</p> <p>i. Section 1.6 states the plan will come into effect the day it is released for public comment. How will comments change the plan if it is already in effect?</p> <p>ii. The plan allows for poor allocation decisions based on politics rather than science.</p> | <p>i. Noted. Allocation plans are released for public comment to get feedback from the community to which the plans apply. Aspects of the <i>Murray groundwater allocation plan: for public comment</i> (DoW 2010) have changed as a result of comments we received. The changes are outlined in this statement of response. We value comments because they help us to improve the plan. We use feedback to review the objectives, monitoring and implementation of the plan so that we can achieve better water management outcomes.</p> <p>ii. Disagree. The allocation limits have been set using up-to-date scientific information. The <i>Murray groundwater allocation limits method report</i> (DoW 2012a) describes how we have calculated aquifer yields and set the allocation limit for each of the resources.</p> <p>All licence applications are assessed individually, transparently and on an equitable basis in accordance with the requirements of the <i>Rights in Water and Irrigation Act 1914</i>, licensing policies and water allocation plans.</p> |

Table 3 Comments on allocation limits and water availability

| Comment | Department of Water response |
|---|--|
| <p>Availability information</p> <p>One stakeholder suggested <i>Table 1 Groundwater allocation limits</i> in the plan should include the volume of current licensed entitlements so readers can see how much water is available for licensing.</p> | Noted. The volume of current licence entitlements is not included in Table 1 because it is subject to change as licence entitlements are issued or amended. The footnote below Table 1 in the plan explains the terms we have used to describe water availability. |

| Comment | Department of Water response |
|---|---|
| | <p>Daily updated water availability information is available on our website at: www.water.wa.gov.au/ags/WaterRegister</p> <p>If you do not have access to the internet the Kwinana Peel regional office can be contacted for up-to-date water availability information. The contact details are given at the front of this report.</p> |
| <p>Allocation limit decisions</p> <p>Three respondents requested clarification on the decision making process for setting allocation limits:</p> <ul style="list-style-type: none"> • how reliability of supply for current users has been considered • how water for the environment has been considered and allocated • clarification that the allocation limits would not affect the long-term sustainability of the groundwater resources • justification for the allocation limit set for the lower Leederville aquifer in the Nambelup subarea which is set higher than estimated yield. | <p>Noted. The allocation limits method report details how the allocation limits were determined and how water for the environment is provided for.</p> <ul style="list-style-type: none"> • To protect reliability of supply to existing licensees, the average annual rainfall figure of 850 mm (1975–2009) was used to estimate recharge. By using this figure we have accounted for the drying climate trend being observed in the south-west of Western Australia (CSIRO 2009) in calculating groundwater yields and setting allocation limits for the plan area. • Water for the environment is set aside during the yield calculation stage and is not part of the allocation limits or affected by consumptive use. For this plan, 25% of calculated recharge was set aside to remain in the Superficial and Leederville resources to protect the in situ values and groundwater-dependent ecosystems. The allocation limits are based on the remaining 75% of recharge. • A reduced annual rainfall figure from the last 40 years was used to estimate yield to increase the reliability of the allocation limits over the life of this plan. In addition the department will continue to monitor abstraction and the aquifers. • The allocation limits method report now contains an expanded explanation of our decision where the allocation limit is set higher than yield. |

Table 4 Comments on consultation

| Comment | Department of Water response |
|---|--|
| <p>Cross-government alignment</p> <p>Three stakeholders recommended cross-government alignment on water and state planning issues. The submissions suggest alignment in the Murray plan area should focus on:</p> <ul style="list-style-type: none"> • strategic land-use planning • water for mining and petroleum operations • mapping of high quality agricultural land. | <p>Noted. Integrating land and water planning is a priority for the Department of Water. The following internal and external land-use planning documents informed the allocation planning process and allocation limit decisions for the Murray groundwater area:</p> <ul style="list-style-type: none"> • <i>Directions 2031</i> (WAPC 2010) • <i>Southern metropolitan and Peel sub-regional structure plan</i> (WAPC draft) • <i>Murray drainage and water management plan</i> (DoW 2011). <p>The allocation plan supports water use development by:</p> <ul style="list-style-type: none"> • providing information on the groundwater resources and water availability • stating how the abstraction of groundwater will be licensed and regulated • outlining an approach on assessment and potential licensing of reuse options of drainage water that is specific to the Murray groundwater area. This is a new area of water management in the state which the department will be developing further policy on. See section 4.2 and 6.1 in the plan for details. |
| <p>Community consultation</p> <p>Two respondents oppose an application to abstract 1.8 GL of water from the lower Leederville aquifer in the Nambeelup subarea. Their concerns are:</p> <ul style="list-style-type: none"> • allocating 60% of the available resource to one user is inequitable and irresponsible • community concerns have not been considered in the approval of the licence application. | <p>Noted. This application has been subject to a process of multi-agency approvals and community consultation (EPA 2009).</p> <p>The department requested and received additional hydrogeological information from the applicant consistent with <i>Operational policy 5.12 – hydrogeological reporting associated with a groundwater well licence</i> (DoW 2009a) and this has been taken into account in the assessment process.</p> |

Table 5 Comments on managing the groundwater resources

| Comment | Department of Water response |
|---|---|
| <p>Impacts of use</p> <p>Four respondents made comments on the effect of abstraction on the groundwater resources. Respondents suggested that the plan does not outline a management approach or strategy to deal with the following issues:</p> <ul style="list-style-type: none"> • sensitivity of the superficial aquifer to environmental variability and abstraction • effect of abstraction from the Leederville aquifer on the superficial aquifer and the wetlands it supports • over abstraction • declining trend in rainfall and reduced recharge • groundwater contamination. | <p>Noted. The plan and allocation limits method report have been updated to be clear on how these issues are addressed and defines our water management approach. The strategies to deal with the issues listed are:</p> <ul style="list-style-type: none"> • allocation limits (see method report) • licensing policy (Chapter 4 in the plan) • additional actions (Chapter 6 in the plan) <p>The plan manages water quality in relation to salinity and acid sulfate soils. Identifying contaminated sites is part of licence assessment and is based on information from the Department of Environment and Conservation.</p> <p>See response in Table 3 above for how reduced rainfall and recharge have been accounted for in the allocation limits.</p> |
| <p>Question</p> <p>1. How can an allocation limit be set higher than the recharge rate or estimated yield for a resource?</p> | <p>In the Murray area the decision to set some of the allocation limits above the estimated yield is supported by local scale hydrogeological assessments. In these resources, potential effects from abstraction will be managed through the groundwater licence. See section 2.3 in allocation limits method report for more details.</p> |

Table 6 Comments on licensing

| Comment | Department of Water response |
|--|---|
| <p>Current entitlements</p> <p>One respondent wanted reassurance that their current licensed entitlement would not be affected by release of the <i>Murray groundwater allocation plan</i>.</p> | <p>Noted. Current licensed entitlements have not been affected by the release of this allocation plan or update of the allocation limits. Acknowledging the rights of existing water users is one of the department's principles when setting allocation limits. The current level of use is within the new allocation limits.</p> <p>Licence entitlements and conditions are reviewed when a licence is due to expire and needs to be renewed. All licence holders are notified in writing when their licence is due to expire. Please contact the Kwinana Peel office for further information about renewing a groundwater licence.</p> |

| Comment | Department of Water response |
|--|---|
| <p>First in first served approach</p> <p>Three respondents commented on the first in first served approach to allocating water. They state:</p> <ul style="list-style-type: none"> • the approach is inequitable and allows domination of the water resources by single users • the approach lacks strategic direction for land-use planning. | <p>The first in first served method does not favour a particular industry or interest, but does enable available water to be used for regional development and growth.</p> <p>The first in first served policy is currently under review and public comments received on alternative options are being considered.</p> <p>A single user applying for a significant portion of a resource is normally required to provide additional information to support their application. This information must be completed to a satisfactory standard before a licence will be issued.</p> <p>See <i>Statewide Policy no. 3 – Policy statement on water sharing</i> (DoW 2000) for further information.</p> |
| <p>License assessment</p> <p>Three stakeholders requested further information on the licence assessment process.</p> <p>One respondent suggested that the plan should include an outline of the process to help applicants and the community understand how individual water entitlements decisions are made by the Department of Water.</p> | <p>Noted. Allocation plans guide the allocation and licensing of water by setting how much water can be abstracted and local policies to manage issues specific to the plan area. The plans are not intended to be a guide to submitting a licence application.</p> <p>For information on the licence assessment process please contact the Kwinana Peel regional office or on our website, go to >Business with water>Water licensing.</p> <p>The <i>frequently asked questions</i> on the water licensing page of our website provide a lot of information about the licensing process and are grouped in the licensing topics to which they relate.</p> |
| <p>Question</p> <p>1. How does the licence assessment process consider the environment, community and future demand when allocating water?</p> | <p>The licence assessment process is conducted in accordance with the <i>Rights in Water and Irrigation Act 1914</i>. See <i>Murray groundwater area: subarea reference sheets</i> (DoW 2012c) for information about criteria considered for a licence assessment.</p> <p>Information about the licence assessment process can be found on our website or by contacting the Kwinana Peel regional office.</p> |

Table 7 Comments on monitoring

| Comment | Department of Water response |
|---|--|
| <p>Licence conditions for monitoring</p> <p>Two stakeholders had different views on licensees providing monitoring information to the department as a licence condition. The differing views are:</p> <ul style="list-style-type: none"> • support for the department to request groundwater monitoring as a licence condition for land uses likely to affect groundwater quantity or quality • do not support third parties monitoring, interpreting and reporting on groundwater trends as part of the department's management of groundwater resources. | <p>Noted. If the department requires a licensee to submit monitoring information the details of the monitoring program are listed as conditions on the licence and are enforceable under the <i>Rights in Water and Irrigation Act 1914</i>.</p> <p>Licensee monitoring programs are designed to monitor impacts of individual abstraction at a local scale. This is a valuable source of information for identifying how the resource is responding locally to abstraction and allows for management of licensed abstraction if adverse effects are detected.</p> |
| <p>Monitoring network</p> <p>Three stakeholders raised concerns about the current monitoring network and program. The comments include:</p> <ol style="list-style-type: none"> i. the network appears inadequate to monitor the groundwater resources based on the number and location of bores in the plan area ii. a map indicating the location of private abstraction bores would give stakeholders confidence that the monitoring bore network is adequate to assess the groundwater resources. | <ol style="list-style-type: none"> i. Noted. We have committed to review the monitoring program to make sure it provides useful information so we can effectively manage the resources and evaluate the allocation plan. See sections 5.2 and 6.1 of the plan for more details. ii. Disagree. The monitoring bore network is not designed in relation to private abstraction bores but rather hydrogeological features. The monitoring bore network depicted in the allocation plan (Figure 5) extends beyond the boundary of the Murray groundwater area because it is used to monitor aquifers trends at a regional scale. <p>Licensee monitoring is used to monitor potential effects from individual, local scale abstraction. A map indicating the location of private abstraction bores is of limited value.</p> |
| <p>Metering</p> <p>One stakeholder suggested declaring the groundwater catchments of the Yalgorup Lakes, Lake McLarty and parts of the Peel–Yalgorup Ramsar system as <i>special areas</i> where metering of groundwater abstraction should be compulsory.</p> <p>This would assist in identifying abstraction volumes that threaten the condition and function of the wetlands.</p> | <p>Noted. Lake McLarty is part of the Peel–Yalgorup Ramsar declared wetland system and is in the Murray groundwater area. Lake McLarty along with other wetlands and lakes in the plan area are protected by state, federal and international legislation as well as state policy, which are all considered in our licence assessment process.</p> <p>Licence conditions for installing, monitoring and reporting metered data are applied in accordance with <i>Strategic Policy 5.03 - Metering the taking of water</i> (DoW 2009b),</p> |

| Comment | Department of Water response |
|--|---|
| | and on a case by case basis if identified as being necessary through the licence assessment process. |
| <p>New groundwater resources</p> <p>One stakeholder suggested that there may be unidentified groundwater resources along the eastern boundary of the plan area.</p> | <p>Noted. The department has a comprehensive knowledge of the groundwater resources in the plan area which we used to confidently set allocation limits.</p> <p>Additional hydrogeological investigations will refine this knowledge but have not been specified as an objective of this plan.</p> <p>New information will be considered during the evaluations of the allocation plan.</p> |

Table 8 Comments on drainage

| Comment | Department of Water response |
|--|---|
| <p>Drainage</p> <p>Two respondents commented on drainage:</p> <ul style="list-style-type: none"> i. groundwater loss through the artificial drainage network should be considered when setting allocation limits ii. disappointment that the plan focuses on consumptive use rather than promoting innovation towards water harvesting. | <ul style="list-style-type: none"> i. Noted. The drainage network moves water out of the area in winter, when extensive areas of land are inundated. Modelling work completed for the <i>Murray drainage and water management plan</i> (DoW 2011) will help quantify the volume of groundwater lost through the artificial drainage network in summer. The model was not complete for this planning process, but new information will be considered during the evaluations of the allocation plan. ii. Noted. The allocation plan guides licensing decisions up to the allocation limits, which the department use as the main tool to manage groundwater abstraction. Incentive to establish innovative water use efficiency solutions will increase as abstraction reaches the allocation limits. <p>In areas that need drainage to facilitate development and where groundwater is near or fully allocated the drainage plan promotes and supports innovative solutions for water harvesting and reuse options such as managed aquifer recharge.</p> |

Table 9 Comments on implementation and future planning issues

| Comment | Department of Water response |
|---|---|
| <p>Future demand</p> <p>Three stakeholders requested clarification that the allocation limits set in the plan will support current industrial and residential development and promote expansion of these activities into the future in the Murray area.</p> | <p>Noted. At the time of release of the plan there is water available in the Murray groundwater area.</p> <p>Development in fully-allocated areas may be accommodated through water use efficiency, trading or alternative water sources such as managed aquifer recharge where water is stored in winter to meet summer demand.</p> |
| <p>Future planning</p> <p>One stakeholder believes modelling is required to determine the impacts of increased irrigated agriculture in the plan area. They suggest:</p> <ul style="list-style-type: none"> • the model used for the water quality improvement plan for the Peel–Harvey estuary could be useful. • work completed on nutrient movement in superficial aquifers should be included in the forthcoming <i>Murray drainage and water management plan</i> (Department of Water 2011b). | <p>Noted. The <i>Murray drainage and water management plan</i> is complete. The suggestions in this submission were incorporated into the nutrient studies undertaken for the drainage plan.</p> <p>Action 6 in the allocation plan commits to incorporating information from technical studies done for the drainage plan into the annual evaluations of the allocation plan.</p> |
| <p>Implementation</p> <p>One stakeholder commented on the actions in Table 5 of the plan. They suggest:</p> <ul style="list-style-type: none"> • Information is needed on why each action listed was decided as a priority for the plan area. • The table should be expanded to incorporate desired outcomes of each action. | <p>Noted. The allocation plan is implemented by licensing up to the allocation limits, applying state-wide and local licensing policies and monitoring the aquifers. The actions are in addition to this standard implementation process and were identified as necessary to ensure the plan objectives and broader outcomes are achieved.</p> <p>We will report on our progress in implementing the plan, actions and meeting the objectives through the evaluation statement.</p> |

Table 10 Comments on water use efficiency

| Comment | Department of Water response |
|---|---|
| <p>One stakeholder commented on how water use efficiency is addressed in the plan:</p> <p>i. Objective (e) could be improved by including the target audience, for example licensees and water service providers.</p> <p>ii. Why is irrigated agriculture not identified in section 4.3 of the plan as a water user group that the department will work with to implement water use efficiency plans?</p> | <p>i. Disagree. The objective is not specific to particular user groups because all water users should implement water use efficiency measures where possible. Water use efficiency will increase as groundwater availability decreases.</p> <p>ii. Noted. Not including irrigated agriculture in the text was an omission. The department will work with all water user groups to implement water use efficiency measures.</p> |

Where to next?

The Department of Water will release an annual evaluation statement on the Murray groundwater allocation plan. It will outline the response of the groundwater resources to our management according to the plan objectives

Further information

The plan and its supporting documents are available from the department's website www.water.wa.gov.au/Managing+water/Allocation+planning/default.aspx

For further information please email allocation.planning@water.wa.gov.au or contact the Kwinana Peel regional office. The contact details are given at the front of this report.

Appendix A - Questions from information sessions

Location

Kwinana Peel regional office
Department of Water
107 Breakwater Parade
Mandurah 6210

Invited stakeholders

Tuesday 27 April 2010 5.00 pm–6.00 pm, 6 attendees

General public

Wednesday 28 April 2010 5:00pm–6:30pm, 10 attendees

Presenters

Leon Brouwer, Regional Manager, Kwinana Peel Region
Christie Harrison, Project officer
Glenn Simmons, Acting Program Manager, Licensing
Carey Johnston, Regional hydrogeologist

Questions - invited stakeholders

1. When is Alcoa going to do managed aquifer recharge? What effect will that have on the available volumes of water?
2. Is there any talk of licensing domestic use?
3. What links are there between allocation planning and future land use planning? There is development pressure in the Murray groundwater area. Allocation plans need to be flexible to allow for changes in development plans.
4. Has anyone done calculations of volume of water moving across land and not harvested? Harvesting this water could prevent nutrients entering rivers and estuary.
5. Are water quality and/or groundwater-dependent ecosystems considered in the allocation plan and limits?
6. What power does the Department of Water through its allocation plans have to control overland drainage and promote use of rejected recharge, efficient use of water? Other countries, drier than Australia, are able to grow crops successfully by using water efficiently and harvesting water rather than letting it drain into rivers and estuaries, Israel is a good example. Why do we not do this in Australia?

Questions - general public

1. In the future are we likely to require a licence for stock and domestic use (from the Superficial aquifer) and will we have to pay for it? I understand there is no fee at the moment, but in 20 to 30 years time with big developments coming along resulting in big demand for water is it likely farmers will be taxed to use water?
2. (Farmer in Coolup). The depth to water increased in our shallow bores, which we use for stock watering, during the period the Perth to Bunbury highway was being constructed. Similar effects have been seen in Pinjarra on properties in close proximity to tree plantations, depth to water increases then returns when plantation is harvested. This demonstrates that the Superficial system is fragile and has localised responses to abstraction and land-use change. Are there controls, does the plan address these issues?
3. When do you need a licence?
4. How do you apply for a licence?
5. I have an existing licence that I have not used for a long time. If my circumstances change can I start pumping again?
6. Water availability in other agriculture areas is reducing. Does the department predict that people will move to the Murray area to 'chase' water?
7. If a developer buys a parcel of land and doesn't need full water entitlement immediately, how does the department manage that?
8. Water levels are dropping, does the plan address this issue?
9. Are you mapping the salt water interface?
10. Has the plan taken into account reduced rainfall?
11. Was your advertising of this public meeting broad enough? There aren't many people here given the size of the plan area. Did you consider targeting community groups, or could you do this presentation again for these groups?
12. If you have been allocated a licence entitlement for intensive horticulture and sell your property, can you advertise the entitlement as part of the sale of property? What if the use changes?
13. What powers does the Department of Water have over people who waste water? The Water Corporation has drained Drakesbrook Dam in winter for the purpose of maintenance work on the dam wall. However, the work never seems to get done and the water is wasted for nothing, why don't they do the work in summer when the dam is low or empty?

Actions arising from public meeting

Representatives of three community groups were present at the public meeting. They suggested that the community wasn't aware that the Department of Water existed or that licensing of groundwater is required. We held additional information sessions for two of these groups:

- Pinjarra Rotary Club, 27 May 2010
- North Dandalup Community Group, 8 June 2010

References

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- 2010, *Directions 2031: spatial framework for Perth and Peel*, Western Australian Planning Commission, Perth.

Legislation

Government of Western Australia 1914, *Rights in Water and Irrigation Act*, Perth.

DoW see Department of Water

WAPC see Western Australian Planning Commission



RECYCLED CONTENT

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