

# OVERVIEW

## PROJECT AIM

To provide an acceptable basic level of water and sanitation to all households in eThekweni municipality's rural and peri-urban communities by 2010 through the supply of urine diversion (UD) toilets and 200 litre yard tanks.

## PROJECT APPROACH

### Programme management

eThekweni's Water and Sanitation Unit runs the programme, with project management taken care of by the unit's in-house construction branch. The education and training component is the responsibility of the unit's education branch.

### Prioritisation of the roll-out

The decision on which areas to supply first is based on an assessment of the risk of outbreak of waterborne disease, by the municipality's health department.

### Institutional and social development consultants

Institutional and social development (ISD) consultants are appointed to establish and assist project steering committees in the communities where the roll-out is taking place. The ISD consultants are also responsible for training and managing facilitators from the community who educate households about the toilets and water supply. The ISD consultant also assists in identifying opportunities for skills development for emerging contractors.

### Local employment

The project aims to stimulate the local economy through using local contractors and assisting local people to become suppliers of materials such as bricks. Through the project steering committee, the needy households in the community are identified for preferential access to employment opportunities through the project.

### Education

The project has a strong emphasis on education, both in terms of the correct use of the urine diversion toilets and the yard tanks, as well as on health issues. The

municipality has developed training and educational material to guide the work of the ISD consultants and the facilitators.

### Monitoring and evaluation

The Human Science Research Council provides on-going feedback on the impact of the roll-out through a longitudinal study of more than 1000 households. The University of KwaZulu-Natal provides scientific evaluation of the functioning of the UD toilets.

### In-house capacity

The project relies predominantly on capacity within the municipality.

### Funding

The project is wholly funded through the Municipal Infrastructure Grant (MIG).

*The inside of a UD toilet showing pedestal, urinal and sealed second vault*



## HOW URINE DIVERSION SANITATION WORKS

Urine diversion is a form of ecological sanitation, designed to deal with human waste in an environmentally and economically sustainable way. A UD toilet is designed to separate urine and faeces. The system is a dry system; no water is used in its operation. The urine is diverted to a soakaway, leaving only faeces to accumulate in the sealed vault below the toilet. The operating principle of urine diversion sanitation is that the faecal matter remains dry and safe to handle over time. The toilet design adopted by eThekweni uses a double vault system. Once the first vault is full, the pedestal is moved to cover the second vault. The opening to the first vault is sealed with a lid. This allows for the faecal matter in the first vault to dry out for at least six months before it is removed, when the second vault is full. Each time the toilet is used the householder throws in a cup of sand or ash to cover the faeces. This helps in the drying process and reduces smells.

## HOW THE YARD TANK WORKS

Each household that has paid their connection fee is supplied with a 200-litre plastic yard tank. The tank is positioned on a brick base, near to the house. Each tank supplies up to eight people. If there are more people in the household then they will receive more than one tank. The tank is filled every night by an electronic bailiff system that automatically channels water into the tanks and cuts off when they are full. The water is free and there is no billing or metering.