



## water affairs

Department:  
Water Affairs  
REPUBLIC OF SOUTH AFRICA



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### MINISTER OF WATER AND ENVIRONMENTAL AFFAIRS

#### NATIONAL ASSEMBLY: QUESTION 2966 FOR WRITTEN REPLY

A draft reply to the above question asked by Mr G R Morgan (DA) is attached for your consideration.

DIRECTOR-GENERAL

DATE: 31/10/2012

DRAFT REPLY APPROVED/AMENDED

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

DATE: 2012/10/31

NATIONAL ASSEMBLY

FOR WRITTEN REPLY

QUESTION NO 2966

DATE OF PUBLICATION IN INTERNAL QUESTION PAPER: 26 OCTOBER 2012  
(INTERNAL QUESTION PAPER NO. 36)

**2966. Mr G R Morgan (DA) to ask the Minister of Water and Environmental Affairs:**

- (1) What is the current level of mine water below the (a) surface and (b) environmental critical limit (ECL) for the (i) western, (ii) central and (iii) eastern basins in the Witwatersrand;
- (2) when is the mine water expected to breach the (a) ECL and (b) surface in the absence of interventions to reduce the water level;
- (3) whether there are any cases in the central basin where mine water has infiltrated the foundations of buildings; if not, how was this conclusion reached; if so, what are the relevant details;
- (4) whether (a) the Trans-Caledon Tunnel Authority (TCTA) or (b) officials of the Department of Water Affairs are under any prohibition with regard to making announcements on water levels below any of the specified basins; if not, why not, in each case; if so, what are the relevant details in each case;
- (5) what steps have been taken to mitigate the mine water situation below the (a) western, (b) central and (c) eastern basins as at the latest specified date for which information is available?

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**REPLY:**

- (1)(a) The current level of mine water below surface in each Basin is as follows:

Basin	Mine water level (metres below surface)
Eastern	518
Central	290
Western	1.4

- (1)(b) The current level of mine water below the ECL in each Basin is as follows:

Basin	Mine water level below ECL (metres)
Eastern	213
Central	112
Western	Not applicable. The ECL is breached.

- (2)(a) In the absence of mitigation, mine water is predicted to breach the ECL as follows:

- Central Basin by August-September 2013;
- Eastern Basin by May-June 2014; and
- Western Basin, mine water has already breached the ECL.

Predictions for the Central and Eastern Basins are modelled on data for the current hydrological cycle.

(2)(b) In the absence of mitigation, mine water is predicted to breach surface as follows:

- Central Basin by January – March 2015.
- Eastern Basin by November 2016; and
- Western Basin, mine water may breach the surface within a few days if the current intervention for managing AMD is terminated and / or there is a substantial increase in rainfall.

Predictions for the Central and Eastern Basins are modelled on data for the current hydrological cycle.

- (3) No, there are no known cases of underground mine water penetrating the foundations of buildings in the Central Basin. This is based on the fact that the current underground mine water level in the Central Basin is well below the foundation levels of existing infrastructure.
- (4) No, since information on mine water levels in the Witwatersrand Basins are within the public domain, officials of the Department of Water Affairs (the Department) and the TCTA are not under any prohibition regarding the communication of information on mine water levels. However, all announcements on mine water levels are done through the Department, after the updated levels are reviewed by the Department's Hydrological Monitoring Committee and subsequently ratified by the Inter-Governmental Task Team on Acid Mine Drainage (AMD).
- (5)(a) For the Western Basin, an immediate solution (that is, AMD neutralisation and the discharge of neutralised water into the water resource) was commissioned in June 2012. Since this intervention came into effect, the surface decant of AMD was eradicated. Further investigations into the feasibility of increasing the capacity of the immediate solution as well as optimising treatment through clarifiers and / or mobile desalination units are underway.
- (5)(b) For the Central Basin, the Department recently approved the construction of mine water pumping and neutralisation infrastructure, which is aimed at maintaining underground mine water at / or below ECL. Construction is anticipated to commence by December 2012.
- (5)(c) For the Eastern Basin, an approach similar to that of the Central Basin intervention is envisaged. However, this is subject to the acquisition of sufficient funding in subsequent financial years.

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