

**DEPARTMENT OF WATER AFFAIRS AND FORESTRY
DEPARTEMENT VAN WATERWESE EN BOSBOU**

No. 1468

17 October 2003

INVITATION TO SUBMIT WRITTEN COMMENTS IN TERMS OF SECTION 110 OF THE NATIONAL WATER ACT, 1998 (ACT 36 OF 1998) ON THE PROPOSED RAISING OF FLAG BOSHIELO DAM AND THE ENVIRONMENTAL IMPACT ASSESSMENT RELATING THERETO

The Minister of Water Affairs and Forestry intends constructing a government water work as contained in the Schedule hereto.

In terms of section 110(1)(b)(iii) interested parties are invited to submit written comments on the proposed water work and the environmental impact assessment by 19 December 2003. Comments must be submitted to the Director General, Department of Water Affairs and Forestry, Private Bag X313, Pretoria 0001; Fax 012-336 7399 and marked for the attention of Mr OJS van den Berg, Chief Engineer Options Analysis North.

Signed by Acting Manager: Integrated Water Resource Planning on 9 October 2003.

SCHEDULE ON THE PROPOSED RAISING OF FLAG BOSHIELO DAM (A GOVERNMENT WATER WORK) AND SUMMARY OF THE ENVIRONMENTAL IMPACT ASSESSMENT.

A. PROPOSED CONSTRUCTION OF THE SCHEME

In response to increasing water demand and managing the risk of shortages, the Minister of Water Affairs and Forestry proposes raising the existing 36m high Flag Boshieles Dam (FBD) by 5m. This is the best practical environmental option to increase the current storage capacity of 100 million m³ to 188 million m³ and so increase the current yield of 56 million m³/a to 72 million m³/a. The need for the raising is demand driven – largely in response to the projected increase in the importance of planned and existing platinum mines in the region. This projected increase, in turn, is in response to the increasing international profile and importance of platinum.

The Flag Boshieles Dam on the Olifants River was completed in 1986 and is situated about 30 km north-east of Marble Hall along the Mokopane – Marble Hall Road in the Limpopo Province. The dam is situated on the Farm Mooiplaats 355 JR and straddles the Mpumalanga and Limpopo Provincial boundary.

By way of background and contextualisation, increasing demands for water supply for domestic, industrial (most notably new mining developments), agricultural and ecological purposes triggered technical and environmental planning investigations with the objective

of identifying the most desirable development options. The conclusion was that the water resources of the Olifants River must be developed in a phased manner, with the raising of Flag Boshielo Dam being the first phase. During the second phase a large dam should be constructed, either at Rooipoort on the Olifants River, 80km South East of Polokwane, or 50 km South of Burgersfort at De Hoop on the Steelpoort River. The best option for the second phase will be chosen on the basis of confirmation of future water requirements, an assessment of the impacts of the options and the relative costs of the transmission infrastructure to the demand centers.

Raising the Flag Boshielo Dam will, inter alia, achieve the following objectives:

- provide water to several new & planned platinum mines in the region served by the dam - mainly in the southern part of the Limpopo Province. The new mining developments are currently using 13 million m³/a of water temporarily reallocated from resource poor farmers. As such, this reallocated water must be returned to said users, putting them back into production. It is projected that the new mines will require additional water by October 2005
- ensure that sustainable water supply is available for domestic programmes
- provide for the environmental river requirements, which currently cannot be met by the present configuration and operation of the dam
- revitalise discontinued irrigation for resource poor farmers.

It is proposed that the raising of Flag Boshielo Dam commence early in 2004, with completion by the end of 2005.

B. SUMMARY OF ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

The EIA (Scoping Report) examines the proposed project in relation to the prevailing biophysical and socio-economic environment of the region. The potential negative impacts on these environments that may arise during the construction and/or operational phases of the proposed raising of the Flag Boshielo Dam have been highlighted and assessed. No fatal flaws were found. Possible mitigation and management measures to offset potential negative impacts and enhance positive impacts are also proposed and outlined in this report.

A Public Participation Process was undertaken in order to engage Interested & Affected Parties (I&APs) in the Scoping process and to solicit and capture their comments and concerns regarding the proposed project as well as to attempt to answer any questions about the proposal. These have been incorporated in the Scoping Report.

The most significant potential environmental issues anticipated by the proposed raising of the existing FBD are:

- the possible negative impacts on the crocodile population and their breeding sites within the present dam basin, and
- the inundation of landowners' land and infrastructure.

The former is largely obviated by a commitment from DWAF for a reactive monitoring and management programme and the axiomatic assumption that the present integrity of the crocodile population is largely a function of pre-existing anthropogenic changes to the river (the construction of the FBD) and introduced alien fish species. There is some value then in extrapolating this principle and assuming that additional and suitable habitat will, over time, be created for the crocodile population.

The latter socio-economic impact will be addressed comprehensively by the provisions of legislation, including the Expropriation Act.

It is anticipated that some 10 000 new job opportunities in the region will be created by the mining industry. The generation of substantial foreign exchange earnings for the country as well as significant income tax payments are additional positive benefits. The commitment of the mines is indicated by the large investments already made in infrastructure – these would be severely compromised if water requirements were not met by the required delivery date.

In summary, the raising of the Flag Boshielo Dam will enhance the social upliftment and economic development of one of the poorest, but fastest developing regions in the country, and also contribute to sustaining riverine ecological health – this essentially constituting a positive ecological impact. The anticipated negative social and biophysical impacts are of a sufficiently small nature, scale, intensity and duration as to be significantly offset by the positive impacts referred to above.

An Environmental Management Plan (EMP) will be prepared and implemented during the detailed design and construction phase of the project to guide and guarantee the process of impact management.

The Scoping Report was lodged with the Limpopo Province Department of Finance and Economic Development, the Mpumalanga Province Department of Agriculture, Conservation and Environment, and the National Department of Environmental Affairs and Tourism (DEAT), to obtain project authorisation in terms of the Environmental Conservation Act (Act 73 of 1989). The project has been registered with DEAT (reference A24/16/3/419).