

How to Read your Water Meter

This factsheet gives advice on how to read your water meter. Water use costs money and is important to manage. Saving water saves money. Information about saving water can be found on the Energy in Education website at www.energyineducation.ie.

Why read the meter?

If you want to save water and money you need to know how much water you are using. Reading your water meter will help. Your water account is like a bank account: if you don't monitor it, how can you manage it?

The more often you read your meter, the more useful the readings will be in helping you control your water usage. Weekly readings and readings before and after each holiday are recommended. It is best to read the meter at the same time of day and same day of the week. It is a good idea to put a reminder in the mobile phone of whoever is going to read the meter.



Large Water Meter

By subtracting one meter reading from another, you can calculate how much water you used in that period.

Example 1: Weekly readings:

Reading on Friday, week 2, 3 p.m.:	4,469 m ³ .
Reading on Friday, week 1, 3 p.m.:	4,242 m ³ .
<u>Water used during 7 days:</u>	<u>227 m³.</u>

Where is the water meter?

Water meters are in different places in each school. The water provider's meter is almost always outdoors below a cover in the ground and may be:

- Below ground in the footpath outside the school
- Below ground in the school grounds
- In some new schools, the meter may have a small above ground metal "mini-pillar" meter cabinet which has the meter inside.

If you don't know where your water meter is, ask your water provider.



Reading the Meter



Meter manhole

Some schools have their own private "check" meter, especially schools built or renovated since 2004. If your school has a private meter, it is probably in the boiler house, particularly if the main water tank is close to the boiler house.

Otherwise, the meter may be elsewhere in the school near the main water tank. Older schools are less likely to have a check meter, unless they have had substantial upgrade works to the mechanical systems carried out in recent years.

What do meters look like?

For a large school, the meter may be large and the cover may require two people with special tools to lift. The meter might be quite deep down and require a torch to read. Ask the caretaker to read it, and to take great care. Never enter the manhole.



Large meter cover

For smaller schools, the meter may be identical to a domestic water meter and may only require a screw driver to prise open the plastic cover. If there is insulation material between the lid and the meter, be sure to replace it after reading the meter.



Plastic meter cover

How many meters?

Most schools have just one meter. Some schools may have more than one meter because they have meters for different buildings. For example, a remote PE hall or a new extension might have its own water meter. Your water bill should show how many meters your school has. Look at the bill, or bills.

Health and safety

Health and safety must be considered when reading the water meter. The details of health and safety are beyond the scope of this Factsheet. Schools should consult their Health and Safety Officer and the school health and safety files, particularly when reading meters below manhole covers.

Reading the meter

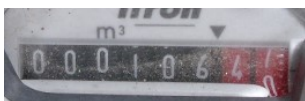
Water meters may look quite different, but reading the meter is easy, once you have access. To gain access ask the caretaker. The caretaker may have a key to lift the meter cover, and will access it. If not, a key can be purchased from your local builder's merchants. Take a photograph of the keyhole in the cover with a camera on your phone, and show the builder's merchant the photograph.

Read the numbers on the meter from left to right. The units are usually printed on the meter next to the reading, and are usually in m^3 .



Meter reading

This meter measures in units of m^3 and is reading 598.75 m^3 .



Meter reading

This one is reading 106.47 m^3 .



Meter reading

This one is reading 4,469.912 m^3 .

Units of volume

The units of water volume on your water bill are m^3 (cubic meters). This can easily be converted to litres by multiplying by 1,000 if you wish.

Water use out of hours

Inspecting the water meter out of hours when the school is unoccupied can indicate possible water leaks. Weekends are a good time to periodically check water use out of hours which may indicate a leak. See the next section for more details.

Water use in holidays

Take a water meter reading before and after each holiday. Calculate water usage during the holidays in suitable units, such as m^3 per day, or litres per second. If a lot of water was metered, perhaps there is a leak somewhere. Leaks could be underground and could continue for months undetected. Reading the meter before and after each holiday should show if you have a leak and avoid a large unexpected bill for wasted water.

The example below are for readings taken over a 9 day mid term break. The meter was read at 4 p.m. on a Friday, and again at 8 a.m. on the Monday after the week long break.

Example 2: Mid Term Readings:

Reading on Monday 5 Nov 8 p.m.:	4,492 m^3 .
Reading on Friday 26 Oct, 4 p.m.:	4,242 m^3 .
Water used during mid-term break:	250 m^3 .

Duration between readings	9 days 16 hours
Duration between readings	232 hours
Flow rate during break, m^3 per hour	250/232 m^3 /hr
Flow rate during break, m^3 per hour	1.08 m^3 /hr
Flow rate during break, litres/hour	1,080 l/hr
Flow rate during break, litres/second	0.30 l/sec

250 m^3 of water wasted over the mid term break could cost up to €1,000.

Left to run for 6 months, the bill could be €10,000 plus!

The above flow rate in litres per second of 0.30 l/sec is equivalent to two kitchen taps running continuously.

Still don't know how to read your meter?

If you are in doubt about how to read the water meter after reading this factsheet, contact your water provider.

Summary

To save on water costs, you need to manage your water use. To do that, you need to read the meter at suitable intervals, and work out how much water you are using. You need to know where in the school the meter is located. You need to know how to read the meter, and how to calculate water used.

This Factsheet explains the details. Other factsheets in this series provide information on and how to read other meters and about inexpensive ways of reducing the energy use in your school, thus saving money.

There is also a Factsheet about water conservation. These resources are on the Energy in Education website at www.energyineducation.ie