water & sanitation
Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

# GAZETTING OF THE RESERVE FOR WATER RESOURCES OF THE F60 AND G30 CATCHMENTS IN THE BERG-OLIFANTS WATER MANAGEMENT AREA

## COMMENTS AND RESPONSE REGISTER

This Comments and Responses Register (CRR) captures the issues raised by stakeholders after the Draft Notice of the proposed Reserve of water resources for the F60 and G30 Catchments was published for comments in **Government Gazette No. 50645, Gazette Notice No. 4801 of 10 May 2024**. The purpose of this report is to ensure that the concerns and comments raised by stakeholders are noted and adequately considered and where appropriate satisfactorily addressed through the gazetting process. This report will be presented to the Minister with the proposed final Reserve. Once the Minister is duly satisfied with the process and the handling of comments, the final Reserve will be gazetted.

**STAKEHOLDER COMMENTS ON F60 AND G30 RESERVE**

NB: The comments recorded are inclusive of the comments from the Draft Notice of the proposed Reserve that was initially/erroneously published for comments in the Government Gazette (Gazette No. 50645, 10 May 2024, General Notice No. 4801) for 60 days.

| Entity who provided the comment | COMMENTS, QUESTIONS AND ISSUES | RESPONSE(S) |
|---|---|---|
| 1. DFFE | Page 9, Table 2.3 of the Notice: Should this not read BAS (min B) | The Verlorenvlei Estuary was categorised as an "important estuary". It is a Ramsar site and a desired protected area in the Biodiversity Plan for the National Biodiversity Assessment. Therefore, according to the guidelines for assigning a Recommended Ecological Category (REC), the condition of the estuary should be elevated to the Best Attainable State (BAS). The Best Attainable State for the estuary is B.<br>The Notice was corrected from C to B. |
| 2. Potatoes South Africa | Economically this decision to impose water Reserve determination threatens the livelihoods of farmers and workers, leading to financial instability and higher unemployment. | The Department takes note of their submission and the potential implication of reduction in water availability on the production of potatoes in the study area. Existing lawful use is guaranteed in the National Water Act, and cannot be curtailed in an ad hoc manner, as is insinuated by the comments in their submission.<br><br>The Ecological Reserve determination that was conducted by the DWS has not recommended the curtailment of existing lawful use. It is the opinion of the DWS, and reflected in the technical reports, that the climate change scenario will result in higher risk of availability in the medium to longer term for all users and the natural environment. New and future allocation will need to take this reality into consideration. |

| Entity who provided the comment | COMMENTS, QUESTIONS AND ISSUES | RESPONSE(S) |
|---|---|---|
| 3. SAKO (Sandveld Aartapplekwekersorganisaise) | The lack of flow measurements in the Krom Antonies River and lack of good rainfall data must first be addressed before the Ecological Reserve can be finalised. | The DWS is satisfied that the modelled data and the 100-rainfall dataset, that was extended by 10 years to include the drought period of 2017, that was used is sufficient to enable the determination and setting of the Reserve. The dataset purposefully included the 2017/18 drought to ensure a more accurate outcome of the determination. The revision of the Reserve is a possibility in the future, but additional rainfall data in the short to medium term will not change the outcome of the determination or improve the confidence level of the determination.<br><br>The Reserve will not ask more of what is provided by the natural Mean Annual Runoff (MAR). What is of significance is that the present MAR if not managed could lead to an increased risk of the Reserve not being met. The Reserve is the only right in the act and it is a legislative priority to comply with. |
| 4. Krom Antonies River Water User's Association | The lack of data such as rainfall and streamflow, must firstly be addressed. For example, the measuring device in the Kruismans River under the Het Kruis bridge is not functional, as it was never maintained by DWS. | Additional rainfall data were purchased from South African Weather Services (SAWS) to complement lack of rainfall data in the study area.<br><br>The DWS is aware of the malfunctioning water flow gauge at Het Kruis weir and it was adequately considered in the final hydrological calculations. The department has also highlighted this at the Hydrological internal Departmental meeting and requested that the weir be prioritised to be fixed. |

| Entity who provided the comment | COMMENTS, QUESTIONS AND ISSUES | RESPONSE(S) |
|---|---|---|
| 5. Agri Western Cape | None of the authors of this report are hydrogeologists.<br>(Utilising experienced scientist to comment on the Gazetted Reserve determination) | The DWS acknowledge the scientists that have been used as knowledgeable and experienced in their respective fields of practise. It is unfortunate that it seems that the comments provided is only based on the Gazetted document and did not consider the detailed technical supporting reports, particularly the groundwater assessment report. The full title of the report is:<br>DEPARTMENT OF WATER AND SANITATION (DWS). AUGUST 2023. RESERVE DETERMINATION STUDY FOR SELECTED SURFACE WATER, GROUNDWATER, ESTUARIES AND WETLANDS IN THE F60 AND G30 CATCHMENTS WITHIN THE BERG-OLIFANTS WMA: GROUNDWATER RESERVE REPORT. RDM/WMA09/00/CON/0128.<br>Prepared by: GEOSS (Pty) Ltd, L Smit. In association with: BlueScience (Pty) Ltd, Belcher T, and Grobler D.<br><br>The author and reviewers of the groundwater report was done by knowledgeable / expert geohydrologists and other water resource scientists and reviews both external (Kai Witthuser) and internal (J Conrad, A Watson and T Belcher and the groundwater team in the Directorate: Groundwater Reserve Determination) by the project management team from BlueScience. Refer to report title page appended to this document.<br><br>All scientific documents produced during the lifespan of the project have been afforded at least 2 weeks, and in most cases more time to comment on, this is besides the comment period allowed for the Gazetted results. |

| Entity who provided the comment | COMMENTS, QUESTIONS AND ISSUES | RESPONSE(S) |
|---|---|---|
| | **Comment 11.** Model output. The Water Resource Simulation Model (WRSM) was used to generate both natural and current day monthly flows. Results of our assessment are presented in Table 1 and compared with the notice circulated by the DWS for public comment (DWS 2023a). There was some concern that there was an increase in MAR from 27.8 $Mm^3$ at EWR 10 (the cumulative MAR from G30B and G30C) to 47.5 $Mm^3$ at EWR 12, considering that only 7.3 $Mm^3$ is listed in the DWS table. However, these MAR's were checked, and they are correct since the remainder of G30D catchment contribute 12.7 $Mm^3$. | The generated flow data of the DWS Reserve study team and their appointed scientist is almost similar, which re-assures the DWS to accept the data for the DWS Reserve determination. |
| | **Comment 23**. Pitman Model Calibration: The validation of the Pitman Model relies on a single observed flow gauging station (G3H001) for a limited period (Kruismans River, 1971-2005) and on E3H001 outside the study area. There is a need to verify the non-perennial nature of recorded flows. | The DWS agree with the need to measure to improve the management and accuracy of the Reserve results. Improved flow monitoring is one of the key risks to be addressed and hence is one of the priority activities identified in the Verlorenvlei implementation plan. The idea is to roll out an implementation plan to the rest of the catchment in time via the Catchment Management Agencies', Catchment Management Strategy, and this will only work if partnerships are formed with the stakeholders or water users in the catchment that will assist the Department in enhancing integrated catchment management, and this will include self-regulation and active participation of all the water user's association etc. |

| Entity who provided the comment | COMMENTS, QUESTIONS AND ISSUES | RESPONSE(S) |
|---|---|---|
| | Correlation Between Observed and Simulated Flows: There is a strong correlation between observed and simulated flow time series for the period on record. However, the dry season low flows may be overestimated, as the observed record shows zero flows during the dry season, while the simulated record indicates continual low flows of approximately 0.02 $Mm^3$/month. This may make it difficult to meet the EWR requirements during the low flow period. | Irrespective of the actual volumes and flows used, and whether they are accurate over long periods of time, the implementation of the Reserve will rely on a percentage of the actual water in the river systems and groundwater, which would need measurement and management accordingly. |
| | **Question 26**: EWR Requirements: To meet the Ecological Water Requirement (EWR), 82.6% of the natural Mean Annual Runoff (nMAR) is required at Verlorenvlei and 77% at Wadrift estuaries. The EWR flows, averaged over the historical period, are 27.505 $Mm^3$ for Verlorenvlei and 3.685 $Mm^3$ for Wadrift. The Present Day Mean Annual Runoff (PD MAR) of flows at Verlorenvlei estuary is 17.93 $Mm^3$, while the Ecological Reserve requirement is set at 27.505 $Mm^3$, meaning that an additional 9.575 $Mm^3$ on average will need to be returned to the system to meet a 'C' Recommended Ecological Category (REC). For Wadrift, this figure is 0.458 $Mm^3$. This is likely to have socioeconomic | The interpretation of the data is correct. The implementation is however different from what is portrayed in the comments. The ecological Reserve remains a % of natural runoff and groundwater. If droughts occur the Reserve will be lower than in high rainfall years. Existing lawful use cannot be curtailed but the Reserve could prevent future new allocations and should stop unsustainable use of groundwater in the Wadrift and other areas.<br><br>Limited scope for expansion might be available in some parts of the study area (G30), but the duty will lie with the applicant to prove availability in collaboration with the regional water resource management entities (BOCMA) and DWS region.<br>Although the technical reports have referenced current use, the Reserve per se will not pronounce on availability of water for allocation. The emphasis of the Reserve is the current ability of meeting the Recommended Ecological |

| Entity who provided the comment | COMMENTS, QUESTIONS AND ISSUES | RESPONSE(S) |
|---|---|---|
| | implications for water users in the catchment. | requirements and assessing the interventions that need to be put in place to meet compliance to the REC. There are several options to address the latter, much of which is captured in the operational rules.<br><br>In general, the Reserve requirements specifies both volumes and variability to follow natural flow patterns and variability. The day to day management of use will require monitoring systems and feedback mechanisms to allow for the management of water use during periods of high and low rainfall. These aspects are addressed in the implementation technical report RDM/WMA09/00/CON/0131 – Implementation plan. |