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How much water do I need for my rural property?

The table provided over the page can help you estimate the volume of water required for your annual stock, domestic and general farming water needs. Information on assessing irrigation requirements can be obtained from an agriculture officer of the local Department of Primary Industries. For specific industrial water uses you should obtain advice from the relevant industry body.

Assessing annual water needs

The annual water needs for a rural property will vary depending on where the property is located, the type and number of livestock held and the number of people dependent on the supply. Other factors such as fire fighting and crop spraying and general farming applications will also affect the volume needed.

What size storage do I need?

The total provided in the table and converted to megalitres is an estimate of your net annual water requirements if you are pumping water from a permanent creek or river or from groundwater for direct use. If you want to store the water extracted in an open storage or excavation, you will have to adjust your estimates to account for evaporation losses.

If you want to capture rainfall runoff in a farm dam to meet your requirements you will need to account for both evaporation losses and the length of time between replenishments. For example in the far western parts of NSW, any farm dam you build may need to be twice the capacity of your net annual water requirement because of very high evaporative losses. It is recommended that you seek expert advice before constructing such a dam.

Under the farm dams policy, you are allowed to construct a farm dam on a hillside or minor stream, up to a certain maximum capacity (known as the maximum harvestable rights dam capacity) without the need for a licence (see the information sheets on Farm Dams). The maximum harvestable rights dam capacity is sufficient to meet basic domestic and stock requirements for most rural properties.

Where do I get more information?

Contact the water licensing officer at your local Department of Water and Energy office (contact details are on the website or phone 1800 353 104), or email information@dwe.nsw.gov.au

More information sheets on water management in NSW are available on our website www.dwe.nsw.gov.au



To assist in estimating the annual water needs for your rural property, complete the following table:

STOCK WATER	Description		1. Consumption rate (m³ / head)	2. Your stock numbers	1. x 2. = Sub total m³
Cattle	Lactating, Dairy		22		
	Dry dairy, Beef		15		
	Feedlot		28		
	Calves		8		
Sheep	Type of pasture being grazed	Quality of drinking water (Total dissolved salts)			
	Irrigated	Soft water	0.8		
	Low salt	0 to 2000 parts per million	1.3		
	Low salt	2000 to 5000 ppm	1.9		
	Low salt	5000 to 10000 ppm	3.6		
	High salt	0 to 6000 ppm	3.6		
Lambs	(adopt half the sheep rate)				
Goats			3.6		
Horses	Working		17		
	Grazing		13		
Pigs	Sow		8		
	Pig (allow 10 per sow)		3		
Poultry	Table bird to 10 weeks		0.08		
	Layers		0.13		
	Turkey		0.24		
Other	eg Wildlife		3.6 – 4.8		
DOMESTIC WATER	Description		m³/person or area	Persons/ Area	Sub total m³
Household	House – without septic		51		
	House – with septic		64		
	Septic only		13		
House Garden	For each 1000 m ² or 0.1 ha				
	- Coastal / Tablelands		200		
	- Slopes		400		
	- Plains		600		
	- Western		800		
FARMING	Description		m³ / unit	Number of units	Sub total m³
Dairy	For each m ² of wash down area		5		
Piggery	For each sow – includes sow & progeny. drinking & wash down		90		
Dip	Based on 2 events per year: - Plunge per 100 head		0.6 – 1.4		
	- Spray per 100 head		0.6 – 2.0		
Crop spraying	Based on 2 events per year: - Herbicide/ insecticide per ha of crop		0.4		
Firefighting	Based on a single event: - Buildings per m ²		0.125		
	- Grass per m ²		0.075		
Total Net Annual Water Requirement					m ³

Note: This table provides an estimate of your net annual water requirement and is not recommended for designing farm reticulation schemes which are based on peak daily requirements.

What is this as a volume? To convert net annual water requirement into a volume (ie megalitres) use the following equation:

$$\text{_____ m}^3 \div 1000 = \text{_____ Megalitres (ML)}$$

One megalitre is a million litres or 1,000 kilolitres of water, roughly equivalent to an Olympic sized swimming pool.

Note: This information does not constitute legal advice.
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