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

Operational policy 5.01

Managing water reserved for use by drinking water service providers

Looking after all our water needs

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April 2011

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April 2011

ISSN 1836-9618 (online)

ISBN 978-1-921907-21-0 (online)

The recommended reference for this publication is: Department of Water 2011, *Operational policy 5.01 – Managing water reserved for use by drinking water service providers*, Department of Water, Perth.

Acknowledgements

This document has been prepared by the Water Licensing Branch of the Water Resource Use Division of the Department of Water.

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Contents

Summary

Under this policy, the Department of Water will reserve (set aside) suitable quality water resources for future drinking water supply purposes, ensuring there is sufficient water available to meet the state's drinking water requirements in the coming years.

The policy describes:

- the criteria the department will consider when determining whether to reserve water and the volume of water to be reserved for future use
- the information to be provided by drinking water service providers
- how water reserved for future use will be protected from possible contamination, maintaining its value to the community
- the requirements water service providers will need to meet before they can be granted access to the water reserved for future use
- the process the department will use when considering granting temporary access to the reserved water for future use, for purposes other than drinking water provision.

Water to be reserved will be identified mainly through the water allocation planning process. The community and industry have an opportunity to comment on the Department of Water decisions through that process.

1 Policy statement

The Department of Water (department) has assigned the highest-value use of water for consumptive purposes as drinking water suitable for human consumption. The department will, where practicable, reserve water from specific water resources to meet the future drinking water supply requirements of Western Australia and protect that water from possible contamination sources.

The reserved water resources will be allocated to existing licensed water service providers, persons or companies that are successful in the process of becoming licensed water service providers, or persons or companies that have contractual arrangements with licensed water service providers for the supply of potable drinking water supplies. As part of normal licensing practice, applications will be assessed on a case-by-case basis and water licences will be granted after all the statutory and departmental criteria for granting a water entitlement have been met.

Where there are no current plans by water service providers to develop the water reserved for future use, the reserved water may be made temporarily available to applicants that have demonstrated a need to access those resources for a clearly specified period, not exceeding 10 years, that:

- does not conflict with the timeframe of the reserve's intended purpose
- maintains the value of the reserved water resources for their originally intended purpose.

Temporarily allocated water entitlements will not be tradeable and licences generally will not be renewed.

2 Background

2.1 Issue

Increased competition for access to Western Australia's water resources by the growing population and expanding industries may limit the amount of water available for essential services such as drinking water supplies. To ensure these essential services are not compromised in the future, the department has a practice of reserving water from suitably located water resources for future drinking purposes.

A discussion paper drafted in 2003 and titled *Reserving and protecting water resources for future use in Western Australia* reviewed whether the practice of reserving water should continue in an environment of transferable water entitlements or whether it should be expanded to cover other uses of water. After examining the advantages and disadvantages of the various options, the paper concluded that water should continue to be reserved only for future drinking supply purposes as this was regarded to be the highest-value use of water for consumptive purposes. The conclusions of the discussion paper were supported by the community after the paper's public release.

This policy further develops the conclusions of the discussion paper. It addresses key government directions and does not conflict with the aims of the National Water Initiative (NWI) signed by the Government of Western Australia in April 2006.

The main benefits of reserving water for future drinking supply provision include:

- ensuring that adequate supplies of high-quality water are available for future drinking supply purposes, consistent with the principle of inter-generational equity
- limiting competition between drinking water service providers and other water users for access to the same water resources
- allowing sufficient lead-time to enable the development of appropriate plans and strategies to meet the longer term, future drinking water requirements of the community.

2.2 Intent

The intent of this policy is to:

- maximise the benefit to the community by planning, reserving and optimising the development of water resources that are suitable for public drinking water supply
- provide a consistent approach for reserving water for public drinking water supply
- outline the criteria the department will use to reserve water
- detail the department's requirements for drinking water service providers and for other water users to temporarily access the reserved water.

2.3 Policy links

The policy has links to other strategic or operational policies prepared by the department and other national agreements and policies including:

- *Intergovernmental agreement on a National Water Initiative* (NWI)
- *Statewide policy no. 5, Environmental water provisions policy for Western Australia*
- *Operational policy 2.03, Managing unlicensed groundwater use*
- *Operational policy 1.02, Policy on water conservation/efficiency plans*
- *Operational policy 5.08, Use of operating strategies in the water licensing process*
- *Operational policy 5.11, Timely submission of required further information*
- *Operational policy 5.12, Hydrogeological reporting associated with a groundwater well licence*
- *Operational policy 5.13, Water entitlement transactions for Western Australia*
- *Water quality protection note, Land use compatibility in public drinking water source areas*
- *Water quality protection note, Protection of drinking water source areas – an overview.*

2.4 Legislation

The *Rights in Water and Irrigation Act 1914* and Rights in Water and Irrigation Regulations 2000 establish the legislative framework for managing and allocating water resources in Western Australia. The primary aim of the *Rights in Water and Irrigation Act 1914* is to ensure Western Australia's water resources are sustainably used and developed to support the water needs of current and future generations while protecting ecological values. The department has a role to optimise the use of water resources, and support the state's expanding population and its drinking water requirements.

The quality of the water resources currently used or likely to be accessed in the future for drinking water supply purposes are protected by proclaiming or declaring water reserves under the *Country Areas Water Supply Act 1947* or the *Water Supply, Sewerage and Drainage Act 1909*. These reserves are recognised in environmental policies, environmental impact assessments and regulation with pollution-prevention provisions of the *Environmental Protection Act 1986*. Land use over designated water reserves, also referred to as public drinking water source areas (PDWSAs), is constrained and managed with the aim of reducing the risk of contaminating or polluting water resources.

3 Implementation

3.1 Application

This policy applies statewide to both surface water and groundwater resources. It overrides any earlier policies or practices adopted by the department, associated with reserving and managing water resources for future uses.

Water allocation plans will have regard for this policy when reserving water resources for future use. The plan may override this policy within the plan area where a local issue requires specific management.

3.2 Identifying water for reservation

When identifying a water resource with the potential to provide water for future drinking water supply purposes, the department may consider several factors including the:

- potential water yields
- water quality of the resource
- water availability
- current and potential future uses of the resource
- economic development within the area
- susceptibility of the water resource to potential contamination from land use within the proclaimed area and from external sources
- existing and likely future land uses over the resource
- distance from water demand centres
- consistency with strategic planning on future water source development
- alternative water resources able to meet future drinking water demand.

The department will also liaise with stakeholders to better determine future water demand including:

- state planning and development agencies
- existing and potential future water service providers (if known)
- local government authorities
- local community groups, local industries and water management committees.

The volumes of water reserved for drinking water scheme supplies will be based on the projected drinking water demands, generally for the next 30 years. When determining the volume of water to be reserved from the selected water resource, the department will consider the likely competition for the water resources from other water users, social and economic issues, and government directions and policies. Drinking water service providers may be required to identify their future requirements

and preferred water resources for development, in advance or as part of the department's water allocation planning process.

Groundwater in confined aquifers will be preferred for reservation over water found in shallower unconfined aquifers, due to the high susceptibility of the unconfined aquifers to contamination from land development. Likewise, surface waters in pristine areas (after accounting for environmental water provisions) will be preferred over watercourses located near developed areas.

The volume of water reserved for future drinking water supplies will be identified in the appropriate water allocation plan. The justification for reserving a specific volume of water from a water resource, as well as the likely timeframe for its use, will be included in the water allocation plan.

The reserved volumes will be recorded in the department's water accounting database, as a component of the allocation limit reserved for future public drinking water supply.

3.3 Accessing reserved water

3.3.1 Allocating reserved water to drinking water service providers

Reserved water resources will be accessible to all water service providers, subject to those providers meeting the department's criteria for obtaining a water licence. Companies or persons that have formal arrangements to supply water to water service providers (e.g. a written contract) may also be eligible to access reserved water resources.

A licensed water service provider (or eligible person or company) interested in accessing the reserved water must submit a formal application for a 5C licence to take and use water under the *Rights in Water and Irrigation Act 1914,* supported by any further information that the department requires from the applicant during the licence assessment process.

A company that is in the process of becoming a drinking water service provider may also apply to access reserved water resources. However, such a company will need to provide the department with documentation demonstrating that it is in the process of becoming a drinking water service provider. The department will require the applicant to provide legal proof that they have become a drinking water service provider (within one year after submission of the application) before assessment of the application can be finalised.

The department will grant licences to access part or all of the reserved water to drinking water service providers (or eligible persons or companies) where a need to access that water has been identified, largely based on a source development plan of suitable water resources, actual water use requirements and demand projections.

Water service providers that access reserved water will be able to distribute water to other locations across the state to maintain adequate supplies and meet ongoing community water demands.

When a licence from the reserved water is granted, the volume of water allocated to the water service provider will be removed from the reserved status and form part of the licensed entitlement for that particular water service provider.

In circumstances where an active water trading market exists among general water licensees, water service providers accessing the reserved water may be subject to water release mechanisms employed at the time, which may include paying a premium for the water.

For resources where the department has reserved water, drinking water service providers will be required to access the reserved water allocation before accessing any unreserved water from that resource. In circumstances where a water service provider wishes to take more than the reserved allocation or where there is no reserve available, that provider may access the general unreserved water resources or trade water entitlements with other licensees.

3.3.2 Temporarily allocating the reserved water

Reserved water may be temporarily allocated to persons other than drinking water service providers, provided the policy statement is met. Temporary access to water entitlements is to be through a non-renewable licence for periods of up to 10 years.

The term of the temporary licence will end around five years before the reserved water resources are required by a water service provider. This will ensure the provider has sufficient time to undertake the required investigations and studies, and obtain the relevant licences and permits to access the water and construct the wellfield or dam.

Temporarily allocated water entitlements will not be tradeable. However, the department will consider the transfer of temporary non-renewable licences where the new property and business owner continues with the original project (i.e. the purpose and duration of the water licence does not change).

The department will only consider issuing non-renewable licences granting temporary access to reserved water if:

- all of the unreserved water available for allocation through licensing within that water resource has already been allocated
- there is no other nearby water resource able to meet the applicant's requirements.

An applicant wishing to temporarily access water that is reserved must submit, to the department, the following information with their water licence application:

- documentation demonstrating the need for access to the reserved water on a temporary basis (development timelines, planning documents, alternative water sources considered)
- the timeframe required to access the reserved water and the project duration
- acknowledgement that if the licence is granted, it will be for a specified term that is non-renewable and water use will cease when the licence expires

(for developments with the potential to continue beyond the term of the temporary licence, the applicant would need to access alternative water sources where available or trade existing water entitlements)

- any documents, studies or investigations required by the department as part of the licence assessment process.

If the water is to be taken from within a public drinking water source area, the applicant must also satisfy the requirements of the relevant public drinking water source protection plan to ensure the intended use will not result in unacceptable impacts on the quality of the water resource. In such cases, the department may impose specific monitoring and reporting requirements through appropriate licence conditions. If conditions are breached, or the temporary licensee adversely affects the water resource or the water quality, the department may amend, suspend, or cancel the water licence.

Examples of temporary uses for reserved water may include, but are not limited to:

- short-term dewatering
- infrastructure construction projects
- land planning developments
- establishing new short-term irrigation development.

3.4 Reviewing the reserved water resources

The department will review the water reserved for future drinking water supplies when:

- water allocation plans are reviewed
- growth-demand scenarios are significantly amended
- additional hydrological or hydrogeological information is obtained
- major developments are initiated.

Changes to allocation limits and water reserves are usually undertaken as part of the water allocation plan process. The department will announce when allocation limits or reserves are amended, and the commencement date that those changes take effect.

The department may reduce the volume of water reserved from a specific water resource, or remove the reserved water, if:

- the reserves are no longer required by drinking-water service providers
- the water quality of the reserved water has deteriorated and the water can no longer be used for the purpose it was originally reserved for
- allocation limits have decreased (i.e. the total volume of water available for consumptive use decreases) or water resources become over-allocated.

If the department reduces or removes the volume of water reserved, the water may become available to licence applicants for general consumptive use, through the department's water release mechanisms employed at that time.

3.5 Protecting water reserved for future use

Water reserved for future drinking water use must be protected from potential contamination to maintain its value to the community. The degree of susceptibility of a water resource to potential contamination will be a key consideration when identifying the resources to be reserved.

Public drinking water source areas and water source protection plans, developed in consultation with the community, local and state government authorities, provide protection for the quality of water taken for drinking purposes. Refer to the appendix for further details.

When the location of wellfields and individual production bores are better known, protection area boundaries can be refined using more rigorous scientific methods that accurately identify the areas that contribute groundwater flow to proposed production bores. The drinking water service provider will generally be responsible for undertaking this work.

The department will aim to protect vulnerable resources through the land planning process, by restricting land development over the areas where reserved water is susceptible to contamination and informing planning agencies of PDWSAs to ensure they are considered when preparing schemes, strategies, plans and major development proposals.

4 Review

This policy will be reviewed five years from the publication of this document. The policy may be reviewed sooner if significant changes (such as the introduction of new water management legislation or new water management initiatives) warrant an amendment of this policy.

Appendix

Public drinking water sources

Public drinking water source area is the name given to any area proclaimed to manage and protect a water source used for community drinking water supplies.

PDWSAs include underground water pollution control areas, water reserves and catchment areas administered under the provisions of the *Metropolitan Water Supply, Sewerage and Drainage Act 1909* or the *Country Areas Water Supply Act 1947*.

For online information on the location of PDWSAs, see <www.water.wa.gov.au> and select Tools & data > Maps and atlases > Geographic data atlas, then open Environment > Public drinking water source areas.

For land planning and development purposes, three priority areas (P1, P2 and P3) have been defined for use within PDWSAs. They are assigned based on the strategic land and water value zoning, tenure, and current and approved land uses.

Priority areas are each managed with a different objective to provide for effective protection of the water resource. P1, P2 and P3 areas are assigned in drinking water source protection plans or land use and water management strategies. Those documents are prepared in consultation with government agencies, landowners, industry and the community.

P1 areas are defined to ensure that there is *no degradation* of the water source. These areas are declared over land where the provision of high quality drinking water for public use is the prime beneficial land value. P1 areas typically cover land under state agency control. P1 areas are managed in accordance with the principle of *risk avoidance* and so most land development and activity is normally opposed.

P2 areas are defined to ensure that there is *no increased risk of pollution* to the water source once a source protection plan has been published. These areas are declared over land where low intensity development (such as rural use) already exists. Protection of public water supply sources is a high priority in these areas. P2 areas are managed in accordance with the principle of *risk minimisation*, and so restricted intensity development (with management conditions) and activities with a low contamination risk are accepted.

P3 areas are defined to *manage the risk of pollution* to the water source. These areas are declared over land where public water supply sources must coexist with other land uses such as residential, commercial and light industrial development. Protection of P3 areas is achieved through management measures defined via environmental guidelines (such as notes) or via site-specific conditions that limit the contamination risk to water resources from the land use or activity. If, however, the water source becomes significantly contaminated, then water supplied from P3 sources may need to be treated or an alternative water source found.

Protection zones are also defined close to the point where drinking water is harvested or stored. Additional constraints apply to activities in these zones, to safeguard the area immediately surrounding these vulnerable water sources. These zones are known as *wellhead protection zones* (WHPZ) and *reservoir protection zones (RPZ)*.

WHPZ are assigned within the immediate surrounds of water production wells and special land use restrictions apply. In these zones, groundwater moves rapidly towards wells due to aquifer depressurisation from pumping. Any contamination leaching from the ground surface could rapidly migrate into scheme water supplies (before effective remedial action could occur). In sedimentary basins, WHPZ are usually circular, with a radius of 500 metres in P1 areas and 300 metres in P2 and P3 areas. These zones do not extend outside PDWSA boundaries.

RPZ are defined over and around public water supply reservoirs or pipe-heads. Special access and land use restrictions apply. The aim is to restrict the likelihood of contaminants being deposited or washing into water sources following rainfall. RPZ within state controlled land cover an area of up to two kilometres from the reservoir top water level.

For additional explanatory information on PDWSAs, see this department's water quality protection note 25, *Land use compatibility in public drinking water source areas*, and note 36, *Protection of public drinking water source areas – an overview*.

Buffers to water supply sources

Operational areas (where compatible) should have minimum vegetated separation distances to the full supply level of reservoirs, their primary feeder streams and production bores used as a source of drinking water. Buffer assignment advice is provided in the department's water quality protection note 6, *Vegetated buffers to sensitive water resources*.

Clearing control catchments

Special controls on vegetation clearing for salinity management purposes are provided in part IIA of the *Country Areas Water Supply Act 1947.*

Those controls apply in the Wellington Dam, Harris River Dam, Mundaring Weir and Denmark River catchment areas and the Kent River and Warren River water reserves. Details on clearing controls may be obtained from the department's regional offices, see <www.water.wa.gov.au> and select Contact us.

Land development and activities in PDWSAs

The department restricts land development over areas where water resources may be used for future drinking water supply, through public water source protection plans and associated land planning zones. Those restrictions protect the water reserves from possible contamination, ensuring the water quality does not deteriorate and the value of the reserved water to the community is maintained. For more information on

public drinking water source areas and their related plans refer to the department's website <www.water.wa.gov.au> Managing our water > Drinking water.

The potential for contamination must be identified and, if appropriate, investigated. Programs are recommended for the ongoing management of the resource, to ensure water quality is maintained. Land use activities are controlled through legislation, local by-laws and the planning process via a Statement of Planning Policy (SPP) for public drinking water sources.

Any proposed new or expanded activities that could affect drinking water sources should be referred to this department's relevant regional office for assessment and written response. The development proposal may be approved (with or without conditions) or rejected due to a policy conflict or inadequate protective measures to safeguard the water source. Additional relevant information may be sought prior to making a decision. To aid environmental approval, operators should demonstrate that under all operating conditions, materials and processes used on-site do not pose a significant contamination risk to the local waters.

Where land use activities were approved and established before the implementation of a source protection plan or strategy, this department encourages the operators of non-conforming activities to ensure they progressively improve environmental management facilities and practices to minimise the risk to water resources.

Glossary

allocation limit	refers to the volume of water that can be harvested each year from a water resource with acceptable impacts.
aquifer	means a geological formation or group of formations capable of receiving, storing and transmitting significant quantities of water.
beneficial use	refers to the current or future uses for a water resource that have priority over other potential uses because of their regional significance to the community.
bore	means a specific type of well that accesses groundwater, generally a small diameter well.
confined aquifer	refers to an aquifer that is confined between shale, siltstone or clay beds and therefore contains water under pressure.
ecological water requirements	are the water regimes needed to maintain the water-dependent ecosystems at a low level of risk.
environment	means livings things, their physical, biological and social surrounding and interactions between all of these.
environmental water provisions	are the water volumes provided to maintain the environment, including the social and cultural requirements, as a result of the water allocation decision-making process. Environmental water provisions take into account the ecological, social, cultural and economic impacts. They may meet, in part or in full, the ecological water requirements.
groundwater	refers to the water that occurs in pore spaces and fractures in rocks beneath the ground surface.
groundwater area	is an area proclaimed under section 26B of the *Rights in Water and Irrigation Act 1914.*
policy	refers to a position that is not directly supported by any legislation, but has been adopted by the Department of Water as its position when assessing developments.
trade	where an entitlement is permanently traded to another person and the water will be taken from another location. An example is where a licensee sells their water entitlement to another person who will take the water from a different location and possibly use it for a different purpose.

transfer	where an entitlement is permanently transferred to another person but the water will be taken from the same location. An example of a transfer is when a licensee sells their property operation (e.g. market garden) together with the water entitlement to another person who will continue with the operation.
water entitlement	refers to the volume of water that can be harvested, under a licence, each year from a water resource.
water entitlement transaction	is the term used to describe the ability of a licence holder to trade, transfer, or form an agreement (i.e. transact) for all or part of the licensed entitlement, to be taken by another person. In most cases this involves a monetary exchange, although in some instances transfers may occur without recompense (e.g. for a deceased estate).
water resources management unit (WRMU)	refers to a defined area and aquifer or stream from which water is abstracted. A defined area may have a number of WRMUs, e.g. multiple aquifers. This is the base unit of allocation planning and will usually define the area within which a trade, transfer, or an agreement may occur.

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Regional enquiries

Please direct any enquiries relating to the implementation of this policy or to management of water resources in the regions to the following regional offices:

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