

How to install and read a water meter



does not have a service provider, then it is highly recommended that you install meters so that you can monitor your water supply.

All bores should have a water meter located at the borehead. If your water source is surface water (river or dam), it may be more practical to install a water meter at the first storage tank. Install water meters at all houses. Some communities prefer to locate meters on the external wall of each house rather than at the boundary fence.

WHAT TYPE OF WATER METER WOULD SUIT MY WATER SUPPLY?



WHY ARE WATER METERS IMPORTANT?

Most small and remote Indigenous communities have no means to measure and understand how much water is used each day (ABS 2007). Installing and reading a water meter is the most reliable way to understand how much water you use each day.

If your community knows how much water they use, then you can make informed decisions about how to manage your water infrastructure and make bigger decisions such as planning livelihood activities and developing your community within sustainable limits.

Accurately measuring your water consumption and observing patterns over time can help answer questions like:

- At what times will we have enough water to irrigate our fruit trees?
- How many people can our water supply provide for?
- Can our existing water supply provide enough water for our livelihood plans (ecotourism)?

Changing climate, competing water use interests and fluctuating water use needs are all factors that contribute to the need for Indigenous communities to be informed to understand and manage their water resources. Measuring how much water is used over a known period of time is the most reliable way to understand a community's demand for water.

Select a water meter that is designed to read the amount of water flowing through the pipes and the operating conditions (such as temperature). Water meters are designed to measure flow within ideal ranges. Make sure you know and calculate anticipated peak flows and take this information when you see your supplier. Check that the water meter can meet both the minimum and maximum flow demands. There should be a tap installed next to the water meter to control the water flow when needed.

WHERE SHOULD I PUT A WATER METER?

Water meters must be installed level, approximately 75mm above ground and preferably supported by a concrete block. Keep the area around the water meter clear of bushes and other vegetation. Just like other parts of a water supply the meter should also be protected from vehicles, stock and domestic animals.

If your community has a service provider, the installation of each water meter and the location will need to comply with regulatory requirements. If your community

HOW TO READ YOUR WATER METER

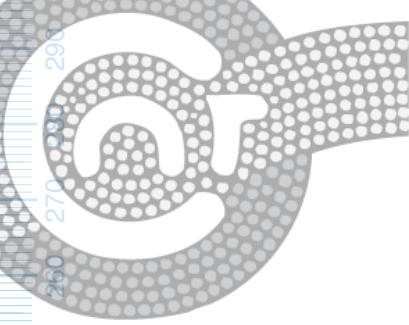
There are two main types of water meters:

1. TYPE A:

To read a water meter with numbers only on the face:

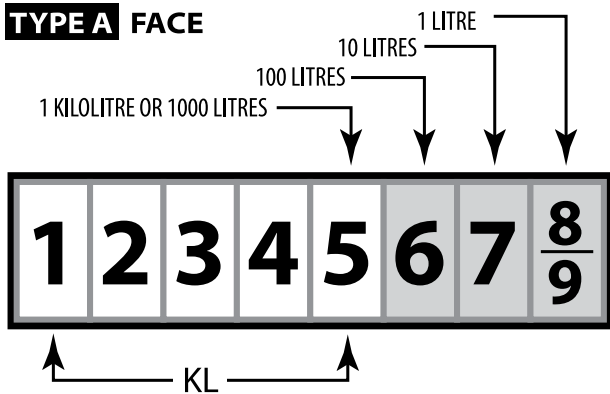
- Lift open the lid and read the numbers from left to right.
- The numbers in black show how many kilolitres (kL) (1000 litres) have been used.
- The red numbers show the litres have been used.
- When you record the reading write down all the black and red numbers (shown as grey in the diagram).

0
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20
10
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TYPE A FACE



READING FOR THIS METER IS 12,345.



HOW TO CHECK FOR LEAKS

A small crack, like a hairline fracture in a pipe can cause a noticeable increase in the amount of water used. Check for leaks if water use has increased in your community and you can't figure out why this is happening. Follow these steps:

- Last thing at night, after you no longer need any water or need to flush the toilet, turn off all household and garden taps.
- Record your meter reading.
- First thing in the morning, before anyone uses any water (including flushing the toilet), read the meter again.
- Record the meter reading.

If there is a difference between the two readings you probably have a leak. Check the water system:

- Walk the pipeline and look for wet or green patches.
- Check all fittings and pipe joins.
- Check all household plumbing hardware including toilet cisterns, tap washers and showerheads.
- Check all garden taps and irrigation systems.

Most small community residents that manage their own supply have a good idea of how much water they use each day. This is usually estimated by how often the storage tanks are filled or other operational activities such as pumping time. Accurately measuring your water flow can highlight sudden changes in the supply and warn you to rectify a problem or to seek assistance. All water supplies need constant maintenance and management to keep them reliable and safe. Using water meters to understand your patterns of water use is just another tool to help you manage your water supply.

REFERENCES:

ABS (2007) Community Housing and Infrastructure Needs Survey, available online: <http://www.facsia.gov.au/sa/indigenous/progserv/housing/Pages/chins.aspx> (accessed 12.4.2010)

Australian Government (2010) National Indigenous Infrastructure Guide, Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA), Canberra, available online: <http://www.icat.org.au/niig/> (accessed 12.4.2010)

Commonwealth of Australia (2008) National Indigenous Housing Guide, third edition, Department of Families, Community services and Indigenous Affairs, Canberra, available online: <http://www.facsia.gov.au/sa/indigenous/progserv/housing/Documents/default.htm> (accessed 12.4.2010)

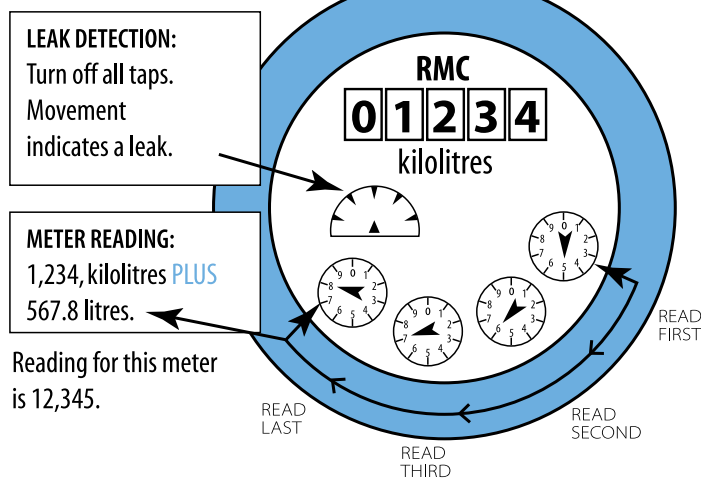
2. TYPE B:

To read a water meter that has a series of dials:

- The numbers along the top show the kilolitres (kL)
- The numbers in the dials show the litres.
- The dials are read right to left.
- Record the number that the needle points to.
- When the needle is between two numbers read the lower number.
- When you record the reading write down all the numbers.
- This meter also has a gauge that shows flow through the meter.
- If you turn all the taps off and there is water flowing through the gauge then you have a leak.

TYPE B FACE

WATER METER WITH DIALS



Reading for this meter is 12,345.

A water meter is only useful if the numbers are read and recorded regularly! The following table shows the information to record regularly.

DATE	READING	USAGE	COMMENTS
14.2.2010	12345.678		1st Reading
25.2.2010	12349.678	4 kilolitres	3 occupants in-house