



## water & sanitation

Department:  
Water and Sanitation  
REPUBLIC OF SOUTH AFRICA

### KEY MESSAGE TO THE STAKEHOLDERS

#### **Long-term planning of water resources in support of economic growth and drought management in KwaZulu-Natal**

February, 2017

The 2<sup>nd</sup> phase of implementation and update of the **Reconciliation Strategy for the KwaZulu-Natal Coastal Metropolitan Area** is wrapping up, after three years of planning, monitoring and implementation by various role players in the water supply industry. The Strategy Steering Committee (SSC) met again on 2 February 2017 to finalise the 2017 Reconciliation Strategy Report and to discuss the way forward with managing the water resources of the region over the next 25 years.

The 2<sup>nd</sup> phase of the Strategy has seen a number of key achievements:

- Commissioning of Spring Grove Dam as part of Phase 2 of the Mooi-Mgeni transfer scheme (MMTS-2);
- Completion of the Lower Thukela Bulk Water Supply Scheme (BWSS);
- Upgrading of the Hazelmere water treatment works capacity;
- Commencement of the raising of Hazelmere Dam;
- Completion of feasibility studies for the uMkhomazi Water Project (uMWP), the Lower uMkhomazi BWSS and the desalination of seawater;
- The Classification of Water Resources in the Mvoti to uMzimkhulu Water Management Area; and
- The establishment of the uMgeni Ecological Infrastructure Partnership (UEIP) to focus on the care and rehabilitation of the uMgeni River catchment.

With the naturally variable rainfall and runoff conditions in the region, robust planning must always factor in the risk of future droughts. The Strategy achieves this by aiming to maintain a positive water balance. This involves matching projected water requirements, for both essential needs and

economic functioning, with the water available in a drought. As a result water use must sometimes be restricted to ensure that the risk of undersupplying high priority users is maintained at acceptable levels.

Ensuring adequate water supply also requires the implementation of interventions. As part of the Strategy many options are considered and then prioritised and scheduled based on cost, implementation timeframes and sustainability. Prioritised intervention options identified for implementation across the Strategy area are:

- Various water conservation and demand management (WCWDM) initiatives to reduce water leaks and improve efficiencies in water use.
- The maintenance of water supply and drought management rules to maximise the potential water yield available from supply systems and to manage water supply under droughts conditions.
- The need for catchment care and investment in ecological infrastructure to address the degradation of river basins and to maintain the water supply volumes and water quality of river systems.
- Rainwater harvesting which is gaining support as a viable source of water to augment municipal supply.

Infrastructure development interventions have also been selected for each region within the Strategy area.

*Mgeni System (Durban and Pietermaritzburg):*

- A pilot plant will be implemented to combine the reuse of wastewater and desalination of seawater and provide additional water to the Durban CBD in the short-term.
- The long-term solution to provide additional water is Phase 1 of the uMkhomazi Water Project, namely Smithfield Dam (uMWP-1) on the upper uMkhomazi River. Other sources of water are available but at a higher unit cost of water and will delay the need for uMWP1 by only a few years.

#### North Coast System:

- The first phase of the Lower Thukela BWSS has been completed and will augment the existing Hazelmere Dam. The dam is also being raised and this will be completed by the end of 2017.
- Additional growth on the North Coast will be met with Phase 2 of the Lower Thukela BWSS and the indirect reuse of wastewater via Hazelmere Dam. The reuse of water will also assist in addressing environmental concerns by reducing nutrient loading back to local estuaries.

#### South Coast System:


The Lower uMkhomazi BWSS has been selected as the preferred option to secure bulk water supply on the South Coast. Umgeni Water has started with the design phase of this project which is projected to meet growing water requirements up to 2040.

Spring Grove Dam was completed just in time to provide additional resources to the Mgeni System before the full onset of the drought. Without the dam, estimates indicate that the system would have been in a 20% shortfall and water restrictions in the region would have been much more severe than those actually experienced. Recent rains have also brought some relief but it is possible that drought conditions may continue. Water requirements continue to increase due to population growth, urban migration and service delivery backlog eradication. With the drier winter months approaching, this puts constant pressure on water supply systems requiring ongoing planning and intervention.

The Strategy, which has been updated through the participation and consideration of numerous stakeholders over the past eight years, must therefore be actively pursued and implemented. Any slippage in the timeframes of implementing selected development options increase the likelihood and magnitude of water restrictions during droughts. Some of the

larger projects, particularly uMWP1, will enjoy a focused and concerted effort to address any implementation challenges and ensure that the scheme delivers water on time.

**Issued by the Department of Water and Sanitation**

  
3/5/2017.

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