

Understanding Your Water Meter

Introduction

The water meter joins the water distribution system with the plumbing for your household and landscape. It records the volume of water used by the household and is read monthly for billing purposes.

The meters measure water usage in CCF which is 100 cubic feet of water. This is equal to 748 gallons of water.

Where Is My Meter?

Residential water meters are in a cement box and often located curbside, near the end of a driveway, or along the sidewalk.

For condominiums, town homes or apartments, the meters for one building are typically located in a row or bank of meters in an area near the units.

Each meter is identified with a number on the meter lid that is referenced on the monthly billing statement.

Is the Right Meter Being Read?

The meter read that is used for billing purposes is located on your water bill. If you feel it is incorrect, we encourage you to verify the read on your meter.

Each residence has unique water needs and each meter has different usage and read history. If the meter read differs significantly from historical usage, the billing system will trigger a verification to prevent a misread.

How Does It Work?

The inside of a water meter works similarly to a revolving door or wind turbine.

When a valve or faucet is turned on, the water pressure lowers on the resident's side of the meter and this allows for water to pass through the meter. This movement causes a disc to spin and this motion is transmitted to the register by magnets.

In the same way that a revolving door won't move without people continually pushing it or a wind turbine doesn't move without wind pushing it, the water meter does not move unless water is flowing through it.

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Reading the Meter

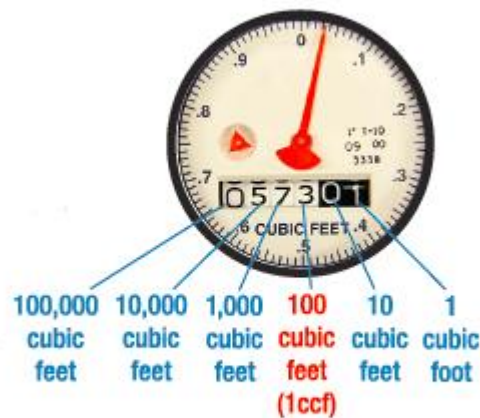
The meter is read like an automobile odometer and registers usage in 100 cubic feet of water (CCF) which is equal to 748 gallons.

A new meter generally shows a reading of zero and increases each month. Meters have a typical lifespan of 17 years.

Because of their mechanical nature, they may slow down over time and register less water than you are actually using resulting in a lower than normal bill.

The Meter Register

Each residential meter will look slightly different, but most of them will be similar to this:



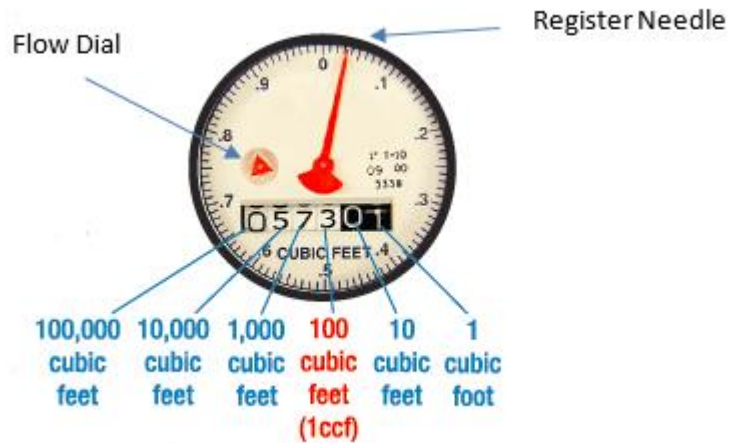
The read for this meter that would be used for billing purposes is 573. The bills are generated to reflect usage in whole units.

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Other Components

In addition to the display reading, there are 2 other indicators that provide additional information:



The flow dial will spin when water is moving through the meter. If this dial is spinning when there is no water being used, it could indicate a leak.

The register needle moves as water moves through the meter. Each point on the register indicates a specific volume of water. The exact read for this meter would be 573.0102. The register is 573.01 and then the needle location adds .0002.

For billing, this additional precise measurement is not needed as billing is based on whole units. For leak detection, the additional information can provide valuable information about the amount of water involved in the leak.

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How to Detect Leaks

Follow the steps below to detect if you have a leak:

Step	Action
1	Turn off all appliances that use water and make sure to leave them off and refrain from using water
2	Check for movement of the flow dial
3	Note the reading on the register and the position of the meter
4	Return in 30 to 45 minutes to check if the register or needle has moved

If the register or needle moved, then a leak is likely.

How to Calculate the Volume Lost

To calculate the volume of water lost to a leak, you will utilize the full read of 573.0102.

Follow the steps below:

Step	Action
1	Set a stop watch app on your phone for 1 minute
2	Note the location of the register needle and write down the exact read
3	Hit start on the stop watch
4	At the minute mark, note the exact number on the register and the exact location of the register needle and write it down
5	Subtract the 1 st read from the 2 nd read Example: If the register needle is pointing at the 7, the exact read would be 573.0170 You would then subtract as follows: $573.0170 - 573.0102 = .0068$ This means that .0068 CCF moved through the meter in 1 minute

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How to Calculate the Volume Lost, continued	Step	Action
	6	Multiply the amount of water that moved through the meter by the number of minutes in a day. There are 1440 minutes in a day. Example: $.0068 * 1440 = 9.704$
	7	Multiply the CCF per day by the number of gallons in a CCF. There are 748 gallons in a CCF Example: $9.792 * 748 = 7,324$ gallons per day (GPD) This would mean that potentially over 7000 gallons per day were being lost through the leak.

Tracking Your Daily Usage

Tracking your daily usage can provide valuable information about whether you are on target to stay within your water budget.

Tracking usage is like calculating the volume of water lost to a leak except it is done one time per day instead of tracking it for 1 minute.

You can follow the instructions below:

Step	Action
1	Record the reading on the register
2	Wait at least 1 day and record the reading on the register
3	Subtract the previous reading from the current reading
4	Multiply by 748 to determine how many gallons were used

Helpful Tips to Track Your Usage

Many people would like to know how much water is being used for landscape versus indoor usage.

Water meters are mechanical and read monthly. It is generally not known how the water is used at any given time or where the water is used. There are a few ways you can find this information out if you are willing to put in the time.

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**Helpful Tips to
Track Your
Usage,**
continued

If you are interested in knowing how much water was used for landscape irrigation, you can take a read the night before your irrigation runs and then take a read the next morning.

If you have not been able to identify where your water is being used, you can take a read at night, the next morning and then the next night to see if it was used in the evening or the day. This can help identify what appliances or irrigation was used during that time frame.

It can be helpful to do this over several days if you need more information.
