



# Managing municipal infrastructure assets

THERE IS EVIDENCE that few infrastructure asset owners, including water services authorities (WSAs), are making adequate provision to maintain, rehabilitate, replace and protect, that is, to 'manage', their infrastructure assets.

We continue to extend services without making sufficient provision for the necessary rehabilitation, replacement or disposal of infrastructure assets. Compromises are being made and, increasingly, the services will break down.

The Minister of Water Affairs and Forestry, in her budget speech of May 2005, stated that the monitoring of service quality by her department shows 'how important it is to manage infrastructure effectively. Last year, I reported that water supply to 37 % of households was interrupted for more than a day during the previous year – mainly for technical reasons, rather than for non-payment ... This year, we focused on the quality of drinking water, and I regret to say that 63 % of municipalities could not confirm that they met the Drinking Water Quality guidelines ... [Also] there are serious problems in the management of wastewater treatment works ...'

Yet many WSAs are delivering infrastructure services reliably, without unscheduled interruption, and according to specification. In these WSAs, skilled staff are in place, and management of infrastructure assets and services is seemingly sufficiently budgeted for. The challenge to all WSAs is that they manage their infrastructure assets if they are to deliver services sustainably, as indeed they are obliged to do.

## SOUTH AFRICA

A 2004 Department of Provincial and Local Government (DPLG) study (funded by the European Union) of infrastructure management in four municipalities (two each in Limpopo and Mpumalanga) reported the following five reasons for below-par performance:

- The priority of the WSA had become to deliver new infrastructure, rather than to operate and manage existing infrastructure
- There were limited basic management skills
- Service levels were ill defined
- There was limited asset knowledge and management information
- Responsible officials had insufficient knowledge of statutory and regulatory requirements

Furthermore, a financial modelling exercise

undertaken in 2005 on behalf of DPLG and the Development Bank of Southern Africa (DBSA) showed that new infrastructure rollout targets of the majority of WSAs, if met, will lead to their acquiring infrastructure at a pace at which they will be unable to afford the costs associated with the operations and management of that new infrastructure. This, apart from the fact that many are unable to afford the operations and management costs of their current infrastructure. The prospect, therefore, is one in which an increasing proportion of infrastructure in the care of WSAs will be unable to deliver the service for which it was constructed.

Finally, studies by, among others, the South African Institution for Civil Engineering (SAICE) on behalf of several Sector Education and Training Authorities (SETAs) showed that the number and expertise of staff responsible for the operation and management of municipal infrastructure (including water services) has not kept pace with the increase in the stock of infrastructure – indeed, it has diminished in many municipalities.

## WHAT SHOULD BE DONE

Judicious interventions are needed to make current trends visible and to mitigate emerging vulnerabilities and risks. WSAs must be held responsible, but where there is inability to respond, external support is required.

While some measures are within the power of a WSA, some can only be done by, or are best done by, a larger grouping, or by another entity, such as by a government department. An example of what cannot be done by an individual WSA is a gathering and critical analysis of good practice. But, above all, there is a need for a national strategy to ensure that municipal infrastructure assets deliver services to specification for the whole of their design lives – and for the carrying through of this strategy into the legislative, regulatory, institutional, financial, technological, human resources and other changes that are no doubt required. Part of this national strategy must be a skills plan to ensure the long-term supply of technically trained human resources. DWAF is leading the way by preparing a national plan of action for the sustainable management of water services.

National initiatives notwithstanding, there is plenty of scope for WSAs themselves to deal with their infrastructure asset

management challenges. Below are some of the most important considerations:

- Ensure you know the level of vulnerability of your infrastructure assets, and know if you are in trouble
  - Plan to influence resource allocation in the interests of ongoing financial viability and the sustainability of to-specification service delivery. This involves ensuring that the IDP and sectoral plans address basic services needs without financial over-stress, taking into account the contribution of the equitable share
  - Implement measures, with incentives if possible, to manage the performance of services and assets, and the performance of councillors and officials responsible for the acquisition and/or operations and management of infrastructure and services
  - Consider how to bridge immediate skills and experience gaps in the short term, and in the medium term look at partnerships as an option to operate and manage elements of infrastructure
  - Retain skilled staff, recruit on merit for key personnel posts, and train and mentor inexperienced staff
  - Practise responsible and accountable infrastructure asset management
  - When planning for the acquisition of infrastructure, know the total cost of providing a service – account fully for all costs of use of and management of assets (physical, financial and human resources). Ensure the total cost is reflected in the IDP and sectoral plans (and their financial plans over at least ten-year timeframes). Ensure that funding is identified and allocated in medium-term expenditure frameworks and annual budgets
- Clearly, each WSA must take ownership of its situation. In the short term some of the following might be necessary:
- Identify the most important infrastructure components, and the consequences for service delivery should they fail – especially if probability of failure is significant, and these consequences could involve risk of loss of life. Then do whatever is necessary in order of priority, even at the cost of neglect of other, less important, infrastructure components, or of other WSA functions
  - Improve revenue streams (eg by improving the rate of payment for services), reduce current costs (eg by reducing leakage of water), and reduce future costs (eg by reconsidering planned acquisition of new infrastructure, or reconsidering the level of service of planned infrastructure). ■