



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

Analysis and response to public submissions on *Strategic policy 2.03 – Managing unlicensed groundwater use*

Feedback on the policy previously known as
*Statewide policy no. 14 – Managing unlicensed
groundwater use*

Looking after all our water needs

Department of Water

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For more information about the policy and this report, contact: Program Manager, Water Licensing Policy Branch.

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Summary

The Department of Water is responsible for managing and allocating Western Australia's water resources to support sustainable development and protect the environment.

The main management tool is the granting of licences to take water under the *Rights in Water and Irrigation Act 1914*. However, licensing is not the most appropriate or cost-effective means for managing all groundwater users.

Strategic policy 2.03 – Managing unlicensed groundwater use was prepared to provide guidance to department staff, water users and interested parties regarding how the department will manage unlicensed groundwater use.

This report contains an analysis of the comments received during the community consultation process on the draft policy. The analysis is based on eight written responses from the public submission period.

The community and key stakeholder input has been welcomed by the department. The comments received have been considered as they relate to the draft policy and this report provides a short discussion and response to the issues raised.

Where respondents provided comments on matters related to the department's business that are outside the scope of the draft policy, these are noted but are not specifically addressed in this report or the final policy.

1 Introduction

1.1 Background

The Department of Water, (the department) the state's primary water resource management agency, is responsible for ensuring the state's water resources are used sustainably and that future water-related development opportunities are not constrained. Licensing the taking of water under the *Rights in Water and Irrigation Act 1914*, is the main tool for managing and accounting for the groundwater taken for consumptive purposes.

However, licensing is not the most appropriate means for managing very low yielding bores, such as garden bores, occasional groundwater users or bores for watering free ranging stock. Licensing such activities is an expensive proposition and may not deliver the desired management outcomes.

Strategic policy 2.03 – Managing unlicensed groundwater use (Department of Water 2009) outlines the range of approaches the department will utilise to manage such unlicensed groundwater use and account for the groundwater taken. These approaches include the drafting of regulations, public awareness, education campaigns, working with industry, financial incentives, etc. Under the policy, the department may increase the effort required to manage such activities if it determines that the management approaches utilised do not deliver the desired outcomes.

1.2 Consultation – process and reporting

The department is committed to consulting with the community and stakeholders affected by any proposal it plans to implement. Effective consultation increases the awareness of issues affecting stakeholders or the community and provides the opportunity for response or input through comments or public submissions. These comments may be used to refine or clarify the department's policies relating to the management of water resources.

Draft *Strategic policy 2.03* (previously referred to as *Statewide policy no. 14*) was released for public comment between 13 October 2008 and 15 November 2008. An advertisement inviting public comments was placed in *The West Australian* newspaper advising the availability of the draft policy on the department's website, or that hard copies of the policy could be mailed out on request. Letters were also mailed directly to key stakeholders, including government departments, irrigation and industry groups, inviting submissions.

Submissions

Eight submissions (commenting on a range of issues) were received, some well after the closure date for submissions. All submissions received were considered when the policy was finalised. Submissions were received from three individuals, three state government agencies and two industry groups. Most supported the general intent of the policy, although some comments were provided on several key issues.

Analysis and response

All submissions received were reviewed to identify the concerns raised. Those relating to the draft policy were recorded and are the subject of this report. Where submissions contained comments on other aspects relating to the management of water resources, the issues have been noted but may not be specifically addressed within the context of this report or *Strategic policy 2.03*.

Comments have been grouped into common themes and assessed. Where there is duplication in common themes (between respondents), consolidated comments have been produced for ease of analysis and reporting. The department's response and actions to the comments are then described.

The department will continue to work with stakeholders and the community to raise the level of awareness on the management and allocation of water resources. Community and stakeholder input are essential to the development of robust and informed policy-making. The objective is that the development of policies and processes are open, transparent and applied consistently.

2 Issues

Issues identified from the public submissions have been sorted and grouped, where relevant, and a response has been provided.

2.1 Support for the policy

Submissions

Most respondents indicated their support for adopting approaches other than licensing when managing low yielding bores such as those utilised for watering the domestic lawns and gardens, or those used to water free ranging stock and for occasional uses, such as firefighting.

Respondents commented on:

- support for the current legislative exemptions from licensing of stock and domestic bores
- the common sense approach (with the minimum of management effort) adopted by the department to ensure the state's groundwater resources are not overexploited
- support for the government's and the department's intentions to increase public awareness of the issues and where necessary provide financial incentives to improve the efficiency of water use
- the department's intention to increase the management effort if and where required, taking into account community perceptions and needs when doing so.

Analysis and response

The support for the intent of the policy is noted and appreciated.

The effort and resources allocated to managing the state's groundwater resources should be tailored to the significance of those resources to the community, the environment they support, the hydrogeological setting and the desired management outcomes. The policy adopts this principle and develops an approach for managing unlicensed groundwater use that is cost-effective yet meets the desired water resource management outcomes.

Implementation of the policy will improve the department's processes and systems leading to an overall improvement in the water allocation planning process. The policy will still be relevant within new water reform management arrangements, as not all groundwater use is likely to be licensed.

2.2 Licensing of domestic bores

Submissions

A respondent detailed concerns regarding the population growth in Perth and the likely increase in the number of domestic bores, especially near environmentally significant sites and in areas close to the ocean and the river. The large number of

domestic bores in specific areas is likely to increase the risk of a decline in the groundwater level, with the potential to cause environmental damage.

It was recommended that all domestic bores be licensed and possibly metered to control their number and distribution, especially in areas of high risk.

Analysis and response

The cost of licensing, managing, possibly metering and policing over 150 000 domestic bores is well beyond the department's financial capacity and resources. The department is conscious of the need to be cost-effective and utilise government funding to areas that are of most benefit. The policy provides a cost-effective means of managing low yielding bores in urban areas.

Although the exact number and distribution of domestic bores is not known, the department (working with the Water Corporation and the drilling industry) has developed a database locating most of the domestic bores in use. Surveys are also conducted from time to time to confirm the number and distribution of bores.

2.3 Contaminated sites

Submissions

Respondents raised concerns related to unlicensed bores being constructed in or near sites where the groundwater has been contaminated from previous land use practices. This may present a health risk to the groundwater users.

It has been suggested that the policy includes reference to the contaminated sites database, available from the Department of Environment and Conservation website (2009). By accessing the database, potential bore owners can make an informed decision whether to proceed with the construction and the use of an unlicensed bore.

Also reference should be made in the policy to the Department of Health's guidance note *Using bore water safely* (2008) that addresses issues related to the groundwater quality and the need to ensure the quality of the water is suitable for the purpose for which it is used.

The policy should mention that it is the responsibility of the groundwater user to test the groundwater quality to ensure that it is suitable for the proposed use.

Analysis and response

The department acknowledges the need to provide information to the community on the location of contaminated sites and promote ways to reduce any risks to humans and livestock. A series of water fact sheets has been developed, informing the public of the issues and risks associated with taking and using groundwater and how to best manage these risks. These water fact sheets are available from the department's website.

The department also acknowledges that other government departments and agencies have information that is useful to the public when making decisions on

groundwater use. The policy will include a section discussing water quality issues and will mention where the public may source the necessary information to make informed decisions.

The policy will also include a comment on the responsibility of the groundwater user to test whether the groundwater being taken is suitable for its intended purpose.

2.4 Acid sulfate soils

Submissions

Respondents offered a discussion on acid sulfate soils and their impacts on the groundwater, structures, infrastructure and plants. It was suggested that the policy should mention the maps available from the Department of Environment and Conservation website (2008) that show the level of risk of acid sulfate soils due to groundwater level declines.

To reduce the risk of acid sulfate soils, it was suggested that greater control of dewatering activities may be required to limit any localised lowering of the water table.

The policy should also recognise the interactions between soil, ground and surface waters that impact on water quality. As groundwater quality changes will affect the potential future uses of the groundwater, a commitment should be included in the policy to maintain the groundwater quality suitable for its sustainable use. Criteria may be developed that trigger the cessation of garden bore use and a mechanism for advising groundwater users of water quality issues.

Analysis and response

The department considers the risk of sulfuric acid production in groundwater to be a significant issue requiring careful management. An example of the dangers that acid sulfate soils present is a housing development in Stirling. There, a large dewatering exercise in support of the development resulted in significant deterioration of the groundwater quality that had to be carefully managed.

Currently, all licensed dewatering activities are assessed as to the risk of sulfuric acid production they present. Where possible, dewatering is kept to a minimum. Almost all dewatering activities are licensed. Only activities of limited duration (less than seven days) and relatively low abstraction rates are not licensed.

The department is committed to informing the community and interested parties of issues related to water resources, including the risks of acid sulfate soils. The *Perth groundwater atlas* (Department of Water 2008a) developed by the department informs the public of the areas suitable for the construction and use of garden bores in Perth. The atlas also includes a discussion of acid sulfate soils and maps showing the likely risks. The department continually works with other government agencies to fine tune the risk map and update the information available to the public.

The policy will, however, include a section on water quality risk and present a discussion on the risk posed by acid sulfate soils.

The policy does not include any details on groundwater resources in Perth or groundwater quality, as such information can be found in technical reports rather than a policy document.

The department operates a large number of monitoring bores across the Perth metropolitan area and collects additional information from licensed groundwater users. This information is assessed regularly and where it is determined that the water quality has deteriorated, the department informs residents and licensed groundwater users and takes appropriate action, which may include advising groundwater users to stop pumping.

2.5 Saline water interface

Submissions

Respondents noted that improperly located bores, especially those located near the river, the ocean or lakes, may induce the saline water to migrate inland. There have been occasions in previous years where the salinity of the groundwater pumped from domestic bores next to the river increased to levels that are unsuitable for watering lawns. Licensing of domestic bores would provide a means of controlling the number of bores located near the river and the ocean and prevent any saline water migration further inland.

Analysis and response

The department has identified the areas next to the river, the ocean and wetlands, that are unsuitable for the construction and use of domestic bores due to the risk of salt water intrusion. These areas have been included in the *Perth groundwater atlas* (Department of Water 2008a) which is publicly available and is used by drilling contractors and property owners when making a decision on whether or not to construct a bore. In addition, the government has introduced financial incentives for people to construct more domestic bores only in areas deemed to be suitable for more groundwater abstraction. Domestic bores drilled in areas identified as unsuitable are not qualified to receive any rebates.

2.6 Sustainability issues

Submissions

Some respondents expressed concerns as to the long-term sustainability of a large number of domestic bores and their cumulative groundwater draw in view of climate change predictions.

It was pointed out that CSIRO studies conclude that groundwater levels throughout the Perth metropolitan area are declining. This suggests that current groundwater abstraction may be unsustainable. However, as large spatial gaps exist in the superficial aquifer monitoring network, an accurate assessment of aquifer response to rainfall and groundwater abstraction cannot be made. It was recommended that the monitoring network be expanded to provide the additional information.

To address sustainability issues, it was suggested that the same restrictions should apply to domestic bore users as apply to scheme water users (currently a two-day per week watering schedule).

It was also recommended that the department consults with local property owners when setting water aside for unlicensed stock watering purposes.

Analysis and response

It is acknowledged that the large number of domestic bores have the potential to lower groundwater levels if used improperly. To identify any areas of concern, the department monitors groundwater levels around Perth. The recent groundwater-level declines recorded across Perth, and discussed in the CSIRO studies, are due mainly to reduced rainfall; although groundwater abstraction from licensed and unlicensed bores is also a factor.

The department has reviewed the sustainable limits for groundwater abstraction over most of the areas of Perth, taking into account climate change predictions and has ceased to grant any additional water licences where those limits have been reached or exceeded. The reviewed limits also account for the volume of water taken by unlicensed domestic bores as per the policy. The department will also be developing a broad ranging strategy for managing climate change.

To reduce the volume of groundwater taken from unlicensed bores, the department is actively seeking to promote the efficient use of domestic bores by limiting the number of days bores can operate, providing financial incentives for bores constructed in suitable areas, undertaking public information campaigns, etc. Currently, domestic bore owners may water three days per week, rather than the two days for scheme water users. The extra day per week takes account of the groundwater availability and allows domestic bore owners to recoup their investment. In the future, watering schedules for both domestic bore owners and scheme water users may be further restricted, depending on rainfall patterns.

Although the department's monitoring network has some spatial gaps, these are generally in clay areas where the number of domestic bores and licensed water users is limited due to very low yields. However, the department is constantly reviewing the number and location of its monitoring network and when resources allow is able to expand the network to cover more areas of significance.

When accounting for the unlicensed stock watering bores, the department may consult with local groups to better estimate their number, distribution and the volume of groundwater they take.

2.7 Increasing the management effort

Submissions

Several respondents were concerned that increases in the management effort will result in the department reducing the volume of water that can be abstracted by

unlicensed groundwater users and specifically the groundwater abstracted for watering stock.

The respondents suggested that the government undertake the necessary investigations and studies before increasing the management effort. The contribution of stock watering bores to the state's economy should also be considered before introducing restrictions to unlicensed groundwater use.

Also, stock watering bores should be given equal consideration with domestic bores when increasing the management effort.

Analysis and response

The department will only increase the effort required to manage a specific groundwater resource when monitoring data and studies suggest that the resource is under significant stress (probably due to a prolonged drought). The policy states that any increases in the management effort will take into account community values. All unlicensed groundwater use is likely to be considered equally when investigating the need to increase the management effort in a particular area.

Increased management effort may not result in reductions in groundwater abstractions. The department will only reduce the groundwater taken by unlicensed users if it determines that allowing groundwater to be abstracted at current rates will have a significant impact on the local environment, existing activities and future development opportunities.

2.8 Legislative issues

Submissions

Respondents suggested that the definition of 'non intensive' conditions included in the *Rights in Water and Irrigation Act 1914*, for stock watering purposes be reviewed. The current definition is too narrow and should be expanded to cover small on-farm owner-stocked and operated feedlots.

There is also some opposition to the use of directions provided for under the Act to reduce the taking of the water by unlicensed groundwater users, especially those bores used for watering stock.

Analysis and response

The department is unlikely to request a change in the definition of non-intensive conditions in the *Rights in Water and Irrigation Act 1914*. However, the department is in the process of developing new water resources management legislation that will adopt the principles of the National Water Initiative (Government of Australia 2006; Department of Water 2007, 2008b) and the *State water plan* (Department of the Premier and Cabinet 2007). Any amendments to the definition will be considered as part of developing the new Act.

The *Rights in Water and Irrigation Act 1914*, provides for the department to issue directions to licensed and unlicensed groundwater users to reduce their abstraction.

The department will only use these powers when it determines that groundwater abstraction must be reduced.

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