

Sustainable water supply for Nelson Mandela Bay Municipality and surrounding areas

Press Release

The Algoa Reconciliation Strategy Steering Committee (SSC) had its inaugural meeting on 8 September 2011 in Port Elizabeth and concluded that the most important measures to ensure water over the short to medium term for this important area are to intensify the water conservation and demand management measures to ensure efficient use of water, as well as the implementation of the Nooitgedagt Low-level scheme to supplement the supply from the Orange River.

Background to the Strategy development

The Algoa Water Supply System (Algoa WSS) consists of an intricate infrastructure system of dams, pipelines and canals linking the surface water resources of the Kouga and Krom rivers and some small local surface water sources to the west, the Orange River via the Fish and Sundays rivers to the north, groundwater resources and minimal water re-use. The system supplies water to a population of 1.1 million and many industries in the Nelson Mandela Bay Municipality (NMBM), and several smaller towns and resorts as well as water for irrigation to the Gamtoos Irrigation Board and other irrigators. The System is cooperatively managed by the Department of Water Affairs (DWA), NMBM and the Gamtoos Irrigation Board.

The growth in water requirements as a result of population and economic growth necessitated a strategy to determine when augmentation will be needed. The Algoa Reconciliation Strategy development started in 2008 and was completed in 2010 with a subsequent update in April 2011 to accommodate the emergency interventions planned and implemented by NMBM as a result of the drought.

The purpose of the Strategy is to determine the current water balance and to develop possible future water balance scenarios for a 25-year planning horizon. It describes the actions, responsibilities and timing of actions that are needed to reconcile water supplies and requirements. This will ensure that interventions will be implemented in time to prevent unacceptable risks of water restrictions. Continuous monitoring and updating of the Strategy into the future is important.

The Strategy Steering Committee

A Strategy Steering Committee was established in September 2011. The Strategy Steering Committee comprises senior officials from the Department of Water Affairs, Nelson Mandela Bay Municipality (NMBM), the Cacadu District Municipality, other relevant government departments, statutory organisations, organised agriculture and business whose planning depend and may impact on the sustained availability of water.

This committee will meet twice a year with the objectives to

- monitor the implementation of the agreed strategies/actions;
- update the strategy as it becomes necessary;
- inform all stakeholders and the public of progress with the implementation of the Strategy and the situation in the system.

Most important actions to ensure water security

This area is a water scarce area in the country as was clearly demonstrated during the recent drought and all users will have to use water efficiently. NMBM had great success with the measures that were introduced during the drought to reduce the use of water. With the good rains that broke the drought the punitive measures were stopped, but this does not mean that users could return to bad habits of wasting water. Water Conservation and Demand Management is a corner-stone strategy for this area and NMBM and other municipalities must continue and even enhance the programmes that were already embarked upon. 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. The drought and the declaration of an emergency have enabled NMBM to source funds to intensify their leak detection and repair and plumbing repair programs. Increased sliding-scale tariffs have been introduced, usage patterns are being closely monitored and excessive use is brought to the attention of high volume users. Measures are being put in place to significantly improve water use monitoring across the whole city.

NMBM Municipal by-laws have also been changed to promote the use of rainwater tanks and reduce users' total reliance on the municipal water supply.

However, even with WCWDM fully successful it is anticipated that the water requirement will increase in this economic active area with its growing population. To cater for this increase in demand the Department allocated additional water from the Orange River to NMBM which will be delivered through the Orange-Fish-Sunday's system. NMBM is constructing the so-called Nooitgedagt Low-Level Scheme that will treat this water to drinking water standard and supply it into the NMBM water 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 balance.

Other interventions

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

- *Water re-use:* a study is being 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 Coega with industrial standard water. Some local industries are already being supplied with treated water for their process water.
- *Desalination of seawater:* a feasibility study was undertaken for installing an emergency seawater desalination plant, provisionally to be located at the old Swartkops Power Station near the Swartkops Estuary. Since the drought has been broken, this project has been put on hold. In order to meet long-term planning needs, the NMBM decided that a new site that could accommodate a bigger desalination plant needs to be located. Funding for this study still needs to be sourced.
- *Groundwater development:* groundwater can provide an affordable, dependable supply with minimal management. Six production boreholes were sited and a contract is out on tender for drilling along the Coega Fault.

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