

## DEPARTMENT OF WATER AND SANITATION

NO. 3900

22 September 2023

**INVITATION TO SUBMIT WRITTEN COMMENTS IN TERMS OF SECTION 110 OF THE NATIONAL WATER ACT 1998 (ACT 36 OF 1998) ON THE CONSTRUCTION OF THE MOKOLO AND CROCODILE (WEST) RIVER WATER AUGMENTATION PROJECT (MCWAP) AND THE ENVIRONMENTAL IMPACT ASSESMENTS RELATING THERETO**

The Minister of Water and Sanitation intend to construct the Mokolo And Crocodile (West) River Water Augmentation Project (MCWAP-2A) as government waterworks as contained in Part A of the Schedule hereto. The implementation of Phase 1 of the Mokolo and Crocodile (West) River Water Augmentation Project (MCWAP-1) is completed.

In terms of section 110(1)(b)(iii) interested parties are invited to submit written comments on the waterworks (Part A of Schedule) and the environmental impact assessment (Part B of Schedule), 60 days after date of publication. Comments must be submitted to the Director-General, Department of Water and Sanitation (DWS), Private Bag X313, Pretoria; and marked for attention of Mr. JA Bester, Chief Engineer, Directorate: Water Resources Development Planning.

**SCHEDULE FOR THE CONSTRUCTION OF THE MOKOLO AND CROCODILE (WEST) RIVER WATER AUGMENTATION PROJECT (MCWAP) AND A SUMMARY OF THE ENVIROMENTAL IMPACT ASSESMENTS****A. DESCRIPTION OF THE SCHEME**

The objective of the MCWAP is to abstract and transfer water from the Mokolo River and the Crocodile (West) River to augment domestic, industrial and other users in Lephalale and surrounding areas. The project will further secure water for Eskom's newly built Medupi Powerstation which is a strategic user.

The MCWAP consists of the following phases (see attached **Figure 1**):

**i. Mokolo Crocodile (West) River Water Augmentation Project Phase 1 (MCWAP-1)**

MCWAP-1 consists of conveyance infrastructure from Mokolo Dam to the town of Lephalale and industrial users. The infrastructure consists of a pump station at Mokolo Dam, bulk water pipelines from Mokolo Dam to Lephalale Town (total length of 42,7 km), Grootegeeluk Mine, Matimba and Medupi Power Stations.

The MCWAP-1 was implemented at a capital cost of R1,86 billion.

**ii. Mokolo Crocodile (West) River Water Augmentation Project Phase 2A (MCWAP-2A)**

MCWAP-2A will abstract and transfer surplus return flows from the Crocodile (West) River to the new developments in the Lephalale Local Municipality.

MCWAP-2A has a design capacity of 75 million m<sup>3</sup> /a and comprises of abstraction works at Vlieëpoort near Thabazimbi, pumping stations and bulk pipelines to the users in Lephalale and surrounding areas.

MCWAP-2A includes a River Management System (RMS) on sections of the Crocodile (West) River and its tributaries in order to assure water availability for the existing users and for the transfer scheme. The RMS will include the reach of the Crocodile (West) River downstream of Hartbeespoort Dam up to the proposed Vlieëpoort Abstraction Weir, the reach of the Moretele River downstream of Klipvoor Dam up to its confluence with the Crocodile (West) River, as well as to the reach of the Elands River downstream of Vaalkop Dam up to its confluence with the Crocodile (West) River.

DWS has also determined a high confidence reserve which was published in the Government Gazette (Gazette No. 45568) on 3 December 2021 in terms of Section 16 of the National Water Act, Act No. 36 of 1998, following a detailed technical study which included an extensive stakeholder participation process. The Reserve sets water quality and quantity limits for the water resources to ensure ecological sustainability and provision of basic human needs as per the requirements of the National Water Act.

The total estimated capital cost for the implementation of the MCWAP-2A amounts to R 15 billion (cost base December 2022 and exclusive of Value Added Tax (VAT))

## **B. SUMMARY OF THE ENVIRONMENTAL IMPACT ASSESMENTS**

The environmental authorisation of MCWAP-1 and MCWAP-2A was done in accordance with the National Environmental Management Act, 1998 (Act No. 107 of 1998).

**MCWAP-1:** The environmental authorisation of MCWAP-1 was granted on 3 December 2010 by the Department of Forestry, Fisheries and the Environment (DFFE), stipulating the following key conditions:

- i. The ecological reserve requirements downstream of Mokolo Dam must be maintained.
- ii. A search and rescue operation should be conducted to identify vegetation material and plants which may be relocated or re-used during rehabilitation and landscaping of the servitude.
- iii. The appellant must have an ongoing invasive plant and weed monitoring and eradication programme for the servitude once construction is completed.
- iv. Liaison with land owners/farm managers is to be done prior to construction in order to provide sufficient time for them to plan their activities.
- v. Construction must include appropriate design measures that allow surface and subsurface movement of water along drainage lines so as not to impede natural surface water and subsurface flows. Drainage measures must promote the dissipation of storm water run-off and not enhance erosion.

All EA conditions were met in the implementation of MCWAP-1.

**MCWAP-2A:** The environmental authorisation of MCWAP-2A was granted as follows:

- a. Water Transfer Infrastructure - Environmental Authorisation was granted by the former Department of Environmental Affairs, which is now known as the Department of Forestry, Fisheries and the Environment (DFFE), on 18 March 2019; and
- b. Quarries and Borrow Pits – Environmental Authorisation was granted by the Department of Mineral Resources and Energy (DMRE) on 6 January 2022 and 22 September 2022 respectively.


The following specialist studies were done during the Environmental Impact Assessment (EIA) process; Baseline Aquatic and Impact Study, Terrestrial Ecological Impact Assessment, Agricultural Impact Assessment, Heritage Impact Assessment, Wetland Impact Assessment, Socio-Economic Impact Assessment, Wildlife Impact Assessment, Specialist Opinion on the Impact of the MCWAP-2A on Hartbeespoort Dam, Assessment of Greenhouse Gas Emissions, and an Environmental Noise Study. Additional studies included an assessment of the Bat cave, Heritage and Palaeontology, Greenhouse gas emissions of the project, Roads and Traffic Assessment, Sedimentation Assessment and Ambient Air Quality.

Some of the key conditions for MCWAP-2A that emanated from the EIA process include the following:

- i. The River Management System must be in place prior to the commissioning of the proposed transfer scheme.
- ii. Specific attention will need to be paid to managing impacts to road users for all public roads (including the D1649, D3677, R510 and D175) and private roads.
- iii. The land acquisition and compensation process need to adhere to all legal requirements, in negotiation with the affected landowners. This process must be undertaken fairly and must commence timeously prior to the construction phase.
- iv. Construction and operational activities need to be planned and coordinated in consultation with the affected landowners in order to minimise impacts on game farming, ecotourism and crop production.
- v. Ensure compliance with the biosecurity protocols of the relevant properties in relation to the construction and maintenance of the pipeline.
- vi. Manage the impacts associated with the scouring of sediment back to Crocodile (West) River from the desilting works during the operational phase.

Eight (8) appeals were lodged against the Environmental Authorisation for the MCWAP-2A Water Transfer Infrastructure during the Appeal Period from 18 March 2019 to 30 July 2019. The Minister of Environment, Forestry, and Fisheries dismissed all the appeals against the MCWAP-2A on 11 October 2020.

For further information please visit: <https://www.dws.gov.za/iwrrp/MCWAP/#>

  
**MR SENZO MCHUNU, MP**  
**MINISTER OF WATER AND SANITATION**  
**DATE:** 29/08/2023



**MOKOLO AND CROCODILE RIVER (WEST) WATER AUGMENTATION PROJECT (MCWAP) RIVER MANAGEMENT SYSTEM (RMS) STUDY - LOCALITY PLAN**

The map illustrates the geographical context of the MCWAP project. Key features include:

- Rivers:** Mokolo River, Crocodile River (West), Sand River, and various tributaries like the Vaalkop, Roddekopjes, and Hartbeespoort.
- Dams:** Mokolo Dam, Vaalkop Dam, Roddekopjes Dam, Klipfontein Dam, Hartbeespoort Dam, and others.
- Gauging Stations:** Active stations are marked with green circles, and new stations are marked with red circles.
- Project Phases:** MCWAP-1 is highlighted in green, and MCWAP-2A is highlighted in orange.
- Infrastructure:** Major roads (e.g., N1, N12, N17) and power stations (e.g., Lephalale, Modimole) are shown.
- Boundaries:** National and provincial boundaries (North West, Gauteng, Botswana) are indicated.
- Scale and Orientation:** A scale bar (0-100 km) and a north arrow are provided.
- Legend:**
  - Active DWS Gauging Stations (Green circle)
  - New Gauging Stations (Red circle)
  - Rivers (Blue line)
  - Dams (Blue rectangle)
  - Mokolo and Crocodile River (West) Water Augmentation Project (Phase 1) (Green line)
  - Mokolo and Crocodile River (West) Water Augmentation Project (Phase 2A) (Orange line)
  - Power Station (Black triangle)
  - National Boundary (Thick grey line)
  - Provincial Boundaries (Thin grey line)
  - Main Roads (Red line)