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Enquiries: A Starkey Telephone: 031 336 2861

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## MINISTER OF WATER AND ENVIRONMENTAL AFFAIRS

# NATIONAL COUNCIL OF PROVINCES: QUESTION 345 FOR WRITTEN REPLY

A draft reply to the above mentioned question asked by Mr R A Lees (DA-KZN) is attached for your consideration.

DIRECTOR-GENERAL

DATE: 2

DRAFT REPLY APPROVED/AMENDED

MRS BEE MOLEWA, MP

MINISTER OF WATER AND ENVIRONMENTAL AFFAIRS

DATE: 20 13 10 08

### NATIONAL COUNCIL OF PROVINCES

### **FOR WRITTEN REPLY**

#### **QUESTION NO. 345**

## <u>DATE OF PUBLICATION IN INTERNAL QUESTION PAPER: 16 SEPTEMBER 2013</u> (INTERNAL QUESTION PAPER NO. 27

## 345. Mr R A Lees (DA-KZN) to ask the Minister of Water and Environmental Affairs:

- (1) Whether the Olifants Dam in the Uthukela District has reached its capacity as a result of siltation; if not, what is the position in this regard; if so, (a) what percentage of the present volume of the water is unusable as a result of siltation and (b) what is the remaining life expectancy of the dam;
- (2) whether the current water in the dam is sufficient to meet basic requirements for the (a) communities and (b) livestock in the area; if so, what are the relevant details; if not,
- (3) whether potable water is being provided; if not, why not; if so, what are the relevant details;
- (4) whether the dam was polluted as a result of acid mine water drainage; if not, what is the position in this regard; if so, (a) what danger does this present to (i) persons and (ii) livestock drinking the water and (b) what action is being taken to remedy the situation?

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### REPLY:

- (1) The capacity of the Olifantskop Dam in the UthukelaDisctrict has been reduced due to siltation caused by erosion in the large catchment above the dam.
- (1)(a) It is estimated that the yield of the dam has been reduced by approximately 80% of the original yield.
- (1)(b) No investigations have been done at this stage on the remaining life expectancy of the dam.
  - However, it is considered likely that the Oliphantskop Dam may silt up in future, thereby reducing its storage capacity. The main cause of rapidsiltation of the dam is the very small storage capacity relative to the upstream catchmentsize and runoff (original storage capacity of 1.5 million m3 versus the natural MAR of about 90 million m3/a). Possible over-grazing in some portions of the upstream catchment may also further exacerbate the sedimentation problem.
- (2) A reconciliation strategy study by my Department which was concluded in February 2012 found that the capacity of the dam is insufficient to supply the current and future water requirements of the Oliphantskop Dam/Ekuvukeni WSS, even at a low assurance of 95% (1:20 year failure).
- (2)(a) As above
- (2)(b) As above

#### Relevant details:-

The Oliphantskop Dam supplies domestic water to the Ekuvukeni Water Supply Scheme (WSS). This system was identified and prioritised as one of the critical systems within the DWA Eastern Cluster as a result of numerous complaints from farmers and community members regarding the availability of water and frequent water supply interruptions. In the drought of 2003/2004, and again in 2006/2007, Oliphantskop Dam dried up completely for about three months, necessitating emergency water provision schemes.

The cost of desilting the dam has been considered and is considered not economically viable. Thus the following interventions are under consideration viz:-

- In the short term the iimplementing Water Demand and Conservation Management (WDCM) measures is the first and most critical intervention in order to reduce the system losses through pressure and leakage management, due to old water supply infrastructure and illegal water use. These losses must be brought down from the current 29% to 15%, or less.
- In the medium term DWA will ensure thatUThukela DM investigate the feasibility and viability of developing off-channel storage in the Sundays River catchment, or a new dam further downstream of the Oliphantskop Dam.
- The potential to extend the Ezakheni Water Supply Scheme to supply Ekuvukeni Water Supply Scheme area is a further option. This may require upgrading the Ezakheni WTW from its current average flow rate of 30.7 Ml/d to an average flow rate of 65 Ml/d or developing new regional WTW to replace both the Ladysmith and Ezakheni WTW.
- A detailed feasibility study and design phase of the Emnambithi/Ladysmith regional water supply scheme costing R40 million which includes supply to Ekuvukeni has been recommended for Municipal Infrastructure Grant funding. The total cost of the regional bulk scheme is estimated at R 1 280 million.
- (3) Raw water is provided from the Olifantskop Dam on the Sundays River is treated at the 6.67 Megalitre treatment works and distributed to the Oliphantskop Dam/Ekuvukeni WSS.
- (4) The Department is not aware of any evidence of pollution from acid mine drainage on the Olifantskop dam.

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