

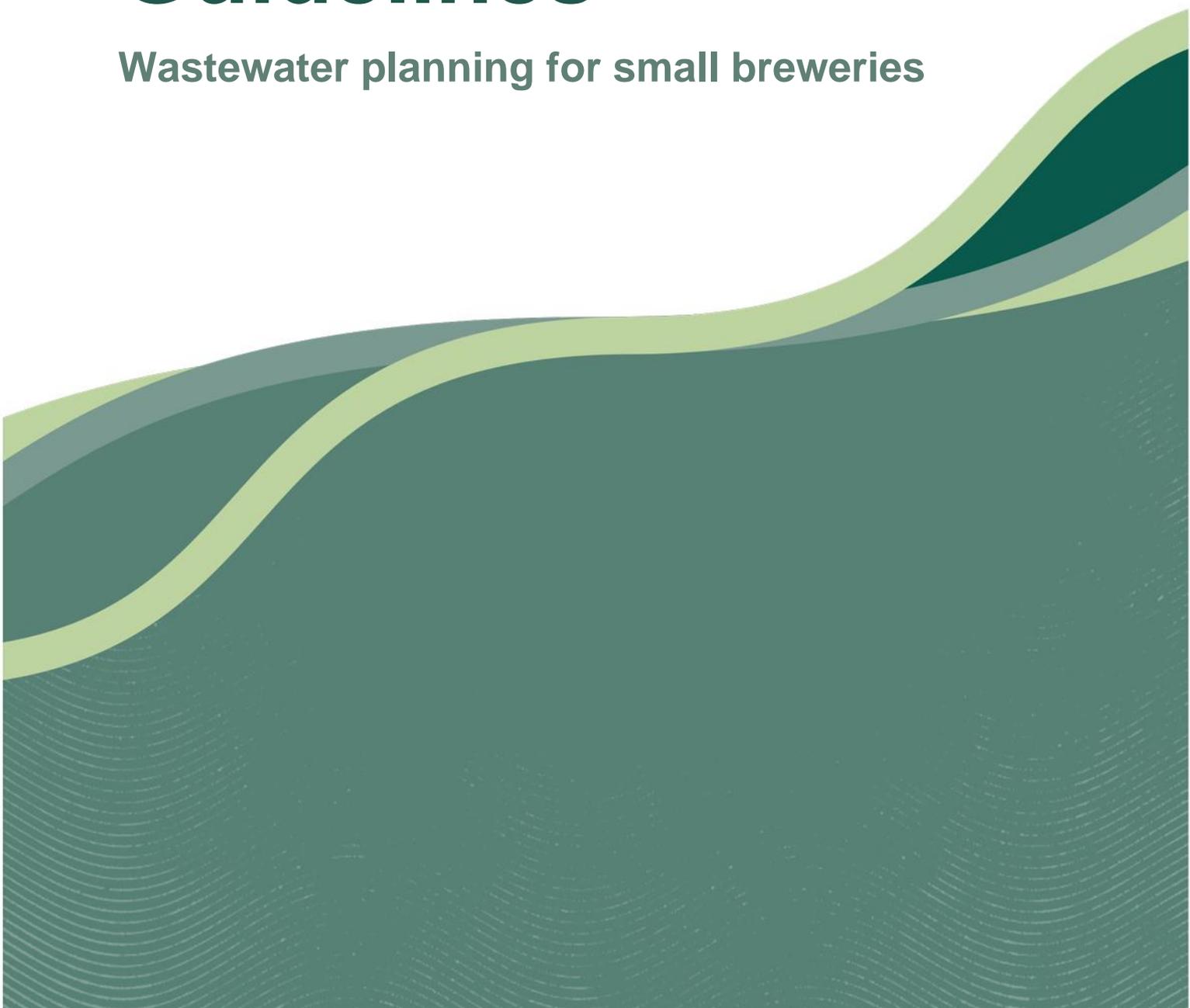


Department of
Primary Industries and
Regional Development

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Agribusiness Development Guidelines

Wastewater planning for small breweries



Wastewater planning for small breweries

Western Australia has seen significant growth in the boutique brewing sector in recent decades, with the WA Brewers Association now having more than 50 members ranging from family-run brew pubs to wholesale breweries servicing local and interstate customers.

Like the wine industry before it, the sector is establishing links with tourism and targeting regional locations with strong amenity value, particularly in the State's southwest. These locations are often associated with high environmental values, which the sector will need to consider as its scale, profile and in turn waste footprint increases.

As such, the Department of Primary Industries and Regional Development is keen to support the sector through encouraging businesses to adopt good land and water management practices.

Scope

This guideline identifies how small breweries can manage trade waste, which is all liquid waste excluding domestic wastewater (e.g., from toilets, showers, hand basins and other domestic fixtures).

A 'small brewery' is defined as a registered business that produces no more than 350 kilolitres of beer per year.

Summary

The preferred method for dealing with trade waste is via connection to a sewer¹. This is the simplest approach, has the least environmental impact and allows you to focus on your core business.

However, most small breweries are in regional areas where sewer connection is unavailable, meaning they need to manage their trade waste on-site. This leaves many breweries looking to storage, evaporation ponds and irrigation to land as the primary tools to manage wastewater on their properties, commonly employed in combination. However, breweries need to be aware that this approach require locations where particular climatic conditions (low rainfall and high temperatures) exist and sufficient land is available to assimilate the volume and nutrient content of wastewater produced.

Once a suitable location for on-site disposal has been chosen, a Nutrient and Irrigation Management Plan (NIMP) should be developed to outline how a brewery will manage its wastewater and minimise impacts on soil, surface water and groundwater, and sensitive ecosystems.

Most NIMPs will include irrigating trade waste across an area planted to pasture or lawn, which take up nutrients and are then harvested and removed from the environment. They also commonly make provision for storing wastewater during winter when plants' irrigation requirements decline and rainfall exceeds the rate of evaporation.

¹ [Sewer availability maps available online here](#)

Brewery wastewater will also likely require treatment prior to irrigation to adjust its organic content and pH level.

Other methods of wastewater management include off-site removal via a licenced waste carrier, septic tanks, leach drains, advanced land treatment methods, and/or wastewater recycling and re-use systems. However, these methods are often cost prohibitive and in some cases not recommended on environmental grounds. For more information contact agribusiness@dpiird.wa.gov.au.

RULE OF THUMB – On average, every 200 kilolitres of beer produced in the Southwest of WA will require:

One hectare of irrigated pasture, lawn or crop; and

Between 350 and 550 kilolitres of winter storage.

Contact

If you require additional information, contact the Agribusiness Development team at DPIRD at agribusiness@dpiird.wa.gov.au

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