



**water affairs**

Department:  
Water Affairs  
REPUBLIC OF SOUTH AFRICA



EdTM

Enquiries: L Bogopa  
Telephone: 018 387 9504  
Reference: 6/2/2/6

**MINISTER OF WATER AND ENVIRONMENTAL AFFAIRS**

**NATIONAL COUNCIL OF PROVINCES: QUESTION 389 FOR WRITTEN REPLY**

A draft reply to the above mentioned question asked by Mr H B Groenewald (DA-NW) is attached for your consideration.

*[Signature]*  
**DIRECTOR-GENERAL (Acting)**

DATE: *23/10/2013*

**DRAFT REPLY APPROVED/AMENDED**

*Mava & team to draft a media release on this response which must be released on Monday the 4th 11/2013 as this response is released to Parliament*

**MRS B E E MOLEWA, MP  
MINISTER OF WATER AND ENVIRONMENTAL AFFAIRS**

DATE:

*Already scanned to Enrol.  
+ See e-mail.*

NATIONAL COUNCIL OF PROVINCES

**FOR WRITTEN REPLY**

**QUESTION NO. 389**

**DATE OF PUBLICATION IN INTERNAL QUESTION PAPER: 18 OCTOBER 2013**  
**(INTERNAL QUESTION PAPER NO. 31)**

**389. Mr H B Groenewald (DA-NW) to ask the Minister of Water and Environmental Affairs:**

- (1) Whether her department has taken any steps to prevent water shortages in the Rustenburg Local Municipality; if not, why not; if so, (a) what steps and (b) what are the further relevant details;
- (2) (a) where is the Rustenburg water supply sourced from, (b) what current challenges are being experienced in the water supply in the said municipality, (c) what percentage of water is lost when water travels from reservoirs to consumers in the said municipality and (d) what steps are being taken to stop this loss? CW620E

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**REPLY:**

- (1) I first need to emphasise that Rustenburg Municipality is a Water Services Authority in its own right and therefore takes necessary measures. Yes, there are various steps that the Department of Water Affairs has taken to help prevent water shortages in the Rustenburg Local Municipality (LM), which can be summarised as follows:
- (1)(a) A Stakeholders Technical Monitoring Team has been established to closely monitor the situation and to provide a high level view of the current situation and to also make recommendations.

The main focus is on the optimisation of local sources, as the first priority and also the existing major supply schemes to the various areas of Rustenburg, surrounding villages within the municipal area (including the Royal Bafokeng), as well as the mining activities in the vicinity of the town.

The following interventions have been put in place:

**Short term interventions:**

- The leak detection and repair programme is being implemented;
- Pressure management;
- Water rationalization;
- Continue with focused Water Conservation and Water Demand Management (WC/WDM);
- Municipal Infrastructure Grant application for the 12 Ml/day upgrade of the Bospoort Water Treatment Works (WTW);
- Planning of the optimisation of local sources;
- Continuation of the Bojanala Regional Bulk Study;
- Conduct Feasibility studies for the Bakwena and Magalies Water Vaalkop Schemes.

**Mid-term (6months – 2-years) interventions:**

- Continue with WC/WDM;
- Implement internal resource solutions; and
- Update the existing Water and Sanitation Master Plans to incorporate identified augmentation solutions.

**Long Term Solutions:**

Several external source options are available to the Rustenburg LM. These external sources are considered as solutions that will meet the long term demand (greater than 5 years) and the available options are explored below:

- (1)(b) In addition, the Department is addressing the following:

**Upgrading of the Vaalkop - Bospoort system**

The Vaalkop / Bospoort supply system is supplied by a WTW and pump stations with a capacity of 210 Ml/d, which is currently being upgraded with two modules for 30 Ml/day each to 270 Ml/day. Construction for the upgrading of the Bospoort WTW started in November 2012 and the first module will be completed in July 2014. The purpose of this upgrading is to supply additional volumes of potable water to the Pilanesberg North and South Bulk Water Schemes and this is earmarked to be completed by July 2014 and early 2015 respectively.

The Rustenburg Water Monitoring Team has recommended an emergency augmentation scheme from Vaalkop/ Bospoort system. The estimated cost for the implementation of the proposed project is R42 million and the Monitoring Team will be requesting funding from different Government Departments and Institutions.

- (2)(a) The water supply points to Rustenburg can be summarised as follows:

- The northern areas of the Rustenburg LM region are supplied by the Magalies Water from the Vaalkop Southern Water Supply Scheme originating at the Vaalkop Dam and Rand Water.
- In addition, the local Bospoort treatment plant, operated by Rustenburg LM, also supplies about 12 Ml/day potable water.
- Rustenburg LM also supplies industrial quality treated wastewater to some local mines.
- The southern areas and mining along the corridor between Rustenburg and Hartbeespoort Dam are supplied by Rand Water from its Barnardsvlei network fed from the Vaal Dam on the Vaal River System.

- (2)(b) The major water supply challenge that is currently experienced in the Rustenburg LM is that water supply has not been adequate to meet peak demands during dry periods for a number of years. Studies have been undertaken on behalf of the Department, Magalies Water (MW), the Rustenburg Water Services Trust (RWST) and other parties, which have been used to guide planning at the regional and local levels for the supply systems to be augmented.

This shortage is caused by various reasons, including but not limited to the following:

- Water Leaks – old infrastructure;
  - Old Asbestos pipes that have surpassed their lifespan;
  - High water usage due to high temperature including excessive watering of gardens;
  - Water Dams capacity decreased due to drought (lack of rain) and high water evaporation due to high temperatures;
  - Ever increasing demand due to rapid development which is faster than water resources and systems development – Rustenburg is a Growth point.
- (2)(c) The percentage of water that is lost when water travels from reservoirs to consumers is still being determined. The Rustenburg phase 2 Feasibility [1] estimates that expected losses, which are readily recoverable, are between 15 and 25 MI/day with an expected average of 20 MI/day, estimated at about 30%.
- (2)(d) To rectify the water loss situation, the first available source to be considered is savings, which would be attained through a concerted Water Conservation and Demand Management (WC/WDM) programme. The WC/WDM and water loss recovery programme is seen as a short term solution (6mths to 1 year) and consists of various elements, such as:
- The replacement of old pipes in certain zones (such as the Rustenburg CBD); and
  - The re-engineering and modification of the primary and secondary distribution networks of Rustenburg LM in order to:
    - Create isolated metering zones;
    - Install bulk meters to measure the bulk supply to each metering zone;
    - Telemetric linking of all bulk meters to a central control room and database to log bulk consumption figures for each metering zone;
    - Daily/weekly/monthly calculation and reconciliation of the bulk water supply balance;
    - Monthly reconciliation of aggregate consumer consumption figures with bulk supply figures for each metering zone;
    - An on-going leak detection programme coupled with refurbishment of sections of the relevant network;
    - Audit and where necessary, replacement of old consumer meters as well as installation of new meters to un-metered sites in order to accurately measure actual aggregate consumption in each metering zone;
    - Diligent reading of meters on a monthly basis;
    - Issuing of accurate bills for water consumption to consumers on a monthly basis;
    - Diligent collection of outstanding consumer bills and appropriate credit control measures.

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