

WATER INFRASTRUCTURE

# Plugging the Leak

eThekwini's R850m water pipe replacement programme to save R248m a year

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**T**he eThekwini municipality's R850-million asbestos-cement water pipe replacement programme will save eThekwini ratepayers more than R248-million in water loss annually.

Started in July 2007 and due for completion in June 2010, the project will entail laying an estimated 2 800 km of pipeline.

Lead programme manager **Jochen Dedekind** says that only about 600 km of pipeline has been laid so far.

However, he says the project will be on target within the next three to four months, as the teams gain experience and become more productive.

**Derek Naidoo**, deputy city manager for procurement and infrastructure, says the international water loss norm is 15%.

The municipality is aiming to reduce water loss to 20% in the next five years.

"In adopting a proactive approach, eThekwini is planning ahead to prevent a full-blown water crisis.

"The old burst-prone pipes are being replaced with modified polyvinyl chloride pipes that have an estimated 50-year lifespan," says **Alan Kee**, eThekwini water and sanitation project executive.

The investment will reduce water loss by 10,6%, translating into an annual R248-million saving on eThekwini's

R1-billion-a-year water account with Umgeni Water.

Kee says nearly 80 km of piping was laid each month during the current financial year and that the municipality expects to recoup its investment within nine years.

Programme manager **Ninham Shand** has been tasked with ensuring the successful implementation of the project.

Four main contractors won the tenders for the project – WK Construction in the south, Icon Construction in the north, the WBHO/Insitu Pipelines joint venture in the west and far north, and Sanyati in the central areas of the municipality.

One of the key aspects of the project has been ensuring that people living where the pipes are being relaid benefit from the project.

Currently, 4 000 predominantly unskilled local labourers are involved, with 12 000 being employed annually.

In locally empowering businesses, the municipality has sourced plant and materials, security guards and other project requirements from neighbourhood suppliers.

The spin-off has generated employment, particularly among sustainable small businesses.

"A major goal is to ensure that smaller,

locally based businesses benefit from work generated by this project," Kee says.

The project also has a development aspect, and major contractors are required to mentor 16 subcontractors assigned to them to enable them to progress two rungs up the Construction Industry Development Board ratings over the three-year contract period.

Students are also employed on the project to give them the necessary work experience required as part of their technical training.

Learning opportunities are also provided for qualified students.

Head of eThekwini's water and sanitation unit **Neil Macleod** says the model has been so successful that it will be used to provide sewerage infrastructure to 318 informal settlements, which are contributing to the municipality's pollution problem and which will be converted into formal housing in the next five years.

"In the meantime, temporary toilet blocks will be erected to take the effluent out of the rivers," he says.

Councillor **Sipho Khuzwayo**, deputy chairperson of the eThekwini municipality's infrastructure committee, says the model will be adopted by other municipalities in the country.