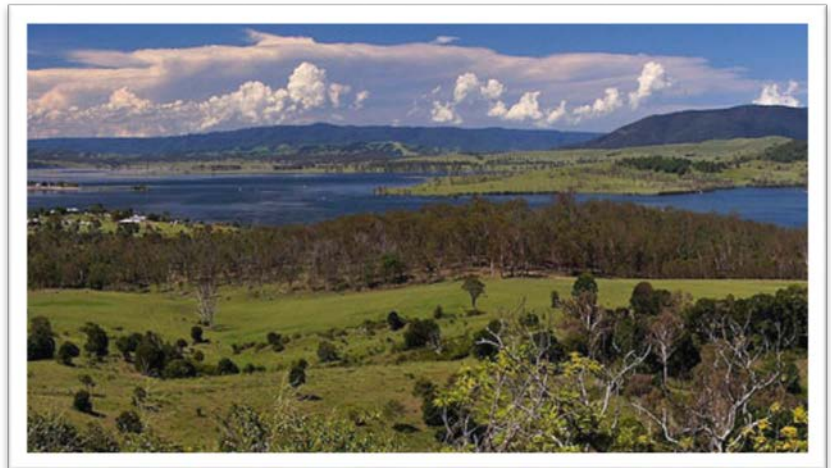


## Types of Rural Water Sources in Farming

Most farms in regional Australia do not have direct access to a town water supply pushing them to consider alternative sustainable sources of water.

Water can come from a number of natural sources including dams, bores and aquifers, rivers and creeks, rainwater and stormwater. However the quality of the water varies per source, with some requiring [water quality testing](#) and additional licensing with your state or regional water authority.



*Source: [Somerset Dam Panorama, Tatters](#)*

### Private Dams

A dam is simply a wall that holds back water to form a basin, lake or reservoir. A privately owned farm dam is used only by your property. They also usually require an operating licence, and sometimes a surface water use works licence – so you should check with your local rural water authority.

Dams can be a great way of capturing and storing water but need to be properly built and maintained. Because they are open, they are prone to contamination from stormwater runoff, stock or feral/native animals and pesticides. They also experience high evaporation losses during Summer.

Dam water is generally suitable for irrigation and stock watering. However is highly recommended that you test the water before giving it to your animals.

### Bore Water

Bore water is groundwater that is accessed through drilling a bore into natural underground water reservoirs. Water can collect underground within porous spaces between layers of sands, gravels and fractured rocks known as aquifers.

Bore water is a finite resource and needs to be managed sustainably. To access water in aquifers often requires drilling a hole into the ground to water table (the depth of the water line below ground), and then pumping the water out to be stored in bore water tanks and/or used in an irrigation system.

Drilling for water can be expensive, so to find if there is bore water available on or near your property you can contact:

- your local government branch for natural resources who may hold information about previous drilling in your area
- local drilling companies, who should know the area and be aware of local bores
- a private hydrogeological consultant, who can assess your property for possible groundwater.

When drilling you will normally need a licensed driller and works licence – so contact your local rural water authority for advice.

Bore water may be contaminated by micro-organisms and chemicals, so is not recommended for household drinking or showers. It is most suitable for irrigation and watering livestock. The water can also be high in mineral concentrations, so testing is important. You also want to ensure the salinity is low so that it is tolerable by your plants and animals.

## Surface Waterways

Surface water sources include rivers, creeks and streams. While rainfall accounts for most of the water flowing in surface waterways, there are also numerous rivers and creeks that form from springs (groundwater) that flow into natural gullies and land folds.

Waterways are often a limited resource and so you usually need to enter into an agreement with your rural water authority. In many cases this means having surface water licence to take and use water from rivers and creeks. This ensures fair water use by all who depend upon it.

While water from crystal clean looking springs may appear safe to drink, it should be tested to check for any contaminants. Clean surface water is suitable for most farm and household uses.

## Rainwater

Rainwater generally refers to rainfall captured from the roofs of buildings and sheds. It is a valuable water source and can provide reasonable water harvests with only a few showers. Such supplies are ideal for all farm use as well as household use and consumption (drinking, cooking, etc).

To calculate the volume of rain that can be harvested from a roof area, use the following formula:

$$\text{Volume of water (litres)} = \text{Annual average rainfall (mm)} \times \text{Roof area (m}^2\text{)} \times 0.95$$

For example, a shed with the dimensions that is 15m x 10m has a roof area of 150m<sup>2</sup>. An annual rainfall of 750mm on this area would yield 106,875 litres/year (750mm x 150m<sup>2</sup> x 0.95).

Rainwater harvesting does not require any additional licensing.

## Stormwater

Stormwater is captured from the ground and property surfaces to be stored in a stormwater tank or dammed. It is suitable for garden irrigations, but will require treatment if used for watering edible plants or for household use.

You can also harvest stormwater from drains however you will need to obtain permission from the owner which is often your local council.

If you want to take stormwater from a river or creek that floods or overflows during downpours, then you should contact your rural water authority to discuss your proposal.

## Need Help Storing Rural Water?

Clark Tanks works closely with many farmers to supply reliable water storage with dedicated water tank fittings appropriate to your farm's water source and usage. We can provide water tanks suitable for storing water from dams, bores, rivers and creeks, rainwater and stormwater.

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If you have found this article helpful, contact Clark Tanks to discuss your needs.  
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