

Drinking Water Catchment Protection



What is a drinking water catchment?

A drinking water catchment is an area of land where rainfall collects in rivers and streams that flow into reservoirs, or seeps into the soil to become groundwater where it is stored in underground aquifers. The captured water later becomes drinking water for the community.



Why is it important to protect our drinking water catchments?

Protected drinking water catchments provide a significant 'natural' barrier to contamination and yield high quality water. By protecting our drinking water at the source, we minimise the risk of contamination and reduce the level of treatment required before it is supplied to the community. Source water protection is a crucial step to ensuring safe, good quality drinking water. The *Australian Drinking Water Guidelines* (ADWG) state "prevention of contamination provides greater surety than removal of contaminants by treatment, so the most effective barrier is protection of source water to the maximum degree practical".

Land uses and activities within drinking water catchments may adversely impact water quality. There are three main types of contamination:

- **Microbiological** (protozoa, bacteria, viruses) - often associated with faecal material from humans (from septic tanks or direct waterbody contact) or domestic animals (such as cows).
- **Chemical** - often associated with fuel spills, rubbish dumping, pesticides or fertilisers.
- **Physical** - such as turbidity (cloudiness). This may be caused by erosion and runoff associated with fires, pigs wallowing, and vehicles or horses on unsealed roads or reservoir banks.

How do we protect our drinking water catchments?

The ADWG recommend a multiple barrier catchment to customer approach to protecting drinking water. This proactive approach ensures that if one barrier fails, the effective operation of other barriers will ensure safe drinking water is maintained throughout the water supply. Protection and management of our catchments is the first barrier in protecting water quality. Subsequent barriers include water storage, treatment and disinfection.

Water Corporation is the largest water service provider in Western Australia. We are committed to delivering safe, high quality drinking water to all our customers. Our Drinking Water Quality Management System, consistent with the ADWG, has been implemented across the State. This system recognises catchment management and protection as one of the most critical components of its quality assurance program.

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Water Corporation proactively manages and protects drinking water catchments by undertaking catchment surveillance and inspections, by-law enforcement, water sampling, and providing land use planning advice. Some activities are not permitted within drinking water catchments as they increase the risk to water quality.



The Department of Water and Environmental Regulation is responsible for managing and protecting the State's water resources. The Department prepares Drinking Water Source Protection Plans for each drinking water catchment. The community, key stakeholders, State and local Government departments, and the Water Corporation are consulted during the preparation of each plan. Priority areas, protection zones and the catchment boundary are determined during this process. The priority areas determine the suitability of land uses, whilst protection zones around reservoirs and bores act to further control land or water based activities to protect water quality. For further information, refer to the Department of Water and Environmental Regulation's Water Quality Protection Note *Land Use Compatibility in Public Drinking Water Source Areas* available from <http://drinkingwater.water.wa.gov.au> email drinkingwater@water.wa.gov.au or telephone the Water Source Protection Branch of the Department of Water and Environmental Regulation on 6364 7600.

When a new drinking water source is developed, existing approved land uses on private land within the catchment may continue. The expansion or development of high risk land uses may not be supported, and some activities may be restricted to protect the source water from contamination and minimise the risk to public health. Land owners are encouraged to participate in the Department of Water and Environmental Regulation's Drinking Water Source Protection Plan process to aid in understanding the implications source development may have.

Further information

Refer to brochure Help keep our drinking water safe which can be found at <https://www.watercorporation.com.au/-/media/files/residential/water-supply/safe-drinking-water-quality.pdf>

Further information is available by contacting the Water Corporation on 13 13 85 or visiting our website www.watercorporation.com.au.

The Australian Drinking Water Guidelines may be viewed online at <https://www.nhmrc.gov.au/guidelines/publications/eh52>.