

Sustainable water supply for Nelson Mandela Bay Municipality and surrounding areas

Draft Media Release

The third biannual meeting of the Algoa Reconciliation Strategy Steering Committee (SSC) was held on 26 September 2012 in Port Elizabeth. It was confirmed that the most important measures to ensure water security over the short to medium term for this important area are to intensify the implementation of further water conservation and water demand management (WC/WDM) measures to ensure efficient use of water, as well as the completion of the implementation of the Nooitgedagt Low-level scheme to supplement the water supply from the Orange River transfer scheme. Investigations relating to groundwater, water re-use and seawater desalination for NMBM will continue.

The Algoa Water Supply Strategy and its Strategy Steering Committee

The purpose of the Strategy is to annually determine the current water balance and to develop possible future water balance scenarios for a 25-year planning horizon. The Strategy describes the actions, responsibilities and timing of actions that are needed to reconcile available water supplies and requirements. This will ensure that interventions to augment the water supply will be implemented in time to prevent unacceptable risks of water restrictions. The Strategy Steering Committee monitors the implementation of the agreed strategies/actions, updates the strategy as it becomes necessary, and informs all stakeholders and the public of progress with the implementation of the Strategy and the situation in the system.

Water Requirements

The estimate of the uptake of industrial water requirements in the Coega IDZ is still very uncertain as new heavy industries have previously committed and then pulled out again – there is thus no clear indication of future uptake. Such investment is dependent on the availability of water and power for investors. The updated estimate of potable long-term water requirements has not changed much, although the estimated rate of growth has changed. A meeting was arranged with the Provincial Department of Environmental Affairs to discuss the plan to supply water to Coega. The DEA was approached for an amended ROD condition, which will permit NMBM to supply potable water in lieu of industrial standard water to the Coega IDZ, for a bridging period of 3 years until treated effluent from the Fish water Flats WWTW can be supplied to the Coega IDZ. A new application for the amendment of the clause of the ROD was prepared and was submitted by DWA. The current estimate is that the bridging period may extend to six years.

Indications are that the growth in water requirements in the Kouga Local Municipality has been significant in recent years. This trend will be investigated, to better understand what the cause is and how this increase in water requirements is impacting on water supply to NMBM.

Water Conservation and Water Demand Management

WC/WDM is a corner-stone strategy for this area and NMBM and other municipalities must continue and enhance the programmes that were already embarked upon. NMBM is undertaking repairs to water leaks on municipal water mains and leaks on properties. Further WC/WDM initiatives include an awareness campaign, zone metering, remote sensing data transfer, non-revenue water management, promulgation of a bylaw for the use of rainwater tanks, and pressure management schemes.

The Reconciliation Strategy set the NMBM a target to reduce water losses by 37 MI/day over a 5 year period. From 2009/10 the real water losses dropped from 29,3% to 26,2% in 2010/11, which amounts to a saving of 13 MI/day or R 27 million over the 12 months. The same comparison for 2011 and 2012 showed an increase in real losses of 6 MI/day, although there is some uncertainty about the values for the past year. The NMBM is however confident that ongoing WC/WDM interventions will ensure that the above target is met. The contribution and support of the Nelson Mandela Bay Business Chamber in this respect is noteworthy.

There is further significant potential for water savings if water leaks at schools in the Metro are repaired. A Memorandum of Understanding is in place between the Department of Education (DoE) and NMBM which states that NMBM will determine the costs of repairs in the schools and that the Department of Education will pay for making such repairs. The Department of Education has been approached to provide such funding, based on quotes obtained. Savings of 10-15 MI/day could be realised by repairing water leaks at the worst-affected schools in the Metro. With an investment of R50 million, it is estimated that water wastage to the value of R150 million could be avoided. A budget for school repairs was being finalised by NMBM and DoE. DoE transferred

R2.5 million to NMBM in July 2012 to commence with the project. Repairs started during August 2012 to 10 schools in Port Elizabeth and 10 schools in Uitenhage. DWA will provide an additional R2.5 million towards this project.

Three pilot schemes for pressure management systems were initiated, to lower water pressure in times of lower use, and so reduce leakage.

Nooitgedagt Low-level Scheme (NLLS) Implementation

Even with WC/WDM fully successful it is anticipated that the water requirement will increase in this economically active area with its growing population. NMBM is constructing the Nooitgedagt Low-level Scheme as an extension to the existing High-Level Scheme that will treat Orange River water, delivered through the Orange-Fish-Sunday's system, to drinking water standard for supply into the NMBM water supply system. Some of the funding required for this project was obtained under the emergency drought funding and NMBM is still in the process to obtain the outstanding balance of the funds required to complete the scheme. Construction should be completed by the end of 2014, depending on the availability of funding. Funding is needed for phase 2 of the project which comprises of extensions to the Nooitgedagt Water Treatment Works (civil; mechanical and electrical), the construction of a 24 Ml Reservoir and for acquiring the Low-Lift Pump Station Mechanical Equipment.

An additional allocation of water from the Orange River has been approved by DWA and the environmental impact assessment for the scheme has been approved by the Department of Economic Development and Environmental Affairs (DEDEA). The project implementation supported by the emergency funding received from National Treasury is progressing well. The seven contracts which have been awarded to date will be completed between October 2012 and April 2013.

In order to complete the project, a further 4 contracts are required for which funding is needed. NMBM is still in the process to obtain the outstanding balance of the funds required. Based on the present status, completion of the Nooitgedagt Low-level Scheme could potentially be delayed until end 2014. A supply of water from Olifantskop to the Coega IDZ may be required by end 2013. In order to meet this requirement, a cross connection between the high-level and low-level pipelines will be made at the Nooitgedagt Water Treatment Works.

Other interventions

Other interventions that would ensure water security over the longer term are:

- *Groundwater development:* groundwater can provide an affordable, dependable supply with minimal management. The final borehole siting along the Coega Kop area and the Uitenhage areas is nearly complete after which drilling can start. Two drilling tender processes failed as the tenderers were unfortunately deemed non-responsive on both occasions. Other avenues to appoint drillers are currently being explored.
- *Water re-use:* a study was done by the NMBM to determine the feasibility of the large-scale use of treated water from the Fishwater Flats Waste Water Treatment Plant to supply industries in Port Elizabeth and the Coega IDZ with industrial standard water. Funding will have to be sought to finance the scheme. In the event that industrial standard water is required before re-use water is available, a submission was made to DEDEA for a variation in the Coega IDZ ROD.
- *Desalination of seawater:* The proposed emergency seawater desalination plant, located at the old Swartkops Power Station near the Swartkops Estuary could be a possible emergency measure during future droughts. The NMBM has since appointed consultants to investigate a new location for a bigger desalination plant preferably to the western side of the Metro.

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