Purpose
This Electronic Newsletter gives consumers basic information about various issues related to the Water and Sanitation Department. Every issue will address different topics on water, sanitation, health, hygiene and/or water conservation and water demand management.

By using water wisely, the environment will be conserved and the survival of life on earth will be ensured.

Water Facts
- A five minute shower uses 30 ℓ of water.
- A bath uses 90 ℓ of water.
- Flushing a toilet uses 9 ℓ of water.
- Washing dishes in a dishwasher uses 40 ℓ of water.
- Washing the car with a bucket uses 10 ℓ of water.
- A sprinkler uses 540 ℓ of water per hour.
- Cleaning your teeth with the tap running uses 6 ℓ of water.
- Washing your hands and face uses 4 ℓ of water.
- A paddling pool holds 400 ℓ of water.
- Filling a kettle uses 2,5 ℓ of water.
- Using a hose without a trigger nozzle uses 500 ℓ of water an hour.

What does water wise mean?
- To have the utmost RESPECT for water.
- To use water carefully and not WASTE it.
- To not POLLUTE rivers with liquid and solid waste.
- To PAY for water services.
- To REPORT all water leaks.
Water Wise Tips

We have to pay for our water consumption to ensure the upkeep of the in-water and sanitation infrastructure that delivers safe water to consumers. Water conservation practices in our dry country will ensure that more people have access to safe water. Practising the water saving tips will contribute towards ensuring an adequate, safe and sustainable water supply to everyone.

- Install a low-flow shower head and tap aerators where possible.
- Use a dual-flush toilet cistern.
- Try to plant indigenous or drought-resistant shrubs in your garden.
- Water gardens before 06:00 or after 18:00 and only when necessary.
- Collect rainwater for re-use in the garden or washing the car.
- Use a broom instead of a hosepipe when cleaning driveways or patios.
- Cover your swimming pool to reduce water evaporation.
- Shower rather than bath.
- Close a running tap while brushing your teeth or shaving.
- Regularly check toilets and taps for leaks.

Did You Know?

- A leaking toilet can waste up to 16 000 ℓ of water in one year!
- A tap left running can waste up to 17 ℓ of water per minute!
- The bathroom uses around 49% of all water used inside the home!
- An eight minute shower using a regular shower head uses around 120 ℓ of water. A water efficient shower head uses less than 72 ℓ!
- A dripping tap can waste as much as 24 000 ℓ of water in one year!
- A water-efficient tap with an aerator or flow restrictor uses 50% less water than a standard tap!

High Water Consumption

The three main causes of high water consumption are –

1. a dripping tap;
2. a running toilet; and
3. pipes that leak.

Keep your water bills low

- Reduce your daily usage of water and identify ways to economise water usage.
- Re-use water wherever possible. Most water coming from a tap can be used at least twice.
- Repair leaking pipes, taps and toilet cisterns.
- Do a water audit and identify where water is wasted.
How To Repair A Dripping Tap

You need the following:
- A washer
- An adjustable spanner
- A screw driver
- Pliers
- A small spanner for the jumper nut

How to Fix a Dripping Tap:
1. Use the stopcock to close off the water at the water meter. Open the tap fully and allow the water to run out completely.
2. Unscrew the tap cover, where provided.
3. There are three basic types of taps:
   - Star head: the screw is on the side of the star head
   - Plastic head: the screw is hidden under the black plastic cap on the tap
   - Brass garden tap: no screw; the complete head can be removed
4. Lift the head part of the tap away from the body.
5. Use pliers to hold washer plate while unscrewing the washer retaining the nut.
6. Remove the old washer and fit a new similar one.
7. Secure the washer with the washer-retaining nut.
8. Reassemble the tap and close fully.
9. Turn on the water supply.
10. Turn the tap on and off to check that it does not drip.
11. If the tap leaks on top of the shaft at the hand piece, tighten the gland nut just a little. Make sure you do not tighten it too tight or it will be difficult to open and close.
12. Do not close the tap too tightly. New washers are softer than old ones and may be easily damaged.
13. Make sure you use a washer of the correct size.

How To Repair Toilet Cisterns

a. Causes of Leaks:
   - Slow or no flushing action – handle must be held until the flushing of the toilet is competed or handle must be adjusted upwards.
   - Water flowing from the overflow pipe.
   - Water running continuously into the cistern tank.
   - Water leaking from the base of the cistern tank – flush valve.
   - Water flowing from the overflow pipe into the toilet pan.
b. How to Detect a Leak:

Some toilet leaks make a running sound that can easily be heard. Others can be so small or silent that it may be leaking and you may not know about it. You do not need a plumber to check it.

Simply put about eight drops of food colouring into the toilet cistern. Wait for thirty minutes. If the water in the toilet bowl is coloured, the cistern is leaking. Many toilets can be repaired with simple tools.

c. How to Repair the Different Leaks:

- Water flowing from the overflow pipe in the toilet pan:
  This is caused by the float, ball or inlet valve not shutting off correctly.

If the float or ball is old, it is best to replace it with a modern diaphragm valve. These are inexpensive and normally available from plumbing suppliers.

- Adjusting the float or ball valve:
  The water level in a cistern tank is controlled by adjusting the float or the float valve assembly. The lower the float when the valve is closed, the less water is allowed in the cistern. The water level should be approximately 25mm below the overflow outlet.

This can be adjusted in a number of ways depending on the type of float valve. If the float arm involves a 90° kink at the end, and the float ball is attached with a thumb screw to the arm, the height of the float can be adjusted by loosening the thumb screw and lowering or raising the float on the arm. If the float or ball is attached directly to a solid metal rod, the float can be lowered or raised by bending the arm down or up.

- Replacing a Diaphragm Valve:
  Isolate the cistern in the plumbing system or, if there is no isolating valve, turn off the main water supply. Depending on the model, you may have to remove a few small screws on the top of the valve or unscrew the large retaining cap on the valve, which is located inside the cistern at the end of the float arm. The retaining nut will be either in front or behind the valve. If the retaining nut is in front, the diaphragm assembly will be behind the cap. If the retaining nut is at the rear, slide out the cartridge assembly to locate the washer or diaphragm behind it. Once the cap is removed, check the washer or diaphragm for abnormal wear or cracks. Before installing a new washer or diaphragm and assembling the valve, clean all the parts in cold water to remove any scale build-up. Reassemble the valve and reconnect the water supply.

- Water running into the toilet pan continuously, but not from the overflow pipe:
  This is caused by the beta valve not sealing properly.

- Replacing the Beta Valve:
  Disconnect the flush arm from the valve mechanism inside the cistern. Use a wrench to unscrew the large nut holding the flush pipe into the base of the cistern. Move the flush pipe slightly to one side, place a bucket underneath and unscrew the retaining nut which holds the siphon to the base of the cistern. Lift the siphon assembly out of the cistern and take the diaphragm or beta valve off the metal plate. Replace the worn diaphragm or beta valve with a new one of the same size. Reassemble the flushing mechanism and attach the flush pipe. Turn on the water supply and watch closely for leaks as the cistern fills.
How to Test For Internal Pipe Leaks

- Ensure that high water consumption is not caused by pipe leaks, pressure release valves, dripping taps or running toilets.
- Close all the internal taps, including the stopcock at the toilet cistern.
- The small wheel on the water meter should not turn.
- Take the meter reading.
- Wait for two hours and take the meter reading again.
- Subtract the first meter reading from the second meter reading.
- If the result is more than zero, an internal leak exists.
- Call a plumber to repair the internal pipe leak.

REMEMBER: THE MUNICIPALITY’S RESPONSIBILITY STOPS AT THE WATER METER!
Illegal Water Connections

The City of Tshwane loses water when people steal or illegally use water from the Municipality’s network. If consumers do not pay for the water they consume, it places a burden on the other members of the community who will have to subsidise those with illegal connections.

Illegal water use is typically found where –

- Consumers have a metered connection, but an additional connection has been added.
- There are no metered connections on the property.
- There are temporary illegal connections such as those done by contractors at building sites.
- People take water illegally from installations such as fire hydrants.

Consumer Responsibilities:
All consumers have a basic responsibility to assist their provider of water, City of Tshwane, by -

- Conserving water.
- Paying for water used.
- Reporting any illegal water connections.
- Reporting any water leaks or bursts.
- Reporting any vandalism.
- Reporting any irregularities in the administration of water use.
- Reporting inconsistencies in their water bills.

Only with co-operation and the commitment of the consumers can City of Tshwane truly operate an efficient water network, which may be reflected in lower tariffs for consumers and better levels of service.

Reporting Theft of Water Meters

Report the incident to the nearest South African Police Service (SAPS) Station:
- Declare under oath that the water meter was stolen – affidavit.
- Obtain case number.

Report the incident to the City of Tshwane (CoT): Water and Sanitation Consumer Management or 24 Hour Reporting Centre: 012 358 2111 and submit the following information:

- Physical address where incident took place: street name, number and suburb
- Customer’s account number
- Customer’s contact details
- Case number

Call Centre Contact Number: 012 358 2111

If you live within the municipal boundaries of the City of Tshwane, you can contact the reporting call centre to report –

- Water leaks
- Water supply problems
- Burst water pipes
- Leaking water meters
- Blocked street sewers

Also report leaks and water problems at waterleaks@tshwane.gov.za