

# Water Meters

- \* A meter is installed in the water service lines of a home to accurately measure the water being consumed. The accuracy of the meter is guaranteed by its manufacturer when it is purchased by the water utility. Limits on the accuracy are set by standards established for the wares industry by the American Water Works Association. These standards assure the homeowner that all of the water that he uses will be accurately and fairly measured.

# Meter Accuracy

Water meters measure flow with 98-100 percent accuracy. However, after many years of service, meters may record less than the actual amount used. It is rare for a meter to register “high” or “fast”.

## **Why does the accuracy of a water meter diminish?**

- \* A water meter like any other mechanical device is subject to wear and deterioration over time. The deterioration would be accelerated by poor water quality such as corrosive or abrasive water.
- \* Water meters can over register but this rarely occurs because wear on internal meter parts generally causes lower measurements. It can be assumed that after a certain age the inaccuracy of the meter due to deterioration becomes an economical liability.
- \* The potential for revenue loss can be staggering if the system has a large number of meters significantly under-registering. A comprehensive meter replacement program not only benefits the water distributions system by creating a more efficient operation but allows the District to maintain the lowest possible water rates.

# What happens if my meter registers fast or over-registers

- \* A meter that registers high will continue to register high during the testing process.
- \* Water meter is replaced

*A broken meter cannot repair itself*

# FACTORS THAT CAUSE UNDER-REGISTERING

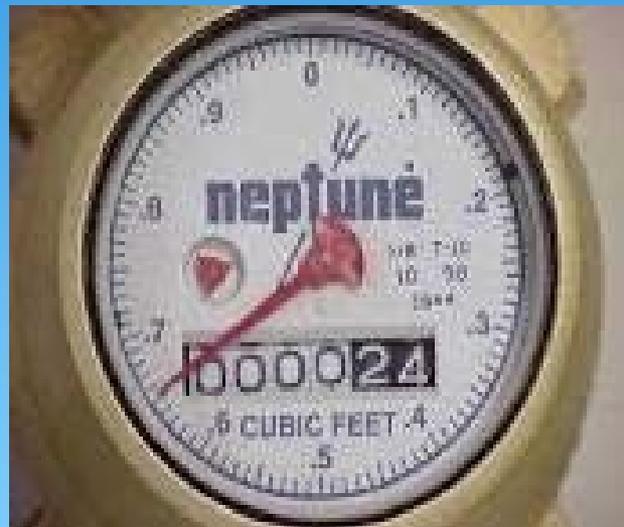
Under ordinary working conditions, several factors may cause inaccurate registration, even after a comparatively short interval. However, **in every case**, these factors will cause the meter to **under-register** and in no case will the meter be caused to over-register.

- \* **Excessive Wear**
- \* **Temperature Extremes**
- \* **Corrosion**
- \* **Materials In Suspension**

# Meter Box – Water Meter



# READING YOUR METER

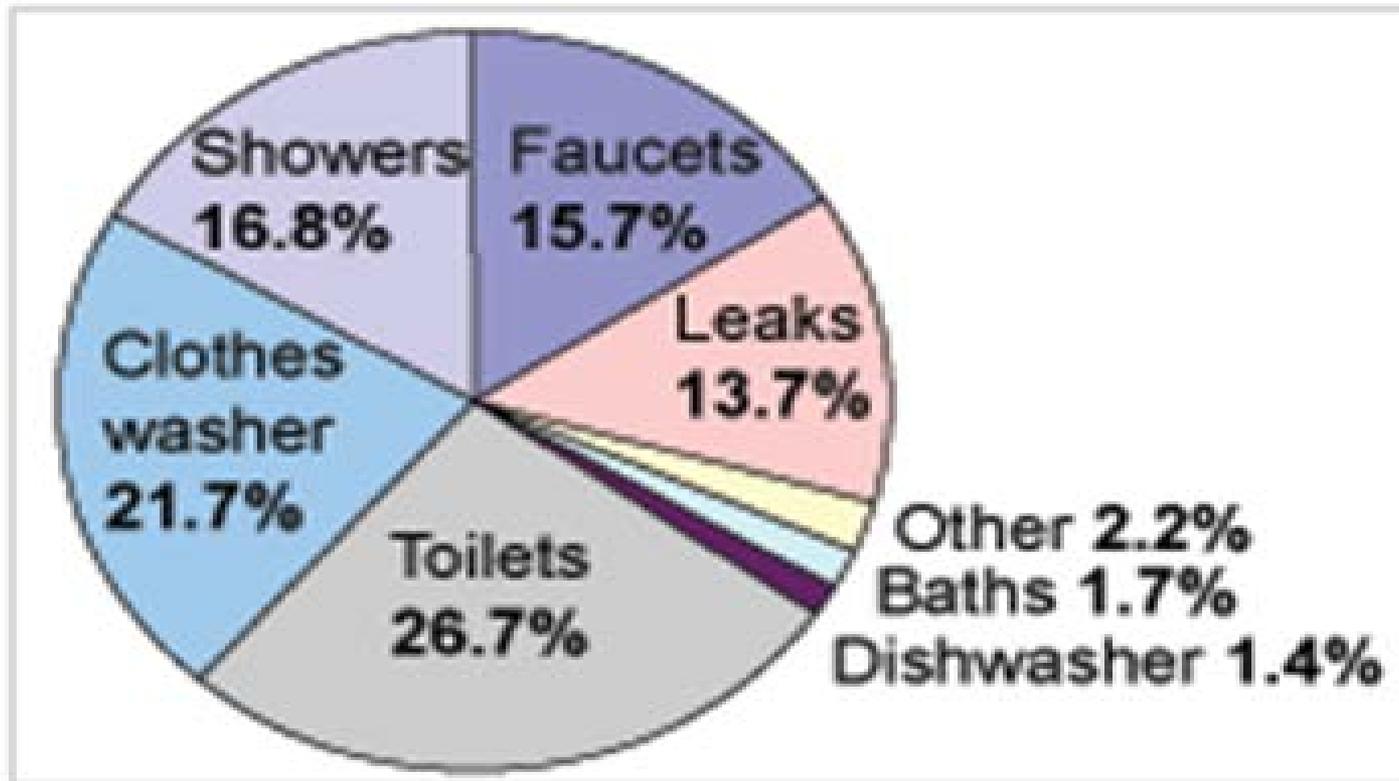


# METER READING/BILLING PROCESS

- \* Meters are read once per month for the billing process
- \* At any point in time you can get the consumption for a period of time by comparing the beginning reading to the ending reading.
- \* The ending reading is subtracted from the previous reading for your account by the billing software, **not your meter reader**, to arrive you're your consumption.

# How a typical household uses water

Handbook of water use and conservation



# Checking for leaks

- \* **Step 1.** Turn all water-using appliances off so that no water is being used. This means turning off all water inside and outside the house including showers, sinks, washing machines and any appliance that uses water. If you have a sprinkler irrigation system, turn off the controller and manually shut off the two valves at the double check valve assembly (DCVA) to isolate the irrigation system.
- \* **Step 2.** Take the lid off the meter box and lift the protective cover.
  - Watch the meter.** Your meter will have a triangular red round disc that is commonly called a “leak indicator.”
  - If it is spinning, you have a leak. If there is no indicator and the actual meter dial hand is moving, water is running somewhere in your system and you have a leak – go to step 3.
  - If the hand is not moving, note the position of the hand and wait 10 minutes. Check the meter again, if it has moved, you have a slow leak - go to step 3. If not, you do not have a leak.
- \* **Step 3.** Locate the main shut-off valve (see photo at left) to the house. This is usually located close to the meter box.
- \* **Step 4.** Turn off the valve.
- \* **Step 5.** Turn on a faucet inside the house to test.
- \* **Step 6.** Check if the meter’s leak indicators hand is moving.
  - If the leak indicator or dial hand is still moving, water is flowing between the meter and the shut-off valve. That means you have a leak between the meter and the customer-side shut-off valve.
  - If it is not moving, then you have a leak between the customer-side shut-off valve and possibly somewhere in the house. Check toilets, washing machines, faucets, etc., for any leak.
- \* **Step 7.** To check a toilet for a leak : Flush the toilet and while the reservoir is still filling, add 2 or 3 drops of food coloring to the water in the reservoir.
  - Wait 15-30 minutes. If the water in the bowl changes colors, the flapper valve needs to be replaced

# Efficient landscape irrigation

## Six things everyone should know about watering efficiently

1. **Apply only enough water to moisten the root zone** of your plants (6 to 8 inches deep), then allow the soil to dry before watering again. This means: In clay soils, water no more than one inch per week. This is enough to moisten your plants' roots. In thin Hill Country soils, apply a maximum of ½ inch of water twice a week.
2. **Water when the sun is down.** No sun and less wind means that the water reaches the roots of your plants rather than evaporating before it hits the ground.
3. **Use low-angle sprinklers** that produce droplets of water. Sprinklers that spray water high into the air or produce a mist lose water through evaporation.
4. **Use multiple start times or a "cycle and soak" feature.** This allows water to be applied a little at a time, eliminating run-off, and is especially helpful for sloped areas and areas with clay soil.
5. **Aim before you shoot:** Direct sprinklers toward your lawn and away from sidewalks and driveways.
6. **Use drip irrigation** for shrub beds, gardens and trees. Drip irrigation systems apply water directly to the root, where it does the most good, and reduces water loss from evaporation. Make sure you slow the flow so the water has time to soak into our region's tight clay and caliche soils —instead of running off.



Verify that your home is leak-free because many homes have hidden water leaks. Read your water meter before and after a two-hour period when no water is being used. If the meter does not read exactly the same, there is a leak.

Check for toilet tank leaks by adding food coloring to the tank. If the toilet is leaking, color will appear within 30 minutes. Check the toilet for worn out, corroded or bent parts. Most replacement parts are inexpensive, readily available and easily installed. (Flush as soon as test is done, since food coloring may stain tank.)

Operate automatic dishwashers and clothes washers only when they are fully loaded or properly set the water level for the size of load you are using.

Kitchen sink disposals require lots of water to operate properly.

# PLUMBING ADJUSTMENTS

- \* Issued after repairs have been completed and the water usage at the location **must return to normal** before a credit can be applied to the account.
- \* No more than 3 months are adjusted for any plumbing problem event.
- \* Only 1 adjustment is allowed per 12 month period.
- \* Repair statement required

# Plumbing Adjustments

- \* An average consumption is calculated using the previous 12 months of consumption history
- \* If the customer does not have 12 months of history, a minimum of 90 days history is required (without plumbing problems) before an account will be reviewed for an adjustment.

# Plumbing Adjustment Calculation

- \* Customers must pay the average consumption for each month adjusted to the maximum of three months.
- \* Any amount above average is reduced by 50% of water service.
- \* Sewer reductions are based on the type of problem that occurs at the property.
- \* If the water does not re-enter the sewer system, sewer charges are reduced 100% above the customer's average.
- \* If the water re-enters the sewer system, sewer charges are reduced 50% above average.