

Algoa Water Supply System Reconciliation Strategy

PROGRESS REPORT NR 1

1. Purpose of this report

This report provides information on the activities relating to the Algoa Reconciliation Strategy undertaken during the past six months. It provides pertinent background, progress made to ensure a sustainable long-term water supply to the Nelson Mandela Bay Municipality (NMBM), key issues to be addressed and recommendations on the way forward.

2. Background

The 2011 Algoa Reconciliation Strategy was prepared by the Department in cooperation with the NMBM and other stakeholders in order to secure a sustainable future water supply for NMBM and the other towns served by the Algoa Water Supply System (AWSS). The Strategy will ensure that interventions to augment the water supply will be implemented in time to prevent unacceptable risks of water restrictions.

The purpose of the Strategy is to:

- Annually determine the system water balance;
- Annually update possible future water balance scenarios for a 25-year planning horizon;
- Track progress of the implementation and planning of interventions and update relevant information;
- Monitor other information relevant to the Strategy and activities that may impact on the Strategy.

3. Progress

a. Management of the Strategy

The Strategy Steering Committee monitors the implementation of 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. They are supported in this by the Technical and Administrative Support Group (TASG). These committees were constituted and each Committee has met twice.

b. Communication

The Reconciliation Strategy Study aims to facilitate input from stakeholders and the public. A Media Release, following the first SSC meeting was released on 2 December 2011 and a second Media Release, following the second SSC meeting will be released in April 2012. A Strategy Status Report was compiled, disseminated and presented in October 2011.

c. Improving the confidence of water availability: proposed water availability assessment study

The Water Availability Assessment (WAAS) Study for the Kromme and Kouga catchments is planned to start early in 2013. The information that will be gathered under the Verification and Validation (V&V) of Water Use Study of the Upper Kouga catchment (which is just getting underway) is of the utmost importance to the WAAS study. The current V&V study unfortunately only covers four quaternary catchments of the upper Kouga River catchment. Funding of this study remains a problem as R18 million would be needed for the study of the full catchments of the Kouga and Kromme rivers. As this study is now a ministerial priority, funds need be made available and further appointments should be made for the remainder of the area.

d. Coega IDZ Water Requirements

There is uncertainty about the expected uptake of industrial standard water resulting from future investment in the Coega IDZ, such investment being dependant on the availability of water and power for investors. In terms of the EIA issued for large industries at Coega, no potable water may be used, and if no industrial water is available, it poses serious challenges to attracting development to the Coega IDZ. A meeting has

been arranged with the Provincial Department of Environmental Affairs, to table the NMBM Water Master Plan which is currently being finalised and to discuss and agree the plan to supply water to Coega.

e. Kouga Local Municipality Water Use

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 how this increase in water requirements is impacting on water supply to NMBM.

f. NMBM Drought Emergency Water Supply

Severe drought conditions were experienced in the dam catchment areas supplying the NMBM area from 2008 to early 2011. A series of interventions, initiated by the NMBM Water Division, were started with the express intention of alleviating the drastic water shortage experienced. This *inter-alia* involved an intensification of water conservation and water demand management (WC/WDM), fast-tracked implementation of the Nooitgedagt Low Level Scheme and some other initiatives. NMBM received R450 million drought relief funds from National Treasury, towards the construction of the NLLS.

g. WC/WDM

NMBM is running a programme with the objective to reduce water use by a minimum of 25 Ml/d (10 million m³/a) by 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, and promoting the use of rainwater tanks. Pressure management schemes have been identified. The NMBM year-on-year real water losses indicate a saving of 13 Ml/day. The saving target of real losses is 37 Ml/day in 5 years, so a 33% saving has been realised in the first year, which is quite an achievement.

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 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 Ml/day could be realised by repairing water leaks at the 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. DWA is prepared to match any funds the Department of Education makes available for repairs at these schools. NMBM has called for tenders for repairs at these schools, and the tenders have been awarded. As soon as the funds become available, repairs will start.

h. Implementation of the Nooitgedagt Low-level Scheme

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. Construction should be completed by October 2013, depending on the availability of funding. 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. An additional R351 million is needed to complete all phases of the project. It would not be possible to utilise any water from this scheme if the funds necessary to complete the project is not raised. Additional water from this scheme is crucial for development at the Coega IDZ.

It is essential that the NMBM secure the necessary funds to complete the project. They are looking for grants as they are not allowed to apply for loans to raise funds. The NMBM has made an application for the funding to National Treasury in July 2011. They are still awaiting their reply. In addition to the application, they raised the matter at their 28 March 2012 meeting with National Treasury.

i. Other interventions

The NMBM groundwater investigation is still underway. The final borehole siting along the Coega Kop area and the Uitenhage areas is planned for May 2012, after which drilling can start. Two drilling tender processes failed as the tenderers were unfortunately deemed non-responsive on both occasions. The existing DWA regional drilling contracts are considered as a potential means to undertake some of the drilling.

Water re-use: Following the feasibility study on re-use of water, the upgrading of the Fish Water Flats WWTW has been delayed due to NMBM's funding constraints, which is also dependent on the re-use scheme/s being implemented. Funding of R600 million is needed to implement this project.

Desalination of seawater: The emergency seawater desalination plant, located at the old Swartkops Power Station near the Swartkops Estuary has been put on hold since the drought has been broken. NMBM has initiated a reconnaissance-level investigation into a larger 60 MI/d desalination plant located on the coast to the west of the city.

4. Recommendations

The most significant challenges being experienced that requires support is the following:

- a. Problems with funding for NMBM projects: Funding of R351 million for completion of the Nooitgedagt Low Level Scheme and R600 million for the Fishwater Flats WWTW Re-use Scheme is urgently sought, to avoid an imminent shortfall in supply to NMBM (potable supply) and the Coega IDZ (industrial quality water).
- b. WC/WDM at NMBM schools: The Department of Education should be encouraged to meet its funding obligation to NMBM, to prevent massive water wastage at schools.
- c. V&V of water use in the Kouga/Kromme catchments: An additional R18 million should urgently be allocated to complete the V&V for the remainder of the area.