Date: 03 July 2023

TO: **Greenmined Environmental (Pty) Ltd**

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| Total pages: | | Our ref: BLC/Verlorenvlei/07 |

Good afternoon

**RE: COMMENTS ON THE DRAFT SCOPING REPORT FOR AN APPLICATION IN TERMS OF SECTION 22 OF THE MINERALS AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (ACT NO 28 OF 2002), SECTION 24 OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998), THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 (AS AMENDED), AS WELL AS THE NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT, 2008 (ACT 59 OF 2008) SUBMITTED BY BONGANI MINERALS (PTY) LTD. REFERENCE NUMBER: WC 30/5/1/2/2/10171 MR**

## 1. Introduction

The Biodiversity Law Centre ("the BLC") is a legal non-profit organisation that seeks to use the law to protect and restore indigenous species and ecosystems that support sustainable livelihoods in Southern Africa. The BLC has been working closely with BirdLife South Africa to address the various threats that face the Verlorenvlei, a RAMSAR wetland site of international importance on South Africa's West Coast.

The application under consideration is for a mining right, environmental authorisation and waste licence to mine tungsten, molybdenum, rare earths, copper, zinc, gold, silver, tin, aggregate and sand from a 531.4405 ha area that extends over Portion 1 of Farm 297 RD, Portion 6 (Remaining Extent) of the farm Namaquasfontein 76 RD, and Portion 21 of the farm Namaquasfontein 76 RD in the Piketberg region ("the Site") ("the Application").[1] It is proposed

[1] DSR, page 2.

that ±254 ha of the 531.44 ha MR footprint will be altered by the proposed mining activity.[2] The proposed mining Site is located within the Moutonshoek Protected Environment ("PE"), as well as being located within the G30 sub-quaternary catchment, upstream of Verlorenvlei. The Krom Antonies river drains the Moutonshoek valley and is the most important contributor to the Verlorenvlei Estuary and RAMSAR site of international importance. The map below[3] depicts the location of the Krom Antonies in relation to Verlorenvlei.

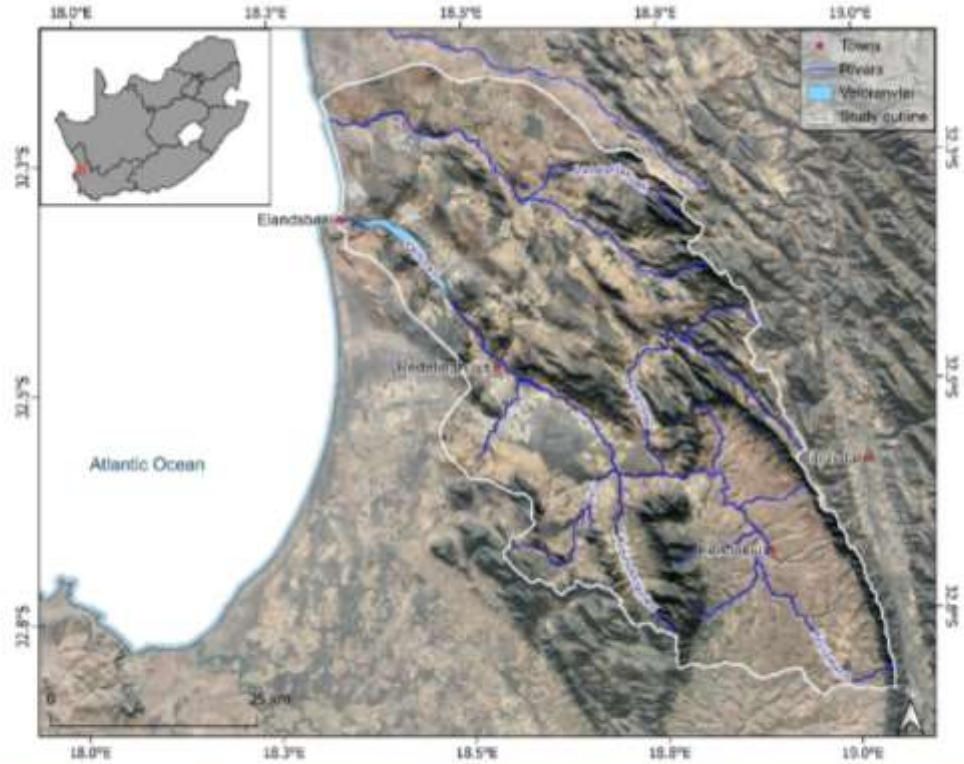
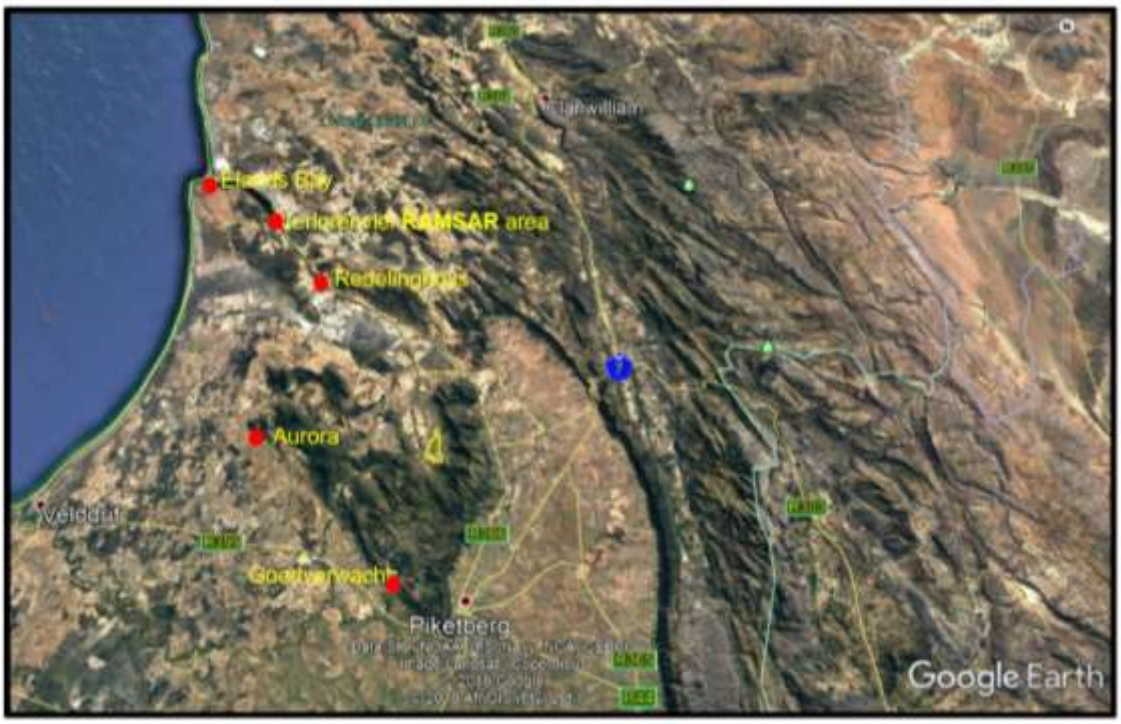



**Figure 2-1** **Locality map of Verlorenvlei within South Africa and the West Coast region of the Western Cape province. The regional study area (white outline) is delineated by the combined quaternary catchment areas of G30B to G30F (DWS, 2017).**

The Krom Antonies River dissects the western corner of the Site and is of particular importance to this assessment as it forms part of the Verlorenvlei catchment area. The Site is located directly upstream of the Verlorenvlei Estuary. This is evident from the layout plan below.[4]

[2] Page 26, DSR.
[3] *Verlorenvlei Hydological Impact Review* prepared by Umvoto dated 1 November 2021, page 4.
[4] Page 16, DSR.




The BLC is deeply concerned to learn of the Application, of which it was notified by the Friends of Verlorenvlei on 4 June 2023. We hereby request to be registered as an interested and affected party going forward. We have significant concerns regarding the impact that mining stands to have on the Verlorenvlei Estuary, as well as the erosion of South Africa's protected area estate that will occur should mining be permitted to proceed in the Moutonshoek PE.

We submit our comments on the Draft Scoping Report prepared by Greenmined Environmental (Pty) Ltd and dated May 2023 ("the DSR"). These comments are structured as follows:

- Firstly, we set out our general comments with regards to the Application;
- Secondly, we detail the specific impacts on Verlorenvlei and our concerns in this regard;
- Thirdly, we detail the manner in which the DSR fails to comply with the Environmental Impact Assessment Regulations, 2014 ("EIA Regulations");[5] and
- Fourthly, we include other comments for consideration.

## 2. General comments

### a. Failure to provide details regarding prospecting right and previous mining applications

[5] GN R982 of 4 December 2014, as amended.

Background information regarding Bongani Mineral's previous attempts to secure permission to mine this area has not been included in the DSR. Such information is highly relevant to the current application and its prospects of success. A lack of transparency in relation to the history of failed attempts to secure a Mining Right is contrary to the principles of the National Environmental Management Act, particularly sections 2(f) and 2(k), i.e.:

- Decisions must be taken in an open and transparent manner, and access to information must be provided in accordance with the law.
- The participation of all interested and affected parties in environmental governance must be promoted, and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, and participation by vulnerable and disadvantaged persons must be ensured.

By failing to provide information regarding previous attempts to secure permission to mine the Site, the Environmental Assessment Practitioner is obfuscating information relevant to the application. Consequently, the Environmental Assessment Practitioner is providing misleading and inaccurate information in relation to the Application, and has omitted information that may have an influence on the outcome of a decision of a competent authority, which is an offence in terms of Regulation 48(1)(a) of the EIA Regulations, 2014.

It is also unclear when prospecting took place, and what the results of the prospecting were. In this regard, the DSR simply records that:

"*Site Alternative 1 was identified during the planning phase by the Applicant and project team based on the evaluation of prospecting results and the corresponding position of the Riviera deposit as access to the properties was not yet obtained*."[6]

and

*"It must however be noted that the Applicant, Bongani Minerals (Pty) Ltd, held a prospecting right (WC 30/5/1/1/2/10197 PR) over the proposed mining right application area for tungsten (W) ore, molybdenum (Mo) ore, rare earths, copper ore, zinc ore, gold ore and silver ore that expired during December*."[7]

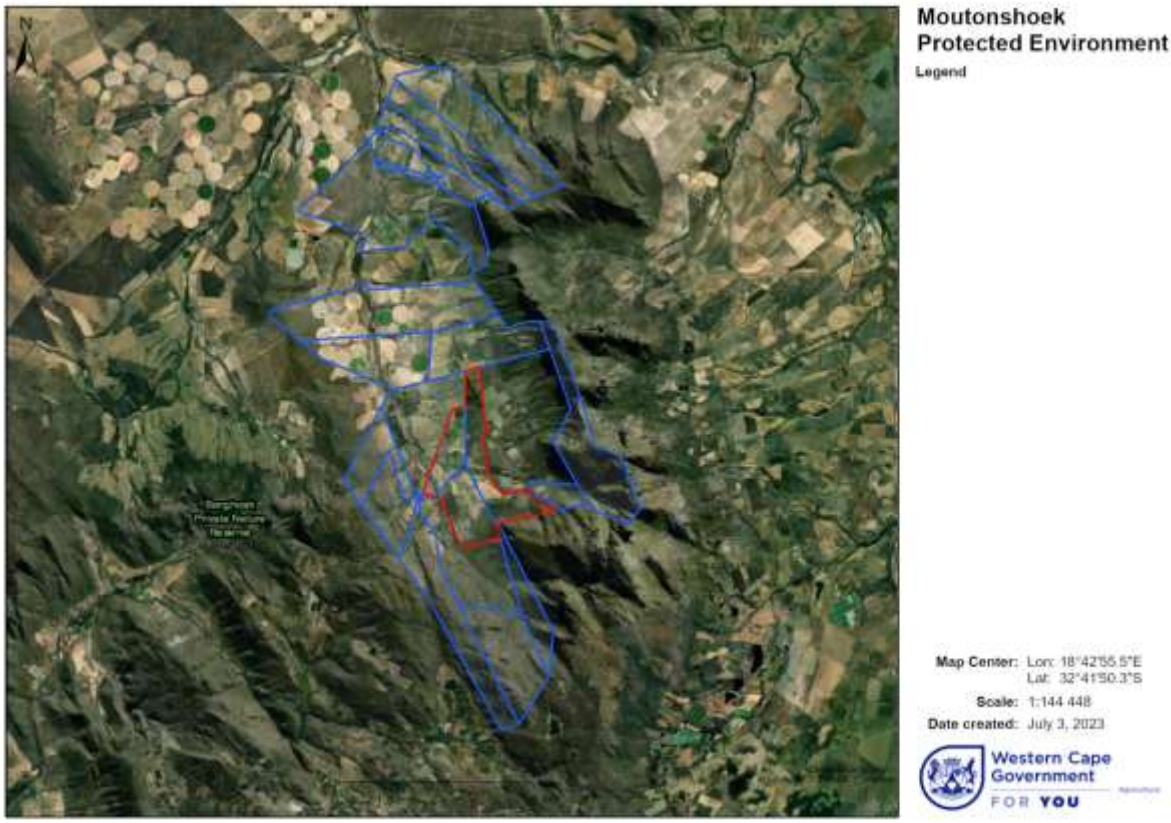
These are the only references made to prospecting. Consequently, there is simply insufficient information regarding the nature of the prospecting activities, when they were conducted, whether they were conducted in accordance with a valid prospecting right, and how prospecting has informed the Site selection process, to meaningfully comment on the Site's location. How can mining be motivated when no information is provided in relation to the nature and results of prospecting? The information in this context is deficient.

### b. Mining in a protected environment

The mining activity is proposed within the Moutonshoek PE. The extent of overlap between the Site and the Moutonshoek PE is depicted in the map below, which is based on cadastral

[6] Page 103, DSR.
[7] Page 55, DSR.

information sourced from Cape Farm Mapper and the map of the Moutonshoek PE in the Moutonshoek PE Management Plan:




Mining in the Moutonshoek PE is wholly undesirable for several reasons. In addition, the Environmental Assessment Practitioner appears to incorrectly interpret the statutory provisions in terms of which application to mine in a protected environment may be made. We address this below.

The Moutonshoek PE is proclaimed under Section 28 (1) of the National Environmental Management: Protected Areas Act, Act 57 of 2003 ("NEM:PAA"). It is located approximately 60 km north of Piketberg within the Krom Antonies River Valley (also known as the Moutonshoek Valley), and within a listed threatened ecosystem.[8] Various threatened ecosystem types are found within the PE including Swartland Shale Renosterveld (CE), Swartland Silcrete Renosterveld (CE), Leipoldtville Sand Fynbos (VU), Piketberg Sandstone Fynbos (VU), Piketberg Quartz Succulent Shrubland (VU) according to the Threatened Terrestrial Ecosystems for South Africa.[9] The Moutonshoek Valley also provides a haven for a variety of species, including the Endangered and endemic plant Diascia caitliniae, the

[8] Moutonshoek PE Management Plan, page 16.
[9] Moutonshoek PE Management Plan, page 8.

Endangered Verlorenvlei redfin fish Pseudobarbus verloreni, the Vulnerable Cape leopard and threatened bird species such as the Blue Crane, African Marsh Harrier and Black Harrier.[10]

The CAPE Fine Scale Planning Critical Biodiversity Areas ("CBAs") show that portions of the Moutonshoek valley and the Krom Antonies River as a whole have been identified as critical ecological support areas ("ESA") and buffers, and aquatic CBA and buffers respectively. This is a priority area due to future development threats, and presence of threatened vegetation types which are not currently in a protected area. Additionally, the area is of importance as the primary water catchment for the Verlorenvlei Estuary, a RAMSAR site and an IBA.[11]

There can consequently be no doubt that the Moutonshoek PE conserves an important representative sample of threatened ecosystem types and serves a critical function in the protection of biodiversity.

The Moutonshoek PE Management Plan[12] records that the PE has been declared in accordance with section 17 of NEM:PAA, in order to:

- protect ecologically viable areas representative of South Africa's biological diversity and its natural landscapes and seascapes in a system of protected areas;
- preserve the ecological integrity of those areas;
- conserve biodiversity in those areas;
- protect areas representative of all ecosystems, habitats and species naturally occurring in South Africa;
- protect South Africa's threatened or rare species;
- protect an area which is vulnerable or ecologically sensitive;
- assist in ensuring the sustained supply of environmental goods and services;
- provide for the sustainable use of natural and biological resources;
- create or augment destinations for nature-based tourism;
- manage the interrelationship between natural environmental biodiversity, human settlement and economic development;
- generally, contribute to human, social, cultural, spiritual and economic development; or
- rehabilitate and restore degraded ecosystems and promote the recovery of endangered and vulnerable species.

The Moutonshoek Protected Environment consequently serves in the protection of South Africa's threatened and rare species, provides protection to ecosystems and preserves ecological integrity.[13] Mining is entirely inconsistent with these objectives.

The Moutonshoek PE Management Plan provides for zones which are aimed at controlling the type and intensity of activity within the PE. These zones comprise principally the core conservation zone, and the intensive agricultural and grazing area. Several special

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[10] Western Cape Protected Area Expansion Strategy 2021-2025 (Final Draft), page 43.
[11] Moutonshoek PE Management Plan, page 2.
[12] Moutonshoek Protected Environment: Management Plan. Version 1.0. 2018. S Schroder, P Huntly, D Wright.
[13] Moutonshoek PE Management Plan, page 11.

management overlay zones are also proposed.[14] None of these zones contemplate mining, and the Application is accordingly inconsistent with the purpose for which the Moutonshoek PE was declared (specifically, biodiversity conservation) and the activities contemplated within the PE. It is entirely inappropriate for mining to be contemplated in this sensitive environment, critical for the conservation of biodiversity.

In addition, based on the Environmental Assessment Practitioner's own findings in the DSR, mining in the Moutonshoek PE will have a significant, high negative impact.[15] This means the impact is of the highest possible order and constitutes an unacceptable, fatal flaw. Significant mitigation measures will need to be implemented, or alternatives considered.[16] Thus on the EAP's own findings, the proposed mining project is fatally flawed. Similarly, the visual impact of mining in the Moutonshoek PE is rated as high negative. The DSR concludes further that no mitigation is possible.[17] Mining in the PE is therefore wholly inappropriate and should not be pursued.

South Africa has also made global commitments to increase its land area under effective conservation through expanded protected areas and Other Effective Area-based Conservation Measures to 30% by 2030. This commitment was made in the context of agreeing the Global Biodiversity Framework at COP15 in Montreal, Canada, in December 2022. Consequently, South Africa should be looking to expand its protected area estate, not erode it. At the very least, areas currently protected should be effectively maintained, and permitting mining is inconsistent with this objective. The DSR should reflect South Africa's international obligations in this regard and explain the impact of the proposed mining activity on the fulfilment of these obligations.

Greenmined also states that "*Considering the above, the MR application over a portion of the Moutonshoek Protected Environment rests with the DMRE minister and cabinet member to be decided on, upon receipt of all supporting documentation. The environmental impact assessment report, inclusive of all specialist studies, will form part of the documents informing the competent authority*."[18] However, this fails to have regard to the fact that the permission which is required from the Minister of Forestry, Fisheries and the Environment ("the Minister") to mine in a protected environment is separate and distinct from the environmental authorisation sought in terms of NEMA, and the application process which informs this. In this regard, GN125 of 30 June 2023 brought section 40 of the National Environmental Management Laws Amendment Act, Act 2 of 2022 into effect. This section amends section 48 of NEM:PAA, which now requires the written permission of only the Minister in order to mine in a protected environment, not the Minister of Mineral Resources and Energy.

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[14] Moutonshoek PE Management Plan, page 26 and 27.
[15] Page 80, DSR.
[16] Page 91, DSR.
[17] Page 114, DSR.
[18] DSR, page 74.

This permission, which comprises a distinct consideration by the Minister of whether mining in the Moutonshoek PE will be permitted, is not part of the EIA process, and will need to be sought separately.[19] In this regard, the court in the *Mabola* judgment held that:

"*Section 48(1)(b) and 48(4) should be interpreted to mean the following: despite the fact that a person may have obtained all the necessary authorisations required in terms of all other applicable statutory provisions, in order to lawfully conduct mining activities on a certain portion of land, should that land fall within a protected environment as contemplated in NEMPAA, then such person would, in addition, need to obtain written permission of both the Ministers of Environmental Affairs and Mineral Resources to do so*."[20]

In addition to requiring a discreet application in terms of NEM:PAA, interested and affected parties will also need to be afforded the opportunity to comment on the application for consent to mine within the Moutonshoek PE.[21] The Minister will then need to apply her mind afresh to this application, regardless of whether or not permissions in terms of other statutes have been obtained.[22] The applicant and Environmental Assessment Practitioner appears to have misconstrued these statutory requirements by conflating authorisation in terms of the EIA process with the permission required from the Minister to mine in a PE.

### c. Procedural unfairness

Public participation is one of the fundamental principles underlying integrated environmental management, and consequently sustainable development. It is included as a principle in section 2(4)(f) of NEMA, and must therefore guide any environmental impact assessment process and any organ of state exercising a function in terms of NEMA. Regulation 41(2) of the EIA Regulations thus requires that all interested and affected parties must be given notice of an application.

Despite its involvement in issues affecting Verlorenvlei, which is located downstream of, and stands to be significantly impacted by, the proposed mining activity, the BLC was not notified of the abovementioned application. There has consequently been non-compliance with Regulation 41(2) of the EIA Regulations insofar as the Environmental Assessment Practitioner has failed to give notice to all interested and affected parties. We trust that we will be notified of all further communications in relation to this Application.

### d. Impacts on biodiversity

The Site is rich in biodiversity and serves important ecological functions. In this regard:

- The DSR finds that "*the proposed mining footprint extends across areas of highest biodiversity importance (highest risk for mining) as well as areas of moderate biodiversity importance (moderate risk for mining). According to the 2017 Western Cape Biodiversity Spatial Plan (WCBSP), there are Aquatic and Terrestrial Critical Biodiversity Areas (CBA*

[19] *Mining and Environmental Justice Community Network of South Africa and Others v Minister of Environmental Affairs and Others* [2019] 1 All SA 491 (GP) (**Mabola judgment**).
[20] Mabola judgment, para 10.7.
[21] Mabola judgment.
[22] Mabola judgment.

*1), as well as Ecological Support Areas (ESA1 & ESA2) that extends into the earmarked footprint*."[23] Mining is inconsistent with the management objectives of CBA[24] and ESA[25] areas, and should not be contemplated for these areas.

- The Mountonshoek PE Management Plan notes that: "*This is a priority area due to future development threats, and presence of threatened vegetation types which are not currently in a protected area. Additionally, the area is of importance as the primary water catchment for the Verlorenvlei Estuary, a Ramsar site and an IBA*." The Site thus plays a critical role in biodiversity conservation, and particularly the protection of areas of biodiversity significance from development threats.
- The majority of the Site is located within the Leipoldtville Sand Fynbos vegetation type, which is classified as "Endangered" nationally. The vegetation type is under significant pressure, particularly from transformation of land for agriculture.[26] This vegetation type is exceptionally rich in special species, which is one of the primary reasons for concern about the high rate of habitat loss in the area.
- With regards to species biodiversity on the Site, the DSR records: "*The proposed mining area falls within the highly sensitive and water stressed Verlorenvlei catchment that supports at least 177 bird species including Red Data Book species including, inter alia, Ludwig's Bustard, Black Stork, Black Harrier, and the Secretary Bird. The Verlorenvlei system (which includes the Krom Antonies) also supports four indigenous freshwater fish species, of which three species have not been found anywhere else. These are the Endangered Verlorenvlei redfin (now part of the Pseudobarbus group), the Cape kurper (the Verlorenvlei population is genetically very distinct) and Cape Galaxias (two species, one genetically very distinct and restricted to the Verlorenvlei)*."[27]
- The Mining and Biodiversity Guideline also records large areas of high biodiversity importance within the proposed mining area.[28]
- The DSR records the Department of Forestry, Fisheries and the Environment's Screening Tool findings for aquatic biodiversity (very high sensitivity),[29] terrestrial biodiversity (very high sensitivity).[30]

There can consequently be no doubt that the Site falls within an area of exceptional biodiversity and of very high sensitivity.

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[23] Page 32, DSR.
[24] "A*n area that must be maintained in a good ecological condition in order to meet biodiversity targets"*
[25] *"An area that must be maintained in at least fair ecological condition (semi-natural/moderately modified state) in order to support the ecological functioning of a CBA or protected area, or to generate or deliver ecosystem services, or to meet remaining biodiversity targets for ecosystem types or species when it is not possible or not necessary to meet them in natural or near-natural areas."*
[26] Page 59, DSR.
[27] Page 71, DSR.
[28] Page 54, DSR.
[29] Page 73, DSR.
[30] Page 74, DSR.

Notwithstanding this, the DSR finds that the impact on biodiversity sensitive areas, natural vegetated areas, and species of concern is rated as medium negative significance.[31] This means that the impact is real, and potentially substantial in relation to other impacts, monitoring must be implemented and mitigation measures proposed.[32] We are of the view that this impact rating is entirely misleading. It is "medium" largely because the frequency is assigned a value of 1, which means that the event (disruption of biodiversity sensitive areas) only occurs once a year or once / more during operation.[33] There can be no doubt that change of land use from conservation to mining will have significant, ongoing impacts on biodiversity sensitive areas. Accordingly, frequency should be assigned a much higher rating, which would likely bring the significance rating of the impact to high. In any event, an impact rating of medium remains highly problematic, given the rich biodiversity of the Site and the biodiversity-related objectives of the Moutonshoek PE.

The only mitigation measures proposed include buffer areas around CBAs and ESAs, and a plant rescue to be conducted on natural (uncultivated) areas to be mined.[34] The DSR leaves determination of other mitigation measures to the EIA process. There is simply insufficient detail to assess whether these mitigation measures would be effective. Having regard to the map of terrestrial and aquatic CBAs and ESAs,[35] it is evident that mining activities will impact large tracts of these areas. Furthermore, it appears that these CBAs and ESAs function as ecological corridors between other areas of conservation importance. It is therefore deeply concerning that mining will destroy this ecological connectivity, and it seems very unlikely that buffers will mitigate this impact.

We have the same concern regarding the impact rating of low-medium ascribed to impacts on terrestrial fauna as a result of mining activities (site preparation and infrastructure development). Frequency is similarly ascribed a value of 1, which is inconceivable given the significant and ongoing impacts to fauna species that mining activities would occasion. The value should be higher to accurately reflect the nature of the impact on terrestrial fauna. The mitigation measures proposed in relation to potential impacts on fauna are also inadequate.[36] They relate only to direct impacts on fauna (none may be killed, harmed, sold or played with in the mining area) without taking into account the impact of habitat destruction and displacement from habitat. Mitigation should include measures to address this (although the efficacy of such measures is highly doubtful).

The potential loss / negative impact on wetlands and watercourses on the Site is rated as high significance.[37] Where a significance rating is high negative, the DSR notes that there would be no possible mitigation and / or remedial activity to offset the impact at the spatial or time scale for which it was predicted.[38] Accordingly, the impact presents a fatal flaw and alternatives should be contemplated.[39] Despite this conclusion, the DSR recommends as mitigation that

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[31] Page 81, DSR.
[32] Page 91, DSR.
[33] Page 90, DSR.
[34] Page 97, DSR.
[35] Page 56, DSR.
[36] Page 97, DSR.
[37] Page 81, DSR.
[38] Page 91, DSR.
[39] Page 91, DSR.

buffer areas around wetlands be demarcated (without specifying how big these buffers should be) and channelised flow from mining areas must be slowed, and stormwater management infrastructure implemented.[40] There is no information about the efficacy of such mitigation measures and whether they have been successfully implemented elsewhere. Regardless, the DSR's own conclusion is that for impacts of high negative significance, mitigation is generally not possible.

The DSR attempts to justify potential impacts on biodiversity on the basis that the Applicant previously obtained a right to prospect the Site.[41] However, previous prospecting activities, which were presumably conducted before the Moutonshoek PE was declared (there is no information in this regard), cannot be used to justify mining within the PE.

Based on the findings in the DSR, it is clear that the proposed mining activities will have significant impacts on terrestrial and freshwater biodiversity of the Site, and surrounding areas, including the Verlorenvlei Estuary. Particularly in relation to Verlorenvlei (discussed below), the impacts have been ascribed a high negative significance rating, which based on the DSR's own "methodology used in determining the significance of environmental impacts," means that the impacts pose a fatal flaw to the proposed project. On this basis alone, environmental authorisation should be rejected.

## 3. Impacts on Verlorenvlei

### a. Importance of Verlorenvlei and threats faced

Designated as a Ramsar site in 1991, Verlorenvlei is regarded as one of the ten most important wetlands for wading birds in the South-Western Cape. The Vlei is a unique system with multiple conservation assets (ecological, social, historical, cultural, architectural and archaeological).[42] It has been identified as one of twelve estuaries in the Western Cape, prioritised for formal protection, as highlighted in the Western Cape Protected Area Expansion Strategy and in the NBA: Estuarine Realm Technical Report (2018), in part due to its potential to support important biodiversity and ecosystem services, and its minimally developed surrounds.

Verlorenvlei supports more than 189 bird species, of which 75 are waterbirds. The wetland occasionally hosts more than 4 000 birds; the highest number recorded in a single count was 11 891, according to the data from counts undertaken by CapeNature since 1990. At least 26% of the Western Cape's Great White Pelican population congregates at this site at times. Globally threatened species which are hosted by the Verlorenvlei include Black Harrier and

[40] Page 97, DSR.
[41] Page 55, DSR.
[42] Verlorenvlei Estuary Management Plan, page ii. Verlorenvlei has been identified as a priority estuary for protected area status (one of only 12 in the Western Cape), as indicated in the WC Protected Area Expansion Strategy, and in the outcomes of the workshop exploring 'mechanisms to formally protect priority estuaries in the Western Cape', held in 2019.

Lesser Flamingo. Regionally threatened species are African Marsh Harrier, Caspian Tern, Great White Pelican, Greater Flamingo, Lanner Falcon and Verreauxs' Eagle. [43]

In addition to its biodiversity, the Verlorenvlei estuary provides a range of tourism, recreational, health, educational and other social benefits, supporting local livelihoods. The Verlorenvlei Estuary also contributes to the wider economy, including marine fisheries through provision of nursery areas for the maintenance and productivity of marine fish populations, and to the amelioration of climate change effects through sequestration of carbon from the atmosphere[44].

The Verlorenvlei Estuarine Management Plan ("EMP") lists the following as management objectives for the Verlorenvlei:[45]

- Halt further degradation (negative trajectory) of Verlorenvlei ecosystem
- Improve ecological health of ecosystem to Category C/B (moderately modified) by 2022
- Improve ecological health of ecosystem to Category A/B (near natural) by year 2030

Notwithstanding these objectives, the Verlorenvlei system continues to face multiple threats, including from overabstraction of water (decreasing the amount that flows into the Verlorenvlei system) and mining. In this regard, the EMP recognises that:

"*Water abstraction, specifically sumps, river, groundwater and direct abstraction collectively cause a significant reduction in the inflow of freshwater to Verlorenvlei. This decreases the average water level in the vlei, prevents regular natural breachings of the mouth and increases isolation of the system from the sea. Reduced water levels and flushing in turn has led to increased reed growth and blooms (blue green algae or parrot's feather)*."[46]

"*Water abstraction (river, groundwater, direct abstraction, sumps) causes physical habitat alteration / destruction, alteration of salinity regime and eutrophication*."[47]

Mining is also recognised as a significant threat by the EMP. It records that proposed mining activities present a high negative ecological and socio-economic impact, for which the management responses are poor.[48] The Verlorenvlei EMP also notes specifically that:

*"Open-cast mining of tungsten and molybdenum of is being proposed in the upper catchment of Verlorenvlei at Metonshoek (sic). This mining development is likely to need significant freshwater supplies, hold significant risk for the sense of place in the area and can potentially cause pollution of the freshwater supplies flowing into Verlorenvlei*."[49]

Mining stands to cause siltation of the Verlorenvlei, physical habitat alteration / destruction, toxic chemical pollution, and increase in suspended solids.[50]

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[43] https://www.birdlife.org.za/iba-directory/verlorenvlei/ accessed 19 August 2022.
[44] NBA Estuary Technical Report, page 3.
[45] Verlorenvlei Estuary Management Plan (draft published for comment, 2018), page v.
[46] Verlorenvlei Estuary Management Plan (draft published for comment, 2018), page 7.
[47] Verlorenvlei Estuary Management Plan (draft published for comment, 2018), page 18.
[48] Verlorenvlei EMP, page 22.
[49] Verlorenvlei EMP, page 6.
[50] Verlorenvlei EMP, page 18.

The impacts on Verlorenvlei of overabstraction and threat of potential mining within the G30 catchment are being / will be further exacerbated by climate change.[51] While global temperatures have increased by about 0.8°C over the last century in response to the enhanced greenhouse effects, recent analyses indicate that South Africa has been warming at more than twice the global rate over the past five decades. Higher temperatures increase evaporation rates and decrease water levels of the Verlorenvlei during the closed phase, and also decrease opportunities for open mouth conditions due to high evaporative losses. The situation will worsen under drought conditions. The southwestern regions of South Africa (i.e. our West Coast) are considered to be at severe risk of drought this century and beyond.[52]

There is consequently no doubt that mining in the Moutonshoek PE has not only been identified as a significant threat to the ecological integrity of and socio-economic benefits derived from Verlorenvlei but is entirely inconsistent with the management objectives detailed in the Verlorenvlei EMP, including halting further degradation of Verlorenvlei ecosystem and establishing a sustainable tourism market for the area.[53]

### b. Impacts on Verlorenvlei as assessed in the DSR

That the proposed mining activity will have a detrimental impact on Verlorenvlei is evident from the Environmental Assessment Practitioner's own findings in the DSR. The DSR notes that "*The RAMSAR status of Verlorenvlei takes president (sic) and accordingly directs the mining project proposal*."[54] On its own version then, the preservation of Verlorenvlei should trump any development proposals that stand to negatively impact the Vlei system. This is consistent with section 2(4) (r) of NEMA which requires that: "*Sensitive vulnerable, high dynamic or stressed ecosystems, such as ... wetlands and similar systems require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure*".

The DSR itself notes that the impact on Verlorenvlei is of high, negative significance.[55] This means the impact is of the highest possible order and constitutes an unacceptable, fatal flaw. Significant mitigation measures will need to be implemented, or alternatives considered.[56] Where a significance rating is high negative, the DSR notes that there would be no possible mitigation and / or remedial activity to offset the impact at the spatial or time scale for which it was predicted.[57] Accordingly, mitigation of the impacts to Verlorenvlei will not be possible. In fact, the DSR does not even propose any, besides noting, very vaguely, that mitigation

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[51] Van Niekerk L, Taljaard S, Adams JB, Lamberth SJ, Weerts SP, Lotter D, Lemley D, and Riddin T. 2022. Volume II: Climate Change Vulnerability Assessment and recommended Mitigation and Adaptation Strategies. (WRC Report No. TT 871/3/21) pages ix and 1.
[52] *Ibid* page 3.
[53] Verlorenvlei EMP, page v.
[54] Page 28, DSR.
[55] Page 85, DSR.
[56] Page 91, DSR.
[57] Page 91, DSR.

measures associated with cumulative impacts will be expanded upon as part of the EIA process.[58]

The DSR only notes generally that there will be impacts on Verlorenvlei as a result of mining activities (listed under "cumulative impacts")[59], without going into specific details with regards to these impacts. This is a significant oversight, as the individual impacts affecting Verlorenvlei need to be detailed and addressed as part of the EIA process.

We address the specific impacts which need to be considered below.

### i. Depletion of groundwater resources will impact Verlorenvlei

The West Coast is a low rainfall area, which the DSR acknowledges. It also notes that irrigation demand in this catchment cannot be met from surface water runoff as mean annual demand is more than double the mean annual runoff. The irrigation shortfall is supplied by groundwater.[60] There is accordingly already pressure on groundwater resources.

Groundwater will need to be pumped from the mining site for mining activities to be conducted, both in terms of dewatering the mine, and for processing. The DSR is silent on how much water will be required, and this is a significant flaw considering the pressure already on the G30 catchment in terms of overabstraction of groundwater.

The DSR notes that surface flows in the Verlorenvlei catchment tend to be primarily limited to event-driven short-duration episodes and stated that groundwater plays a strong role in maintaining the Kruis River / Verlorenvlei river system.[61] The majority portion (47%) of the ecological reserve of Verlorenvlei is derived from "baseflow from aquifers" (termed as groundwater contribution or low flow conditions)[62]. This area has also been delineated as an area where the fractured aquifer around the faulted areas recharge the primary aquifer which in turn forms the baseflow of the Krom-Antonies River (Eilers, 2018). The Verlorenvlei system is therefore very dependent on groundwater, and any depletion of groundwater upstream of the catchment will likely impact the availability of groundwater entering Verlorenvlei.

There is no doubt that there is already pressure on water resources within the Verlorenvlei catchment, and the proposed mining activities will exacerbate this shortage of supply to unsustainable levels. There is however an inadequate description in the DSR of how depletion of groundwater as a result of mining activities will impact Verlorenvlei.

As it is, there is insufficient surface water in the catchment to supply the proposed mine. For this reason, the DSR notes that "*it is proposed that the water will be sourced from boreholes, the existing dam on the earmarked property and dewatering drainage if approved by the DWS*."[63] This is significant, given the reliance of the ecological integrity of the Verlorenvlei

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[58] Page 101, DSR.
[59] Page 85, DSR.
[60] Page 52, DSR.
[61] Page 52, DSR
[62] Umvoto Report, page 18.
[63] Page 33, DSR.

system on groundwater flowing from the G30 catchment. There is furthermore no clarity regarding where the water in the existing dam will be sourced from.

In addition, a reserve determination study is currently being undertaken by Blue Science and the Department of Water and Sanitation for the Verlorenvlei catchment (G30), and the F60 quarternary catchment.[64] The reserve is a key informant to decisions which may affect the ecological integrity and resilience of the Verlorenvlei catchment. An Inception Report was released in 2021, and while we are advised that the reserve determination process is currently underway, there is no clear indication as to when it will be finalised. It is however premature to be considering any development that requires water within the G30 catchment until the reserve determination study has been completed, and the water use and requirements within the G30 catchment rationalised. The proposed mining activities at the Site should therefore not be considered until the reserve determination study is completed, and the availability of water in the ecological reserve understood.

There is no assessment in the DSR of how depletion of groundwater flows as a result of mining activities will impact on Verlorenvlei. This impact is potentially very significant considering the reliance of Verlorenvlei on groundwater, and the cumulative impacts Verlorenvlei already faces as a result of overabstraction. The impact of depletion of groundwater flows on Verlorenvlei must therefore be specifically considered. The DSR fails to do this and is deficient in this regard.

### ii. Contamination of groundwater from tailings dam

The DSR records that waste from the processing plant will be stored in a tailings dam. It further notes that this dam will be lined in order to prevent seepage. The impact of potential seepage from the tailings storage facility is rated as medium-high.[65] This means the impact is real and substantial in relation to other impacts, poses a risk to the company, and is unacceptable.[66]

As noted above, this area has also been delineated as an area where the fractured aquifer around the faulted areas recharges the primary aquifer which in turn forms the baseflow of the Krom-Antonies river, the primary tributary of Verlorenvlei. While the impacts of contamination of groundwater from seepage in general have been noted, there has been no description of the impacts of groundwater contamination on Verlorenvlei specifically. This is a significant omission given the ecological importance of Verlorenvlei and the threats and stresses it is already facing.

Recent research into the impacts of tungsten waste has found that tungsten waste contamination to the environment is a significant concern. A study[67] found that tungsten tailings often represent a significant risk of contamination to the environment; this is due to

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[64] The reserve means the quantity and quality of water required to both satisfy basic human needs by securing a basic water supply, and to protect aquatic ecosystems in order to secure ecologically sustainable development and use of the relevant water resource.
[65] DSR, page 84.
[66] Page 91, DSR.
[67] Han, Z.; Golev, A.; Edraki, M. A Review of Tungsten Resources and Potential Extraction from Mine Waste. Minerals 2021, 11, 701. https://doi.org/10.3390/min11070701.

other heavy metals and elements (e.g., arsenic) present in tailings rather than tungsten itself. It notes further:

"*Currently, tungsten waste contamination to the environment has also been a concern. For example, the Panasqueira mine, the largest Sn–W deposit in Western Europe, had stored a significant amount of tungsten tailings in tailing dams. These tailings generate low pH (~3) and are enriched in toxic elements acid mine drainage (AMD), leaking into the nearby river. At the Lianhuashan mine, one of the largest tungsten mines in China, it was found that surface water, soil, and plants around the tailing dam were severely contaminated by heavy metals and arsenic. Further study in the same area showed that tungsten tailings have potential health risks to the surrounding residents*."

There is consequently no doubt that the contaminants leaching from the tailings dam stand to significantly impact the receiving environment and even human health. Furthermore, leaching from tailings facilities is a very real possibility as at such a large scale, it is very difficult to completely contain these facilities. Any potential contamination of groundwater must be prevented, as this may have an impact on the water quality entering Verlorenvlei, an impact which must be specifically assessed.

There is also no indication that mitigation measures proposed (sealing the footprint of the tailings facility and implementing groundwater quality monitoring)[68] are adequate, or that they have been applied effectively elsewhere. In any event, while a monitoring network can pick up when a contamination takes place, at this point it will be very difficult to remove contaminants from the system. The monitoring is also only proposed at one borehole, which is inadequate considering the extent of the Site and the potential sensitive receptors downstream. The mitigation measures proposed therefore provide little confidence that this impact – of medium-high significance – will be effectively mitigated.

The impacts of groundwater contamination on Verlorenvlei as a result of the tailings dam leaching should have been specifically considered. The DSR is deficient in this regard.

**iii. Potential sedimentation / contamination of the Krom Antonies River through surface runoff and concomitant contamination / sedimentation of Verlorenvlei**

The Moutonshoek Valley feeds Verlorenvlei via the Krom Antonies River. In this regard, the following is recorded in the *Verlorenvlei Hydrological Impact Review*[69] ("the Umvoto Report):

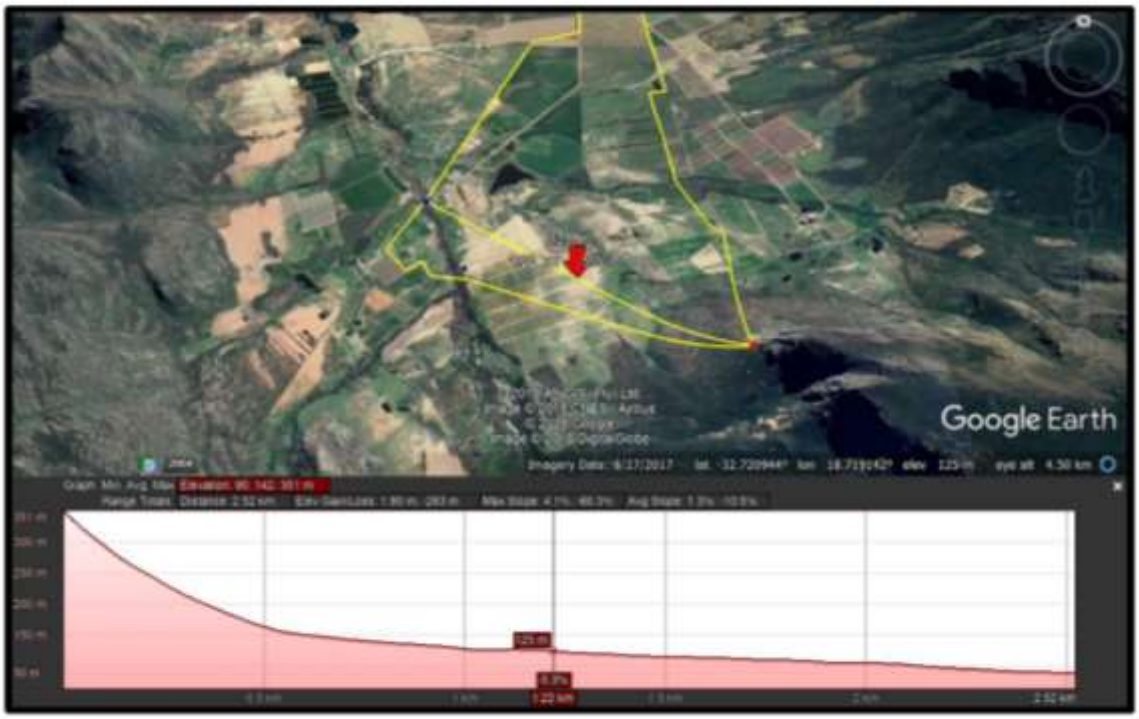
"*The Krom Antonies and Hol Rivers drain the G30D catchment (total area of 545 km2). The latter only flows periodically (see discussion in Section 2.4.2) and contributes the least amount (~7%; see Figure 2-18) to streamflow of Verlorenvlei (Watson et al., 2019). However, the Krom Antonies River is considered the most important contributor to Verlorenvlei, as the river only drains an area of 140 km2 but contributes 13% (~30% weighted average total flow contribution; see Figure 2-18) of the total flow to Verlorenvlei (Watson et al., 2019). Notably,*

[68] DSR, page 101.
[69] Prepared by Umvoto, dated 1 November 2021.

*the Krom Antonies River drains the Moutonshoek Valley and Piketberg Mountains, which receive the area's highest rainfall (~500-800 mm/a; see Figure 2-6).*[70]" (emphasis added)

The Krom Antonies is therefore the main tributary of the Verlorenvlei Estuary and is thus essential to its future survival.[71] Anything that happens in the Moutonshoek Valley stands to impact the Krom Antonies and directly affect Verlorenvlei. This includes impacts from contamination / sedimentation of the Krom Antonies.

Runoff from the mining Site will flow directly into the Krom Antonies river and will consequently have an impact on Verlorenvlei. This runoff will likely include contaminants from the mining activities (including hydrocarbons and chemicals)[72] as well as topsoil from excavation activities.[73] That runoff will flow directly into the Krom Antonies river is evident from the cross section of the Site in relation to the Krom Antonies river:




The impact of sedimentation / contamination on the Krom Antonies is rated as medium significance.[74] It appears this impact has been understated. As with impacts to terrestrial biodiversity, the frequency is rated very low, which appears incongruent with the nature of the activities to be undertaken and the possibility of surface runoff into the Krom Antonies. It is

[70] Umvoto Report, page 20.
[71] Western Cape Protected Areas Expansion Strategy 2021-2025 (Final Draft).
[72] Page 118, DSR.
[73] Page 99, DSR.

[74] Page 82, DSR.

also highly likely that the severity has been understated and should rate 5 (disastrous, extremely harmful),[75] not 4, particularly considering the impact that sedimentation of the Krom Antonies would have on Verlorenvlei, which does not appear to have been considered at all.

With regards to the impact of hydrocarbon contamination of runoff, this impact is rated of medium significance.[76] It also appears that this impact has been understated, as extent (rated 2) and frequency (rated 3) are both rated low and should be rated higher. The extent should be rated at least 4, given the impacts that stand to be suffered by the neighbouring farm area and Verlorenvlei.[77]

The only mitigation measure proposed for the contamination / sedimentation of the Krom Antonies is the implementation of a stormwater management plan for the duration of mining activities.[78] It is inconceivable that a stormwater management plan will be able to address the extent of the surface runoff into the Krom Antonies, and the concomitant impact this will have on Verlorenvlei.

In fact, there is a complete failure to describe the impact on Verlorenvlei of contamination / sedimentation as a result of runoff into the Krom Antonies river. The DSR is deficient in this regard.

## 2. Failure of the DSR to comply with NEMA and the EIA Regulations

The DSR fails in several material respects to comply with NEMA and the EIA Regulations and Appendix 2 thereof. Accordingly, the competent authority must, in terms of Regulation 22(b) of the EIA Regulations, reject the environmental authorisation. We detail the various instances of non-compliance below.

### a. Failure to adequately motivate the need and desirability of the Application

Regulation 18 of the EIA Regulations, 2014 requires that when considering an application, the competent authority must have regard to the need for and desirability of the undertaking of the proposed activity, and any relevant guideline published in terms of section 24J of the Act. Further, Appendix 2, section 2(f) of the EIA Regulations requires a scoping report to motivate the need and desirability of the proposed activity, including the need and desirability of the activity in the context of the preferred location.

While the DSR provides some information to give guidance to an assessment of need and desirability, it falls short of presenting a holistic picture of issues to be considered as part of a need and desirability assessment and therefore fails to comply with the EIA Regulations. We say this for the following reasons.

The Department of Forestry, Fisheries and the Environment's *Guideline on Need and Desirability, 2017* ("the Guideline") which must be considered as part of the EIA and decision-

[75] Page 88, DSR.
[76] Page 84, DSR.
[77] Page 89, DSR.
[78] Page 100, DSR.

making process states that: “the concept of “need and desirability” relates to, amongst others, the nature, scale and location of development being proposed, as well as the wise use of land…The concept of “need and desirability” can be explained in terms of the general meaning of its two components in which need primarily refers to time and desirability to place (i.e. is this the right time and is it the right place for locating the type of land-use/activity being proposed?).” In this regard, the Application emphasises the purported need for tungsten mining activities while downplaying the desirability of the Site’s location, a consideration of which it leaves to the EIA stage.

The DSR motivates the need for the mining activities based on the demand for tungsten as a ‘strategic metal’, significantly by China. The Application, so says the DSR, will introduce South Africa to the global tungsten market. The Application also emphasises that the operation will employ 139 people, including management, and will contribute to the local economy of the area both directly and through the multiplier effect that its presence creates.[79] The DSR therefore concludes that the activity is “highly desirable”.[80]

In the context of need and desirability, the DSR includes a description of the biodiversity sensitivity of the Site, including the presence of CBAs and ESAs, as well as noting that the proposed mining area extends into the Moutonshoek PE. However, it leaves an assessment of the desirability “to be determined following the EIAR phase.” Surely if the DSR can conclude that job creation and stimulation of the local economy are “highly desirable”, it should equally be able to conclude that mining in the Moutonshoek PE is highly undesirable, instead of leaving this to later determination. It presents an unequal picture, emphasising the desirability (or rather, the need for) the mining activity without making any findings regarding the undesirability of mining in such a sensitive environment.

Furthermore, in relation to socio-economic development, the DSR fails to mention the impacts on agricultural and tourism generated income that will be lost if the mining activities proceed, instead only emphasising the jobs that will ostensibly be created by the mining activities. In this regard, declaration of the Moutonshoek PE facilitated the training of more than 40 local community members working on environmental management projects in the area.[81] This is not mentioned. This is a glaring omission, considering that at various other points in the DSR loss of agricultural- and tourism generated income during the operational phase of the mine (change of land use) is rated as very high negative significance.[82] This means the impact is of the highest possible order and constitutes an unacceptable, fatal flaw. Significant mitigation measures will need to be implemented, or alternatives considered.[83]

The assessment of need and desirability also makes no mention of Verlorenvlei. This is a critical omission. The proposed mining activities stand to have a significant negative impact on Verlorenvlei, as the DSR itself concludes, and these impacts must inform any assessment of need and desirability.

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[79] Page 31, DSR.
[80] Page 35, DSR.
[81] Western Cape Protected Areas Expansion Strategy 2021-2025 (Final Draft).
[82] Page 85, DSR.
[83] Page 91, DSR.

It is inconceivable that the proposed mining activities could be considered desirable when one takes into account not only the ecosystems which stand to be impacted, but the loss of agricultural and tourism generated income during the operational phase of the mine.

The DSR presents an unequal picture regarding the need and desirability of the proposed mining activities and consequently falls short of the requirements contained in the EIA Regulations.

**b. Failure to identify and confirm the preferred site and activity alternatives**

The following sections of the EIA Regulations are relevant to the selection of site and activity alternatives:

- Section 1(c) and (d) of Appendix 2 require the scoping process to identify and confirm the preferred site through a detailed site selection process, which includes an identification of impacts and risks inclusive of identification of cumulative impacts and a ranking process of all the identified alternatives focusing on the geographical, physical, biological social, economic, and cultural aspects of the environment, as well as the preferred activity alternative through an identification of impacts and risks.
- Section 2(g)(i) and (iv) of Appendix 2 also requires the scoping report to include details of all alternatives considered, and the environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects.
- Section 2(g)(vii) of Appendix 2 requires the scoping report to consider positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects.
- Section 2(h)(i) also requires a description of the alternatives to be considered and assessed within the preferred site, including the option of not proceeding with the activity.

It is evident that the EIA Regulations require a comprehensive assessment of alternatives and the impacts those alternatives (site and activity) may have on the receiving environment. The assessment of alternatives in the DSR falls far short of these requirements.

The DSR notes that the Site Alternative 1 was identified during the planning phase by the Applicant and project team, based on the evaluation of prospecting results and the corresponding position of the Riviera deposit, and further that the preferred activity alternative entails the extraction of the Riviera deposit through opencast mining methods and processing of extracted materials.[84] The DSR then simply notes that further alternatives will be assessed during the EIA process, deferring the comprehensive assessment required to a later stage.

[84] Page 40, DSR.

This is wholly inadequate given the significant impacts which stand to be suffered, particularly to Verlorenvlei, should mining activities proceed.

In addition, the no-go alternative in particular has not been adequately addressed. The DSR simply notes that "If the no-go alternative is implemented the land use of the area will remain that of agriculture, conservation, livestock farming and tourism with the Riviera deposit unmined."[85] This statement completely underemphasises the importance of the Moutonshoek PE in the protection of South Africa's threatened and rare species, providing protection to ecosystems and preserving ecological integrity, which might be undermined if mining were to proceed within the PE. It also entirely fails to describe the negative impacts on Verlorenvlei that will be prevented if no mining is undertaken. This is a significant oversight. The Verlorenvlei, in particular, is under increasing pressure from overabstraction (reducing the amount of freshwater flowing into the Vlei system) and other threats within the G30 catchment. Any pollution of water upstream of Verlorenvlei stands to have significant, negative impacts on the system, as the DSR itself concludes. It is therefore critical that an assessment of alternatives includes sufficient detail regarding the significant socio-ecological benefits that would accrue should there be no mining to threaten Verlorenvlei and the Moutonshoek PE. This has not been done.

There has been no identification of impacts and risks inclusive of identification of cumulative impacts and a ranking process of all the identified alternatives, despite the assertion in the DSR that this has been done.[86] Rather, the DSR puts forward only one site, location and activity alternative based on the alleged position of the Riviera deposit. There has further been no consideration of positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community. Again, only one alternative is presented.

The DSR consequently fails to comply with the requirements of the EIA Regulations, and should not be accepted.

### c. Failure to identify climate change as a key issue to be addressed in the assessment phase

As already mentioned above, the impacts of overabstraction and mining on Verlorenvlei are further exacerbated by climate change. Climate change will change precipitation patterns, affecting the quantity, quality and seasonality of hydrological flows into the Verlorenvlei estuary, exacerbating already present human modifications of inflows (primarily due to cultivation, overabstraction, and the threat of mining).[87] Climate change may also manifest through changes in the frequency of severe weather events. An increase/decrease in floods will increase/decrease opportunities for mouth breaching, which, in turn, will change the manner in which the estuary interacts with the marine environment.[88] Due to the projected increase in temperature and decrease in rainfall as a result of climate change, Verlorenvlei is

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[85] Page 41, DSR.
[86] Page 4, DSR.
[87] Van Niekerk L, Taljaard S, Adams JB, Lamberth SJ, Weerts SP, Lotter D, Lemley D, and Riddin T. 2022. Volume II: Climate Change Vulnerability Assessment and recommended Mitigation and Adaptation Strategies. (WRC Report No. TT 871/3/21) pages ix and 1.
[88] *Ibid.*

likely to dry up more frequently in the future, impacting the ecology and biodiversity that it relies on for survival (as wet cycles are imperative for ecosystem generation).[89]

Despite these notable impacts, the DSR only once mentions climate change in the context of what will be considered as part of the Agricultural Impact Assessment.[90] No provision is made for the assessment of the mining activities on climate change, and particularly how this will impact Verlorenvlei.

Mining will undoubtedly have an impact on the availability of freshwater entering the Verlorenvlei system. This impact will be exacerbated by climate change. Despite the fact that climate change is a relevant consideration in an application for environmental authorisation,[91] no provision is made for such an assessment in the DSR. This is a significant omission as a result of which the DSR fails to comply with, *inter alia,* section 2(g)(v) of Appendix 2 to the EIA Regulations and should consequently be rejected.

## 3. Other comments

### a. Listed Activities not applied for

The DSR notes[92] that the layout of the mining area will include water storage. However, in the Table detailing which Listed Activities are triggered by the proposed activity, no mention is made of Listed Activities pertaining to the construction of a dam. Further, under *Phases of the project*[93], no provision is made under 'site establishment' for the preparation of water storage infrastructure. Accordingly, it appears that certain Listed Activities have not been described as required by section 2(d)(i) of Appendix 2 to the EIA Regulations.

### b. Compliance with protocols

In terms of the *Procedures for the assessment and minimum criteria for reporting on identified environmental themes in terms of sections 24 (5) (a) and (h) and 44 of the Act, when applying for environmental authorisation* ("the Environmental Themes Regulations"),[94] specific and more stringent protocols apply for certain themes when the sensitivity rating on the theme is very high or high, as determined by the national environmental screening tool.

Based on the sensitivity screenings conducted, the following requirements pertain to the various themes:

- terrestrial biodiversity,[95] which is rated as very high according to the Screening Tool, will require a site sensitivity verification and a terrestrial biodiversity specialist

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[89] Umvoto Report, page 17.
[90] Page 106, DSR.
[91] *Earthlife Africa Johannesburg v Minister of Environmental Affairs and Others* [2017] 2 All SA 519 (GP).

[92] Page 17, DSR.
[93] Page 22, DSR.
[94] GN 320 of 20 March 2020.
[95] Figure 28 of the DSR.

assessment that complies with the minimum reporting requirements in the Environmental Themes Regulations.

- agriculture,[96] which is rated as very high, high or medium sensitivity according to the Screening Tool, will require a site sensitivity verification and an agricultural agroecosystem specialist assessment (not just an agricultural impact assessment, as noted in the DSR)[97] that complies with the minimum reporting requirements in the Environmental Themes Regulations.
- aquatic biodiversity,[98] which is rated as very high according to the Screening Tool, will require a site sensitivity verification and a terrestrial biodiversity specialist assessment that complies with the minimum reporting requirements in the Environmental Themes Regulations.

Similarly, because the animal species theme[99] is rated as medium to high by the Screening Tool, site sensitivity verification will be required, and terrestrial animal species specialist assessment report, as required by the *Procedures for the assessment and minimum criteria for reporting on identified environmental themes in terms of sections 24 (5) (a) and (h) and 44 of the Act, when applying for environmental authorisation*.[100] These Protocols apply in lieu of Appendix 6 to the EIA Regulations and must be observed by the Environmental Assessment Practitioner during the EIA process.

## 4. Conclusion

We have set out in these comments why Mining in the Moutonshoek PE is entirely undesirable, and further that mining activities will likely cause significant negative impacts on the Krom Antonies river, and the Verlorenvlei Estuary. Impacts on Verlorenvlei have not been specifically addressed, and this is a serious flaw in the DSR. In addition, the DSR concludes further that no mitigation is possible in relation to the high negative impacts that will be sustained by the Moutonshoek PE,[101] and in the context of the cumulative impacts on Verlorenvlei, no mitigation measures are proposed.

Consequently, it is likely that any socio-economic benefits that might be derived from the proposed mining activities (which we doubt will accrue) will be overshadowed by the significant negative impacts that that will be sustained to the Moutonshoek PE, and Verlorenvlei. Mining is also inconsistent with the Moutonshoek PE Management Plan, and cautioned by the Verlorenvlei EMP, and should not be entertained.

The DSR also fails to comply with the EIA Regulations in several material respects, and the environmental authorisation should, in line with Regulation 22(b)(ii), be rejected.

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[96] Figure 23 of the DSR.
[97] Page 68, DSR.
[98] Figure 27 of the DSR.
[99] Figure 30 of the DSR.
[100] GN 1150 of 30 October 2020.
[101] Page 114, DSR.

We trust the Biodiversity Law Centre will be registered as an interested and affected party and notified of further developments regarding this Application.

Yours faithfully,

**BIODIVERSITY LAW CENTRE NPC**

***Per* Kate Handley**