

The state of the water and sanitation sector in SA

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SAICE infrastructure report card

- Assessed civil engineering infrastructure in South Africa
- A= very good
- B= good
- C= fair
- D= poor
- E= very poor
- Assessments based on existing reports as well as contributions by members of the Institution active in the various sectors

SAICE scorecard

- Water :
- D+ for the DWAF assets
- Well maintained but aging infrastructure reaching the end of its useful life and requires refurbishment or replacement. 43% of dams have safety problems. Serious concerns about funding the required asset management programme.

Water continued

- C+ for major urban areas
- D- for all other areas
- South Africa is one of the few nations where water can be drunk directly from the tap. However there is erratic compliance with water quality in many municipalities
- Major and ongoing strides in the provision of water since 1994
- NRW levels are too high
- Skills shortages are a concern

Sanitation

- C- for major urban areas
- E for all other areas
- Serious problems with the management of many wastewater treatment works
- Problems with the disposal of waste from onsite sanitation systems
- Lack of maintenance staff and skilled personnel
- Effluent discharge quality often not compliant – sludge disposal is an issue

The DWAF areas of responsibility

- Reasonably up to date records of the location and capacity of assets and of their maintenance history, but records of their condition vary
- The DWAF has insufficient funds to ensure compliance with dam safety requirements and has concentrated on strategic assets. The position will shortly be reached where further delays in refurbishment expenditure will result in serious cost consequences. Incorporation of the former homelands infrastructure has made the situation worse

The DWAF continued

- 150 out of 350 dams have significant safety shortcomings
- Assets built in the 1960's and 1970's need urgent maintenance attention or they will need to be replaced (eg Sasol-Secunda canal)

WSA 's and water boards

- The CSIR estimates the current replacement cost of assets managed by WSA's to be R120 billion and those managed by water boards to be R60 billion
- At least 25% of that infrastructure has been constructed since 1994
- Minister said that in 2004, 37% of households had the water supply interrupted for more than a day, mainly for technical reasons and not for non-payment. In 2005, 63% of sewage treatment works tested did not meet discharge standards

WSA's and water boards

- A 2006 survey showed that only 72% of municipalities' potable water supplies complied with SANS 0241
- Non revenue water statistics showed that over 50% of the 30 WSA's sampled had NRW levels higher than the international standard, with 7 having levels more than double the norm

WSA's and water boards

- A nationwide sanitation survey in 2005/2006 to assess sanitation services completed since 1994, showed that 28% had failed or were in the process of failing
- As an example, the eThekweni municipality inherited more than 100 000 VIP latrines in 1996 and most are now full, and many have been abandoned. In the absence of a national policy and linked funding, the municipality has had to introduce a free basic sanitation intervention to address this crisis
- A study of 51 treatment works in 2005/2006 showed that interventions are required at 30% of these works to avoid serious health consequences

Conclusion

- The focus of the sector to date has been on the provision of new assets to meet the demands of communities without access to water services – to the detriment of most existing assets
- Asset management in the sector requires significantly improved funding and the development of adequate skills in the area of asset management
- Depreciation provisions will impact on tariffs and the affordability of water services