

## **Part A.**

### **Method of Inspection of Sub-Surface Waste and Stormwater Pipes.**

The following is a recommended method for the inspection of sub-surface domestic or light commercial pipes for determining of leaks or cracks.

1. Flush all pipes with clean clear water. For stormwater pipes this may include removal of silt that has settled in the pipe.
2. All pipes should be camera inspected for blockages and obvious cracks or leaks along full length of section of pipe to be tested.
3. The camera inspection should be undertaken from both ends and in the case of sewer pipes, should include all traps below ground level. All joins in pipes should be carefully inspected to determine if any obvious movement is evident that may indicate improper sealing of the joints. ( Cracks or breaks at joints may not be obvious when sighting from one direction only, hence the requirement to view from both directions)
4. After the camera inspection;
  - a. Seal pipe at downslope end of section under consideration. This seal should be visible to determine if any water is leaking from seal or should have another method of leak detection. When undertaking a complete site pipe inspection, the seal should be located as close as possible to the Legal Point Of Discharge. (LPOD)
  - b. Establish a location to suitably monitor water level in the section to be tested.
  - c. Fill system with clean or dyed potable water and note time and height of water.
  - d. Allow to stand for 15 minutes and inspect water level. If level has fallen, check if seal is operating properly. Determine if an air lock is possible in system and remove air from system. Top up water to monitor level.
  - e. Allow to stand for one hour minimum.
  - f. Check water level.
  - g. If water level has dropped; To verify if a leak is in the system, measure level drop and refill to previous level then continue to monitor for a further one hour. After this time if all possible causes of water drop have been eliminated (air lock, leaking seal) then a leak in the pipe may be present and it is recommended to undertake further investigations to locate and repair any leak. If water has dropped by same amount over same timeline, then leak is likely cause.

Note that each line of the system may be required to be tested.

If the test is undertaken due to high soil moisture levels near a pipe or due to foundation movement, it should be noted that water may enter and travel along a pipe trench within the pipe bedding material without a pipe leaking.

## **Part B.**

### **Method of testing water supply pipes.**

1. Turn off all water use taps and devices. Check that any irrigation supply is disconnected.
2. Record the reading on the water meter. Check if the 'Tell tail wheel' is moving.
3. Check meter after one hour.
4. If meter number has changed or if Tell tail wheel is moving, a possible water supply leak may be the cause.