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18 November 2024

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Dear Readers,

GP10124MR & WU34872

BUNDU MINING PTY LTD APPLICATION

Herewith our comments to the undermentioned report(s).

Appendix 19 Water Resource Study – SEEP WETLAND WAS IDENTIFIED

We request that the wetland must be protected.

The Primary Water Source for the Seep Wetland Identified

The primary source of water for the seep wetland at the Bundu Mining project area is **groundwater**.

1. The seep wetland (HGM1), Figure 4-2 on page 12 and Table 4.3 on page 12, owes its existence to the high groundwater table, which is within **50 cm** of the ground surface. This proximity to the water table creates the saturated soil conditions necessary for the wetland's formation and persistence.
   In the report: Figures 4-6 on page 13, Figure 4-7 on page 14 & Figure 4.8 on page 15. Paragraph 4.3 on page 15 & 16: "Geomorphology, Hydrology and Soils "The geology of the region primarily consists of quartzite of the Magaliesberg Formation. The project AoI is located on the northern slopes of the Magaliesberg mountains, with a ridge located in the south of the AoI and a valley located to the north (Figure 4-8 on page 15)." "The topography of the

project AoI is generally gentle (3-5%) in the areas which are located off the ridge.

The landforms within the project area have been notably altered by past sand, gravel, and stone mining operations. Berms, impoundments, and the excavation of soils have resulted in a reduction in ground level elevations, ensuring that the ***water table and ground surface*** *are within 50 cm of each other, facilitating the development of an extensive seep wetland, Figure 4-9 on page 16. The hydrological sources of the seep wetland associated with project include direct runoff and infiltration from the ridge structure in the south, well the UVB system is primarily fed by runoff and seepage from upslope catchment areas.*

The land types present in the AoI includes the Ib3 (Figure 4-10 on page 16) and Ba8 (Figure 4-11 on page 17) land types. Wetland soil types typically present in the IB3 land type includes Rensburg soil forms which are typically located in the valley bottom terrain types. Within the Ba8 land type the soil types which may contain wetlands include the following:

- *Avalon*
- *Bainsvlei*
- *Rensburg*
- *Longlands*

2. Historical mining activities in the area have played a significant role in the development of this extensive seep wetland. The removal of material through these activities has lowered the surface elevation, bringing it closer to the water table and thereby expanding the area where the wetland can thrive.

   In the report: Figures 4-27 on page 28 & 4-28 on page 29. We also refer to Paragraph 4.6 Notes on Historical Conditions on page 24. " Using the Google Earth™ software an assessment of the wetland presence and condition was made. The following conclusions were drawn from the assessment:

   - *According to the historical images there was indication that a seep wetland was present to the north of the AoI but in a position which was closer to the UVB system of the Swartspruit (Figure 4-27 on page 28).*

- *Based on the reviewed information as early as 1950 sand, gravel and stone quarrying/mining activities were taking place in the AoI (Figure 4-28 on page 29).*
- *The removal of material by historical mining activities has lowered the surface elevation to be within proximity to the water table resulting in the formation of the extensive seep wetland which extends southward of the natural reference condition presented in Figure 4-27 on page 28.*
- *Based on the analysis of the historical imagery it is clear that the seep wetland identified in this study has been artificially broadened/extended by historical mining activities.*

3. While surface runoff from the ridge structure to the south does contribute to the wetland's water supply, the **dominant source remains groundwater**. The wetland report explicitly identifies the seep wetland as being "groundwater driven," underscoring the critical role of groundwater in sustaining this ecosystem. *In the report: Figure 4-9 on page 16: Example of high groundwater table in a cavity within the AoI in the seep wetland (March 2024).*

4. We refer you to the instructions from the Department of Water & Sanitation set out in the letter from Makhubela Tiyani dated 10 October 2024[1] (copy is attached hereto) after Marli Burger made a presentation to the Department of Water & Sanitation on 29 August 2024:
   We Quote:
   "Here's the feedback from c and i: Issuance of the Water Use Licence cannot be recommended due to the fact that this application is still in phase 1 and the applicant is not yet in a position to submit all required document for review in phase 3 as yet.

   INTERIM RECOMMENDATIONS AND FURTHER REQUIREMENTS FOR THE FINAL SUBMISSION OF THE LICENCE APPLICATION

[1] 2024.10.10_From_DWS_Makhubele_Gmail - RE_ Bundu Mining (Pty) Ltd Bundu Mining Rietvalei (WU34872)

- *The Master Layout Plan needs to be updated with all the infrastructure and determined buffers indicated in relation to the delineated watercourses.*
- *A Hydropedological assessment or motivation for not doing a full assessment must be submitted. This is to ensure that the determined buffer will also cater for the flow modification in the landscape.*
- *The required class c liner must be incorporated in the designs for the mining operation.*
- *The geohydrological report needs to be updated and submitted indicating drawdown and potential impacts on surface hydrology.*
- *Wetland report must take cognisance of the final geohydrological report and indicate any potential impacts on the PES and EIS of the watercourses.*
- *The existing access road and crossing of the watercourse must ensure hydrological and ecological connectivity through spacing of culverts over the entire extend of the watercourse. IWI:WULA Technical Input."*

Regards

Johann & Ida van der Schyf

Unsigned & sent electronically