

Interventions to address KwaZulu-Natal Coastal Metropolitan Area water supply concerns

The Department of Water Affairs is pleased with the Water Conservation and Water Demand Management initiatives of the eThekwini, Ilembe, Ugu and Msunduzi municipalities which have resulted in a significant saving of water in the Kwazulu Natal coastal Metropolitan area. This achievement was highlighted at the third Strategy Steering Committee (SSC) meeting for the implementation and Maintenance of the Reconciliation Strategy for the KwaZulu-Natal Coastal Metropolitan Area Water Supply System. In addition the measures being implemented in the municipalities are showing promising results for non revenue water reduction and reduction of water leaks.

Due to the water savings achieved, the future demand is now estimated to be lower. This has resulted in shortening the water supply deficit period by three years to only 2013. A new augmentation project additional to the Spring Grove Dam currently being constructed will however be required by 2016. However, caution was raised as to the sustainability of the WC/WDM efforts. Budget cut-backs to fund further WC/WDM initiatives were discussed and remain a concern, as it is evident that saving water through WC/WDM is paying off.

It should also be noted that the water situation in the KwaZulu-Natal Coastal Metropolitan Area is such that the water use already exceeds the assured supply of water to a level that there is a high risk of water restrictions. Concern over the availability of water in the area to meet the short term water demand was again highlighted. The good rainfall late in the previous season has kept the major supply dams full and has removed the threat of water restrictions being imposed in the short term. However, this situation will change quickly in the event of a dry year, with water restrictions then being needed. Water Conservation /Water Demand Management has been identified as the most important immediate and ongoing action to deal with possible water shortages in the area.

Major infrastructure projects are progressing steadily and will, as priority interventions, address water shortages projected over the short to medium term. Spring Grove Dam, the associated transfer pipeline and the raising of Hazelmere Dam will address the current water supply deficit.

Investigations by Umgeni Water on the planned Lower Thukela Bulk Water Supply scheme to bring

additional water from the Thukela River to the North Coast Area is well advanced and on track.

The eThekwini Municipality is undertaking a feasibility study to investigate the direct re-use of treated domestic sewage effluent as potable water. The effluent will be treated in sophisticated processes using proven existing technology to produce water of the required water quality standard.. The results of a recently completed Reserve determination study on the uMngeni estuary were presented at the SSC meeting. The results indicate that the re-use of the treated effluent currently discharging to the uMngeni River will not significantly change the present health status of the uMngeni estuary. As a result of these

findings, eThekwini Metro will start the environmental processes for the re-use project in October 2011. The water re-use project and the initiation of the environmental impact assessment process was supported by the Department of Water Affairs. The project is on track to deliver water by 2016, provided that no unforeseen challenges are encountered.

The potential of seawater desalination as a water supply option has already been investigated by Umgeni Water in a pre-feasibility study that was completed in May 2009. This study showed that desalination of seawater is technically and environmentally feasible and economically viable. Two possible sites have been selected and Umgeni Water is currently moving forward with a detailed feasibility study. The site selection process for the plant has been completed and the proposals from professional service providers to carry out the feasibility study are being evaluated. As part of its forward planning and interventions strategy, the SSC is of the view that the seawater desalination option is an important future option for consideration in the reconciliation strategy and for detailed comparison with possible surface water schemes.

Investigations and studies into the further development of surface water resources are also underway which include the Lower Thukela Bulk Water Supply Scheme, the Mkomazi River Transfer Scheme and the Mvoti River Development. Together with short- to medium-term options like the re-use of treated wastewater treatment works effluent and desalination of seawater these projects area being investigated as measures available to the system to supply the projected water requirements beyond the year 2030.

The next meeting is to be held in March 2012.

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