



Water recycling and efficiency note

Community bores

This note provides information on establishing and using community bores to water communal green spaces and private gardens, particularly in new residential areas.

This information is for developers, water service providers and regulatory agencies.

What is a community bore?

A community bore is a bore or multiple bores supplying groundwater via a reticulated network to a number of properties in urban developments for non-drinking uses including private garden watering and/or for irrigation of communal green spaces within the development.

Provided that enough groundwater is available, community bores may be an alternative irrigation supply option for street verges, gardens and small parks in a new urban development.

In most of the south west of Western Australia, groundwater is under pressure from reduced rainfall and ongoing water use. Community bores usually take groundwater from shared aquifers that also supply:

- drinking water for scheme supply
- local governments and schools for parks and gardens and sporting ovals
- farmers for irrigation of food and other crops
- some commercial businesses and industry.

As well as being a shared resource, the groundwater in these aquifers supports the natural environment and green spaces like wetlands, lakes, trees and bushland.

Water from community bores is not suitable for drinking and therefore requires its own pipe network, separate from mains scheme drinking water and sewerage pipes. The distribution system for a community bore is also referred to as a 'third pipe' or dual reticulation system. This comprises a series of purple pipes and fixtures to differentiate them from the drinking water supply system. Distinct labelling is used to reduce the risk of inappropriate use.

Approvals required

Groundwater from a community bore needs to be abstracted and piped by a single service provider who must ensure that water is only supplied for irrigation when needed.

A community bore and reticulation system can be managed by a developer, local government or a water service provider such as the Water Corporation, or a private supplier, with the appropriate approvals.

Department of Water and Environmental Regulation approval process

The first step is to seek advice from the Department of Water and Environmental Regulation to determine whether the area or proposed development is suitable for a community bore system and if a groundwater allocation is potentially available. If the area is suitable and groundwater is available, the service provider needs to apply for **two licences** from the department.

A 26D licence is required to construct a bore and a 5C licence is required to take groundwater from an area that is proclaimed under the *Rights in Water and Irrigation Act 1914*. Applications must meet the department's assessment criteria, before a licence would be granted.

For further information contact your nearest Department of Water and Environmental Regulation regional office. Contact details are provided on the department's website www.dwer.wa.gov.au/one-stop-shop.

If you are applying for a licence, as part of the licensing assessment process, you will need to:

- substantiate the quantity of water required
- prove legal access to the land where the water is to be taken and used
- include a contingency plan should the need to reduce the licensed water entitlements arise
- commit to installing approved water meters to each production bore and in some cases install water meters to each property and communal green space serviced by the system
- complete an operating strategy which describes your commitments to monitoring, addressing environmental impacts, contingency plans and water use efficiency (see Operational policy 5.08 – Use of operating strategies in the water licensing process)
- commit to ensuring compliance with watering restrictions in accordance with the Water Agencies (Water Use) By Laws 2010 and /or license conditions. This may require each residential property to be fitted with a locked irrigation controller pre-set to the designated watering date/time.

Depending on the local situation, the department may also require you to:

- undertake further investigations, including:
 - demonstrate the benefits in terms of the total water cycle for the site
 - prove that water is available
 - determine the impact on ecosystems, the aquifer and other users (hydrogeological assessment)
 - consider any site-specific constraints
 - prove that the water quality is suitable for the intended purpose
- notify the public (under certain circumstances)

- show that the proposal is consistent with any local government plans or water efficiency requirements if the water is to be used on communal green spaces.

Land planning approvals process

A framework is provided in *Better Urban Water Management* (Western Australian Planning Commission 2008) for the consideration of water issues through the land planning process. Where a community bore distribution system is proposed for a new subdivision, the proponent should include information in relevant water management reports (e.g. district or local water management strategy) as requested under the *Better Urban Water Management* process.

Water service provider requirements

A developer needs to consider early in the planning process who will own, operate and maintain the system to ensure it is sustainable, now and in the future. Furthermore, the operator of the community bore system will be responsible for ensuring that all processes, procedures and reporting requirements are established to comply with the licence.

Operators providing groundwater from a community bore scheme to multiple users are considered water service providers and may require a water services operating licence from the Economic Regulation Authority (ERA) under section 5 of the *Water Services Act 2012*.

You can apply (to the Minister for Water) for an exemption from the operating licence requirement. But first you should discuss your particular scheme with the Department of Water and Environmental Regulation to get advice on which would be most appropriate – a licence or an exemption.

To grant an exemption, the Minister for Water must be satisfied that an operating licence exemption would not be contrary to the public interest. You will need to ensure that the assets to be operated are secure and explain the ownership, management and funding arrangements, now and in the future.

Where a community bore service provider is seeking exemption from the ERA licensing requirement, the department may require further information to ensure ongoing viability of the service, for example:

- what impact the use of the community bore(s) will have on reducing demand on scheme water (i.e. estimated scheme water savings)
- the number of customers served by the community bore system and timing of water provision to individual homes
- known or anticipated future projections of growth in the number of customers and volumetric consumption over time (in particular in a staged urban development)
- what charges will be levied on customers for the service provision
- what impacts on customers would occur in the event of a service disruption, service reduction or failure and how this will be addressed.

An exemption may be granted subject to conditions as determined by the Minister and if it is in the public interest to do so. For the same reason the Minister may also revoke a specific exemption and require an ERA licence to continue to provide the service legally.

For information on exemptions, contact the Department of Water and Environmental Regulation, refer to www.dwer.wa.gov.au/one-stop-shop.

For information on Economic Regulation Authority water services licensing requirements, contact www.erawa.com.au.

Department of Health involvement

A community bore system may generate risks to human health if the water is unintendedly used for purposes such as drinking or food preparation, and/or if there is potential exposure to the water or cross-connection with drinking water supplies. All community bore systems must clearly be marked that the supplied water is not suitable for drinking or food preparation without further treatment. It must be made clear what the water is suitable for. The system must not be hydraulically connected to a drinking water supply.

The Department of Health's interest in community bores that supply non-drinking water revolves around the degree to which such systems may pose a risk to public health, such as:

- accountability for the quality of the water supplied
- the nature and scale of any public health risk posed
- whether the water supplied is fit for purpose
- the placarding or sign-posting of any taps
- conveyance of information and advice to water users
- whether the water from such systems can be confused with drinking water.

For further information contact the Department of Health, Water Unit at the Environmental Health Directorate on (08) 9388 4999 or email ehinfo@health.wa.gov.au.

Frequently asked questions

What if the request for a community bore licence is in an area where there is limited or no groundwater available?

An application will not be supported for additional groundwater abstracted in a fully allocated groundwater area. Anyone wishing to establish a community bore in a fully allocated groundwater area should instead consider an alternative water source.

Are community bores subject to water efficiency measures and restrictions?

The state-wide daytime 9 am to 6 pm watering ban does apply to community bores and a permanent winter sprinkler ban applies between 1 June and 31 August each year for non-commercial irrigation in parts of the state.

In addition, the water service provider has to comply with the terms and conditions of the groundwater licence which may nominate days for sprinkler use. The Department of Water and Environmental Regulation may apply additional restrictions to ensure water resources are used sustainably.

For more information on the winter sprinkler ban visit www.dwer.wa.gov.au/water.

Can I offset the water I take from a community bore with stormwater infiltration?

Stormwater recharge through local soak wells and drainage basins is taken into consideration when setting allocation limits for an aquifer. In most cases, the natural infiltration of stormwater will not be a 'new' source of water in an aquifer that would allow the issue of new licences.

Can I use managed aquifer recharge as a contribution to the groundwater supplying a community bore?

A managed aquifer recharge and recovery project can contribute to the water supply for a community bore. The department will assess and allocate the recharge water in accordance with *Operational policy 1.01 – Managed aquifer recharge in Western Australia* or the relevant water allocation plan.

Can you have individual domestic garden bores in areas with a community bore?

The community bore will replace the need for domestic garden bores in an urban development.

In developments where a community bore exists, developers and owners may have caveats on the land titles that disallow the installation of individual domestic garden bores.

Is a bore that is shared between two or three neighbouring properties, for the purpose of watering domestic gardens, considered a community bore?

In some situations, a number of neighbouring properties may be sharing one domestic garden bore to water their gardens. This is not considered to be a community bore.

However, a community bore comprises multiple domestic gardens serviced from one or more draw points (bore) by a water service provider and has the potential to affect local groundwater-dependent ecosystems (or wetlands) and/or other nearby domestic users. Each community bore proposal will be assessed on a case-by-case basis by the department's regional licensing officers and the proponent will need to apply for a groundwater licence.

For more information contact your nearest Department of Water and Environmental Regulation regional office. Visit www.dwer.wa.gov.au/one-stop-shop for contact details.

Further reading

Department of Water 2008, *Operational policy 5.08 – Use of operating strategies in the water licensing process*.

Department of Water 2010, *Water entitlement transactions for Western Australia*.

Department of Water 2011, *Operational policy 1.01 – Managed aquifer recharge in Western Australia*.

Department of Water 2013, *Guideline for the approval of non-drinking water systems in Western Australia: urban developments*.

Economic Regulation Authority 2008, *Electricity, gas and water licences: application guideline and forms*.

State of Western Australia 2010, *Water Agencies (Water Use) By Laws*.

Western Australian Planning Commission 2008, *Better urban water management*.

Department of Health, *Healthy WA, Bore water*, available at www.healthywa.wa.gov.au/Articles/A_E/Bore-water

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