SEMI-PRESSURE SYSTEM WITH GROUND TANKS

Durban Metro Water, South Africa

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Water is reticulated using small diameter (less than 50 mm) plastic piping (polypropylene, HDPE or high impact uPVC), which is laid at shallow depths along the roads or tracks in the area to be served, 'snaking' where necessary to avoid obstructions. At suitable intervals a metered manifold box is installed, from which 20 households can be connected. The household itself pays for a feeder pipe, usually 12 mm, from the manifold to a 200-liter tank, and digs the trench from the manifold to the dwelling. The pipe work is supplied, laid and connected by DMWS. The tanks are either installed on the ground on plinths made of concrete-filled used car tyres, or on metal stands, and can be installed either inside or outside the home, according to the householder's preference. Many householders plumb the tank to supply water to fixtures within the house. Originally, a water bailiff, a local resident employed by Durban Metro Water, turned on supply to the tanks for a short period of time each day, just long enough to allow them to fill, but now this is done electronically. Each tank is provided with a float valve to stop it from overflowing when it is being filled, and an outlet valve to prevent it from being emptied while it is being filled. Each household is thus provided with 200 liters per day, in line with current South African water policy, which dictates that every household must be provided with 6 m^3 of water every month. Durban Metro Water has made the decision not to bill households for this level of supply, so the 6 m^3 is free (provision of this amount of free water has since become national policy).

A semi-pressure system with a ground tank.

A metered manifold box.