

# PROPOSED RIVIERA TUNGSTEN PROJECT MAGISTERIAL DISTRICT OF PIKETBERG WESTERN CAPE PROVINCE

## FINAL SCOPING REPORT

**REFERENCE NUMBER: WC 30/5/1/2/2/10110 MR**

**FEBRUARY 2019**

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## **EXECUTIVE SUMMARY**

The Applicant, Bongani Minerals (Pty) Ltd, applied for environmental authorisation to mine tungsten and molybdenum 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.

Greenmined will at all times remain independent and will perform its obligations in terms of all relevant Acts, Regulations and Guidelines, as expected from environmental practitioners. All documentation, to date, was based on preliminary data and desktop studies as **access to the study area was denied by the landowners**, resulting in limited information being provided to all commenting parties. Numerous attempts and letters requesting access to the properties by the applicant was all in vain. Greenmined is unable to provide the I&AP's and stakeholders with material information with regards to this mining right application and it is therefore clear that the relevant authorities will not be able to make an informed decision, irrespective should it be positive or negative. In light of the above all comments with regards to Greenmined's alleged incompetence is noted. **However, due to the landowners refusal to grant access to the properties that proper studies could not be conducted.**

Upon commencement, the proposed project will trigger listed activities in terms of the National Environmental Management Act, 1998 (Act 107 of 1998) and the Environmental Impact Assessment Regulations 2014 (as amended 2017) and therefore requires an environmental impact assessment (EIA) that assess project specific environmental impacts and alternatives, consider public input, and propose mitigation measures in cooperation with specialists, to ultimately culminate in an environmental management programme that informs the competent authority (Department of Mineral Resources) when considering the environmental authorisation. This report, the Final Scoping Report, forms part of the departmental requirements, and presents the first report of the EIA process.

The Applicant 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 2018. Owing to the prospecting outcome, the applicant applied for a mining right for the winning of tungsten and molybdenum.

Should the MR be granted and the mining of tungsten and molybdenum be allowed, the Riviera Tungsten project will comprise of activities that can be divided into 3 key phases namely the:

- (1) *Site establishment/construction phase* which will involve the demarcation of the site boundaries and required buffer no-go zones pertaining to existing infrastructure and areas of significant importance (such as but not limited to watercourse, wetlands, Critical Biodiversity Areas (CBA) and/or Ecological Support Areas (ESA)) identified during the environmental impact assessment. Site establishment will further necessitate the clearing of vegetation, stripping and stockpiling of topsoil, and establishing site infrastructure.
- (2) *Operational phase* that is presently expected to be executed in two phases starting with opencast mining that will progress to underground mining through the use of incline shafts. Excavated material will be processed to produce APT that will in turn be transported from site to an offsite metallurgical plant at Saldanha Bay, from where the sealable products will be exported via the multi-purpose terminal of Saldanha Bay Harbour.

(3) *Decommissioning phase* which will involve the rehabilitation, sloping and landscaping of all affected areas, the replacement of topsoil, and the removal of all infrastructure no longer needed by the landowners. The right holder will further be responsible for the seeding of all rehabilitated areas. Once the full mining area is rehabilitated, the mining right holder will be required to submit a closure application to the Department of Mineral Resources in accordance with section 43(4) of the MPRDA, 2002. The Closure Application will be submitted in terms of Regulation 62 of the MPRDA, 2002, and Government Notice 940 of NEMA, 1998.

### **Preferred Site**

The preferred site entails the proposed mining of an area within the boundaries of the above mentioned properties. Should additional viable site alternatives be identified during the EIA process, the project team will heed the suggestions and investigate the possibility of implementation thereof.

### **Project Alternatives**

Project Alternative 1 entails the extraction of the tungsten-molybdenum resource in two phases through opencast- and underground mining operations. Processing of excavated material on site to produce APT that is transported to the Saldanha Bay metallurgical plant, and the export of the final product via the Saldanha Bay harbour. Additional project alternatives can be considered during the EIA process as supplementary information is obtained from the specialist studies, contributed by the stakeholders and I&AP's, and adjusted by the project team.

### **Technology/Design Alternatives**

Technology/design principles will be considered by the Applicant and project team during the EIA process.

### **No-go Alternative**

The no-go alternative entails no change to the *status quo* and is therefore a real alternative that needs to be considered. In the event that the no-go alternative is implemented the land use of the area will remain that of agriculture, conservation, livestock farming and tourism with the tungsten resources unmined. Amongst others, the socio-economic impact of mining on current, and future agriculture and tourism land uses of the study area will be compared to the *status quo* and will be considered as part of the EIA process, and discussed in the DEIAR.

### **Public participation process**

During the initial public participation process the stakeholders and I&AP's were informed of the project by means of background information documents that were sent directly to the contact persons. Due to the compulsory exclusion period over the holidays, the 30-days commenting period was extended with commenting/registration welcomed from 10 December 2018 to 5 February 2019. An advertisement was placed in Die Burger, with on-site notices placed in noticeable areas.

In accordance with the timeframes stipulated in the EIA Regulations, 2014 (as amended by GNR 326 effective 7 April 2017) the Draft Scoping Report was compiled to allow perusal of the report by the I&AP's and stakeholders. A 30 day commenting period was allowed for perusal of the documentation by the I&AP's and stakeholders that expired 12

February 2019. Comments received on the Draft Scoping Report were incorporated into the Final Scoping Report to be submitted to the DMR for decision making. Registered parties will be kept posted on the progress of the Environmental Impact Assessment process, as well as be provided with an opportunity to comment on the EIA documentation.

### **Scoping Report**

The scoping report identifies the potential positive and negative impacts that the proposed activity and alternatives will have on the environment and the community as well as the aspects that may impact on the socio-economic conditions of directly affected persons, and proposes possible mitigation measure that could be applied to modify / remedy / control / stop the identified impacts.

### **Plan of Study for the Environmental Impact Assessment Process**

The aspects to be assessed as part of the environmental impact assessment process will include, but not be limited to, the following:

1. Various alternatives (project, technology, design etc.) that will in turn dictate the design and layout of the proposed project as well as hone the proposed mining method.
2. Upon deciding on the preferred alternatives, the applicability of the listed activities identified in terms of the NEMA EIA Regulations, 2017 will be confirmed and aligned with the most recent proposal.
3. The need and desirability of the proposed activity will be discussed in detail and weighed against the no-go option of upholding the *status quo* at the study area.
4. The inputs received during the public participation process (first- and second phase) will be assessed and considered by the project team during the EIA process.
5. The findings, recommendations and management measure proposed in the specialist reports will be assessed during the EIA process and incorporated into the DEIAR. The following specialists were appointed as part of the project team:
  - ✎ Agricultural Impact Assessment (Mr J Lanz);
  - ✎ Air, Dust and Noise Impact Study (Enviroworks);
  - ✎ Ecological Study (Enviro-Niche Consulting) inclusive of an avifaunal assessment;
  - ✎ Engineering Services Report;
  - ✎ Freshwater Ecological Assessment (Scientific Aquatic Services);
  - ✎ Heritage Impact Assessment (Mr FP Coetzee);
  - ✎ Hydrogeological Assessment (GHT Consulting Scientists);
  - ✎ Palaeontological Impact Assessment (Dr H Fourie);
  - ✎ Socio-economic Impact Assessment (Enviroworks); and
  - ✎ Traffic Impact Assessment (BVI Consulting Engineers).
6. The impact of the proposed project on the physical-, biological-, and human environments will be assessed.
7. Mitigation measures will be proposed to control, modify, remedy or stop the impacts associated with the proposed activity on the surrounding environment.
8. Any additional requirements submitted by the DMR will be incorporated into the DEIAR and treated accordingly.

Comments received on the DSR was incorporated into Final Scoping Report to be submitted to the DMR for decision making. Should DMR approve the Final Scoping Report, the Draft EIA report will be compiled. The Draft EIA & EMPR report will be circulated to the registered I&AP's and stakeholders for their perusal over a 30-days period.

The Environmental Impact Assessment Report and Environmental Management Programme Report templates prescribed by the DMR in terms of the National Environmental Management Act, 1998 in respect of listed activities that have been trigger by this application will be used to assess the information with regard to the proposed mining project.

It is important to note that the objective of the environmental impact assessment process is to, through a consultative process-

- a) Determine the policy and legislative context within the activity is located and document how the proposed activity complies with and responds to the policy and legislative context,
- b) Describe the need and desirability of the proposed activity, including the need and desirability of the activity in the context of the preferred location,
- c) Identify the location of the development footprint within the preferred site based on an impact and risk assessment process inclusive of cumulative impacts and a ranking process of all the identified development footprint alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects of the environment,
- d) determine the –
  - i) Nature, significance, consequence, extent, duration and probability of the impacts occurring to inform identified preferred alternatives, and
  - ii) Degree to which these impacts-
    - (aa) can be reversed;
    - (bb) may cause irreplaceable loss of resources, and
    - (cc) can be avoided, managed or mitigated;
- e) identify the most ideal location for the activity within the preferred site based on the lowest level of environmental sensitivity identified during the assessment;
- f) identify, assess and rank the impacts the activity will impose on the preferred location through the life of the activity;
- g) identify suitable measures to manage, avoid or mitigate identified impacts, and
- h) identify residual risks that need to be managed and monitored.

As mentioned above, all information available up to the scoping phase was based on desktop studies and public opinion. This will therefore not serve the objective of the environmental impact assessment process and will not afford the relevant authorities the necessary information to make an informed decision. The final scoping report will be submitted on 18 February 2019, after which Greenmined will request guidance from the Department of Mineral Resources as to the way forward in order to complete the environmental impact assessment process and in the end to be able to provide the information and studies that will assist in the decision making process. Unless the specialists continue with their studies in the area to ensure that all the impacts and concerns are properly assessed the process will be flawed and will the departmental decision, whether positive or negative, not be based on material factors.

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## **LIST OF ACRONYMS**

AGM	Late-stage Aphanitic Granite-monzogranite
APT	Ammonium Paratungstate
ASTM	American Society for Testing and Materials
BID	Background Information Document
BLM	Bergrivier Local Municipality
BLSA	BirdLife South Africa
BMG	Biotite Monzogranite
CARA	Conservation of Agricultural Resources Act, 1983 (Act No 43 of 1983)
CBA	Critical Biodiversity Areas
CRR	Comments and Response Report
CWCBR	Cape West Coast Biosphere Reserve
DEA&DP	Department of Environmental Affairs and Development Planning
DEIAR	Draft Environmental Impact Assessment Report
DMR	Department of Mineral Resources
DoA	Department of Agriculture
DSR	Draft Scoping Report
DWS	Department of Water and Sanitation
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
EBEDAG	Elands Bay Environment and Development Action Group
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EIS	Ecological Importance and Sensitivity
EMPR	Environmental Management Programme
ESA	Ecological Support Areas
EWT	Endangered Wildlife Trust
FEIAR	Final Environmental Impact Assessment Report
FSR	Final Scoping Report
HAS	Hazardous Substances Act, 1973 (Act No 15 of 1973)
HIA	Heritage Impact Assessment
HWC	Heritage Western Cape
I&AP	Interested and Affected Party
IDP	Integrated Development Plan
LED	Local Economic Development
LUPA	Land Use Planning Act, 2014 (Act No 13 of 2014)
HSA	Mine Health and Safety Act, 1996 (Act No 29 of 1996)
JPTT	Joint Planning Task Team
Mo	Molybdenum
MPE	Moutonshoek Protected Environment

MPRDA	Minerals and Petroleum Resources Development Act, 2002 (Act No 28 of 2002)
MR	Mining Right
NEM:AQA	National Environmental Management: Air Quality Control Act, 2004 (Act No 39 of 2004)
NEM:BA	National Environmental Management: Biodiversity Act, 2004 (Act No 10 of 2004)
NEM:PAA	National Environmental Management: Protected Areas Act, 2003 (Act No 57 of 2003)
NEM:WA	National Environmental Management: Waste Act, 2008 (Act No 59 of 2008)
NEMA	National Environmental Management Act, 1998 (Act No 107 of 1998)
NHRA	National Heritage Resources Act, 1999 (Act No 25 of 1999)
NRTA	National Road Traffic Act, 1996 (Act No 25 of 1999)
NWA	National Water Act, 1998 (Act No 36 of 1998)
OHSA	Occupational Health and Safety Act, 1993 (Act No 85 of 1993)
PA1	Project Alternative 1
PCB's	Polychlorinated Biphenyls
PCO	Pest Control Officer
PE	Protected Environment
PES	Present Ecological State
PPE	Personal Protection Equipment
PR	Prospecting Right
PSDF	Provincial Spatial Development Framework
QMP	Early Quartz Monzonite Porphyry
ROM	Run of Mine
SAMRAD	South African Mining Mineral Resources Administration System
SANParks	South African National Parks
SANS	South African National Standards
SLP	Social and Labour Plan
TIA	Traffic Impact Assessment
W	Tungsten
WCBR	Western Cape Biosphere Reserve
WCDM	West Coast District Municipality
WESSA	Wildlife and Environment Society of South Africa



## mineral resources

Department:  
Mineral Resources  
**REPUBLIC OF SOUTH AFRICA**

### SCOPING REPORT

# FOR LISTED ACTIVITIES ASSOCIATED WITH MINING RIGHT AND/OR BULK SAMPLING ACTIVITIES INCLUDING TRENCHING IN CASES OF ALLUVIAL DIAMOND PROSPECTING

SUBMITTED FOR ENVIRONMENTAL AUTHORIZATIONS IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 AND THE NATIONAL ENVIRONMENTAL MANAGEMENT WASTE ACT, 2008, IN RESPECT OF LISTED ACTIVITIES THAT HAVE BEEN TRIGGERED BY APPLICATIONS IN TERMS OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (MPRDA) (AS AMENDED).

**NAME OF APPLICANT:** Bongani Minerals (Pty) Ltd

**TEL NO:** 060 785 2780

**FAX NO:** N/A

**POSTAL ADDRESS:** Suite 51, Private Bag X3018, Strand, 7139

**PHYSICAL ADDRESS:** Suite 2.1 On the Greens, Golf Village, De Beers Avenue, Somerset West, Western Cape Province

**FILE REFERENCE NUMBER SAMRAD:** WC 30/5/1/2/2/10110 MR

## IMPORTANT NOTICE

In terms of the Mineral and Petroleum Resources Development Act (Act 28 of 2002 as amended), the Minister must grant a prospecting or mining right if among others the mining “will not result in unacceptable pollution, ecological degradation or damage to the environment”.

Unless an Environmental Authorisation can be granted following the evaluation of an Environmental Impact Assessment and an Environmental Management Programme report in terms of the National Environmental Management Act (Act 107 of 1998) (NEMA), it cannot be concluded that the said activities will not result in unacceptable pollution ecological degradation or damage to the environment.

In terms of section 16(3)(b) of the EIA Regulations, 2014, any report submitted as part of an application must be prepared in a format that may be determined by the Competent Authority and in terms of section 17 (1) (c) the competent Authority must check whether the application has taken into account any minimum requirements applicable or instructions or guidance provided by the competent authority to the submission of applications.

**It is therefore an instruction that** the prescribed reports required in respect of applications for an environmental authorisation for listed activities triggered by an application for a right or permit are submitted in the exact format of, and provide all the information required in terms of this template. Furthermore please be advised that failure to submit the information required in the format provided in this template will be regarded as a failure to meet requirements of the Regulation and will lead to the Environmental Authorisation being refused.

**It is furthermore an instruction that** the Environmental Assessment Practitioner must process and interpret his/her research and analysis and use the findings thereof to compile the information required herein. (Unprocessed supporting information may be attached as appendices). The EAP must ensure that the information required is placed correctly in the relevant sections of the Report, in order, and under the provided headings as set out below, and ensure that the report is not cluttered with un-interpreted information and that it unambiguously represents the interpretation of the Applicant.

## OBJECTIVE OF THE SCOPING PROCESS

- 1) The objective of the scoping process is to, through a consultative process-
    - (a) identify the relevant policies and legislation relevant to the activity;
    - (b) motivate the need and desirability of the proposed activity, including the need and desirability of the activity in the context of the preferred location;
    - (c) identify and confirm the preferred activity and technology alternative through an impact and risk assessment and ranking process;
    - (d) identify and confirm the preferred site, through a detailed site selection process, which includes an impact and risk assessment process inclusive 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;
    - (e) identify the key issues to be addressed in the assessment phase;
    - (f) agree on the level of assessment to be undertaken, including the methodology to be applied, the expertise required as well as the extent of further consultation to be undertaken to determine the impacts and risks the activity will impose on the preferred site through the life of the activity, including the nature, significance, consequence, extent, duration and probability of the impacts to inform the location of the development footprint within the preferred site, and
    - (g) identify suitable measures to avoid, manage, or mitigate identified impacts and to determine the extent of the residual risks that need to be managed and monitored.
-

## SCOPING REPORT

### 2) CONTACT PERSON AND CORRESPONDENCE ADDRESS

#### a) Details of: Greenmined Environmental

In terms of the National Environmental Management Act, 1998 (Act No 107 of 1998) (NEMA) the proponent must appoint an independent Environmental Assessment Practitioner (EAP) to undertake the environmental impact assessment (EIA) of any activities regulated in terms of the aforementioned Act. Bongani Minerals (Pty) Ltd (hereinafter the "Applicant") appointed Greenmined Environmental (Pty) Ltd (hereinafter "Greenmined") to undertake the study needed. Greenmined has no vested interest in Bongani Minerals (Pty) Ltd or the proposed project and hereby declares its independence as required by the EIA Regulations, 2014 (as amended 2017).

#### i) The EAP who prepared the report

Name of the Practitioner: Ms Christine Fouche (Senior Environmental Consultant)

Tel No: 021 851 2673 / 082 811 8514

Fax No: 086 546 0579

E-mail address: [christine.f@greenmined.co.za](mailto:christine.f@greenmined.co.za)

#### ii) Expertise of the EAP

##### (1) The qualifications of the EAP

(With evidence attached as **Appendix 1**)

Ms Fouche has a Diploma in Nature Conservation and a B.Sc. in Botany and Zoology. Full CV with proof of expertise is attached as **Appendix 1**.

##### (2) Summary of the EAP's past experience

(Attach the EAP's curriculum vitae as **Appendix 2**)

Ms Fouche has thirteen years' experience in doing Environmental Impact Assessments and Mining Applications in South Africa. See a list of past project attached as **Appendix 2**.

**b) Description of the property**

<b>Farm Name:</b>	<ul style="list-style-type: none"> <li>⌘ Portion 1 of Farm 297 RD;</li> <li>⌘ Portion 6 (Remaining Extent) of the farm Namaquasfontein 76 RD;</li> <li>⌘ Portion 21 of the farm Namaquasfontein 76 RD.</li> </ul>
<b>Application area (Ha)</b>	531.4405 ha
<b>Magisterial district</b>	Piketberg
<b>Distance and direction from nearest town</b>	The proposed Riviera Tungsten project is located in the Moutonshoek Valley (also known as the Krom Antonies River Valley), ±53 km north-west of Piketberg by road. Redelinghuys is situated about 40 km north-west of the proposed mining area.
<b>21 digit Surveyor General Code for each farm portion</b>	<ul style="list-style-type: none"> <li>⌘ C05800000000029700001</li> <li>⌘ C05800000000007600006</li> <li>⌘ C05800000000007600021</li> </ul>

**c) Locality map**

(show nearest town, scale not smaller than 1:250000 as **Appendix 3**)

The requested map is attached as **Appendix 3**.

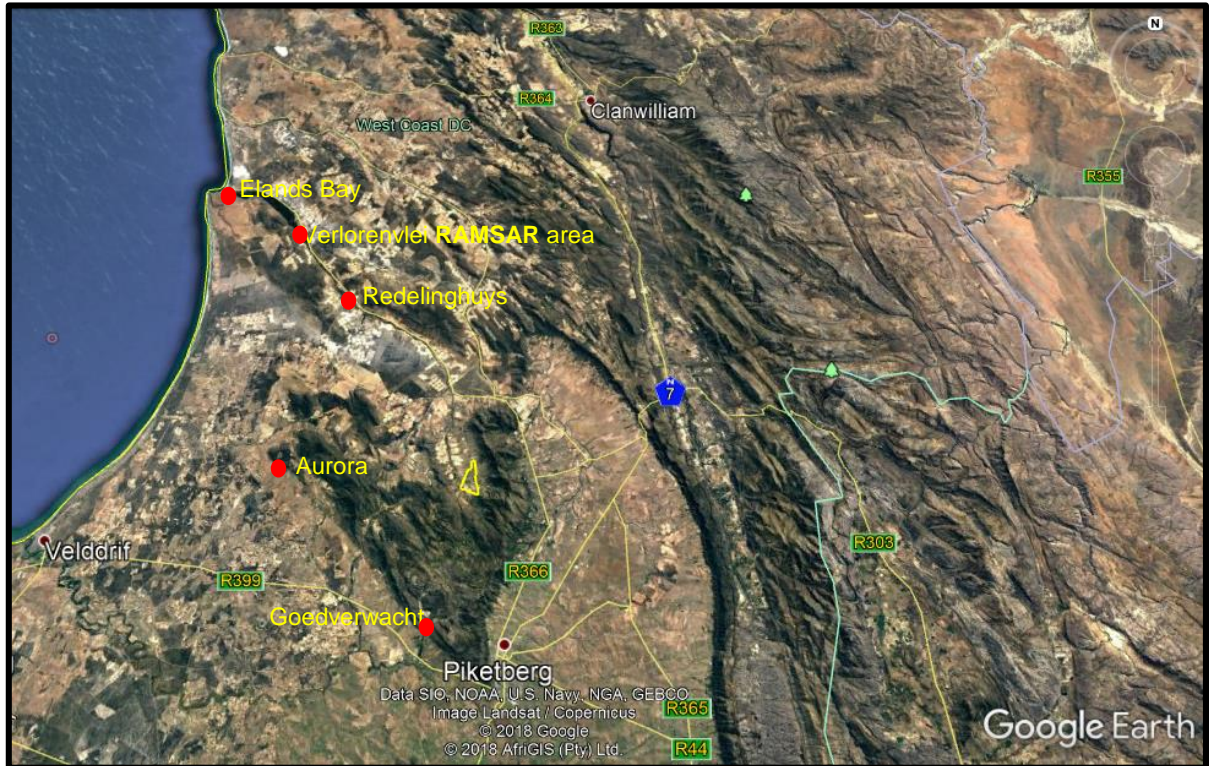


Figure 1: Locality of the proposed mining footprint (yellow polygon) within the study area (Image obtained from Google Earth).

#### d) Description of the scope of the proposed overall activity

##### i) Listed and specified activities

Provide a plan drawn to a scale acceptable to the competent authority but not less than 1:10 000 that shows the location, and area (hectares) of all the aforesaid main and listed activities, and infrastructure to be placed on site and attach as **Appendix 4**

The Applicant, Bongani Minerals (Pty) Ltd, applied for environmental authorisation to mine tungsten and molybdenum 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.

Should the Applicant be granted with a mining right (MR) and the project commence, the principal mining activities is expected to include the following:

- ✘ Site establishment;
- ✘ Stripping and stockpiling of topsoil;
- ✘ Overburden stripping and stockpiling to access the ore;
- ✘ Opencast mining;
- ✘ Underground mining;
- ✘ Transporting and stockpiling of run of mine (ROM);
- ✘ Processing of ROM and production of ammonium paratungstate (APT);
- ✘ Transport of APT to Saldanha metallurgical plant;
- ✘ Sloping and landscaping upon closure of the operation; and
- ✘ Replacing the topsoil and vegetating the disturbed areas.



Presently the preliminary layout of the mining area is expected to include the following:

- ✂ Opencast pit with access to decline shafts;
- ✂ Overburden rock stockpiles;
- ✂ Processing plant;
- ✂ ROM stockpiles;
- ✂ A slimes dam;
- ✂ Offices and ablutions;
- ✂ Maintenance and store rooms;
- ✂ Laboratory;
- ✂ Explosives magazine;
- ✂ APT product warehouse;
- ✂ Water storage;
- ✂ Diesel depot; and
- ✂ Internal roads.

Upon commencement, the proposed project will trigger listed activities (see Table below) in terms of the National Environmental Management Act, 1998 (Act 107 of 1998) and the Environmental Impact Assessment Regulations 2014 (as amended 2017) and therefore requires an environmental impact assessment (EIA) that assess project specific environmental impacts and alternatives, consider public input, and propose mitigation measures in cooperation with specialists, to ultimately culminate in an environmental management programme that informs the competent authority (Department of Mineral Resources) when considering the environmental authorisation.

See attached as **Appendix 4** a copy of the preliminary site layout plan and -schematic representation of the proposed mining activities.

Table 1: Listed and specified activities triggered by the associated mining activities.

<b>NAME OF ACTIVITY</b> (All activities including activities not listed) (E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc.)	<b>AERIAL EXTENT OF THE ACTIVITY</b> Ha or m <sup>2</sup>	<b>LISTED ACTIVITY</b> Mark with an X where applicable or affected.	<b>APPLICABLE LISTING NOTICE</b> (GNR 324, GNR 325 OR GNR 327)/NOT LISTED
Application for a mining right.	531.4405 ha	X	GNR 324 LN 3 Activity 4, 12, 18 GNR 325 LN 2 Activity 15, 17 GNR 327 LN 1 Activity 14, 22, 24, 28, 56
Demarcation of the site with visible beacons.	531.4405 ha	N/A	N/A
Site establishment.	±62 ha	N/A	N/A
Pre-stripping of top layer and stockpiling of topsoil.	±62 ha (Infrastructure)  ±400 m (Opencast pit)	X	GNR 324 LN 3 Activity 12 GNR 325 LN 2 Activity 15, 17 GNR 327 LN 1 Activity 28
Overburden stripping to access the ore and stockpiling.	±400 m (Opencast pit)  ±47.83 ha (Stockpile area)	X	GNR 325 LN 2 Activity 17
Opencast mining	±400 m (Opencast pit)	X	GNR 325 LN 2 Activity 17
Underground mining	No additional surface footprint	X	GNR 325 LN 2 Activity 17
Stockpiling and transporting of ROM	±3 ha (Processing area)	X	GNR 324 LN 3 Activity 4, 18 GNR 327 LN 1 Activity 24, 56
Processing of ROM and production of APT	±3 ha (Processing area)	X	GNR 325 LN 2 Activity 17 GNR 327 LN 1 Activity 14
Transport of APT to Saldanha metallurgical plant	±11 km (Mining area to R366)	X	GNR 324 LN 3 Activity 4, 18 GNR 327 LN 1 Activity 24, 56
Sloping and landscaping upon closure of the site	±350 ha	X	GNR 327 LN 1 Activity 22
Replacing the topsoil and vegetating the disturbed area	±350 ha	X	GNR 327 LN 1 Activity 22

## ii) Description of the activities to be undertaken

(Describe Methodology or technology to be employed, and for a linear activity, a description of the route of the activity)

### **BACKGROUND TO THE DISCOVERY OF TUNGSTEN WITHIN THE MOUTONSHOEK VALLEY**

*(Information extracted from the Scoping Report for the Proposed Riviera Tungsten Open-Cast Mining Project, Withers Environmental Consultants, 2009)*

Union Carbide Corporation was a major producer and supplier of tungsten and derivative products to end-user manufacturing industries during the 1970's. The corporation owned and managed two mines in the USA and one in Brazil, which neared the end of life of mine by 1975. A decision was accordingly made to explore for tungsten in North America, South Africa, Australia and Brazil.

In 1975, fifty grains of scheelite (ore of tungsten) were recorded (against a regional background of 0 grains) in a single sample taken from the Krom Antonies River. In 1979 Union Carbide, entered into a joint venture agreement with Anglo American, which culminated in the utilization of a combination rotary/diamond drill rig to test for alluvial scheelite and to obtain samples of the underlying bedrock. Exploration intersected a highly altered granite with visible grains of interstitial scheelite, molybdenite, pyrite, pyrrhite and chalcopyrite. By 1980 five shallow bedrock identification holes had outlined the sub-outcropping extent of the granite over an area of 1km<sup>2</sup> and confirmed that mineralization was pervasive (Walker 1994). Walker (1994) regarded the combination of greisen, skarn and extensive hydrothermal alteration and mineralization at Riviera as unique. The Riviera Tungsten mineralisation or ore body occurs as a concentrate associated with the granite and as a disseminated body associated with ancient alluvial deposits. The whole ore body is located on Portion 1 of Farm 297, Portion 6 (Remaining Extent) of Namaquasfontein and Portion 21 of Namaquasfontein 76.

### **PROJECT PROPOSAL**

The Applicant 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 2018. Owing to the prospecting outcome, the applicant applied for a mining right for the winning of tungsten and molybdenum.

Should the MR be granted and the mining of tungsten and molybdenum be allowed, the Riviera Tungsten project will comprise of activities that can be divided into 3 key phases (discussed in more detail below) namely the:

- (4) *Site establishment/construction phase* which will involve the demarcation of the site boundaries and required buffer no-go zones pertaining to existing infrastructure and areas of significant importance (such as but not limited to watercourse, wetlands, Critical Biodiversity Areas (CBA) and/or Ecological Support Areas (ESA)) identified during the environmental impact assessment. Site establishment will further necessitate the clearing of vegetation, stripping and stockpiling of topsoil, and establishing site infrastructure.

- (5) *Operational phase* that is presently expected to be executed in two phases starting with opencast mining that will progress to underground mining through the use of incline shafts. Excavated material will be processed to produce APT that will in turn be transported from site to an offsite metallurgical plant at Saldanha Bay, from where the sealable products will be exported via the multi-purpose terminal of Saldanha Bay Harbour.
- (6) *Decommissioning phase* which will involve the rehabilitation, sloping and landscaping of all affected areas, the replacement of topsoil, and the removal of all infrastructure no longer needed by the landowners. The right holder will further be responsible for the seeding of all rehabilitated areas. Once the full mining area is rehabilitated, the mining right holder will be required to submit a closure application to the Department of Mineral Resources in accordance with section 43(4) of the MPRDA, 2002. The Closure Application will be submitted in terms of Regulation 62 of the MPRDA, 2002, and Government Notice 940 of NEMA, 1998.

As mentioned earlier, should the project be authorised the layout of the mining area is expected to consist of the following:

- ⌘ Opencast pit with access to decline shafts;
- ⌘ Overburden rock stockpiles;
- ⌘ Processing plant;
- ⌘ ROM stockpiles;
- ⌘ A slimes dam;
- ⌘ Offices and ablutions;
- ⌘ Maintenance and store rooms;
- ⌘ Laboratory;
- ⌘ Explosives magazine;
- ⌘ APT product warehouse;
- ⌘ Water storage;
- ⌘ Diesel depot; and
- ⌘ Internal roads.

## **PHASES OF THE PROJECT**

### *(1) Site Establishment / Construction phase:*

Site establishment entails the demarcation of mining boundaries, clearance of vegetation (where necessary), and stripping and stockpiling of topsoil to establish mining related infrastructure, stockpile areas and the excavation zone as detailed below:

- ⌘ Demarcation of mining boundaries:

Pursuant to receipt of an Environmental Authorisation (EA) and Mining Right (MR), and prior to site establishment, the boundary of the mining area has to be demarcated. Project specific areas to

be demarcated within the boundary of the mining footprint will include, but not be limited to, all “no-go” buffer zones identified during the EIA process, stockpile areas, the excavation, processing area (including offices, storage, and workshops), water storage and slimes dam, and the buffer associated with the explosives magazine.

✎ Clearing of vegetation:

Swartland Shale Renosterveld, Leipoldville Sand Fynbos, Piketberg Sandstone Fynbos, Piketberg Quartz Succulent Shrubland, Cape Lowland Alluvial Vegetation, and Cape Lowland Freshwater Wetlands are potential vegetation types which are present alternatively may be present on site. The footprint area of the proposed mining right extends over an area extensively altered for agricultural purposes and although the natural vegetation was removed from the foremost portion of the earmarked footprint, areas with natural occurring vegetation are still present. In the circumstance the removal of vegetation (altered/natural) will be necessary to access the resource.

Dr PJ du Preez was commissioned to undertake a detailed ecological assessment with regard to the terrestrial fauna and flora of the study area as part of the EIA process. The flora-part of the study will assess the various plant communities, inform on the occurrence of endangered plant communities and red data plant species, identify areas of concern to be excluded from the mining footprint area, instruct on the management of red data species, identify the presence and distribution of threatened plants present in the study area supporting indigenous vegetation in the highly disturbed Krom Antonies River Valley, determine the impact that the proposed mining activity will have on the conservation status of natural vegetation in the mining area, and propose management and mitigation measures for identified impacts. The report will form part of the draft environmental impact assessment report (DEIAR) to be circulated for public comment in due course. The intention is to minimize the removal of natural vegetation, and to in the end restore the footprint area to land suitable for agricultural/conservation purposes upon lapse of the mining right.

✎ Topsoil Stripping:

It is proposed that topsoil removal will be restricted to the exact footprint of areas required during the operational phase of the activity. The topsoil will be stockpiled at a designated signposted area within the mining boundary to be replaced during the rehabilitation of the area. It will be part of the obligations of site management to prevent the mixing of topsoil heaps with overburden/other soil heaps. The complete A-horizon (the top 100 – 200 mm of soil which is generally darker coloured due to high organic matter content) will be removed. If it is unclear where the topsoil layer ends the top 300 mm of soil will be stripped. The topsoil berm will measure a maximum of 1.5 m in height in order to preserve micro-organisms within the topsoil, which can be lost due to compaction and lack of oxygen.

✎ Access Roads:

Presently it is proposed that access to the earmarked properties will be from the existing DR02172, currently used by landowners and the public to access the valley. Within the mining boundary, the Applicant will strive to make use of the existing farm roads as far as possible, however some new roads, or upgrading of existing roads will be required. Haul roads will be extended as opencast mining progresses, and will be rehabilitated as part of the final reinstatement of the area. Road and traffic related detail will be discussed in the engineering services report that will form part of the DEIAR.

BVI Engineering was contracted to undertake a traffic impact assessment (TIA) to identify the potential impact that the proposed activity may have on the study area. The TIA will include traffic counts, analysis of data, scenario data, a conclusion and recommendations to mitigate identified impacts and be included in the DEIAR.

✎ Establishment of Site Infrastructure:

The detail with regard to site infrastructure and the supporting services will be discussed in the engineering services report that will form part of the DEIAR. Currently, the proposed site infrastructure to be established within the mining footprint area is expected to consist of:

- Cleaners, roughers, storage equipment and buildings associated with the processing activities;
- Crusher infrastructure;
- Explosives magazine;
- Fencing of designated areas;
- Internal access and haul roads;
- Offices and ablution facilities;
- Parking and laydown areas;
- Security building;
- Slimes dam;
- Stores and workshops; and
- Water storage infrastructure.

(2) *Operational phase:*

The proposed mining method to be implemented (subject to approval of the MR) will be executed in two phases. The first phase will focus on pre-stripping the top layer material, of which the topsoil will be stored separately for rehabilitation, then overburden stripping to access the ore body, and then 20 m of opencast mining ( $\pm 400$  m) on the shallowest region of the ore body (dome shaped deposit). The mining technology to be used during years 1-4 (phase 1) will include drilling and blasting with associated truck and shovel operations.

Phase 2 will commence after the initial opencast mining, and entail decline shafts to be mined from the existing pit both north and south, as well as an eventual west expansion later in the life of mine. Plant slimes and sand will be used as backfill when applicable. When mining proceed to the decline shafts drilling, blasting and a load and haul operation will be maintained, with machinery reducing in size due to height restrictions. The mining operation is proposed to extend to a depth of 220 m maximum. Except for drilling and blasting that will work day shift, all mining operations will be run on a 24 hour 7 days a week schedule.

All excavated material (run of mine / ROM) will be trucked to a ROM stockpile in front of the primary crusher or tipped directly into the crusher itself. At the processing plant the excavated material will be crushed through a jaw crusher and then screened. Upon being milled the material will be spiralled, de-slimed, dewatered, and vibrated to produce a concentrate that will contain the tungsten and molybdenum. This concentrate will be floated to produce a high grade concentrate that will undergo an acid leach to produce a saleable product called APT (ammonium paratungstate). APT is a white crystalline salt of ammonium and tungsten produced when tungsten is separated from its ore. The APT will be transported from the mining area to a metallurgical plant in the industrial development zone of Saldanha Bay Harbour, where further beneficiation can be applied if needed. The tungsten and molybdenum products from the proposed mining operation will be exported via the multi-purpose terminal in Saldanha bay.

Currently it is proposed that  $\pm 350$  ha of the 531.44 ha mining right area will be altered by the proposed mining activity. The total life of mine of the project is expected to be 21 years from start of project and 15 years from start of production, and the applicant will apply for the mining right to be valid for a 30-years period.

As mentioned earlier, currently the mining activities are expected to entail the following:

- ✎ Site establishment;
- ✎ Stripping and stockpiling of topsoil;
- ✎ Overburden stripping and stockpiling to access the ore;
- ✎ Opencast mining;
- ✎ Underground mining;
- ✎ Transporting and stockpiling of run of mine (ROM);
- ✎ Processing of ROM and production of ammonium paratungstate (APT);
- ✎ Transport of APT to Saldanha metallurgical plant;
- ✎ Sloping and landscaping upon closure of the operation; and
- ✎ Replacing the topsoil and vegetating the disturbed areas.

(3) *Decommissioning phase:*

The closure objectives will be detailed in the Environmental Impact Assessment Report and Environmental Management Programme, to be submitted as part of the application process for approval by the Department of Mineral Resources. At this stage the following baseline rehabilitation actions are proposed from which a detailed Closure Plan will be developed (to be approved as part of the EIA process):

- ⌘ Rehabilitation of all the disturbed surface areas shall entail landscaping, levelling, sloping, top dressing, land preparation, seeding (if required), and weed / alien clearing.
- ⌘ All unwanted infrastructures, equipment, and other items used during the mining period will be removed from the site in accordance with section 44 of the MPRDA, 2002.
- ⌘ Waste material of any description, including receptacles, scrap, rubble and tyres, will be removed entirely from the mining area and disposed of at a recognized landfill facility. It will not be permitted to be buried or burned on the site.
- ⌘ The rehabilitation area will be cleared of weeds and invader plant species. Priority will be given to species regarded as Category 1a and 1b invasive species in terms of NEM:BA (National Environmental Management: Biodiversity Act 10 of 2004 and regulations applicable thereto).
- ⌘ Final rehabilitation shall be completed within a period specified by the Regional Manager.

Once the full mining area was rehabilitated the mining right holder is required to submit a closure application to the Department of Mineral Resources in accordance with section 43(4) of the MPRDA, 2002 that states: *“An application for a closure certificate must be made to the Regional Manager in whose region the land in question is situated within 180 days of the occurrence of the lapsing, abandonment, cancellation, cessation, relinquishment or completion contemplated in subsection (3) and must be accompanied by the prescribed environmental risk report”*. The Closure Application will be submitted in terms of Regulation 62 of the MPRDA, 2002, and Government Notice 940 of NEMA, 1998.



### e) Policy and Legislative Context

Table 2: Applicable legislation and guidelines used to compile the report.

<b>APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT</b>  (a description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process).	<b>REFERENCE WHERE APPLIED</b>
Bergrivier Municipality By-Law relating to Municipal Land Use Planning, 2018.  Bergrivier Municipality Integrated Development Plan, 2017 - 2022.  Bergrivier Spatial Development Framework, 2012 - 2017.  Bergrivier Municipality Ward Plan, Ward 5, 2017 - 2022.	The project proposal will take the requirements of the Bergrivier municipal bylaws and management policies into account.
Cape Nature and Environmental Conservation Ordinance, 1974 (Ordinance No. 19 of 1974).	Assessment of biophysical environment and current land use.
Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983).  Subdivision of Agricultural Land Act, 1970 (Act No. 70 of 1970).	Assessment of biophysical environment and current land use.
Convention on Wetlands of International Importance Especially as Waterfowl Habitat.	Verlorenvlei has been listed as RAMSAR site No. 525 in June 1991; Wetlands International Site Reference No.: 1ZA009.  The RAMSAR status of Verlorenvlei takes precedent and accordingly directs the mining project proposal.
Hazardous Substances Act, 1973 (Act 15 of 1973)	The mitigation measures proposed for the project take into account the HAS, 1973.
Land Use Planning Act, 2014 (Act No. 13 of 2014)  Western Cape Land Use Planning Act, 2014 (Act No. 3 of 2014)	The proposed project requires a land development application to Provincial Government (DEA&DP) in terms of Section 53 of the Land Use Planning Act, 2014. The above mentioned

<b>APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT</b>  (a description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process).	<b>REFERENCE WHERE APPLIED</b>
	rezoning application will be submitted in due course.
Mine Health and Safety Act, 1996 (Act No. 29 of 1996) read together with applicable amendments and regulations thereto including relevant OHSA regulations.	The mitigation measures proposed for the site take into account the MHSA, 1996.
Mineral and Petroleum Resources Development Act, 2002 (Act No 28 of 2002) read together with applicable amendments and regulations thereto.	Application for a mining right. Reference number: WC30/5/1/2/2/10110 MR
National Environmental Management Act, 1998 (Act No. 107 of 1998) and the Environmental Impact Assessment Regulations, 2014 (as amended by GNR 326 effective 7 April 2017):  ✎ GNR 324 Listing Notice 3 Activity 4 ✎ GNR 324 Listing Notice 3 Activity 12 ✎ GNR 324 Listing Notice 3 Activity 18  ✎ GNR 325 Listing Notice 2 Activity 15 ✎ GNR 325 Listing Notice 2 Activity 17  ✎ GNR 327 Listing Notice 1 Activity 14 ✎ GNR 327 Listing Notice 1 Activity 22 ✎ GNR 327 Listing Notice 1 Activity 24 ✎ GNR 327 Listing Notice 1 Activity 28 ✎ GNR 327 Listing Notice 1 Activity 56	Application for environmental authorisation. Reference number: WC30/5/1/2/2/10110MR
National Environmental Management: Air Quality Control Act, 2004 (Act No. 39 of 2004) read together with applicable amendments and regulations thereto specifically the National Dust Control Regulations, GN No R827.	The mitigation measures proposed for the project take into account the NEM:AQA, 2004 and the National Dust Control Regulations.
National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) read together with applicable amendments and regulations thereto.	Assessment of biophysical environment.

<p><b>APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT</b></p> <p>(a description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process).</p>	<p><b>REFERENCE WHERE APPLIED</b></p>
<p>National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003).</p> <p>NEM:PAA: Norms and standards for the management of protected areas in South Africa, 2016.</p>	<p>The Moutonshoek Protected Environment was promulgated 20 April 2018.</p> <p>The protected status of Moutonshoek Valley will be considered during the EIA process.</p>
<p>National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) read together with applicable amendments and regulations thereto:</p> <p>∞ Category A Activity 1</p> <p>NEM:WA, 2008: National norms and standards for the storage of waste (GN 9260).</p>	<p>An application for a waste licence accompanied the EA application submitted to the DMR. Reference number: WC30/5/1/2/2/10110MR</p> <p>The mitigation measures proposed for the site take into account the NEM:WA, 2008.</p>
<p>National Heritage Resources Act, 1999 (Act No. 25 of 1999)</p>	<p>Assessment of the cultural and heritage environment.</p>
<p>National Road Traffic Act, 1996 (Act No. 93 of 1996)</p>	<p>The mitigation measures proposed for the project take into account the NRTA, 1996.</p>
<p>National Water Act, 1998 (Act No. 36 of 1998) read together with applicable amendments and regulations thereto.</p> <p>Department of Water Affairs and Forestry Best Practice Guideline Series (2007).</p>	<p>A water use licence application will be submitted to the Department of Water and Sanitation in terms the National Water Act, 1998 (Act No. 36 of 1998).</p>
<p>Public Participation Guideline in terms of the NEMA EIA Regulations.</p>	<p>The guidelines were used during the public participation process.</p>
<p>The South African Constitution.</p>	<p>To be upheld throughout the EIA assessment, planning,</p>

<b>APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT</b>  (a description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process).	<b>REFERENCE WHERE APPLIED</b>
	construction-, operational- and decommissioning phases.
Western Cape Biodiversity Spatial Plan.	Assessment of biophysical environment.
Western Cape Noise Control Regulations (PN 200/2013), June 2013.	Noise generated by the project must adhere to the Western Cape Noise Control Regulations.

**f) Need and desirability of the proposed activities**

(Motivate the need and desirability of the proposed development including the need and desirability of the activity in the context of the preferred location).

Tungsten is considered a strategic metal by China and the European Union, and was confirmed in 2018 by the United States Department of the Interior as a ‘critical commodity’. Strategic metals, also known as critical metals, technology metals, or minor metals, are elements that are necessary for technological and industrial processes, but are in short supply and have no known alternatives. Strategic metals can be found in most consumer electronics products, medical equipment, jet engines, semiconductors, LEDs, as alloying agents in numerous metal products, and many more applications. Definitions of what constitutes the “strategic metals” vary and sometimes overlap, often encompassing a variety of metals considered “critical” to the world economy.

Tungsten (W) is known for its strength and high melting point. It is used in electrical, heating, and welding applications, aerospace and defence applications, and in light bulbs, heating elements, and rocket engine nozzles. Tungsten is also used in electrodes because of its conductive properties, and its strength makes it a common metal alloy.

The Applicant 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. Owing to the outcome of the prospecting operation, the applicant identified the need to apply for a mining right for the winning of tungsten and molybdenum.

The proposed labour component of the operation is approximately 211 employees including management. The operation will contribute to the local economy of the area, both directly and through the multiplier effect that its presence creates. Equipment and supplies will be purchased locally, and wages will be spent at local businesses, generating both jobs and income in the area. In addition thereto the implementation of the Social

and Labour Plan (which is obligatory for a mining right holder) will contribute positively to the socio-economic environment of the local community.

Enviroworks was appointed to undertake a socio-economic study that will contextualise the project in the broader economy of Piketberg with specific reference to the Moutonshoek Valley and the need and desirability of the mine in the context of the Provincial Spatial Development Framework (PSDF), local structure and the IDP of the Bergrivier Municipality. The outcome of the socio-economic study will be added to, and considered in the DEIAR.

**g) Period for which the environmental authorization is required**

The Applicant requested that the Environmental Authorisation (EA) be valid for the duration of the mining right (at least 30 years).

**h) Description of the process followed to reach the proposed preferred site.**

NB!! This section is not about the impact assessment itself, It is about the determination of the specific site layout having taken into consideration (1) the comparison of the originally proposed site plan, the comparison of that plan with the plan of environmental features and current land uses, the issues raised by interested and affected parties, and the consideration of alternatives to the initially proposed site layout as a result.

**i) Details of all alternatives considered**

With reference to the site plan provided as Appendix 4 and the location of the individual activities on site, provide details of the alternatives considered with respect to:

- (a) the property on which or location where it is proposed to undertake the activity;
- (b) the type of activity to be undertaken;
- (c) the design or layout of the activity;
- (d) the technology to be used in the activity;
- (e) the operational aspects of the activity; and
- (f) the option of not implementing the activity

**Preferred Site:** The preferred site entails the proposed mining of an area that extends over 531.44 ha within the boundaries of the following GPS coordinates:

*Table 3: GPS coordinates of the proposed mining footprint area.*

PREFERRED SITE		
NO	DEGREES MINUTES SECONDS (DMS)	DECIMAL DEGREES (DD)
A	32°41'07.36"S; 18°43'26.55"E	-32.68538°S; 18.72404°E
B	32°42'11.53"S; 18°43'35.50"E	-32.70320°S; 18.72653°E
C	32°42'12.01"S; 18°43'30.66"E	-32.70334°S; 18.72518°E
D	32°42'45.46"S; 18°43'35.32"E	-32.71263°S; 18.72648°E
E	32°43'00.71"S; 18°43'42.75"E	-32.71686°S; 18.72854°E
F	32°43'03.20"S; 18°43'45.68"E	-32.71756°S; 18.72936°E

PREFERRED SITE		
NO	DEGREES MINUTES SECONDS (DMS)	DECIMAL DEGREES (DD)
G	32°43'39.12"S; 18°43'46.03"E	-32.72753°S; 18.72945°E
H	32°43'14.81"S; 18°42'41.84"E	-32.72078°S; 18.71162°E
J	32°43'13.74"S; 18°42'33.54"E	-32.72048°S; 18.70932°E
K	32°43'09.68"S; 18°42'30.71"E	-32.71936°S; 18.70853°E
L	32°43'12.62"S; 18°42'27.27"E	-32.72017°S; 18.70757°E
M	32°43'06.35"S; 18°42'21.63"E	-32.71843°S; 18.70601°E
N	32°42'53.17"S; 18°42'28.09"E	-32.71477°S; 18.70780°E
P	32°41'48.19"S; 18°42'55.56"E	-32.69672°S; 18.71543°E
Q	32°41'44.04"S; 18°43'10.22"E	-32.69557°S; 18.71951°E
R	32°41'11.02"S; 18°43'10.04"E	-32.68640°S; 18.71946°E



Figure 2: Satellite view of the study area where the yellow polygon shows the proposed mining area identified as the preferred site (Image obtained from Google Earth).

The preferred site was identified during the planning phase by the Applicant and project team, based on the evaluation of the prospecting results and the corresponding position of the tungsten-molybdenum deposit. Should additional viable site alternatives be identified during the EIA process, the project team

will heed the suggestions, and investigate the possible implementation thereof. Such site alternatives (if identified) will be discussed in detail in the draft EIAR to be distributed for public comments.

**Project Alternative 1 (PA1) (Preferred Project Alternative):** Project Alternative 1 entails the extraction of the tungsten-molybdenum resource in two phases through opencast- and underground mining operations. Processing of excavated material on site to produce APT that is transported to the Saldanha Bay metallurgical plant, and the export of the final product via the Saldanha Bay harbour.

Additional project alternatives can be considered during the EIA process as supplementary information is obtained from the specialist studies, and the stakeholders and I&AP's contribute their knowledge towards the proposed project. Should project alternatives be identified it will be discussed during the EIA process of the application and included in the DEIAR to be distributed for public comments.

**Technology/Design Alternatives:** As with the project alternatives, technology and design alternatives will be considered during the EIA process and discussed in the DEIAR. The following technology/design principles will be considered by the Applicant and project team:

- ⌘ Alternative boxcut (secure and safe portals/accesses to the open-cast pit) positions and direction of mining for opencast operations;
- ⌘ Alternative locations of topsoil and overburden stockpile areas;
- ⌘ Alternative conveyor technology to solve environmental problems (e.g. noise, river crossings);
- ⌘ Alternative slime dam locations and designs;
- ⌘ Alternative alignments of access road and haul roads;
- ⌘ Alternative locations for mine infrastructure, including the locations of offices, workshops; refuelling bays, stores, magazines, and processing plants; and
- ⌘ The implementation of renewable energy sources will be considered.

**No-go Alternative:** The no-go alternative entails no change to the *status quo* and is therefore a real alternative that needs to be considered. In the event that the no-go alternative is implemented the land use of the area will remain that of agriculture, conservation, livestock farming and tourism with the tungsten resources unmined. Amongst others, the socio-economic impact of mining on current, and future land uses of the study area will be compared to the *status quo* and will be considered as part of the EIA process, and discussed in the DEIAR.

## ii) Details of the Public Participation Process Followed

Describe the process undertaken to consult interested and affected parties including public meetings and one on one consultation. NB the affected parties must be specifically consulted regardless of whether or not they attended public meetings. (Information to be provided to affected parties must include sufficient detail of the intended operation to enable them to assess what impact the activities will have on them or on the use of their land.

During the initial public participation process the stakeholders and I&AP's were informed of the project by means of background information documents that were sent directly to the contact persons of commenting authorities, the landowners, directly surrounding landowners, and persons that registered on the previous mining right application submitted by Bongani Minerals (Pty) Ltd in 2009.

An advertisement was placed in Die Burger on 3 December 2018, with on-site notices placed 5 December 2018 at the following five places:

- ✂ Aurora Post Office;
- ✂ DR02172 turn-off from the R366;
- ✂ Eendekuil Municipal Offices;
- ✂ Piketberg Municipal Offices; and
- ✂ Redelinghuys Municipal Offices.

Due to the compulsory exclusion period over the holidays, the 30-days commenting period was extended with commenting/registration welcomed from 10 December 2018 to 5 February 2019. The following table provides a list of the I&AP's and stakeholders that were informed of the project:



Table 4: List of stakeholders and I&AP's supplied with a copy of the background information document.

<b>STAKEHOLDERS</b>			
<ul style="list-style-type: none"> <li>✘ CapeNature</li> <li>✘ Department of Agriculture</li> <li>✘ Department of Economic Development and Tourism</li> <li>✘ Department of Environmental Affairs – RAMSAR</li> <li>✘ Department of Environmental Affairs and Development Planning</li> <li>✘ Department of Labour</li> <li>✘ Department of Rural Development and Land Reform</li> <li>✘ Department of Transport and Public Works</li> <li>✘ Department of Water and Sanitation</li> <li>✘ Endangered Wildlife Trust (EWT)</li> <li>✘ Heritage Western Cape</li> <li>✘ SANParks</li> <li>✘ South African Heritage Resources Agency</li> </ul>	<ul style="list-style-type: none"> <li>✘ Bergrivier Local Municipality</li> <li>✘ Bergrivier Local Municipality Ward 5 Councillor (letter to Mayor as Ward 5 councillor post currently vacant)</li> <li>✘ Cape West Coast Biosphere Reserve</li> <li>✘ Cederberg Bewarea</li> <li>✘ Eskom</li> <li>✘ Federation for Sustainable Environment</li> <li>✘ Krom Antonies Bewarea</li> <li>✘ Renosterveld Management Project</li> <li>✘ South African Institute for Aquatic Biodiversity</li> <li>✘ West Coast District Municipality</li> <li>✘ Western Cape Wetland Forum</li> <li>✘ Wildlife and Environment Society of South Africa (WESSA)</li> </ul>	<ul style="list-style-type: none"> <li>✘ Birdlife South Africa</li> <li>✘ Eendekuil Boervereniging</li> <li>✘ Elands Bay Environment and Development Action Group (EBEDAG)</li> <li>✘ Moutonshoek Employees Association</li> <li>✘ Piket-Bo-Berg Residents Association</li> <li>✘ Somerset West Bird Club</li> <li>✘ Verlorenvlei Coalition</li> <li>✘ Verlorenvlei Heritage Settlement and Nature Reserve Homeowners Association</li> <li>✘ Verlorenvlei Settlement Elands Bay</li> <li>✘ Verlorenvlei WGV</li> <li>✘ West Coast Bird Club</li> </ul>	<ul style="list-style-type: none"> <li>✘ African Amphibian Conservation Research Group</li> <li>✘ Agri Weskaap</li> <li>✘ Banghoek Private Nature Reserve</li> <li>✘ Cape Bird Club Conservation Committee</li> <li>✘ Het Kruis Landbou Vereniging</li> <li>✘ Krom Antonies Water Users Association</li> <li>✘ Piketberg Forum</li> <li>✘ Schapenberg Sir Lowry's Conservancy</li> <li>✘ Stawelklip Estate Wememers Trust</li> <li>✘ Verlorenvlei Fragrant Product CC</li> </ul>

<b>LANDOWNERS / SURROUNDING LANDOWNERS / INTERESTED AND AFFECTED PARTIES</b>			
<ul style="list-style-type: none"> <li>✘ Landowner of Portion 1 of Farm 297</li> <li>✘ Landowner of Portion 6 (Remaining Extent) of Namaquasfontein 76</li> <li>✘ Landowner of Portion 21 of Namaquasfontein 76</li> <li>✘ Mr JJ Smit (surrounding landowner)</li> <li>✘ Namaquasfontein Boerdery Trust (surrounding landowner)</li> <li>✘ Zebraskop Boerdery (surrounding landowner)</li> </ul>	<ul style="list-style-type: none"> <li>✘ Achtervlei</li> <li>✘ Banghoek Private Nature Reserve</li> <li>✘ Bella Vista, Piket-Bo-Berg</li> <li>✘ Bo Matroosfontein, Redelinghuys</li> <li>✘ Die Tuin Landgoed</li> <li>✘ Eagles Pride Farm Workers Group</li> <li>✘ Excelsior Farm</li> <li>✘ Jansdrift Farm</li> <li>✘ Kersfontein Farm</li> <li>✘ Keurbos</li> </ul>	<ul style="list-style-type: none"> <li>✘ Afrikaner, J</li> <li>✘ Alexander, S</li> <li>✘ Anderson, B</li> <li>✘ Arends, C</li> <li>✘ Arthur, B</li> <li>✘ Ashwell, A</li> <li>✘ Beech, C</li> <li>✘ Black, A &amp; A</li> <li>✘ Blankenberg, K &amp; F</li> <li>✘ Blankenberg, M</li> </ul>	<ul style="list-style-type: none"> <li>✘ ADVS Environmental Consultants</li> <li>✘ Birdlife Overberg</li> <li>✘ Cape Argus</li> <li>✘ CAPTRUST</li> <li>✘ Centre for Environmental Rights</li> <li>✘ Coastec</li> <li>✘ Coastel &amp; Environmental Consultants</li> <li>✘ DA Piketberg</li> <li>✘ De Vlei Properties</li> </ul>

**LANDOWNERS / SURROUNDING LANDOWNERS / INTERESTED AND AFFECTED PARTIES**

<ul style="list-style-type: none"> <li>✘ Karsten Boerdery (Pty) Ltd (surrounding landowner)</li> <li>✘ Windheuwel Trust (surrounding landowner)</li> </ul>	<ul style="list-style-type: none"> <li>✘ Keurbos Kapteinskloof</li> <li>✘ Klein Vogel Vallei</li> <li>✘ Krom Kosie van Niekerk Boerdery</li> <li>✘ Kruisementvlei Piket-Bo-Berg</li> <li>✘ Matroozefontein</li> <li>✘ Mountain Accommodation &amp; Horseback Trails</li> <li>✘ Moutons Valley (Pty) Ltd</li> <li>✘ Namaquasfontein Kosie van Niekerk Boerdery</li> <li>✘ Old Kapteinskloof Guesthouse</li> <li>✘ Pomona Farm</li> <li>✘ Protea Producers of SA</li> <li>✘ Skuinskraal Farm</li> <li>✘ Solotrade 67 CC t/a Pronkies Holiday Farm</li> <li>✘ Spaarkloof Farm Tierhoek Organic</li> <li>✘ Te Voetpad Landowner</li> <li>✘ Tierhoek Cottages</li> <li>✘ Uitsig Farm</li> <li>✘ Unifruitti Matroozefontein</li> <li>✘ Wilgerbosdrift (Pty) Ltd</li> <li>✘ Wilgerbosdrift Stud</li> <li>✘ Wittedrift Farm</li> <li>✘ Zandvlei Trust</li> </ul>	<ul style="list-style-type: none"> <li>✘ Bond-Smith, M</li> <li>✘ Boois J &amp; A</li> <li>✘ Boois, E</li> <li>✘ Boois, S &amp; R</li> <li>✘ Booysen M &amp; J</li> <li>✘ Bosman, L</li> <li>✘ Botha, A &amp; G</li> <li>✘ Botha, G</li> <li>✘ Brand, G</li> <li>✘ Brink, P</li> <li>✘ Brinkworth, B</li> <li>✘ Brown, N</li> <li>✘ Brown, TW</li> <li>✘ Bruwer, P</li> <li>✘ Bubb, G</li> <li>✘ Burger, M</li> <li>✘ Burke, D</li> <li>✘ Burton-Moore, D</li> <li>✘ Burton-Moore, P &amp; V</li> <li>✘ Campbell, B</li> <li>✘ Castens, P &amp; J &amp; T</li> <li>✘ Chris, S</li> <li>✘ Claasen, B</li> <li>✘ Clayton, J</li> <li>✘ Cloete, E</li> <li>✘ Cloete, RC</li> <li>✘ Coetzee, AM</li> <li>✘ Coetzee, G</li> <li>✘ Coetzee, GM &amp; DH</li> <li>✘ Coetzee, K</li> </ul>	<ul style="list-style-type: none"> <li>✘ Die Burger</li> <li>✘ Durbanville Community Forum</li> <li>✘ Friends of Simon Town Coastline</li> <li>✘ Hotel Eland</li> <li>✘ Inter Coast Civils</li> <li>✘ Jeffares &amp; Green Consulting Engineers</li> <li>✘ Karookop School</li> <li>✘ Landbou Weekblad</li> <li>✘ MultiPurpose Business Solutions</li> <li>✘ Piketberg Bridal Shop</li> <li>✘ Plett Bird Club</li> <li>✘ Residents Association of Hout Bay</li> <li>✘ SAPD, Eendekuil</li> <li>✘ SAPS, Piketberg</li> <li>✘ Sunday Times</li> <li>✘ Thenosterhoek Eendekuil Department of Development Studies UNISA</li> <li>✘ University of Cape Town (Environmental &amp; Geographical Science Department)</li> <li>✘ University of Cape Town – Dr Kevin Winter and Prof Sue Harrison</li> <li>✘ University of Pretoria</li> <li>✘ Winelands Action Group</li> <li>✘ Yellowfish Working Group</li> </ul>
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LANDOWNERS / SURROUNDING LANDOWNERS / INTERESTED AND AFFECTED PARTIES			
		<ul style="list-style-type: none"> <li>✘ Coetzee, M</li> <li>✘ Cohen, M</li> <li>✘ Cowley, C</li> <li>✘ Cox, R</li> <li>✘ Craword, P</li> <li>✘ Da Camara, C</li> <li>✘ Daniels, J</li> <li>✘ De Villiers, E</li> <li>✘ De Villiers, G</li> <li>✘ De Villiers, J</li> <li>✘ De Vries, A</li> <li>✘ De Wet, C</li> <li>✘ Delmotte, A</li> <li>✘ Du Plessis, BA</li> <li>✘ Du Plessis, S</li> <li>✘ Engelbrecht, J</li> <li>✘ Engelbrecht, J</li> <li>✘ Engelbrecht, L</li> <li>✘ Engelbrecht, M</li> <li>✘ Engelbrecht, S</li> <li>✘ Enodada, L</li> <li>✘ Everett, J</li> <li>✘ Fazel-Ellahi, S</li> <li>✘ Ferrar, R</li> <li>✘ Forbes, L</li> <li>✘ Fortuin, A</li> <li>✘ Frans, A</li> <li>✘ Freemantle, J</li> <li>✘ Freemantle, R</li> <li>✘ Fyfe, B &amp; L</li> </ul>	

LANDOWNERS / SURROUNDING LANDOWNERS / INTERESTED AND AFFECTED PARTIES			
		<ul style="list-style-type: none"> <li>✘ Gallimore, J &amp; M</li> <li>✘ Geldenhuys, M</li> <li>✘ Geldenhuys, M</li> <li>✘ Gelderblom, C</li> <li>✘ George, C</li> <li>✘ Gilbert, A</li> <li>✘ Gildenhuis, D</li> <li>✘ Goedeman, B</li> <li>✘ Goldring, M</li> <li>✘ Gradidge, C</li> <li>✘ Greyling, D &amp; J &amp; M</li> <li>✘ Greyling, I</li> <li>✘ Grutter, H</li> <li>✘ Haarburger, R</li> <li>✘ Haarburger, R</li> <li>✘ Hamer, E &amp; J</li> <li>✘ Hanekom, A &amp; E &amp; S</li> <li>✘ Heath, P</li> <li>✘ Heering, L</li> <li>✘ Hotchkiss, T</li> <li>✘ Hugo, C &amp; P</li> <li>✘ Hurworth, M</li> <li>✘ Hurworth, S</li> <li>✘ Jacobs, C</li> <li>✘ Jacobs, J</li> <li>✘ Jacobus, C</li> <li>✘ Jafta, E</li> <li>✘ Jafta, J &amp; H &amp; M &amp; F</li> <li>✘ Jafta, M</li> <li>✘ Jafta, W</li> </ul>	

LANDOWNERS / SURROUNDING LANDOWNERS / INTERESTED AND AFFECTED PARTIES			
		<ul style="list-style-type: none"> <li>✂ Jansen, L</li> <li>✂ Jantjies, J</li> <li>✂ Januarie, A</li> <li>✂ Jeffery, A</li> <li>✂ Jeffry, S</li> <li>✂ Johnson, MT</li> <li>✂ Josephs, Mr &amp; Mrs</li> <li>✂ Joubert, A</li> <li>✂ Joubert, M</li> <li>✂ Julius, J</li> <li>✂ Kankowski, N &amp; T &amp; E &amp; C</li> <li>✂ Karolis, S</li> <li>✂ Karolus, M &amp; D &amp; G &amp; L</li> <li>✂ Keams, A</li> <li>✂ Kellerman, P</li> <li>✂ Kelly, P</li> <li>✂ Kerchhoff, G</li> <li>✂ Keyster, B</li> <li>✂ Kilbey, s</li> <li>✂ Klaasen, A &amp; J</li> <li>✂ Klaasen, C</li> <li>✂ Klase, G</li> <li>✂ Krause, E</li> <li>✂ Kriel, JG</li> <li>✂ Krogscheepers, J</li> <li>✂ Kruger, L</li> <li>✂ L'Ons, L</li> <li>✂ Lamont, A</li> <li>✂ Lamont, J</li> <li>✂ Langenhoven, L</li> </ul>	

LANDOWNERS / SURROUNDING LANDOWNERS / INTERESTED AND AFFECTED PARTIES			
		<ul style="list-style-type: none"> <li>✂ Le Roux, B</li> <li>✂ Lewarne, M</li> <li>✂ Lodge, M &amp; J</li> <li>✂ Loewenthal, M &amp; C</li> <li>✂ Loff, S &amp; B</li> <li>✂ Longden-Thurgood, M</li> <li>✂ Louw, H</li> <li>✂ Louw, J</li> <li>✂ Louw, P</li> <li>✂ Lucke, C</li> <li>✂ Marais, K</li> <li>✂ Marlow, Mrs</li> <li>✂ Maseleni, R</li> <li>✂ Members of P.O. Box 171, Piketberg</li> <li>✂ Members of P.O. Box 67, Piketberg</li> <li>✂ Mhlalophe</li> <li>✂ Miggel, G</li> <li>✂ Moretti, R</li> <li>✂ Morgan, J</li> <li>✂ Mostert, M</li> <li>✂ Nienaber, MJ</li> <li>✂ Oktober, B</li> <li>✂ Oliver, AM</li> <li>✂ Otzen, F</li> <li>✂ Paine, T &amp; H</li> <li>✂ Petersen, E</li> <li>✂ Pienaar, M</li> <li>✂ Pienaar, N</li> <li>✂ Pieters, G</li> </ul>	

LANDOWNERS / SURROUNDING LANDOWNERS / INTERESTED AND AFFECTED PARTIES			
		<ul style="list-style-type: none"> <li>✂ Pieters, L</li> <li>✂ Pretorius, CM</li> <li>✂ Priestley, R</li> <li>✂ Priestly, T</li> <li>✂ Prinsloo, S</li> <li>✂ Prophet, C &amp; C</li> <li>✂ Richer, H</li> <li>✂ Roberts, H</li> <li>✂ Roberts, T</li> <li>✂ Rohloff, W</li> <li>✂ Roniger, D</li> <li>✂ Rossouw, A</li> <li>✂ Rudd, BJ</li> <li>✂ Saayman, M</li> <li>✂ Savvides, B</li> <li>✂ Schmidlin, H</li> <li>✂ Schnetler, AR &amp; CRR</li> <li>✂ Schoeman, M</li> <li>✂ Sheard, B</li> <li>✂ Sheard, J</li> <li>✂ Simons, D</li> <li>✂ Smit, C &amp; P N</li> <li>✂ Smit, HE</li> <li>✂ Smit, HP</li> <li>✂ Smit, NM</li> <li>✂ Smith, C</li> <li>✂ Smith, F &amp; C</li> <li>✂ Smith, G</li> <li>✂ Smith, JW</li> <li>✂ Snewe, C</li> </ul>	

LANDOWNERS / SURROUNDING LANDOWNERS / INTERESTED AND AFFECTED PARTIES			
		<ul style="list-style-type: none"> <li>✘ Snyders, G &amp; J</li> <li>✘ Stobart, T</li> <li>✘ Stone, T</li> <li>✘ Strange, F</li> <li>✘ Strauss, PJE</li> <li>✘ Swanepoel, E &amp; J &amp; D</li> <li>✘ Swanepoel, M</li> <li>✘ Swanepoel, M</li> <li>✘ Swanepoel, P &amp; M</li> <li>✘ Swanepoel, T &amp; J</li> <li>✘ Swart, J</li> <li>✘ Swarts, C</li> <li>✘ Swarts, K &amp; A</li> <li>✘ Swarts, R</li> <li>✘ Swats, R</li> <li>✘ Sweetman, H</li> <li>✘ Taylor, J</li> <li>✘ Taylor, J</li> <li>✘ Taylor, K</li> <li>✘ Taylor, L</li> <li>✘ Taylor, P</li> <li>✘ Taylor, P</li> <li>✘ Templeton, R</li> <li>✘ Thomas, GS</li> <li>✘ Thomson, J</li> <li>✘ Thomson, M</li> <li>✘ Titus, J</li> <li>✘ Titus, L</li> <li>✘ Todd, A</li> <li>✘ Todd, J</li> </ul>	



LANDOWNERS / SURROUNDING LANDOWNERS / INTERESTED AND AFFECTED PARTIES			
		<ul style="list-style-type: none"> <li>✂ Todkill, W</li> <li>✂ Tredoux, H</li> <li>✂ Tredoux, J</li> <li>✂ Tripp, M</li> <li>✂ Truter, E &amp; A</li> <li>✂ Truter, J &amp; J</li> <li>✂ Twine, C</li> <li>✂ Van der Leek, M</li> <li>✂ Van der Merwe, G</li> <li>✂ Van der Merwe, I</li> <li>✂ Van der Merwe, J</li> <li>✂ Van der Merwe, S</li> <li>✂ Van der Merwe, W</li> <li>✂ Van der Westhuizen, E &amp; P</li> <li>✂ Van Hase, A</li> <li>✂ Van Lill, M</li> <li>✂ Van Niekerk, PJC</li> <li>✂ Van Rensburg</li> <li>✂ Van Riet, W</li> <li>✂ Van Rooy, I</li> <li>✂ Van Rooy, R</li> <li>✂ Van Staden, D</li> <li>✂ Van Wyk, B &amp; A</li> <li>✂ Van Wyk, C</li> <li>✂ Van Wyk, J</li> <li>✂ Van Wyk, K</li> <li>✂ Van Zeuner, J</li> <li>✂ Vermeulen, H</li> <li>✂ Visser, F &amp; H</li> <li>✂ Visser, G &amp; H &amp; J</li> </ul>	

LANDOWNERS / SURROUNDING LANDOWNERS / INTERESTED AND AFFECTED PARTIES			
		<ul style="list-style-type: none"> <li>✂ Visser, M</li> <li>✂ Vosse, S</li> <li>✂ Ward, V</li> <li>✂ Watson, E</li> <li>✂ Weimers, W</li> <li>✂ Wesseman, G</li> <li>✂ Wickins, C</li> <li>✂ Wiese, A &amp; K</li> <li>✂ Wiese, K</li> <li>✂ Willems, B</li> <li>✂ Williams, C</li> <li>✂ Williams, F</li> <li>✂ Williams, G</li> <li>✂ Willows, B</li> <li>✂ Willows, D</li> </ul>	

Table 5: List of stakeholders and I&AP's that registered on the project.

STAKEHOLDERS
<ul style="list-style-type: none"> <li>⌘ Agri Western Cape</li> <li>⌘ Bergrivier Local Municipality</li> <li>⌘ BirdLife South Africa</li> <li>⌘ CapeNature</li> <li>⌘ Cape West Coast Biosphere</li> <li>⌘ Cederberg Municipality</li> <li>⌘ Department of Agriculture</li> <li>⌘ Department of Environmental Affairs and Development Planning</li> <li>⌘ Department of Transport and Public Works</li> <li>⌘ Department of Water and Sanitation</li> <li>⌘ Endangered Wildlife Trust</li> <li>⌘ Eskom</li> <li>⌘ Heritage Western Cape</li> <li>⌘ Velddrif Chamber of Commerce</li> <li>⌘ Verlorenvlei Estuary Advisory Forum</li> <li>⌘ West Coast District Municipality</li> <li>⌘ Western Cape Department of Agriculture</li> <li>⌘ Wildlife and Environment Society of South Africa (WESSA)</li> </ul>

LANDOWNERS / SURROUNDING LANDOWNERS / INTERESTED AND AFFECTED PARTIES				
<ul style="list-style-type: none"> <li>⌘ Adams, C</li> <li>⌘ Adams, P</li> <li>⌘ African Paddling Association</li> <li>⌘ Alexander, D</li> <li>⌘ Alexander, L</li> </ul>	<ul style="list-style-type: none"> <li>⌘ Elands Bay Environmental and Development Action Group (EBEDAG)</li> <li>⌘ Enslin, S</li> <li>⌘ Esterhuysen, F</li> <li>⌘ Esterhuysen, S</li> </ul>	<ul style="list-style-type: none"> <li>⌘ Labuschagne, F</li> <li>⌘ Lamoor, W</li> <li>⌘ Landman, S</li> <li>⌘ Langkilde, D</li> <li>⌘ Large, D</li> </ul>	<ul style="list-style-type: none"> <li>⌘ Parker, D</li> <li>⌘ Pastoor, A</li> <li>⌘ Paulsen, K</li> <li>⌘ Pedro, L</li> <li>⌘ Penn, N</li> </ul>	<ul style="list-style-type: none"> <li>⌘ Talmakkies, R</li> <li>⌘ Tanfi, N</li> <li>⌘ Tayi, S</li> <li>⌘ Taylor, D</li> <li>⌘ Taylor, E</li> </ul>

**LANDOWNERS / SURROUNDING LANDOWNERS / INTERESTED AND AFFECTED PARTIES**

✘ Alexander, S	✘ Fairhead, J	✘ Lategan, W	✘ Pienaar, J	✘ Taylor, G
✘ Amos, L	✘ Farmer, L	✘ Laubscher, JPS	✘ Pieters, A	✘ Taylor, L
✘ Andrews, F	✘ Ferguson, B	✘ Lavern, A	✘ Pieters, D	✘ Taylor, N
✘ Andrews, G	✘ Fieland, AS	✘ Le Roux, N	✘ Pieters, D	✘ Taylor, NA
✘ Baadjies, J	✘ Fieland, J	✘ Lebitsa, PR	✘ Pieters, J	✘ Taylor, S
✘ Bailey, B	✘ Filander, J	✘ Leggatt, C	✘ Pieters, M	✘ Taylor, T
✘ Bakker, C	✘ Fleur, M	✘ Leinberger, G	✘ Pieters, S	✘ Ten Hoorn Boer, H
✘ Bakkes, N	✘ Fourie, AC	✘ Leinberger, K	✘ Plaatjies, A	✘ Terblanche, J
✘ Banghoek Gamer Reserve	✘ Fourie, B	✘ Lemi, Z	✘ Place, G	✘ Thembani, N
✘ Bango, N	✘ Fourie, P	✘ Lenee, R	✘ Potgieter, R	✘ Thokotsi, E
✘ Bango, S	✘ Frampton, M	✘ Lennard, J	✘ Potsone, Z	✘ Thomson, D
✘ Barbosa, S	✘ Frans, C	✘ Levanon, K	✘ Presence, J	✘ Thorough Breeders Association
✘ Baretta, G	✘ Franse, C	✘ Lindsay, R	✘ Pretorius, H	✘ Tieties, J
✘ Basson, G	✘ Franse, C	✘ Links, E	✘ Prinsloo, S	✘ Titus, A
✘ Basson, G	✘ Franse, K	✘ Little, R	✘ Pruter, H	✘ Todd, A & J
✘ Baty, S (Matroozefontein Farm & Unifrutti)	✘ Franse, M	✘ Little Swift Investments (Pty) Ltd	✘ Pulfrich, A (Pisces Environmental Services)	✘ Tomboxolompayxpoli, N
✘ Beautement, V	✘ Fransman, J	✘ Lombard, T	✘ Qebisa, N	✘ Toontjies, N
✘ Beckman, R	✘ Fredericks, M (!Aman Traditional Authority)	✘ Lombard, T	✘ Rabela, A	✘ Toontjies, TA
✘ Beech, C	✘ Fredericks, N	✘ Lottering, L	✘ Rabela, B	✘ Toontjies, W
✘ Bertish, G	✘ Freemantle, R. J	✘ Lottering, L	✘ Ralphs, M	✘ Treadaway, M
✘ Beukes, A	✘ Friends of Verlorenvlei	✘ Lottering, N	✘ Reyneke, J	✘ Uys, T
✘ Bezuidenhoudt, J	✘ Fynbos Fish Trust	✘ Louw, A	✘ Roux, D	✘ Van Aswegen, E
✘ Bhushula, N	✘ Gaiza, J	✘ Louw, C	✘ Roux, K	✘ Van den Berg, W
✘ Birdlife Overberg	✘ Galan, S	✘ Louw, D	✘ Roux, S	✘ Van der Merwe, B
✘ Bjergfelt, C	✘ Geldenhuys, W	✘ Louw, G	✘ Ryan, P	✘ Van der Merwe, J
✘ Black, M	✘ Germond, M	✘ Louw, JA	✘ Sabbat, M	✘ Van der Merwe, M
✘ Bleeker, K	✘ Glass, S	✘ Louw, JF	✘ Sabbat, WR	✘ Van der Merwe, S
✘ Bokkomlaan Action Group	✘ Goeieman, M	✘ Louw, L	✘ Sakati, J	✘ Van der Velde, M
✘ Boland Stud	✘ Goeieman, S	✘ Louw, M	✘ Saroon, H	✘ Van der Westhuizen, D

**LANDOWNERS / SURROUNDING LANDOWNERS / INTERESTED AND AFFECTED PARTIES**

✂ Bonisi, M	✂ Goliath, A	✂ Louw, M	✂ Saroon, M	✂ Van der Westhuizen, M
✂ Boois, E	✂ Goliath, B	✂ Louw, R	✂ Saroon, MM	✂ Van der Westhuizen, S
✂ Boois, E	✂ Goliath, J	✂ Louw, R	✂ Schaffers, P	✂ Van Litsenborgh, D
✂ Boois, M	✂ Goliath, J	✂ Louwrens, E	✂ Schmidlin, S	✂ Van Litsenborgh, F
✂ Boois, N	✂ Goliath, M	✂ Maarman, A	✂ Schmitt, H	✂ Van Niekerk, JC
✂ Boonzaaier, D	✂ Goliath, SL	✂ Maarman, G	✂ Schnetler, P	✂ Van Rensburg, M
✂ Boonzaaier, JF	✂ Goliath, V	✂ Maarman, H	✂ Schoeman, H	✂ Van Rooyen, D
✂ Boonzaaier, K	✂ Goliath, S	✂ Maarman, J	✂ Schoeman, S	✂ Van Rooyen, D
✂ Boonzaaier, L	✂ Gomes, F	✂ Maarman, M	✂ Scholtz, M	✂ Van Rooyen, J
✂ Booysen, A	✂ Good, J	✂ Maarman, S	✂ September, M	✂ Van Schalkwyk, M
✂ Booysen, D	✂ Gordon, B	✂ Maarman, S	✂ September, M	✂ Van Schoor, JC
✂ Booysen, G	✂ Gordon, D	✂ MacLachlan, J	✂ Sheard, B	✂ Van Wyk IJ
✂ Booysen, M	✂ Gravity Sea Kayaking	✂ Madikane, K	✂ Sheard, G	✂ Van Wyk, A
✂ Booysen, R	✂ Gresse, F	✂ Majombe, N	✂ Sheard, M	✂ Van Wyk, A
✂ Botes, J	✂ Griffiths, P	✂ Majombe, N	✂ Shelton, J	✂ Van Wyk, A
✂ Botha, G	✂ Grutter, H	✂ Makele, Y	✂ Shompana, J	✂ Van Wyk, C
✂ Botha, G	✂ Grutter, M	✂ Makoe, MP	✂ Sias, WJ	✂ Van Wyk, C
✂ Botha, J	✂ Hall, S	✂ Makoe, P	✂ Siphezi, S	✂ Van Wyk, J
✂ Botha, S	✂ Halvorsen, M	✂ Malamoglou, S	✂ Sit, E	✂ Van Wyk, K
✂ Bothma, D	✂ Hanekom, A	✂ Malgas, B	✂ Siyabulela, M	✂ Van Wyk, L
✂ Bothma, M	✂ Hans, T	✂ Marais, A	✂ Skirmaans, K	✂ Van Wyk, L
✂ Bothma, P	✂ Hans, W	✂ Maré, A	✂ Skirmaans, M	✂ Van Wyk, M
✂ Bredina, N	✂ Harrison, K	✂ Maré, R	✂ Smit, A	✂ Van Wyk, M
✂ Brink JT	✂ Hartse, A	✂ Maré, S	✂ Smit, AL	✂ Van Wyk, M
✂ Brink, P	✂ Hastag, N	✂ Maree, JH	✂ Smit, AM	✂ Van Wyk, M
✂ Broddle, P	✂ Haw, C	✂ Markus, D	✂ Smit, D	✂ Van Wyk, T
✂ Brummer, K	✂ Hawkins, C	✂ Masterson, M	✂ Smit, G	✂ Van Zyl, C
✂ Bullard, Q	✂ Hayes, P	✂ Matebisa, P	✂ Smit, G	✂ Van Zyl, E
✂ Bulpitt, G	✂ Hecter, D	✂ Matinkinca, A	✂ Smit, GJ	✂ Van Zyl, J
✂ Butler, N	✂ Hector, A	✂ Matthews, C	✂ Smit, H	✂ Van Zyl, M

**LANDOWNERS / SURROUNDING LANDOWNERS / INTERESTED AND AFFECTED PARTIES**

✘ Cape Town Tourism	✘ Hector, G	✘ Matthews, L	✘ Smit, HP	✘ Van Zyl, S
✘ Carolus, L	✘ Hector, O	✘ Maysisela, N	✘ Smit, J	✘ Van Zyl, W
✘ Cassie, D	✘ Heering, L	✘ Mbasu, M	✘ Smit, J	✘ Velddrif Chamber of Commerce
✘ Cetywayo, S	✘ Henderson, H	✘ Mboniswa, N	✘ Smit, P	✘ Velddrif Tourism
✘ Cetywayo, S	✘ Henning, A	✘ Mbuweni, L	✘ Smit, R	✘ Venter, A
✘ Cillie, R	✘ Hessling, P	✘ Mbyru, S	✘ Smit, W	✘ Venter, M
✘ Claasen, S	✘ Hill, H	✘ McCarthy, J	✘ Smit, WJ	✘ Vercuie, W
✘ Claasen, S	✘ Hlekani, A	✘ McKay, P	✘ Smith, A	✘ Vermeulen, E
✘ Claassen, H	✘ Hlekani, A	✘ Mdanise, J	✘ Smith, C	✘ Vermeulen, N
✘ Clark, B	✘ Howell, M	✘ Mdlelembe, A	✘ Smith, C	✘ Vermeulen, W
✘ Clark, S	✘ Hrnana, V	✘ Mdlelembe, V	✘ Smith, E	✘ Visagie, K
✘ Coetzee, C	✘ Hugo, M	✘ Mdlelembe, Z	✘ Smith, E	✘ Visser, C
✘ Coetzee, M (Marcec Legal Consulting)	✘ Hutchings, K	✘ Mdlembe, A	✘ Smith, F	✘ Visser, M
✘ Coetzee, R	✘ Huysamen, A	✘ Mdunylwa, A	✘ Smith, F	✘ Visser, M
✘ Coetzee, SW	✘ Isaac, N	✘ Mentoer, D	✘ Smith, L	✘ Visser, N
✘ Combrink, C	✘ Jacobs, J	✘ Mentoer, N	✘ Smits, JJ	✘ Viti, N
✘ Combrink, P	✘ Jacobs, J	✘ Meondi, E	✘ Smuts, H	✘ Vyfer, H
✘ Compton, P	✘ Jacobs, M	✘ Metelerkamp, L	✘ Snyders, A	✘ Vyk, E
✘ Conrad, J (Geoss)	✘ Jacobs, W	✘ Meyer, R	✘ Snyders, B	✘ Watson, C
✘ Curran, L	✘ Jakobs, J	✘ Mgema, Z	✘ Snyers, A	✘ Watson, E
✘ Dalingozi, M	✘ Jakobs, J	✘ Mggqoboka, Z	✘ Snyers, T	✘ Watson, M
✘ Das Neves, V	✘ James, SS	✘ Michaels, J	✘ Sonqelwa, B	✘ Watson, S
✘ Davey, P	✘ Jansen, Q	✘ Miggels, S	✘ Sorrel, J	✘ Watts, T
✘ David, J	✘ Januarie, A	✘ Miller, R	✘ Spandec, H	✘ White, G
✘ Davids, A	✘ Januarie, C	✘ Mofokeng, E	✘ Spandiel, H	✘ White, G
✘ De Broize, J	✘ Januarie, JJ	✘ Mokgatta, B	✘ Springfield, B	✘ White, J
✘ De Kock, A	✘ Jacobs, J	✘ Mona, M	✘ Springfield, B	✘ White, J
✘ De Wet, W	✘ Johnson, M	✘ Mong, H	✘ Springfield, G	✘ White, N
✘ Diamonds, W	✘ Johnson, P	✘ Monk, E	✘ Springfield, I	✘ Whiteman, H
	✘ Johnson, P	✘ Monk, M	✘ Springveld, G	✘ Wiese, G

**LANDOWNERS / SURROUNDING LANDOWNERS / INTERESTED AND AFFECTED PARTIES**

✘ Didcott, C	✘ Johnson, M	✘ Monyai, M	✘ Springveld, S	✘ Wiese, K
✘ Die Werf Estates	✘ Jones, P	✘ Moses, C	✘ Stafel, W	✘ Wilgerbosdrift (Pty) Ltd
✘ Diedericks, N	✘ Jonker, W	✘ Mountain Mist	✘ Stander, T	✘ Willemse, J
✘ Diedericks, R	✘ Jordaan, B	Homeowners Association	✘ Starke, M	✘ Willemse, J
✘ Diergaardt, RU	✘ Jordaan, GJ	✘ Mouton, M	✘ Stevens, R	✘ Willemse, J
✘ Digges, J	✘ Joubert, AJ	✘ Monyai, N	✘ Steyn, HF	✘ Willemse, J
✘ Dirks, R	✘ Joubert, B	✘ Mqumse, N	✘ Steyn, J	✘ Willemse, M
✘ Dirks, R	✘ Kane, R	✘ Munro, L	✘ Steyn, L	✘ Wilshire, R
✘ Dladla, W	✘ Karolus, A	✘ Munro, M (Munstone)	✘ Steyn, L	✘ Winfield, M
✘ Du Plessis, D	✘ Karolus, H	✘ Murgatroyd, M	✘ Storm, D	✘ Winter, MF
✘ Du Toit, B	✘ Karolus, M	✘ Myfanwy, G	✘ Storm, D	✘ Wise, A
✘ Du Toit, N	✘ Karolus, M	✘ Myoli, D	✘ Strange, F	✘ Witbooi, G
✘ Du Toit, P	✘ Karolus, T	✘ Nadada N	✘ Sutherland, H	✘ Yeld, J
✘ Du Toit, P	✘ Karolus, W	✘ Ndike, C	✘ Swanepoel, C	✘ Zein, J
✘ Du Toit, W	✘ Karookop Primary School	✘ Nel, JE	✘ Swanepoel, GW	✘ Zuanni, H
✘ Duffield, M	✘ Karooks, S	✘ Nel, W	✘ Swanepoel, L	
✘ Duffield, P	✘ Karools, B	✘ Nero, C	✘ Swanepoel, R	
✘ Dulozi, T	✘ Karsten, B (Karsten	✘ Nero, C	✘ Swanepoel, T	
✘ Duncan, R. V (Pomona	Boerdery (Pty) Ltd)	✘ Ngemntu, L	✘ Swart, M	
Farm)	✘ Kellett, A	✘ Ngemntu, Z	✘ Swart, M	
✘ Dzai, A	✘ Kellett, M	✘ Ngemtu, A	✘ Swarts, A	
	✘ Khambi, N	✘ Nicol, M	✘ Swarts, A	
	✘ Khambi, PZ	✘ Nofemele, S	✘ Swarts, A	
	✘ Klaase, D	✘ Noganydti, P	✘ Swarts, AA	
	✘ Klaase, P	✘ Nongenge, F	✘ Swarts, B	
	✘ Klaasen, A	✘ Nosworthy, J	✘ Swarts, E	
	✘ Klaasen, S	✘ Nowatha, N	✘ Swarts, G	
	✘ Klase, A	✘ Nyani, Z	✘ Swarts, J	
	✘ Klase, E	✘ Nyeka, T	✘ Swartz, G	
	✘ Klein, J	✘ O'Brien, J	✘ Swartz, S	

LANDOWNERS / SURROUNDING LANDOWNERS / INTERESTED AND AFFECTED PARTIES			
<ul style="list-style-type: none"> <li>✂ Knoetzer, M</li> <li>✂ Kotze, J</li> <li>✂ Kraucamp, J</li> <li>✂ Kritzinger-Klopper, S</li> <li>✂ Krom Antonies Bewarea</li> <li>✂ Krom Antonies Watergebruikersvereniging (KAWGV)</li> <li>✂ Kroucamp, A</li> <li>✂ Kruger, A</li> <li>✂ Kumuppance Family Trust</li> <li>✂ Kushner, B</li> </ul>	<ul style="list-style-type: none"> <li>✂ O'Flynn, R</li> <li>✂ O'Shaughnessy, L</li> <li>✂ Ockhuis, J</li> <li>✂ Ockhuis, N</li> <li>✂ October, J</li> <li>✂ Oktober, C</li> <li>✂ Oktober, E</li> <li>✂ Oktober, M</li> <li>✂ Oktober, S</li> <li>✂ Oosthuizen, M</li> <li>✂ Opperman, M</li> </ul>	<ul style="list-style-type: none"> <li>✂ Swemmer, I</li> <li>✂ Swingburn, D</li> <li>✂ Systr, M</li> </ul>	



In accordance with the timeframes stipulated in the EIA Regulations, 2014 (as amended by GNR 326 effective 7 April 2017) the Draft Scoping Report was compiled to allow perusal of the report by the I&AP's and stakeholders listed above. A 30 day commenting period was allowed for perusal of the documentation by the I&AP's and stakeholders which expired on 12 February 2019.

The Draft Scoping Report (DSR) was distributed to all the commenting authorities, landowners, surrounding landowners, and persons that registered on the previous mining right application submitted by Bongani Minerals (Pty) Ltd in 2009.

A hard copy of the DSR was also placed at the:

- ✂ Piketberg Public Library, 9A Kerk Street, Piketberg, and
- ✂ Redelinghuys Public Library.

The availability of the DSR was advertised in Die Burger on 14 January 2019, and an electronic copy of the document was available on the Greenmined Environmental (Pty) Ltd website ([www.greenmined.com](http://www.greenmined.com)).

Comments received on the Draft Scoping Report was incorporated into the Final Scoping Report to be submitted for decision making to the DMR. Upon approval of the Final Scoping Report the Draft Environmental Impact Assessment Report will be compiled and circulated for public comment over a 30-day commenting period. See attached as Appendix 5 proof that the I&AP's and stakeholders were contacted during the initial public participation period.

The following list of stakeholders and I&AP's commented on the DSR.

*Table 6: List of stakeholders and I&AP's that commented on the DSR.*

<b>STAKEHOLDERS / I&amp;AP'S THAT COMMENTED ON THE DSR</b>	
✂ Agri Western Cape	✂ Little Swift Investments (Pty) Ltd care of Adv M Coetzee
✂ Baretta, G	✂ Matthews, L
✂ Birdlife Overberg	✂ Metelerkamp, L (Dr)
✂ BirdLife SA	✂ Munro, L
✂ Curran, L	✂ Parker, D
✂ Department of Agriculture	✂ Pulfrich, A (Dr) (Pisces Environmental Services)
✂ Department of Environmental Affairs and Development Planning (DEA&DP)	✂ Strange, F
✂ Department of Water and Sanitation (DWS)	✂ Taylor, N
✂ EBEDAG	✂ Van der Merwe, B (Dr)
✂ Endangered Wildlife Trust (EWT)	✂ Velddrif Chamber of Commerce
✂ Hill, H	✂ West Coast District Municipality
✂ Karsten Boerdery (Pty) Ltd care of Adv M Coetzee	✂ Wildlife and Environment Society of South Africa (WESSA)

### iii) Summary of issues raised by I&Aps

(Complete the table summarizing comments and issues raised, and reaction to those responses)

Table 7: Summary of issues raised by I&AP's and stakeholders.

Interested and Affected Parties		Date Comments Received	Issues raised	EAP's response to issues raised by the Applicant
List the names of persons consulted in this column, and Mark with an X where those must be consulted were in fact consulted				
<b>AFFECTED PARTIES</b>				
<b>Landowner/s</b>				
Dr B van der Merwe Portion 1 of Farm 297 RD	<b>X</b>	29/01/2019	Adv Coetzee submitted comments on behalf of the landowner as listed below.	Greenmined responded to the correspondence received from Adv Coetzee on 4 February 2019 as listed below.
<p>Correspondence received from Adv Coetzee on behalf of Moutonshoek Investments (Pty) Ltd and Namaquasfontein Boerdery Trust:</p> <p>"I (Adv Coetzee) am addressing this communication to you for and on behalf of -</p> <p>(a) Moutonshoek Investments (Pty) Ltd and the Namaquasfontein Boerdery Trust, respectively owner and occupant of Portion 1 of farm 297; and</p> <p>(b) other land owners and residents in the Moutonshoek, and Verlorenvlei area to be identified as soon as possible.</p> <p>2. On 4 December 2018 you issued a background information document (BID) notifying that an application was made by Bongani Minerals (Pty) Ltd for a mining right in terms of the Mineral and Petroleum Resources Development Act, 2002 (the "Act") to mine Tungsten and Molybdenum on certain farms in the Moutonshoek Area, Piketberg, as well as an application in terms of the National Environmental Management Act, 1998 (Act 107 of 1998 or "NEMA") and the Environmental Impact Regulations, 2014, as amended.</p> <p>3. According to you the purpose of the BID was to inform "about the proposed activity and to determine whether there are any concerns or objections from interested and affected parties that need to be considered". It is recorded that contrary to section 10(1)(a) of the Act, no indication was given in the BID that an application for a mining right was indeed submitted to the Department of Mineral Resources, neither was the addressees informed of the submission of the application. In fact the date of the BID was 3 December 2018, a full 10 days before acceptance of the applications by the Department of Mineral Resources (DMR).</p> <p>4. Persons were requested to register as an interested and affected party on or before 5 February 2019. In other words, the registration process ends 5 February 2019.</p> <p>5. Despite this, on 11 January 2019, you gave notice that the draft scoping report is available for perusal and comment. The closing date for comments is set at 12 February 2019. The implication of this is that notwithstanding the fact that people may register up to 5 February 2019, those persons will only then only have 7 days to comment on the draft scoping report. This is unreasonable and contrary to the impression created in your background information document that the draft scoping report will be submitted "on" 5 February 2019 with a 30-day review period.</p>				

6. On 8 January 2019 you upon my request provided a copy of the DMR's acceptance letter of the application for a mining right (almost a month after it was accepted). It has already been recorded that there is a substantive conflict between this acceptance letter and your background information document pertaining to the areas in respect of which a mining right application was made. Neither you or the DMR has reacted to this after it was brought to your attention on 14 January 2019.

7. Despite the fact that you were aware that the DMR also issued an acceptance letter for the application for environmental authorisation you never disclosed this or provided a copy.

8. It is trite that a scoping report required in terms of Regulation 21 of the NEMA EIA Regulations is a forerunner of the environmental impact assessment report.

9. Should it then be my understanding that the consultation process would only focus upon the NEMA scoping report and environmental impact assessment report?

10. I could find no indication in your documents that I&AP's were invited to submit comments on the MPRDA mining right application, or any indication that the complete application is available upon request or on your website. In fact, it is not available on your website at all.

11. It is also trite that the MPRDA application, if duly submitted, in terms of regulation 10 must contain substantive and material information. Information that is imperative to inform any I&AP of the proposed activity and compliance with regulation 10 (1)(a) to (n). Without this information being made available it simply would not be possible for any I&AP to meaningfully comment on the application.

12. Section 10 of the MPRDA is obligatory in that members of the public must get an opportunity to submit comments on the application within a certain time period. In this case the members of the public were not afforded such opportunity and are only allowed to comment on a draft scoping report in terms of NEMA.

13. On 14 December 2018, Mrs Jacqui van der Merwe requested copies of the BID in Afrikaans and IsiXhosa. This was because of the fact that the majority of interested and affected parties in the area was either Afrikaans or IsiXhosa speaking. These translated copies were only provided on 23 January 2019, after you published the draft scoping report for comment.

Flowing from the aforesaid, you are requested to respond to the following:

(i) When will the members of the public be notified of the acceptance of the applications?

(ii) According to paragraph 2(c) of the DMR's defective acceptance letter the consultation process "does not imply issuing letters and requesting affected parties to indicate whether they support your proposed project or not. It includes among others an extensive process of giving and discussing the specific details of the proposed project, giving the interested and affected parties an opportunity to table their comments, objections and support." When will you and/or the Applicant then make application available to interested and affected parties to comment on?

(iii) It also appears from the DMR's acceptance letter that an application for environmental authorisation was also submitted. When do you intend notifying and making this application available to interested and affected parties?

(iv) Is it the intention of the Applicant to provide I&AP's only with an opportunity to comment upon the draft scoping report? If not, when will all material information be made available to enable I&AP's to make informed comments?

(v) Do you still insist that comments on the draft scoping report must be submitted by 12 February 2019 despite the fact that the all-important mining right application and application for environmental authorisation are intentionally being withheld?

Your soonest response will be appreciated.”

Response to Adv Coetzee:

“The above matter as well as letter received from you on behalf of Moutonshoek Investments (Pty) Ltd dated 29 January 2019 refers.

**Clarification of the Process:**

1. The BID (Background Information Document) is, as the name suggests, a document issued for information purposes only and as a courtesy to notify all potential Interested and Affected Persons (I&AP's) of the proposed application to be submitted. In this document the proposed project is summarized to inform the potential I&AP's that the application is to be submitted in due course and in the event that they would like to receive preliminary information regarding the project as well as progress thereof they can register as an I&AP.
2. In terms of Section 10 (1) of the Mineral and Petroleum Resources Development Act, 2002 (as amended) the Regional Manager must, in the prescribed manner, within 14 days after accepting an application lodged in terms of section 22 make known that an application for a mining right has been accepted in respect of the land in question and call upon interested and affected persons to submit their comments regarding the application within 30 days from the date of the notice. We would like to point out that this is a process which is implemented by the Department of Mineral Resources (“DMR”) under statutory requirements.
3. Regulation 3 of the MPRD Regulations, 2004 (as amended) provides that the Regional Manager or designated agency, as the case may be, must make known by way of a notice, that an application has been accepted in respect of the land. This notice must be placed on a notice board at the office of the Regional Manager or designated agency, as the case may be, that is accessible to the public. The Regional Manager or designated agency, as the case may be, must advertise this notice as prescribed in subregulation 3 and 4 of Regulation 3 of the MPRD Regulations. We would like to once again point out that this is a process implemented by the DMR under statutory requirements.

4. “Designated agency” is defined in the MPRD Regulations as “the agency designated by the Minister in terms of section 70 of the Act. In terms of Section 70 of the MPRDA the Minister may designate an organ of State or a wholly owned and controlled agency or company belonging to the State to perform the functions referred to in this Chapter.
5. It is therefore clear that the onus was not on Greenmined Environmental, on behalf of the applicant, to inform the potential or registered I&AP’s that the application has been accepted but rather the responsibility of the Regional Manager of the DMR.
6. Furthermore, in terms of Section 22 (4) of the MPRDA (as amended) the Regional Manager must, if the application is accepted, notify the applicant in writing within 14 days to submit the relevant environmental reports, as required in terms of Chapter 5 of NEMA, within 180 days from the date of notice, and to consult in the prescribed manner with the landowner, lawful occupier and any interested and affected party and include the result of such consultation in the relevant environmental reports. This process as prescribed kicks off with the Draft Scoping Report (“DSR”).
7. The Public Participation Process is more fully set out in Chapter 6 of the EIA Regulations, 2014 (as amended). In terms of Regulation 39 (1), if the proponent is not the owner or person in control of the land on which the activity is to be undertaken, the proponent must, before applying for an environmental authorization in respect of such activity, obtain the written consent of the landowner or person in control of the land to undertake such activity on that land. However, in terms of Regulation 39 (2) subregulation (1) does not apply in respect of –
  - a. linear activities;
  - b. activities constituting, or activities directly related to prospecting or exploration of a mineral and petroleum resource or extraction and primary processing of a mineral or petroleum resource; and
  - c. strategic integrated projects as contemplated in the Infrastructure Development Act, 2014.
8. Regulation 40 of the EIA regulations provides that the public participation process to which the:
  - a. Basic assessment report and EMPr (Environmental Management Programme), and where applicable the closure plan, submitted in terms of regulation 19; and
  - b. Scoping report submitted in terms of regulation 21 and the environmental impact assessment report and EMPr submitted in terms of regulation 23;

was subjected to and must give all potential or registered I&AP’s, including the competent authority, a period of at least 30 days to submit comments on each of the basic assessment report, EMPr, scoping report and environmental impact assessment report, and where applicable the closure plan, as well as the report contemplated in regulation 32, if such reports or plans are submitted at different times.

Subregulation (3) provides that potential or registered interested and affected parties, including the competent authority, may be provided with an opportunity to comment on reports and plans contemplated in subregulation (1) prior to submission of an application but must be provided with an opportunity to comment on such reports once an application has been submitted to the competent authority. Therefore, it is clear that the applicant was not obligated to provide the I&AP’s the opportunity to comment on the reports prior to the application being lodged with the DMR. The function of the BID, as well as advertisements, is specifically to notify the I&AP’s that an application will be submitted in due course and that they can register as an I&AP.

9. In terms of clause 5 of your letter you allege that the I&AP's will only have 7 days to comment on the Draft Scoping Report ('DSR'). Your viewpoint is however flawed in the sense that:
  - 9.1 all potential I&AP's were provided with an opportunity to register since 3 December 2018 in terms of the BID document provided;
  - 9.2 All the potential I&AP's whom have been provided with the BID, as well as registered I&AP's have been provided with the DSR, therefore not only the registered I&AP's have been provided with the opportunity to peruse and comment on the DSR, but all the potential I&AP's;
  - 9.3 In terms of Regulation 40 of the EIA Regulations provided that a period of at least 30 days is prescribed to submit comments on each report. It is therefore clear that the potential and registered I&AP's had ample time to register, peruse and comment on the Draft Scoping Report.
10. In terms of all mining and prospecting applications since 08 December 2014 there is now "One Environmental System" wherein the applications in terms of the MPRDA, NEMA, Water Use License Application (WULA), Waste Management Licensing (WML) and Air Emissions Licensing (AEL) run simultaneously and all the relevant departments are integrated. The consultation process in terms of all mining right applications will focus on the Scoping Report, the Environmental Impact Assessment Reports and Environmental Management Programme.
11. Please note that the mining right application itself is not available to the public, as it contains confidential information of the applicant. All reports however, from date of application, must be made available to the public, hence the public participation process.
12. As mentioned in clause 3 above it is not the applicant's responsibility to provide all I&AP's with the acceptance letter, however when you requested same from us it was provided to you without hesitation. In the meantime, the DMR has provided us with amended acceptance letters in terms of the MPRDA end NEMA, which is attached hereto for your attention and ease of reference.
13. With reference to clause 12 of your letter under reply we would like to refer you to clauses 2 to 5 above, which is self-explanatory.
14. As requested we hereby respond to your questions at the end of your letter as follows:
  - i) As mentioned above it is not the applicant's obligation to notify the public of the acceptance, however, the registered I&AP's are welcome to request same from us;
  - ii) The application documentation is privileged and will not be made available to the public;
  - iii) Attached hereto, as requested, the Environmental Authorisation application form;
  - iv) The I&AP's will have the opportunity to comment on the draft scoping report, which comments will be incorporated to form the final scoping report, to be submitted to the DMR. Thereafter the I&AP's will also be afforded the opportunity to comment on the Environmental Impact Assessment report and Environmental Management Programme, after which participation process the reports will be submitted to the DMR;
  - v) The mining right application is not being withheld, but it contains confidential information of our client. The potential and registered I&AP's received ample time to comment on the draft scoping report and therefore the time frame will remain as is.
15. We trust you will find this above in order and please do not hesitate to contact us should you require any additional information."

Comments received from Dr Van der Merwe on the DSR (6 February 2019):

“Further to my comments on the BID, the following are my personal contributions in my capacity as landowner immediately adjacent and Director of the property in the application area. Adv Martin Coetzee will be making further representation on our behalf on or before 12 Feb 2019.

Notification letter by Bongani Minerals dated 4 December 2018.

I hereby go on record that the first time I have ever seen the letter that Bongani allegedly sent to me was on 5 February 2019, when I turned my attention to the Draft Scoping Report (DSR). I did not receive an electronic nor a paper copy. I would like to receive any proof that this letter was ever sent to me? Nevertheless, I will now attend to the detail therein.

Re: Notification, consultation and request for access with landowner

The letter claims that Bongani is the registered Prospecting Right Holder with reference no. WC 30/5/1/1/2/434PR. As stated in my comments in the BID, this claim is under severe dispute. Our Adv Martin Coetzee formally challenged the granting of such a PR, that has in any case lapsed. We are awaiting feedback on the challenge that has been widely published.

There is mention of “a sense of conflict and mistrust between the landowners and the applicant”, which they “sincerely like to change”:

They must be joking!! They embark on yet another bungled campaign on a fictitious/and or lapsing Prospecting Right, which was contested (with the outcome still pending), consulted only one of the competent authorities for a Protected Environment, sent out the BID and DSR just before the Christmas break, failed to send letters to some of the affected landowners, and then expect the relationship to improve? No consultants, specialists or any person will be given access to our land.

EXECUTIVE SUMMARY (p.2)

Paragraph 2 again erroneously refers to the DMR as the only competent authority. Department of Environmental Affairs is the other. The Applicant glibly refers to a PR that lapsed in December 2018. It did not lapse nor exist, and it was contested. It also quotes a different PR number than that on the front of the document? Which is it? Now the real shocker: “owing to the prospecting outcome”! What prospecting outcome? The applicant drilled one illegal hole until they were stopped by an interdict. Now they want to mine? They got nowhere near the required number of prospecting sites to get even close to a SAMREC level description of the Reserve. All they did was analyse the old historic samples in Piketberg. How dare they even apply for a mining right based on this? Their own ally Prof Rozendaal and all others pull it to pieces as being of low grade, too deep for an open cast mine and too shallow for a conventional mine. Have the applicants lost the plot? Please explain in minute detail.

They go on to say “should the MR be issued”

1. Site establishment/ construction phase- which refers to buffer no-go -zones such as watercourses, wetlands etc. THE PROPOSED PIT IS IN A WATERCOURSE WETLAND!! The whole area should be a NO-GO ZONE! Please explain in minute detail how this could be mitigated?
2. Incline shafts? In this substrate? Please explain how at all possible? Please explain in detail how Ammonium Paratungstate (ATP) will be produced?

Public Participation (p.3)

Please furnish evidence of the on-site notices? We are always on the lookout and have never seen any.

Plan of Study (p.4)

5. Engineering Services Report?

8. Again only one of the 2 relevant authorities is mentioned

11) Description of activities to be undertaken.

PROJECT PROPOSAL (p.17)

Again, the prospecting outcome after an illegal drilling of one site?? What outcome?

(5) Operational phase (p.18) refers to the incline shafts but fails to mention the two significant aquifers that will fill the excavation with water after destroying the aquifers. Please elaborate?

e) Policy and Legislative context (p.23)

First box referring to Bergrivier Municipality as stated before. We are the owners of Namaquasfontein 297 portion 1 under which the bulk of the tungsten reserve is situated. We are not interested in applying for a deviation of land use. The same applies to LUPA at the bottom of the page.

f) Need and desirability of the proposed activities (p.26)

Again, the farcical "outcome of the prospecting operation" is mentioned. Everything known about the deposit is well described (including the environmental horrors that rare earths and associated heavy metals in the deposit hold for the area in terms of contamination and toxicity). Walker, Rozendaal and several others have done exhaustive studies, and all have come to the same conclusion as Anglo and Union Carbide: i.e. low grade, uneconomical and fraught with environmental hazard, not least being unmitigable damage to the geohydrological contamination of surface water. Suddenly the ±170 employment positions from the BID has jumped to 211 employees. As stated and proved, a comparable deposit in Canada employs 74 people. How on earth would you employ 211? Detailed explanation please?

PHYSICAL ENVIRONMENT (p.79?)

The proposed area receives an average 600 mm rain and the catchment above in excess of 800 mm rain per annum.

FAUNA (p.87)

What are "pheasants" that Withers found?



#### 6) Description of the current land uses (p.95)

Again Portion 1 of farm 297 is mentioned - this is our farm. We have NO intention of applying for a deviation of land use nor appointing an entity to do so on our behalf. It is important that you make this fact clear to all I&AP's and institutions as it clearly wastes everybody's time.

#### SITE SPECIFIC HYDROLOGY (p.98)

Please remember that NO persons will be given access to Portion 1 of farm 297 Namaquasfontein.

#### SITE SPECIFIC MATTERS WITH REGARDS TO THE MOUTONSHOEK PROTECTED ENVIRONMENT

The Applicant glibly skims over this part and implies that the DMR Minister simply has to consult with a Cabinet Minister to give the go-ahead for the Mining Right (MR) to be awarded in a PROTECTED ENVIRONMENT. If it were that simple, it would make a mockery of Protected Environments. And if that were the case, why did the judges lambaste both the DMR Minister and the Environmental Minister for not applying their minds when awarding a MR in the Mabola Protected Environment, as they set the decision aside in the High Court with costs and without leave to appeal? (Attached article Moneyweb). The proposed project is a very high profile one and is in a Protected Environment in the headwaters of a RAMSAR site, the Verlorenvlei. Do the applicants really think they can sneak this past the eyes of the good people of South Africa and indeed The World?! The Courts would simply set a bad decision aside.

#### Impacts identified (p.103)

##### SITE ESTABLISHMENT

Increased dust – partial mitigation. How?

Visual Intrusion as a result of the site establishment- Partial mitigation? Please explain?

Potential loss of/ negative impact on wetlands in affected area Rating: medium. Fully mitigated.

You must be joking?! There cannot be a pit in the area without destroying the wetland and drainage.

##### Increased work opportunities to local residents (positive)

Such a proposed mine employing 74 odd people (including management) will result in the LOSS of literally thousands of jobs in the agricultural sector due to dust pollution, ground water destruction and surface water contamination. It will also be unprofitable, resulting in an ecological disaster with a bankrupt Applicant/ licence holder.

Dust nuisance caused by disturbance of the soil – rating low to medium. Fully mitigated.

Yet again you must be joking? Please explain?

Potential flooding of opencast pit/ work areas. Rating low. Partial mitigation.

Whoever made this statement has never been here. The proposed pit is in a DRAINAGE GULLY.

It should read: Rating- extremely high! Mitigation – NOT AT ALL!

## UNDERGROUND MINING

Potential impact on groundwater sources. Rating -high. Degree of mitigation: Fully mitigated.

Whoever compiled this, falls well into what our Adv Martin Coetzee described in response as a “not so well written piece of fiction”.

Due to the presence of groundwater and aquifers sensitive to blasting, this is unmitigable.

And potential contamination of surface runoff as a result of spillage, falls into the same category as above.

Sorry, I cannot continue with this nonsense. I hereby dispute ALL claims of mitigation made by the applicant. Not enough time in the day to address them individually, other than to say that it is farcical.

### **But on the alleged positives:**

There would be a massive net loss of work as eloquently expressed by so many.

More detail is required before such an outlandish claim can be remarked upon.

Increased income from a low-grade sub economic source mined by a company that has not once proven its economic bona fides? Is this fiction?

What about the massive loss of products produced in Moutonshoek for export?

Economic development: see above

Export: see above

Water storage in the pit: This has now gone beyond farcical, through to the realms of ridiculousness!! Along with Tungsten and Molybdenum, the bedfellows are rare earths, other heavy metals more toxic than tungsten and contaminants that will leave an ever-filling dam of toxic waste water.

It is impossible to take this DSR seriously! I am only responding to this in the fear that somebody else might consider it seriously. This DSR should be treated with the utmost contempt!

Slimes dam ??? see above comments.

### **l) Possible mitigation measures that could be applied and the level of risk**

#### **Potential relocation of affected landowner/occupants**

The whole project falls down right here. Top quality racehorses have been bred by Moutonshoek, a stud farm that has been in operation for 15 years following successful farming in the area since 1728. Racehorse breeding relies heavily on the natural beauty of the area and natural resources of the farm. Potential buyers of our racehorses visit the farm and 'buy into' the brand and all the good things it stands for. Along with our neighbour Wilgerbosdrift we have established the Moutonshoek Valley as the premier racehorse breeding area in the country. It is a reputation that we have earned through many years of breeding since 1998. Between us we have bred several Group1 Durban July winners, G1 J&B Met winners, G1 Sun Met winner, several G1 Cape Guineas winners, G1 Champions Challenge winners etc. Our brand is locally and internationally recognised. Our

clients include internationals such as the rulers of Dubai and others and our local market is extensive. We cannot relocate. For this and many other reasons we will not allow people to do studies, nor apply for a deviation in land use. The applicant would be best served to cut its losses at this stage and stop wasting time and money.

Dust emissions

Spraying of water is recommended in a water sensitive area?? How does the dust from blasting get sprayed with water get mitigated? The area is prone to strong south winds every day which would result in the whole valley under dust! Please explain?

Weather conditions: If blasting and other operations are to be limited to wind still days the life of mine shall have to be extended to at least three times the proposed time – resulting in an already marginal to uneconomic mine becoming properly uneconomical!!

Potential impact on wetlands within the area: This person has obviously never been here! Flooding is common and the catchment directly above the area has the highest rainfall for 100km in any direction. The proposed pit is right in the line of the biggest drainage gully as clearly demonstrated by the aerial picture. It makes a mockery of the DSR. The same applies to storm water handling.

Potential impact on groundwater sources: This is plain outrageous! What will a water sample from a borehole help if the aquifers have been blasted to smithereens?! The damage would have been done. Please pay particular attention to the historic GEOSS report. These factors are impossible to mitigate and will have an irreversible massively detrimental impact on the immediate and far-lying areas. It is an insult to have such a nonsensical paragraph regarding such an important matter.

Potential seepage from the slimes dam: Is this the dam you want to store useable water in?

Rehabilitation of the excavated area: Again. A ridiculous paragraph that does not in any way address the horror that would be in there! No reference to toxic substances, destroyed aquifers etc. Please don't insult us.

m) the outcome of the site selection. Final site Layout plan: Again, this reference to one illegal drilling site? With a pit with angles hopelessly too steep for vehicles, right in a drainage area, and one filled with aquifers and underground water? Please explain?

f) The Stages at which the Competent Authority will be consulted: The Department of Environmental Affairs must be consulted throughout, if not first.

7) NEMA (p144)

Potential relocation of the people: For reasons explained earlier this will not be considered. Stop the Application and stop wasting everyone's time and money.

Public participation: There is no timeline on the notice at the R366 turnoff. It did not last a day! It was never seen by me or any of my staff. (It really looks pathetic as dwarfed by the big Moutonshoek Protected Environment sign- ironic).

### **In summary**

We have become accustomed to this generic sub-standard type of BID and DSR from Bongani. Having already stated that I cannot hide my disappointment at this poor attempt. This DSR is a disgrace and an insult to all who have to read it.

There is a wealth of knowledge on the Riviera tungsten Deposit dating back to 1975. Anglo and Union Carbide did prospect here as stated. Even in the years of South Africa's isolation they walked away from the project as the deposit was deemed unprofitable due to the low- grade Tungsten, too deep for an open cast mine and too shallow for a conventional mine and above all, too much underground water to mitigate.

They donated the project to the Geology Faculty of the University of Stellenbosch. (It must be remembered that US does not have a Mining Faculty). As a result, several studies have been done subsequently and several MSc theses have been written on the deposit. Previous scoping reports contain opinions and options. Walker and their own Prof Rozendaal warned about the marginality of the deposit. Our world class geologists and geohydrologists in Dr Herman Grutter, Dr MF Winter and Julian Conrad of GEOSS, have made massive contributions. They warned about stripping rates, degrees of incline to get to the depth of 230m and the negative impact on the area's groundwater. (A proposed 55 -90 ha open cast mine pit was deemed too small (steep) for the trucks to get down to the ore – now the Applicants propose to go down into a pit of only 18ha!!)

So, what do the Applicants do? They find an Environmental Practitioner (there have been several) that can cope with the application in terms of Public Participation in a 'tick the boxes' kind of way. They can make tables in a 'bull\*\*\*\* baffles brains' kind of way, where they simply sweep all the core issues of the DSR under the mat, and DON'T ADDRESS THEM IN ANY MEANINGFUL WAY!

Of this veritable mountain of information on Riviera Tungsten, they cherry-pick some bits of information from a Desk-top study by SRK, while ignoring the whole wealth of information in a thinly disguised attempt to make this proposed project look like it is remotely feasible! They are either grossly incompetent or deliberately trying to mislead the good people of this country.

There is a very good reason why the Applicants have only drilled one illegal hole in their quest to describe a SAMREC Compliant Reserve. They have failed miserably to convince anyone of the merit of what they want to do. They failed to prospect (even the PR they had was subject to challenge). Now they just want to blunder ahead and mine in a Protected Environment! Do they really think they can dupe all of the DMR, DEA, DEADP, Agriculture, CapeNature, Bergrievier Municipality, the Courts, not to mention the good people of the area, into supporting their project?

According to the DMR spokesperson, the 2009 MR application fizzled out "due to environmental concerns". Why would this be any different? (attach New Revelations article).

So: an unknown entity with a very chequered past, have found an Environmental Practitioner to sweep the key issues under the mat and focus on ticking boxes in an attempt to mine in a Protected Environment, where the information in the Public Domain flashes hundreds of red warning lights. We cannot let this happen. We will not let this happen. I agree with CapeNature in insisting that this Application be given no further consideration."

Dr Van der Merwe further attached:

- ⌘ Moneyweb article (23 January 2019) on the High Court Refusing Mining Companies Leave To Appeal, with regard to mining in the Mabola Protected Environment (see Appendix 5 Proof of Public Participation for a copy).
- ⌘ Article published in the Mail and Guardian, May 13 to 19 2011 with the heading: “New Revelations In Mining Rights Controversy” (see Appendix 5 Proof of Public Participation for a copy).

Further comments received from Dr Van der Merwe (12 February 2019):

“Even further to my comments on the draft scoping report, I am adding further objections and comments on previous PR and MR applications by the same individuals. These are as relevant now as they were before. It is my firm belief that this application should be given no further consideration and should be dismissed. It should be declared a NO-GO ZONE without further delay. Should mining proceed in the Moutonshoek valley, it will be a much bigger financial disaster than the current Elandsfontein phosphate mine on the West Coast. (R2 billion has already gone to waste there). It would be a 1000- fold bigger ecological disaster, as the Elandsfontein mine is in the middle of nowhere, whereas Moutonshoek is an active and productive agricultural area in the headwaters of the Verlorenvlei Ramsar site. We hereby insist that ALL previous objections from 2005 be included in the Final Scoping Report.”

The attachments to the further comments submitted by Dr Van der Merwe was included in Appendix 5 – 10 Comments on DSR VD Merwe Part 1 & 2.

Adv Coetzee objected, on behalf of Little Swift Investments (Pty) Ltd and 473 other objectors, to the DSR on 12 February 2019. Due to the size of the document (70 pages) it was not copied into the FSR but attached as Appendix 5 – 08 Comments on DSR L hereto.

Please find Greenmined’s response to the DSR comments included at the end of this table.

Mr D Coetzee Portion 6 (Remaining Extent) of Namaquasfontein 76 RD	<b>X</b>	To date no comments were received	-	Not applicable as no comments were received.
Mr H Coetzee Portion 21 of Namaquasfontein 76 RD	<b>X</b>	To date no comments were received	-	Not applicable as no comments were received.

Lawful occupier/s of the land				
As access, to the earmarked properties, has to date been denied the lawful occupier/s of the land could not be determined. Persons that registered as I&AP's during the previous mining right application (WC 30//5/1/2/2/385 MR - 2009) were informed of the current project.		See individual comments included below	-	-
<b>Landowners or lawful on adjacent properties</b>				
Mr JJ Smit	X	05/02/2019	See objection received from the Riviera Residents	
Namaquasfontein Boerdery Trust	X	29/01/2019	See comments received from Adv Coetzee on behalf of Moutonshoek Investments (Pty) Ltd above	
Zebraskop Boerdery	X	To date no comments were received	-	Not applicable as no comments were received.
Karsten Boerdery	X	27/12/2018	Belia Karsten registered Karsten Boerdery (Pty) Ltd as I&AP submitting the comments as listed below.	Greenmined acknowledged receipt of the registration on 7 January 2019, and registered Karsten Boerdery as I&AP on the project.

Comments received from Karsten Boerdery (Pty) Ltd:

“Your Background Information Document (“Document”) dated 3 December 2018 relating to certain applications to be made by Bongani Minerals Propriety Limited (“Bongani”) in terms of the relevant statutes referred to above has reference. Karsten Boerdery Proprietary Limited (“Company”) wishes to register as an interested and/or affected party in relation to the entirety of the activities and/or applications envisaged in terms of the Document.

By way of background, this Company is the registered owner of the Remainder of Portion 2 (Kromvlei) of the Farm Namaquasfontein, Portion 5 (a portion of portion 1) of the Farm Wilgenhoutdrift and Portion 13 of the farm Namaquasfontein No 76 (“Properties”) all of which are in proximity to the properties in relation to which the several applications by Bongani relate and on which the Company conducts agricultural activities, *inter alia*, entailing the production of fruit destined for export markets and also livestock. This Company and the activities conducted by it on the Properties, stand to be affected by the mining ancillary activities which Bongani intends to undertake. We shall accordingly appreciate receiving your confirmation that the Company has been registered in your records as an interested and affected party (“IAP”).

As an IAP, we would like to receive a copy of the Draft Scoping Report (“DSR”) to enable us to comment thereon. Without limiting the generality of the foregoing, we also demand to receive copies of all other documents in respect to the processes that are to be followed and as detailed in the Document in order to enable us to assess the contents thereof, including the impact of any proposed activities and to comment and/or object thereto. Our address details appear from this letterhead and you can also communicate with us by e-mail ([beliak@karsten.co.za](mailto:beliak@karsten.co.za)) provided that all documents underlying the different applications to be filed by Bongani in terms of the appropriate statutes, must also be mailed to our physical address.

On the last page of the document you mention that, in the absence of receiving any comment on or before 5 February 2019, it will be accepted that we do not have any objections/comments with regard to the project and do not require any further documentation. We hereby want to state emphatically that you cannot make any such acceptance under any circumstances irrespective of whether or not you have received any objections/comments from our end, timeously or at all.”

Correspondence received from Adv Coetzee on behalf of Karsten Boerdery (Pty) Ltd on 29 January 2019:

“I (Adv Coetzee) am addressing this communication to you for and on behalf of Karsten Boerdery (Pty) Ltd, registered owner of Remainder of Portion 2 (Kromvlei) of the Farm Namaquasfontein No 76, Portion 5 (a portion of portion 1) of the Farm Wilgenhoutdrift No 48 and Portion 13 of the Farm Namaquasfontein No 76, in the district of Piketberg.

2. On 4 December 2018 you issued a background information document (BID) notifying that an application was made by Bongani Minerals (Pty) Ltd for a mining right in terms of the Mineral and Petroleum Resources Development Act, 2002 (the “Act”) to mine Tungsten and Molybdenum on certain farms in the Moutonshoek Area, Piketberg, as well as an application in terms of the National Environmental Management Act, 1998 (Act 107 of 1998 or “NEMA”) and the Environmental Impact Regulations, 2014, as amended.

3. According to you the purpose of the BID was to inform “about the proposed activity and to determine whether there are any concerns or objections from interested and affected parties that need to be considered”. It is recorded that contrary to section 10(1)(a) of the Act, no indication was given in the BID that an application for a mining right was indeed submitted to the Department of Mineral Resources, neither was the addressees informed of the submission of the application. In fact the date of the BID was 3 December 2018, a full 10 days before acceptance of the applications by the Department of Mineral Resources (DMR).

4. Persons were requested to register as an interested and affected party on or before 5 February 2019. In other words, the registration process ends 5 February 2019.

5. Despite this, on 11 January 2019, you gave notice that the draft scoping report is available for perusal and comment. The closing date for comments is set at 12 February 2019. The implication of this is that notwithstanding the fact that people may register up to 5 February 2019, those persons will only then only have 7 days to comment on the draft scoping report. This is unreasonable and contrary to the impression created in your background information document that the draft scoping report will be submitted “on” 5 February 2019 with a 30-day review period.

6. On 8 January 2019 you upon my request provided a copy of the DMR's acceptance letter of the application for a mining right (almost a month after it was accepted). It has already been recorded that there is a substantive conflict between this acceptance letter and your background information document pertaining to the areas in respect of which a mining right application was made. Neither you or the DMR has reacted to this after it was brought to your attention on 14 January 2019.
7. Despite the fact that you were aware that the DMR also issued an acceptance letter for the application for environmental authorisation you never disclosed this or provided a copy.
8. It is trite that a scoping report required in terms of Regulation 21 of the NEMA EIA Regulations is a forerunner of the environmental impact assessment report.
9. Should it then be my understanding that the consultation process would only focus upon the NEMA scoping report and environmental impact assessment report?
10. I could find no indication in your documents that I&AP's were invited to submit comments on the MPRDA mining right application, or any indication that the complete application is available upon request or on your website. In fact, it is not available on your website at all.
11. It is also trite that the MPRDA application, if duly submitted, in terms of regulation 10 must contain substantive and material information. Information that is imperative to inform any I&AP of the proposed activity and compliance with regulation 10 (1)(a) to (n). Without this information being made available it simply would not be possible for any I&AP to meaningfully comment on the application.
12. Section 10 of the MPRDA is obligatory in that members of the public must get an opportunity to submit comments on the application within a certain time period. In this case the members of the public were not afforded such opportunity and are only allowed to comment on a draft scoping report in terms of NEMA.
- Flowing from the aforesaid, you are requested to respond to the following:
- (i) When will the members of the public be notified of the acceptance of the applications?
- (ii) According to paragraph 2(c) of the DMR's defective acceptance letter the consultation process "does not imply issuing letters and requesting affected parties to indicate whether they support your proposed project or not. It includes among others an extensive process of giving and discussing the specific details of the proposed project, giving the interested and affected parties an opportunity to table their comments, objections and support." When will you and/or the Applicant then make application available to interested and affected parties to comment on?
- (iii) It also appears from the DMR's acceptance letter that an application for environmental authorisation was also submitted. When do you intend notifying and making this application available to interested and affected parties?



(iv) Is it the intention of the Applicant to provide I&AP's only with an opportunity to comment upon the draft scoping report? If not, when will all material information be made available to enable I&AP's to make informed comments?

(v) Do you still insist that comments on the draft scoping report must be submitted by 12 February 2019 despite the fact that the all-important mining right application and application for environmental authorisation are intentionally being withheld?

Your soonest response will be appreciated.”

Response to Adv Coetzee:

“The above matter as well as letter received from you on behalf of Karsten Boerdery (Pty) Ltd dated 29 January 2019 refers.

**Clarification of the Process:**

1. The BID (Background Information Document) is, as the name suggests, a document issued for information purposes only and as a courtesy to notify all potential Interested and Affected Persons (I&AP's) of the proposed application to be submitted. In this document the proposed project is summarized to inform the potential I&AP's that the application is to be submitted in due course and in the event that they would like to receive preliminary information regarding the project as well as progress thereof they can register as an I&AP.
2. In terms of Section 10 (1) of the Mineral and Petroleum Resources Development Act, 2002 (as amended) the Regional Manager must, in the prescribed manner, within 14 days after accepting an application lodged in terms of section 22 make known that an application for a mining right has been accepted in respect of the land in question and call upon interested and affected persons to submit their comments regarding the application within 30 days from the date of the notice. We would like to point out that this is a process which is implemented by the Department of Mineral Resources (“DMR”) under statutory requirements.
3. Regulation 3 of the MPRD Regulations, 2004 (as amended) provides that the Regional Manager or designated agency, as the case may be, must make known by way of a notice, that an application has been accepted in respect of the land. This notice must be placed on a notice board at the office of the Regional Manager or designated agency, as the case may be, that is accessible to the public. The Regional Manager or designated agency, as the case may be, must advertise this notice as prescribed in subregulation 3 and 4 of Regulation 3 of the MPRD Regulations. We would like to once again point out that this is a process implemented by the DMR under statutory requirements.
4. “Designated agency” is defined in the MPRD Regulations as “the agency designated by the Minister in terms of section 70 of the Act. In terms of Section 70 of the MPRDA the Minister may designate an organ of State or a wholly owned and controlled agency or company belonging to the State to perform the functions referred to in this Chapter.

5. It is therefore clear that the onus was not on Greenmined Environmental, on behalf of the applicant, to inform the potential or registered I&AP's that the application has been accepted but rather the responsibility of the Regional Manager of the DMR.
6. Furthermore, in terms of Section 22 (4) of the MPRDA (as amended) the Regional Manager must, if the application is accepted, notify the applicant in writing within 14 days to submit the relevant environmental reports, as required in terms of Chapter 5 of NEMA, within 180 days from the date of notice, and to consult in the prescribed manner with the landowner, lawful occupier and any interested and affected party and include the result of such consultation in the relevant environmental reports. This process as prescribed kicks off with the Draft Scoping Report ("DSR").
7. The Public Participation Process is more fully set out in Chapter 6 of the EIA Regulations, 2014 (as amended). In terms of Regulation 39 (1), if the proponent is not the owner or person in control of the land on which the activity is to be undertaken, the proponent must, before applying for an environmental authorization in respect of such activity, obtain the written consent of the landowner or person in control of the land to undertake such activity on that land. However, in terms of Regulation 39 (2) subregulation (1) does not apply in respect of –
  - a. linear activities;
  - b. activities constituting, or activities directly related to prospecting or exploration of a mineral and petroleum resource or extraction and primary processing of a mineral or petroleum resource; and
  - c. strategic integrated projects as contemplated in the Infrastructure Development Act, 2014.
8. Regulation 40 of the EIA regulations provides that the public participation process to which the:
  - a. Basic assessment report and EMPr (Environmental Management Programme), and where applicable the closure plan, submitted in terms of regulation 19; and
  - b. Scoping report submitted in terms of regulation 21 and the environmental impact assessment report and EMPr submitted in terms of regulation 23;

was subjected to and must give all potential or registered I&AP's, including the competent authority, a period of at least 30 days to submit comments on each of the basic assessment report, EMPr, scoping report and environmental impact assessment report, and where applicable the closure plan, as well as the report contemplated in regulation 32, if such reports or plans are submitted at different times.

Subregulation (3) provides that potential or registered interested and affected parties, including the competent authority, may be provided with an opportunity to comment on reports and plans contemplated in subregulation (1) prior to submission of an application but must be provided with an opportunity to comment on such reports once an application has been submitted to the competent authority. Therefore, it is clear that the applicant was not obligated to provide the I&AP's the opportunity to comment on the reports prior to the application being lodged with the DMR. The function of the BID, as well as advertisements, is specifically to notify the I&AP's that an application will be submitted in due course and that they can register as an I&AP.

9. In terms of clause 5 of your letter you allege that the I&AP's will only have 7 days to comment on the Draft Scoping Report ('DSR'). Your viewpoint is however flawed in the sense that:
  - 9.1 all potential I&AP's were provided with an opportunity to register since 3 December 2018 in terms of the BID document provided;

9.2 All the potential I&AP's whom have been provided with the BID, as well as registered I&AP's have been provided with the DSR, therefore not only the registered I&AP's have been provided with the opportunity to peruse and comment on the DSR, but all the potential I&AP's;

9.3 In terms of Regulation 40 of the EIA Regulations provided that a period of at least 30 days is prescribed to submit comments on each report. It is therefore clear that the potential and registered I&AP's had ample time to register, peruse and comment on the Draft Scoping Report.

10. In terms of all mining and prospecting applications since 08 December 2014 there is now "One Environmental System" wherein the applications in terms of the MPRDA, NEMA, Water Use License Application (WULA), Waste Management Licensing (WML) and Air Emissions Licensing (AEL) run simultaneously and all the relevant departments are integrated. The consultation process in terms of all mining right applications will focus on the Scoping Report, the Environmental Impact Assessment Reports and Environmental Management Programme.
11. Please note that the mining right application itself is not available to the public, as it contains confidential information of the applicant. All reports however, from date of application, must be made available to the public, hence the public participation process.
12. As mentioned in clause 3 above it is not the applicant's responsibility to provide all I&AP's with the acceptance letter, however when you requested same from us it was provided to you without hesitation. In the meantime, the DMR has provided us with amended acceptance letters in terms of the MPRDA end NEMA, which is attached hereto for your attention and ease of reference.
13. With reference to clause 12 of your letter under reply we would like to refer you to clauses 2 to 5 above, which is self-explanatory.
14. As requested we hereby respond to your questions at the end of your letter as follows:
  - i) As mentioned above it is not the applicant's obligation to notify the public of the acceptance, however, the registered I&AP's are welcome to request same from us;
  - ii) The application documentation is privileged and will not be made available to the public;
  - iii) Attached hereto, as requested, the Environmental Authorisation application form;
  - iiii) The I&AP's will have the opportunity to comment on the draft scoping report, which comments will be incorporated to form the final scoping report, to be submitted to the DMR. Thereafter the I&AP's will also be afforded the opportunity to comment on the Environmental Impact Assessment report and Environmental Management Programme, after which participation process the reports will be submitted to the DMR;
  - iv) The mining right application is not being withheld, but it contains confidential information of our client. The potential and registered I&AP's received ample time to comment on the draft scoping report and therefore the time frame will remain as is.
15. We trust you will find this above in order and please do not hesitate to contact us should you require any additional information."

Adv Coetzee objected, on behalf of Karsten Boerdery (Pty) Ltd, to the DSR on 12 February 2019. Due to the size of the document (50 pages) it was not copied into the FSR but attached as Appendix 5 – 07 Comments on DSR K hereto.

Please find Greenmined's response to the DSR comments included at the end of this table.				
Windheuwel Trust	<b>X</b>	To date no comments were received	-	Not applicable as no comments were received.
<b>Municipal councillor</b> As the Ward 5 councillor will only be elected in January 2019, the BID was sent to Mr P Williams who undertook to forward it to the Mayor of the Bergrivier Local Municipality (BLM).	<b>X</b>	See comments received from BLM listed below.		See response to the comments received from BLM listed below.
<b>Municipality</b> Bergrivier Local Municipality (BLM)	<b>X</b>	7/12/2018	Angila Joubert registered the Bergrivier Local Municipality on the project, submitting the comments as listed below.	Greenmined acknowledged receipt of the registration on 11 December 2018, and responded as listed below.

Comments received from Bergrivier Local Municipality:

“Your notice in abovementioned regard, dated 3 December 2018, refers.

It is acknowledged that a scoping report on the proposed development is not available at present, and therefore our comment is limited to the information contained in the background information document provided.

Environmental comment:

“A hydrogeological assessment will be performed...”

Comment:  
Immediate and long term effects of the ground water abstraction should be taken into account as this will affect the water table and also affect natural surface water systems within this area. The hydrogeological assessment should take into account the effects on the environmental integrity of the Verlorenvlei, designated RAMSAR site (Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat). The prospecting site is situated in the area of Verlorenvlei catchment, as rivers and water

courses affect and influence each other from kilometres away. The assessment should also consider the affects to the sustainable, ecological functioning of the catchment areas for the Kruis, Bergvallei, the Krom Antonies and the Hol river systems. The potential tungsten contamination of groundwater and aquifers should also be taken into account.

*“An Ecologists was appointed to conduct a full ecological study of the proposed footprint area.”*

Comment:  
This area falls within the Greater Cederberg Biodiversity Corridor and the impact on Critical Biodiversity Areas must be considered in any specialist studies. The Verlorenvlei system supports several rare bird species and indigenous fish species and the conservation thereof is imperative and any effects of the proposed development should take this into consideration as irreversible impacts on the environment will result in habitat loss and species loss in this area.

*“An agricultural impact assessment will assess the potential impacts of the proposed mining operation on soils, agricultural potential and production.”*

Comment:  
Blasting and the dispersion of dust particles could disturb or terminate ecosystem functioning and consequently the agricultural potential of the affected area. Abstraction and pollution of water resources could also lower the potential for sustainable agricultural practices, in an already drought prone area. Potential impacts on food security and agricultural yield could also affect human wellbeing.

*“...a traffic impact study will assess the impact that the proposed project will have on the road infrastructure and traffic of the study area.”*

Comment:  
The traffic impact study should also take into account all routes to be used for the transport of the mined material to other destinations, and traffic through urban settlements. Alternative modes of transport, such as railway transport, should be considered. The traffic impact study should consider the effect of heavy vehicle traffic on the longevity of road and urban infrastructure. Heavy vehicle traffic through urban areas and the effect thereof on road and pedestrian safety, noise and air pollution should also be considered.

Planning comment:

The background information document states that a land development application has to be submitted to the Department of Environmental Affairs and Development Planning in terms of the Land Use Planning Act, 2014 (Act No 13 of 2014). It must be noted that in terms of Section 53(5) of the Land Use Planning Act, 2014 (LUPA) an approval by the Head of Department (the head of the provincial department responsible for land use planning) of a land development application does not release an applicant from the obligation to obtain the required approval from the municipality for the land development.

The subject farms are located within the jurisdictional area of Bergrivier Municipality and are currently zoned as Agriculture Zone 1 in terms of the Bergrivier Municipality: Integrated Zoning Scheme By-Law. The current zoning of the subject farms does not allow for mining or prospecting and therefore land use planning applications must be submitted to Bergrivier Municipality for both instances. In terms of Section 86(1)(b) of the Bergrivier Municipality: By-Law Relating to Municipal Land Use Planning it is an offence to utilize land in a manner other than prescribed by a zoning scheme without the approval of the Municipality.”

Response to the Bergrivier Local Municipality:

“Greenmined herewith acknowledge receipt of your correspondence, received 7 December 2018, with regard to the proposed mining right application to be submitted on behalf of Bongani Minerals (Pty) Ltd.

Greenmined takes note of the comments tendered by the Bergrivier Municipality, and will communicate it to the relevant specialists, in particular the hydrogeologist, ecologist, rangeland specialist, traffic engineer, and town and regional planner.

We have added both yourself as well as Mr Vermeulen as Bergrivier Municipal representatives to the registered stakeholder list and will continue to update you on the project. I can also confirm that the follow persons, as identified by yourself were already contacted and informed of the proposed project:

- ✘ Me Ganten-Bein,
- ✘ Mr Malherbe,
- ✘ Mr Burger,
- ✘ Me Strange,
- ✘ Mr Taylor,
- ✘ Me Huntly, and
- ✘ Me February

We trust you will find this in order. Please do not hesitate to contact me in the event of any uncertainties.”

<b>Organs of state (Responsible for infrastructure that may be affected Roads Department, Eskom, Telkom, DWA etc</b>	<b>X</b>			
Department of Transport, Public Works and Road Planning	<b>X</b>	21/01/2019	Grace Swanepoel registered the Department of Transport, Public Works and Road Planning on the project, and mentioned that road upgrades may be required as well as a TIA.	Greenmined acknowledged receipt of the registration on 28 January 2019, registered the Department of Transport, Public Works and Road Planning as an I&AP on the project and informed them of the availability of the DSR.
Department of Water and Sanitation	<b>X</b>	11/01/2019	Dr Gerhard Cilliers registered the Department of Water and Sanitation on the project and submitted the following comments.	Greenmined acknowledged receipt of the registration on 14 January 2019, registered the DWS as an I&AP on the project and informed them of the availability of the DSR.

Comments received from DWS:

DWS objected to the project, requested additional information with regard to water availability in the vlei (surface water), water availability in groundwater, and water quality impacts. DWS is concerned about water availability and water quality.

Comments received from DWS on the Draft Scoping Report (11 February 2019):

“1. The Department acknowledges receipt of your application dated January 2019, received by this office on the 07 February 2019. It was noted that the comments are due on the 12 February 2019. As per our telephonic conversation dated 07 February 2019 requesting extension as we have observed that we would not have enough time to provide comments in the interest of protecting the water resource. You advised that it will not be possible; however we will get an opportunity to comment on the Environmental Impact Assessment (EIA).

2. The Department of Water and Sanitation has assessed the above-mentioned application and wish to comment as follows:

2.1 The department has noted that the proposed development will take place in the vicinity of Krom Antonies River on portion 1 of the farm 297 RD that flows adjacent to the proposed mining area.

2.2 Therefore the EIA process need to be undertaken including the following specialist studies and submitted to the Department:

- ⌘ A freshwater report
- ⌘ Storm water management plan
- ⌘ Geo-hydrological report

3. All requirements as stipulated in the National Water Act, 1998 (Act 36 of 1998) regarding water use must be adhered to.

4. This letter does not exempt you from complying with other relevant legislations and requirements of other governmental Departments.

5. Please note that the Department reserves the right to amend and/or add to the comments made above in the light of subsequent information received.

For any further queries/correspondence in this regard, please do not hesitate to contact the above official. Your co-operation aimed at the protection of water resources will be highly appreciated.”

Please find Greenmined’s response to the DSR comments included at the end of this table.

Eskom Distribution	<b>X</b>	14/12/2018	Phumeza Qwashu registered Eskom on the project, submitting the comments as listed below.	Greenmined acknowledged receipt of the registration on 7 January 2019, and registered Eskom as an I&AP on the project.
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Comments received from Eskom Distribution:

“Eskom has no objection to the proposed work as indicated in your application provided that the following conditions are adhered to:

- I. No building may be erected within 9 (NINE) metres from either side of the centre line from any Eskom 11 / 22kV power line crossing the property involved or within 6 (SIX) metres from any structure supporting mechanism.
- II. No building may be erected within 3 (THREE) metres from any Eskom underground cable.
- III. The location of the cable from the Eskom transformer to the distribution box must be pointed out to the contractor by the owner and is the owner’s responsibility.
- IV. A copy of this letter / documentation must be handed to the contractor who must have it available on site.
- V. That existing Eskom power lines and infrastructure are acknowledged as established infrastructure on the properties and any rerouting or relocation would be for the cost of the applicant/developer.

That Eskom rights or servitudes, including agreements with any of the landowners, obtained for the operation and maintenance of these existing power lines and infrastructure be acknowledged and honoured throughout its lifecycle which include, but are not limited to:

- i. Having 24 hour access to its infrastructure according to the rights mentioned in (a) above.
- ii. To perform maintenance (structural as well as servitude – vegetation management) on its infrastructure according to its maintenance programmes and schedules.
- iii. To upgrade or refurbish its existing power lines and infrastructure as determined by Eskom.
- iv. To perform any other activity not listed above to ensure the safe operation and maintenance of the Eskom power lines or infrastructure.
- v. Eskom shall not be liable for the death or injury of any person, or for loss of or damage to any property, whether as a result of the encroachment or use of the area where Eskom has its services, by the applicant, his/her agent, contractors, employees, successors in title and assignee.
- vi. The applicant indemnifies Eskom against loss, claims or damages, including claims pertaining to interference with Eskom services, apparatus or otherwise.
- vii. Eskom shall at all times have unobstructed access to and egress from its services.
- viii. Any development which necessitates the relocation of Eskom’s services will be to the account of the developer.

PLEASE CONTACT AND MAKE APPOINTMENT: PIKETBERG CNC- BUKS BURGER 022 913 6311, 082 771 7646 BEFORE WORKING IN CLOSE PROXIMITY TO ANY ESKOM OVERHEAD POWER LINES.

The above is a requirement under the Occupational Health and Safety Act (Act No. 85 of 1993) to ensure safety.



Please apply to your local Eskom office (Sales and Customers) for a new electricity connection or an increase in your supply.

Should it be necessary to move any of the Eskom services a written request must be given to the local Eskom office. It must be noted that it will take 3 month or longer to move any power line and that the cost of moving a power line will be for the applicant's account."

<b>Communities</b>				
N/A				
<b>Dept. Land Affairs</b>	<b>X</b>	13/12/2018	Dr W Alexander from the Commission on Restitution of Land Rights commented as listed below.	-

Comments received from the Commission on Restitution of Land Rights:

"Thank you for your letter dated 13 December 2018.

We confirm that as at the date of this letter no land claims appear on our database in respect PORTION 1 OF THE FARM NO. 297 PIKETBERG RD, PORTION 6 (REMAINING EXTENT) OF THE FARM NAMAQUASFONTEIN NO. 76 PIKETBERG RD, PORTION 21 OF THE FARM NAMAQUASFONTEIN NO 76 PIKETBERG RD. This includes the database for claims lodged 31 December 1998 and those lodged between 1 July 2014 and 28 July 2016.

Whilst the Commission takes reasonable care to ensure the accuracy of the information it provides, there are various factors that may be beyond the Commission's control, particularly relating to claims that have lodged but not yet been gazette such as:

- ⌘ Some Claimants referred to properties they claim dispossession of the rights in land against using historical property descriptions which may not match the current property description; and
- ⌘ Some Claimants provided the geographic descriptions of the land they claim without mentioning the particular property they claim dispossession of rights in land against.
- ⌘ The Commission can therefore not accept any liability whatsoever if through the process of further investigation of claims it is found that there is in fact a land claim in respect of the above property.

PORTION 1 OF THE FARM NO. 297 PIKETBERG RD, PORTION 6 (REMAINING EXTENT) OF THE FARM NAMAQUASFONTEIN NO. 76 PIKETBERG RD, PORTION 21 OF THE FARM NAMAQUASFONTEIN NO 76 PIKETBERG RD.

If you are aware of a change in the description of the above property after 19 June 1913 kindly supply us with such description so as to enable us to do further search."

<b>Traditional Leaders</b>				
N/A				
<b>Dept. Environmental Affairs (DEA&amp;DP)</b>	<b>X</b>	06/12/2018	Adri La Meyer registered DEA&DP on the project, submitting the comments as listed below.	Greenmined acknowledged receipt of the registration on 6 December 2018, and responded as listed below.

Comments received from the Department of Environmental Affairs and Development Planning:

“Thank you for your e-mail of 5 December 2018. Kindly register the Department of Environmental Affairs and Development Planning as a commenting authority for the application. Please provide this Department with 1 x hard copy and 4 x CDs of any reports, marked for my attention please.

Could you please provide this Department with a copy of the prospecting right (WC30/5/1/1/2/10197PR) that was issued to the proponent? Also please indicate which waste management listed activities are triggered by the proposal. Please further note that the Waste Act, 2008 requires publication in two newspapers.

Please further be advised to also consult with CapeNature, DWS, Department of Agriculture, HWC, West Coast Biosphere Reserve, BirdLife South Africa and West Coast District Municipality.

We note the proposed specialist studies – please be advised that a Socio-Economic Specialist Study is highly recommended.

The Department will provide more preliminary comment upon receipt of the PR decision.”

Response to the Department of Environmental Affairs and Development Planning:

“Thank you for your response to our email.

Greenmined Environmental (hereinafter “Greenmined”) herewith acknowledge receipt of your correspondence received 6 December 2018 with regard to the proposed mining right application to be submitted on behalf of Bongani Minerals (Pty) Ltd. Greenmined, on behalf of the applicant, registered the Department of Environmental Affairs and Development Planning as a competent authority for the application, and will henceforth keep you posted on the progress of the Environmental Impact Assessment process. We also take note of the document requirements.

Attached hereto please find a copy of the prospecting right held by Bogani Minerals (Pty) Ltd.

The proposed project will trigger Category A(1) *The storage of general waste in lagoons* in terms of the National Environmental Management: Waste Act, 2008 read together with the List of Waste Management Activities that have, or are likely to have a detrimental effect on the environment, 2013.

Greenmined confirms that we have already notified CapeNature, DWS, DoA, HWC, WCBR, BLSA and WCDM of the proposed project, and will stay in constant communications with them, thank you.

We note your remark with regard to a socio-economic specialist study, and can confirm that the specialist has already been appointed and that their report will form part of the EIA documents to be circulated for perusal.

We trust you will find this in order. Please do not hesitate to contact me in the event of any uncertainties.”

Further comments received from the Department of Environmental Affairs and Development Planning on 6 December 2018:

“Thank you very much for the speedy response and the EAs, it is much appreciated. I assume you are aware of the attached Gazetted proclamation that affects the MR application?”

Greenmined confirmed that the client and project team were aware that the proposed mining right application extends over the Moutonshoek Protected Environment.

On 24 December 2018, a fax was received from DEA&DP acknowledging receipt of the BID:

“The Background Information Document (“BID”) dated 3 December 2018, as received by this Department on 11 December 2018, refers.

This letter serves as an acknowledgement of receipt of the aforesaid BID by this Directorate.

The Directorate: Development Management (Region 1), together with other relevant Organs of State, will act as the commenting authority regarding the application for Environmental Impact Assessment.

Please be advised that it is prohibited in terms of Section 24F of the National Environmental Management Act, 1998 (Act No 107 of 1998) for a person to commence with a listed activity unless the competent authority has granted an environmental authorization for the undertaking of the activity. A person convicted in terms of this prohibition is liable to a fine not exceeding R10 million or imprisonment for a period not exceeding ten years, or to both such fine and imprisonment.

Kindly quote the abovementioned reference number in any future correspondence submitted to this Directorate in connection with the application.

This Department reserves the right to revise its initial comments and request further information from you based on any new or revised information received.”

Comments received from DEA&DP on the DSR (12 February 2019):

“1. The e-mail notification of 5 December 2018 containing the Background Information Document (“BID”) and requesting registration as an interested and affected party (“I&AP”) for the above project, the Department’s response thereto via e-mail on 6 December 2018, the e-mail notification of 11 January 2019 regarding the availability of the Draft Scoping Report (“DSR”), and the DSR and Plan of Study for Environmental Impact Assessment (“EIA”) dated January 2019 as received by the Department on 14 January 2019, refer.

2. The Department acknowledges that scoping is the first phase in the Scoping and Environmental Impact Reporting (“S&EIR”) process and that specialist studies will be undertaken during the EIA phase to refine the development proposal. The National Environmental Management Act, 1998 (Act No. 107 of 1998) (“NEMA”) requires the consideration of all relevant factors for sustainable development, including that a risk-averse and cautious approach be applied that considers the limits of current knowledge about the consequences of decisions and actions. As a State department that administers a law relating to a matter affecting the environment, this Department has a constitutional mandate to ensure that the environment is protected and to secure ecologically sustainable development. Based on current knowledge and available information, the Department **objects to and does not support** development which is in direct conflict within the management objectives of a Protected Environment.

3. On 20 April 2018, following an extensive public consultation process, the Moutonshoek Valley area was declared as a Protected Environment under section 28(1)(a)(i) of the National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) (“NEM:PAA”). The development is proposed within the Moutonshoek Protected Environment, which is of extremely high conservation importance for the protection of terrestrial and aquatic ecosystems. The Department supports the comments of CapeNature dated 13 December 2018 in response to the BID, which highlights the very sensitive nature of the site. Mining activities pose direct and indirect threats to biodiversity and the ecological functioning in the Moutonshoek Valley and the water-stressed Verlorenvlei Catchment with associated RAMSAR designated Verlorenvlei wetland.

4. Section 48 of the NEM:PAA, 2003 provides for restrictions in protected areas.

“48(1) *Despite other legislation, no person may conduct commercial prospecting or mining activities-*

*(a) in a special nature reserve or nature reserve;*

*(b) in a protected environment without the written permission of the Minister and the Cabinet member responsible for minerals and energy affairs; or*

*(c) in a protected area referred to in section 9(b) or (d)....”*

“48(3) *The Minister, after consultation with the Cabinet member responsible for mineral and energy affairs, may, in relation to the activities contemplated in subsection (2), as well as in relation to mining activities conducted in areas contemplated in that subsection which were declared as such after the commencement of this section, prescribe conditions under which those activities may continue in order to reduce or eliminate the impact of those activities on the environment or for the environmental protection of the area concerned.*”

The Department recommends that the competent authority follow a risk-averse approach and **refuse authorisation** in terms of regulation 22(b)(i) of the EIA Regulations, 2014 (as amended), as the proposed development conflicts with a prohibition contained in legislation.

5. Historically, scoping was a process to identify potentially significant issues and reasonable project alternatives that require assessment, with the Plan of Study for EIA detailing the methods to be employed to assess the potentially significant impacts. Appendix 2 of the EIA Regulations, 2014 (as amended) sets out the objectives of the scoping process and the content requirements for a scoping report. The following regulations in Appendix 2 are of relevance:

5.1 Regulation 1 (d): *“The objective of the scoping process is to, through a consultative process 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”* (emphasis added).

5.2 Regulation 2(1)(g): *“A scoping report must contain the information that is necessary for a proper understanding of the process, informing all preferred alternatives, including location alternatives, the scope of the assessment, and the consultation process to be undertaken through the environmental impact assessment process, and must include full description of the process followed to reach the proposed preferred activity, site and location of the development footprint within the site, including...”*

5.3 The Department notes that only one site alternative was considered by the applicant and that *“should additional viable site alternatives be identified during the EIA process, the project team will heed the suggestions, and investigate the possible implementation thereof”*. Based on the requirements of regulation 1(d) of Appendix 2 of the EIA Regulations, 2014 (as amended), the preferred site must already be confirmed during the scoping phase; and considering that an application for a mining right can only be considered if there is a proven resource and in sufficient quantity; the statement regarding the investigation of alternative sites during the EIA phase appears to be misleading.

5.4 The Plan of Study for EIA identifies the various specialist studies that will be undertaken during the EIA phase of the S&EIR application. The environmental assessment practitioner (“EAP”) is cautioned that the final reports must be submitted to the competent authority within the stipulated, legislated timeframe. Certain specialist studies (i.e. ecological and freshwater ecology) must be undertaken during the correct season, which may result in the delay in submitting the final reports to the competent authority, and the ultimate lapsing of the EIA application.

5.5 In the absence of any scoping-phase specialist studies undertaken to provide an initial assessment of the (nature, significance, consequence, extent, duration and probability of) impacts and risks which have informed the identification of each alternative, this Department is concerned that the development footprint within the site has not yet been confirmed. The conceptual site layout may thus have to be amended in its entirety based on specialist inputs and recommendations.

6. The DSR states that *“A Notice of Intend to Develop will be submitted to Heritage Western Cape (HWC), of which the HIA, inclusive of the palaeontological study, will form part as required in terms of the National Heritage Act, 1999.”* Please be advised that the Notice of Intend to Develop should have been submitted to HWC when the application for environmental authorisation was submitted to the competent authority, which would have enabled HWC to provide an initial indication of their heritage requirements. The Plan of Study for EIA indicates that a desktop palaeontological study and a Phase 1 Heritage Impact Assessment will be undertaken by separate specialists during the EIA phase.

The Department is concerned that the level of specialist assessment was determined without consultation with the provincial heritage resources authority; that the specialist studies are disjointed and not integrated; and that no visual impact assessment is proposed.

7. This Department's *Guideline for Involving Visual and Aesthetic Specialists in the EIA Process* dated June 2005 recommends the various levels of visual assessment for specific types of developments. Said guideline identifies quarries and mining activities with related processing plants as being a Category 5 development. Category 5 developments in environments categorised as "*Protected/wild areas of international, national, or regional significance*" are expected to result in a very high visual impact. The category of issues associated with very high visual impacts are indicated as having a potentially significant effect on wilderness quality or scenic resources; resulting in a fundamental change in the visual character of the area; and establishing a major precedent for development in the area. The *Guideline for Involving Visual and Aesthetic Specialists in the EIA Process* recommends a Level 4 Assessment for developments where a very high visual impact is expected. A Level 4 Assessment requires complete 3D modelling and simulations, with and without mitigation. As such, the Plan of Study for EIA must be amended to include the appointment of a suitably qualified and experienced specialist to undertake the necessary level of visual impact assessment.

Notwithstanding the above potentially fatal flaws that may limit the success of the proposed development, please find consolidated comment from various directorates within the Department on the DSR, in support of the Department's objection to the proposed development.

8. Directorate: Development Management (Region 1) – Ms Rondine Isaacs (Rondine.Isaacs@westerncape.gov.za; Tel: (021) 483 4098):

8.1 Please be advised that the title page of the DSR (page 10) incorrectly refers to alluvial diamond prospecting. Furthermore, the statement on page 15 of the DSR "*Upon commencement, the proposed project will trigger listed activities (see Table below) in terms of the National Environmental Management Act, 1998 (Act 107 of 1998) and the Environmental Impact Assessment Regulations 2014 (as amended 2017) and therefore requires an environmental impact assessment*" is incorrect. Please be advised that the project triggers EIA and waste management listed activities and requires environmental authorisation prior to commencement of any listed activity.

8.2 The Directorate notes that no avifaunal specialist study will be commissioned during the EIA phase. The terms of reference ("ToR") for the Ecological Study does not specifically indicate whether an assessment avifaunal impacts will be undertaken. It is further not clear whether the ecologist has the necessary expertise to undertake an avifaunal assessment. A separate, independent avifaunal impact assessment may be required and the Plan of Study for EIA may require an amendment to include an avifaunal assessment. (In this regard, please also refer to paragraph 9.2 below).

8.3 It is noted that the Engineering Services Report will discuss the services required for the proposed development, including the handling and storage of dangerous goods. Should the competent authority decide to accept the Final Scoping Report, then the Draft EIA Report must provide a description of the storage capacity related to the development and related operation of facilities or infrastructure for the storage or handling of dangerous goods. The layout of the dangerous goods storage or handling facility must also be indicated. It is noted that an "explosives magazine" with buffer area will be established during site establishment. Please elaborate what this entails.

8.4 Information pertaining to the storage and handling of domestic waste, treatment of wastewater and sewage, and confirmation of electricity and water supply must be provided. The volume of water required during the site establishment and mining operations must be indicated, as well as the sources of water supply.

8.5 The applicability of Activity 19 of Listing Notice 1 of the EIA Regulations, 2014 (as amended) must be investigated and if applicable, be applied for and the impacts associated with the listed activity, assessed and reported on.

8.6 It is noted that a waste management licence (“WML”) in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) (“NEM:WA”) is required for the storage of general waste in lagoons. Section 47 of the NEM:WA describes the procedures for WML applications with section 47(3) of NEM:WA, 2008 stating that “*The steps contemplated in subsection (2) must include the publication of a notice in at least two newspapers circulating in the area in which the waste management activity applied for is to be carried out.*” The Department’s e-mail correspondence of 6 December 2018 alerted the EAP to this requirement. Based on the information contained in the DSR, the proposed development was only advertised in one newspaper (*Die Burger* of 3 December 2018). The publication in only one newspaper represents a **flawed public participation process** undertaken for the WML application. It is not known whether the applicant has applied for exemption in terms of section 74 of the NEM:WA, 2008 to only publish a notice in one newspaper. The competent authority must be consulted as matter of urgency to determine the way forward.

8.7 If the competent authority accepts the Final Scoping Report and amended Plan of Study for EIA (inclusive of the additional specialist studies required), then the following comment must be addressed in the Draft EIA Report:

8.7.1 The potential negative impacts of the proposed mining activities on groundwater resources cannot be ignored and it is critical that the EIA Report provide potential management measures that can be applied to avoid or minimise both surface and groundwater pollution, disrupted groundwater flow, a lowered water table and subsequent impacts and residual risk on existing water uses in proximity of the proposed site.

8.7.2 Dewatering is essential to most mining operations and includes the depression of the water table around the dewatered zone. Based on the review of the DSR, it is evident that dewatering remains a critical issue and it is unclear as to how this aspect will be addressed, since dewatering is inherent to underground mining.

8.7.3 Since groundwater flow systems are not delineated by surface drainage or catchment boundaries, the regional context of groundwater systems must form part of the ToR for the Hydrogeological Assessment.

8.7.4 The number and location of private boreholes that will be affected by the proposed mining operations must be clearly indicated.

8.7.5 The potential impacts on geohydrology, namely reduction in groundwater recharge, leakage of poor quality stored water, leakage of stored drilling fluids and chemicals, and contamination of groundwater must be thoroughly investigated during the EIA phase and the assumptions and models used must be clearly indicated.

8.7.6 Should there be any residue stockpiles or deposits associated with mining and processing activities, an indication of the size and location thereof must be provided.

8.7.7 The management of the residue stockpiles or deposits to prevent seepage into the receiving environment must be assessed in the Hydrogeological Assessment.

8.7.8 The applicability of the waste management activity listed in Category B3(11) of Government Notice (“GN”) No. 921 of 29 November 2013 (as amended) (establishment or reclamation of a residue stockpile or residue deposit resulting from activities which require a mining right) must be investigated and reported on.

8.7.9 The applicability of the *Regulations regarding the planning and management of residue stockpiles and residue deposits from a prospecting, mining, exploration or production operation*, under section 69(1)(iA) of the National Environmental Management Waste Act, 2008, as published in GN No. R. 632 of 24 July 2015 must be investigated and reported on.

8.7.10 The size and location of the lagoon for the storage of the general waste must be provided. Reference is made to a proposed slimes dam; please clarify whether the slimes dam is the same as the general waste lagoon? On what basis was the classification of the waste (general waste) to be stored in the lagoon made?

8.8 The motivation for the need and desirability of the proposed development should further address the after-use vision or post-mining sustainability of the areas earmarked for the proposed mining development, considering that the proposed site is a designated Protected Environment. The National Department of Environmental Affairs’ Guideline on Need and Desirability (first version published in terms of section 24J of the NEMA, 1998 in 2014 and second version in 2017), must be consulted and included in the list of applicable legislation and guidelines relevant to the proposed development.

8.9 The areas to be avoided as recommended by the various specialists (e.g. ecology, hydrogeology, avifaunal, heritage, visual, etc.) should be integrated and presented in overlays at an appropriate scale to clearly illustrate or map the areas that should be excluded from the development proposal.

9. Directorate: Biodiversity and Coastal Management – Ms Leptieshaam Bekko (leptieshaam.Bekko@westerncape.gov.za; Tel: (021) 483 3370):

9.1 The Moutonshoek Protected Environment is home to a variety of plant and animal species such as the endangered and endemic *Diascia caitliniae* flower and the endangered Verlorenvlei redfin fish (*Pseudobarbus verlorenei*), both which occur nowhere else in the world. In addition, it forms part of the Sandveld Corridor within the Greater Cederberg Biodiversity Corridor, a landscape initiative designed to connect protected areas and ensure sound environmental management.

9.2 The ToR for the Ecological Study requires the specialist to “*Elaborate on the potential impacts that the proposed activity may have on the receiving ecology (including the Krom Antonies River Valley) as well as the conservation status of the Moutonshoek Protected Environment*”. It is assumed that the ecologist must assess the potential impacts and provide suitable avoidance and mitigation measures. The ToR for the Ecological Study must be expanded to include an assessment of impacts on the Verlorenvlei Estuary, considering that the Moutonshoek Valley is an important catchment for the Verlorenvlei wetland system. Designated as a RAMSAR site in 1991, the Verlorenvlei Estuary is regarded as one of the ten most important wetlands for wading birds in the South-Western Cape. The Verlorenvlei Estuary supports at least 177 bird species with varying conservation status, including the Black Harrier, Black Stork, Ludwig’s Bustard, and the Secretary Bird. As such, biodiversity of the Verlorenvlei Estuary is dependent on the health of this upper water catchment.



9.3 Due to its importance, the Verlorenvlei Estuary was identified as a priority estuary, and it was one of the first estuaries in the country for which an Estuarine Management Plan (“EMP”) was compiled as part of a pilot study under the auspices of the C.A.P.E. Estuaries Management Programme. This EMP was recently updated to align to the principles indicated in the National Estuarine Management Protocol through this Directorate’s Estuary Management Framework and Implementation Strategy Project.

9.4 It is noted that the Verlorenvlei Estuary Advisory Forum is not included in the list of I&APs identified and registered for the EIA application. The Verlorenvlei Estuary Advisory Forum is an important stakeholder for any proposed development impacting on the estuary and must be consulted with regards to the proposed development.

9.5 The ToR for the Hydrogeological Assessment must be expanded to include a risk assessment to investigate and assess the potential risk to the main aquifer and impacts on boreholes that are within proximity of the proposed mining right area. It is important to note that over abstraction of water (both surface - and groundwater) may have a devastating impact on the hydrogeological system, especially for downstream users. As such, monitoring of borehole water levels and quality is required.

10. Directorate: Waste Management – Ms Evodia Boonzaier (Evodia.Boonzaier@westerncape.gov.za; Tel: (021) 483 8321):

10.1 Per the DSR, the Management Plan for the Moutonshoek Protected Environment indicates that the Moutonshoek Valley 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...” Development that is incompatible with the land uses allowed in the Moutonshoek Protected Environment zonation plan should not be allowed. This Directorate supports a risk-averse and cautious approach and reiterates section 48(4) of the NEM:PAA, 2003, which requires the consideration of the interests of local communities and the environmental principles referred to in section 2 of the NEMA, 1998.

10.2 Gaps in knowledge and information include limitations on the affected surrounding areas and I&APs, such as the Karookop Primary School which is apparently located on the boundary of the proposed mining right area. This existing establishment and other affected receptors/stakeholders must be clearly indicated on the locality and site layout maps.

11. Directorate: Pollution and Chemicals Management – Mr Gunther Frantz (Gunther.Frantz@westerncape.gov.za; Tel: (021) 483 2975):

11.1 The establishment of an (initial) open-cast and 220m underground mine will alter the geohydrological dynamics and groundwater quality of the receiving environment. Open pit mining concerns include landscape and ecological transformation whereas underground mining concerns include long-term water security and rehabilitation challenges. These concerns must be addressed in the Hydrogeological Assessment and Draft EIA Report.

11.2 The proposed mining activities will result in impacts to surface water resources such as the Krom Antonies River, which is a major source of water that supplies the Verlorenvlei Estuary with fresh water. It is imperative that a water monitoring system be implemented with identified water quality variables that must be measured. These variables must be detailed in the Draft EIA Report, together with the frequency and locations to be monitored.

12. Directorate: Air Quality Management – Mr Peter Harmse (Peter.Harmse@westerncape.gov.za; Tel: (021) 483 8343):

12.1 It is anticipated that activities related to the construction of access roads, mining of molybdenum and tungsten, drilling and blasting, hauling, crushing and stockpiling of final products, storage of waste products, etc. will create noise, dust and exhaust emissions, which could result in significant environmental impacts. Dust generated during the construction and operational phases must comply with the National Dust Control Regulations (GN No. R. 827 of 1 November 2013) promulgated in terms of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004). These regulations prohibit a person from conducting any activity in such a way as to give rise to dust in such quantities and concentrations that the dust, or dust fall, may have a detrimental effect on the environment, including human health.

12.2 Noise generated during the construction and operation phases must comply with the Western Cape Noise Control Regulations (Provincial Notice 200/2013) of 20 June 2013. The Noise and Traffic Impact Assessments must take cognisance of the Noise Control Regulations' requirements.

12.3 The DSR indicates that the mining technology to be used during Phase 1 of the operational phase (Years 1 – 4) will include drilling and blasting with associated truck and shovel operations. Phase 2 of the operational phase will, except for drilling and blasting that only occur during the day, occur on a 24-hour, 7 days a week schedule. The Noise Impact Assessment must assess the continuous noise impacts on the receiving environment, especially on sensitive receptors.

13. The applicant is reminded of its general duty of care and the remediation of environmental damage in terms of section 28(1) of the NEMA, 1998 which specifically states that: *"...Every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is authorised by law or cannot reasonably be avoided or stopped, to minimise and rectify such pollution or degradation of the environment..."* The applicant must demonstrate this general duty, together with the duty to avoid causing adverse effects on the estuarine environment per section 58 of the National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008).

14. Please direct all enquiries to the officials indicated in this correspondence should you require any clarity on any of the comments provided.

15. The Department reserves the right to revise initial comments and request further information based on any information received."

Other Competent Authorities affected				
Cape West Coast Biosphere (CWCBR)	<b>X</b>	14/12/2018	Karin Otto registered the CWCBR on the project as listed below:  "The Cape West Coast Biosphere Reserve (CWCBR), of the UNESCO: Man and Biosphere Program, aims to implement sustainable development principles along the West Coast, in addition to integrating rapid growth with biodiversity and heritage conservation. The CWCBR extends from the Diep River in the south to the Berg River in the north and inland to	Greenmined acknowledged receipt of the registration on 7 January 2019, and registered the CWCBR accordingly.

			Malmesbury and therefore the proposed development is located within the CWCBR. In this regard, the CWCBR would like to register as an I&AP and receive further correspondence and documentation regarding this development.”	
CapeNature	<b>X</b>	13/12/2018	Alana Duffel-Canham registered CapeNature on the project, submitting the comments as listed below.	Greenmined acknowledged receipt of the registration on 7 January 2019, and registered CapeNature as an I&AP on the project.

Comments received from CapeNature:

“CapeNature would like to thank you for the opportunity to comment on the Background Information Document for this mining application and would like to make the following comments:

1. The Moutonshoek Valley area is of extremely high conservation value, not only for protection of terrestrial ecosystems which support many Species of Conservation Concern but also for provision of water and other ecosystem services. The area has been declared as a Protected Environment and the reasons for this will be discussed in more detail below. However, we first wish to clarify the process that was followed to declare the area as a Protected Environment (PE):

The public participation process for the Moutonshoek Protected Environment was started on the 15th of January 2016 and advertised in the Provincial Gazette. In addition, the provincial notice was published in two national newspapers as is required by Section 33 of the National Environmental Management: Protected Areas Act 57 of 2003.

As required by Section 32 of the National Environmental Management: Protected Areas Act 57 of 2003, the necessary state departments were consulted. These included the national Minister of Environmental Affairs, The Department of Mineral Resources, the Department of Water Affairs and Forestry, the Department of Environmental Affairs and Development Planning, South African Heritage Resources Agency, the Department of Agriculture, Berg River Municipality, the Regional Land Claims Commission and the South African National Biodiversity Institute.

For the purpose of this application, we have attached a copy of the letter sent to the Department of Mineral Resources dated 11 February 2016. Letters and notifications to the other departments were also sent on the 11<sup>th</sup> of February 2016. The notices to the surrounding landowners were issued on the 22<sup>nd</sup> of February 2016 and sent out accordingly. Given that the consultative notices were sent out over a period of 1 month, all comments received up until the 10<sup>th</sup> of April 2016 were taken into account.

There were no objections received during the public participation process and subsequently after getting all landowners of the Landowner Association to sign their notarial agreements and Memorandum of Agreements the Protected Environment was declared on 20 April 2018 with an erratum notice published on 25 May 2018 given that page 2 of the property list was omitted in the original declaration notice. These documents have also been attached for your information and records.

As required as part of the consultation process the Moutonshoek Protected Environment was presented to the Joint Planning Task Team (JPTT) on the 29<sup>th</sup> of September 2017.

The public participation process for the approval of the Management Plan was completed mid-March 2018 with notices having been published in the Sunday Times, City Press and Rapport on 11 February 2018. No objections to the Management Plan were received through these processes.

2. The site is located within the highly sensitive and already water stressed Verlorenvlei catchment. One of the major tributaries which feeds into the Verlorenvlei is the Krom Antonies River which is in the mining application study area. The impacts of the mining activities will extend beyond the area which will be directly transformed. The proposed area is located at the source of the Verlorenvlei, which is internationally recognized as a Ramsar site (one of 19 wetlands in South Africa which have been designated to be of international importance) and is one of the largest natural wetlands along the West Coast of South Africa. Based on the ecological importance of the Verlorenvlei system and recognizing the duty South Africans have at a national level to protect and conserve the wetlands associated with the Ramsar site, all new activities in the Krom Antonies River valley should result in active upgrading and rehabilitation of the riverine ecosystems. Groundwater is also an important source of water for the Verlorenvlei and any additional activities which will reduce the amount of ground- or surface water available or pose a serious risk of contamination should not be permitted. Agriculture is already highly dependent on groundwater due to limited surface flow and it is unlikely that additional uses can be accommodated.
3. Although a portion of the area that would be impacted directly by the proposed mining activities has largely been transformed by agricultural activities, there are still important areas supporting indigenous vegetation, including Leipoldtville Sand Fynbos, which is Endangered, Swartland Shale Renosterveld, which is Critically Endangered, Piketberg Quartz Succulent Shrubland which qualifies as Critically Endangered according to the latest analysis conducted by CapeNature (only 11.7% of its original very small extent is remaining), Piketberg Sandstone Fynbos which is listed as Vulnerable, Cape Lowland Alluvial Vegetation, which is listed as Critically Endangered, and Cape Lowland Freshwater Wetlands. CapeNature does not support any further loss of any Endangered or Critically Endangered vegetation types.
4. The Western Cape Biodiversity Spatial Plan has determined terrestrial and aquatic Critical Biodiversity Areas (CBAs) as well as Ecological Support Areas (ESAs) within and adjacent to the application area. The management objectives of these CBAs and ESAs are vital to consider in order to prevent ecosystem collapse and loss of ecosystem services.
5. Verlorenvlei supports at least 177 bird species including several 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 redbfin (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). The Krom Antonies River has a considerable number of critically endangered Verlorenvlei redbfin in its upper reaches where the proposed mining footprint is located. Any mining activities that impact the river could cause extinction of this species which

is completely endemic to this site. Although this area is degraded in certain areas, with environmentally sensitive farming practices and proper rehabilitation, this river could return to a good condition with a highly conservation worthy fish assemblage. The Verlorenvlei system is already under high levels of water stress, with fish and other water dependent biota confined to small pools in summer. The Indigenous fish in these pools are very susceptible to changes in water quality and water temperature during these periods.

6. The Moutonshoek Valley supports a large number of threatened plant species and animal species from many phyla and it is impractical to list all of them in this letter. However, it must be noted that extensive work has already been undertaken in this area which has highlighted the ecological importance of the Moutonshoek Valley. Lists of species confirmed to be present can be found in the Management Plan for the Moutonshoek Protected Environment.
7. CapeNature would also like to draw your attention to the significant investment already made in projects and initiatives in this area. For example, the Working of Wetlands project which has already had millions of rand invested for clearing alien vegetation from the Verlorenvlei system. There are also a range of eco-tourism initiatives being developed and implemented within the Verlorenvlei system, which are dependent on the long-term functioning of the wetland system. Should mining activities go ahead, this would almost certainly negate these positive efforts. Even before the area was declared as a Protected Environment, it formed part of the Greater Cederberg Biodiversity Corridor, which aims to conserve and restore the unique biodiversity of this region and encourage sustainable land use practices.
8. CapeNature was not aware that a prospecting right had been awarded for this area. No notifications were received regarding any application for prospecting since 2010. The last letter we submitted with regard to a prospecting application in Moutonshoek valley was to DMR on 17<sup>th</sup> of June 2010. As a commenting authority we should have been notified and given the opportunity to provide information on the biodiversity importance of the site and raise concerns prior to the prospecting right being issued.

#### Conclusion:

9. The proposed mining activities pose direct and indirect threats to biodiversity and ecological infrastructure found in the Moutonshoek Valley and the Verlorenvlei catchment. CapeNature is of the opinion that the proposed mining activities and associated impacts such as an increase in population (which will bring with it the need for additional roads, water supply, sewage and waste disposal) poses a high level of risk to the terrestrial and aquatic ecosystems in the area and their functioning and high negative irreversible impacts will occur if mining is authorized.
10. Furthermore, the mining site is located in the center of the declared Moutonshoek Protected Environment. The Protected Environment status of the Moutonshoek area is underpinned by the extremely high conservation importance and ecological sensitivity of the area. The proposed mining activities are in direct conflict with the management objectives of the Moutonshoek Protected Environment.
11. CapeNature therefore strongly objects to this application for mining within the Moutonshoek Protected Environment and urges that it not be given any further consideration.

CapeNature reserves the right to revise initial comments and request further information based on any additional information that may be received.”

Department of Agriculture	<b>X</b>	14/12/2018	Jan Smit registered the Western Cape Department of Agriculture on the project, objecting to the project due to the impact on agricultural and natural resources.	Greenmined acknowledged receipt of the registration on 7 January 2019, and registered the Western Cape Department of Agriculture accordingly.
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Comments on the DSR received from the Department of Agriculture (22 January 2019):

“Your letter e-mail 11 January 2019 has reference. Thank you for registering this department as an interested and affected party and sharing the link to the Draft Scoping Report. A CD with the information also reached our office. The Mining Project entails the extraction of the tungsten-molybdenum resource in two phases through opencast- and underground mining operations. As well as the processing of excavated material on site to produce Ammonium Paratungstate (APT) that is then transported to the Saldanha Bay metallurgical plant, and the export of the final product via the Saldanha Bay harbour. The specified activities triggered by the associated mining activities include amongst other things the following:

Replacing the topsoil and vegetating the disturbed area ±350 ha

- ✘ Opencast mining ±400m
- ✘ Overburden stripping to access the ore.... ±400m
- ✘ Overburden Storage Area ±47.83ha

The statements above indicate a direct footprint impact of ± 350 hectares on agricultural land. The size and depth of the open pit and footprint of overburden stripping is however not mentioned in detail. It is merely referred to as being ± 400m. The site layout plan, however indicates an area of about 20 hectares for the pit. It is assumed that these figures along with the site layout map is only a schematic indication that do not represent the anticipated impact, but is rather a reduced version of the anticipated impact. This may be due to a lack of information as a result of the limited prospecting that was done in 2012/2013 period when the unauthorised prospecting was terminated. The mandate of the Department of Agriculture is to protect, maintain and enhance the agricultural production potential of farmland.

The department is concerned that the proposed tungsten mine will:

Leave an inheritance that will remain for far longer than its working lifespan, causing a massive environmental problem similar to what is already been experienced in other areas in the world.

- ✘ Never be able to fully compensate negative impacts of the proposed mine to the state, the environment and land users.
- ✘ Prevent the continuation of farming on High and Unique Agricultural Land (HUAL).
- ✘ Impact negatively on the right to farm the subject properties and surrounding farms.
- ✘ Permanently pollute the natural agricultural resources with minerals that have high levels of toxicity and are classified as emerging contaminants.
- ✘ Expose minerals to air and water that will begin to produce acid, which will leach into run-off water to be dispersed into ground and surface water.

- ✘ Result in acid mine drainage occurring in the remaining mine pit after mining and rehabilitation.
- ✘ Permanently negatively affect water flow in the Krom Antonies River due to dewatering of the mining area.
- ✘ Negatively impact yields on boreholes and wells of surrounding groundwater users and may lead to some drying up due to the mine.
- ✘ Negatively impact on groundwater dependent wetland systems.
- ✘ Produce toxic dust that will impact on the production and market value of fruit and table grapes.
- ✘ Impact negatively on future agricultural activities and the continuation of current agricultural activities.
- ✘ Impact negatively on proposed new agricultural developments.
- ✘ Contaminate the agricultural and environmental resources of the catchment.
- ✘ Negatively affect the current agricultural production of the entire Moutonshoek Valley and other farms in the Verlorenvlei catchment area.
- ✘ Negatively affect the legally executed water use rights of surrounding farmers.
- ✘ Negatively affect Broad-Based Black Economic Empowerment
- ✘ Negatively affect the sustainable management of the Verlorenriver and it's Estuary.
- ✘ Negatively affect the farming community, land users and workers.
- ✘ Only provide additional jobs for a short period at the mine and will have a permanent negative impact on the current number of agricultural jobs as well as the long term number of agricultural jobs.
- ✘ Nullify the project investments made in this catchment by this office and other government entities.

The subject area is considered to have a Unique Agricultural potential and worth protecting by preventing the undesired consequences of mining. In a letter dated 18 October 2012, addressed to the Bergrivier Municipality, the department stated that –

*“Mining will most probably lead to a permanent change in land use and alter the agricultural production potential of the area concerned by having the potential to affect the subsurface water resources, vlei, marches and wetlands which have a supporting role in agriculture.”*

This department was not in favour of the proposed Temporary Departure to allow the Prospecting in 2012 because this department regarded the prospecting as a forerunner to mining. The department of Agriculture is concerned that the proposed mine will leave a negative permanent impact on agriculture and the environment and therefore **strongly object to the proposed tungsten mine.**

Please note:

The Western Cape Department of Agriculture reserves the right to request further information and revise initial comments based on any additional information that might be received. This department is also a commenting authority in the other Land Use application processes that will follow the mining right application. A copy of this letter is therefore forwarded to the Sub-Directorate LandUse Management for attention Mr Cor van der Walt.”

Department of Economic Development and Tourism	<b>X</b>	To date no comments were received	-	Not applicable as no comments were received.
Department of Environmental Affairs – RAMSAR division.	<b>X</b>	To date no comments were received	-	Not applicable as no comments were received.
Department of Labour	<b>X</b>	To date no comments were received	-	Not applicable as no comments were received.
Department of Rural Development and Land Reform	<b>X</b>	To date no comments were received	-	Not applicable as no comments were received.
Heritage Western Cape	<b>X</b>	14/01/2019	Waseefa Dhansay acknowledged receipt of the BID and commented that in order to provide comments, HWC will require a formal Notification of Intent to Develop submission.	The archaeologist was tasked to commence with the NID that will be lodged with HWC as soon as possible.
SANParks	<b>X</b>	To date no comments were received	-	Not applicable as no comments were received.
South African Heritage Resources Agency	<b>X</b>	To date no comments were received	-	Not applicable as no comments were received.
West Coast District Municipality (WCDM)	<b>X</b>	5/12/2018	<ul style="list-style-type: none"> <li>∞ Charles Malherbe registered on behalf of the West Coast District Municipality.</li> <li>∞ Angila Joubert (BLM) requested that Cindy Ganten-Bein (WCDM) be added to the contact list. Me. Ganten-Bein objected to the</li> </ul>	∞ Greenmined acknowledged receipt of the registration on 6 December 2018, and registered the West Coast District Municipality accordingly.



			<p>proposed project on 18 December 2018, requested the specialist report for commenting, the environmental authorization (granted), and a fugitive EMP. She raised commented that dust monitoring must be done in accordance with the National Dust Control Regulations, and requested that the Bergrivier Local Air Quality Officer be informed.</p> <p>∞ Doretha Kotze also registered on behalf of the WCDM on 10 December 2018.</p>	<p>∞ Me Ganten-Bein was supplied with a copy of the BID on 5 December 2018. The objection submitted by Me Ganten-Bein was acknowledged on 7 January 2019 and included in the DSR.</p> <p>∞ Me Kotze's request was acknowledged (13 December 2018) and her contact details were added to the WCDM contact list.</p>
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Comments received from WCDM on the DSR (17 January 2019):

“With reference to the electronically received notice in relation to the above, this office has the following comments:

1. It is noted that various studies are still to be conducted. One of these studies include an air, dust and noise impact assessment. This office requests a copy of the studies where further comments may be provided.
2. The National Dust Control Regulations dated 01 November 2013 and as amended must be applied.
3. No listed activity may be conducted on the mine site without an Atmospheric Emission Licence issued by the competent authority.
4. The Piketberg region is a water scarce area. This office is not in favour of the proposed project as large amounts of water is one of the main requirements for mining operations and dust suppression. Without water the impact of fugitive dust from mining operations may negatively affect the surrounding area and land users. It is important that the abundance of water is established to ensure that dust suppression will be maintained and the remaining Piketberg region land users will not lack water themselves due to this proposed project.”

Comments received from Me Kotze (WCDM) on the DSR (28 January 2019):

1. Your electronic communication of 11 January 2019 and the DSR for the proposed mining right refer. Your attention is also drawn to the comments (letter 15/2/3/5/1 dated 17 January 2019) from the Air Quality Officer of the West Coast District Municipality.
2. The West Coast District Municipality is not in favour of the proposed mining of tungsten and molybdenum in the Moutonshoek Valley. As with the previous prospecting right application, the West Coast District Municipality is of the opinion that mining in this pristine biodiversity area will have a negative impact on the surface and ground water sources in the area. The Krom-Antonies River and the Moutonshoek catchment is the single biggest source of surface and ground water in the area. Surrounding communities, the agricultural sector and the Verlorenvlei Estuary depend on this water source.

3. The area in question is a newly proclaimed Protected Area (ito NEMPAA) due to its extremely high biodiversity value (e.g. the Verlorenvlei Redfin, a Red Data fish species is endemic to the Krom-Antonies River and Moutonshek catchment) and scenic beauty. The Protected Area status of the area necessitates approval from the National Department of Environmental Affairs.
4. The productive farming area in the region, as well as the internationally recognised importance of the Verlorenvlei RAMSAR Wetland and Important Birding Area (IBA), will not benefit from this application. Furthermore, Verlorenvlei Estuary is one of the only two RAMSAR sites on the entire West Coast of South Africa – the other being Langebaan Lagoon. Risks associated with the mining of tungsten and molybdenum, i.e. the loss of biodiversity and threats with regard to the quantity and quality of ground and surface water in the already arid Sandveld Region, cannot possibly be mitigated in a sustainable manner.
5. The sustainability of the agricultural sector in the area, which provides 500 permanent and 1000 seasonal employment opportunities, is dependant on the surface and ground water sources in the area. The Krom-Antonies River and the Verlorenvlei Estuary are critical water sources for sustained agricultural production in this water scarce environment. Mining in the Moutonshoek Valley will compromise the sustainability of the agricultural sector in the area with resultant negative effects on current and long term employment opportunities.
6. Agricultural production in the Moutonshoek Valley and along the river towards Verlorenvlei and onto Elands Bay (a distance of 60+ kilometers) have been contributing towards food security and long term employment opportunities for the past 150+ years. The Director General of the Department of Mineral Resources had previously stated that, in order to safeguard food production for food security, mining should not be approved on productive agricultural land.
7. The persistent drought in recent years (2015 – 2018) had a negative effect on the Verlorenvlei Estuary with regard to water levels and water inflow from the Moutonshoek catchment. Climate change predictions estimate that future water levels will be affected by lower rainfall, thus having a negative effect on the availability of surface and ground water and consequently, water availability in the region and water inflow into the Verlorenvlei Estuary. Mining in the Moutonshoek Valley will only exacerbate this situation and should not be contemplated.
8. Proper functioning of the Verlorenvlei Estuary/RAMSAR site will not be possible without the fresh water from the Moutonshoek catchment. Any change in the availability of water to this sensitive and pristine natural environment will compromise the effective functioning of the estuarine system. Pollution of ground and surface water by mining in the Moutonshoek catchment and lower reaches of the Krom-Antonies River will further compromise the functioning of the estuary.
9. Considering the scarcity of water in the area, the risk of pollution to surface and ground water sources by mining activities, as well as the effects climate change may have on water availability, the West Coast District Municipality considers the impact of mining in the Moutonshoek Valley unacceptably high.
10. Attached hereto please find Annexure A containing additional information in this regard. (*see Appendix 5 – 12 Comments on DSR V-W*)
11. The West Coast District Municipality strongly objects to the proposed mining in the Moutonshoek Valley for the reasons set out above.”

<b><u>OTHER STAKEHOLDERS &amp; AFFECTED/INTERESTED PARTIES</u></b>			
African Paddling Association	04/02/2019	Marie-Louise Kellett registered the African Paddling Association as I&AP's on the project and listed the following reasons for objecting.	Greenmined acknowledged receipt of the objection on 4 February 2019, registered the African Paddling Association as I&AP on the project and informed them of the availability of the DSR.

Objections received from the African Paddling Association:

“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general.

It is my request that the applications be refused by the relevant authority because of –

- ⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;
- ⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;
- ⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and
- ⌘ the undesirability of mining operations in the area.”

“I would also like to object about the public consultation process – it has not been properly done. The community has not been properly educated or consulted about the implications of this mine and neither has the broader public, who are all custodians of our shared natural resources.”

Agri Western Cape	06/12/2018	Ilana de Klerk registered Messrs Strydom and Wessels on behalf of Agri Western Cape as I&AP's on the project.	Greenmined acknowledged receipt of the registration on 7 December 2018, and registered Agri Western Cape accordingly.
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Comments received from Agri Western Cape on the DSR (12 February 2019):

“Thank you for providing Agri Western Cape (AWC) with the opportunity to comment on the Draft Scoping Report, dated January 2019, which was prepared by yourselves in support of the application by Bongani Minerals (Pty) Ltd (‘BM’) for the environmental authorisation of listed activities triggered by a mining rights’ application with respect to a proposed Tungsten and Molybdenum mine in the Moutonshoek valley in the upper reaches of the Verlorenvlei/Krom Antonies rivers in the Berg River Municipality, Western Cape.

**1. AGRI WESTERN CAPE OBJECTS TO THE APPLICATION FOR MINING RIGHTS**

Please record Agri Western Cape's objection to the above application for mining rights in terms of section 22 of the Minerals and Petroleum Resources Development Act 28 of 2002 (‘MPRDA’). We wish to be immediately notified in writing once the objection has been referred to the Regional Mining Development and Environmental Committee in terms of section 10(2) of the MPRDA. The reasons for our objection are set out below. They also serve as Agri Western Cape's comment on the draft scoping report.

**2. IMPACTS ON GROUNDWATER1**

The proposed Tungsten mine in Moutonshoek would be located in a catchment and groundwater system that has immense strategic significance for water users, aquatic ecosystems and biodiversity conservation in the central Sandveld. In fact, mining-related contamination of aquifers could have a catastrophic effect on the natural environment, human health and the economic viability of farms that are overwhelming dependent on groundwater which originates from higher-lying areas such as the Piketberg and Moutonshoek valley. According to the Department of Water and Sanitation, the proposed mining area is seated over a major, highly-yielding secondary aquifer system of good quality groundwater (EC <150 mS/m). It is also highly vulnerable to contamination, as is the aquifer that underlies the confluences of the Krom Antonies, Hol, Kruismans and Verlorenvlei rivers in the G30D quaternary catchment. Our concerns are based on the understanding that the rock material to be mined at Moutonshoek contains pyrite, an iron sulphide which forms sulphuric acid and dissolved iron when it reacts upon exposure to air and water. Whereas acids are produced at a very slow rate during normal weathering of minerals, the rock mass is extensively fragmented during mining and mineral processing which dramatically increases the rock surface and consequent rate of acid production (McCarthy, 2011). Mining-derived acid water that enters ground and surface water resources increases the solubility of heavy metals, which are highly toxic. In South Africa, acid mine drainage (AMD) is one of the largest potential liabilities faced by the mining industry due to the potential scale of its threat to water resources, human health and the environment (CSIR, 2013). AMD is so persistent that contaminated sites and water resources may never be completely restored (Oelofse, 2008; Manders *et al.*, 2009; McCarthy, 2011). Besides the concern that mining (particularly as a result of blasting) may change sub-surface flows and reduce the amount of water entering the Sandveld groundwater systems, there is a very worrying risk that mining-related contaminants which enter the secondary aquifer in Moutonshoek could eventually enter the primary aquifer system, thereby exposing groundwater-dependent ecosystems, crops and people to highly toxic acid mine drainage and dangerous chemical leachates.

### 3. CRITICAL AGRICULTURAL DEPENDENCY ON GROUNDWATER

The Sandveld is one of South Africa's most important regions for potato production which almost exclusively relies on groundwater for centre pivot irrigation. The potato sector is also a significant regional employer whose workforce and its dependents closely rely on good quality groundwater for sustenance and health. About 7 000 people are permanently employed on Sandveld potato farms. Seasonal appointments account for another 3 500 posts. Irrigation accounts for about 60% of South Africa's water use – in the Sandveld, irrigation accounts for more than 90% of the region's total water requirement (Archer *et al.*, 2009). The groundwater table is typically shallow, but very little groundwater abstracted for agricultural and human use in the Sandveld is actually derived from direct rainfall. The Sandveld region receives less than 250 mm of rainfall per annum and even the lowest evaporation exceeds the highest rainfall. In this context of limited rainfall and high levels of water loss due to evaporation, the groundwater recharge areas in the wetter, higher-lying areas (which receive ca. 500 mm of rainfall per annum) are absolutely key to agricultural production and ecological and human wellbeing in the Sandveld (Conrad *et al.*, 2004). The high hydraulic head within these recharge zones in the Olifantsrivier and Piketberg mountains drives recharge water through the bedrock towards the coast and overlying, unconfined primary aquifers. Groundwater flow in the Sandveld generally traces block faulting and fracturing in a north-westerly direction, but there is also flow in the matrix of fractured rock (Conrad *et al.*, 2004). Groundwater in the lower-lying regions of the Sandveld is pumped from primary (surface, porous, sandy) aquifers which are underlain by secondary, fractured-rock sandstone aquifers. There is good connectivity between the secondary and primary aquifers, and the secondary aquifer is significant throughout the Sandveld (Conrad *et al.*, 2004).

#### 4. HIGH SOCIO-ECOLOGICAL VULNERABILITY TO CHANGES IN GROUNDWATER AVAILABILITY AND QUALITY

If the amount of water entering the sub-surface hydrological system in these recharge areas is reduced and/or its quality is compromised through contamination by, for example, AMD and other mining-related leachates, the resulting impacts on groundwater-dependent ecosystems, farms and communities could be extensive and may extend well beyond the recharge zone. Such an eventuality is of immense concern when the impacts of climate change are added to the existing environmental vulnerability of the Sandveld to water scarcity and salinisation of groundwater. Research findings by the CSIR (Archer *et al.*, 2009) point to a high likelihood of reduced winter rainfall and warmer monthly average minimum and maximum temperatures for the Sandveld. Less rain and increased heat – which may be attributed to global climate change – are liable to further diminish groundwater recharge, increase evaporation rates and cause die-back of indigenous vegetation which is crucial for stabilising soils and maintaining soil moisture. Increased wind erosion and a higher incidence of wildfires would even further compound these already adverse environmental conditions for farming and human livelihood security in the Sandveld. The preceding paragraphs have sketched, largely from an agri-environmental perspective, the groundwater context, and associated vulnerabilities, within which mining would take place. In short, mining in Moutonshoek must not be permitted as it holds an unacceptably high risk to human health and wellbeing due the potentially irreversible contamination and degradation of highly vulnerable groundwater resources.

#### 5. IMPACT OF MINING ON ECOLOGICAL INFRASTRUCTURE AND BIODIVERSITY CONSERVATION PRIORITY AREAS

At a local scale, the mine would be located within one of the main, higher-lying groundwater recharge areas for the Sandveld. It would also, perversely, be situated within a proclaimed Protected Environment which coincides with the catchment of Ramsar wetland of international significance and Important Bird Area, namely the Verlorenvlei. Protected Environments can have the crucial function of safeguarding ecosystems that are important for maintaining and generating a sustained supply of ecosystem goods and services which are crucial for human wellbeing. Moutonshoek is a case in point, particularly in terms of the indivisible relationship between healthily-functioning wetlands, groundwater recharge and water security for downstream users. Please be reminded that it would in any event be premature for the state to authorise mining in the Moutonshoek Protected Environment until such time that a management plan has been prepared for this protected area. The proposed mining area contains threatened vegetation – including Critically Endangered renosterveld – and is interlaced with terrestrial Critical Biodiversity Areas (CBAs). The immense eco-hydrological significance of Moutonshoek and the upper reaches of the Krom Antonies/Verlorenvlei rivers and their tributaries is underscored by the presence of extensive ecological support areas and wetlands CBAs which must be managed in a natural or near-natural condition as national priorities for freshwater ecosystem conservation (Driver *et al.*, 2011; Cadman *et al.*, 2016; Pool-Stanvliet *et al.*, 2017).

In terms of the national *Mining and Biodiversity Guideline* (DEA *et al.*, 2013):

- ⌘ Mining should be prohibited in Protected Environments;
- ⌘ The confirmed presence of Critically Endangered and Endangered vegetation could be a fatal flaw for mining; and
- ⌘ Biodiversity offsets may need to be considered as a condition of authorisation where significant residual loss of priority biodiversity cannot be avoided through strict, sequential and demonstrable implementation of the mitigation hierarchy.

Likewise, the guidelines accompanying the *Western Cape Biodiversity Spatial Plan* (Pool-Stanvliet *et al.*, 2017) state that CBAs in a natural condition must be managed to keep them in this state and, if not natural, rehabilitated to at least a near-natural condition. Mining would be fundamentally incompatible with these objectives, and likewise with respect to the ecological management objectives for FEPA wetlands and rivers.

## 6. AGRI WESTERN CAPE'S EXPECTATIONS WITH RESPECT TO SPECIALIST STUDIES

### 6.1 Coordination of specialist studies

The hydrogeological, aquatic and agricultural assessments need to be coordinated between the respective specialists in order to ensure an integrated approach to investigating and reporting on potential environmental impacts of mining operations on groundwater, wetlands and rivers, and farming.

### 6.2 Pollution of water resources as a result of AMD and other contaminants, etc

- ⌘ What are the risks that acid mine drainage may occur during mining and after mine closure?
- ⌘ What is the anticipated volume of mining tailings, and where and how will these be stored?
- ⌘ How much overburden will be removed in order to reach the targeted ore reserves and where and how will it be stored?
- ⌘ Which chemicals will be used during mining and mineral extraction?
- ⌘ What is the chemical composition of the mined material and by-products?
- ⌘ What is the volume of these by-products, including waste water?
- ⌘ To what standard will waste water be treated?
- ⌘ What are the impacts of mining-related blasting on the human and natural environments, including surface and sub-surface water resources?
- ⌘ What are the environmental risks of using chemical processes to extract Tungsten from the ore?
- ⌘ Which measures will be implemented to prevent groundwater contamination as a result of mining, the storage of tailings, mineral processing and mine dumps?

### 6.3 Hydrogeological assessment<sup>4</sup>

- ⌘ The hydrogeologist must investigate potential changes to:
  - Groundwater quality (with particular reference to acid mine drainage);
  - The volume of groundwater in storage or entering storage; and
  - Groundwater flows, including exchanges between secondary and primary aquifers.
- ⌘ It is particularly important that the groundwater assessment identifies hydrogeological pathways along which mining-related contaminants may be transported and reports on the health and ecological risks of exposure to such contaminants relative to distance from the mine.
- ⌘ A hydrocensus must be undertaken.
- ⌘ A conceptual model must be developed with describes the type/s of aquifer, aquifer recharge, flow and discharge.
- ⌘ The conceptual model must be substantiated by well-referenced, supporting information.

- ✘ Assumptions, limitations and confidence levels underpinning the conceptual model must be made explicit.
- ✘ The hydrogeological assessment must include and describe the field work undertaken, and indicate linkages with other specialists.
- ✘ Key groundwater references must be cited.
- ✘ The terms of reference and geographical scope of the hydrogeological assessment needs to be finalised in consultation with the Department of Water and Sanitation (DWS), the Western Cape Department of Agriculture, CapeNature, irrigation boards and water user associations whose members rely on groundwater in the G30B, G30C, G30D and G30E quaternary catchments.

#### 6.4 Mining-related impacts on biodiversity

The Applicant needs to demonstrate how it proposes complying with its Duty of Care towards the environment (NEMA section 28) with respect to the purpose and management objectives of:

- ✘ Protected Environments;
- ✘ Threatened ecosystems;
- ✘ Ramsar wetlands;
- ✘ CBAs;
- ✘ Freshwater Ecosystem Priority Areas; and
- ✘ Ecological Support Areas.

The same applies to the national environmental management principles insofar as they relate to the primacy of promoting human health and wellbeing in environmental management, the mitigation hierarchy, ecosystem conservation, the precautionary principle and the need for specific management measures to deal with environmental impacts affecting vulnerable, highly dynamic and sensitive ecosystems.

Further, the respective biodiversity assessments must be based on:

- ✘ The terms of reference for terrestrial (Appendix 3) and aquatic (Appendix 4) impact assessments provided by the *Fynbos Forum Ecosystem Guidelines for Environmental Assessment in the Western Cape* (Cadman (Ed), 2016);
- ✘ DEADP's *Guideline for involving biodiversity specialists in EIA processes* (Brownlie, 2005); and
- ✘ The IAIA guideline on *International Best Practice Principles for Biodiversity and Ecosystem Services in EIA* (Brownlie et al., 2018) should also be closely consulted in order to ensure that scoping and impact assessment for this mining application correspond with international best practice.

We trust that these concerns will be objectively reported and that you will provide substantive, actionable responses to these comments (i.e. please avoid using 'none' as a substitute for a reasoned response)."

Please find Greenmined's response to the DSR comments included at the end of this table.			
Alexander, D	04/02/2019	David Alexander as I&AP's on the project and listed the following reasons for objecting.	Greenmined acknowledged receipt of the objection on 4 February 2019, registered Mr Alexander as I&AP on the project and informed them of the availability of the DSR.
<p>Objections received from the Mr Alexander:</p> <p>“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>∞ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>∞ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>∞ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>∞ the undesirability of mining operations in the area.”</li> </ul>			
Alexander, L	04/02/2019	Lucy Alexander registered on the project and submitted the following comments.	Greenmined acknowledged receipt of the comments on 5 February 2019, registered Me Alexander as I&AP on the project and informed her of the availability of the DSR.
<p>Comments received from Me Alexander:</p> <p>“1) How will all these measures that will be put in place be monitored? (by whom?) What mechanisms for correction? 2) How will ore be carried to Saldanha? Along which routes? Who are the beneficiaries of this project?</p> <ol style="list-style-type: none"> <li>1) Compliance will be difficult to monitor.</li> <li>2) The vlei with its environmentally significant eco-system is already at risk from poor rains. The effluent disposal from the project is not adequately detailed. If water is to be transported to the site, surely all effluent should be transported away. The water system is an underground system.</li> <li>3) The route for transportation to Saldanha is not detailed. The R27 is inadequate as it stands for potato trucks and cars are at risk for tyre damage and accidents. Transportation should not use the R27. This is not clearly stated</li> </ol>			



4) Build-up of sedimentation and excavation through aquifer systems. What measures to address runoff?"			
Alexander, S	05/02/2019	Susan Alexander objected to the project with the following comments.	Greenmined acknowledged receipt of the comments on 6 February 2019, registered Me Alexander as I&AP on the project and informed her of the availability of the DSR.
<p>Comments received from Me Alexander:</p> <p>“1) Has there been a study on the contents of the slime dam – will this penetrate the aquiver. 2) What route will be used to Saldanha?</p> <p>1) Seepage into the aquiver.                  2) Additional heavy load bearing traffic through the area.                  3) Long term impact on soil – how will that soil ever recover?                  4) Although ±90 jobs are generated but is estimated that 500 farm worker jobs will be lost.                  5) Who will be employed – will labour be brought in from elsewhere (foreign nationals).”</p>			
Amos, J	04/02/2019	Justin Amos objected to the project and is concerned about job loss, drought of the vlei, pollution of flowers, health risk, air pollution and the health of the animals.	Greenmined acknowledged receipt of the comments on 5 February 2019, registered Mr Amos as I&AP on the project and informed him of the availability of the DSR.
Andrews, G	05/02/2019	Gizela Andrews objected to the project and submitted the following comments.	Greenmined acknowledged receipt of the comments on 6 February 2019, registered Me Andrews as I&AP on the project and informed her of the availability of the DSR.
<p>Comments received from Me Andrews:</p> <p>“This letter is written in open protest to the information sent out on the 3<sup>rd</sup> of December 2018 showing Bongani Minerals’ interest in applying for rights to mine in the Moutonshoek Valley.</p> <p>Please see below the list of concerns:</p> <p>1) 20 hecters of indigenous vegetation will be removed, how will you replace it?                  2) What processes will be put in place to prevent the chemicals from leaking into the ground due to high water table in the area?                  3) How long will phase two of the mining activities last? The noise pollution in the area will have a direct impact on the birds mating in the RAMSA area.</p>			

- 4) Where will the reverse osmosis plant be located and what is the source of the plants water?
- 5) The borehole water with in the mining area will come from a valuable water source to the farmers, families and RAMSA area. Should this water sauce be used the consequences will be staggering (agricultural, environmental, social). What other water sources are available?
- 6) The Verlorenvlei River feeds into a sensitive wetland area and we request all reports on the water use be made available.
- 7) Will a copy of the EIA documentation be available? We will have our own experts study the report.
- 8) The district is not a low employment rate area and 170 jobs can be created elsewhere, are there more employment opportunities available?
- 9) Please elaborate on the socio-economic project you will be investing in as there are already many projects in the Piketberg area that serve this need.
- 10) We would like the agricultural assessment report to be made available as there are many farmers in the area who rely heavily on the water the mine would like to use

We would also ask that you list us as people of interest in these proceedings as this application will have a direct impact on our community.

We appreciate your swift response to these concerns as our community will protest any activity that will lead to the negative impact of our environment, water and community spirit.”

Bailey, B	18/01/2019	Basil Bailey requested an Afrikaans version of the BID.	On 18 January 2019 Greenmined supplied Mr Bailey with a copy of the DSR notice, and on 23 January 2019 the Afrikaans BID was sent to Mr Bailey.
Bakker, C	25/01/2019	Case Bakker submitted an objection (as listed below) to the proposed project.	Greenmined acknowledged receipt of the objection on 28 January 2019, registered Mr Bakker as I&AP on the project and informed him of the availability of the DSR.
<p>Comments received from Mr Bakker:</p> <p>Mr Bakker objected to the proposed project and requested a detailed description of the proposed mining activity.            Concern: “High potential of contamination of groundwater and surrounding watercourses, all which feed into Verlorenvlei.”</p>			
Bakkes, N	05/02/2019	Nelleke Bakkes registered on the project and requested project information.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered Me Bakkes as I&AP on the project, supplied her with a copy of the BID, and informed her of the availability of the DSR.

Banghoek Game Reserve	15/01/2019	Emlyn Balarin registered the Banghoek Game Reserve as I&AP on the project and commented as listed below.	Greenmined acknowledged receipt of the correspondence on 17 January 2019, registered Banghoek Game Reserve as I&AP on the project and informed them of the availability of the DSR.
<p>Correspondence received from Me Balarin:</p> <p>“I am contacting you to register my extreme concern in the manner that you have contacted IAPs. As you have indicated in your draft report Banghoek Game Reserve is one of the identified IAPs in the area, yet no attempt has been made to source current contact details for the Reserve Body Corporate. To merely include a returned email as proof of an attempt to contact the BC does not to my mind constitute fulfilling your obligation to contact identified stakeholders. This email serves to advise you that I am the chairman of the BC for Banghoek, and all future communication to IAPs should be directed to me for distribution to the trustees and owners of Banghoek.”</p>			
Barbosa, S	05/02/2019	Sandra Barbosa objected to the project and is concerned about water pollution – underground, loss of habitat, wildlife – sickness, and lost in tourism.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered Me Barbosa as I&AP on the project and informed her of the availability of the DSR.
Baretta, G	05/02/2019	Gretchen Baretta objected to the project and submitted the following comments on the DSR.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, and registered Me Baretta as I&AP on the project.
<p>Comments received from Me Baretta on the DSR:</p> <p>“I Gretchen Baretta would like to take this opportunity to object to the abovementioned mining right application lodged by Greenmined on behalf of Bongani Minerals.</p> <p><b><u>Basis for objecting:</u></b></p> <p>∞ I do believe that the intrinsic value of the unspoilt ecosystem and its biodiversity is surely more valuable to the Western Cape than a short-term mine that will alter the landscape for ever?” or “while the mine might provide short term economic gain for some, it will undoubtedly destroy this unique and threatened area and leave the Western Cape ecologically poorer in the long term</p> <p><b><u>Further environmental concerns:</u></b></p> <p>∞ Certain properties under consideration for this mining right application form part of the recently designated Moutonshoek Protected Environment. Other properties forming part of the application are directly adjacent to and bordering on the Protected Environment. The area’s natural heritage and ecological sensitivity is part of the reason for this declaration as a Protected Environment.</p> <p>∞ The area contains a number of threatened vegetation types, also part of its reason for declaration as a Protected Environment. These vegetation types include include: Critically Endangered Swartland Shale Renosterveld, Piketberg Quartz Succulent Shrubland which qualifies as Critically Endangered according to the latest analysis</p>			

conducted by CapeNature (only 11.7% of its original very small extent is remaining), Critically Endangered Cape Lowland Alluvial Vegetation, Endangered Leipoldtville Sand Fynbos, Vulnerable Piketberg Sandstone Fynbos, and Cape Lowland Freshwater Wetlands. These vegetation types are not only threatened in themselves, but provide essential habitat for a range of biodiversity present in this area. The presence of critically endangered vegetation types alone should preclude any mining developments from this area.

- ✘ The Moutonshoek Valley is estimated to supply 60% of the water volume and 90% of the water quality to the Verlorenvlei Estuary, which is listed as an Important Bird and Biodiversity Area and a Ramsar site, or wetland of international significance. The area is already highly water-stressed and the development of a mine will ultimately lead to the collapse of the freshwater and estuarine ecosystems within this area.
- ✘ The Moutonshoek Valley, including those sites indicated in the mining right application, contain the endangered fish species the Verlorenvlei Redfin (*Pseudobarbus verloreni*), previously undescribed, and genetically different from the Berg River Redfin (*Pseudobarbus burgi*). Cape Galaxias (*Galaxias zebratus*) and Cape Kurper (*Sandelia capensis*), both classified as Near Threatened, also occur within the river systems of this area.
- ✘ The Moutonshoek Valley supports several threatened bird species including, Ludwig's Bustard, Black Stork, Black Harrier and Secretary Bird. In addition the Verlorenvlei system of which the valley forms part supports globally threatened species such as Lesser Flamingo, Black Harrier, African Black Oystercatcher and Chestnut-banded Plover. Nationally threatened species include Caspian Tern, Great White Pelican, Greater Flamingo, African Marsh-Harrier and Ludwig's Bustard. Endemic species include Cape Spurfowl, Cape Bulbul and Southern Black Korhaan.
- ✘ The conservation of the above species and the Verlorenvlei Estuary is an obligation for South Africa as a signatory to the Convention on Biological Diversity, Convention on Migratory Species and African-Eurasian Waterbird Agreement. The commitments to these multilateral environmental agreements and the impact of the mining activities on these species and habitats must be taken into account.
- ✘ The scoping report states that *The RAMSAR status of Verlorenvlei takes president and accordingly directs the mining project proposal* (Table 2. Applicable legislation). If the applicant wishes to honour this statement, due to the Ramsar status, the mining applicant should be required to prove that all water flows to Verlorenvlei are maintained and even improved by the mining activities, whilst also not impacting on the water volumes available to agriculture. The detailed hydrological modelling study should provide clear evidence of the maintenance of water flows and improvements to water quality.

**Further social concerns:**

- ✘ The area provides essential job security to local communities through the agricultural production in the area, and also food security and economic opportunities through the production of wine, potatoes, race horses and citrus.
- ✘ The Scoping Report states that *the proposed labour component of the operation is approximately 211 employees including management*. (Page 26; Draft Scoping Report).
- ✘ While this figure is not insignificant, we await the outcomes of the socio-economic evaluation as it must be determined how many jobs will be AT RISK or LOST in the local agricultural sector as a result of the mining development. Further, the loss of potable water will lead to a decline in agricultural productivity and a loss of jobs throughout the entire Verlorenvlei catchment. We require a detailed study of these impacts which clearly illustrates the degree of threat to livelihoods associated with the agricultural sector in this area."

Please find Greenmined's response to the DSR comments included at the end of this table.

Baty, Simon (Matroozefontein Farm & Unifrutti)	20/12/2018	Simon Baty submitted an objection (as listed below) on behalf of Unifrutti to the proposed project.	Greenmined acknowledged receipt of the objection on 7 December 2018, and registered Unifrutti as I&AP on the project.
<p>Comments received from Unifrutti:</p> <p>1. “Unifrutti is objecting to the application of a Mining Right by Bongani Minerals in terms of Section 22 of the Mineral and Petroleum Resources Development Act, 2002 in the Moutons Hoek Valley.</p> <p>The objection is based on the long term impact of the mine on the quality and availability of the underground water resources in the area and the negative impact it will have on farming activities in the Sandveld.</p> <p>2. The following comments are made:</p> <p>There is considerable historical evidence of the negative impact open cast mining has on the quality and availability of underground water in the vicinity of mining operations. Matroozefontein is situated 28.5 km’s from the proposed mine site as the crow flies. The Moutons Hoek valley is an important catchment are for the Veloren Vlei and for replenishing underground water in the Sandveld. This is the best quality water source for the Veloren Vlei and for replenishing underground water in the area. The other catchment areas provide water that is high in salts. Matroozefontein obtains its water from 15 boreholes on the farm. Matroozefontein has a permit to withdraw more than 2 million cubic meters of water/annum. Unifrutti has spent a considerable sum of money investigating the long term sustainable yield and quality of the water from the boreholes on the farm before it purchased the farm in 2004. The tests were done by De Villiers Visser Besproeiing and by SRK consulting (Compiled by A.C. Woodford). The tests were done for the planning of future citrus and table grape plantings on the farm. Any negative impact to the water resources on the farm will jeopardize the current and future developments on Matroozefontein. This will have negative implications on the long term profitability of the farm and negatively impact employment in the area. Matroozefontein employs a large number of seasonal and permanent people (in excess of 300 people). Currently Matroozefontein is monitoring its boreholes (levels and water quality) on a monthly basis. All the drinking water for Redelinghuys is supplied from the fountain on Matroozefontein. This amounts to 31 liters/second (977,616 cubic m’s/annum). Any changes to the quality and availability of the water from the fountain will have serious health, welfare and development implications for the town. It needs to be pointed out that this residential water qualifies as a priority one supply.”</p>			
Beautement, V	31/01/2019	Vanessa Beautement objected to the project and listed the following as reasons for the objection.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Me Beautement as I&AP on the project and informed her of the availability of the DSR.
<p>Reasons for objection:</p> <p>“The damage to the natural and farming environment which will last forever despite any promises made by Bongani to restore the area when mining ends</p>			

<p>The pollution of the Krom Antonies river with subsequent disastrous effects on farming in the area and on the water quality in Verlorenvlei The loss of employment for the farm workers, many of whom are women. The mine will not employ these actual people and whole families will suffer.”</p>			
Beckman, R	04/02/2019	Robert Beckman objected to the project and submitted the following reasons.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mr Beckman as I&AP on the project and informed him of the availability of the DSR.
<p>Correspondence received from Mr Beckman:</p> <p>“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.”</li> </ul>			
Beech, C	08/02/2019	Carol Beech objected to the project with the following comments.	Greenmined acknowledged receipt of the correspondence on 11 February 2019, registered Me Beech as I&AP on the project and informed her of the availability of the DSR.
<p>Comments received from Me Beech:</p> <p>“I should like to register as an interested and affected party with regard to the above.</p> <p>Secondly, I should like to place on record my strongest objection to the proposed mining for tungsten and molybdenum.</p> <p>A few years ago, Piketberg was targeted by Bongani Mining and at that time numerous objections were made and backed up with sound arguments for the case against prospecting and, ultimately, mining.</p>			

Piketberg is a successful farming area, providing employment, security and homes to hundreds of permanent and seasonal workers; farmers have invested heavily in infrastructure; and huge quantities of produce are supplied to both the local and foreign markets, in the case of the latter bringing desperately-needed foreign exchange in to the country. We understand that mining, if it happens, is unlikely to provide anything like the number of jobs and this in turn will only exacerbate the already high number of unemployed in the town, leading to misery, poverty and undoubtedly an increase in crime. And who will benefit? Just Bongani’s shareholders.

At the time of Bongani’s previous application, the Berg River Municipality heeded the wishes of its ratepayers and turned down the application. Nothing has changed since then. Let Bongani take their drilling rigs to an undeveloped area of the country, an area where they could do good by creating work where there is currently none, rather than bulldozing their way into an area where they will destroy lives and livelihoods for the enrichment of just a few.”

Bertish, G	05/02/2019	Greg Bertish registered as I&AP on the project.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered Mr Bertish as I&AP on the project and informed him of the availability of the DSR.
Bjergfelt, C Bjergfelt, K	06/02/2019	Kerri and Cheyne Bjergfelt objected to the project with the following comments.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered the Bjergfelts as I&AP on the project and informed them of the availability of the DSR.

Comments received from Cheyne Bjergfelt:

“Want to see results of more than one environmental impact assessments done by more than one registered companies.

Concerns: Pollution! – Water & air; Negative impact on wildlife and birdlife; Effect on water usage in an already drought stricken area; Everything you have shared is merely proposed and does not reflect accurate information.”

Comments received from Kerry Bjergfelt:

“Would like to see environmental impact assessment as well as fixed numbers and plan, not proposed.

Concerns: Pollution – Water & air; Use of water in an already drought stricken area; I see very minimal benefit for surrounding communities but rather the risks (negatives) outweigh the (positives) benefits; Ecological consequences – bird life, animals, etc...”

BirdLife Overberg	25/01/2019	Anon Odendaal objected to the project with the following comments.	Greenmined acknowledged receipt of the correspondence on 28 January 2019, and registered Birdlife Overberg as I&AP on the project.
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Comments on the DSR received from Birdlife Overberg:

"I, Anton Odendal object strongly to the abovementioned mining right application lodged by Greenmined on behalf of Bongani Minerals. I do so as Chairman of BirdLife Overberg, past Chairman of the Western Cape Birding Forum (representing all the bird clubs in the province) and having served on the Council of BirdLife South Africa for close on 20 years. Full endorsement of this objection will also be obtained from the members of BirdLife Overberg at our Annual General Meeting scheduled for 11 February 2019 and a quarterly meeting of the Western Cape Birding Forum scheduled for 2 March 2019. I will further to the best of my ability canvas opposition to this application through all like-minded individuals and organisations that I see fit.

**Basis for objecting:**

I agree in principle with the "further environmental concerns" described in the template below provided by the Advocacy Officer of BirdLife South Africa. It should however just be added that both the threatened Black Harrier and Southern Black Korhaan are dependent on Renosterveld habitats for their survival and that this itself makes the application questionable. Several ornithologists and bird-watching enthusiasts will probably object to this application and therefore my basis for objecting will not relate to conservation issues as such. The focus here is on the growing importance of birding tourism.

For many years I have been responsible for the marketing of the Western Cape Province as a top birding destination, to both domestic and international bird-watching fraternities. Brochures, information placards, birdfinder web pages and presentations have been developed in support of [www.westerncapebirding.co.za](http://www.westerncapebirding.co.za) – a quarter of the daily visitors to this website are from overseas. Our clients and partners include Wesgrow, district and local municipalities and tourism offices, SANPARKS, CapeNature and private product owners. Internationally the birding tourism industry is one of the fastest growing tourism commodities. The Cape West Coast region attracts huge numbers of bird-watchers and Verlorenvlei (a recognised IBA and RAMSAR site) is one of the crown jewels in the region's birding portfolio. Many bird-watchers visit the site for an extended period and others stop over there when travelling between top birding sites such as the West Coast National Park and the Berg River estuary at Velddrif in the south and Lambert's Bay and the Olifant River estuary in the north. Several birds clubs visiting the Cederberg on weekend -, or longer outings have also included a visit to Verlorenvlei into their itineraries.

The economic benefits of bird-watchers visiting the region dare not be underestimated, both from direct financial benefits and job creation perspective. The proposed mining operations resulting from this application will certainly have a major negative and detrimental effect on birdlife both in the Moutonshoek Valley and at Verlorenvlei. The impact of this on local and regional tourism will be a disaster and this in itself should be enough reason to reject the application of mining rights out of hand.

**Further environmental concerns:**

- ⌘ Certain properties under consideration for this mining right application form part of the recently designated Moutonshoek Protected Environment. Other properties forming part of the application are directly adjacent to and bordering on the Protected Environment. The area's natural heritage and ecological sensitivity is part of the reason for this declaration as a Protected Environment.
- ⌘ The area contains a number of threatened vegetation types, also part of its reason for declaration as a Protected Environment. These vegetation types include: Critically Endangered Swartland Shale Renosterveld, Piketberg Quartz Succulent Shrubland which qualifies as Critically Endangered according to the latest analysis conducted by



- CapeNature (only 11.7% of its original very small extent is remaining), Critically Endangered Cape Lowland Alluvial Vegetation, Endangered Leipoldtville Sand Fynbos, Vulnerable Piketberg Sandstone Fynbos, and Cape Lowland Freshwater Wetlands. These vegetation types are not only threatened in themselves, but provide essential habitat for a range of biodiversity present in this area. The presence of critically endangered vegetation types alone should preclude any mining developments from this area.
- ✘ The Moutonshoek Valley is estimated to supply 60% of the water volume and 90% of the water quality to the Verlorenvlei Estuary, which is listed as an Important Bird and Biodiversity Area and a Ramsar site, or wetland of international significance. The area is already highly water-stressed and the development of a mine will ultimately lead to the collapse of the freshwater and estuarine ecosystems within this area.
  - ✘ The Moutonshoek Valley, including those sites indicated in the mining right application, contain the endangered fish species the Verlorenvlei Redfin (*Pseudobarbus verloreni*), previously undescribed, and genetically different from the Berg River Redfin (*Pseudobarbusburgi*). Cape Galaxias (*Galaxias zebratus*) and Cape Kurper (*Sandelia capensis*), both classified as Near Threatened, also occur within the river systems of this area.
  - ✘ The Moutonshoek Valley supports several threatened bird species including Ludwig's Bustard, Black Stork, Black Harrier and Secretarybird. In addition the Verlorenvlei system of which the valley forms part supports globally threatened species such as Lesser Flamingo, Black Harrier, and Chestnut-banded Plover. Nationally threatened species include Caspian Tern, Great White Pelican, Greater Flamingo, African Marsh-Harrier and Ludwig's Bustard. Endemic species include Cape Spurfowl, Cape Bulbul and Southern Black Korhaan.
  - ✘ The conservation of the above species and the Verlorenvlei Estuary is an obligation for South Africa as a signatory to the Convention on Biological Diversity, Convention on Migratory Species and African-Eurasian Waterbird Agreement. The commitments to these multilateral environmental agreements and the impact of the mining activities on these species and habitats must be taken into account.
  - ✘ The scoping report states that *The RAMSAR status of Verlorenvlei takes precedent and accordingly directs the mining project proposal* (Table 2. Applicable legislation). If the applicant wishes to honour this statement, due to the Ramsar status, the mining applicant should be required to prove that all water flows to Verlorenvlei are maintained and even improved by the mining activities, whilst also not impacting on the water volumes available to agriculture. The detailed hydrological modelling study should provide clear evidence of the maintenance of water flows and improvements to water quality.

**Further social concerns:**

- ✘ The area provides essential job security to local communities through the agricultural production in the area, and also food security and economic opportunities through the production of wine, potatoes, race horses and citrus.
- ✘ The Scoping Report states that *the proposed labour component of the operation is approximately 211 employees including management*. (Page 26 of the Draft Scoping Report).
- ✘ While this figure is not insignificant, we await the outcomes of the socio-economic evaluation as it must be determined how many jobs will be AT RISK or LOST in the local agricultural sector as a result of the mining development. Further, the loss of potable water will lead to a decline in agricultural productivity and a loss of jobs throughout the entire Verlorenvlei catchment. We require a detailed study of these impacts which clearly illustrates the degree of threat to livelihoods associated with the agricultural sector in this area.

Kindly note that a more comprehensive and detailed motivation could be produced for the “Basis for Objecting” described briefly in this objection. The presentation of a PowerPoint talk in this regard can also be considered if required.”

BirdLife South Africa	14/01/2019	Jonathan Booth registered BirdLife South Africa as an I&AP and commented as listed below.	Greenmined acknowledged receipt of the correspondence on 21 January 2019, and responded as listed below.
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Correspondence received from BirdLife South Africa:

“BirdLife South Africa would like to register as an Interested and Affected Party in response to the Proposed Riviera Tungsten Project in the Piketberg District of the Western Cape Province. We will be providing a response to the Scoping Report before the deadline.

In the meantime, could you please provide us with a copy of the Prospecting Right that you hold for the properties and records of the Public Participation process that was followed in the process of being granted the Prospecting Right? It is apparent that BirdLife South Africa and other significant conservation role players who have an interest in the area were not consulted in this process, and your public participation records should confirm or refute this.”

Second correspondence received from BirdLife South Africa (in discussion with Mark Anderson and Rob Little):

“Hi Mark, Rob and Christine,

Yes, we’re well aware of this and will be objecting to it and are in discussions with other NGOs with the view of forming a coalition against this mining application. I have also asked Christine and the applicant, Bongani Minerals, for a copy of the Prospecting Right which they hold as well as a record of the public participation process that took place prior to the Right being awarded. The circumstances under which the Prospecting Right was awarded are unclear and we believe that there may be significant procedural issues here which, if is shown to be the case, will deem this Mining Right application to be procedurally flawed.

Christine: will you please respond to my prior email (attached for your convenience) as a matter of urgency.”

Response to BirdLife South Africa:

“Greenmined Environmental (Pty) Ltd (hereinafter referred to as “Greenmined”) herewith acknowledge receipt of your email dated 18 January 2019 to which your email dated 14 January 2019 was attached. Please note that due to a spelling mistake in the email address your first email (14 January 2019) did not reach me, and therefore we could not respond to your request.

Greenmined, on behalf of the applicant, registered Birdlife South Africa as an interested and affected party (I&AP) on the project, and will henceforth keep you posted on the progress of the Environmental Impact Assessment (EIA) process, as well as provide you with an opportunity to comment on the EIA documentation. As you are aware the draft scoping report is currently available for perusal and commenting.

Attached hereto please find a copy of the prospecting right (PR) held by Bongani Minerals (Pty) Ltd. As to your request for the records of the public participation process that was followed in the process of being granted the prospecting right, Greenmined can unfortunately not assist as the application was handled by Withers Environmental (Pty) Ltd, and Greenmined was not involved. A copy of this information can be requested from the prospecting right holder (Bongani Minerals (Pty) Ltd) copied into this email.

We trust you will find this in order. Please do not hesitate to contact me in the event of any uncertainties.”

Comments received from BirdLife SA on the DSR (4 February 2019):

“BirdLife South Africa would like to take this opportunity to object to the abovementioned mining right application lodged by Greenmined on behalf of Bongani minerals.

**Procedural concerns:**

Process followed in obtaining a Prospecting Right:

- ✘ The scoping report states that *the Applicant 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 lapsed in December 2018.*
- ✘ The prospecting right would have therefore been awarded in December 2013, and public consultation would have taken place in the months prior to this.
- ✘ It is apparent that conservation agencies and NGOs with a long standing interest in the area were not consulted with in the process, which raises procedural concerns with the process followed and questions the legal basis on which the prospecting right was awarded.
- ✘ BirdLife South Africa has requested that Bongani Minerals furnish us with a copy of the Prospecting Right and a record of the public participation process followed in the process of applying for the Right, however this has not been forthcoming. Should you not provide us with this information we will be forced to submit a PAIA request to DMR in order to obtain the documents?
- ✘ We also question whether sufficient prospecting actually took place in order to plan a mine and adequately account for environmental and social impacts in the EIA phase. Without a detailed understanding of the ore body and location of mining operations, it will not be possible to properly understand environmental impacts and how these could be avoided or mitigated. We request that Bongani Minerals provides I&AP’s with evidence of sufficient prospecting having taken place in order to plan this mine and proceed with the Environmental Impact Assessment phase.

The declaration of the Moutonshoek Protected Environment:

- ✘ The applicant is aware of the proposed mining area being within the Moutonshoek Protected Environment.

- ✘ As required by Section 33 of the National Environmental Management: Protected Areas Act 57 of 2003, a full public participation process was undertaken prior to the declaration of the Moutonshoek Protected Environment. The process was initiated on 15 January 2016 and advertised in the Provincial Gazette and the provincial notice was published in two national newspapers, as is required
- ✘ In addition, as required by Section 32 of the National Environmental Management: Protected Areas Act 57 of 2003, all of the necessary state departments were consulted and notified of the public participation process. These included the national Minister of Environmental Affairs, the Department of Mineral Resources, the Department of Water Affairs and Forestry, the Department of Environmental Affairs and Development Planning, South African Heritage Resources Agency, the Department of Agriculture, Berg River Municipality, the Regional Land Claims Commission and the South African National Biodiversity Institute.
- ✘ No comments were received from the Department of Mineral Resources in relation to this matter.
- ✘ The Moutonshoek Protected Environment was also presented by CapeNature officials to the Department of Environmental Affairs and Department of Mineral Resources Joint Planning Task Team on 29 September 2017. There were no objections received from the DMR at that meeting and the area was approved for Protected Environment status.
- ✘ There were no objections received during the public participation process and subsequently after getting all landowners of the Landowner Association to sign their notarial agreements and Memorandum of Agreements the Protected Environment was declared on 20 April 2018 with an erratum notice published on 25 May 2018 given that page 2 of the property list was omitted in the original declaration notice.
- ✘ The applicant therefore had ample opportunity to engage in the process of declaring the Protected Environment and oppose this if they were to see fit.
- ✘ The application should therefore be aware that mining is not permissible within the area, without the approval of the national Environmental Ministry. The protected status of Moutonshoek Valley should make the project a no go for this area.

**Environmental concerns:**

- ✘ Certain properties under consideration for this mining right application form part of the recently designated Moutonshoek Protected Environment. Other properties forming part of the application are directly adjacent to and bordering on the Protected Environment. The area's natural heritage and ecological sensitivity is part of the reason for this declaration as a Protected Environment.
- ✘ The area contains a number of threatened vegetation types, also part of its reason for declaration as a Protected Environment. These vegetation types include: Critically Endangered Swartland Shale Renosterveld, Piketberg Quartz Succulent Shrubland which qualifies as Critically Endangered according to the latest analysis conducted by CapeNature (only 11.7% of its original very small extent is remaining), Critically Endangered Cape Lowland Alluvial Vegetation, Endangered Leipoldtville Sand Fynbos, Vulnerable Piketberg Sandstone Fynbos, and Cape Lowland Freshwater Wetlands. These vegetation types are not only threatened in themselves, but provide essential habitat for a range of biodiversity present in this area. The presence of critically endangered vegetation types alone should preclude any mining developments from this area.
- ✘ The Moutonshoek Valley is estimated to supply 60% of the water volume and 90% of the water quality to the Verlorenvlei Estuary, which is listed as an Important Bird and Biodiversity Area and a Ramsar site, or wetland of international significance. The area is already highly water-stressed and the development of a mine will ultimately lead to the collapse of the freshwater and estuarine ecosystems within this area.

- ✘ The Moutonshoek Valley, including those sites indicated in the mining right application, contain the endangered fish species the Verlorenvlei Redfin (*Pseudobarbus verloreni*), previously undescribed, and genetically different from the Berg River Redfin (*Pseudobarbus burgii*). Cape Galaxias (*Galaxias zebratus*) and Cape Kurper (*Sandelia capensis*), both classified as Near Threatened, also occur within the river systems of this area.
- ✘ The Moutonshoek Valley supports several threatened bird species including, Ludwig’s Bustard, Black Stork, Black Harrier and Secretary Bird. In addition the Verlorenvlei system of which the valley forms part supports globally threatened species such as Lesser Flamingo, Black Harrier, African Black Oystercatcher and Chestnut-banded Plover. Nationally threatened species include Caspian Tern, Great White Pelican, Greater Flamingo, African Marsh-Harrier and Ludwig’s Bustard. Endemic species include Cape Spurfowl, Cape Bulbul and Southern Black Korhaan.
- ✘ The conservation of the above species and the Verlorenvlei Estuary is an obligation for South Africa as a signatory to the Convention on Biological Diversity, Convention on Migratory Species and African-Eurasian Waterbird Agreement. The commitments to these multilateral environmental agreements and the impact of the mining activities on these species and habitats must be taken into account.
- ✘ The scoping report states that *The RAMSAR status of Verlorenvlei takes president and accordingly directs the mining project proposal* (Table 2. Applicable legislation). If the applicant wishes to honour this statement, due to the Ramsar status, the mining applicant should be required to prove that all water flows to Verlorenvlei are maintained and even improved by the mining activities, whilst also not impacting on the water volumes available to agriculture. The detailed hydrological modelling study should provide clear evidence of the maintenance of water flows and improvements to water quality.

**Social concerns:**

- ✘ The area provides essential job security to local communities through the agricultural production in the area, and also food security and economic opportunities through the production of wine, potatoes, race horses and citrus.
- ✘ The Scoping Report states that *the proposed labour component of the operation is approximately 211 employees including management.* (Page 26; Draft Scoping Report).
- ✘ While this figure is not insignificant, we await the outcomes of the socio-economic evaluation as it must be determined how many jobs will be AT RISK or LOST in the local agricultural sector as a result of the mining development. Further, the loss of potable water will lead to a decline in agricultural productivity and a loss of jobs throughout the entire Verlorenvlei catchment. We require a detailed study of these impacts which clearly illustrates the degree of threat to livelihoods associated with the agricultural sector in this area.”

Please find Greenmined’s response to the DSR comments included at the end of this table.

Black, M	17/01/2019	Mr MA Black objected to the project and submitted the comments as listed below.	Greenmined acknowledged receipt of the objection on 18 January 2019, registered Mr Black as I&AP on the project and informed him of the DSR.
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Comments received from Mr Black:

Mr Black objected vehemently.

Concerns: "As a regular visitor to Verlorenvlei, Elands Bay & surrounds, and as an ex-geologist (once upon a time) I have absolutely no doubt that any, any mining activity in this fragile ecosystem will have a very detrimental long-term effect on its sustainability & survival. Mining must not be allowed to go ahead!"

Response to Mr Black:

"Greenmined Environmental (Pty) Ltd (hereinafter referred to as "Greenmined") would like to thank you for your interest and herewith acknowledge receipt of your objection dated 17 January 2019 with regards to the mining right application (WC 30/5/1/2/2/10110 MR) submitted on behalf of Bongani Minerals (Pty) Ltd.

Greenmined, on behalf of the applicant, registered you as an interested and affected party (I&AP) on the project, and will henceforth keep you posted on the progress of the Environmental Impact Assessment (EIA) process, as well as provide you with an opportunity to comment on the EIA documentation. Your concerns were noted, will be included in the Final Scoping Report and assessed in the Draft Environmental Impact Assessment Report.

Please note that the Draft Scoping Report (DSR) in respect of the mining right application is now available for your perusal and comment.

Should you be interested in submitting comments, a copy of the DSR can be obtained from Greenmined, alternatively downloaded from the Greenmined website ([www.greenmined.com](http://www.greenmined.com)).

A hard copy of the DSR is available at:

- ✂ Piketberg Public Library, 9A Kerk Street, Piketberg, and
- ✂ Redelinghuys Public Library, Voortrekker Street, Redelinghuys.

Please take notice further that there is a 30-day commenting period expiring on **12 February 2019** during which time you may submit your comments on the DSR. Your comments must be in writing and should include your contact details. Comments can be submitted via facsimile (086 546 0579), e-mail ([christine.f@greenmined.co.za](mailto:christine.f@greenmined.co.za)) and/or ordinary/registered mail (Postnet Suite 62, Private Bag X15, Somerset West, 7129).

We trust you will find this in order. Please do not hesitate to contact me in the event of any uncertainties."

Bleeker, K	04/02/2019	Karen Bleeker objected to the project and submitted the following reasons.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Me Bleeker as I&AP on the project and informed her of the availability of the DSR.
<p>Correspondence received from Me Bleeker (translated to English for ease of reference):</p> <p>My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.</li> </ul>			
Bokkomlaan Action Group	19/01/2019	Ronald Miller registered the Bokkomlaan Action Group as an I&AP on the project and commented as listed below.	Greenmined acknowledged receipt of the objection on 21 January 2019, registered the Bokkomlaan Action Group as I&AP and informed them of the availability of the DSR.
<p>Correspondence received from the Bokkomlaan Action Group:</p> <p>The Action Group objects to the project.</p> <p>Concerns: “Mining in the head waters of the Krom Antonie river will produce adverse effects on the water supply downstream, pollution and restricted flow, causing severe damage to the Verlorenvlei eco-system, a UNESCO RAMSAR site.”</p>			
Boland Stud	29/01/2019	Eugene F Freeman registered the Boland Stud as an I&AP on the project and commented as listed below.	Greenmined acknowledged receipt of the objection on 30 January 2019, registered the Boland Stud as I&AP and informed them of the availability of the DSR.

Correspondence received from Boland Stud:

"I, Eugene Frank Freeman, the undersigned and in my capacity as owner of the institution know as Boland Stud, hereby record my strongest objections against the above application and I insist on being registered as an interested and affected person.

My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general.

It is my request that the applications be refused by the relevant authority because of –

- ∞ the negative and detrimental impacts that any envisaged mining operation s will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;
- ∞ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;
- ∞ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and
- ∞ the undesirability of mining operations in the area.

I am aware of the fact that Adv Martin Coetzee will be submitting a detailed objection against the mining right application and the application for environmental authorisation, and I hereby give him a mandate to also object on my behalf and include my name in the list of objectors whom he represents."

Boois, E	08/01/2019	Eldine Boois objected to the project and submitted the comments as listed below.	Greenmined acknowledged receipt of the objection on 8 January 2019, and registered Me Boois as I&AP.
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Comments received from Me. Boois (translated to English for ease of reference):

Me. Boois strongly objected to the project and stated the following:"Your submission is vague and unclear and not to our advantage. You just want to use up our water and destroy the wetland."

"Ek maak ten sterkste objeksie! Julle voorlegging is vaag en onduidelik en nie tot ons voordeel nie. Julle wil net ons water opgebruik en die vleiland vernietig!"

Boois, M	04/02/3019	Manuel Boois objected to the project and is concerned about job loss, drought, and the health of the people.	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered Mr Boois as I&AP on the project and informed him of the availability of the DSR.
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Boois, N	04/02/2019	Nolin Boois objected to the project and is concerned about job loss, water pollution, the health of sick people, death of animals, and agriculture and farms who give up.	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered Mr Boois as I&AP on the project and informed him of the availability of the DSR.
Boonzaaier, K	04/02/2019	Kobus Boonzaaier objected to the project and is concerned about the impact on farming, job loss, and the loss of biodiversity.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mr Boonzaaier as I&AP on the project and informed him of the availability of the DSR.
Boonzaaier, L	04/02/2019	Luzaan Boonzaaier objected to the project and is concerned about the loss of biodiversity, and pollution.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Me Boonzaaier as I&AP on the project and informed him of the availability of the DSR.
Booyesen, R	07/02/2019	Rina Booyesen objected to the project and commented that the community is already unemployed, and they would like to prevent disruption by strangers.	Greenmined acknowledged receipt of the correspondence on 11 February 2019, registered Me Booyesen as I&AP on the project and informed her of the availability of the DSR.
Botes, J	04/02/2019	Jan Botes objected to the project and was concerned about the impact on the estuary.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mr Botes as I&AP on the project and informed him of the availability of the DSR.
Botha, G	18/01/2019	Gordon Botha objected to the project and is concerned about the destruction of the catchment area, exploitation, and destruction of habitat for the endemic Cape Long-billed Lark.	Greenmined acknowledged receipt of the objection on 18 January 2019, registered Mr Botha as I&AP and informed him of the availability of the DSR.
Botha, G	04/02/2019	Gys Botha registered on the project.	Greenmined acknowledged receipt of the registration on 4 February 2019, registered Mr Botha as I&AP and informed him of the availability of the DSR.
Botha, J	04/02/2019	Johann Botha objected to the project with the following reasons.	Greenmined acknowledged receipt of the registration on 5 February 2019, registered Mr Botha as I&AP and informed him of the availability of the DSR.

Correspondence received from Mr Botha (translated for ease of reference):

My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general.

It is my request that the applications be refused by the relevant authority because of –

- ⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;
- ⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;
- ⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and
- ⌘ the undesirability of mining operations in the area.

Botha, S	04/02/2019	S Botha objected to the project and is concerned about health and job loss.	Greenmined acknowledged receipt of the registration on 5 February 2019, registered Mr Botha as I&AP and informed him of the availability of the DSR.
Bothma, D	05/02/2019	Dillen Bothma objected to the project and is concerned about the impact on the towns tourism, the negative impacts of the industry on the environment – pollution and deforestation, and damage to the landscape that directly impact the biodiversity of the area.	Greenmined acknowledged receipt of the registration on 5 February 2019, registered Mr Bothma as I&AP and informed him of the availability of the DSR.
Bothma, M	05/02/2019	Marelize Bothma objected to the project and is concerned about underground water pollution, loss of tourism, pollution in general, ecosystem in terms of loss of small insects and birds, and climate change.	Greenmined acknowledged receipt of the registration on 5 February 2019, registered Me Bothma as I&AP and informed her of the availability of the DSR.
Bothma, P	05/02/2019	Pieter Bothma objected to the project and is concerned about deforestation, chemical waste killing and destroying natural habitats, drastic increase of pollution, farming sinkholes, and the public health impact.	Greenmined acknowledged receipt of the registration on 5 February 2019, registered Mr Bothma as I&AP and informed him of the availability of the DSR.

Brink, JTB	04/02/2019	Jacobus TB Brink objected to the project with the following reasons.	Greenmined acknowledged receipt of the registration on 5 February 2019, registered Mr Brink as I&AP and informed him of the availability of the DSR.
<p>Correspondence received from Mr Brink (translated for ease of reference):</p> <p>My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.</li> </ul>			
Brink, P	05/12/2018	Pierre Brink requested an electronic copy of the BID.	Greenmined emailed the BID to Mr Brink on 6 December 2018. To date no additional comments were received.
Broddle, P	03/02/2019	Petra Broddle registered as I&AP on the project and requested a link to the DSR. Mr Broddle supplied the following comments.	Greenmined acknowledged receipt of the registration on 4 February 2019, registered Me Broddle as I&AP and supplied her with a link to the DSR.
<p>Comments received from Me Broddle (5 February 2019):</p> <p><b>“Comments:</b></p> <p>Requesting detailed, additional information regarding the extent of the two Critically Endangered vegetation types, the one Endangered vegetation type and the two Vulnerable vegetation types that will be lost on the proposed site.</p> <p>Concerns: No mention is made of mitigation regarding the irreversible loss of red listed vegetation types and associated red listed plant species. Consideration given to the following options: <a href="https://www.environment.gov.za/sites/default/files/legislations/nema107of1998_draftnationalbiodiversityoffsetpolicy_gn40733_0.pdf">https://www.environment.gov.za/sites/default/files/legislations/nema107of1998_draftnationalbiodiversityoffsetpolicy_gn40733_0.pdf</a></p>			

Final comment: at some point in time the use of tungsten will become redundant but will have cost South Africa the loss of vegetation types and plant species that are irreplaceable. In the landscape of agriculture and development every effort must now be made to preserve our natural heritage.

**Concerns: related to the irreversible loss of plant species and of habitat where very small % to almost none are currently protected.**

**Critically Endangered (2012) Swartland Shale Renosterveld (FRs 9)**

Listed under criteria A1 (Irreversible loss of natural habitat) and D1 (Threatened plant species associations)

Original area of ecosystem 495 000 ha

Remaining natural area of ecosystem (%) 8%

Proportion of ecosystem protected less than 1% of original area

Known number of species of special concern 151 Red Data plant species (EX, EW, CR, EN & VU excl VU D2) and 35 endemic plant species

**Critically Endangered (2012) Cape Lowland Alluvial Vegetation (Aza 2)**

Listed under criteria A1 (Irreversible loss of natural habitat)

Original area of ecosystem 36 000 ha

Remaining natural area of ecosystem (%) 33%

Proportion of ecosystem protected 1 % of original area

Known number of species of special concern 10 Red Listed plant species (EX, EW, CR, EN & VU excl VU D2)

**Endangered (2012) Leipoldtville Sand Fynbos (FFd 2)**

Listed under criteria A1 (Irreversible loss of natural habitat) and D1 (Threatened plant species associations)

Original area of ecosystem 276 000 ha

Remaining natural area of ecosystem (%) 47%

Proportion of ecosystem protected 0% of original area

Known number of species of special concern 45 Red Data plant species (EX, EW, CR, EN & VU Excl VU D2) and 33 endemic plant species

**Vulnerable (2012) Piketberg Sandstone Fynbos (FFs 6)**

Listed under Criterion D1 (Threatened plant species associations)

Original area of ecosystem 46 000 ha

Remaining natural area of ecosystem (%) 87%

Proportion of ecosystem protected 0% of original area

Known number of species of special concern 41 Red Data plant species (EX, EW, CR, EN & VU excl VU D2) and 39 endemic plant species.

The ecosystem is not protected but 4% is found in private nature reserves.

<p><b>Vulnerable Piketberg Quartz Succulent Shrubland (SKk 8)</b>  Listed under Criterion C (Limited extent and imminent threat)  Original area of ecosystem 200 ha  Remaining natural area of ecosystem (%) 60%  Proportion of ecosystem protected 0% of original area  Known number of species of special concern 4 endemic plant species.”</p>			
Brummer, CJL	04/02/2019	Mr Brummer registered as I&AP on the project.	Greenmined acknowledged receipt of the registration on 5 February 2019, registered Mr Brummer as I&AP and informed him of the availability of the DSR.
Bullard, Q	30/01/2018	Quinton Bullard objected to the project and submitted the comments as listed below.	Greenmined acknowledged receipt of the objection on 31 January 2019, registered Mr Bullard as I&AP and informed him of the availability of the DSR.
<p>Correspondence received from Mr Bullard:</p> <p>Concerns: “Human mismanagement intensifies water shortage &amp; pollution resulting in a loss of habitat for birds and fish. Also of concern is that lately water flows into the Verlorenvlei but don’t exit into the sea (been years since last it did), making the area hypersensitive to disturbance. This endorheic basin situation results in disastrous consequences, diminishing the critical breeding &amp; nesting areas for birds in particular. Silt blown from the construction / mine site could end up on farm fields &amp; render the soil infertile besides choking waterways with sediment. Road damage caused by heavy duty construction vehicles. Tourism will also ultimately be effected. Loss of natural vegetation to alien invasive plants. Mining activities will have an acidifying effect on the groundwater which will devastate the wetlands fauna &amp; flora, leading to the overall collapse of Verlorenvlei. Corruption of officials by mining company.”</p>			
Butler, N	04/02/2019	Nita Butler objected to the project and is concerned about pollution and damage to the surrounding environment, destruction of endemic plants, ground disturbance and exploitation of water resources.	Greenmined acknowledged receipt of the objection on 4 February 2019, registered Me Butler as I&AP and informed her of the availability of the DSR.
Cape Town Tourism	04/02/2019	Enver Duminy registered Cape Town Tourism as I&AP and listed the following reasons against the project.	Greenmined acknowledged receipt of the objection on 5 February 2019, registered Cape

			Town Tourism as I&AP and informed them of the availability of the DSR.
<p>Correspondence received from Cape Town Tourism:</p> <p>“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>∞ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>∞ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>∞ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>∞ the undesirability of mining operations in the area.”</li> </ul>			
Cassie, D	21/01/2019	Dwight Cassie objected to the project and is concerned about health and environmental hazards.	Greenmined acknowledged receipt of the objection on 22 January 2019, registered Mr Cassie as I&AP and informed him of the availability of the DSR.
Cederberg Municipality	23/01/2019	AJ Booysen objected to the project and registered the Cederberg Municipality as I&AP. The Municipality is concerned about detrimental environmental affects and impacts foreseen with regard to Verlorenvlei wetlands, waterbody.	Greenmined acknowledged receipt of the objection on 24 January 2019, registered Cederberg Municipality as I&AP and informed them of the availability of the DSR.
Cillie, R	17/01/2019	Rossouw Cillie objected to the project should it have an impact on the water resources. If not, he does not object. Mr Cillie is concerned about the impact on groundwater (quality, irrigation and the levels of the Verlorenvlei) that comes from the Moutonshoek catchment area.	Greenmined acknowledged receipt of the objection on 18 January 2019, registered Mr Cillie as I&AP and informed him of the availability of the DSR.
Claassen, H	05/02/2019	Herman Claassen objected to the project and is concerned about the massive impact on the habitat and vegetation of small animals, loss of underground water levels and pollution of natural water sources, tourism and local loss of income,	Greenmined acknowledged receipt of the objection on 6 February 2019, registered Mr Claassen as I&AP and informed him of the availability of the DSR.

		development of sink holes, and unnatural chemical deposits in the area and air pollution.	
Clark, B	04/02/2019	SB & G Clark objected to the project and supplied the following comments.	Greenmined acknowledged receipt of the objection on 4 February 2019, registered Mr & Mrs Clark as I&AP and informed them of the availability of the DSR.
<p>Comments received from Mr Clark:</p> <p>“Please find attached the rather inadequate (to allow full disclosure of concerns) document as provided by yourself w.r.t. the application on behalf of BONGANI Minerals to allow mining for Tungsten in the Moutonshoek valley. Suffice to say that I will add comment via this mail to further support the attachments.</p> <p>My wife and I are indeed “interested and affected parties” given that we for a number of years have owned a residence along the Verlorenvlei. As you MUST be aware, the Verlorenvlei is a RAMSAR site – this designation requiring it to be conserved and sustained as a wetland. This wetland has come under ever-increasing threat not only via weather patterns but also via increased activity inland in the catchment areas provided by the 4 major tributaries indicated in your document. How can we now support a water intense mining project that MUST impact further on the environment and protected birdlife?</p> <p>The roads in the area especially those existing that would allow transport of “product” to Saldanha Bay, were NEVER intended to manage high density heavy loads – already they are increasingly damaged by the potato and ore trucks that trundle daily. Finally, there is too little detail given re. the water use – a “reverse osmosis” plant will provide some (no figures given) process water and potable water (119approx... 20000litres) will be extracted via boreholes!!! In an arid region, any extraction beyond normal use would impact massively on the ground water available. Suffice to say – we “<b>object</b>” most vehemently to any mining in an area zoned for Agriculture and hope to be included from now on in any correspondence pertaining to said “application”.</p> <p>Concerns listed in the attachment:</p> <p>“Verlorenvlei is a “RAMSAR” site – to be conserved and sustained as a wetland. It is already under threat – increased water removal is unacceptable. Reverse osmosis – details not provided. The existing roads to Saldanha were not designed for heavy loads – already under threat. In general – wildlife and the environment will suffer. An international site should be preserved not plundered.”</p>			
Coetzee, M (Marcec Legal Consulting)	14/12/2018	Adv Martin Coetzee submitted the comments as listed below.	Greenmined responded to Adv Coetzee’s comments on 8 January 2019 as listed below.

Comments received from Adv. Coetzee:

“Thank you for sending me a notification of this. I have been and still will be forwarding this to my clients as they were during 2012, and will await their instructions. It is unfortunate that this notification was issued at this time of year when many persons are on leave. I am fairly certain that this application will be met, as it was in 2012 with the Applicant’s prospecting right application, with vigorous opposition. Unfortunately, the BID is not very helpful, because of its generalist nature. It offers no substantive information or reasoning. As an example, it is completely silent about the fact that this application is brought in respect of a promulgated protected environment namely, the Moutonshoek Protected Environment. It is not clear how the applicant intends to circumvent the restrictions imposed on mining in this MPE by the National Environment: Protected Areas Act, 2003. Furthermore, it is a fact that the application will be brought in respect of agricultural land. An application will have to be made to the local authority for consent use to allow mining. It will therefore be appreciated if the Applicant would indicate if it has applied for such consent use, and, if so, to provide me with copies of the application in respect of each of the portions of land affected. Looking forward towards receiving the Applicant’s soonest response.”

Additional comments submitted by Adv Coetzee (21 December 2018):

“Further to my unanswered email below, the following:

1. According to your BID it is stated that notice is given of an application of a mining right. In this regard
  - ∩ Was an application submitted to and accepted by the DMR, and, if so, kindly provide the DMR reference number for this application?
2. It is further stated that “*Owing to the outcome of the prospecting operation, the applicant wishes to apply for a mining right for the winning of tungsten and molybdenum*” In this regard
  - ∩ On which portions of land were these “prospecting operations” conducted?
  - ∩ Can documentation reflecting and confirming the “outcome of the prospecting operation” be made available?

Looking forward towards receiving your soonest responses.”

Response to Adv. Coetzee:

“Greenmined Environmental (Pty) Ltd (hereinafter referred to as “Greenmined”) would like to thank you for your interest and herewith acknowledge receipt of your correspondence dated 14 and 21 December 2018 with regards to the mining right application submitted on behalf of Bongani Minerals (Pty) Ltd.

Greenmined, on behalf of the applicant, registered you as an interested and affected party (I&AP) on the project, and will henceforth keep you posted on the progress of the Environmental Impact Assessment (EIA) process, as well as provide you with an opportunity to comment on the EIA documentation.



**Land Use Application:**

Greenmined herewith confirms that the applicant is aware of the rezoning application to be lodged with the competent authorities, however the said application is still in progress and has not yet been submitted.

**Mining Right Acceptance:**

Attached hereto please find a copy of the acceptance letter issued by the DMR on 14 December 2018 with regard to the mining right application. The project specific reference number is: WC 30/5/1/2/2/10110 MR.

**Prospecting Operation:**

The prospecting operation referred to in the BID included geological re-logging of the available historic diamond drill core, resampling of a select number of these holes and a short-lived diamond drilling programme on the Remainder of Portion 6 (portion of portion 2) Namaquasfontein Farm No 76. Your request for “documentation reflecting and confirming the outcome of the prospecting operation” has been forwarded to the applicant and we will respond accordingly upon receipt of the relevant documentation.

We trust you will find this in order. Please do not hesitate to contact me in the event of any uncertainties.”

Correspondence sent by Adv Coetzee to DMR on 14 January 2019:

“I (Adv Coetzee) am addressing this communication to you for and on behalf of Moutonshoek Investments (Pty) Ltd and the Namaquasfontein Boerdery Trust, respectively owner and occupant of Portion 1 of Farm 297.

1. It is our information that the Department of Mineral Resources on 12 December 2018 under reference WC30/5/1/2/2/10110MR has accepted an application for a mining right in terms of the MPRDA to mine Tungsten and Molybdenum. This application apparently is in respect of the following areas in the Magisterial District of Piketberg

- ⌘ Portion of Portion 21 of the Farm Namaquasfontein 76;
- ⌘ Portion of the Remaining Extent of Portion 6 of the Farm Namaquasfontein 76; and
- ⌘ Portion of the Remaining Extent of Portion 6 of the Farm Namaquasfontein

2. In their Background Information Document as well as Draft Scoping Report, Greenmined Environmental on behalf of the Applicant refers to the following areas-

- ⌘ Portion 6 (remaining extent) of the Farm Namaquasfontein 76 RD;
- ⌘ Portion 21 of the Farm Namaquasfontein 76 RD;
- ⌘ and Portion 1 of the Farm 297 RD

4. It is therefore clear that the areas referred to by the Applicant are not the same as those in the Department's acceptance notification.
  5. The Regional Manager is requested to confirm over which properties the application for a mining right have been accepted.
  6. It is recorded that as per the Applicant's scoping report, two farms (Portion 1 of Farm 297 and Portion 21 of the Farm Namaquasfontein 76 RD) form part of the proclaimed "Moutonshoek Protected Environment" under the provisions of the National Environmental Management: Protected Areas Act, 2003 (PN 56/2018 of 20 April 2018 published in Western Cape Provincial Gazette 7916 of 20 April 2018)
  7. Section 48(1)(b) of the National Environmental Management: Protected Areas Act, 2003, prohibits any mining on the two farms in question. No person may conduct any mining activities in a protected environment without the written permission of the Minister of Environmental Affairs and the Minister of Environmental Resources.
  8. It is submitted that proper interpretation of section 48(1)(b) would require the written permission of the Ministers concerned before application for a mining right can be made.
  9. As a result, the Regional Manager is requested to advise whether such written permission has been granted in terms of section 48(1)(b), and, if not, on what grounds could the application to mine in a protected area be accepted by the DMR?
- Your soonest response will be appreciated."

Power of Attorney to Adv. Coetzee: 1. WJ Sias 2. AC Fourie 3. G Bulpitt 4. W Karolus 5. C Adams 6. D Markus 7. D Mentoor	05/02/2019	The listed persons requested and gave full authority to Adv M Coetzee to submit a comprehensive objection on their behalf against the application.	Greenmined acknowledged receipt of the objection on 6 February 2019, registered the individuals as I&AP and informed them via Mrs Van der Merwe as contact person of the availability of the DSR.
Coetzee, R	01/02/2019	Rossouw Coetzee objected to the project.	Greenmined acknowledged receipt of the objection on 4 February 2019, registered Mr Coetzee as I&AP and informed him of the availability of the DSR.
Combrink, C & K	23/01/2019	Carl Combrink objected to the project and is concerned about water supply, water quality, and air quality.	Greenmined acknowledged receipt of the objection on 24 January 2019, registered Mr Combrink as I&AP and informed him of the availability of the DSR.

Combrink, P	23/01/2019	Paula Combrink registered as I&AP on the project.	Greenmined acknowledged receipt of the objection on 24 January 2019, registered Me Combrink as I&AP and informed her of the availability of the DSR.
Compton, P	21/01/2019	Patty Compton objected to the project and submitted the comments as listed below.	Greenmined acknowledged receipt of the objection on 22 January 2019, registered Me Compton as I&AP and informed her of the availability of the DSR.
<p>Correspondence received from Me Compton:</p> <p>“Our village of Aurora draws it’s potable water supply from the aquifer below the proposed mining site run-off. 24 lorries per day 12 empty and 12 full would destroy our roads our clean air (dirt roads) and our peace and quiet that we value so very much. If permission to mine was not granted previously, why are the mining company pushing it yet again? Greed and total lack of caring / respect for the environment, and the people who live here.”</p>			
Conrad, J	17/01/2019	Julian Conrad registered as I&AP on the project.	Greenmined acknowledged receipt of the registration on 18 January 2019, and informed him of the availability of the DSR.
Curran, L	05/02/2019	Lindsay Curran objected to the project, requested information on the source of water and method of discharge, and details to which road will be used to transport ore to Saldanha.	Greenmined acknowledged receipt of the objection on 6 February 2019, registered Me Curran as I&AP and informed her of the availability of the DSR.
<p>Comments received from Me Curran on 12 February 2019:</p> <p>“As a representative of the ratepayers community of Elands Bay (EBRA) and a member of the Elands Bay Environmental and Development Action Group (EBEDAG), we hereby wish to strongly object to any mining activity and development in the Moutonshoek valley which may affect the quality of the environment of the area which includes the major and minor rivers that feed into the Verlorenvlei.</p> <p>The Vlei is a RAMSAR protected area and is the major tourist attraction in the region. Over 150 bird species rely on the quality of water in the vlei. This diverse range of birdlife are part of an international ecosystem. The vlei is on the flight path of birds that commute between the Cape and Europe. In addition, the estuary of the vlei is the breeding ground for a whole range of fish.</p>			

If this national asset was ever affected by any slight pollution then the balance of minerals in the vlei would negatively affect fauna and flora, bird and animal like as well as fish stocks. If this mining was to go ahead, then quality of water in the vlei would turn it into a cesspit of sludge and chemicals, the bird life would disappear and tourism would be gone. Fish stock would not be replenished and the local west coast fishing stocks would not be replenished. To validate our claims we submit a copy of the Moutonshoek Protected Environment Plan. We direct you to the number of interested and affected parties that are involved in this plan.”

Das Neves, V	04/02/2019	Victor Das Neves objected to the project and is concerned about the impact on the environment.	Greenmined acknowledged receipt of the objection on 4 February 2019, registered Mr Das Neves as I&AP and informed him of the availability of the DSR.
Davey, P	04/02/2019	Paula Davey objected to the project with the following reasons.	Greenmined acknowledged receipt of the objection on 4 February 2019, registered Me Davey as I&AP and informed him of the availability of the DSR.

Comments received from Me Davey:

“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general.

It is my request that the applications be refused by the relevant authority because of –

- ⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;
- ⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;
- ⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and
- ⌘ the undesirability of mining operations in the area.”

De Broize, J	05/02/2019	Juliet De Broize objected to the project and commented that mining results in unnaturally high concentrations of chemicals such as mercury, arsenic and sulphuric acid over a significant area surrounding the mine.	Greenmined acknowledged receipt of the objection on 6 February 2019, registered Me De Broize as I&AP and informed her of the availability of the DSR.
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De Kock, A	01/02/2019	Anneke de Kock requested a copy of the BID.	Greenmined supplied Me De Kock with a copy of the BID on 1 February 2019.
De Wet, W	04/02/2019	Willie de Wet objected to the project and is concerned about the health risk and job loss.	Greenmined acknowledged receipt of the objection on 5 February 2019, registered Mr De Wet as I&AP and informed him of the availability of the DSR.
Didcott, C	15/01/2019	Charles Didcott objected to the project and submitted the following concerns.	Greenmined acknowledged receipt of the objection on 16 January 2019, registered Mr Didcott as I&AP and informed him of the availability of the DSR.
Concerns: "It will be impossible to mitigate against the negative impacts this mine will have on the environment. This is just a complete disaster. The risks to the environment far out way the benefits."			
Die Werf Estates (Pty) Ltd	13/01/2019	Kyle Roux objected to the project and submitted the following concerns.	Greenmined acknowledged receipt of the objection on 14 January 2019, registered De Werf Estates (Pty) Ltd as I&AP and informed them of the availability of the DSR.
Concerns: "The depletion of the water table in a water starved environment & the disruption of the aquifers what are the life blood of this region for humans, flora & fauna for short term financial gain."			
Digges, J	30/01/2019	Judith Digges objected to the project and has the following concerns.	Greenmined acknowledged receipt of the objection on 31 January 2019, registered Me Digges as I&AP and informed her of the availability of the DSR.
Concerns: "Irresponsible water usage. Poisoning and/or wasting water. Degradation of environment. Negative impact on all life in Moutonshoek Valley, Verloren Valley and the Verlorenvlei itself. Destroying the water supply (clean water supply) to Elands Bay."			
Du Plessis, D	24/01/2019	Dalene du Plessis objected to the project and is concerned about environmental pollution and destruction, interference with Verlorenvlei,	Greenmined acknowledged receipt of the objection on 24 January 2019, registered Me Du Plessis as I&AP and informed her of the availability of the DSR.

		already under pressure water scarcity, birdlife and wildlife.	
Du Toit, B	04/02/2019	Betina du Toit objected to the project and is concerned about the ground, water and air pollution due to the proposed mining activities.	Greenmined acknowledged receipt of the objection on 4 February 2019, registered Me Du Toit as I&AP and informed her of the availability of the DSR.
Du Toit, N	01/02/2019	Nicky du Toit's objection was forwarded by Me Van Schalkwyk.	-
Du Toit, P	30/01/2019	PJ du Toit objected to the project and is concerned with the protection of Verlorenvlei resources.	Greenmined acknowledged receipt of the objection on 31 January 2019, registered Mr Du Toit as I&AP and informed him of the availability of the DSR.
Du Toit, P	05/02/2019	Paul du Toit registered on the project with the following comments.	Greenmined acknowledged receipt of the comments on 6 February 2019, registered Mr Du Toit as I&AP and informed him of the availability of the DSR.
<p>Comments received from Mr Du Toit:</p> <p>Mr Du Toit requested information on the location of the slimes dam, grade of ore versus mining costs and an independent groundwater study.</p> <p>Concerns: "Is this mine actually economically viable? This ore body has been know, why not mined in past? The Verlorenvlei is already drying out any additional use of water and/or pollution will have devastating effects. When will humans ever learn that their greed is killing the world – that includes themselves and those being bribed to paint the wrong / rosy pictures."</p>			
Du Toit, W	01/02/2019	Wouter du Toit objected to the project with the following concerns.	Greenmined acknowledged receipt of the objection on 1 February 2019, and registered Mr Du Toit as I&AP.
<p>Comments received from Mr Du Toit:</p> <p>"I am opposed to the temporary mining of tungsten that can cause precious, sensitive soil, grounds and ecology can be wiped out permanently. The amount of people it will employ is similar to what a farm employs, but the difference is that the skills are transferred on to the farmworker, where the tungsten mine will pack up and leave once the tungsten is depleted, and also leave the labourer without employment. I urge you to please consider the effects on the people, and try to keep the area clear of any form of</p>			

<p>harm, which the mining of tungsten will surely cause. The company is also foreign, with capital gains as the only purpose. They have no affinity to the people who live in the valley, nor do they care as much as the South African people care about the soil, farming and living “close” to the earth like us South Africans do.”</p>			
Duffield, M	21/01/2019	Michael Duffield objected to the project and is concerned about environmental destruction surface and ground water pollution, birds and animal wildlife habitat destruction.	Greenmined acknowledged receipt of the objection on 22 January 2019, registered Mr Duffield as I&AP and informed him of the availability of the DSR.
Duffield, P	22/01/2019	Pamela Duffield objected to the project and is concerned about environmental issues such as water pollution, destruction of natural habitat which will impact on plants and wildlife and particularly birds in Verlorenvlei.	Greenmined acknowledged receipt of the objection on 24 January 2019, registered Me Duffield as I&AP and informed her of the availability of the DSR.
Duncan, RV (Pomona Farm)	10/12/2018	Rob Duncan objected to the proposed project and requested additional information on hydrology, employment, and fauna and flora. He enquired how underground water will be affected, stated that the mine may decrease jobs in the area and not increase them, and was concerned that natural areas will be cleared. He further enquired about the risk to the Verlorenvlei. Mr Duncan requested that Gus Pickard be added to the contact list.	Greenmined acknowledged receipt of the objection on 11 December 2018, and registered Mr Duncan accordingly. Mr Duncan’s comments were include in the scoping report, and will be assessed in the environmental impact assessment report, both of which documents will be made available for public review and commenting. To adequately address the comments it will be forwarded to the hydrologist, socio-economic specialist as well the ecologist for inclusion in their studies. Mr Pickard was informed of the project on 11 December 2018. To date no comments were received from Mr Pickard.
Elands Bay Environmental and Development Action Group (EBEDAG)	05/02/2019	Jo MacRobert Attorney & Associates registered EBEDAG as an I&AP on the project and submitted the following comments.	Greenmined acknowledged receipt of the objection on 6 February 2019, registered EBEDAG as I&AP and informed them of the availability of the DSR.

Comments received on behalf of EBEDAG:

“EBEDAG was previously registered as an interested and affected party in respect of the 2009 mining/prospecting application. The concerns of EBEDAG have been submitted previously (2009 onwards) and will be re-submitted before 12 February 2019, the deadline for comment i.to. the 2018/2019 application.

Comments received on behalf of EBEDAG on the DSR (13 February 2019):

“I refer to the above-mentioned application and to the Background Information Document and Draft Scoping Report and submit comments herewith on behalf of the Eland’s Bay Environmental and Development Action Group (“EBEDAG”) of which I am the elected chairman.

#### 1. Statement of Interest

EBEDAG is a formally constituted non-profit civic organisation having a paid up membership and an elected Executive Committee of which I am chairman.

The organisation was established in 2005 with the general aim of promoting conservation efforts in the Eland’s Bay / Verlorenvlei region. In this regard, EBEDAG has become well-known for its positive contributions and achievements which include:

- ✧ taking an active role in monitoring applications for development in the area;
- ✧ promoting efforts to preserve the estuary at Verlorenvlei and the adjacent coastal dunes;
- ✧ working extensively with government departments at local, provincial and national levels;
- ✧ working extensively with other organizations and authorities, including law enforcement agencies, civic organizations and nature conservation agencies;
- ✧ actively supporting the conservation of significant cultural and heritage sites in the area, including the declaration of Provincial Heritage Sites at Baboon Point in Eland’s Bay and Diepkloof, near Redelinghuys.

Because the proposed mining of tungsten and molybdenum in the catchment area of Verlorenvlei poses a serious threat to Verlorenvlei and the surrounding area, EBEDAG registered as an Interested and Affected Party in respect of the previous application made by Bongani Minerals in 2009 and along with many other objectors, submitted comments and objections at that time. EBEDAG is therefore dismayed at the renewed application, for all the reasons we and other objectors have previously voiced, which reasons and grounds for objection remain valid in 2019, ten years later. Accordingly, we have registered EBEDAG as an Interested and Affected Party (I&AP) with regard to the current application. Our comments and objections follow below.

#### 2. Summary of 2019 application (Reference: Background Information Document)

2.1. The applicant currently holds a prospecting right over the proposed mining right application area. The application is for the mining of tungsten and molybdenum.

2.2. The extent of the proposed mining footprint is 531.44ha, situated on 3 farms in the Moutonshoek Valley.



2.3. In terms of the application, the first phase of the mining operation will involve the stripping the top layer, then waste stripping to expose the ore body, and then open cast mining.

2.4. In the first phase (1- 4 years) there will be drilling and blasting with associated truck and shovel operations. Once the mine is fully operational, it will run 24 hours 7 days a week. The life span of the mine is expected to be 21 years from start of project.

2.5. The layout will consist of an open cast pit; waste rock stockpiles; processing plant; run of mine stockpiles; slimes dam; various buildings; roads and depots.

2.6. Approximately 12 trucks will visit the mining area per day.

2.7. Potable water will be extracted from boreholes in the mining area. 20,000 litres will be needed daily.

2.8. A connection to Eskom national grid will be required.

We list these salient aspects in the context of our comments below.

### 3. Moutonshoek Valley: An Unsuitable Area for Mining

3.1. The area demarcated for the proposed open-cast tungsten/molybdenum mine lies at the foot of the Piketberg Mountains and at the headwaters of the catchment area of an internationally acclaimed Ramsar site, the Verlorenvlei.

3.2. The Piketberg Mountains and the Moutonshoek Valley contain sites of significant historical, heritage, ecological and agricultural value. For this very reason, the area was declared a Protected Environment in 2018.

3.3. The Greater Cederberg Biodiversity Corridor is a well-established initiative which aims to connect the Wilderness area of the Cederberg Mountains via a corridor to the sea at Eland's Bay. The Piketberg Mountains and Moutonshoek Valley form an integral part of the Biodiversity Corridor. The presence of a large-scale open-cast mine in the proposed corridor is completely out of line with this initiative, which is why the 2009 mining application was opposed by CapeNature and the Wildlife and Environment Society of South Africa. Mining activities and the conservation of the natural environment do not make for good bedfellows. There are all too many examples of this in South Africa – as a start, one needs only to witness the devastation caused by open cast mining on the West Coast north of Lambert's Bay.

3.4. The proposed location of the tungsten mine is in an area renowned for its links with the pre-colonial past. The Piketberg and surrounding mountains stretching to the sea at Eland's Bay contain hundreds of archaeological sites, many of which have not yet been fully excavated or mapped. The mountains and valleys of the area were the homes and shelters of people for tens of thousands of years, possibly even for hundreds of thousands of years, as excavations in the Cederberg and Eland's Bay have revealed. This heritage, including all rock art sites in the area, is a national asset deserving the highest level of protection and conservation. Mining activities are antithetical to the conservation of these sites. We urge the officials, when determining the merits of this application, to consider the consequences of losing these irreplaceable links to the distant past for the sake of a mine with a projected life span of 21 years.

3.5. As stated in paragraph 3.1 above, the proposed location of the mine is in the catchment area of Verlorenvlei, a Ramsar site and a riverine / wetland system of international significance. Mining activities in this location will have a severely negative effect on Verlorenvlei, particularly with regard to the following:

- ⌘ quantity and quality of water flowing into the Verlorenvlei system;

- ✘ pollution of rivers and groundwater by the ore treatment plant and slime dams;
- ✘ dewatering;
- ✘ blasting, noise and dust which will destroy the natural habitat of indigenous flora and fauna;
- ✘ visual impact of an extensive open-cast mine, mine machinery, and mining plant in a rural valley.

3.6 It is widely known and accepted that this area is "water-stressed" and that as of time of writing, the Verlorenvlei is under grave threat due to drought and over-extraction of water.

3.7 Agricultural land The location for the proposed mine is at the epicentre of a profitable farming area which contributes to the local, provincial and national economy and which provides hundreds of permanent and seasonal jobs for farm workers. Agriculture is as much a mainstay of the South African economy as is mining, and in the face of global food shortages, combined with the loss of valuable agricultural land in South Africa, every step should be taken to support and nurture farming activities and to prevent the alienation of agricultural land.

#### 3.8 Loss of jobs

If the proposed mine is approved, thousands of farm workers will lose their jobs in the area. The majority of the workers currently employed on the farms in the area are women who will not be re-employed as mineworkers, machine operators, truck drivers, etc. We therefore question the assertion that mining activities will create jobs and lessen unemployment. To the contrary, research conducted by farmers in the area concludes that jobs will be lost and local unemployment will increase if the mine is approved.

#### 4. Conclusion

EBEDAG hereby registers its strongest objection to the application for mining rights, which if granted, will:

- ✘ destroy prime agricultural land;
- ✘ destroy the livelihoods of farmers and farm-workers in the area;
- ✘ destroy the natural habitat of the protected Moutonshoek Valley;
- ✘ destroy any hope that the crisis affecting Verlorenvlei can and will be resolved through increasingly strict water management policies;
- ✘ destroy years of careful planning and initiatives in respect of the Greater Cederberg Biodiversity Corridor and in respect of the protection of internationally acclaimed heritage sites at Redelinghuys and elsewhere in the area.

In short, there will be large-scale and irreversible destruction of agricultural, heritage and protected environments. EBEDAG cannot condone this.

Kindly acknowledge receipt hereof. Please send all further notifications and reports relating to this application to the registered address of EBEDAG as per our letterhead."

<p>Elands Bay Residents:</p> <ol style="list-style-type: none"> <li>1. Nosicelo Majombe</li> <li>2. Sylvia Cetywayo</li> <li>3. Catherina van Wyk</li> <li>4. Luzana van Wyk</li> <li>5. Trooi Watts</li> <li>6. Rene Dirk's</li> <li>7. Zoleka Nyani</li> <li>8. N Tomboxolompayxpoli</li> <li>9. Sinektiaya Mbyru</li> <li>10. Andiswo Mdunylwa</li> <li>11. Chesrae Maanman</li> <li>12. Wanita Diamonds</li> <li>13. Debo Myoli</li> <li>14. Paulene Schaffers</li> <li>15. Dina Taylor</li> <li>16. Delmari Klaase</li> <li>17. Henco Spandrec</li> <li>18. Monique van der Westhuizen</li> <li>19. Teshwin van Wyk</li> <li>20. Elroy Swarts</li> <li>21. Warren Veruciel</li> <li>22. Blossma Maltas</li> <li>23. Thema Dulozi</li> <li>24. Phumeza Noganydti</li> <li>25. Andre van Wyk</li> <li>26. Abigail Titus</li> <li>27. Ntombikayise Mqumse</li> <li>28. Justice Mdanise</li> <li>29. Wendy Dladla</li> <li>30. Caroline Julies</li> </ol>	<ol style="list-style-type: none"> <li>38. Jerome van Wyk</li> <li>39. Curtley Nero</li> <li>40. Hester Vyfer</li> <li>41. Charmaine Ndiike</li> <li>42. Antjie Hector</li> <li>43. Ashlene Januarie</li> <li>44. Sindiswa Bango</li> <li>45. Thozemo Taylor</li> <li>46. Lydia Pedro</li> <li>47. Elize Links</li> <li>48. Thabisa Nyeka</li> <li>49. Ntonbizodwa Bango</li> <li>50. Yamkela Makele</li> <li>51. Anth Lavern</li> <li>52. M Bonisi</li> <li>53. Vryawethse Hrnana</li> <li>54. Nkolong Thembani</li> <li>55. Lucinda Farmer</li> <li>56. Oscar Hector</li> <li>57. Lauren Taylor</li> <li>58. Gert Taylor</li> <li>59. Ashlene Hector</li> <li>60. Sandisile Tayi</li> <li>61. Abei Davids</li> <li>62. William Lamoor</li> <li>63. Roseline Lenee</li> <li>64. Antjie Hector</li> <li>65. Zodwa Potsone</li> <li>66. Funeka Nogenge</li> <li>67. Elizabeth Boois</li> <li>68. Noposika Mboniswa</li> <li>69. Bomikazi Rabela</li> <li>70. Elizabeth Vyk</li> <li>71. Eden Meondi</li> <li>72. Nicolaas A Taylor</li> <li>73. Clinton Nero</li> </ol>	<p>05/02/2019 &amp; 07/02/2019</p>	<p>The Elands Bay residents objected to the project with the following reasons.</p>	<p>Greenmined acknowledged receipt of the objection on 6 &amp; 11 February 2019, registered the Elands Bay residents as I&amp;AP and informed them of the availability of the DSR via Mrs Van Schalkwyk who acts as contact person.</p>
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<p>31. Bokamoso Mokgatta 32. Busisiwe Sonqelwa 33. Henco Spandiel 34. Shireen Galan 35. Carolene Fryer 36. Cameron van Wyk 37. Abraham van Wyk</p>				
<p>Correspondence received from the Elands Bay residents:</p> <p>“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.”</li> </ul>				
<p>Endangered Wildlife Trust (EWT)</p>	<p>18/01/2019</p>	<p>Dr Ian Little objected to the project and requested all information relating to this proposed mine, including but not limited to the EIA (once finalised) and the current prospecting right. Dr Little is concerned about the conservation of cranes in the area, mining in sensitive areas with high biodiversity.</p>	<p>Greenmined acknowledged receipt of the objection on 21 January 2019, registered EWT as I&amp;AP and informed them of the availability of the DSR.</p>	
<p>Comments received from EWT on the DSR (4 February 2019):</p> <p>“The DSR is not objectively drafted at all, when one considers the high biodiversity value of the proposed project site, it is inconceivable that the mining would even be proposed. The project site includes a RAMSAR site and a promulgated Protected Environment. We note that in the overview of the project site they are silent on this, the first reference to these important facts is only on page 25!</p>				

CapeNature confirmed, in their comments submitted on the BID, that although a portion of the area to be impacted directly by the proposed mining activities has largely been transformed by agricultural activities, there are still important areas supporting indigenous vegetation, including Leipoldtville Sand Fynbos (Endangered), Swartland Shale Renosterveld (Critically Endangered), Piketberg Quartz Succulent Shrubland (Critically Endangered according to the latest analyses conducted by CapeNature), Piketberg Sandstone Fynbos (Vulnerable), Cape Lowland Alluvial Vegetation (Critically Endangered), and Cape Lowland Freshwater Wetlands. CapeNature further state that the Western Cape Biodiversity Spatial Plan has determined terrestrial and aquatic Critical Biodiversity Areas (CBA's) as well as Ecological Support Areas (ESA's) within and adjacent to the application area. The area also falls within the Greater Cederberg Biodiversity Corridor.

In consideration of the Protected Environment status:

1. As the area is a protected area we feel that more biodiversity related specialists are required.
2. The description of the property is silent on the fact that it is a protected environment, in fact on Page 19 – they drafted the section on clearing vegetation to sound as though this land is agricultural only.
3. The proposed mining includes open cast mining, meaning all top soil will be stripped – completely removing the biodiversity that was sought to be protected.
4. The first reference to the fact that DEA must approve the Mining Right is on page 99 – until then DMR was made out to be the only competent authority.
5. Policy of non-regression in terms of protected areas must be implemented! There is no point in promulgating protected areas only to turn round in less than a year and mine them!
6. For additional info on the biodiversity value of the area see the points raised by CapeNature on page 53 – 55.
7. They drafted the sections on the decommissioning phase as though total rehabilitation is achievable and no mention was made to rehabilitating the land as they go. The reality is that rehabilitation never achieves complete return to the original state, there is always significant and long-lasting damage.

Other comments:

1. Page 26 the total number of employee positions the mine will create = 211 (including management). It would be interesting to get an idea of how many jobs the farms are currently providing and we note that at page 92 the tourism sector create over 400 jobs in peak season.
2. The comparison of negatives vs positives on page 119 – 120 speaks for itself 29 negatives to 8 positives (one of which is the return to agricultural use (in 30 years' time) and the others is increased work opportunities. We note that 211 jobs will be created by the mine versus the over 400 jobs created by tourism and those 211 are temporary as opposed to tourism based jobs which are in-perpetuity if we take care of our natural assets and environmental heritage.

Please find Greenmined's response to the DSR comments included at the end of this table.

Enslin, S	04/02/2019	Susan Enslin objected to the project and is concerned about the environment, air pollution, lack of water, wildlife, heavy trucks on the roads.	Greenmined acknowledged receipt of the objection on 4 February 2019, registered Me
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			Enslin as I&AP and informed her of the availability of the DSR.
Esterhuyse, S	05/02/2019	Mr and Mrs Esterhuyse registered as I&AP's on the project.	Greenmined acknowledged receipt of the registration on 6 February 2019, registered Mr and Mrs Esterhuyse as I&AP and supplied them with a link to the DSR.
Fairhead, J	01/02/2019	Tyrrel Fairhead objected to the project and listed the following concerns.	Greenmined acknowledged receipt of the objection on 4 February 2019, registered Mr Fairhead as I&AP and informed him of the availability of the DSR.
<p>Comments received from Mr Fairhead:</p> <p>“Environmental impact with specific reference to degradation of Verlorenvlei wetland. Verlorenvlei is a wetland, of international importance in terms of an International Convention – RAMSAR – and agreement with SA Nature Conservation. This proposal has great potential to “interfere with natural estuarine and coastal lake dynamics” as well as water supply to Verlorenvlei.”</p> <p>Comments received from Jean Fairhead:</p> <p>“The Verlorenvlei is an internationally recognised Ramsar Site, proclaimed to stem the loss of wetland and to ensure their conservation. Considering the severe drought this country is experiencing at present, every effort should be made to ensure that this wetland is preserved. The proposed mine is to be situated in the very heart of the catchment area of the Verlorenvlei, and will have serious consequences for this very fragile ecosystem, impacting the lives of the already stressed local communities, as well as the fauna and flora.</p> <p>In addition. “Additional abuse of a road system not designed to accommodate trucking. Destruction of fragile fynbos system. Interference with/to an already exploited and threatened water table.”</p>			
Ferguson, B	28/01/2019	Barbara Ferguson objected to the project and is concerned that the natural vegetation will be disturbed and therefore birds, animals and vegetation will disappear forever.	Greenmined acknowledged receipt of the objection on 28 January 2019, registered Me Ferguson as I&AP and informed her of the availability of the DSR.
Fourie, B	04/02/2019	Brendon Fourie objected to the project with the following concerns.	Greenmined acknowledged receipt of the objection on 4 February 2019, registered Mr

			Fourie as I&AP and informed him of the availability of the DSR.
<p>Correspondence received from Mr Fourie:</p> <p>“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>∞ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>∞ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>∞ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>∞ the undesirability of mining operations in the area.”</li> </ul>			
Fourie, P	21/01/2019	Petrick Fourie objected to the project requested to be kept informed throughout this entire process (via email), and is concerned about the threat of lack of water, poisoned air, contaminated water, and ecosystem interference and disturbance.	Greenmined acknowledged receipt of the objection on 22 January 2019, registered Mr Fourie as I&AP and informed him of the availability of the DSR.
Frampton, M	16/01/2019	Marc Frampton objected to the project.	Greenmined acknowledged receipt of the objection on 17 January 2019, registered Mr Frampton as I&AP and informed him of the availability of the DSR.
Franse, C	31/01/2019	Carl Franse objected to the project with the following concerns.	Greenmined acknowledged receipt of the objection on 4 February 2019, registered Mr Franse as I&AP and informed him of the availability of the DSR via Mrs Van der Merwe (contact person).
<p>Correspondence received from Mr Franse (translated for ease of reference):</p> <p>My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p>			

- ⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;
- ⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;
- ⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and
- ⌘ the undesirability of mining operations in the area.

Fredericks, M	04/02/2019	Martinus Fredericks in his capacity as Paramount Chief and Chairperson of the !Aman Traditional Authority objected to the project with the following reasons.	Greenmined acknowledged receipt of the objection on 5 February 2019, registered Mr Fredericks as I&AP and informed him of the availability of the DSR.
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Correspondence received from Mr Fredericks:

“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –

- ⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;
- ⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;
- ⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and
- ⌘ the undesirability of mining operations in the area.”

Freemantle, RJ	12/12/2018	Roderick John Freemantle submitted the comments as listed below.	Greenmined registered Mr Freemantle and responded as listed below.
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Comments received from Mr Freemantle

“Please explain how you expect to receive the background information for registration as an Interested and Affected Party when the form you provide cannot be sent electronically. Do you expect it to be sent by post? How do you expect the people of this rural community to register, the people most affected, the majority of whom have no access to computers or post offices? You may as well get used to my name. Anyone involved actively or passively in the application for the right to mine in the Moutonshoek watershed will get to know me very well. We have been down this road before. Whatever it takes, we will go through the whole boring, wasteful process of putting a stop to this mining bid once and for all.”



Response to Mr Freemantle:

“Greenmined Environmental (hereinafter “Greenmined”) herewith acknowledge receipt of your correspondence received 12 December 2018 with regard to the proposed mining right application to be submitted on behalf of Bongani Minerals (Pty) Ltd.

Greenmined registered you as an interested and affected party on the project, and will henceforth keep you posted on the progress of the Environmental Impact Assessment process.

With reference to the sending of the background information document, please note that the form can be saved to your computer from where it can be filled in electronically and attached to an email. However, registration and/or commenting on the project does not necessitate the actual BID form and comments can be send to us by any means (email, post, fax) available to you. Please also note that the initial public notification process further (apart from the notification emails sent by the mailchimp system) included an advertisement in both Die Burger as well as Die Weslander, the placement of 5 on-site notices throughout the study area, as well as providing people without email addresses with letters sent to their postal boxes. Should any person need assistance with the submission of comments he/she is welcome to contact us telephonically and we will assist as best we can.

We trust you will find this in order. Please do not hesitate to contact me in the event of any uncertainties.”

Mr Freemantle acknowledge receipt of the requested information on 13 December 2018.

Fynbos Fish Trust	15/01/2019	Riaan van der Walt registered the Fynbos Fish Trust, objected to the project and is concerned about pollution of the Krom Antonies River, water abstraction form Krom Antonies River, impact on general river condition, and impact on threatened Verlorenvlei redfin Cape galaxias and Cape Kurper.	Greenmined acknowledged receipt of the objection on 15 January 2019, registered the Fynbos Fish Trust as I&AP and informed them of the availability of the DSR.
Geldenhuis, W	04/02/2019	Waldo Geldenhuis objected to the project.	Greenmined acknowledged receipt of the objection on 5 February 2019, registered the Mr Geldenhuis as I&AP and informed him of the availability of the DSR.
Germond, M	10/02/2019	Mark Germond objected to the project and is concerned about the impact on the pristine natural environment and taxation of the limited	Greenmined acknowledged receipt of the objection on 11 February 2019, registered the Mr

		resources, in particular the ground water supply that serves the entire valley, from Piketberg to Elands Bay.	Germond as I&AP and informed him of the availability of the DSR.
Glass, S	23/01/2019	Steven Glass objected to the project and is concerned about the proposed project.	Greenmined acknowledged receipt of the objection on 24 January 2019, registered Mr Glass as I&AP and informed him of the availability of the DSR.
Gomes, F	03/02/2019	Fiona Gomes objected to the project and is concerned about environmental destruction, pollution of surface and ground water, destruction of natural habitat and wildlife especially in Verlorenvlei, and increased air pollution as a result of the open cast mine.	Greenmined acknowledged receipt of the objection on 4 February 2019, registered Mr and Mrs Gomes as I&AP and informed them of the availability of the DSR.
Good, J	04/02/2019	Julie Good objected to the project and is concerned about the loss of biodiversity, pollution, job loss, contamination of water, water loss, and erosion.	Greenmined acknowledged receipt of the objection on 4 February 2019, registered Me Good as I&AP and informed her of the availability of the DSR.
Gordon, B & D	21/01/2019	Barbara and Dave Gordon objected to the project and listed the following concerns.	Greenmined acknowledged receipt of the objection on 22 January 2019, registered Mr and Mrs Gordon as I&AP and informed them of the availability of the DSR.
<p>Comments received from Barbara Gordon:</p> <p>“As a nature lover and a South African, this project will destroy an important area for us and overseas visitors as well as all the animals in the greater area, also for the little town of Lamberts Bay.”</p>			
<p>Comments received from Dave Gordon:</p> <p>“As a local, national and international photographer I believe that interference of bird life, animals and the environment will have a negative effect on my photo opportunities for local and international shows and more importantly, local and international photo tourism.</p>			

Gravity Sea Kayaking	04/02/2019	Andrew Kellett registered Gravity Sea Kayaking as I&AP on the project and listed the following comments.	Greenmined acknowledged receipt of the correspondence on 4 February 2019 and registered Gravity Sea Kayaking accordingly.
<p>Correspondence received from Gravity Sea Kayaking:</p> <p>“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.”</li> </ul> <p>“I would also like to object about the public consultation process – it has not been properly done. The community has not been properly educated or consulted about the implications of this mine and neither has the broader public, who are all custodians of our shared natural resources.”</p>			
Gresse, F	09/01/2019	Franci Gresse registered as I&AP on the project and requested that Ms H Nieuwoudt from the DEA: Working for Wetlands Programme also be invited to comment.	Greenmined acknowledged receipt of the correspondence on 9 January 2019 and registered Me. Gresse accordingly. As requested Ms Nieuwoudt was supplied with a BID and invited to comment on the project.
Griffiths, P	16/01/2019	Patrick Griffiths objected to the project and submitted the following concerns.	Greenmined acknowledged receipt of the objection on 17 January 2019, registered Mr Griffiths as I&AP and informed him of the availability of the DSR.
<p>Concerns of Mr Griffiths:</p> <p>“The government has its own interests at heart and shows no consideration for our fragile environment, protection of our communities or heritage. The guise of job creation is an excuse for shorter term financial interests of those backing the rape of this area.”</p>			

Grutter, H	06/02/2019	Herman Grutter requested a copy of the DSR.	Greenmined supplied Mr Grutter with a copy of the DSR on 7 February 2019.
Grutter, M	05/02/2019	Malie Grutter objected to the project and commented as follows.	Greenmined acknowledged receipt of the objection on 13 February 2019, registered Me Grutter as I&AP and responded as follows.
<p>Comments received from Me Grutter:</p> <p>“I do object in the strongest terms to the proposed mining application.</p> <p>Additional information: Both the BID and the DSR are almost entirely silent on the structure and competence of the Applicant, Bongani Minerals. Please provide details of the stakeholdership in this entity, a comprehensive and well supported explanation of the company’s competence to exercise mining operations, as well as a copy of the relevant Prospecting Right that is said to have lapsed in December 2018. Please also confirm or deny whether Phemelo Seunelo still has an interest in Bongani Minerals and provide clarification of the Regional Manager of DMR in Western Cape (Ms Duduzile Kunene)’s personal relationship (past or present) with the applicant/s (in particular with Mr Seunelo).”</p>			
<p>Response to Me Grutter:</p> <p>“Greenmined Environmental (Pty) Ltd (hereinafter referred to as “Greenmined”) would like to thank you for your interest and herewith acknowledge receipt of your objection dated 5 February 2019 with regards to the mining right application (WC 30/5/1/2/2/10110 MR) submitted on behalf of Bongani Minerals (Pty) Ltd. Greenmined, on behalf of the applicant, registered you as an interested and affected party (I&amp;AP) on the project, and will henceforth keep you posted on the progress of the Environmental Impact Assessment (EIA) process, as well as provide you with an opportunity to comment on the EIA documentation.</p> <p>In response to your other requests:</p> <ul style="list-style-type: none"> <li>✘ Attached hereto please find a copy of the prospecting right held by Bongani Minerals.</li> <li>✘ Please see a copy of the company structure below (<i>see Appendix 5 Proof of Public Participation</i>)</li> <li>✘ The Applicant responded that he will not supply any clarification regarding Mr Seunelo’s private life, and added that if Mr Seunelo has been criminally charged with something evidence thereof has to be furnished.</li> </ul> <p>We trust you will find this in order. Please do not hesitate to contact me in the event of any uncertainties.”</p>			
Halvorsen, M	04/02/2019	Martin Halvorsen requested a copy of the BID.	Greenmined supplied Mr Halvorsen with a copy of the BID on 4 February 2019.

Hanekom, AJ	04/02/2019	Abraham J Hanekom objected to the project with the following reasons.	Greenmined acknowledged receipt of the objection on 5 February 2019, registered Mr Hanekom as I&AP and informed him of the availability of the DSR.
<p>Comments received from Mr Hanekom (translated for ease of reference):</p> <p>“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>∴ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>∴ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>∴ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>∴ the undesirability of mining operations in the area.”</li> </ul>			
Harrison, K	04/02/2019	Karen D Harrison objected to the project with the following reasons.	Greenmined acknowledged receipt of the objection on 4 February 2019, registered Me Harrison as I&AP and informed her of the availability of the DSR.
<p>Correspondence received from Me Harrison:</p> <p>“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>∴ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>∴ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>∴ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>∴ the undesirability of mining operations in the area.”</li> </ul>			

Haw, C	17/01/2019	Christopher Haw objected to the project, requested access to the biodiversity and water system studies, and is concerned about pollutant and waste from mining operation to flow into the Moutonshoek catchment area affecting the water quality, flora and fauna in the river and vlei.	Greenmined acknowledged receipt of the objection on 18 January 2019, registered Mr Haw as I&AP and informed him of the availability of the DSR.
Hawkins, C	04/02/2019	Craig and Carla Hawkins objected to the project with the following reasons.	Greenmined acknowledged receipt of the objection on 4 February 2019, registered Mr & Mrs Hawkins as I&AP and informed them of the availability of the DSR.
<p>Correspondence received from Mr &amp; Mrs Hawkins:</p> <p>“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>∞ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>∞ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>∞ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>∞ the undesirability of mining operations in the area.”</li> </ul>			
Hayes, P	04/02/2019	Patrick Hayes objected to the project and submitted the following concerns.	Greenmined acknowledged receipt of the objection on 4 February 2019, registered Mr Hayes as I&AP and informed him of the availability of the DSR.
<p>Comments received from Mr Hayes:</p> <p>“About 240 Bird species at Verlorenvlei which flows into the ocean at Elands Bay, near the surf spot, which is famous world wide for the left break.”</p>			
Hecter, D	05/02/2019	D Hecter objected to the project and is concerned about the destruction or drastic medication of the	Greenmined acknowledged receipt of the objection on 6 February 2019, registered Me

		pre-mined landscape can have an enormous impact on the biodiversity of the area.	Hector as I&AP and informed her of the availability of the DSR.
Hector, G	04/02/2019	Gerrit Hector objected to the project and is concerned about job loss, and the health of the animals.	Greenmined acknowledged receipt of the objection on 5 February 2019, registered Mr Hector as I&AP and informed him of the availability of the DSR.
Heering, L	16/01/2019	Louis Heering objected to the project and submitted the following concerns.	Greenmined acknowledged receipt of the objection on 17 January 2019, registered Mr Heering as I&AP and informed him of the availability of the DSR.
<p>Concerns received from Mr Heering:</p> <p>“Believe that mining in this area will cause untold and unimaginable destruction and damage to the area and surrounds. I object to any mining activity that is proposed. This application has been made before and was proven that it would be environmentally damaging and very low yield of material with a toxic extraction at the expense of the surrounding farmers.”</p>			
Henderson, H	01/02/2019	Hilde Henderson objected to the project.	Greenmined acknowledged receipt of the objection on 4 January 2019, registered Me Henderson I&AP and informed her of the availability of the DSR.
Henning, A	02/02/2019	Amelia Henning objected to the project with the following reasons.	Greenmined acknowledged receipt of the objection on 4 January 2019, registered Me Henning I&AP and informed her of the availability of the DSR.
<p>Correspondence received from Me Henning (translated for ease of reference):</p> <p>My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>∞ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> </ul>			

<ul style="list-style-type: none"> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.</li> </ul>			
Hessling, P	04/02/2019	Peter Hesseling requested a copy of the BID.	Greenmined supplied Mr Hesseling with a copy of the BID on 4 February 2019, registered Mr Hesseling as I&AP and informed him of the availability of the DSR.
Hill, H	04/02/2019	Helga Hill objected to the project and submitted the following comments.	Greenmined acknowledged receipt of the objection on 6 February 2019 and registered Me Hill as I&AP on the project.

Comments received from Me Hill on the DSR:

“I, Helga Hill, would like to take this opportunity to object to the abovementioned mining right application lodged by Greenmined on behalf of Bongani minerals.

**Basis for objecting:**

**The targeted area is a protected area and where not, is adjacent to a protected area. It falls within a critically endangered vegetation area with equally rare fauna. Long term job opportunities will be lost. The river also flows into the Verlorenvlei wetlands which is a RAMSAR site supporting thousands of birds. And mining will ruin a particularly beautiful and tranquil valley.**

**Further environmental concerns:**

- ⌘ Certain properties under consideration for this mining right application form part of the recently designated Moutonshoek Protected Environment. Other properties forming part of the application are directly adjacent to and bordering on the Protected Environment. The area’s natural heritage and ecological sensitivity is part of the reason for this declaration as a Protected Environment.
- ⌘ The area contains a number of threatened vegetation types, also part of its reason for declaration as a Protected Environment. These vegetation types include: Critically Endangered Swartland Shale Renosterveld, Piketberg Quartz Succulent Shrubland which qualifies as Critically Endangered according to the latest analysis conducted by CapeNature (only 11.7% of its original very small extent is remaining), Critically Endangered Cape Lowland Alluvial Vegetation, Endangered Leipoldville Sand Fynbos, Vulnerable Piketberg Sandstone Fynbos, and Cape Lowland Freshwater Wetlands. These vegetation types are not only threatened in themselves, but provide essential habitat for a range of biodiversity present in this area. The presence of critically endangered vegetation types alone should preclude any mining developments from this area.



- ✘ The Moutonshoek Valley is estimated to supply 60% of the water volume and 90% of the water quality to the Verlorenvlei Estuary, which is listed as an Important Bird and Biodiversity Area and a Ramsar site, or wetland of international significance. The area is already highly water-stressed and the development of a mine will ultimately lead to the collapse of the freshwater and estuarine ecosystems within this area.
- ✘ The Moutonshoek Valley, including those sites indicated in the mining right application, contain the endangered fish species the Verlorenvlei Redfin (*Pseudobarbus verloreni*), previously undescribed, and genetically different from the Berg River Redfin (*Pseudobarbus burgii*). Cape Galaxias (*Galaxias zebratus*) and Cape Kurper (*Sandelia capensis*), both classified as Near Threatened, also occur within the river systems of this area.
- ✘ The Moutonshoek Valley supports several threatened bird species including, Ludwig’s Bustard, Black Stork, Black Harrier and Secretary Bird. In addition the Verlorenvlei system of which the valley forms part supports globally threatened species such as Lesser Flamingo, Black Harrier, African Black Oystercatcher and Chestnut-banded Plover. Nationally threatened species include Caspian Tern, Great White Pelican, Greater Flamingo, African Marsh-Harrier and Ludwig’s Bustard. Endemic species include Cape Spurfowl, Cape Bulbul and Southern Black Korhaan.
- ✘ The conservation of the above species and the Verlorenvlei Estuary is an obligation for South Africa as a signatory to the Convention on Biological Diversity, Convention on Migratory Species and African-Eurasian Waterbird Agreement. The commitments to these multilateral environmental agreements and the impact of the mining activities on these species and habitats must be taken into account.
- ✘ The scoping report states that *The RAMSAR status of Verlorenvlei takes president and accordingly directs the mining project proposal* (Table 2. Applicable legislation). If the applicant wishes to honour this statement, due to the Ramsar status, the mining applicant should be required to prove that all water flows to Verlorenvlei are maintained and even improved by the mining activities, whilst also not impacting on the water volumes available to agriculture. The detailed hydrological modelling study should provide clear evidence of the maintenance of water flows and improvements to water quality.

**Further social concerns:**

- ✘ The area provides essential job security to local communities through the agricultural production in the area, and also food security and economic opportunities through the production of wine, potatoes, race horses and citrus.
- ✘ The Scoping Report states that *the proposed labour component of the operation is approximately 211 employees including management.* (Page 26; Draft Scoping Report).
- ✘ While this figure is not insignificant, we await the outcomes of the socio-economic evaluation as it must be determined how many jobs will be AT RISK or LOST in the local agricultural sector as a result of the mining development. Further, the loss of potable water will lead to a decline in agricultural productivity and a loss of jobs throughout the entire Verlorenvlei catchment. We require a detailed study of these impacts which clearly illustrates the degree of threat to livelihoods associated with the agricultural sector in this area.”

Please find Greenmined’s response to the DSR comments included at the end of this table.

Howell, M	11/02/2019	Miguel Howell objected to the project and commented that the plunder of the precious landscape must be stopped. He is concerned	Greenmined acknowledged receipt of the objection on 12 February 2019 and registered Mr Howell as I&AP on the project.
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		that the local animals/wildlife/birds will be harmed.	
Hugo, M	05/02/2019	Mildred Hugo objected to the project and is concerned about the massive habitat losses which affects microorganism, vegetation and animals.	Greenmined acknowledged receipt of the objection on 6 February 2019, registered Me Hugo I&AP and informed her of the availability of the DSR.
Hutchings, K	11/01/2019	Kenneth Hutchings registered on the project and is concerned about the potential impact the project may have on the ecological functioning of the Krom Antonies River and Verlorenvlei.	Greenmined acknowledged receipt of the objection on 14 January 2019, registered Mr Hutchings I&AP and informed him of the availability of the DSR.
Huysamen, A & B	21/01/2019	Mr and Mrs Huysamen objected to the project and is concerned that the birdlife in the Verloren Valley will be destroyed.	Greenmined acknowledged receipt of the objection on 22 January 2019, registered Mr and Mrs Huysamen as I&AP's and informed them of the availability of the DSR.
Isaac, N	04/02/2019	Nicole Isaac objected to the project and is concerned about the high risk of pollution and stated that she will not tolerate a danger to their nature. She mentioned that the small town needs care not destruction.	Greenmined acknowledged receipt of the objection on 4 February 2019, registered Me Isaac as I&AP's and informed her of the availability of the DSR.
Johnson, M	03/02/2019	Marlene Johnson objected to the project and submitted the following reasons.	Greenmined acknowledged receipt of the objection on 4 February 2019, registered Me Johnson as I&AP's and informed her of the availability of the DSR.

Correspondence received from Me Johnson (translated for ease of reference):

My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general.

It is my request that the applications be refused by the relevant authority because of –

- ⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;
- ⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;
- ⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and
- ⌘ the undesirability of mining operations in the area.

Jones, P	04/02/2019	Paul Jones objected to the project and is concerned about the use of water in the vicinity to an already stressed and threatened Verlorenvlei, and the destruction of Moutonshoek existing agriculture and livelihood.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mr Jones as I&AP's and informed him of the availability of the DSR.
Jonker, W	04/02/2019	Wilmarine Jonker objected to the project and listed the following reasons.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Me Jonker as I&AP's and informed her of the availability of the DSR.
<p>Correspondence received from Me Jonker (translated for ease of reference):</p> <p>My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general.</p> <p>It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.</li> </ul>			
Jordaan, B	04/02/2019	Bianca Jordaan objected to the project.	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered Me Jordaan as I&AP's and informed her of the availability of the DSR.
Jordaan, GJ	05/02/2019	Gert J Jordaan objected to the project and is concerned about underground water pollution, loss of tourism, pollution in general, biological loss of wildlife, habitat loss, and human and wildlife sickness.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered Mr Jordaan as I&AP's and informed him of the availability of the DSR.
Joubert, AJ	04/02/2019	AJ Joubert objected to the project and is concerned about pollution of the river and vlei, air pollution, bird and animal life, impact on the surrounding farmers through noise and traffic.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mr Joubert as I&AP's and informed him of the availability of the DSR.

Kane, R	17/01/2019	Rob Kane requested the BID in Afrikaans.	Greenmined acknowledged receipt of the correspondence on 18 January 2019, registered Mr Kane as I&AP's and informed him of the availability of the DSR. The Afrikaans BID was sent to Mr Kane on 23 January 2019.
Karolus, H	04/02/2019	Henry Karolus objected to the project and is concerned about the health risk, job loss and drought of the vlei.	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered Mr Karolus as I&AP's and informed him of the availability of the DSR.
Karookop Primary School	07/01/2019	HSP Brand registered the Karookop Primary School as I&AP on the project and submitted the comments as listed below.	Greenmined acknowledged receipt of the objection on 8 January 2019, and responded as listed below.

Comments received from Mr Brand (translated to English for ease of reference):

Mr Brand objected on behalf of the Karookop Primary School to the development of the proposed mine. Mr Brand requested all information to be supplied in Afrikaans and Xhosa since the majority of people are either Afrikaans- or Xhosa. Mr Brand is concerned about the safety of learners that daily uses the road on their way to school, as the same road will be used by trucks. Mr Brand stated that noise levels (as a result of the mine) will make teaching very difficult since the mine will border the school. Another concern is that the health of learners may be affected as a result of dust and other gasses generated as a result of the mine. Mr Brand stated that many parents will lose their jobs and the existence of the school will be threatened.

Response to Karookop Primary School (translated to English for ease of reference):

Greenmined Environmental (Pty) Ltd (hereinafter "Greenmined") hereby acknowledges receipt of your letter, received on 8 January 2019, regarding the mining right application submitted on behalf of Bongani Minerals (Pty) Ltd. Greenmined, on behalf of the applicant, has registered the Karookop Primary School as an interested and affected party (I&AP) on the project and will henceforth keep you informed of the progress of the Environmental Impact Assessment (EIA) process, you will also be given the opportunity to comment on the EIA documentation. We take note of your request for project information to be made available in Afrikaans and Xhosa. The concerns listed by you will form part of the draft Scoping Report and will be examined in the Environmental Impact Assessment Report. Your comments will also be sent to the traffic engineer (responsible for the traffic impact assessment), as well as the specialists responsible for the noise impact study, atmospheric impact assessment, and socio-economic impact assessment in order to assess the potential impacts on the study area. We trust that you will find the above in order. Please contact me if there are any uncertainties.

"Greenmined Environmental (Pty) Ltd (hierna "Greenmined") erken hiermee ontvangs van u skrywe, soos ontvang op 8 Januarie 2019, ten opsigte van die mynreg aansoek wat namens Bongani Minerals (Edms) Bpk ingedien is. Greenmined, namens die aansoeker, het die Karookop Primêre Skool as 'n belanghebbende en geaffekteerde party (B&GP)

op die projek geregistreer en sal u voortaan op hoogte hou van die vordering van die omgewingsinvoedbepalingsproses (OIB), u sal ook die geleentheid gebied word om kommentaar te lewer op die OIB-dokumentasie. Ons neem kennis van u versoek dat projek inligting in Afrikaans en Xhosa beskikbaar gestel moet word. Die bekommernisse soos deur u gelys sal deel vorm van die konsepbestekopnameverslag en ondersoek word in die omgewingsimpakevalueringsverslag. U kommentaar sal ook aan die verkeersingenieur (verantwoordelik vir die verkeer impakassessering), asook die spesialiste verantwoordelik vir die geraasimpakstudie, atmosferiese impakbepaling, en sosio-ekonomiese impakstudie gestuur word sodat hulle die potensiële impak daarvan op die studie area kan evalueer. Ons vertrou dat u die bogenoemde in orde vind. Kontak my gerus indien daar enige onsekerhede is.”

Kellett, A	04/02/2019	Andrew Kellett objected to the project and submitted the following reasons.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mr Kellett as I&AP's and informed him of the availability of the DSR.
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Correspondence received from Mr Kellett:

“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –

- ⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;
- ⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;
- ⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and
- ⌘ the undesirability of mining operations in the area.”

Kellett, M	04/02/2019	Marie-Louise Kellett objected to the project and submitted the following reasons.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mrs Kellett as I&AP's and informed him of the availability of the DSR.
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Correspondence received from Mrs Kellett:

“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –

- ⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;
- ⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;
- ⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and

<p>⌘ the undesirability of mining operations in the area.”</p>			
Klaasen, A	07/02/2019	Anna Klaasen objected to the project and is concerned that the project will hinder the progress of the farmers and workers, and will pollute their water.	Greenmined acknowledged receipt of the correspondence on 11 February 2019, registered Me Klaasen as I&AP’s and informed her of the availability of the DSR.
Knoetser, M	01/02/2019	Matthew Knoetzer objected to the project and is concerned about the loss of biodiversity, erosion, contamination of water/soil, environmental damage, habitat loss, pollution, water loss and climate change.	Greenmined acknowledged receipt of the correspondence on 1 February 2019, registered Mr Knoetzer as I&AP’s and informed him of the availability of the DSR.
Kotze, J	04/02/2019	Jan Kotze objected to the project and submitted the following reasons.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mr Kotze as I&AP’s and informed him of the availability of the DSR.
<p>Correspondence received from Mr Kotze (translated for ease of reference):</p> <p>“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.”</li> </ul>			
Krause, E	12/02/2019	Earl Krause objected to the project with the following comments.	Greenmined acknowledged receipt of the correspondence on 13 February 2019, and registered Mr Krause as I&AP’s on the project.
<p>Comments received from Mr Krause:</p> <p>“1. Mine in question is to be in an area which is the main water-source for Verlorenvlei Lagoon, this is a nature reserve. 2. Any contamination of a water source will slowly filter into the vlei, which will in all probability destroy and kill off the birdlife, fish, etc. as well as animals.</p>			

3. The people living in the area could also be negatively affected.”			
Kritzinger-Klopper, S	30/01/2019	Suzaan Kritzinger-Klopper objected to the project and submitted the following comments.	Greenmined acknowledged receipt of the correspondence on 31 January 2019, registered Mrs Kritzinger-Klopper as I&AP's and informed her of the availability of the DSR.
<p>Comments received from Mrs Kritzinger-Klopper (translated to English for ease of reference):</p> <p>I, Suzaan Kritzinger-Klopper, the undersigned and in my capacity as conservationist and friend of resident of Sebilon, Verlorenvlei, and Vensterklip, hereby record my strongest objections against the above application and I insist on being registered as an interested and affected person.</p> <p>My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general.</p> <p>It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operation s will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.</li> </ul> <p>I am aware of the fact that Adv Martin Coetzee will be submitting a detailed objection against the mining right application and the application for environmental authorisation, and I hereby give him a mandate to also object on my behalf and include my name in the list of objectors whom he represents.</p>			
Krom Antoniesrivier Bewarea Van der Merwe, J	14/12/2018	Jacqui van der Merwe registered the Krom Antonies Bewarea as an I&AP on the project and submitted the following comments as listed below.	Greenmined acknowledged receipt of the objection on 8 January 2019, and responded as listed below.
<p>Comments received from Mrs Van der Merwe (translated to English for ease of reference):</p> <p>I was and remain an affected person, just as everyone to whom you sent this document. We expect you to automatically replace everyone on your list. Can you please send this document as soon as possible in Afrikaans and Xhosa? The affected area is mostly Afrikaans and Xhosa speaking with very little English. As you probably know it is the</p>			

Boland. We also find it repugnant that these notifications are sent out just before the holiday season. I assume you are not concerned about your reputation either. Just ask Withers Environmental. I hope you indeed want to "protect the planet".

"Ek was en bly 'n geaffekteerde persoon, en net so almal aan wie jul hierdie dokument stuur. Ons verwag dat julle almal outomaties weer op jul lys sal sit. Kan jul asb hierdie dokument so gou as moontlik in Afrikaans en Xhosa stuur? Die geaffekteerde gebied is meestal Afrikaans en Xhosa en bittermin Engels. Soos jy seker weet is dit die Boland. Ons vind dit ook afstootlik dat hierdie kennisgewings uitgestuur word net voor die vakansie seisoen. Ek aanvaar dat jul ook nie bekommerd is oor jul reputasie nie. Vra maar vir Withers Environmental. Ek hoop jul wil wel die "planeet beskerm."

Response sent to Mrs Van der Merwe (translated to English for ease of reference):

Greenmined Environmental (hereinafter "Greenmined") hereby acknowledges receipt of your letter, received on 14 December 2018, in respect of the mining right application submitted on behalf of Bongani Minerals (Pty) Ltd. Greenmined, on behalf of the applicant, has registered you as an interested and affected party (I&AP) on the project and will henceforth keep you informed of the progress of the Environmental Impact Assessment (EIA) process, you will also be given the opportunity to comment on the EIA documentation. Please note that we have already contacted the I&AP's registered on the previous mining application (as handled by Withers Environmental). Since the application took place some time ago (2009), we receive a lot of feedback that people no longer reside in the area, or no longer want to be involved. The document can be made available in Afrikaans and Xhosa. Could you please provide us with the contact details of the Xhosa and Afrikaans speaking I&AP's to enable us to contact them accordingly? Please note that the commenting / registration period extends to 5 February 2019. We trust that you will find the above in order. Please contact me if there are any uncertainties.

"Greenmined Environmental (hierna "Greenmined") erken hiermee ontvangs van u skrywe, soos ontvang op 14 Desember 2018, ten opsigte van die mynreg aansoek wat namens Bongani Minerals (Edms) Bpk ingedien is. Greenmined, namens die aansoeker, het u as 'n belanghebbende en geaffekteerde party (B&GP) op die projek geregistreer en sal u voortaan op hoogte hou van die vordering van die omgewingsinvoedbepalingsproses (OIB), u sal ook die geleentheid gebied word om kommentaar te lewer op die OIB-dokumentasie. Neem asb kennis dat ons reeds die B&GP'e gekontak het wat op die vorige mynregaansoek (soos hanteer deur Withers Environmental) geregistreer was. Aangesien die aansoek 'n tyd gelede plaasgevind het (2009), kry ons heelwat terugvoer van persone wat nie meer in die omgewing woon, of betrokke wil wees nie. Die dokument kan in Afrikaans en Xhosa beskikbaar gestel word. Kan u ons asb voorsien van die kontakbesonderhede van die Xhosa en Afrikaanssprekende B&GP'e om ons in staat te stel om hulle dienooreenkomstig te kontak? Let asseblief daarop dat die kommentaar-/registrasieperiode tot 5 Februarie 2019 strek. Ons vertrou dat u die bogenoemde in orde vind. Kontak my gerus indien daar enige onsekerhede is."

Response received from Mrs Van der Merwe on 14 January 2019 (translated for ease of reference):

Thank you for correspondence of 7/1/2019. I assume Greenmined was on leave. We've hoped you'd rather send us the translations. We have already asked for this on 14/12/2018. I attach to the list that you have posted to us, each of which is either Afrikaans or Xhosa. Gershwin Pieters has since passed away. Furthermore, I Jacqueline van



der Merwe and my husband Benjamin van der Merwe are Afrikaans, our Krom Antonies Conservancy is Afrikaans and the following list of people at PO Box 67, Piketberg 7320 are also Afrikaans or Xhosa: *See list below.* I would appreciate if you list all as affected persons and as a matter of urgency send the notices in Afrikaans and Xhosa.

“Dankie vir u skrywe van 7/1/2019. Ek neem aan Greenmined was met verlof. Ons het al gehoop dat jul eerder vir ons die vertalings gestuur het. Ons het al 14/12/2018 daarvoor gevra. Ek heg aan die lys wat jul aan ons gepos het waarvan elke persoon of Afrikaans of Xhosa is. Gershwin Pieters is intussen oorlede. Verder is ek Jacqueline van der Merwe en my man Benjamin van der Merwe Afrikaans, ons Krom Antonies Bewarea is Afrikaans en die volgende lys mense by Posbus 67, Piketberg 7320 is ook of Afrikaans of Xhosa:

1. Niel Visser
2. Michelle Visser
3. Vakakhulu Mdlelembe
4. Jaco Ockhuis
5. Karel Skirmaans
6. Andries Swarts
7. Marietha Opperman
8. Pitirose Makoae
9. Loretta Lottering
10. Barend Springfeld
11. Maria Saroon
12. Jolien Jacobs
13. Asanda Hlekani
14. Zenele Mdlelembe
15. Mpendulo Mona
16. Dawid Storm
17. Carl Franse
18. Nicolaas Ockhuis
19. Tessa Lombard
20. Davine van Rooyen
21. Andries Andreas Swarts
22. Hendrik Saroon
23. Pieter Johnson
24. Aletta Ngemtu
25. Gerhard Swartz
26. Zamakuluwenga Ngemntu
27. Marlene Johnson

28. Zukile Mqoboka
29. Archiebold Mdlelembe
30. Josef Presence
31. Nick Fredericks
32. Simon Claasen
33. Kerneels van Wyk
34. Maria van Wyk

Ek sal waardeer as u almal solank lys as geaffekteerde persone en as 'n saak van dringendheid die kennisgewings in Afrikaans en Xhosa stuur.”

Greenmined supplied Mrs Van der Merwe with an Afrikaans and isiXhosa copy of the BID on 23 January 2019.

Objection received from Mrs Van der Merwe on 4 February 2019:

“I object in the strongest possible terms to the proposed tungsten mine in Moutonshoek!

I object because this mine will destroy my livelihood and that of my husband and children.

I object because this mine will destroy the livelihoods of all our employees and their families that live on this farm.

I object because it will destroy the livelihoods of all my neighbours including every person and family in this valley. The damage to the community that has farmed here for over 300 years will be irreversible. It may even destroy all communities all the way to Elands Bay!

I object to having wasted an incredible amount of time and energy since 2004 to oppose this mine, instead of getting on with my work of social upliftment on this farm.

I object to recurring applications for PR and MR and incomplete corrupt procedures every time.

I object to a generic BID with inadequate information, and an environmental company just going through some procedures and ignoring most things- like they are playing a game.

I object to using only English IAP comment forms for a predominantly Afrikaans & Xhosa community. When translations are requested, they are received with less than a month to object.

I object to being notified just before school holidays every time in order to shorten the objection period.

I object to the irreversible damage such a chemical mine will have on our water resources from here all the way to the Verlorenvlei and the sea. This includes not only one but two underground rivers (aquifers), one Krom Antonie’s river, groundwater etc and could dry out and pollute the entire Sandveld.

I object to the subsequent destruction of an incredibly delicate ecology and the heritage left to generations to come just in this valley. This includes endangered and threatened species ranging from the Leopard, Cape Clawless Otter, Cape Fox, Elephant Shrew, Pangolin, Geometric Tortoise, Girdled Lizard, Blue Crane, Verlorenvlei Red fin Fish, Cape Galaxia Fish and Butterflies, to Renosterveld fynbos, as well as precious heritage objects such as petrified trees and San rock paintings. This is not even to mention the impact on the internationally important RAMSAR wetland site of the Verlorenvlei. Worst even no consideration for the Protected Natural Environment declared over this area.

I object to the priority of a 30 year/indefinite mine above sustainable agriculture and food security for South Africa.

<p>I object to Bongani Minerals and Batla Minerals wanting to make a huge short-term profit out of land and mineral rights that don't even belong to them, when the foreign exchange earned by exports of fruit and horses from this valley in the last ten years and the 100 years to come will exceed their income. I object to anyone who will allow or promote such a short-sighted project, with so little to gain and so much to lose!"</p>			
<p>Greenmined acknowledged receipt of the objection letter received from Mrs Van der Merwe on 5 February 2019.</p>			
<p>Krom Antonies Watergebruikersvereniging (KAWGV) (Water Users Association)</p>	<p>02/02/2019</p>	<p>JJ Smit objected to the project and submitted the following comments.</p>	<p>Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered the Krom Antonies Watergebruikersvereniging as I&amp;AP's and informed them of the availability of the DSR.</p>
<p>Comments received from KAWGV (translated for ease of reference):</p> <p>Herewith the KAWGV's objection to the mining application of Bongani Minerals. The KAWGV is responsible for all matters relating to water uses in its catchment area which include resource protection. Under paragraph Hydrology of your document, it is undertaken to do a "comprehensive ecological freshwater assessment" and also that a "hydrogeological assessment will be undertaken to provide information on the potential impact of the proposed project on groundwater in the study area. The studies include, among other things, a hydro census, chemical water analysis and a geophysical investigation." However, it is difficult to understand how the very extensive impacts (which are not really described) of the proposed operations will be meaningfully addressed. Considering the strategic value of water for this community and the environment, it's hard to imagine how the proposed mining operations can be deemed acceptable.</p> <p>"Hiermee die KAWGV se beswaar teen die mynaansoek van Bongani Minerals. Die KAWGV is verantwoordelik vir all aangeleenthede rakende water gebruike in sy bedienings gebied wat insluit die beskerming van die hulpbronne. Onder paragraaf Hidrologie, van jul dokument, word onderneem om 'n "omvattende ekologiese varswaterassessering" te doen en ook dat 'n "Hidrogeologiese assessering sal onderneem word om inligting te voorsien oor die potensiele impak van die voorgestelde projek op die groundwater van die studiegebied. Die studies sal onder andere a hidrosensus, chemise waterontleding en 'n geofisiese ondersoek insluit." Dit is egter moeilik om verstaan hoe die baie omvattende impakte (wat nie eintlik baie beskryf word nie) van die voorgestelde bedrywighede sinvol aangespreek gaan word nie. Gesien in die lig van die strategiese waarde van water vir hierdie gemeenskap en die omgewing, is dit moeilik om te dink hoe die voorgestelde mynbedrywighede enigsins aanvaarbaar kan wees."</p>			
<p>Kruger, A</p>	<p>05/02/2019</p>	<p>Aletta MB Kruger objected to the project with the following reasons.</p>	<p>Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered Me Kruger as I&amp;AP's and informed her of the availability of the DSR.</p>

Correspondence received from Me Kruger:

“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general.

It is my request that the applications be refused by the relevant authority because of –

- ⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;
- ⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;
- ⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and
- ⌘ the undesirability of mining operations in the area.”

Kumuppance Family Trust	05/02/2019	Grenville White registered the Kumuppance Family Trust as I&AP and submitted the following comments.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered the Kumuppance Family Trust as I&AP's and informed them of the availability of the DSR.
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Comments received from the Kumuppance Family Trust:

The Kumuppance Family Trust objected to the project and requested a detailed impact study. Concerns: “All settlements in the region will be negatively affected by the proposed mine, reducing the market value of the properties. Ecological disaster rendering region undesirable to live in.”

Kushner, B	17/01/2019	Brin Kushner objected to the project and is seriously concerned about the impact on the vlei and the surrounding environment.	Greenmined acknowledged receipt of the correspondence on 18 January 2019, registered Mr Kushner as I&AP's and informed him of the availability of the DSR.
Labuschagne, F	17/01/2019	Frans Labuschagne objected to the project, requested to be kept in the picture and is concerned about the impact on the environment in the area where mining will take place as well as Verloren Vlei and Redelinghuys and Elandsbaai.	Greenmined acknowledged receipt of the correspondence on 18 January 2019, registered Mr Labuschagne as I&AP's and informed him of the availability of the DSR.
Landman, S	05/02/2019	Riaan and Susan Landman objected to the project with the following comments.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered

			Mr and Mrs Landman as I&AP's and informed them of the availability of the DSR.
<p>Comments received from Mr and Mrs Landman:</p> <p>Requested the full impact on fauna/flora, groundwater and people. Concerns: Environmental impact, risk to groundwater, bird life, risk to Verlorenvlei catchment area, risk to environmental health (humans, fauna, flora) due to air and dust pollution.</p>			
Langkilde, D	04/02/2019	Desmond Langkilde objected to the project and submitted the following reasons.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mr Langkilde as I&AP's and informed him of the availability of the DSR.
<p>Correspondence received from Mr Langkilde:</p> <p>“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>∞ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>∞ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>∞ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>∞ the undesirability of mining operations in the area.”</li> </ul>			
Large, D	21/01/2019	Derek Large objected to the project, requested to be kept informed, and is concerned about water pollution and bird life.	Greenmined acknowledged receipt of the correspondence on 22 January 2019, registered Mr Large as I&AP's and informed him of the availability of the DSR.
Lategan, W	04/02/2019	Wynand Lategan registered on the project.	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered Mr Lategan as I&AP's and informed him of the availability of the DSR.
Laubscher, JPS	05/02/2019	Johannes PS Laubscher objected to the project with the following comments.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered

			Mr Laubscher as I&AP's and informed him of the availability of the DSR.
<p>Comments received from Mr Laubscher:</p> <p><i>Additional information requested:</i> "Full details of the Environmental Impact Study, particularly the effect that the project will have on the flow of water in the Verloren River and all its tributaries.</p> <p>Further, has Applicant calculated the long-term cost of rehabilitating the mining area to its present pristine condition and has it factored in this cost when determining its long-term profit. Is Applicant prepared, at the beginning of this project, to deposit the rehabilitation cost, calculated by an entirely independent expert, into a special Trust account not controlled by Applicant to rehabilitate the land entirely to its present pristine natural stat after mining activities have ceased.</p> <p>Applicant's heavy trucks will be using various public roads in and around the mine and the Piketberg area. Is Applicant committed at its own cost, to maintain the roads on a monthly basis, to the standards required by the Roads Authority. Has Applicant factored this cost into determining tis long-term profit."</p> <p><i>Concerns:</i> "I identify myself with the objection already filled by the Verlorenvlei Heritage Home Owners Association.</p> <p>For the first time in decades the Verloren Vlei is totally dry despite the 2018 rains being better than the three previous years. The basin near the mouth is a waste land and dry vegetation. The water on the farms around the vlei is so low that one of our neighbours can no longer pump water from his well.</p> <p>The catchment area of the vlei is situated in the Moutonshoek Valley. This is a relatively small area situated between the mountains to the Eastern Side of the vlei.</p> <p>The Applicant proposed development is, according to the plans received, situated at the heart of the said area. It is obvious event to the layman eye, that this very fragile environment is dependent on the preservation of this pristine phenomenon.</p> <p>If the total system is in anyway threatened, especially as foreseen by the suggested mine and associated developments in the area, ti will fatal to the economy, farming activities (which are fragile in themselves), livelihood and wellbeing of all the people who have lived here for centuries. I verily believe that mining activity of any sort anywhere in the valley will be an utter disaster from which the Verloren River may never recover. For this reason, I voice my strongest objection to Applicant's mining proposal."</p>			
Le Roux, N	04/02/2019	Naas Le Roux objected to the project and is concerned about environmental pollution, water use, wildlife, birds, and heavy trucks that will damage roads.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mr Le Roux as I&AP's and informed him of the availability of the DSR.
Leggatt, C	04/02/2019	Chris Leggatt objected to the project and submitted the following comments.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered

			Mr Leggatt as I&AP's and informed him of the availability of the DSR.
<p>Comments received from Mr Leggatt:</p> <p>“The negative environmental impact created by mining will have a devastating effect on the RAMSAR site of Verlorenvlei as well as the water supply for surrounding communities. The wellbeing of future generations as well as the protected fauna and flora should not be sold for the financial benefit of a few. Very short-sited.</p>			
Leinberger, G & K	05/02/2019	Gina and Karl Leinberger registered as I&AP's on the project.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered Mr and Mrs Leinberger as I&AP's and informed them of the availability of the DSR.
Lennard, J & K	29/01/2019	Mr and Mrs Lennard objected to the project and submitted the following comments.	Greenmined acknowledged receipt of the correspondence on 30 January 2019, registered Mr and Mrs Lennard as I&AP's and informed them of the availability of the DSR.
<p>Comments received from Mr and Mrs Lennard:</p> <p>“We strongly object to the proposed tungsten mine in the Moutonshoek Valley where the head waters of the Krom Antonies River arise. This river is part of the catchment that supplies Verlorenvlei. Mining activities pose a threat of lack of water, future poisoned air, contaminated water and an unliveable environment.”</p>			
Levanon, G & E	28/01/2019	Mr Levanon objected to the project, requested a copy of a detailed, independent impact study on the hydrology and impact on the flora and fauna for the Piket-Bo-Berg area as well as the Verlorenvlei area.	Greenmined acknowledged receipt of the correspondence on 28 January 2019, registered Mr Levanon as I&AP and informed him of the availability of the DSR.
Lindsay, R	29/01/2019	Ross Lindsay objected to the project and submitted the following comments.	Greenmined acknowledged receipt of the correspondence on 30 January 2019, registered

			Mr Lindsay as I&AP and informed him of the availability of the DSR.
<p>Mr Lindsay requested more information on Bongani Minerals (Pty) Ltd to mine tungsten in an open cast pit in Moutonshoek Valley. Mr Lindsay noted that “as a land owner of the nearby town of Redelingshuys we value the fresh laywater and environment and don’t want it to be compromised by the proposed mining.”</p>			
Little, R (Dr)	17/01/2019	Dr Rob Little objected to the project and submitted the following comments.	Greenmined acknowledged receipt of the correspondence on 18 January 2019, registered Dr Little as I&AP and informed him of the availability of the DSR.
<p>Comments received from Dr Little:</p> <p>“I request that a competent and comprehensive investigation be conducted and circulated to assess the impact on indigenous, endemic and threatened birds persisting in the Verlorenvlei lagoon and estuary downstream of the proposed mine. Verlorenvlei is a Global Important Bird &amp; Biodiversity Area and a Southern African RAMSAR Site both with predetermined biodiversity conservation responsibilities.”</p>			
Louw, A	04/02/2019	Alfie Louw objected to the project.	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered Mr Louw as I&AP and informed him of the availability of the DSR.
Louw, C	04/04/2019	Callie Louw objected to the project and listed the following reasons.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mr Louw as I&AP and informed him of the availability of the DSR.
<p>Correspondence received from Mr Louw (translated for ease of reference):</p> <p>My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>∞ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>∞ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> </ul>			



<p>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</p> <p>⌘ the undesirability of mining operations in the area.</p>			
Louw, D	05/02/2019	Dirk J Louw objected to the project and is concerned about air pollution, water scarcity, job loss, destruction of ecological systems, and danger to the fynbos.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered Mr Louw as I&AP and informed him of the availability of the DSR.
Louw, G	04/02/2019	Gezie Louw objected to the project and is concerned about water security, the negative impact on the environment, and no local job creation.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered Me Louw as I&AP and informed her of the availability of the DSR.
Louw, JA	04/02/2019	JA Louw objected to the project and commented that it will finally kill the ecosystem of the RAMSAR Verlorenvlei wetland.	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered Mr Louw as I&AP and informed him of the availability of the DSR.
Louw, JF	04/02/2019	Jane F Louw objected to the project and is concerned about the drastic impact on Verlorenvlei's water levels, poisoning of nature, labour issues that will impact the communities, and the negative impact on the entire ecosystem.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Me Louw as I&AP and informed her of the availability of the DSR.
Louw, L	04/02/2019	Lana Louw objected to the project with the following comments.	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered Me Louw as I&AP and informed her of the availability of the DSR.
<p>Comments received from Me Louw:</p> <p>“ANC-government has promised China Tungsten. They never use local labour. The deposit of tungsten is not worth the extraction costs i.e. – it will be more costly to mine it out because of stone/sedimented layers. It will strip the Verlorenvlei and surrounds of water resources. It will result in dust pollution on agricultural lands.”</p>			
Louw, M	04/02/2019	Marius Louw objected to the project and is concerned about the pollution of the vlei and the impact on the environment.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mr Louw as I&AP and informed him of the availability of the DSR.

Louw, M	04/02/2019	Marthel Louw objected to the project.	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered Me Louw as I&AP and informed her of the availability of the DSR.
Louw, R	04/02/2019	Ronell Louw registered on the project and is concerned about micro pollution of the Verlorenvlei.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Me Louw as I&AP and informed her of the availability of the DSR.
Louw, R	01/02/2019	Rozanne Louw objected to the project.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Me Louw as I&AP and informed her of the availability of the DSR.
Louwrens, E	04/02/2019	Elta Louwrens object to the project and submitted the following reasons.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Me Louwrens as I&AP and informed her of the availability of the DSR.
<p>Correspondence received from Me Louwrens (translated for ease of reference):</p> <p>My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.</li> </ul>			
MacLachlan, J	01/02/2019	J MacLachlan objected to the project.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mr MacLachlan as I&AP and informed him of the availability of the DSR.
Malamoglou, S	17/01/2019	SC Malamoglou objected to the project and is concerned about the environmental ramifications	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered

		of a large open cast mine on the surrounding area.	Mr Malamoglou as I&AP and informed him of the availability of the DSR.
Maré, A	04/02/2019	Alexander Maré objected to the project with the following reasons.	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered Mr Maré as I&AP and informed him of the availability of the DSR.
<p>Correspondence received from Mr Maré:</p> <p>“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.”</li> </ul>			
Maré, R	04/02/2019	Ronel Maré objected to the project with the following reasons.	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered Me Maré as I&AP and informed her of the availability of the DSR.
<p>Correspondence received from Me Maré:</p> <p>“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.”</li> </ul>			

Maré, S	04/02/2019	Stefan Maré objected to the project with the following reasons.	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered Mr Maré as I&AP and informed him of the availability of the DSR.
<p>Correspondence received from Mr Maré:</p> <p>“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.”</li> </ul>			
Fruiti Trust (Marias, A)	19/01/2019	Adriaan Marias registered Fruiti Trust on the project and submitted the following comments.	Greenmined acknowledged receipt of the correspondence on 21 January 2019, registered Fruiti Trust as I&AP and informed them of the availability of the DSR.
<p>Comments received from Fruiti Trust (translated for ease of reference):</p> <p>Negative influence on Krom Antonies River. Verlorenvlei is threatened, it's a conservation area. Redelinghuys, Elands Bay, Moutonshoek and Piketberg area negatively influenced. Air pollution, underground water pollution, negative environmental impact. Water table is threatened in Moutonshoek and Verlorenvlei. ”</p> <p>“Negatiewe invloed op Krom Antonies River. Verlorenvlei word bedreig, dis 'n bewaringsarea. Redelinghuys, Elandsbaai, Moutonshoek en Piketberg omgewing negatief beïnvloed. Lugbesoedeling, ondergrondse water besoedeling, negatiewe impak op omgewing. Watertafel word bedreig in Moutonshoek en Verlorenvlei.”</p>			
Masterson, M	05/02/2019	Miles Masterson objected to the project and is concerned about environmental degradation, fresh water wastage, denigration of beach and vlei birdlife, denigrate of surf spot, erosion and water/air pollution, negative effect on people	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered Mr Masterson as I&AP and informed him of the availability of the DSR.

		resident in area, and negative effect on tourism in the area.	
Matikinca, A	15/01/2019	Andiswa Matikinca registered as I&AP on the project and requested a copy of the BID.	Greenmined acknowledged receipt of the correspondence on 16 January 2019, registered Me Matikinca as I&AP, supplied her with a copy of the BID and informed her of the availability of the DSR.
Matthews, L	24/01/2019	Lachlan Matthews registered on the project and submitted the following comments.	Greenmined acknowledged receipt of the correspondence on 28 January 2019, registered Mr Matthews as I&AP, and informed him of the availability of the DSR.

Comments received from Mr Matthews:

“In response to the application by Bongani minerals (Pty) Ltd to open a tungsten mine in the Moutonshoek valley I would like to take the opportunity to engage in the public participation process currently underway and hereby supply my written support.

I do not support the above mentioned application for the following reasons.

- ✘ It is crucial to act decisively to protect our fresh water resources.
- ✘ The Krom Antonies River flows through the Moutonshoek valley and on into the Verlorenvlei wetland and estuary.
- ✘ This river is the main source of water for the Verlorenvlei estuary.
- ✘ Verlorenvlei is recognised internationally as a Ramsar wetland and as an Important Bird and Biodiversity Area (IBA).
- ✘ The flow of ground water into the Sandveld aquifers that supply water to the local potato industry also originates in the Piketberg mountains.
- ✘ Moutonshoek is an established and growing tourist destination.
- ✘ A similar application by Bongani minerals has been turned down previously.
- ✘ Any economic advantage gained locally by this mining venture is unlikely to benefit the local inhabitants in the short or long term any more than the existing environmental assets.
- ✘ Due to the complexity of the flora, fauna, and hydrology of this catchment the impact of the proposed mine cannot be accurately determined. Therefore the risk of irreparable or long term damage to the area outweighs the possible profits or gains to the local inhabitants.
- ✘ This area has a number of special plants and animals including the iconic Cape Leopard and Black / Verreux’s Eagle, an endemic fish species named the Verlorenvlei Redfin (*Pseudobarbus verlorene*) which is listed as Endangered on the IUCN Red List. Plants such as *Diascia caitliniae* (Endangered) and the Redlinghuys Pincushion (*Leucospermum arenarium*) listed as Critically Endangered also occur in the area. The estuary below the proposed mine supports over 190 bird species, of which 75 are water birds and many are migrants.
- ✘ The mine will damage the existing agriculture and tourism of the region which provides essential jobs to local communities.

⌘ A thorough study of the archaeology in the proposed mining area has not been completed.

Please keep me informed and up to date with the public participation process.”

Comments received from Mr Matthews on the DSR:

“In response to the application by Bongani minerals (Pty) Ltd to open a tungsten mine in the Moutonshoek valley I would like to take the opportunity to comment on the Draft Scoping Report.

- ⌘ The Krom Antonies River flows through the Moutonshoek valley and on into the Verlorenvlei wetland and estuary.
- ⌘ Verlorenvlei is recognised internationally as a Ramsar wetland and as an Important Bird and Biodiversity Area (IBA).
- ⌘ The flow of ground water into the Sandveld aquifers that supply water to the local potato industry also originates in the Piketberg Mountains and any infiltration of chemicals could have adverse repercussions. I find no reference to this in the DSR.
- ⌘ Moutonshoek is an established and growing tourist destination.
- ⌘ Any economic advantage gained locally by 15 years of mining is unlikely to benefit the local inhabitants in the short or long term any more than the existing environmental assets.
- ⌘ For the duration of the mining the area will lose tourism due to trucks, blasting, dust etc. and many of the local inhabitants will not be reimbursed this loss of income and their businesses will have to be rebuilt.
- ⌘ Due to the complexity of the flora, fauna, and hydrology of this catchment the impact of the proposed mine cannot be accurately determined. Therefore the risk of irreparable or long term damage to the area outweighs the possible profits or gains to the local inhabitants and the environment.
- ⌘ This area has a number of special plants and animals including the iconic Cape Leopard and Black / Verreaux’s Eagle, an endemic fish species named the Verlorenvlei Redfin (*Pseudobarbus verlorene*) which is listed as Endangered on the IUCN Red List. Plants such as *Diascia caitliniae* (Endangered) and the Redlinghuys Pincushion (*Leucospermum arenarium*) listed as Critically Endangered also occur in the area. The estuary below the proposed mine supports over 190 bird species, of which 75 are water birds and many are migrants.
- ⌘ A thorough study of the archaeology in the proposed mining area has not been completed.

**To summarise:** The DSR explains in detail how the environmental and economic mining impacts will be limited but this is not a guarantee that no damage will be done. The reality is that, for only 15 years production, the mine will be placed in a very unusual sensitive environment and will negatively impact that environment and many of the current economic activities and will then depart leaving the local environment in a worse state and many of the local inhabitants to rebuild their businesses or find other employment. This does not make environmental or economic sense.

Please find Greenmined’s response to the DSR comments included at the end of this table.

McCarthy, J	04/02/2019	Councillor Joy McCarthy objected to the project with the following reasons.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Me McCarthy as I&AP, and informed him of the availability of the DSR.
<p>Correspondence received from Councillor McCarthy:</p> <p>“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.”</li> </ul>			
McKay, P	04/02/2019	Patricia McKay objected to the project with the following reasons.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Me McKay as I&AP, and informed him of the availability of the DSR.
<p>Correspondence received from Me McKay:</p> <p>“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.”</li> </ul>			
Metelerkamp, L (Dr)	05/02/2019	Dr Metelerkamp objected to the project and submitted the following comments.	Greenmined acknowledged receipt of the correspondence on 5 February 2019, and

			registered Dr Metelerkamp as I&AP on the project.
<p>Comments received from Dr Metelerkamp on the DSR:</p> <p>“Some of my concerns are as follows:</p> <ol style="list-style-type: none"> <li>1. Under the proposed scenarios, the <u>known</u> social and ecological impacts do not justify the potential economic returns. Particularly given that economic returns will be fleeting and concentrated in disproportionately into the hands a very small number of stakeholders, most of whom are not resident members of this area and community. I see no real justification within the report for putting the highly threatened global biodiversity hot-spot and down-stream RAMSAR wetland at further risk.</li> <li>2. Under the proposed scenarios, the <u>unknown and potentially unforeseen</u> social and ecological impacts do not justify the speculative economic and social returns. Particularly given that the economic returns will be fleeting and concentrated in disproportionately into the hands of a very small number of already wealthy stakeholders, most of whom are not resident members of this area and community. The proposal is economically an extractive in nature.</li> <li>3. I do not feel that risks relating, in particular, to air pollution, acid processes and slime dams have been adequately mitigated. And, further, following the closure and site rehabilitation process that legal and institutional mechanisms for ensuring long-term accountability of the mine owners for negative social, ecological and economic impacts of the proposed mine and processing facilities are in place. Based on the track-record of mining companies internationally, a very real risk exists that following the closure of the mine, mine owners will not be held accountable for the long-term damages and losses incurred to the surrounding community as a result of mining activities. The acid mine drainage situation in Gauteng provides an example of why a more detailed plan for long-term shareholder accountability is needed before the proposed mining license is issued to Bongani Minerals. Particularly in an agricultural region that is heavily reliant on ground water for farming and drinking. Based on established scientific principles of complexity and uncertainty, mechanisms for ensuring accountability need to extend beyond catering to known long-term risks, in order to ensure that affected parties are adequately insured against the impacts of <u>all</u> long-term damages after mine closure.</li> <li>4. No proven scientifically proven track record for successful restoration of the fynbos vegetation exists within this particular biome. In other words, there is no proof that successful rehabilitation is achievable following the closure of the site. Based on this long term trials under local conditions are needed before restoration can proposed as a realistic and reliable mitigation method for the biodiversity risks.</li> <li>5. The proposed usage of the slime dams following mine closure is purely speculative. A very weak business case if presented for aquaculture and, given the 20 year time frame, it is unrealistic and irresponsible to propose this a possible long-term social benefit or potential mitigation method.</li> <li>6. Adequate recognition of the risks posed to the agri-tourism income of surrounding community is not evident in the report. The long-term ramifications of the mine on the sustainable long-term businesses in the region clearly indicate that mining rights should not be granted to the applicant.”</li> </ol>			



Please find Greenmined's response to the DSR comments included at the end of this table.

Mofokeng, E	05/02/2019	Emily Mofokeng objected to the project and is concerned about siltification caused by mining affects irrigation, swimming, fisheries, domestic water supply, and other streams.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered Me Mofokeng as I&AP, and informed her of the availability of the DSR.
Mong, H	04/02/2019	Hermien Mong objected to the project and is concerned about the environment, air poison, lack of water, wildlife, and heavy trucks on the roads.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Me Mong as I&AP, and informed her of the availability of the DSR.
Monyai, M	06/02/2019	Mpho Monyai registered as I&AP on the project.	Greenmined acknowledged receipt of the correspondence on 11 February 2019, registered Mr Monyai as I&AP, and informed him of the availability of the DSR.
Mountain Mist	05/02/2019	Mountain Mist registered on the project.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered Mountain Mist as I&AP, supplied them with a copy of the BID, and informed them of the availability of the DSR.
Mouton, M	31/01/2019	Madele Mouton objected to the project with the following reasons.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Me Mouton as I&AP, and informed her of the availability of the DSR.

Correspondence received from Me Mouton (translated for ease of reference):

My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general.

It is my request that the applications be refused by the relevant authority because of –

- ⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;
- ⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;
- ⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and
- ⌘ the undesirability of mining operations in the area.

Munro, L	08/01/2019	Lynette Munro registered as an I&AP on the project and requested a copy of the DSR.	Greenmined acknowledged receipt of the request on 8 January 2019 and registered Me Munro accordingly. A copy of the DSR will be supplied in due course.
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Comments received from the Nature Care Fund on the DSR (7 February 2019):

“Many thanks for the opportunity to comment on the Draft Scoping Report prepared for Bongani Minerals by Greenmined Consultants, dated January 2019. Comments from the Nature Care Fund (an arm of the Cape Town Environmental Education Trust), intended to improve this Scoping Report, such that it is a tool useful for defining the scope of environmental study, and hence for decision-making, follow.

Firstly, it would be appreciated if Greenmined Environmental Consultants expand their Executive Summary to include, among other things:

- (i) A summary of the mining application history in the area;
- (ii) A summary of the process around the granting of prospecting rights;
- (iii) A summary of feedback from key stakeholders to this renewed process; and
- (iv) A summary of the key issues identified through the Scoping Process.

In addition, to please consider providing additional background (desktop-sourced) information into the Draft Scoping Report as follows in Section A below. And adding to the Plan of Scoping, and therefore incorporating into the Draft Scoping Report, Section B. And editing the Draft Scoping Report as outlined in Section C. We appreciate the opportunity to participate in the journey of ensuring environmental best practice with yourselves, authorities, and other stakeholders.

A: Desktop-sourced information to add to the Scoping Report

1. Present an overview of the history of mining and associated environmental processes that have preceded this application for mining in this area.
2. Present a map that allows the reader to obtain bearing through the identification of the nearest major roads and towns.
3. Present a map that shows the Greater Cederberg Biodiversity Corridor, and other Protected Natural Environments (Moutonshoek Protected Environment), private nature reserves, and Ramsar wetland site(s) (Verlorenvlei) on this map.
4. Present a map that shows the Critical Biodiversity Areas (CBAs), and Ecological Support Areas (ESAs).

B: Additional studies to be included in the Plan of Scoping for this EIA

1. Inclusion of Biodiversity and Wetland Offset Specialist Studies (in the event that socio-economic and/or other imperatives override the existing status of this land as a nationally Protected Environment).
2. Include an Environmental Economics Study that investigates the existing eco-tourism and related investments into the region, and considers sustainable livelihoods and economic opportunities.

These specialist findings to feed into the Socio-Economic Specialist Study called for by the Department of Environmental Affairs and Development Planning.

C: Edit the Draft Scoping Report

1. Re-name the “Site Alternative 1” as “the only site”, since it would appear that there is no alternative site. (As per heading for Table 3 “Site Alternative 1 (preferred and only site alternative”). Referring to the only site for mining as “Site Alternative 1” is confusing, and potentially misleading. As mentioned in the Draft Scoping Report (page 29), should alternative sites present themselves as the EIA unfolds, they will be considered accordingly, and then be accurately referred to as “Alternatives”.
  
2. In the list of potential positive and negative impacts (Draft Scoping Report, page 119):
  - a. Please expand what you mean by “Mining within the Moutonshoek Protected Environment”, providing a detailed breakdown as to why this might be perceived as “negative”.
  - b. Please add to the “Negative Impacts” list:
    - Potential loss of existing investment in the eco-tourism sector in the region as raised by CapeNature (Appendix 5, Page 16)
    - Potential loss of existing investment in the wetland system connected with the Verlorensvlei system as raised by CapeNature (Appendix 5, page 16).
    - Potential loss/destruction of indigenous vegetation for the entire footprint area (this loss presently only with reference to the “construction footprint”, on page 119 of the Draft Scoping Report).
    - Consideration of impacts should rehabilitation of the ecosystems be impossible to undertake.
  
3. Include in the “Description of aspects to be assessed by specialists”, for the Ecological Study, Freshwater Ecological Assessment, Hydrogeological Assessment, Heritage Assessment and Socio-economic Assessments (page 131- 133):
  - a. Provide a detailed description as to the underlying values and rationale behind declaring Moutonshoek as a Protected Environment; and
  - b. Provide a detailed analysis of how these values will be affected by the proposed development.
  - c. Provide a detailed analysis of the direct, indirect and cumulative impacts on affected ecosystems and social systems.
  - d. Provide a detailed analysis concerning the extent to which impacts can be mitigated, the extent to which they are reversible, and most importantly, whether or not there will be *loss of irreplaceable resources* (either directly or indirectly, that is, to Verlorensvlei or the Protected Environment itself).

Looking forward to further communications.”

As the comments received from the Nature Care Fund (an arm of the Cape Town Environmental Education Trust) were deemed constructive to the process it was incorporated into the Final Scoping Report where possible.

Munro, M (Munstone)	14/12/2018	Mark Munro registered as an I&AP on the project and submitted the following comments as listed below.	Greenmined acknowledged receipt of the comments on 8 January 2019 and responded as listed below.
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Comments received from Mr Munro:

Mr Munro reserved his opinion until receipt of the various impact assessments and studies have been made available through the EIA process. He requested copies of the geohydrological report, engineering services report, freshwater ecological assessment and ecological study. Mr Munro tendered concern about the potential effect on the groundwater table and conditions of water, and requested that the engineering services report define effluent and waste water run-off. Further to this, he offered concern about dust control (generated as a result of mining and hauling), as well as the receiving environment.

Mr Munro stated that in principle he supports the activity contributing to the socio-economic improvement of the region subject to the committed and monitored preservation of the receiving environment.

Response to Mr Munro:

“Greenmined Environmental (hereinafter “Greenmined”) herewith thank you for your interest, and acknowledge receipt of your correspondence received 14 December 2018 with regard to the mining right application submitted on behalf of Bongani Minerals (Pty) Ltd.

Greenmined, on behalf of the applicant, registered you as an interested and affected party (I&AP) on the project, and will henceforth keep you posted on the progress of the Environmental Impact Assessment process, as well as provide you with an opportunity to comment on the EIA documentation. Your concerns are noted, will be included in the scoping report, and assessed in the environmental impact assessment report of which the geohydrological-, engineering services report, freshwater ecological assessment, and ecological study will form part.

We trust you will find this in order. Please do not hesitate to contact me in the event of any uncertainties.”

Murgatroyd, M (Dr)	14/01/2019	Dr Megan Murgatroyd objected to the project and submitted the following comments.	Greenmined acknowledged receipt of the correspondence on 15 January 2019, registered Dr Murgatroyd as I&AP, and informed her of the availability of the DSR.
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Comments received from Dr Murgatroyd:

“The Verlorenvlei is an Important Bird Area with four main tributaries, one of which is the Krom Antonies river in the Moutonshoek valley, where tungsten mining has been proposed. The Verlorenvlei region supports over 189 bird species (please see: <https://www.birdlife.org.za/get-involved/join-birdlife-south-africa/item/245-sa103-verlorenvlei>) and the mountain catchment surrounding it is one that I have come to know well since I started working there in 2011. Pollution and or environmental degradation at the source of the vlei is going to be damaging to the unique and fragile ecosystems found downstream. The area is home to an important population of Verreaux's Eagles and the entire

region is under SEVERE water shortage, which this project will only serve to add pressure to. I object to the Bongani minerals application to mine tungsten in the Moutonshoek Valley and I register myself as an Interested and Affected Party.”

Myfanwy, G	05/02/2019	Glynis Myfanwy objected to the project and submitted the following comments.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered Me Myfanwy as I&AP, and informed her of the availability of the DSR.
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Comments received from Me Myfanwy:

*Additional information requested:* “Full details of the Environmental Impact Study, particularly the effect that the project will have on the flow of water in the Verloren River and all its tributaries.

Further, has Applicant calculated the long-term cost of rehabilitating the mining area to its present pristine condition and has it factored in this cost when determining its long-term profit. Is Applicant prepared, at the beginning of its project, to deposit the rehabilitation cost, calculated by an entirely independent expert, into a special Trust account not controlled by Applicant to rehabilitate the land entirely to its present pristine natural state.

Applicant’s heavy trucks will be using various public roads in and around the mine and the Piketberg area. Is Applicant committed at its own cost, to maintain the roads on a monthly basis, to the standards required by the Roads Authority. Has Applicant factored this cost into determining tis long-term profit.”

*Concerns:* “I identify myself with the objection already filled by the Verlorenvlei Heritage Home Owners Association.

For the first time in decades the Verloren Vlei is totally dry despite the 2018 rains being better than the three previous years. The basin near the mouth is a waste land and dry vegetation. The water on the farms around the vlei is so low that one of our neighbours can no longer pump water from his well.

The catchment area of the vlei is situated in the Moutonshoek Valley. This is a relatively small area situated between the mountains to the Eastern Side of the vlei.

The Applicant proposed development is, according to the plans received, situated at the heart of the said area. It is obvious event to the layman eye, that this very fragile environment is dependent on the preservation of this pristine phenomenon.

If the total system is in anyway threatened, especially as foreseen by the suggested mine and associated developments in the area, ti will fatal to the economy, farming activities (which are fragile in themselves), livelihood and wellbeing of all the people who have lived here for centuries. I verily believe that mining activity of any sort anywhere in the valley will be an utter disaster from which the Verloren River may never recover. For this reason, I voice my strongest objection to Applicant’s mining proposal.”

Nel, W	30/01/2019	Wynand Nel objected to the project with the following reasons.	Greenmined acknowledged receipt of the correspondence on 31 January 2019, registered Mr Nel as I&AP, and informed him of the availability of the DSR.
<p>Correspondence received from Mr Nel (translated for ease of reference):</p> <p>My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.</li> </ul>			
Nicol, M (Dr)	04/02/2019	Dr Martin Nicol registered on the project and submitted the following comments.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Dr Nicol as I&AP, and informed him of the availability of the DSR.
<p>Comments received from Dr Nicol:</p> <p>“I am concerned that the Regional Office of the Department of Mineral Resources for the Western Cape (and the Environmental Mineral Resource Inspectorate) do not have the expertise or capacity to manage their manifold responsibilities with regard to the environment and sustainable development. This includes the ability to evaluate applications to grant rights to minerals that meet the high standards set in the Constitution and legislation. The evident lack of co-operation between the government departments in the One Environmental System for Mining has been raised as a concern in Parliament, most recently in the Colloquium on the OES on 20 November 2018 hosted by the Portfolio Committee on Environmental Affairs and in the meeting of the Portfolio Committee on Mineral Resources on 21 November 2018. I would like more information on whether Greenmined is aware of the flaws in the OES (and its proper implementation) and whether it has given (or intends to give) advice to Bongani Minerals in this regard.”</p>			
Nosworthy, J	04/02/2019	John R Nosworthy objected to the project with the following reasons.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mr Nosworthy as I&AP, and informed him of the availability of the DSR.

Correspondence received from Mr Nosworthy:

“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general.

It is my request that the applications be refused by the relevant authority because of –

- ∞ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;
- ∞ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;
- ∞ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and
- ∞ the undesirability of mining operations in the area.”

<p>Nuwerus Residents:</p> <ol style="list-style-type: none"> <li>1. Zandile Mgema</li> <li>2. N Nowatha</li> <li>3. Lucia Nomacesane Mbuweni</li> <li>4. Ngxola Bredina</li> <li>5. Nosakhele Qebisa</li> <li>6. Phehiswa Zeipha Khambi</li> <li>7. Nonkwuleko Bhushula</li> <li>8. Andiswa Rabela</li> <li>9. S Siphezi</li> <li>10. Zola Lemi</li> <li>11. Nosipho Hastag</li> <li>12. Keneuwe Madikane</li> <li>13. Sisanda Nofemele</li> </ol>	<ol style="list-style-type: none"> <li>14. Mofemele Mbasa</li> <li>15. Mtya Siyabulela</li> <li>16. Nomonde Maysisela</li> <li>17. Willem Stafel</li> <li>18. John Jakobs</li> <li>19. Ntobeko Khambi</li> <li>20. Nonkwuleko Bhushula</li> <li>21. Nteboheleng Motaoi</li> <li>22. Johanna Kraucamp</li> <li>23. N Viti</li> <li>24. Palesa Rose Lebitsa</li> <li>25. Abraham Kroucamp</li> <li>26. Neliswa Tanfi</li> </ol>	<p>05/02/2019 &amp; 07/02/2019</p>	<p>The Nuwerus residents objected to the project with the following reasons.</p>	<p>Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered the Nuwerus residents as I&amp;AP, and informed them of the availability of the DSR via Mrs Van Schalkwyk as contact person.</p>
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Correspondence received from the Nuwerus Residents (translated for ease of reference):

My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general.

It is my request that the applications be refused by the relevant authority because of –

<ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.</li> </ul>			
O'Brien, J	28/01/2019	Jamie O'Brien objected to the project with the following comments.	Greenmined acknowledged receipt of the correspondence on 28 January 2019, registered Mr O'Brien as I&AP, and informed him of the availability of the DSR.
<p>Comments received from Mr O'Brien:</p> <p>"I don't want to stop going to Elands to surf. I have many friends that live around the area and I love going there, the west coast is one of my most favourite places to go and I go up as much as possible."</p>			
O'Flynn, R	18/01/2019	Rose O'Flynn objected to the project and is concerned about long term environmental damage to surroundings, blasting disruption/damage to boreholes on the mountain, pollution of air and water in the area, and damage to Verlorenvlei.	Greenmined acknowledged receipt of the correspondence on 21 January 2019, registered Me O'Flynn as I&AP, and informed her of the availability of the DSR.
Oosthuizen, M	31/01/2019	Michael Oosthuizen objected to the project with the following comments.	Greenmined acknowledged receipt of the correspondence on 1 February 2019, registered Mr Oosthuizen as I&AP, and informed him of the availability of the DSR.
<p>Correspondence received from Mr Oosthuizen (translated for ease of reference):</p> <p>My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> </ul>			



<ul style="list-style-type: none"> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.</li> </ul>			
O'Shaughnessy, L	04/02/2019	Elizabeth AV O'Shaughnessy objected to the project with the following comments.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Me O'Shaughnessy as I&AP, and informed her of the availability of the DSR.
<p>Correspondence received from Me O'Shaughnessy:</p> <p>“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.”</li> </ul>			
Parker, D	24/01/2019	Diana Parker objected to the project and submitted the following comments on the DSR.	Greenmined acknowledged receipt of the correspondence on 28 January 2019, and registered Me Parker as I&AP.
<p>Comments on the DSR received from Me Parker:</p> <p>“<u>I, Diana Parker</u> would like to take this opportunity to object to the abovementioned mining right application lodged by Greenmined on behalf of Bongani Minerals.</p> <p>My objection to this proposal is that mining has such a huge long term negative effect on the environment and mining companies are notoriously lax in any form of successful rehabilitation, that it far outweighs any consideration for the short term benefits to possible employment figures. Mining is in any case becoming more automated with fewer people being employed, so the bottom line must be pure profit to the mining company and little social upliftment. Tourism to this area plays a greater role in achieving this objective and preserves some of South Africa’s diminishing natural resources to the benefit of ALL.</p>			

**Further environmental concerns:**

- ✘ Certain properties under consideration for this mining right application form part of the recently designated Moutonshoek Protected Environment. Other properties forming part of the application are directly adjacent to and bordering on the Protected Environment. The area's natural heritage and ecological sensitivity is part of the reason for this declaration as a Protected Environment.
- ✘ The area contains a number of threatened vegetation types, also part of its reason for declaration as a Protected Environment. These vegetation types include: Critically Endangered Swartland Shale Renosterveld, Piketberg Quartz Succulent Shrubland which qualifies as Critically Endangered according to the latest analysis conducted by CapeNature (only 11.7% of its original very small extent is remaining), Critically Endangered Cape Lowland Alluvial Vegetation, Endangered Leipoldtville Sand Fynbos, Vulnerable Piketberg Sandstone Fynbos, and Cape Lowland Freshwater Wetlands. These vegetation types are not only threatened in themselves, but provide essential habitat for a range of biodiversity present in this area. The presence of critically endangered vegetation types alone should preclude any mining developments from this area.
- ✘ The Moutonshoek Valley is estimated to supply 60% of the water volume and 90% of the water quality to the Verlorenvlei Estuary, which is listed as an Important Bird and Biodiversity Area and a Ramsar site, or wetland of international significance. The area is already highly water-stressed and the development of a mine will ultimately lead to the collapse of the freshwater and estuarine ecosystems within this area.
- ✘ The Moutonshoek Valley, including those sites indicated in the mining right application, contain the endangered fish species the Verlorenvlei Redfin (*Pseudobarbus verloreni*), previously undescribed, and genetically different from the Berg River Redfin (*Pseudobarbusburgi*). Cape Galaxias (*Galaxias zebratus*) and Cape Kurper (*Sandelia capensis*), both classified as Near Threatened, also occur within the river systems of this area.
- ✘ The Moutonshoek Valley supports several threatened bird species including Ludwig's Bustard, Black Stork, Black Harrier and Secretarybird. In addition the Verlorenvlei system of which the valley forms part supports globally threatened species such as Lesser Flamingo, Black Harrier, and Chestnut-banded Plover. Nationally threatened species include Caspian Tern, Great White Pelican, Greater Flamingo, African Marsh-Harrier and Ludwig's Bustard. Endemic species include Cape Spurfowl, Cape Bulbul and Southern Black Korhaan.
- ✘ The conservation of the above species and the Verlorenvlei Estuary is an obligation for South Africa as a signatory to the Convention on Biological Diversity, Convention on Migratory Species and African-Eurasian Waterbird Agreement. The commitments to these multilateral environmental agreements and the impact of the mining activities on these species and habitats must be taken into account.
- ✘ The scoping report states that *The RAMSAR status of Verlorenvlei takes president and accordingly directs the mining project proposal* (Table 2. Applicable legislation). If the applicant wishes to honour this statement, due to the Ramsar status, the mining applicant should be required to prove that all water flows to Verlorenvlei are maintained and even improved by the mining activities, whilst also not impacting on the water volumes available to agriculture. The detailed hydrological modelling study should provide clear evidence of the maintenance of water flows and improvements to water quality.

**Further social concerns:**

- ✘ The area provides essential job security to local communities through the agricultural production in the area, and also food security and economic opportunities through the production of wine, potatoes, race horses and citrus.

<p>⌘ The Scoping Report states that <i>the proposed labour component of the operation is approximately 211 employees including management.</i> (Page 26 of the Draft Scoping Report).</p> <p>⌘ While this figure is not insignificant, we await the outcomes of the socio-economic evaluation as it must be determined how many jobs will be AT RISK or LOST in the local agricultural sector as a result of the mining development. Further, the loss of potable water will lead to a decline in agricultural productivity and a loss of jobs throughout the entire Verlorenvlei catchment. We require a detailed study of these impacts which clearly illustrates the degree of threat to livelihoods associated with the agricultural sector in this area.”</p>			
Paulse, K	05/02/2019	Karools Paulse objected to the project with the following reasons.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered Mr Paulse as I&AP, and informed him of the availability of the DSR.
<p>Correspondence received from Mr Paulse (translated for ease of reference):</p> <p>My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.</li> </ul>			
Penn, N (Prof)	05/02/2019	Prof Nigel Penn objected to the project and is concerned that the mining will destroy the environment and heritage of the region.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered Prof Penn as I&AP, and informed him of the availability of the DSR.
Pienaar, J	17/01/2019	Johann Pienaar objected to the project and is concerned about a lack of water, poisoned air and contaminated water for the Moutonshoek Valley going forward.	Greenmined acknowledged receipt of the correspondence on 18 January 2019, registered Mr Pienaar as I&AP, and informed him of the availability of the DSR.
Potgieter, HH	05/02/2019	Hester H Potgieter objected to the project with the following reasons.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered

				Me Potgieter as I&AP, and informed her of the availability of the DSR.
<p>Correspondence received from Me Potgieter (translated for ease of reference):</p> <p>My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>∞ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>∞ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>∞ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>∞ the undesirability of mining operations in the area.</li> </ul>				
Members of P.O. Box 67:		14/12/2018	Jacqui van der Merwe registered these members as I&AP's on the project.	Greenmined acknowledged receipt of the registration on 8 January 2019.
<ol style="list-style-type: none"> <li>1. Simon Karooks</li> <li>2. Maria Fleur</li> <li>3. D Boonzaaier</li> <li>4. JF Boonzaaier</li> <li>5. Loewie Carolus</li> <li>6. Mavis Dalingozi</li> <li>7. Jakobus David</li> <li>8. Rachel Diedericks</li> <li>9. Aletta Dzai</li> <li>10. Cardo Frans</li> <li>11. Marlene Franse</li> <li>12. Karel Franse</li> <li>13. Magrieta Goeieman</li> <li>14. Johannes Goliath</li> <li>15. James Goliath</li> <li>16. Marina Goliath</li> <li>17. Sophia Goliath</li> <li>18. M Jacobs</li> </ol>	<ol style="list-style-type: none"> <li>66. Tessa Lombard</li> <li>67. Davine van Rooyen</li> <li>68. Andries Andreas Swarts</li> <li>69. Hendrik Saroon</li> <li>70. Pieter Johnson</li> <li>71. Aletta Ngemtu</li> <li>72. Gerhard Swartz</li> <li>73. Zamakuluwenga Ngemntu</li> <li>74. Marlene Johnson</li> <li>75. Zukile Mggoboka</li> <li>76. Archiebold Mdlelembe</li> <li>77. Josef Presence</li> <li>78. Nick Fredericks</li> <li>79. Simon Claasen</li> <li>80. Kerneels van Wyk</li> <li>81. Maria van Wyk</li> <li>82. A Ngemtu</li> </ol>			

19. Jolene Jacobs	83. MP Makoae			
20. Wilma Jacobs	84. B Springfeld			
21. Sakkie Klaasen	85. A Pastoor			
22. Hanna Maarman	86. J Bezuidenhoudt			
23. Anna Maarman	87. G Swarts			
24. Patrick Matebisa	88. A Mdlembe			
25. Javene Michaels	89. S Claasen			
26. Shirley Oktober	90. M Mona			
27. Jerome Willemse	91. D Storm			
28. April Pieters	92. N Ockhuis			
29. Magie Pieters	93. T Lombard			
30. Johnson Shompana	94. D van Rooyen			
31. M Skirmaans	95. J Jakobs			
32. Magrieta Skrimaans	96. A Swarts			
33. K Skrimaans	97. P Johnson			
34. Gert Jacobus Smit c	98. L Swanepoel			
35. Elizabeth Smit	99. V Mdlelembe			
36. Bonnie Snyders	100. J Ockhuis			
37. Angelina Snyders	101. K Skirmaans			
38. Teresa Snyers	102. A Swarts (Andries)			
39. Rodney Stevens	103. M Opperman			
40. Elia Thokotsi	104. L Lottering			
41. Tracey-Ann Toontjies	105. J Jacobs			
42. Willem Toontjies	106. Z Mdlelembe			
43. Jacques van Rooyen	107. Asanda Hlekani			
44. Abraham van Wyk	108. Lucas Ngemntu			
45. Marzell van Wyk	109. Maria M Saroon			
46. Magdalen van Zyl	110. Gert Basson			
47. Johanne Willemse	111. John Sakati			
48. Niel Visser	112. Sydney S James			
49. Michelle Visser	113. Chrissie Januarie			
50. Vakakhulu Mdlelembe	114. Robert Wilshire			
51. Jaco Ockhuis	115. Jonathan J Januarie			
	116. Jonathan Fransman			

<p>52. Karel Skirmaans 53. Andries Swarts 54. Marietha Opperman 55. Pitirose Makoae 56. Loretta Lottering 57. Barend Springfield 58. Maria Saroon 59. Jolien Jacobs 60. Asanda Hlekani 61. Zenele Mdlelembé 62. Mpendulo Mona 63. Dawid Storm 64. Carl Franse 65. Nicolaas Ockhuis</p>	<p>117. Lizette Hartse 118. Abey Hartse 119. Quinton Jansen 120. Cathy Matthews 121. Jacobus Fieland 122. Storm Clark 123. Warren Rodney Sabbat 124. Anna S Fieland 125. Mecaba Sabbat 126. Johanna E Nel 127. Johan Tieties 128. Randall U Diergaardt 129. Gerswin Basson 130. Charles Moses 131. Treintjie Karoulus</p>			
<p>Pretorius, H</p>		<p>04/02/2019</p>	<p>H Pretorius objected to the project and mentioned that there are too many short- as well as long term negative impacts such as pollution that will result in the destruction of precious and rare plant-, animal- and bird life from Moutonshoek to Elands Bay. The farms next to the rivers and pans will suffer with ultimate depravity and desolation and loss of life.</p>	<p>Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered H Pretorius as I&amp;AP, and informed him of the availability of the DSR.</p>
<p>Prinsloo, S</p>		<p>05/02/2019</p>	<p>Sandra Prinsloo objected to the project and is concerned about pollution of water and air around the Vlei, noise pollution, loss of jobs to local community, poisoning of fish, frogs, plant life, and other wildlife.</p>	<p>Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered Me Prinsloo as I&amp;AP, and informed her of the availability of the DSR.</p>
<p>Prüter, H</p>		<p>05/02/2019</p>	<p>Sonja Prüter objected to the project with the following comments.</p>	<p>Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered Me Prüter as I&amp;AP, and informed her of the availability of the DSR.</p>

Comments received from Me Prüter:

Additional information: “How much and where will the water be drawn to operate the mine. What is the socio-economic impact on the local population.

Concerns: Influence on migrant workers which will disrupt the local social structure and increase crime. Pollution to sensitive vleiland ecosystems – Verlorenvlei.”

Pulfrich, A (Dr)	17/01/2019	Dr Pulfrich requested a copy of the BID.	Greenmined acknowledged receipt of the correspondence on 18 January 2019, registered Dr Pulfrich as I&AP, supplied her with a copy of the BID and informed her of the availability of the DSR.
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Comments received from Dr Pulfrich on the DSR:

“As the director of Pisces Environmental Services (Pty) Ltd, home-owner at Mountain Mist on the mountain Engelsman se Baken above Aurora, and member of the Mountain Mist Home-Owners Association, I would like to submit the following comments on the proposed Riviera Tungsten Project by Bongani Minerals (Pty) Ltd. These comments relate primarily to the ecological and fresh water environments, and do not cover agricultural, heritage, archaeological and socioeconomic issues, as these fall outside my professional experience.

1) The proposed mine site is located in the centre of the newly proclaimed Moutonshoek Protected Environment (MPE), which was established on the grounds of the Moutonshoek Valley being an area of extremely high conservation value due to its ecological sensitivity. The MPE hosts numerous vegetation types of conservation importance, including the critically endangered Swartland Shale and Swartland Silcrete Renosterveld, Cape Lowland Alluvial Vegetation and Piketberg Quartz Succulent Shrubland, the endangered Leipoldtville Sand Fynbos and the vulnerable Piketberg Sandstone Fynbos. From a faunal perspective, the MPE provides habitat for a number of Red Data Book mammal (e.g. four species of golden mole, white-tailed rat, Cape leopard), bird (Greater and Lesser Flamingos, Great White Pelicans, Chestnut-banded Plovers, Blue Crane, African Marsh Harrier and Black Harrier), reptile (e.g. two species of dwarf burrowing skinks, Southern Speckled Padloper) and fresh water fish (Verlorenvlei redbin) species, many of which are endemic to the area and have extremely restricted ranges. A full Lists of species confirmed to be present can be found in Schroder, Huntley & Wright (2018): *Moutonshoek Protected Environment Management Plan*.

Portions of the Moutonshoek Valley have been identified as critical ecological support areas and buffers, whereas the Krom Antonies River as a whole has been identified as an aquatic Critical Biodiversity Area and buffer, by the Western Cape Biodiversity Spatial Plan.

Furthermore, the MPE forms part of the Sandveld Corridor within the Greater Cederberg Biodiversity Corridor, an initiative designed to maintain and restore connectivity across between protected areas as a mechanism to ensure sound environmental management in response to the impacts of climate change. **Any proposed development** (be it mining or otherwise) that results in habitat degradation and associated species loss, would thus be in direct conflict with the management objectives of the Moutonshoek Protected

Environment and the Greater Cederberg Biodiversity Corridor, and could result in ecosystem collapse, loss of ecosystem services and potential extinction of those species endemic to the area.

2) Not only does the MPE support a large diversity of endangered and threatened flora and fauna, but it protects the Krom Antonies River and its catchment, which serves as the main tributary of the already water-stressed Verlorenvlei wetland system. As one of the largest natural fresh-water wetlands along the South African West Coast, Verlorenvlei is recognized as a wetland of international importance and has been a Ramsar site since 28 June 1991. The Verlorenvlei Estuary is also listed as an Important Bird and Biodiversity Area (IBA), and a Key Biodiversity Area (KBA). Verlorenvlei supports at least 177 bird species including several Red Data Book species (Ludwig's Bustard, Black Stork, Black Harrier and Secretary Bird), as well as four indigenous freshwater fish species, three of which have not been recorded from elsewhere (Verlorenvlei redbfin, Cape kurper and Cape Galaxias).

The integrity of the Verlorenvlei Estuary and its biodiversity is dependent on the health of its upper water catchment area and by its ground water source. Due to limited surface flow, agriculture in the area is already highly dependent on ground water, thus posing a significant existing risk to the sustainability of the wetland. As the Krom Antonies River falls within the mining application area, degradation of the catchment area and river system can be expected, with cascade effects extending downstream to the Verlorenvlei wetland system. Furthermore, the effects of substantial ground water abstraction at the mine (an estimated 20,000 litres per day) would affect the water table thereby reducing the natural ground- or surface water supplies within this area. This would not only impact negatively on water supply to the already water-stressed Verlorenvlei wetland, but also affect agricultural practices in the area. Any further abstraction of ground water in the Krom Antonies River and its catchment should not be permitted as it is unlikely to be sustainable over the long-term.

A further very significant risk is the potential contamination of ground water and aquifers through discharge of waste water and slimes following acid leaching of the concentrate and leaching of sulphide minerals from the overburden stockpiles, thereby threatening the ecosystem health of the catchment area as well as the downstream wetland system. The slimes will be heavily contaminated, and disposal thereof to backfill the shafts and excavations as stated in the BID is totally unacceptable.

3) It appears that a Draft Scoping Report (DSR) for the initial mining application was submitted to the Department of Minerals and Energy (DME) in May 2009. The correspondence from DME to this submission pointed out, amongst other things, that:

- ∩ the information contained in the DSR was insufficient for the authorities to make an informed decision;
- ∩ the applicant was to *"to attempt to resolve concerns and objections with directly affected parties and relevant authorities"*;
- ∩ more detail was required as regards the project description;
- ∩ a wide range of specialist studies must be undertaken (hydrological, siltation of the river, noise and dust, visual, soil and land capability, botanical, traffic, heritage and archaeological).

The Final Scoping Report (FSR) mentions that a **desktop** botanical and groundwater study were undertaken, **preliminary comments** were provided on freshwater ecosystems and a social and labour plan was compiled. The FSR, however, failed to address the wide range of other comments raised by the key stakeholders and thus falls short of the requirements requested by DME. As the subsequent required EIA was not compiled within the required period, a second mining right application was submitted in late September 2009. This application was similarly withdrawn in March 2012.



Appended to the DME correspondence mentioned above were responses from Cape Nature and DEADP opposing the mining application, and a request by the Department of Agriculture that “*this PPP needs to be both more comprehensive and more thoroughly interrogated than usual*” and that “*a very transparent and thorough PPP be ensured by DME during the Application*”.

Nonetheless, a further prospecting right application was submitted to DME in March 2010, and despite continued objections, the right was issued in July 2011. Although the commenting authorities were aware of the prospecting right application, it appears that public consultation as required by law (§16(4)(b) of the Minerals and Petroleum Development Act, and §23(2)(d) of the National Environmental management Act) was not complied with at the time, as key I&APs were only informed indirectly subsequent to the issuing of the right. It is also of great concern that neither Cape Nature nor the Department of Environmental Affairs and Development Planning (DEADP) were aware of the issuing of the prospecting right. The application for a prospecting right should at the very least have taken cognisance of the concerns raised by the principal commenting authorities prior to it being issued.

4) Furthermore, the public consultation process undertaken for this (mining) application is found to be totally inadequate. The stakeholder list reveals some serious omissions. One would expect that at the very least the funders of the Moutonshoek Protected Environment and South African National Biodiversity Institute (SANBI) be informed of the plans for development of this ecologically sensitive area. Furthermore, for a project of this importance, the various businesses offering campsites, accommodation and ecotourism-based activities around Piketberg, Kapteinskloof, Aurora, and Verlorenvlei etc, as well as home-owners associations in the general area should have been informed. These may have been included in the long list of names provided in Appendix 5 of the DSR, but with no indication being provided of their affiliations it is impossible to ascertain what bases have been covered. Recent correspondence with other affected parties has revealed that much of the contact information used for the public consultation process was outdated, the required on-site notices were not erected and even adjacent land-owners were not informed as required by law. This raises serious questions as to how many of the affected parties listed actually received notification of the proposed project. Simply using stakeholder list from the previous application is short-sighted and imprudent. Including farms and accommodation based near Robertson under “surrounding landowners” is also questionable?! Most importantly, running the stakeholder consultation for a project of such potentially wide-ranging impact over the festive season (even with an extension) is not acceptable as many people are away during this time and will not see notices placed in public places, adverts placed in newspapers or be in a position to collect **notifications sent by registered mail**.

5) The project description provided in the DSR is lacking in the detail needed to fully understand the mining approach, ore treatment processes and mine-waste handling facilities. It appears that the engineering designs have not as yet been compiled, or if they have, have not been thoroughly thought through. The project description is therefore (again) totally inadequate for affected parties to make an informed decision.

6) The DSR states that various specialists were appointed to undertake a variety of impact studies (hydrogeological, ecological, fresh water, agricultural, traffic, air and noise quality, heritage, archaeological, socio-economic) to inform the proposed application. The description of the baseline environment provided in the DSR is, however, gravely lacking the detail necessary to adequately inform stakeholders and authorities on the status of the receiving environment. The usual practice for an EIA of this importance is that the DSR is only released once all the information from the specialists has been collated, thereby providing a comprehensive overview of the receiving environment from a physical, ecological and social perspective. It seems that all that has been done in this case is that information provided in comments received during the first round of the public participation has been used to compile the description of the receiving environment. Little reference is made to the information contained in the Final Scoping Report for the 2009

mining right application (Cilliers, le Roux, Maritz & Withers 2009), and no cognisance appears to have been taken at all of the comments lodged at the time by DME, Cape Nature, DEADP and the Department of Agriculture. The Final Scoping Report submitted for the 2009 application was already of substandard quality. The DSR provided to the public for comment for the current mining application is even more inferior.

7) The proposed mining site is located in a rural area sought by week-enders and visitors for its tranquillity and remoteness. Mining operations will involve blasting and the generation of large quantities of dust, a substantial increase in traffic on secondary roads (also dust-generating) and an visual eyesore in an area hitherto relatively untouched by developments other than agriculture. These activities will all distract from the region's sense-of-place, negatively affecting both residents and visitors, and with potential knock-on effects on tourism. Dust and compromised air quality can have substantial negative effects on crops, and is a nuisance to those residents and visitors affected. The DSR fails to state what dust control measures will be implemented, both at the mine and along the transport routes. Process water from the plant will be contaminated and can thus not be used as dust control, and the use of potable water as dust control in a drought stricken area would be irresponsible and unacceptable. The use of process water from an offsite desalination plant also has environmental implications; firstly the carbon footprint required to transport the water to site, and secondly the adverse effects on marine communities of the discharge of a hypersaline effluent from the desalination plant into the sea. These factors all need to be considered in the implementation of an integrated environmental management approach.

8) Rehabilitation: it is stated in the BID that "*Upon closure of the mining operation the entire footprint area will be rehabilitated so as to allow the affected area to return to agricultural use*". The DSR states that the decommissioning phase will involve "*rehabilitation, sloping and landscaping of all affected areas, the replacement of topsoil, and the removal of all infrastructure no longer needed by the landowners. The right holder will further be responsible for the seeding of all rehabilitated areas*". It is recognised that some of the mining area extends over areas already altered by agricultural practices, but considering that critically endangered, endangered and vulnerable vegetation types (and their associated fauna) in the mining area will have been irreversibly destroyed, rehabilitation of the impacted area "to agricultural use" is considered totally inadequate. By its very nature, open cast mining is destructive and the unavoidable (and often irreversible) removal of even small areas of vegetation with extremely high conservation value, will pose a direct and significant threat to biodiversity and ecological infrastructure in the MPE and Greater Cederberg Biodiversity Corridor. Any further loss of critically endangered or endangered vegetation types should not be permitted. Furthermore, what safeguards are being taken for the likely impacts on ground water, and downstream degradation of the Krom Antonies River and the Verlorenvlei Wetland system? What management actions and rehabilitation approaches are being taken for likely cascade effects on these ecologically sensitive environments?

It is stated that the mine will be an open cast pit, with shafts extending to 220 m depth. Much of the excavated material will be treated and extracted, suggesting that there will be a sediment deficit when backfilling the mining void. Even if all the stripped overburden is returned to the excavation during rehabilitation (which is seldom undertaken due to excessive costs), there is a very high likelihood that what will remain at the end of operations is 'a hole in the ground'. Although still operational, the de Hoek mine at Piketberg is a good example of tailings heaps and pits that are unlikely to every be properly rehabilitated. The agricultural use of a substantial depression in the landscape, even if it has been sloped and landscaped, is questionable. What sediment budget models have been undertaken to illustrate the topography of the rehabilitated area at the end of life-of-mine?

At the time of the initial mining application in 2009, the Department of Agriculture recommended that rehabilitation costs be set at a figure of R407 million. Ten years later, this figure will be substantially higher – has this been realised in the current application, or will the proponent rehabilitate to their 'standards' leaving an environmental disaster in their wake, as has happened countless times before in similar applications (e.g. Tormin, Xolobeni).

9) Without the background details from the various specialist studies on which the reader can base a confident conclusion, the preliminary identification of impacts appear in most cases to have been objectively assessed, although the stated mitigation potential for a number of the impacts is highly questionable. Important, however, is that of the 60 impacts initially listed, 43% have been rated as either Medium-High or High. This alone is a clear indication of the extent of the fatal flaws associated with the proposed project and raises a red-flag to the mining application. The proposed mining activities and associated impacts thus pose an unacceptably high risk to the biodiversity and functioning of the terrestrial and aquatic ecosystems in the area and significant negative and irreversible impacts would occur if mining was authorized.

10) Lastly, the National Environmental Management : Protected Areas Act (No. 57 of 2003) states in §48:

(1) Despite other legislation, no person may conduct commercial prospecting or mining activities --

(a) in a special nature reserve or nature reserve;

(b) in a protected environment without the written permission of the Minister and the Cabinet member responsible for minerals and energy affairs.

One only hopes that the relevant Minister and Cabinet member have the integrity to reach a responsible decision that weighs up the long-term sustainability of an ecologically sensitivity area of extremely high conservation value against the short-term financial benefits of a non-renewable resource, which by all accounts is a marginal reserve. To this end §24 of the Constitution of the Republic of South Africa has relevance:

*Everyone has the right –*

*(a) to an environment that is not harmful to their health or well-being, and*

*(b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that –*

*(i) prevent pollution and ecological degradation;*

*(ii) promote conservation; and*

*(iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.*

As an independent environmental consultant, homeowner in the Piketberg area, and as representative of the Mountain Mist Home Owners Association, I therefore strongly object to this application for mining within the Moutonshoek Protected Environment and urge that it not be given any further consideration.”

Please find Greenmined's response to the DSR comments included at the end of this table.

Ralphs, M	06/02/2019	Mary Ralphs objected to the project with the following comments.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered Me Ralphs as I&AP, and informed her of the availability of the DSR.
<p>Comments received from Me Ralphs:</p> <p>“This river is part of the water catchment which supports all livelihoods in the Verloren Vallei and is the lifeblood of the beleaguered Verlorenvlei. Besides causing massive environmental destruction, the development of a mine in this area puts all the people and wild creatures who live in Moutonshoek, Piketberg, Redelinghuys, Elands Bay and surrounds risk being exposed to inadequate and contaminated water, poisoned air, and an unliveable environment.”</p>			
<p>Redelinghuys Residents:</p> <ol style="list-style-type: none"> <li>1. N Nadada</li> <li>2. Maria Booysen</li> <li>3. Sara Miggels</li> <li>4. Angeline Snyers</li> <li>5. Diana Booysen</li> </ol>	05/02/2019	The listed Redelinghuys residents objected to the project with the following reasons.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered the Redelinghuys residents as I&AP, and informed them via Mrs Van Schalkwyk as contact person of the availability of the DSR.
<p>Correspondence received from the Redelinghuys residents: (translated for ease of reference):</p> <p>My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.</li> </ul>			
Reyneke, J	05/02/2019	Johan Reyneke registered as I&AP on the project.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered Mr Reyneke as I&AP, and informed him of the availability of the DSR.

<p>Riviera Residents:</p> <ol style="list-style-type: none"> <li>1. Hendrik Petrus Smit</li> <li>2. Adriaan Louw Smit</li> <li>3. Louis-Mari Smit</li> <li>4. M Scholtz</li> <li>5. JJ Smits</li> <li>6. Maureen September</li> <li>7. Maria Swart</li> <li>8. W van den Berg</li> <li>9. Griet Springveld</li> <li>10. Piet Klaase</li> <li>11. Gert Smit</li> <li>12. SW Coetzee</li> <li>13. Johanna Maarman</li> <li>14. Jan Pieters</li> <li>15. Delizia Pieters</li> <li>16. Johanna Smit</li> <li>17. Petronella Smit</li> <li>18. Barend Swarts</li> <li>19. Sophia Swartz</li> <li>20. Jakob Oktober</li> <li>21. Gerald Smit</li> <li>22. Sophia Pieters</li> <li>23. Sunita Leandra Goliath</li> <li>24. Senobia Springveld</li> <li>25. Ivan Springfield</li> <li>26. Jan Swarts</li> <li>27. Gerrit Springfield</li> <li>28. Moreeda van Wyk</li> <li>29. Sophia Maarman</li> <li>30. Niklaas Toontjies</li> <li>31. Gideon Maarman</li> <li>32. Maria Swarts</li> </ol>	<ol style="list-style-type: none"> <li>34. Anna Smit</li> <li>35. Dora Pieters</li> <li>36. Anita Booysen</li> <li>37. Cornel Oktober</li> <li>38. W Smit</li> <li>39. IJ van Wyk</li> <li>40. Eduard Monk</li> <li>41. Andreas Klase</li> <li>42. Magrieta Oktober</li> <li>43. M Maarman</li> <li>44. Hanna Smit</li> <li>45. S Maarman</li> <li>46. Angeline Karolus</li> <li>47. Magrieta Systr</li> <li>48. Veronique Goliath</li> <li>49. Barendine Karools</li> <li>50. Risda Smit</li> <li>51. Elzette Oktober</li> <li>52. Naomi Diedericks</li> <li>53. Melisa Mentoer</li> <li>54. Maurita Monk</li> <li>55. Simondre Goeieman</li> <li>56. M Willemse</li> <li>57. E Klase</li> <li>58. C Coetzee</li> <li>59. Damon Smit</li> <li>60. Jerome Willemse</li> <li>61. Angelo Beukes</li> <li>62. Brendon Goliath</li> <li>63. Benedine Joubert</li> <li>64. Annika Plaatjies</li> <li>65. Monique September</li> <li>66. Abraham Goliat</li> </ol>	<p>05 &amp; 06/02/2019</p>	<p>The Riviera residents objected to the project with the following reasons.</p>	<p>Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered the Riviera residents as I&amp;AP, and informed them via Me Louise as contact person of the availability of the DSR.</p>
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33. Gerrit Booyesen				
Correspondence received from the Riviera residents: (translated for ease of reference):				
<p>My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.</li> </ul>				
Roux, D	01/02/2019	Danie Roux objected to the project.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mr Roux as I&AP, and informed him of the availability of the DSR.	
Roux, K	13/01/2019	Kyle Roux and Marais van der Merwe objected to the project and is concerned about the depletion of the water table, contamination and disruption of the aquifers and the disregard for the environmental region, and its importance in the greater ecosystem of the west coast.	Greenmined acknowledged receipt of the correspondence on 14 January 2019, registered Mr Roux as I&AP, and informed him of the availability of the DSR.	
Roux, S	01/02/2019	Stephan Roux objected to the project.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mr Roux as I&AP, and informed him of the availability of the DSR.	
Ryan, P (Prof)	18/01/2019	Prof Peter Ryan objected to the project with the following comments.	Greenmined acknowledged receipt of the correspondence on 18 January 2019, registered Prof Ryan as I&AP, and informed him of the availability of the DSR.	
Comments received from Prof Ryan:				

“Verlorenvlei hosts as many as 4 000 birds seasonally, including being an important site for Palearctic migrant species and threatened seabirds at the estuary. The proposed mine could severely impact the water quantity and quality feeding the wetland and estuary, in an already water stressed environment.”

Schmidlin, S	04/02/2019	Sonja Schmidlin objected to the project with the following comments.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Me Schmidlin as I&AP and informed her of the availability of the DSR.
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Comments received from Me Schmidlin (translated to English for ease of reference):

The drought is bad enough and a mine will further damage the water resources and nature. Verlorenvlei is a conservation area - certain types of birds come here - will die out. Vlei will go without water (clean!) And so will town and farms and environment will be disadvantaged. My will also bring much more crime as more people will live in the area.

“Die droogte is erg genoeg en ‘n myn sal die waterbronne en natuur nog verder beskadig. Verlorenvlei is ‘n bewaringsgebied – sekere voelsoorte kom net hier voor – sal uitsterf. Vlei sal tot niet gaan sonder water (skoon!) en so ook dorp en plase en omgewing sal benadeel word. Myn bring ook baie meer misdaad aangesien meer mense in omgewing woon.”

Schmitt, H	04/02/2019	Hezmuth Schmitt objected to the project and commenting that there is enough mining at the west coast, and they want to keep it natural.	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered Mr Schmitt as I&AP and informed him of the availability of the DSR.
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Schnetler, P	16/01/2019	AR Schnetler and CE Smit objected to the project with the following comments.	Greenmined acknowledged receipt of the correspondence on 17 January 2019, registered Mr Schnetler and Smit as I&AP and informed them of the availability of the DSR.
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Comments received from Schnetler and Smit:

“We identify ourselves with the objection already filed by the Verlorenvlei Heritage Home Owners’ Association. For the first time in decades the vlei is totally dry. The basin is currently a wasteland of dust and dry vegetation. The catchment area of the vlei is situated in the Moutonshoek Valley. This is a relatively small area situated between the mountains to the eastern side of the vlei. The applicant’s proposed development is, according to the plans received, situated at the heart of the said area. It is obvious even to the layman’s eye, that this fragile environment is dependent on the preservation of this pristine phenomenon. If the total system is in anyway threatened, especially as foreseen

<p>by the suggested mine and associated developments in the area, it will be fatal to the economy, livelihood and wellbeing of the people who have lived here for centuries. We beg you to save this precious Verlorenvlei area for future generations.”</p>			
Schoeman, H	05/02/2019	Herma Schoeman objected to the project with the following reasons.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered Me Schoeman as I&AP and informed her of the availability of the DSR.
<p>Correspondence received from Me Schoeman (translated for ease of reference):</p> <p>My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.</li> </ul>			
Schoeman, S	17/01/2019	Sophia Schoeman objected project and is concerned about the water, air and job creation for locals.	Greenmined acknowledged receipt of the correspondence on 18 January 2019, registered Me Schoeman as I&AP and informed her of the availability of the DSR.
Sheard, B	08/12/2018	Ben Sheard registered as an I&AP on the project and submitted the comments as listed below.	Greenmined acknowledged receipt of the correspondence on 11 December 2018 and responded as listed below.
<p>Comments received from Mr Sheard:</p> <p>Mr Sheard objected to the project and requested additional environmental reports and information. Mr Sheard stated that: “Bongani Minerals applied for this same permit a few years ago, and it was quickly shut down. They are now applying again. They are planning on mining in the same valley as the Verlorenvlei, which is a RAMSAR-protected site. The mining operation will undoubtable have a negative effect on the surrounding environment, and it cannot be allowed to proceed.”</p>			



Response to Mr Sheard:

“Greenmined Environmental (hereinafter “Greenmined”) herewith thank you for your interest, and acknowledge receipt of your objection received 8 December 2018 with regard to the proposed mining right application to be submitted on behalf of Bongani Minerals (Pty) Ltd.

Greenmined, on behalf of the applicant, registered you as an interested and affected party (I&AP) on the project, and will henceforth keep you posted on the progress of the Environmental Impact Assessment process, as well as provide you with an opportunity to comment on the EIA documentation. Your comments are noted and will be included in the scoping report and assessed in the environmental impact assessment report.

We trust you will find this in order. Please do not hesitate to contact me in the event of any uncertainties.”

Sheard, G	16/01/2019	Garry Sheard objected to the project and is concerned about water use and water pollution as the Verlorenvlei is already feeling the effects of water deprivation. Also loss of farming land.	Greenmined acknowledged receipt of the correspondence on 17 January 2019, registered Mr Sheard as I&AP and informed him of the availability of the DSR.
Sheard, M	17/01/2019	Martin Sheard objected to the project.	Greenmined acknowledged receipt of the correspondence on 18 January 2019, registered Mr Sheard as I&AP and informed him of the availability of the DSR.
Shelton, J	28/01/2019	Jeremy Shelton objected to the project because of harmful impacts on freshwater biodiversity. He stated that endemic, threatened species such as freshwater fish would likely be strongly negatively impacted by this.	Greenmined acknowledged receipt of the correspondence on 30 January 2019, registered Mr Shelton as I&AP and informed him of the availability of the DSR.
Smit, AM	19/01/2019	Mrs Van der Merwe added AM Smit to the list of registered I&AP's	Greenmined acknowledged receipt of the correspondence on 21 January 2019, registered Me Smit as I&AP and informed her of the availability of the DSR.
Smit, J	02/02/2019	Jacobus Smit objected to the project with the following reasons.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mr Smit as I&AP and informed him of the availability of the DSR.

<p>Correspondence received from Mr Smit (translated for ease of reference):</p> <p>My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.</li> </ul>			
Smit, WJ	04/02/2019	Wendy J Smit objected to the project with the following reasons.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Me Smit as I&AP and informed her of the availability of the DSR.
<p>Correspondence received from Me Smit (translated for ease of reference):</p> <p>My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.</li> </ul>			
Smith, A	04/02/2019	Albertus Smith objected to the project and is concerned about job loss, health and the negative impact on the animals.	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered Mr Smith as I&AP and informed him of the availability of the DSR.
Smith, C	07/02/2019	C Smith objected to the project and commented that the project will hamper the environment and job creation.	Greenmined acknowledged receipt of the correspondence on 11 February 2019,

			registered Mr Smith as I&AP and informed him of the availability of the DSR.
Smith, C	05/02/2019	Ceinwen Smith objected to the project with the following comments.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered Mr Smith as I&AP and informed him of the availability of the DSR.
<p>Comments received from Mr Smith:</p> <p>“I would like to receive further information on the progress of the application, opportunities for public participation, and particularly regarding the proposed EIA - when that will be carried out, what is being assessed and once complete, what the outcomes are.</p> <p>I strongly object to the mining application in the Moutonshoek area for several reasons:</p> <ul style="list-style-type: none"> <li>⌘ it is the catchment area for Verlorenvlei, a declared RAMSAR site and nationally recognised as an important bird area for a large number of local and migratory birds.</li> <li>⌘ the important agricultural sector in the surrounding sandveld area is directly reliant on the groundwater and abstraction from Verlorenvlei for irrigation and processing. Any contamination of either one of these sources, would have devastating effects on one of the countries most important potatoes producing regions.</li> <li>⌘ the impact of job losses due to this would far outway the handful or proposed jobs that the mine will create for a finite period.</li> </ul>			
Smith, E	07/02/2019	Elizabeth Smith objected to the project and commented that it will affect the community negatively.	Greenmined acknowledged receipt of the correspondence on 11 February 2019, registered Me Smith as I&AP and informed her of the availability of the DSR.
Smith, E	04/02/2019	Elton Smith objected to the project and is concerned about job loss, health risk and air pollution.	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered Mr Smith as I&AP and informed him of the availability of the DSR.
Smith, F	06/02/2019	Frederico Smith objected to the project with the following reasons.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered Mr Smith as I&AP and informed him of the availability of the DSR.
<p>Correspondence received from Mr Smith (translated for ease of reference):</p> <p>My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general.</p>			

<p>It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.</li> </ul>			
Smith, L	04/02/2019	Loretta Smith objected to the project and is concerned about air pollution, as well as the fate of the frogs, birds, fish, and animals when there is no water.	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered Me Smith as I&AP and informed her of the availability of the DSR.
Smuts, H	04/02/2019	Helene Smuts objected to the project and is concerned about water security, impact on the Verlorenvlei, no local job creation.	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered Me Smuts as I&AP and informed her of the availability of the DSR.
Sorrell, J	05/02/2019	Jennifer Sorrel objected to the project with the following comments.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered Me Sorrel as I&AP and informed her of the availability of the DSR.
<p>Comments received from Me Sorrel:</p> <p>“Mining is destructive to the surrounding environment, as well as having repercussions further afield. The vicinity is rich in san heritage sites. Mining is also very heavy on natural resources especially water which is the life blood of the area.”</p>			
Stander, T	04/02/2019	Teresa Stander objected to the project and is concerned about the loss of biodiversity, erosion, and contamination and pollution of water.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Me Stander as I&AP and informed her of the availability of the DSR.
Starke, M	26/01/2019	Michele Starke objected to the project and is concerned about the following.	Greenmined acknowledged receipt of the correspondence on 28 January 2019, registered Me Starke as I&AP and informed her of the availability of the DSR.

Comments received from Me Starke:

“Air pollution will affect all our production. Noise pollution will have a negative effect on the sense of place. Blasting will affect the stability of our boreholes and dams. If the mine compromises our ability to produce export fruit and essential oils, we will have to retrench workers and find another source of income. The effect on the fauna and flora – we have pristine fynbos with many rare and protected species. We also have a number of leopards and other wild animals and birds endemic to this area.”

Steyn, HF	01/02/2019	HF Steyn objected to the project.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mr Steyn as I&AP and informed him of the availability of the DSR.
Steyn, J	05/02/2019	Joubert Steyn registered as I&AP on the project.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered Mr Steyn as I&AP and informed him of the availability of the DSR.
Steyn, L	04/04/2019	Liza Steyn objected to the project with the following reasons.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Me Steyn as I&AP and informed her of the availability of the DSR.

Correspondence received from Me Steyn:

“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general.

It is my request that the applications be refused by the relevant authority because of –

- ⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;
- ⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;
- ⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and
- ⌘ the undesirability of mining operations in the area.”

Steyn, L	05/02/2019	Lombard Steyn registered as I&AP on the project.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered Mr Steyn as I&AP and informed him of the availability of the DSR.
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Strange, F	11/01/2019	Felicity Strange objected to the project and listed the following concerns.	Greenmined acknowledged receipt of the correspondence on 14 January 2019, registered Me Strange as I&AP and informed her of the availability of the DSR.
<p>Comments received from Me Strange:</p> <p>“1. The BID was sent out just prior to the holiday season in contravention of the National Environmental Management Act, 1998 Environmental Impact Assessment Regulations – Public Participation Process. 2. The documentation should also be made available in Afrikaans and isiXhosa.”</p>			
<p>Comments received from Me Strange on the DSR (11 February 2019):</p> <p>“Thank you for the opportunity to comment on the Draft Scoping Report (DSR) for this application.</p> <p><b><u>I. Public Participation Process in terms of NEMA:</u></b>  <b><u>REFERENCING</u></b>  When referencing this document it should be cited as follows: Department of Environmental Affairs (2017), Public Participation guideline in terms of NEMA EIA Regulations, Department of Environmental Affairs, Pretoria, South Africa</p> <p><b><u>Extracts from Public Participation guideline in terms of NEMA:</u></b>  <b><u>1. INTRODUCTION AND LEGAL BACKGROUND</u></b>  (Inter alia)  1.1. “...it is essential to ensure that there is adequate and appropriate opportunity for public participation (PP) in decisions that may affect the environment.  1.2. Section 24(1A) (c) of the Act allows for this participation by requiring that the person conducting PP comply with any regulated procedure related to public consultation and information gathering through the public participation process (PPP).”</p> <ul style="list-style-type: none"> <li>∴ <i>Some inhabitants of the district are not literate and or do not have access to information technology.</i></li> <li>∴ <i>It has been ascertained by means of visits to such communities that many were not even aware that there is an Application process underway, let alone what they might be able to do about it.</i></li> <li>∴ <i>What has the applicant done to reach these people and enable them to register, object and comment if they so choose?</i></li> <li>∴ <i>At a personal level this application was brought to my notice indirectly and by chance via other parties as my email address had changed over the intervening period from strangedesign@telkomsa.net to vleiratdesign@gmail.com</i></li> </ul>			

⌘ *How can the applicant categorically state that they contacted me directly?*

## **2. CHARACTERISTICS OF A COMPREHENSIVE PUBLIC PARTICIPATION**

(Inter alia)

“The person conducting PP is required in terms of environmental legislation to provide the CA and RI &APs with reasonable opportunity to participate in PPP information gathering and participation procedures. As such, it is required that unless justified by exceptional circumstances, as agreed to by the CA, the person conducting PP must refrain from conducting any PPP during the period of 15 December to 5 January.”

“...it must be noted that the PPP must be undertaken at a time or time period that enables all RI&APs an opportunity to comment and should there be any doubt by the applicant, EAP or the CA that all RI&APs have not been given such opportunity, then there can be consideration of redoing or restarting the PPP.”

⌘ *We understand that the time period given to English speaking citizens register as I&AP's was de facto 30 days, however it is also true that the process was initiated at the start of the Christmas holiday season and was emotionally disruptive and distressing, this may not be illegal but it is unethical.*

## **4. NOTIFICATION**

“All potential and I&APs have a right to be informed early and in an informative and proactive way regarding proposals that may affect their lives or livelihoods.”

“The level of public participation must be at a minimum be informed by

- the scale of anticipated impacts of the proposed project;
- the sensitivity of the affected environment and the degree of controversy of the project; and
- the characteristics of the potentially affected parties”

“...the person conducting PP must exercise insight and discretion and ensure that the language used allows for the facilitation of a PPP where all potential and RI&APs are provided with a reasonable opportunity to comment on an application and participate without unnecessary difficulty during the PPP;

⌘ *Please note as per Annexure 1 - the email attached and contents pasted in below, that Afrikaans and isiXhosa versions of I&AP forms were only made available 23<sup>rd</sup> January 2019.*

⌘ *Judging by the forms subsequently submitted proving that many respondents either speak Afrikaans or isiXhosa and not English; this means these people in truth only had 12 days in which to respond.*

## **II. Water, air, soil, natural habitat, human settlements and livelihoods**

1. The most precious resource in South Africa, in fact in the world, is water.

⌘ *How can the value of low grade tungsten ore lying beneath tons of overburden which can only be excavated and beneficiated by means of an apocalyptic mining operation, be set against the intrinsic value of an already beleaguered natural landscape and water catchment area, and existing agricultural infrastructure and human settlements?*

2. The Moutonshoek Valley was declared a Protected Environment 9<sup>th</sup> April 2018.

⌘ *How can anyone mine tungsten here and simultaneously viably protect the environment?*

**3. Page 21 of the DSR: “Except for drilling and blasting that will work day shift, all mining operations will be run on a 24 hour 7 days a week schedule.”**

3.1. The long term negative effects of tungsten dust are well documented and it is clear from the DSR that considerable volumes of dust would be generated for many years.

- ⌘ *How can it be feasible to contain such volumes of dust within the site?*
- ⌘ *It is well documented that dust from the Sahara Desert reaches the Amazon Basin.*
- ⌘ *Smoke and ash from the Jonkershoek Fire of March 2015 reached Verlorenvlei .*
- ⌘ *What guarantee can the applicant provide that, under applicable weather conditions, tungsten dust particles will not travel the equivalent distance?*

3.2. The transportation of APT across and out of the valley over an extended period would generate noise would which make life impossible for people and animals.

- ⌘ *How can it be proven that such a level of noise would not have any damaging effects?*

3.3 The method of beneficiation described would inevitably contaminate the soil and seasonal rainfall would convey such contaminants across the landscape and into the Krom Antonies river and thus into the Verloren River.

- ⌘ *Has there been a tungsten mining operation anywhere in the world that can show evidence that there would not be the same result in the landscape under consideration?*

4. The Moutonshoek Valley accommodates 2 vitally important aquifers which provide the ground water sources to an extensive area of the surrounding landscape and serve significant agricultural infrastructure.

The scope and duration of the envisaged application and mining methods would incontrovertibly and eternally compromise this invaluable water source.

- ⌘ *How does the applicant propose to ring fence the immediate sources of groundwater to farms in the valley and also to ring fence the aquifers so as to protect them?*

5. The Krom Antonies River rises in the Moutonshoek Valley and now constitutes the major contributing source of surface water for the Verloren River and ultimately Verlorenvlei. Depletion of or contamination of this water resource would compromise all enterprise alongside the Verloren River valley all the way to Elands Bay.

5.1. In respect of agriculture, in a country which is short of water and arable land, this is untenable.

- ⌘ *Are alternative arable land and water sources being identified and will they be procured for the relocation of all the undertakings and inhabitants of the valley?*

5.2. Given the consequent environmental degradation thousands of farmworkers would be deprived of their employment, at a time when national unemployment figures are at an all-time high.

- ⌘ *Will alternative means of employment for all these people be provided by the applicant?*

5.3. The intention, as per the DSR, to monitor groundwater which would inevitably be contaminated or lost in the process would be laughable if it was not intrinsically improbable.

- ⌘ *Can the applicant describe exactly how this monitoring will be carried out?*

6. The natural resources of the valley and surrounds have already been severely impacted by development and agriculture; in particular ground and surface water, endemic vegetation, and habitat for all forms of wild life including fish and birds.



⌘ *How does the applicant realistically intend to proceed without causing massive environmental degradation; in the form of contamination of the air, water and soil, loss of water and natural habitat, and the loss of rare flora, threatened endemic fish and a drought compromised bird population?*

7. Verlorenvlei, a declared RAMSAR site, Important Bird Area and designated an Internationally Significant Wetland is already beleaguered.

⌘ *If this application succeeds and the Verlorenvlei wetland consequently fails to meet the qualifying criteria, is the applicant prepared to be party to the inevitable listing of Verlorenvlei on the Montreux Record and thus bring shame upon the entire country and all its citizens?*

Please find Greenmined’s response to the DSR comments included at the end of this table.

Sutherland, H	04/02/2019	Hettie Sutherland registered as I&AP on the project.	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered Me Sutherland as I&AP and informed her of the availability of the DSR.
Swanepoel, C	04/02/2019	Chris Swanepoel objected to the project with the following reasons.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mr Swanepoel as I&AP and informed him of the availability of the DSR.

Correspondence received from Mr Swanepoel (translated for ease of reference):

My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –

- ⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;
- ⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;
- ⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and
- ⌘ the undesirability of mining operations in the area.

Swanepoel, GW	01/02/2019	GW Swanepoel objected to the project and is concerned about the water scar.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mr Swanepoel as I&AP and informed him of the availability of the DSR.
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Swanepoel, R	04/02/2019	<p>Randall Swanepoel objected to the project and is concerned about the following impacts on animals and humans caused by poisonous gas from the mine:</p> <ul style="list-style-type: none"> <li>⌘ health risks,</li> <li>⌘ food shortage,</li> <li>⌘ financial predicament,</li> <li>⌘ eradication of plants,</li> <li>⌘ extinction of animals,</li> <li>⌘ water shortage,</li> <li>⌘ hart illnesses.</li> </ul>	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered Mr Swanepoel as I&AP and informed him of the availability of the DSR.
Swanepoel, T	04/02/2019	Thelma Swanepoel objected to the project with the following comments.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Me Swanepoel as I&AP and informed her of the availability of the DSR.
<p>Correspondence received from Me Swanepoel:</p> <p>“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.”</li> </ul>			
Swemmer, I	28/01/2019	Ian Swemmer requested a copy of the BID.	Greenmined acknowledged receipt of the correspondence on 28 January 2019, and supplied Mr Swemmer with a copy of the BID. Mr Swemmer was also notified of the availability of the DSR.

Swingburn, D	01/02/2019	Devon Swingburn objected to the project and is concerned about water use as water is already sparse, and water contamination.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mr Swingburn as I&AP and informed him of the availability of the DSR.
Talmakkies, R	04/02/2019	Ricardo Talmakkies objected to the project and is concerned about his employment.	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered Mr Talmakkies as I&AP and informed him of the availability of the DSR.
Taylor, E	04/02/2019	Elwida Taylor objected to the project and is concerned about drought caused by high water usage, pollution impact on humans, animals and plants.	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered Me Taylor as I&AP and informed her of the availability of the DSR.
Taylor, N	13/01/2019	Nick Taylor objected to the project and submitted the following comments.	Greenmined acknowledged receipt of the correspondence on 15 January 2019, registered Mr Taylor as I&AP and informed him of the availability of the DSR.

Comments received from Mr Taylor:

“I’m sure it’s not your fault that this application came at the beginning of the holidays [as they always do] so most people are either away or taking a break from office. However be assured that there are many who fought the last mining proposal who will take up arms yet again to see this application doesn’t succeed. I herewith enclose my initial response on the form you sent which is a PDF so even though I bought conversion software, could not sign .. Unless it was to make it as difficult as possible, why you didn’t send a living document we could all use and sign .. I am at a loss to imagine. At least I can sign this email as proof that the respondent is me.

I would like to know on what scientific basis the applicant has submitted an application to mine low grade tungsten (and other minerals/metals) in an area as sensitive as this and has the applicant considered the livelihoods and survival of communities downstream from the proposed area to the coast. I will submit a full list of concerns when the applicant puts in a proper proposal document with full intention to mine instead of a badly prepared desk top mock up that insults the people it “would”, not “will” affect...my emphasis in parenthesis is simply because I believe the application is playing a dangerous game in proposing this mine once again....we are fully aware of the previous proposals to prospect and mine and unless some really fancy new technology is available, tungsten cannot be mined safely in the area proposed....let alone processed as the initial document seems to want to do.”

Comments received from Mr Taylor on the DSR (11 February 2019):

“IN THE 21<sup>st</sup> CENTURY IT IS NO LONGER POSSIBLE FOR ANY ENTITY TO PASS ON DOWNSTREAM COSTS WITHOUT PAYING THE FULL PRICE FOR DOING SO.“

Briefly: The “Downstream Costs” of the applicants proposed mine in the Moutonshoek apply to all damage and potential damage in any shape or form to affected people, farms, businesses, and environments. I respectfully request a *fully researched and comprehensive answer to the questions below*:

1. THE PUBLIC PARTICIPATION PROCESS *will* constitute a prodigious waste of the public's time. In the light of recent endless corruption exposures, it is hard to believe there is no corruption underlying this application. Would the applicant please clarify and give reasons why citizens of the Republic of South Africa should be required to fight a time consuming and potential life and death battle, with both the applicant and the government?
2. HIDDEN AGENDAS. Would the applicant please provide details of their relationship with the government department and give guarantees that there are no preconditions or hidden agendas pertaining to this application?
3. WATER POLLUTION AND WATER LOSS would be inevitable and dangerous to all life in the valley. Will the applicant please supply proof of strategies and plans for mitigation, should this situation arise?
4. DAMAGE TO DOWNSTREAM COMMUNITIES from Redelinghuys to the coast would be inevitable. Work opportunities downstream on farms and in the towns of Redelinghuys and Elands Bay could disappear entirely. Is the applicant aware that a mine such as envisaged could very likely create this situation, and if so what plans and strategies does the applicant have in place to ensure this would not happen?
5. ECOLOGICAL LANDSCAPE. The applicant is no doubt aware of the potential for loss of animal and plant life from the proposed mining site and surrounds, as well as all productive and other relatively environmentally stable land downstream. Does the applicant have a comprehensive mitigation or compensations plan and insurance to cover disasters occurring that would negatively affect our ecological landscape and its already limited ability to produce food?
6. DUST POLLUTION. Previous studies point to inevitable side effects of pollution and damage to people and landscape within 100 km radius from *dust*, should the mine go ahead. What processes does the applicant plan to use to prevent damage to areas far from the proposed mining site? The people in these areas, inevitably downwind in either summer or winter, could suffer endless threats to their health, their farms, their homes, and their businesses. What steps has the applicant taken to scientifically prove this would not be the case?
7. WIDESPREAD UNCERTAINTY. The apparently indefinite duration of proposed mining and its impact on landscape, infrastructure and roads would and has already created instant uncertainty amongst communities *that know about* it in the surrounding area from Piketberg to Graafwater Clanwilliam, Lamberts Bay, Elands Bay and south to Velddrif and Laaiplek. These communities would suffer substantial disruption. What written assurances can the applicant give all I&APs that this application is not speculative and simply “playing with people's lives”? What steps has the applicant taken [apart from a clearly desktop scoping report], to investigate and scientifically ascertain how these 'downstream

costs' would be mitigated? Considering the aforementioned, will the applicant please state any new technical strategic or economic reasons for re-applying for a mining right in Moutonshoek?

8. DEEP FISSURE AQUIFERS AND UNDERGROUND STREAMS. When it comes to deep fissure aquifers, the unpredictability of underground water needs to be emphasised. Please note that in 1969 the Tulbach earthquake caused the drying up of 13 springs far away at Muisshoek [4kms North of Grootdrif causeway on the Northern bank of Verlorenvlei] There are any number of other deep springs in the area. Can the applicant assure us with complete confidence and provide guarantees backed by comprehensive insurance, that there would be absolutely no chance that *dynamiting and explosions* could trigger a similar occurrence at any point along the Verloren Rift Valley and the surrounds?

9. MOUTONSHOEK TWO AQUIFERS. In addition: Well point and borehole water from sources adjacent to the Vlei and farther afield would in all likelihood be negatively affected by any large scale interference with the *aquifers* in the Moutonshoek. This could have far reaching effects on the surrounding area. As a result all property owners and residents right to a healthy lifestyle would be made unsustainable without usable water. Could the applicants please provide written guarantees accompanied by sworn affidavits to all landowners and I&APs, plus proof of insurance cover against legal claims and class actions in this regard? If not provide comprehensive reasons why they cannot.

10. PELAGIC FISH NURSERY FUNCTION. The applicant may be aware of the pelagic fish nursery functions of the Verlorenvlei. At present due to drought and over abstraction in the catchments, water from the Verlorenvlei does not flow into the sea. Should mining be undertaken any water coming through would be too polluted to allow for pelagic fish nursery function in the estuarine section below the Elands Bay Road Bridge. As it would certainly be part of the downstream costs of the proposed mining activity I would like to know details of studies undertaken by the applicant and his consultants into this aspect and its effect on the fishing community concerned?

11. RIGHT TO A HEALTHY ENVIRONMENT. The Bill of Rights makes allowance for our "Right to a healthy environment". Should mining be allowed there would be an immediate and permanent depression of property values in the vicinity. We retired here because it was rural and nature friendly with a weather cycle of rising and falling water levels in the Verlorenvlei. It seems to me that the methods and ethics of the 20<sup>th</sup> century where money alone was the deciding factor in government policy, have continued into the first two decades of the 21<sup>st</sup> century. The 'just do it then fix it', may have worked 20 or even 5 years ago but the people have wised up due to social media. While government may be unable or unwilling to enforce much of the legislation provided, be assured that South Africans are neither stupid nor acquiescent. As you will become aware, we will fight this application to the death and then some. I have read the premise on which the previous and this draft scoping report base their rationales and neither are convincing. Would the applicant therefore please provide estimates based on proper and recent scientific evidence and precedents to illustrate why it is practical profitable and beneficial to both the applicant and the farms concerned to mine this particular section of the Moutonshoek?

12. FLEDGLING TOURISM EFFORTS DOWNSTREAM. Tourism forms part of the economy Elands Bay and Verlorenvlei. Considering the pollution and water problems mentioned above, mining could negatively affect business and entrepreneurship in fledgling communities which are only just getting on their feet. Has the applicant made allowances for this eventuality, and would the applicant kindly provide proof of plans for compensation and restitution should the above areas be affected?

13. ALTERNATIVE ACCOMMODATION. The Moutonshoek valley is already over developed and is at a point where farmers in the area will be obliged to change their methods, just as were farmers in the Murray Darling Basin in South Australia nearly 20 years ago. They will be forced to farm more efficiently and effectively and cooperate with others downstream. They will learn to share limited resources like water. Or be subjected to a campaign by their downstream neighbours. The downstream neighbours are a well

informed and widespread stakeholder and interest group with access to substantial scientific and legal resources. This group is already taking steps to ensure that the Verlorenvlei is saved from complete disaster. Total destruction of the Verlorenvlei environs by current agricultural practices or by mining? It is one and the same to us. *Either one is a no go option.*

With this in mind we would like to ask both the applicant, his/her consultants, and the owners of agricultural units in the area who have supported the application:

[A] How many valleys, with the same beauty and agricultural potential of Moutonshoek is the applicant aware of in the Western Cape or indeed in the RSA? If the mining should go ahead and farmers, landowners, communities and stakeholders are obliged to move their domicile elsewhere?

[B] Could the applicant provide proof of provision of alternative equivalent opportunity accommodation for the aforementioned as is customary in the New South Africa, or proof of insurance for compensation to illustrate that the applicant understands the precedent?

14. KILLING THE GOLDEN GOOSE. I accept that mining would do a speedier and more devastating job of killing the valley than current agricultural practices. A mine such as is proposed is de facto permanent, there would be no turning back. Do this applicant and its consultants truly believe what they want to do is a viable proposition when weighed against the overwhelming financial environmental and human costs involved. And would the applicant provide proper justification for believing this?

15. INTERNATIONAL PRECEDENTS. Several rivers around the world already have 'rights of nature' enforceable in law. Courts are never keen to ignore precedents including international precedents. Awareness of fragile ecosystems in the context of sustainability and climate change is increasing and taking its place in the world's market places. Is the applicant aware of this, and the potential legal process involved in fighting an international claim? Are the applicant and consultants aware of the rising movement in favour of environmental animal and other 'soft' rights emerging in the world, and would the applicant please provide research and justification should he/she chooses to ignore this trend?

16. MONTREUX RECORD. Verlorenvlei is a 'Ramsar' site and a country like RSA would be extremely embarrassed if Verlorenvlei were to be listed on the Montreux Record as a result of mining, or farming for that matter. We I&APs are quite prepared to embarrass anyone who stands in the way of restoring Verlorenvlei to its rightful state of health. Is this applicant prepared to face the facts of what mining would mean in this regard and is the applicant then prepared to indemnify the government and the South African People from consequences arising should Verlorenvlei be so listed?

17. ANSWERS PLEASE. I remember the last set of consultants saw fit to ditto and cross reference points in my objection, sometimes in a disrespectful and offhand manner, even points I stressed should be answered comprehensively. Since this is but a summary of what questions I will potentially need to ask of the Final Scoping Report, would the applicant please save time and effort and answer all the above questions fully, as requested at the outset?

I thank you and look forward to hearing from you in due course."

Please find Greenmined's response to the DSR comments included at the end of this table.			
Taylor, S	07/02/2019	Sophia Taylor objected to the project and is concerned that the project will hinder the workers and cause residents to become unemployed.	Greenmined acknowledged receipt of the correspondence on 11 February 2019, registered Me Taylor as I&AP and informed her of the availability of the DSR.
Ten Hoorn Boer, H	27/01/2019	Hendrik Ten Hoorn Boer objected to the project and is concerned about pollution of surface and groundwater, environmental destruction, destruction of natural habitat and wildlife including birds, and the destruction of the Verlorenvlei.	Greenmined acknowledged receipt of the correspondence on 15 January 2019, registered Mr Ten Hoorn Boer as I&AP and informed him of the availability of the DSR.
Terblanche, J	06/02/2019	Jeannie Terblanche registered as I&AP on the project and requested a copy of the DSR.	Greenmined acknowledged receipt of the correspondence on 7 February 2019, registered Me Terblanche as I&AP and supplied her with a link to the DSR.
Thomson, D	29/01/2019	David Thomson objected to the project and is concerned that opencast mining will destroy underground water systems.	Greenmined acknowledged receipt of the correspondence on 30 January 2019, registered Mr Thomson as I&AP and informed him of the availability of the DSR.
The Thoroughbred Breeders Association	29/01/2019	Eugene F Freeman registered The Thoroughbred Breeders Association who objected with the following reasons.	Greenmined acknowledged receipt of the correspondence on 30 January 2019, registered The Thoroughbred Breeders Association as I&AP and informed them of the availability of the DSR.
Correspondence received from The Thoroughbred Breeders Association:			
<p>“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> </ul>			

<ul style="list-style-type: none"> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.”</li> </ul>			
Todd, A & J	23/01/2019	Anne and John Todd objected to the project and are concerned about pollution of ground and surface water, future water shortages for local communities, destruction of natural habitat and thus wildlife as the Verlorenvlei is already threatened, and the ever continuing destruction of the West Coast.	Greenmined acknowledged receipt of the correspondence on 24 January 2019, registered Mr and Mrs Todd as I&AP and informed them of the availability of the DSR.
Treadaway, M	04/02/2019	Martin Treadaway objected to the project with the following reasons.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mr Treadaway as I&AP and informed him of the availability of the DSR.
<p>Correspondence received from Mr Treadaway:</p> <p>“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.”</li> </ul>			
Uys, T	01/02/2019	Taylor Uys objected to the project.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mr Uys as I&AP and informed him of the availability of the DSR.



Van Aswegen, E	04/02/2019	Eldon van Aswegen objected to the project with the following comments.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mr Van Aswegen as I&AP and informed him of the availability of the DSR.
<p>Comments received from Mr Van Aswegen:</p> <p>“This is a sensitive natural area and any unnecessary development, especially mining, stand to upset the already pressured natural balance that co exists in this beautiful part of the Western Cape, both visually and environmentally.”</p>			
Van der Merwe, M	13/01/2019	Marais van der Merwe and Kyle Roux objected to the project and are concerned about the depletion of the water table, contamination and disruption of the aquifers, and the disregard for the environmental region and its importance in the greater ecosystem of the West Coast.	Greenmined acknowledged receipt of the correspondence on 14 January 2019, registered Mr Van der Merwe and Roux as I&AP and informed them of the availability of the DSR.
Van der Merwe, S	23/01/2019	Schalk van der Merwe registered on the project with the following comments.	Greenmined acknowledged receipt of the correspondence on 24 January 2019, registered Mr Van der Merwe as I&AP, supplied him with a copy of the BID, and informed him of the availability of the DSR.
<p>Comments received from Mr Van der Merwe:</p> <p>“It is absolutely not clear from your poorly worded email how one is supposed to register as an IAP. You talk about an attachment to the email, but there is none. In any event, I wish to register as an IAP in this matter. Quite frankly, I'm surprised to see that this dead horse is being flogged again. Kindly let me know EXACTLY how I am supposed to do this.”</p>			
Van der Velde, M (Dr)	04/02/2019	Dr Mark van der Velde objected to the project and is concerned about pollution with associated job loss, the sensitive wetland downstream, erosion from strip mining, contamination of water supply that will affect towns and farms.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Dr Van der Velde as I&AP, and informed him of the availability of the DSR.

Van der Westhuizen, S	06/02/2019	Sandra van der Westhuizen objected to the project and is concerned about pollution of the air and the vlei.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered Me Van der Westhuizen as I&AP, and informed her of the availability of the DSR.
Van der Westhyzen, C	12/02/2019	Coenie van der Westhyzen objected to the project with the following comments.	Greenmined acknowledged receipt of the correspondence on 13 February 2019, and registered Mr Van der Westhyzen as I&AP on the project.

Comments received from Mr Van der Westhyzen (translated for ease of reference):

Verlorenvallei already has a crisis and should the disadvantages of mining be added it will be a final blow to the Valley and surroundings from Moutonshoek / Kromvlei to Elands Bay! Who will benefit most from such mining - the mine management, the owners of the mine - it will not be the miners or farming community - in other words, mineral drilling brings no benefit to the environment ... just human-made destruction!! The tranquility of the whole "Corner"-environment and further down the Krom Antonie River - then further down the Krom Antonie River the intact nature will never be restored!

What about the two beautiful horse farms - such a noise and hustle and bustle can have a detrimental effect on these beautiful animals too! Is there no appreciation and respect for this too? There will also have to be housing for the workers, miners .. where will it all end with everything that goes with it? What will become of them when the mining ends? Are they going back from where they came?

There is as it is now, no threat to this whole nature area. Yes drought has an effect .. but again when being drilled for water for the mining industry - how terribly much it takes from the underground water .. what first of all, the community should be a priority! But drought is a natural disaster - drilling with its disadvantages a human-created destruction .. LOSS from Moutonshoek, Kromvlei, past Valskuil, Verlorenvallei to Elandsbaai! We were put on the earth to look after it - not to destroy it!

“Verlorenvallei het reeds 'n krisis en as daar nou nog die nadele van 'n mynery bykom sal dit 'n finale nekslag vir die Vallei en omgewing vanaf Moutonshoek/Kromvlei tot Elandsbaai wees! Wie gaan die meeste voordeel kry uit so'n mynery - die mynbestuur, die eienaars van die myn - dit gaan mos nie die myners of boerdery-gemeenskap wees nie - m.a.w. boerdery vir minerale bring geen voordeel vir die omgewing nie ..slegs mensgeskepte verwoesting!! Die rustigheid van die hele "Hoek"-omgewing en verder af teen die Krom Antonie-rivier - dan verder af teen die Krom Antonie-rivier die ongeskonde natuur sal nooit weer herstel kan word nie! Wat van die twee pragtige perdeplase - so 'n geraas en gewoel kan nie anders as om ook 'n nadelige uitwerking op hierdie pragtige diere te he nie!! Is daar dan geen waardering en respek ook hiervoor nie?? Daar sal ook behuising vir die werkers, myners moet wees ..waar gaan dit alles eindig met alles wat daarmee gepaard gaan? Wat gaan van hulle word wanneer die mynery tot 'n einde kom? Gaan hulle terug vanwaar hulle gekom? Daar is mos soos dit nou is, geen bedreiging vir hierdie hele natuurgebied nie .. ja droogte het 'n effek .. maar weer as daar geboor word vir water vir die mynery - hoe ontsettend baie vat dit dan van die ondergrondse water .. wat mos eerstens vir die gemeenskap 'n prioriteit behoort te wees! Maar

droogte is 'n natuurramp - boordery met sy nadele 'n mensgeskepte verwoesting .. VERLORENHEID vanaf Moutonshoek, Kromvlei, verby Valskuil, Verlorenvallei tot Elandsbaai! Ons is op die aarde geplaas om dit op te pas - nie om dit te verwoes nie!"			
Van Litsenborgh, D	04/02/2019	Debora van Litsenborgh objected to the project and is concerned about depopulation of the countryside, dust on the plants and vegetables and job loss.	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered Me Van Litsenborgh as I&AP, and informed her of the availability of the DSR.
Van Litsenborgh, F	04/02/2019	Francois van Litsenborgh objected to the project and is concerned about depopulation of the countryside, pollution and the vlei not receiving water.	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered Mr Van Litsenborgh as I&AP, and informed him of the availability of the DSR.
Van Niekerk, JJC	03/02/2019	Jan JC van Niekerk objected to the project with the following reasons.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mr Van Niekerk as I&AP, and informed him of the availability of the DSR.
Correspondence received from Mr Van Niekerk (translated for ease of reference):			
<p>My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general.</p> <p>It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.</li> </ul>			
Van Rensburg, M	04/02/2019	Marie and Briers van Rensburg objected to the project with the following reasons.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mr and Me Van Rensburg as I&AP, and informed them of the availability of the DSR.
Correspondence received from Mr Van Rensburg:			
<p>“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general.</p>			

It is my request that the applications be refused by the relevant authority because of –

- ✘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;
- ✘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;
- ✘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and
- ✘ the undesirability of mining operations in the area.”

Van Schalkwyk, M	04/02/2019	Marina van Schalkwyk objected to the project with the following comments.	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered Mrs Van Schalkwyk as I&AP, and informed her of the availability of the DSR.
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Concerns received from Mrs Van Schalkwyk (translated for ease of reference):

- ✘ Air pollution,
- ✘ Destruction of ecological systems
- ✘ No water
- ✘ Will create unemployment / agriculture
- ✘ Metal dust on plants and birdlife and farmlands
- ✘ Depopulation of the countryside

Please no!

Van Schoor, JC	04/02/2019	JC van Schoor objected to the project and is concerned about the health impact, the impact on the vlei and water security.	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered Mr Van Schoor as I&AP, and informed him of the availability of the DSR.
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Van Wyk, M	02/02/2019	Marié van Wyk objected to the project with the following comments.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Me Van Wyk as I&AP, and informed her of the availability of the DSR.
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Correspondence received from Me Van Wyk (translated for ease of reference):

My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general.

It is my request that the applications be refused by the relevant authority because of –

- ⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;
- ⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;
- ⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and
- ⌘ the undesirability of mining operations in the area.

Van Zyl, F	05/12/2018	Fritz van Zyl requested a copy of the BID and enquired whether it was available in Afrikaans.	Greenmined supplied Mr Van Zyl with an electronic copy of the BID on 6 December 2018, and responded (in Afrikaans) that the BID is currently only available in English but should Mr Van Zyl require an Afrikaans document, it could be translated. Mr Van Zyl has to date not requested an Afrikaans copy of the BID.
Velddrif Chamber of Commerce	04/02/2019	Chris van Niekerk registered the Velddrif Chamber of Commerce who objected to the project with the following reasons.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, and registered the Velddrif Chamber of Commerce as I&AP, and informed them of the availability of the DSR.

Correspondence received from the Velddrif Chamber of Commerce:

“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general.

It is my request that the applications be refused by the relevant authority because of –

- ⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;
- ⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;
- ⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and
- ⌘ the undesirability of mining operations in the area.”

Comments received from the Velddrif Chamber of Commerce:

“Following our previous correspondence the Management Committee of Velddrif Chamber of Commerce submit the following comments;

- ✘ Verloren Vlei is commonly known to be an ecologically sensitive area.
- ✘ Currently this area as well as its catchment area suffer severe water shortage due to drought conditions.
- ✘ Establishment of any mining activities anywhere in this area activities increase negative influence ecosystem.
- ✘ Our questions are:
  - how the developer intends to address the 17 Sustainable Development Goals individually, in respect of local & surrounding inhabitants as well as the environment listed as follows:
    1. No Poverty
    2. No Hunger
    3. Good Health & Wellbeing
    4. Quality Education
    5. Gender Equality
    6. Clean Water & Sanitation
    7. Affordable & Clean Energy
    8. Decent Work & Economic Growth
    9. Industry, Innovation and Infrastructure
    10. Reduced Inequalities
    11. Sustainable Cities & Communities
    12. Responsible Consumption & Production
    13. Climate Action
    14. Life Below Water
    15. Life on Land
    16. Peace, Justice & Strong Institutions
    17. Partnerships for the Goals

The proposed development has been discussed extensively with our members and with our latest committee meeting a unanimous decision was reached to voice our concerns and, to formally inform all parties concerned, that we are not in favour of any such development as it is deemed to impact negatively on the environment followed by detrimental effects on all nearby communities.”

Please find Greenmined’s response to the DSR comments included at the end of this table.

Velddrif Tourism	05/02/2019	Felicity Strohfeldt objected on behalf of Velddrif Tourism with the following reasons.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered Velddrif Tourism as I&AP, and informed them of the availability of the DSR.
<p>Correspondence received from Velddrif Tourism:</p> <p>“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.”</li> </ul>			
Venter, A	04/02/2019	Adri Venter objected to the project and is concerned about the pollution of Verlorenvlei and negative impacts on the environment.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Me Venter as I&AP, and informed her of the availability of the DSR.
Venter, M	04/02/2019	Marais Venter objected to the project and is concerned about the negative impact on Verlorenvlei that is already running dry.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mr Venter as I&AP, and informed him of the availability of the DSR.
Vermeulen, E	04/02/2019	Elmarie Vermeulen objected to the project and is concerned about pollution and unemployment.	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered Me Vermeulen as I&AP, and informed her of the availability of the DSR.
Vermeulen, N	04/02/2019	Nico Vermeulen objected to the project with the following comments.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mr Vermeulen as I&AP, and informed him of the availability of the DSR.

Correspondence received from Mr Vermeulen (translated for ease of reference):

My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general.

It is my request that the applications be refused by the relevant authority because of –

- ⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;
- ⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;
- ⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and
- ⌘ the undesirability of mining operations in the area.

Vermeulen, W	04/02/2019	Willene Vermeulen objected to the project with the following comments.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Me Vermeulen as I&AP, and informed her of the availability of the DSR.
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Correspondence received from Me Vermeulen (translated for ease of reference):

My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general.

It is my request that the applications be refused by the relevant authority because of –

- ⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;
- ⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;
- ⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and
- ⌘ the undesirability of mining operations in the area.

Visser, C	04/02/2019	Coen Visser objected to the project and is concerned about the impact on the Verlorenvlei with regard to health and water.	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered Mr Visser as I&AP, and informed him of the availability of the DSR.
Visser, M	05/12/2018	Minette Visser registered as an I&AP on the project and requested a copy of the BID form.	Greenmined supplied Me Visser with a copy of the BID on 6 December 2018 and registered her



			as an I&AP. To date no additional comments were received from Me. Visser.
<p>Vredelust Residents:</p> <ol style="list-style-type: none"> <li>1. Sarel van Zyl</li> <li>2. Elsabé van Zyl</li> <li>3. Willem van Zyl</li> <li>4. Coenraad van Zyl</li> <li>5. Magdalena Karolus</li> <li>6. Jani van Zyl</li> <li>7. Petrus Adams</li> <li>8. Klaas Visagie</li> <li>9. Thabiso Hans</li> <li>10. William Hans</li> <li>11. Mario Karolus</li> <li>12. Jandro Filander</li> <li>13. Johannes Klein</li> <li>14. Jacobus Baadjies</li> <li>15. Nayton Lottering</li> <li>16. Johannes Willemse</li> <li>17. Jacobus Hercules Maree</li> <li>18. Frikkie Andrews</li> <li>19. Danie van der Westhuizen</li> <li>20. Johannes Gaiza</li> </ol>	04/02/2019	The listed residents of Vredelust and Redelinghuys objected to the project with the following reasons.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered the Vredelust residents as I&AP, and informed them via Me Van Zyl of the availability of the DSR.
<p>Correspondence received from the Vredelust residents (translated for ease of reference):</p> <p>My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general. It is my request that the applications be refused by the relevant authority because of –</p> <ul style="list-style-type: none"> <li>⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;</li> <li>⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;</li> <li>⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and</li> <li>⌘ the undesirability of mining operations in the area.</li> </ul>			

Watson, A	14/02/2019	Dr Andrew Watson objected to the project with the following comments.	Greenmined acknowledged receipt of the objection on 14 February 2019 and registered Dr Watson as an I&AP on the project.
<p>Comments received from Dr Watson:</p> <p>“Additional Information: “A detailed groundwater model constructed for the operation is required before the viability of the proposed activity could be considered. An economic benefit analysis should be conducted which deals with the cost of remediation of the environmental damages as well as the loss to the agricultural sector.”</p> <p>Concerns: The Verlorenvlei which is an important ecological hotspot both nationally and internationally is under threat by climate change as well as agricultural expansion. As such the future survival of the lake has been a focus for many water scientists in the region. The proposed mining of tungsten in the Krom Antonies, which by weighted average is the largest contributor of freshwater to the lake, further jeopardises critical baseflow required to maintain lake water levels. While the proposed mining activity does not use a considerable amount of water, the dewatering required for open pit mining will result in changes in natural groundwater flow. While the mining could bring economic benefit to the region, the reduced availability of groundwater could reduce agricultural productivity which has to be weighed up against the environmental concerns and the loss to the agricultural sector.”</p>			
Watson, C	09/02/2019	Chris Watson objected to the project with the following comments.	Greenmined acknowledged receipt of the correspondence on 11 February 2019, registered Mr Watson as I&AP, and informed him of the availability of the DSR.
<p>Comments received from Mr Watson:</p> <p>“I wish to object in the strongest terms to the proposed mining of Tungsten etc. in the Piketberg area. Several years ago there was a meeting with Bongani at the Library in Piketberg when the majority of the people present objected. I had hoped this had gone away. The proposal says that 20,000 litres of water per day would be used. Last year on Piketberg Mountain we had just over 600 mls and the year before was dreadful as we only had 350 mls. We have been told that this summer is going to be extremely hot and we are a winter rainfall area. At the last meeting we were told that mining would be for about 20 years and then they would just walk away leaving untold damage behind. This is a large wheat growing area as well as fruit of many varieties with most of the fruit going for export. Flowers are also grown for export. Verlorenvlei, from where I assume Bongani would hope to get water, is almost dry and won't get any more water until the next rainy season. The pollution from mining would be a total disaster, and the land would take many years to recover after Bongani has gone away. I object most strongly.”</p>			

Watson, E	11/01/2019	Eve Watson registered on the project and submitted the following comments.	Greenmined acknowledged receipt of the correspondence on 14 January 2019, registered Me Watson as I&AP, and informed her of the availability of the DSR.
<p>Comments received from Me Watson:</p> <p>“I am so saddened to see yet again another attempt at mining in the Moutonshoek Valley. I think I understand in reading these papers that there is again the same threat which arose a few years ago about open source mining and the ludicrous destruction of a well balanced area. I thought that WESSA and Birdlife had managed to get the area declared a protected zone. I really want to sign up against this mining nonsense again and I have little belief in EIAs as I cynically believe they are made to suit the needs of the driving force in this instance the mining proposal.”</p>			
Watson, M	15/01/2019	Mary Watson objected to the project with the following comments.	Greenmined acknowledged receipt of the correspondence on 16 January 2019, registered Me Watson as I&AP.
<p>Comments received from Me Watson:</p> <p>“I wish to object in the strongest terms to the proposed mining of Tungsten etc. in the Piketberg area. Several years ago there was a meeting with Bongani at the Library in Piketberg when the majority of the people present objected. I had hoped this had gone away. The proposal says that 20,000 litres of water per day would be used. Last year on Piketberg Mountain we had just over 600 mls and the year before was dreadful as we only had 350 mls. We have been told that this summer is going to be extremely hot and we are a winter rainfall area. At the last meeting we were told that mining would be for about 20 years and then they would just walk away leaving untold damage behind. This is a large wheat growing area as well as fruit of many varieties with most of the fruit going for export. Flowers are also grown for export. Verlorenvlei, from where I assume Bongani would hope to get water, is almost dry and won't get any more water until the next rainy season. The pollution from mining would be a total disaster, and the land would take many years to recover after Bongani has gone away. I object most strongly.”</p>			
Watson, S	04/02/2019	Simeon Watson objected to the project with the following reasons.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mr Watson as I&AP, and informed him of the availability of the DSR.

Correspondence received from Mr Watson:

“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general.

It is my request that the applications be refused by the relevant authority because of –

- ✘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;
- ✘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;
- ✘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and
- ✘ the undesirability of mining operations in the area.”

Wildlife and Environmental Society of South Africa (WESSA): Western Cape Membership	04/02/2019	Patrick Dowling objected to the project on behalf of WESSA with the following comments.	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered WESSA as I&AP, and informed them of the availability of the DSR.
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Comments received from WESSA:

Additional information requested: “Reference to previous application in the same area and reason for the resubmission in the face of very widespread objections. The make-up of Bongani Minerals and connection formally or informally with any other mining or mining-related companies nationally or internationally.

Concerns:

1. In contradiction to the purpose, significance and values of a nearby RAMSAR site which is not mentioned in the BID.
2. How something as environmentally degrading as surface mining is compatible with a protected area.
3. Longer term negative impacts of the mine, social, economic and environmental outweighing the potential short-term economic benefits.
4. Mining activity water needs competing with other, more sustainable water uses in an area where water conservation and careful custodianship has to be a priority considering the aridity of the area.
5. Contribution to changing the West Coast ethos of low-key recreation, tourism and agriculture to a more industrialised profile with minimal development features to show for it.
6. No reference to how such a project meets the Sustainable Development Goals (SDGs) that SA signed onto in 2015.
7. Direct impacts on the ecological functioning of Verlorenvlei.
8. The typically appalling record of mining companies doing effective rehabilitation work in the past, especially on the West Coast.
9. The Fauna and Flora section of the BID containing no information on fauna.

**10. The inevitable issue of roads and transport becoming a negatively disruptive feature of a peaceful landscape, with its own suite of polluting and destructive impacts.”**

Comments received from WESSA on the DSR (11 February 2019):

“After consultation with members in the area and other I&APs WESSA Western Cape membership endorses the concerns that have been raised especially with regard to the following:

1. The conservation value of the Moutonshoek Valley for the protection of terrestrial ecosystems and the diverse species of they support in a declared Protected Area which is not clearly outlined in the Scoping Report. The fact that this protected Area is also part of the Greater Cederberg Biodiversity Corridor, makes it more significant and shows that conservation planning for the whole region has been a priority for a long time.
2. Despite the impacts of agriculture there are still areas of indigenous vegetation, some of it critically endangered that would be destroyed or impacted negatively by such a mine. Red data species of birds and critically endangered fish would be similarly affected.
3. The direct challenge to the Western Cape Biodiversity Spatial Plan that has determined terrestrial and aquatic Critical Biodiversity Areas (CBAs) as well as Ecological Support Areas (ESAs) within and adjacent to the application area. These are critical to the delivery of vital ecosystem services in the whole Verlorenvlei catchment. The beneficiaries of these are hugely more numerous than those of a mine which at best will deliver short term economic benefits to a few.
4. Compromising of an internationally recognized RAMSAR wetland area that puts at risk the credibility of South Africa to conserve its wetlands and prioritize them as mitigators of drought in a dry landscape.
5. Roads, electricity and potable water demand in an area unused to such destructive industrial activity and vulnerable to its impacts, pose further problems that outweigh any alleged benefits.
6. The less than comprehensive public participation and early notification of all I&APs in an extensive area is cause for concern as it suggests that many stakeholders might be unaware of the latest mining application that seems to be a duplication of the one undertaken several years ago.
7. The economy of the Cape West Coast has been focusing on lower key eco-tourism-based activities that move away from the dig-and-dump approaches of the past that have left swathes of coastline degraded and uninhabitable.

We therefore conclude that, as before, this application is ill-considered, enjoys little support from local communities and conservation authorities, is out of synch with landscape-scale planning, does not take cognizance of current scientific data and poses a longer-term economic threat in a sensitive region that has by no means exhausted sustainable livelihood options. It should not be pursued.”

White, G	06/02/2019	Glenda White objected to the project and is concerned about the health risks for animals and humans.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered Me White as I&AP, and informed her of the availability of the DSR.
White, G	05/02/2019	Grenville White objected to the project and listed the following concerns.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered Mr White as I&AP, and informed him of the availability of the DSR.
<p>Concerns listed by Mr White:</p> <ul style="list-style-type: none"> <li>✘ Water pollution</li> <li>✘ Air pollution</li> <li>✘ Employment benefits for non-locals</li> <li>✘ Roads will deteriorate, increased traffic, noise and pollution</li> <li>✘ Destruction of the Verlorenvlei delicate eco-system, and Moutonshoek protected areas under threat</li> <li>✘ Financial security of rehabilitation questionable, mining companies with long term environmental liabilities often don't honour their obligations, no upfront cash secured for future costs</li> <li>✘ Market and economic volatility may render mine not viable</li> <li>✘ Quality of deposits questionable, not worth mining</li> <li>✘ Shareholder profit outweighs the socio-economic benefits to the local community</li> </ul>			
White, J & N	05/02/2019	Jan and Nolene White objected to the project and are concerned the project may be disadvantageous to the whole ecological system of the vlei, as well as water shortages to the farmers that feed the nation.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered Mr & Mrs White as I&AP, and informed them of the availability of the DSR.
Whiteman, H	22/01/2019	Hendrik CF Whiteman objected to the project and is concerned about the destruction of the environment, destruction of natural habitat and wildlife including birds (particularly in Verlorenvlei), pollution of surface and underground water, and Moutonshoek, Piketberg, Redelinghuys, Elands Bay and the surrounding populations that will face the threat	Greenmined acknowledged receipt of the correspondence on 24 January 2019, registered Mr Whiteman as I&AP, and informed him of the availability of the DSR.

		of lack of and pollution of water, change in atmosphere pollution.	
Wiese, G	04/02/2019	Gerhard Wiese objected to the project ad is concerned that the project will have a bad impact on the environment, be bad for the water resources, the Verlorenvlei and will not create local jobs.	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered Mr White as I&AP, and informed him of the availability of the DSR.
Wiese, K	04/02/2019	Karen Wiese objected to the project ad is concerned that the project will have a bad impact on the environment, be bad for the water resources, the Verlorenvlei and will not create local jobs.	Greenmined acknowledged receipt of the correspondence on 5 February 2019, registered Me White as I&AP, and informed her of the availability of the DSR.
Wilgerbosdrift (Pty) Ltd care of Webber Wentzel	01/02/2019	Sylvester Peverelle (Webber Wentzel) registered Wilgerbosdrift (Pty) Ltd as I&AP on the project with the following comments.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered Wilgerbosdrift (Pty) Ltd care of Webber Wentzel as I&AP, and responded as listed below.

Comments received from Webber Wentzel on behalf of Wilgerbosdrift (Pty) Ltd:

1. We represent Wilgerbosdrift (Pty) Ltd, registration number 1997/002594/07 (our client).
2. Our client has appointed our address as the address at which it wishes to receive all and any communication in regard to the subject matter.
3. We record that emailed communication would be acceptable and is preferred. Emails should be addressed to [Sylvester.peverelle@webberwentzel.com](mailto:Sylvester.peverelle@webberwentzel.com) for the attention of writer hereof. Writer's contact numbers are reflected below.
4. We hereby register our Client, care of ourselves, with writer hereof as the contact person, as an interested and affected party for all purposes and processes of your client's subject application.
5. Our client is an owner of properties in the vicinity of your client's application area and operates inter alia a stud farm and operations incidental thereto on its properties.
6. As mentioned to Ms Fouche during our abovementioned telecom, the BID does not provide our client with substantive information against which it can assess your client's intended mining operations and the potential adverse effects thereof on our client's interests. We reserve our client's rights to comment and/or object to your client's application in due course when it has been provided with substantive information and documents in order to assess its own position, including our client's rights to request forth documents and information.
7. Your Ms Fouche confirmed telephonically on 31<sup>st</sup> January 2019, that your client, on or about 13 December 2018, lodged its application for a mining right and for an environmental authorisation, and that the application for a mining right has since been accepted by the Department of Mineral Resources.
8. We hereby request copies of the following documents:

- 8.1 your client's application for mining right including all documents and plans lodged in support thereof, including, but not limited to your client's draft mining work programme – which it would be in order to redact regarding your client's commercial information;
  - 8.2 your client's application for an environmental authorisation including all documents and plans lodged in support thereof;
  - 8.3 the DMR's letter acknowledging your client's EA; and
  - 8.4 the DMR's letter of acceptance of your client's MRA.
9. We request that you kindly register our client, care of ourselves, as an IAP and provide us with confirmation of such registration and provide us with the appropriate electronic links to all relevant documents.

Response to Webber Wentzel:

"Greenmined Environmental (Pty) Ltd (hereinafter referred to as "Greenmined") would like to thank you for your interest and herewith acknowledge receipt of your correspondence dated 1 February 2019 with regards to the mining right application (WC 30/5/1/2/2/10110 MR) submitted on behalf of Bongani Minerals (Pty) Ltd.

Greenmined, on behalf of the applicant, registered your client as an interested and affected party (I&AP) on the project, and will henceforth keep you posted, as the contact person for Wilgerbosdrift (Pty) Ltd, on the progress of the Environmental Impact Assessment (EIA) process. Your client will also be afforded an opportunity to comment on the EIA documentation.

Please note that the Draft Scoping Report (DSR) in respect of the mining right application is available for your client's perusal and comment.

Should your client be interested in submitting comments, a copy of the DSR can be obtained from Greenmined, alternatively downloaded from the Greenmined website ([www.greenmined.com](http://www.greenmined.com)).

A hard copy of the DSR is available at:

- ✂ Piketberg Public Library, 9A Kerk Street, Piketberg, and
- ✂ Redelinghuys Public Library, Voortrekker Street, Redelinghuys.

Please take notice further that there is a 30-day commenting period expiring on **12 February 2019** during which time they may submit your comments on the DSR. The comments must be in writing and should include your contact details. Comments can be submitted via facsimile (086 546 0579), e-mail ([christine.f@greenmined.co.za](mailto:christine.f@greenmined.co.za)) and/or ordinary/registered mail (Postnet Suite 62, Private Bag X15, Somerset West, 7129).

With reference to the information requested in your abovementioned correspondence, we would like to reply as follow:

1. DMR requires a Mining Right application to be uploaded onto their electronic on-line system (SAMRAD), and as such we do not have a specific application document that can be supplied to you.
2. Please see the application for environmental authorisation attached.



3. Please find the acceptance letters for both the EA and MR attached.

We trust you find this in order. Please do not hesitate to contact me in the event of any uncertainties.”

Response received from Webber Wentzel (7 February 2019):

“Thank you for your email of today's date, the contents of which have been noted, as well as copies of the documents referred to in paragraphs numbered 2 and 3 of your email under reply.

We record that your response highlighted in yellow below, in paragraph numbered 1 of your email under reply is not acceptable and the delay in providing us with the documents requested in paragraph 8.1 of our letter dated 1 February 2019, is not acceptable.

For easy reference, we repeat hereunder, the said request as follows:

*"8. We request copies of the following documents:*

*8.1 your client's application for a mining right including all documents and plans lodged in support thereof ("**MRA**"), including, but not limited to your client's draft mining work programme - which it would be in order to redact regarding your client's commercial information;".*

In regard to the above and your client's failure to provide the requested documents, and in specific, the reasons put forward for the alleged inability to provide such documents, we record as follows:

1. We enclose a screen shot taken from SAMRAD iron an actual mining right application lodged on SAMRAD by writer recently.
2. We draw attention to the documents listed as uploaded as part of the application and thereafter.
3. We point out that each of the uploaded documents remain "downloadable" from SAMRAD by the parson who uploaded the documents and for the duration of the application process.
4. Your advice that the documents requested in paragraph 8.1 of our said letter cannot be provided due to the lodgement on SAMRAD does not hold water and is rejected on behalf of our client.
5. We accordingly repeat our request for such documents.

We await your urgent compliance with our above request.”

Response to Webber Wentzel (13 February 2019):

“The above matter as well as your email to our Me Fouche on 07 February 2019 refers. We apologise for the delay in replying to your email, as we were awaiting instructions from our client. Herewith we would like to confirm that it is our instructions to not provide you with any of the supporting documentation pertaining to the mining right application or the environmental authorisation application.”

Winfield, M	19/01/2019	Melinda Winfield objected to the project and is concerned about the diminishing water supply to Verlorenvlei, contamination of underground water used to supply drinking water to Elands Bay, destruction of the environment, poor government control over monitoring conditions, and poor compliance by Bongani Minerals.	Greenmined acknowledged receipt of the correspondence on 21 January 2019, registered Me Winfield as I&AP, and informed her of the availability of the DSR.
Winter, MF (Dr)	04/02/2019	Michael F Winter objected to the project with the following reasons.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mr Winter as I&AP, and informed him of the availability of the DSR.

Correspondence received from Mr Winter:

“My reasons for the objection include, but are not limited to, the fact that any mining operations shall have a detrimental and irreversible negative impact upon the promulgated Protected Environment, the intensive agricultural activities in the area, the hydrology and aquifers, and the Krom Antonies River and Verlorenvlei area in general.

It is my request that the applications be refused by the relevant authority because of –

- ⌘ the negative and detrimental impacts that any envisaged mining operations will have on the entire area, environmentally, socio-economically; the provision of water to the area and agriculturally;
- ⌘ the fact that it will not be possible to satisfactorily mitigate any negative impacts on the area;
- ⌘ the fact that no rehabilitative measures would prevent the degradation of the area and render it in the same position as it was before mining operations; and
- ⌘ The undesirability of mining operations in the area.”

Wise, A	23/01/2019	Adrian Wise objected to the project.	Greenmined acknowledged receipt of the correspondence on 24 January 2019, registered Mr Wise as I&AP, and informed him of the availability of the DSR.
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Witbooi, G	04/02/2019	Gert Witbooi objected to the project and commented that he wants to keep his job, is concerned the area dries out, concerned about water pollution and the tea bushes.	Greenmined acknowledged receipt of the correspondence on 4 February 2019, registered Mr Witbooi as I&AP, and informed him of the availability of the DSR.
Yeld, J	11/12/2018	John Yeld registered as and I&AP on the proposed project.	Greenmined registered Mr Yeld as and I&AP on 11 December 2018.
Young, I	01/02/2019	Izette Young objected to the project and is concerned about the loss of biodiversity, erosion, climate change, contamination of water and soil, environmental damage, and habitat loss.	Greenmined acknowledged receipt of the correspondence on 1 February 2019, registered Me Young as I&AP, and informed her of the availability of the DSR.
Zein, J	05/02/2019	John Zein objected to the project with the following comments.	Greenmined acknowledged receipt of the correspondence on 6 February 2019, registered Mr Zein as I&AP, and informed him of the availability of the DSR.
<p>Comments received from Mr Zein:</p> <p>“Mining requires soil to be removed, therefore vegetation is also removed. Fauna and flora is disturbed under water pollution, acid mine drainage, enhances climate change.”</p>			
Zuanni, H	21/01/2019	Hugo and Debby Zuanni objected to the project.	Greenmined acknowledged receipt of the correspondence on 22 January 2019, registered Mr and Mrs Zuanni as I&AP, and informed them of the availability of the DSR.
<p>Greenmined’s response to the comments received on the DSR:</p> <p>Greenmined Environmental (Pty) Ltd (hereinafter “Greenmined”) herewith acknowledge receipt of your correspondence with regards to the mining right application submitted on behalf of Bongani Minerals (Pty) Ltd.</p> <p>During the initial public participation process the stakeholders and I&amp;AP’s were informed of the proposed project by means of background information documents which were sent directly to the contact persons. Due to the compulsory exclusion period over the holidays, the 30-days commenting period was extended with commenting and registration welcome from 10 December 2018 to 5 February 2019. Comments and registration was however still accepted until the 12<sup>th</sup> of February 2019.</p>			

All comments received during this period have been acknowledged and are noted and will be included in the final scoping report. Registered parties will be kept posted on the progress of the Environmental Impact Assessment process, as well as be provided with an opportunity to comment on the EIA documentation.

Greenmined will at all times remain independent and will perform its obligations in terms of all relevant Acts, Regulations and Guidelines, as expected from environmental practitioners. All documentation, to date, was based on preliminary data and desktop studies as access to the study area was denied by the landowners, resulting in limited information being provided to all commenting parties. Numerous attempts and letters requesting access to the properties by the applicant was all in vain. Greenmined can therefore not provide the I&AP's and stakeholders with material information with regards to this mining right application and it is therefore clear that the relevant authorities will not be able to make an informed decision, irrespective should it be positive or negative. In light of the above all comments with regards to Greenmined's alleged incompetence is noted. We would like to request all parties to refrain from making any further comments to defame our good reputation, as it is due to the landowners refusal to grant access to the properties that proper studies could not be conducted.

It is important to note that the objective of the environmental impact assessment process is to, through a consultative process-

Determine the policy and legislative context within the activity is located and document how the proposed activity complies with and responds to the policy and legislative context,  
Describe the need and desirability of the proposed activity, including the need and desirability of the activity in the context of the preferred location,  
Identify the location of the development footprint within the preferred site based on an impact and risk assessment process inclusive of cumulative impacts and a ranking process of all the identified development footprint alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects of the environment,  
determine the –

Nature, significance, consequence, extent, duration and probability of the impacts occurring to inform identified preferred alternatives, and  
Degree to which these impacts-

- (aa) can be reversed;
- (bb) may cause irreplaceable loss of resources, and
- (cc) can be avoided, managed or mitigated;

identify the most ideal location for the activity within the preferred site based on the lowest level of environmental sensitivity identified during the assessment;  
identify, assess and rank the impacts the activity will impose on the preferred location through the life of the activity;  
identify suitable measures to manage, avoid or mitigate identified impacts, and  
identify residual risks that need to be managed and monitored.

As mentioned above, all information available up to the scoping phase was based on desktop studies and public opinion. This will therefore not serve the objective of the environmental impact assessment process and will not afford the relevant authorities the necessary information to make an informed decision.

The final scoping report will be submitted on 18 February 2019, after which Greenmined will request guidance from the Department of Mineral Resources as to the way forward in order to complete the environmental impact assessment process and in the end to be able to provide the information and studies that will assist in the decision making process.

Unless the specialists continue with their studies in the area to ensure that all the impacts and concerns are properly assessed the process will be flawed and will the departmental decision, whether positive or negative, not be based on material factors.

We thank you for your participation in this application process and you will be notified of the outcome received by Department of Mineral Resources.

#### iv) The Environmental attributes associated with the sites

##### (1) Baseline Environment

###### (a) Type of environment affected by the proposed activity.

(its current geographical, physical, biological, socio-economic, and cultural character)

This section describes the general biophysical, cultural and socio-economic environment as well as baseline conditions that may be affected by the proposed mining project. The information provided here was obtained from desktop studies and must be treated as preliminary. More detailed information based on site specific conditions, obtained during site assessments and focussed investigations will be collected during the EIA process and elaborated on in the DEIAR.

#### PHYSICAL ENVIRONMENT

##### CLIMATE

The West Coast is described by hot, dry summers, strong winds and low rainfall. Strong southerly winds blow in spring and summer with strong north-westerly winds in winter.

The Piketberg area receives winter rainfall and is known for its Mediterranean climate. The average rainfall of the area is about 373 mm per year (see average monthly rainfall values in the chart below). Piketberg Mountain receives on average more rain than the surrounding flats, with the study area receiving an average of 600 mm rain and the catchment above in excess of 800 mm rain per annum.

The monthly distribution of average daily maximum temperatures (centre chart below) shows that the average midday temperatures for Piketberg range from 17.3°C in July to 30°C in February. Piketberg Mountain is generally a bit colder than the surrounding flats, while the soils on the mountain are slightly less stressed for moisture over the year.

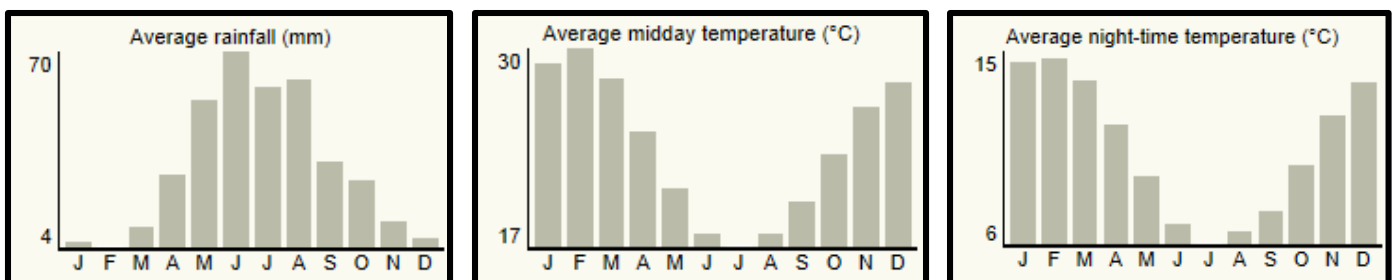


Figure 3: Charts showing the climatic averages of the Piketberg area (image obtained from SAExplorer).

##### TOPOGRAPHY

(Information extracted from the Preliminary Assessment of Impact of the Proposed Riviera Tungsten Mine on Groundwater Resources, SRK Consulting Engineers, 2009)

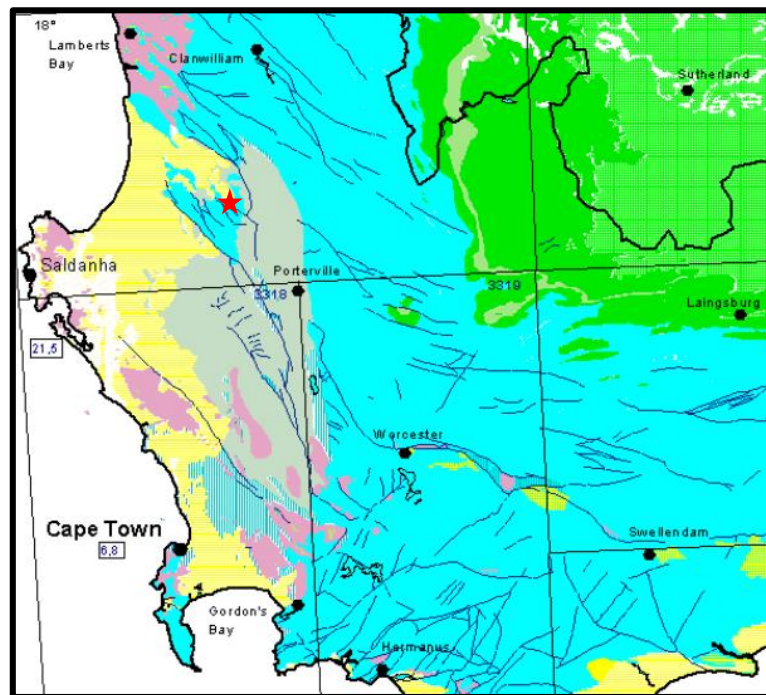
The majority of the study area lies at an elevation of >100 m above mean sea-level (mamsl), except along the lower reaches of the Krom Antonies, Boesmans, Kruismans and Eselshoek Rivers, which lie below the 100 mamsl level. A number of NW-SE to N-S trending, lithologically and tectonically controlled ranges of hills and mountains occur, namely the Piketberg range which attains a maximum altitude of approximately 1 450 mamsl. The Sandberg lies to the west of the site.

**GEOLOGY**

*(Information extracted from the Final Scoping Report for the Proposed Riviera Tungsten Open-Cast Mining Project, Withers Environmental Consultants, 2009)*

Folded and faulted sediments of the Cambrian Malmesbury Group are widespread in the Western Cape north of Cape Town, where they are known to be intruded at a large number of localities by stocks of Pre-Cambrian Cape Granite, and to contain significant thicknesses of carbonate, to the point of being commercially exploitable, e.g. limestone at Piketberg.

The predominant sediments of the Malmesbury Group on a regional scale are phyllites, with higher-grade schist locally developed, such as at Riviera. Granite intrusion was accompanied by contact metamorphism, including metasomatism of the invaded sediments. Following a period of erosion of the geosynclinal assemblage, sediments of the Cape Supergroup, comprising mainly quartzitic sandstones, were assumed to have blanketed the entire region. Subsequent break-up of Gondwanaland saw erosion along, and inland from, the newly formed coastline and the older rocks were re-exposed on the coastal flats thus formed. Accumulation of colluvial and fluvial sediments along scree slopes and river courses was a parallel process, so that reburial of exhumed surfaces was widespread, as, for example, at Riviera.



*Figure 4: Indication of the simplified geology of the study area, where yellow represents Cenozoic deposits, light blue the Cape Supergroup, and grey Archaean Granite and Gneiss. The proposed mining area is indicated by the red star. (Image obtained from the Council for Geoscience)*

## HYDROLOGY

*(Information extracted from: 1. Hydrology Report for the Riviera Tungsten Deposit, Withers Environmental Consulting; 2. Preliminary Comments on Affected Freshwater Ecosystems with Highlighting of Issues Requiring Detailed Assessment – Scoping Phase, Day, 2009; 3. Preliminary Assessment of Impact of the Proposed Riviera Tungsten Mine on Groundwater Resources, SRK Consulting, 2009)*

The proposed mining area is located in the Verlorenvlei River catchment and includes the following quaternary catchments that drain the major tributaries:

- ✧ G30B Kruis River;
- ✧ G30C Bergvallei River;
- ✧ G30D Krom Antonies River & the Hol River;
- ✧ G30E Verlorenvlei River.

Significant amounts of runoff are generated in the Krom Antonies River catchment upstream of the proposed development. The flow in all the quaternary catchments, especially G30D and G30E is extreme seasonal with practically zero natural flow in the summer months. G30B and G30C do indicate a small but continuous low flow during the summer months. The 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. The Krom Antonies River at the proposed mining area has a relatively low firm yield associated with a relatively large capacity as a result of the seasonality of flow (large winter spills) and high evaporation. The Daily Flow Analysis at the Verlorenvlei Estuary shows that midsummer flow is mostly non-existent with zero flow occurring 90% of the time from February to April. The highest flows occur in August when 10 m<sup>3</sup>/s are exceeded 10% of the time.

The hydrological and water quality assessment compiled by Aurecon in 2009 (Rossouw) on the study area concluded that the water quality in the Krom Antonies River was relatively good compared to the Hol- and Kruismans Rivers which proved to be more saline. This report postulated that the Krom Antonies River most likely controlled the quality of the water in the Verlorenvlei River downstream of the confluence of the three rivers.

The Verlorenvlei Estuary, situated between Elands Bay and Redelinghuys (±24 km north-west of the Moutonshoek Valley), is a protected RAMSAR site (No 525) as declared June 1991. Dr Day describes the Verlorenvlei Lake as “one of the largest natural wetlands along the west coast of South Africa and one of the few coastal fresh water lakes” in her preliminary comments on affected freshwater ecosystems with regard to the proposed mining of the Riviera Tungsten Deposit in the Krom Antonies River Valley, 2009. Dr Day noted 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. The Krom Antonies River was classified as a (major channel) valley bottom wetland in terms of the National Wetland Classification, with most of the mapped wetlands within the valley classified as floodplain wetlands (Day 2009).



The hydrogeology of the study area notes two types of aquifers, namely an unconfined primary or intergranular aquifer formed by alluvial sediments in the valley and a semi-confined secondary or fractured-rock aquifer formed by secondary openings in the crystalline and sedimentary hard-rock formations. The preliminary assessment of the impact of the proposed Riviera Tungsten Mine on groundwater resources in the study area, compiled by SRK Consulting in 2009 postulated that faulted contact zones of the Riviera Pluton are expected to represent a well-developed fractured-rock aquifer, which may be capable of yielding large volumes of groundwater.

The report noted that based on previous exploration drilling borehole logs the primary aquifer in the study area is inferred to vary in thickness from <5 m near the flanks and upper reaches of the valley up to ±30 m or more in the centre of the valley near the Krom Antonies River. In the area overlying the ore body and within a 2 km radius of it the primary aquifer was expected to vary in thickness from 10 to 30 m. The second aquifer was expected to extend from the bedrock subsurface to well below the ore body i.e. a thickness of 80 to 200 m and more.

Information obtained from the DWS National Groundwater Database reported water levels, of boreholes relevant to the study area, with depths ranging from ±21 m along the valley slopes to ±1 m in the valley floor. The average depth to water level is 10.8 mbgl, with a minimum of 0.4 mbgl and a maximum of 44 mbgl. Groundwater flows locally from the higher laying valley flanks of the Krom Antonies River and regionally in a north-westerly direction and towards the mouth of the Krom Antonies River Valley (SRK 2009).

## **AIR QUALITY AND NOISE AMBIANCE**

The air and noise ambiance of the study area was historically representative of an agricultural environment in which farming equipment operates with occasional dust emissions from denuded areas. The agricultural use of the study area intensified over years, and current land uses include wheat production, potato farming, vineyards, and horse breeding. The valley is accessed with the DR02172 gravel road turning from the tarred R366.

## **BIOLOGICAL ENVIRONMENT**

### **MOUTONSHOEK PROTECTED ENVIRONMENT**

*(Information extracted from the Moutonshoek Protected Environment: Management Plan (Draft). Version 1.0. 2018. S Schroder, P Huntly, D Wright)*

The Moutonshoek Protected Environment (MPE) was promulgated 20 April 2018 and extends across the following properties:

- ∞ Portion 1 of the farm Piketberg No 297;
- ∞ Remaining Extent of Portion 1 of the farm Namaquasfontein No 76;
- ∞ Portion 1 of the Farm No 77;
- ∞ Remaining Extent of the Farm No 78;

- ✘ Remaining Extent of Portion 3 of the farm Wilgenhoutdrift No 48;
- ✘ Remaining extent of the farm Piketberg No. 297;
- ✘ Portion 5 (a portion of Portion 4) of the farm Zebra Mount No. 75;
- ✘ Remaining extent of Portion 11 (a portion of Portion 7) of the farm Namaquasfontein No. 76;
- ✘ Remaining extent of the farm Ezelfontein No. 47;
- ✘ Portion 4 (a portion of Portion 1) of the farm Ezelfontein No. 47;
- ✘ Portion 5 of the farm Ezelfontein No. 47;
- ✘ Portion 8 of the farm Ezelfontein No. 47;
- ✘ Portion 5 of the farm Goergap No. 40;
- ✘ Farm Wilgerbosdrift No. 51;
- ✘ Remaining Extent of Portion 2 of the farm Wigenhoutdrift No 48;
- ✘ Remaining Extent of the farm Namaquasfontein No 76;
- ✘ Portion 6 (a portion of Portion 2) of the farm Wilgenhoutdrift No 48;
- ✘ Remaining Extent of Portion 7 (a portion of Portion 2) of the farm Namaquasfontein No 76;
- ✘ Portion 4 of the farm Namaquasfontein No 76;
- ✘ Portion 5 of the farm Namaquasfontein No 76; and
- ✘ Portion 21 of the farm Namaquasfontein No 76

The MPE management plan notes that “...portions of the Moutonshoek valley and the Krom Antonies River as a whole have been identified as critical ecological support areas 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.”

The allowable land uses within the MPE are specified within a zonation plan “to control the intensity and type of use within it, in efforts to ensure the main goal of biodiversity conservation is met.” The first zone or “Core Conservation Area” consists of largely unmodified natural landscape with very limited human interaction. This zone includes sensitive- and extreme sensitive landscapes, areas of exceptional diversity, endemism and rarity, wetlands and seeps, and habitat corridors. The management guidelines associated with this area requires it to be managed as a conservation zone with specific focus on retaining habitat integrity and ecosystem functioning, and preserving the natural state and wilderness character of the area. No development is allowed with this area and current disturbances should be removed. Grazing of this area should be limited to extraordinary or emergency conditions.

The second zone or “Intensive Agricultural and Grazing Area” is characterized as accessible, modified landscape, largely developed and regularly used for agricultural purposes, including fallow lands. Management of this zone should focus on preserving the rural farmland appeal and character of the area, with cultivated lands managed to prevent an impact on the conservation of sensitive biodiversity features.

Other zones identified with the MPE include:

- ⌘ Water Protection;
- ⌘ Cultural Feature Protection;
- ⌘ Species/habitat Protection;
- ⌘ Visual Protection;
- ⌘ Natural Resource Access.

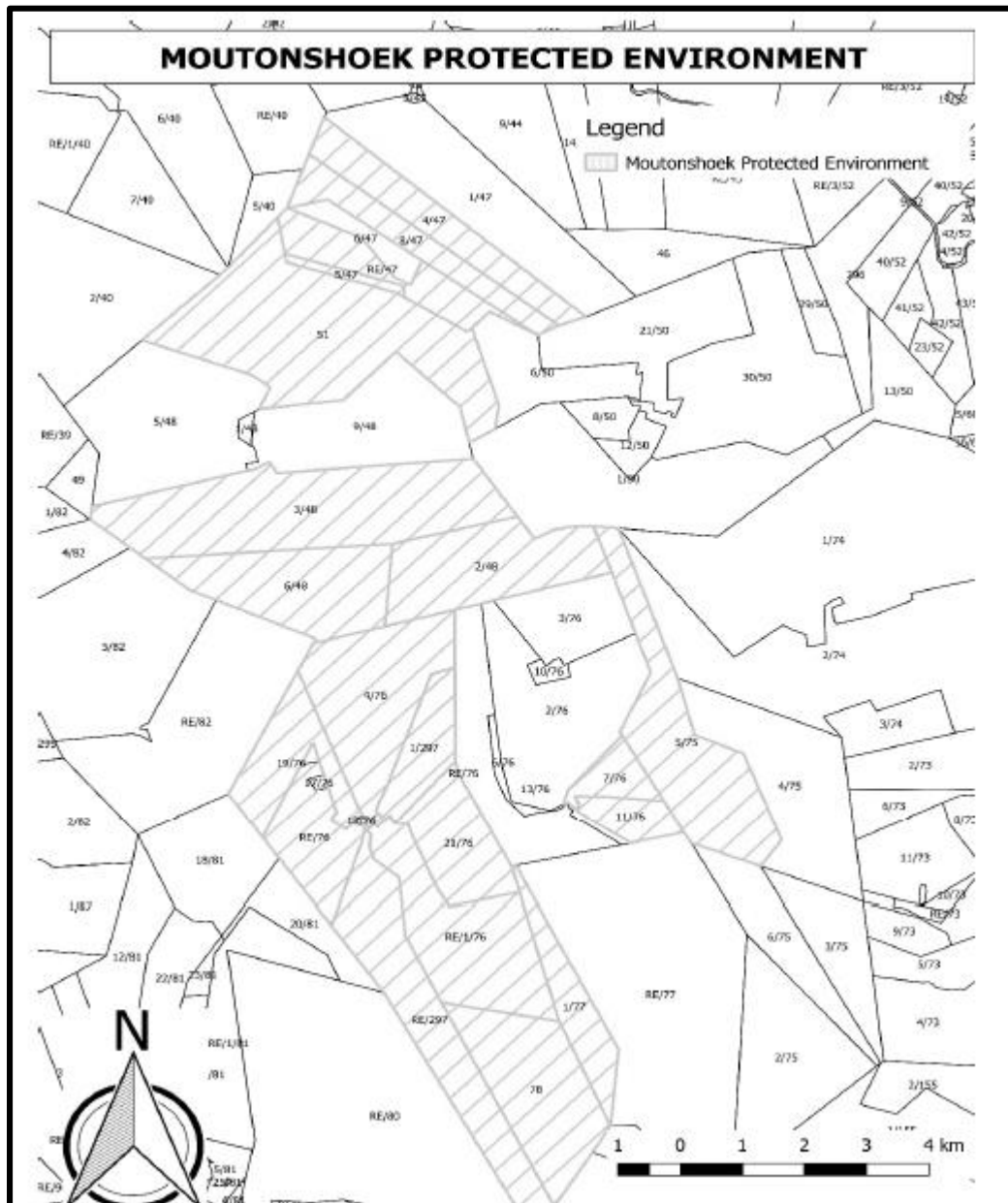


Figure 5: Boundary of the Moutonshoek Protected Environment as published in the Province of Western Cape Provincial Gazette 7916 of 20 April 2018.

## GROUNDCOVER

(Information extracted from the Introduction to the Vegetation in the Riviera Tungsten Deposit Environs, Piketberg, Boucher, 2008)

Dr Boucher undertook a desktop study to collate baseline information about botanical features in the Krom-Antonies River Valley (also known as the Moutonshoek Valley), and compiled a preliminary report in 2008. The following vegetation types were observed by Dr Boucher:

- ✧ Swartland Shale Renosterveld;
- ✧ Leipoldtville Sand Fynbos;
- ✧ Piketberg Sandstone Fynbos;
- ✧ Piketberg Quartz Succulent Shrubland;
- ✧ Cape Lowland Alluvial Vegetation; and
- ✧ Cape Lowland Freshwater Wetlands.

### Swartland Shale Renosterveld:

In the study area the Swartland Shale Renosterveld is present along the base of the Piketberg and in isolated patches where shales, shale derived clays and ferricretes are present at the surface, often along river banks and at the base of hills. It is restricted to the well-drained to seasonally waterlogged habitats. Heuweltjies (both active and eroded, inactive termite mounds) are commonly a feature. The vegetation is a low, relatively open shrubland, with many deciduous elements. Succulents and annuals may be common, and geophytes are a particular feature of this unit, especially after fire. Stunted trees are often associated with the heuweltjies. Restios may be present, but are never dominant. It is often very grassy in the first few years after a fire. This is usually a fire driven vegetation type.

Species diversity is high, and composition can be quite variable. Tall shrubs are common and succulents are conspicuous as are a few grasses. *Mohria caffrorum* is a very common fern. Bulbs are very common. Alien herbs and grasses can be a major problem, especially after fire.

Rare and threatened species are often recorded in the poorly documented Swartland Shale Renosterveld around the foothills of the Piketberg Mountain. All Swartland Shale Renosterveld areas are conservation priorities as they are “Critically endangered” nationally, but particularly important are the slopes around the northwest base of the Piketberg, which have produced a number of new species in the last few years.

### Leipoldtville Sand Fynbos:

The Leipoldtville Sand Fynbos vegetation type is classified as “Endangered” nationally primarily as a result of it being heavily targeted for agriculture, as the deep, acid sandy soils are ideal for rooibos and potato cultivation. Exposed rock is rare within this vegetation type, although there may be small

sandstone inselbergs. The unit occupies the sandy coastal plain, plus areas of extensive, deep acid sands in the northern Swartland.

This is a medium to tall shrubland, with prominent Restionaceae, Proteaceae, Fabaceae (*Aspalathus*), Polygonaceae, relatively few succulents or deciduous species and many annuals. Geophytes are fairly diverse, but not abundant. Indigenous trees are only present around sandstone outcrops. 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. Given the exceptional concentration of rare, threatened and localised species in this unit the ongoing and rapid transformation of this habitat by agriculture is of major national conservation concern, made worse by the fact that no formal conservation areas protect this vegetation type. Agricultural transformation, primarily for potatoes and rooibos, is by far the most important pressure on this habitat, along with the associated effects such as a drop in the water table, which can result in the death of entire groundwater dependant ecosystems.

#### Piketberg Sandstone Fynbos:

Piketberg Sandstone Fynbos is classified nationally as “Least threatened” although none is included in statutory conservation areas while only 4% occurs in private nature reserves, because overall transformation is low (17%). The erosion product from these sandstones is causal to the Cape Lowland Alluvial vegetation occurring in the Krom Antonies River valley.

#### Piketberg Quartz Succulent Shrubland:

This vegetation type is described from the farm Draaihoek between Piketberg and Eendekuil (eastern foothills of the Piketberg Mountain and also occurs near Het Kruis and Redelinghuys (north of Piketberg Mountain) as well as near Sauer at the south-western foot of Piketberg Mountain. It is clearly associated with quartzites in Malmesbury Group shales around the base of Piketberg Mountain.

The Piketberg Quartz Succulent Shrubland is a low relatively sparse shrubland dominated by a sturdy succulent undescribed *Sarcocornia* sp. (*S. mossiana* complex) and includes prostrate leaf succulents such as *Drosanthemum asperulum*, *D. zygophylloides*, *Diplosoma retroversum* and *Psilocaulon parviflorum*. An undescribed *Limonium* sp. is also present in this vegetation type.

Geophytes present include *Albuca longipes*, *Drimia barkerae* and *Oxalis copiosa*. None of this vegetation is located in a formal conservation area although the owner of Draaihoek Farm has left that on his property undisturbed. This vegetation is structurally and ecologically like that found on the Knersvlakte but is separated by a mountain range. This little known vegetation occupies amongst the smallest area of any vegetation type in South Africa. It should be classified nationally as “Critically Endangered” because it occupies such a small area, yet the threat classification does not include this element.

#### Cape Lowland Alluvial Vegetation:

In its typical form the Cape Lowland Alluvial vegetation is a widespread type of riparian vegetation generally associated with coarse sandy alluvium which is found at the foothills at the base of Table Mountain Group sandstone mountains and extends onto the lowland plains along rivers in the Western Cape. The streams generally overtop their banks in winter. This vegetation mainly forms a woody fringe of short gnarled trees and shrubs along the sides of rivers. Typical species found in this vegetation are *Brabejum stellatifolium*, *Brachylaena neriifolia*, *Cliffortia strobilifera*, *Metrosideros angustifolius*, *Pronium serratum*, *Rhus angustifolia*, *Salix mucronata* and *Wachendorfia thyrsiflora*. In seepages and upland areas dense shrub cover (restios and *Erica* may be common), with *Phragmites* reeds less common, and few floating aquatics. Upland areas include many more typical Fynbos elements (Ericaceae, Restionaceae, *Cliffortia* spp; Cyperaceae) as soils are usually acidic and low in silt.

It should typically be found in the study area along the Krom-Antonies River on the slopes and foothills of the Piketberg Mountain extending approximately to its confluence with the Verloren- and Kruis Rivers. The more upland areas may support a number of rarer Fynbos species. The Cape Lowland Alluvial vegetation is classified nationally as being a “Critically endangered” vegetation type. Every effort should be made to restore as much as possible of the transformed areas potentially supporting it.

#### Cape Lowland Freshwater Wetlands:

This is a large category within the study area, found in a variety of different floodplain situations along major freshwater rivers (e.g. along the Verloren River) the topography is very flat, with silt-laden soils and occasional small depressions and flood channels which may hold water into the dry season. It occurs above the level of tidal influence, and is usually seasonally inundated.

The climate is not a major determinant of this vegetation type, although the winter floods are a function of the general climatic regime. Mid to late summer may see significant drying out of this habitat, but soil moisture levels are usually still high along the main rivers.

The floodplains mostly support a low grassy sedgeland and in occasional pools floating aquatics occur. Taller shrubs may occur on slightly better drained soils. Plant cover is generally high. Dense patches of *Typha capensis* and *Phragmites australis* regularly occur, usually in areas of permanent water.

On the floodplains, low to medium height sedges (< 0.4 m) are often dominant along with grasses, while reeds and bulrush are particularly common along the fringes of deeper waters. Halophytes may be present in slightly more brackish areas. Floating aquatics include waterblommetjies. Numerous alien invasive species are a feature, including red river gum, port jackson willow and other exotic legumes and even water hyacinth in the still areas of the more permanent deeper pools.

The lowland floodplains are not known to support many special plant species, but are of major importance for frogs and birds. The Verlorenvlei wetlands support an undescribed 3 m tall species of *Psoralea* that is endemic to the Sandveld, and is Red Data listed as Endangered. This vegetation is often heavily grazed by cattle which trample vegetation if kept in an area for too long. It is prone to alien plant invasion, with everything from grasses to large trees being a problem.

## **FAUNA**

*(Information extracted from the Final Scoping Report for the Proposed Riviera Tungsten Open-Cast Mining Project, Withers Environmental Consultants, 2009; Moutonshoek Protected Environment Management Plan (draft), 2018)*

The Final Scoping Report compiled by Withers Environmental Consultants in 2009 for the previous Riviera Tungsten mining right application mentioned that reptiles such as angulate tortoises, sand snakes, grass snakes, mole snakes, puff adders and even cape cobras may be present on or visit the study area. It was reported that Mr Atherton de Villiers of CapeNature recorded Skaapsteker, Namib sand snake and Cross-marked grass snake in the nearby Verlorenvlei area between 1972 and 1985.

The draft environmental management plan for the Moutonshoek Protected Environment (2018) mentions the presence of three legless lizards, two Red Data Book dwarf burrowing skinks, the Rough-scaled Girdled Lizard, the Austen's Thick toed Gecko, Southern Speckled Padloper, and the Parrot-beaked Tortoise, to name but a few, within the study area.

Withers postulated that birds found in the area will most likely include game birds (such as guinea fowl) and small insectivorous species such as Layard's Titbabbler, Greybacked Cisticola, Karoo Prinia, Karoo Robin, Stonechat and Southern Grey Tit. European Bee-eaters are known to breed in the area while raptors such as Rock Kestrels, Jackal Buzzards, Steppe Buzzards and Lanner Falcons are likely to be seen utilizing the updrafts formed against the Piketberg Mountains. Verlorenvlei is the type locality for several bird species including the Hottentot Teal, collected by Sir Andrew Smith during two collecting trips undertaken in 1829 and 1832 (CSIR Research Rep. 431).

A 1981 survey by Stuart (in CSIR Research Rep. 431.) indicated the presence of the following mammals in the Verlorenvlei area: Bat-eared fox; Cape fox; Black-backed jackal; Striped polecat; Small-spotted genet; Suricate; Yellow mongoose; Cape grey mongoose; Water mongoose; Leopard; African wild cat and Caracal. Cape clawless otters occur in the vlei and other small animals including Striped field mice, Vlei rats, Pygmy mice and Cape gerbils probably occur in the area.

## **HUMAN ENVIRONMENT**

### **CULTURAL AND HERITAGE ENVIRONMENT**

The Moutonshoek Valley is rich in history that extends from the Stone Age to the formal cultivation of the area in the eighteen century. Stone Age activity is supported by rock art and the presence

of stone implements. The MPE draft environmental management plan (2018) reports that the original farm (Namaquasfontein) was received as loan farm in 1723, which led to the discovery of the valley. The presence of permanent water contributed to a steady increase in the number of tenants within the Valley. The plan reports the main agricultural practises to have been stock farming, as well as the growing of vegetables, sowing of wheat and rice, and later citrus production. The first Smit family reportedly settled in the area in 1805, and the first school was opened on 1 October 1891.

**SOCIO-ECONOMIC ENVIRONMENT**

*(Information extracted from the Social and Labour Plan for the Proposed Riviera Tungsten Mining Right Application, 2018)*

The proposed mining area is located in the Moutonshoek Valley that forms part of Ward 5 of the Bergrivier Local Municipality. Ward 5 comprises the Western and Southern portion of Eendekuil, Redelinghuys and Genadenberg which belongs to the Moravian Church of South Africa. Eendekuil is situated 30 km north of Piketberg. This village was the terminus of the Cape Town railway until the end of the Anglo-Boer War, and it remains the railhead for the Citrusdal region, which lies on the other side of the Olifants River.

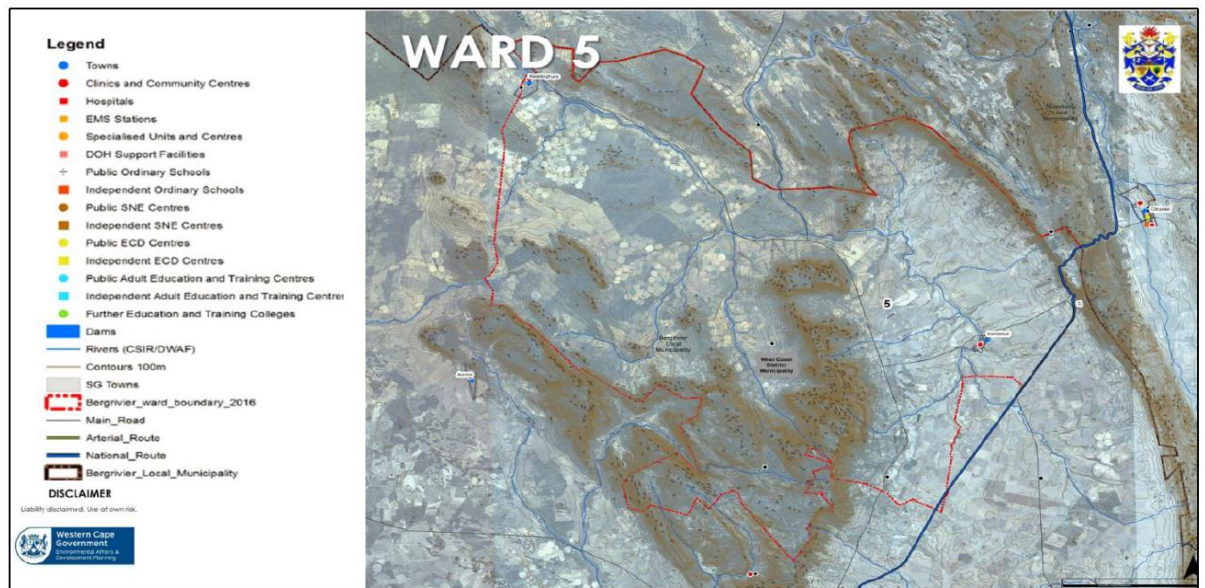


Figure 6: Bergrivier municipal boundary of Ward 5

The area is predominantly rural and the Integrated Development Plan (IDP), 2017 – 2022 of the municipality presents the demographics of Ward 5 as shown in the figures below:



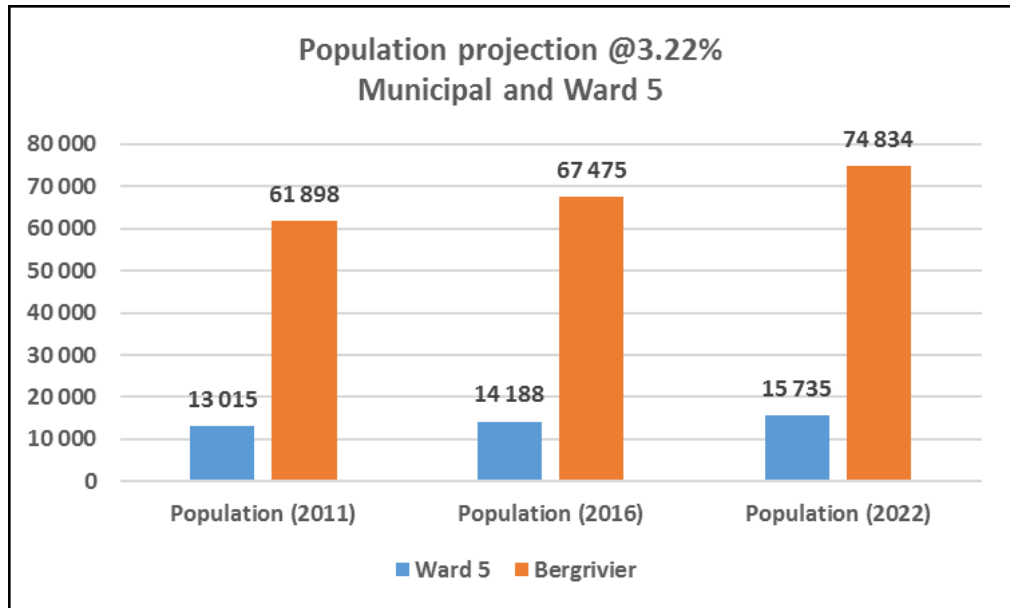


Figure 7: Population projections 2011 – 2022 of Ward 5 (Image obtained from the Bergervier Local Municipal IDP, 2017-2022).

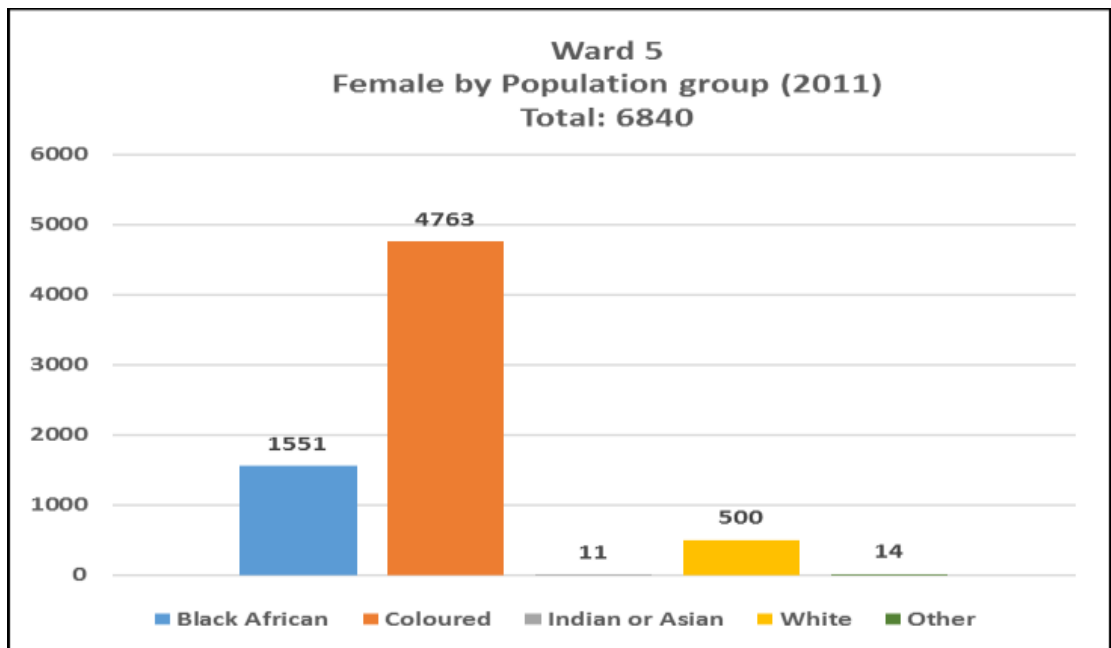


Figure 8: Number of females by population group within Ward 5 (Image obtained from the Bergervier Local Municipal IDP, 2017-2022).

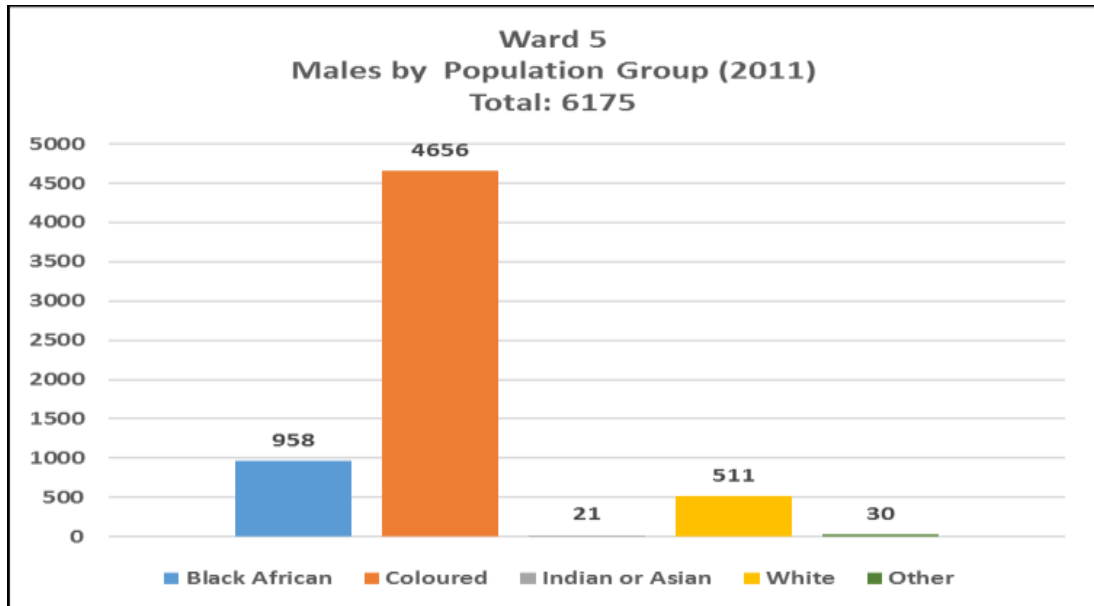


Figure 9: Number of males by population group within Ward 5 (Image obtained from the Bergrivier Local Municipal IDP, 2017-2022).

The gender composition between 2001 and 2011 remained relatively unchanged and well balanced, with a slightly higher ratio of females to males. However, it is projected that the split between males (48.6%) and females (51.4%) in 2017 will change slightly in 2023 with males on 48.5% and females on 51.5%. The population is predominantly youthful with 58% of the population falling within the national definition of youth (under 35). There is a significant increase of 24.2% in this age group.

**Economic Profile:**

Bergrivier comprised R 2 851 billion (or 14.87%) of the District’s total R 19,16 billion GDP at the end of 2015. The West Coast District (WCD) economy was affected by the global recession. During 2013 the real GDP only grew by 2% and in 2014 it dropped to 1.1%. The growth rates of the WCD of 2013/14 are below the average rate of 2.6% which occurred between 2010 - 2014. For the 2015 - 2020 forecast period the estimated average annual growth is projected at 2.6% (Western Cape Government: Municipal Economic Review & Outlook: West Coast District 2015, 2<sup>nd</sup> Draft).

Bergrivier employed 16.1% of the West Coast labour force in 2015 and employment growth remained stagnant with an average of 0.2% per annum since 2005. The average employment growth rate of the District was 1.11% per annum. Bergrivier has experienced significant job losses prior to and during the recession, but these jobs have been recovered and an estimated 586 (net) additional jobs have been created since 2005. The majority of the formally employed workforce operate within the low-skill sector (45.9 %). Most of the job losses was then also in this sector. The semi-skilled sector employed 2.6 % of the workforce and declined by 0.4 % per annum since 2005. The informal sector employs 19.1 % of the workforce and grew substantially at a rate of 5.1 % per

annum as it absorbed most of the job losses from the low and semi-skilled sectors. The skilled sector employed only 2 789 workers and grew at a slow rate of 1.8 % per annum since 2005.

The following figure indicates the growth across sectors for the period 2000 - 2011. As can be seen, the agriculture, forestry and fishing sector remains in decline.

Industry	Bergrivier
Agriculture, forestry and fishing	-2.7
Manufacturing	2.3
Construction	9.2
Commercial Services	6.4
General government % Communi-ty, social & personal services	-1.7
Other	-7.2
West Coast District	2.2

*Figure 10: Sectorial growth 2005 - 2013.*

The following figure shows the Real GDP forecast for the period 2015 - 2020. The estimated average annual recovery growth rate is expected to be 2.6% for the period 2015 - 2020. The table shows that during 2015 and 2016 the forecast is below the estimated average annual recovery growth rate of 2.6%. However, from 2017 onwards the GDP forecast growth is higher than the average annual recovery growth rate.

Forecast %							
Sector	2015	2016	2017	2018	2019	2020	2015-2020
Agriculture, forestry & fishing	0.3	0.5	1.0	0.8	0.9	1.1	0.8
Mining & quarrying	1.3	1.0	1.0	0.8	1.3	1.6	1.2
Manufacturing	0.6	1.8	2.1	2.1	2.7	2.6	2.0
Electricity, gas & water	-1.3	1.3	1.3	1.4	2.0	2.4	1.2
Construction	3.3	2.7	4.6	4.8	4.7	5.0	4.2
Wholesale & retail trade, catering and accommodation	1.7	2.1	3.0	3.1	3.7	3.7	2.9
Transport, Storage, and communication	2.5	2.4	3.8	4.0	4.0	4.1	3.5
Finance, insurance, real estate and business services	3.5	2.9	3.8	3.8	3.9	4.4	3.7
Community, social and personal services.	1.3	1.6	2.4	2.5	2.4	2.5	2.1
General Government	1.2	1.0	1.7	1.6	1.8	1.9	1.5
Total	1.8	1.9	2.7	2.8	3.0	3.2	2.6

(Western Cape Government: Municipal Economic Review & Outlook: West Coast District 2015).

Figure 11: Real GDP forecast by broad sector for 2015 – 2020.

Tourism is part of the wholesale and retail trade, catering and accommodation sector and is one of the largest sources of employment in the country and uses a high rate of unskilled labour. The Bergrivier Tourism Survey 2015 indicated that the 183 registered tourism products in the Bergrivier Municipal Area create an estimated 427 permanent jobs and 191 temporary jobs during high season. National, Provincial and Regional strategies are placing a high priority on marketing, brand management and stimulating regional and domestic tourism and interventions include the development of business and events tourism, niche product, rural tourism (small town) development, responsible tourism development, increasing investment in tourism development, increasing investment in the tourism sector, transformation of the sector, promoting decent work, improving service excellence, addressing community beneficiation and effective co-operative partnerships. The Bergrivier Tourism Organisation is currently working on three route developments to raise the standards of product offerings in the area. Each offering ample skills development opportunities.

**Employment Profile:**

25.5 % of the youth is not employed or is busy with education or training (of which 28% of those are female and 25% are males). Comparing the youth with their households, it is proved that 8.3% of the youth lives in a household without an employed adult. 92% of the youth thus lives in a household with at least one employed adult. This rate is higher than those of the West Coast as

well as those of the Western Cape Province. This means that the 92% of the youth are being fed by these households, even though only one adult in these households are employed.

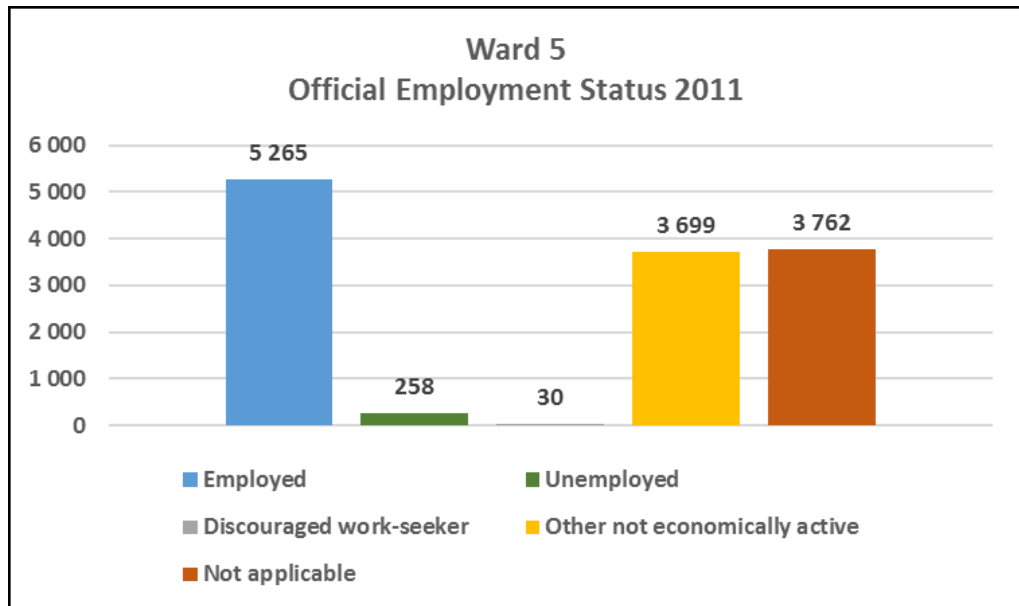


Figure 12: Official employment status of residents within Ward 5 (Image obtained from the Bergrivier Local Municipal IDP, 2017-2022).

**Infrastructure and Services:**

Although the municipality is only an implementation agent for housing, it is important to highlight the backlog in housing in Ward 5: and/or GAP housing.

Motivation for the southern extension is that this section of town has a waterborne sewage system and the northern section not. Due to the low growth rate and low development potential of Eendekuil there is no need to provide for subsidised housing in Eendekuil and this housing should be accommodated in the larger towns of Piketberg, and Porterville to ensure sustainable development of all towns. However, due to Eendekuil's role of supplying housing to farm workers of the region there is a need for land to supply serviced erven for self-build housing.

Due to the low growth rate and low development potential of the town there is no need to provide for subsidised housing in Redelinghuys and this housing should be accommodated in the larger towns of Piketberg and Velddrif/ Laaiplek to ensure sustainable development of all towns.

- Source of Water

Regional/local water scheme (operated by municipality or other water services provider)	Borehole	Spring	Rain water tank	Dam/pool/stagnant water	River/stream	Water vendor	Water tanker	Other
482	7	21	-	-	1	-	-	7

Figure 13: Water sources of Ward 5

- Toilet facilities

None	Flush toilet (connected to sewerage system)	Flush toilet (with septic tank)	Chemical toilet	Pit toilet with ventilation (VIP)	Pit toilet without ventilation	Bucket toilet	Other
16	440	37	-	-	-	1	24

Source: StatsSA2011

Figure 14: Toilet facilities of Ward 5

- Refuse removal

Removed by local authority/private company at least once a week	Removed by local authority/private company less often	Communal refuse dump	Own refuse dump	No rubbish disposal	Other
515	-	-	3	1	-

Source: StatsSA2011

Figure 15: Refuse removal services in Ward 5

- Energy or fuel for cooking

Electricity	Gas	Paraffin	Wood	Coal	Animal dung	Solar	Other	None	Unspecified	Not applicable
509	6	-	4	-	-	-	-	-	-	-

Source: StatsSA2011

- Energy or fuel for lighting

Electricity	Gas	Paraffin	Candles (not a valid option)	Solar	None	Unspecified
512	-	-	5	-	2	-

Source: StatsSA2011

Figure 16: Energy source for cooking and lighting in Ward 5

**(b) Description of the current land uses.**

The area earmarked for the proposed Riviera Tungsten mine extends over Portion 1 of Farm 297, Portion 6 (Remaining Extent) of the farm Namaquasfontein 76, and Portion 21 of the farm Namaquasfontein 76 situated within the Moutonshoek Valley. The primary land use of the earmarked properties is agriculture/farming (including horse breeding), with Farm 297/1 and Namaquasfontein 76/21 recently included in the Moutonshoek Protected Environment, extending the land use to conservation.

The proposed mining footprint is zoned as Agriculture Zone 1 in terms of the Bergrivier Municipality (BLM): Integrated Zoning Scheme By-Law. Agricultural Zone 1 has agriculture as primary use and does not allow for mining or prospecting. BLM therefore requires that a land use application must be made in terms of Section 86(1) of the Bergrivier Municipality By-Law. A land development application will also be submitted to the Department of Environmental Affairs and Development Planning in terms of the Land Use Planning Act 2014 (Act No 13 of 2014).

The land use of the surrounding properties includes, but is not limited to, export fruit production, grazing, wheat production, potato farming, horse breeding, livestock, tourism and conservation of identified natural areas.

**(c) Description of specific environmental features and infrastructure on the site****SPECIFIC ENVIRONMENTAL FEATURES****SITE SPECIFIC TOPOGRAPHY**

*(Information extracted from the Technical Review of the Riviera Tungsten Deposit, Western Cape Province, South Africa, SRK Consulting, 2018)*

The proposed mining area is situated in the north-south trending Moutonshoek Valley at an altitude of approximately 105 mamsl and is flanked by the Piketberg Range of mountains. The valley is open to the north. The area is well drained by a trellis pattern of streams which flow into the perennial Krom Antonies River. This indicates that the ground has a fairly uniform resistance to water erosion. The figure below shows the elevation profile of the footprint area from the highest point in the south-east (346 mamsl) to the lower reaches of the Krom Antonies River (91 mamsl). The far northern point of the proposed mining area is found at 163 mamsl.

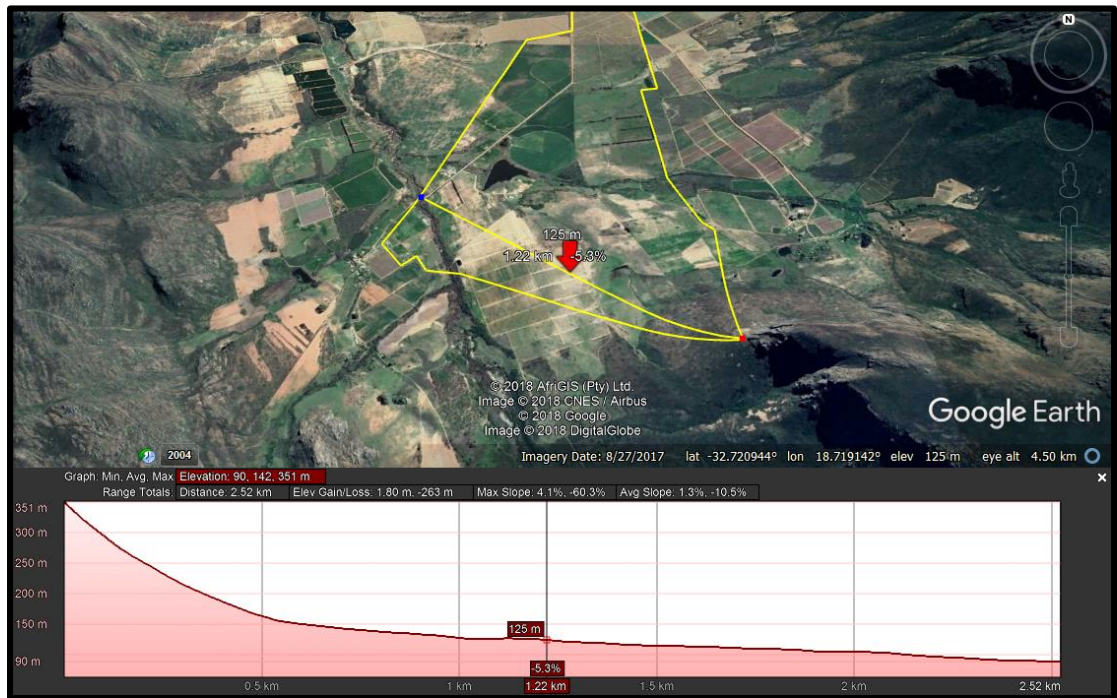


Figure 17: Elevation profile of the proposed Riviera Tungsten mining footprint from the highest point in the south-east (346 mamsl) to the lower reaches of the Krom Antonies River (91 mamsl).

### SITE SPECIFIC GEOLOGY

(Information extracted from the Technical Review of the Riviera Tungsten Deposit, Western Cape Province, South Africa, SRK Consulting, 2018)

Tungsten and molybdenum mineralization is hosted by the Riviera pluton, which forms part of Neoproterozoic-Paleozoic Cape Granite Suite. This magmatic suite intruded greenschist facies meta-volcano-sedimentary rocks of the Malmesbury Group in the south-western Cape. The Group forms part of the Saldania Sub-province, the southern continuation of a Pan-African mobile belt system that extends along the west coast of southern Africa and includes the Gariep and Damara Sub-provinces in Namibia.

Tectonostratigraphically, the Riviera pluton intruded along the boundary between the Swartland and Boland Terranes and is hosted by a polyphase deformed greenstone sequence correlated with the Bridgetown Formation. This sequence consists of chlorite and actinolite-chlorite schists with interbedded marble and calcareous mica schists. The Riviera pluton consists of at least three intrusive phases:

15. early quartz monzonite porphyry (QMP)
16. biotite monzogranite (BMG)
17. late-stage aphanitic granite-monzogranite (AGM)

Single zircon geochronology indicated an age between 507 and 516 Ma and groups these intrusives with the late-tectonic A-type granites of the Cape Granite Suite (Chemale et al, 2010).



Petrographic studies have shown that the entire Riviera pluton, including all three intrusive phases, has been affected by superimposed, pervasive hydrothermal alteration across lithological boundaries. Distribution of the polymetallic mineralization is closely related to particular styles and possibly events of hydrothermal alteration. Of the three styles present, phyllic alteration is the most common and has affected all the intrusive phases of the pluton. It is characterized by replacement of potash feldspar and plagioclase by sericite, saussurite and phengite. Biotite alters to chlorite and disseminated pyrite and pyrrhotite is common. Where phyllic alteration grades into argillic alteration, illite and kaolinite become more prominent. Areas of phyllic and argillic alteration are generally poorly mineralized.

Potassic alteration is marked by the presence of new unaltered potassic feldspar and is superimposed onto the phyllic alteration mostly in the QMP. It forms a semi-conformable zone, particularly toward the top or cupola of the pluton and parallels the granite–wall rock contact. It is the most intense and complex alteration and also includes irregular patches of variable dimensions consisting of dark diopside-grandite endoskarn. As a zone it contains the most significant W-Mo mineralization with the best concentrations in the endoskarn. A late stage W-Mo mineralized quartz-carbonate vein system has traversed the pluton and consists of at least three different orientations and phases. The immediate, greenstone dominated, wall rocks are poorly mineralized and the development of exoskarn is a rarity.

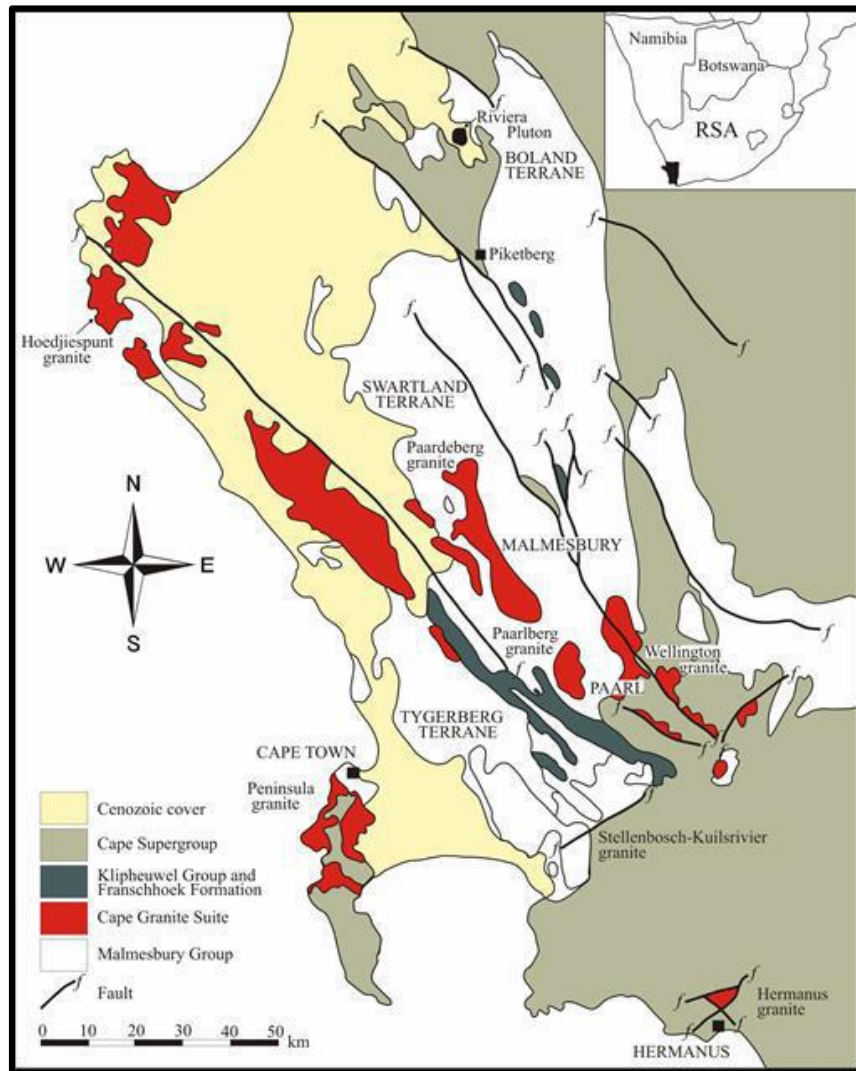


Figure 18: Indication of the regional geology showing the Riviera pluton. (Image obtained from the SRK Report, 2018)

**SITE SPECIFIC HYDROLOGY**

The hydrology of the proposed mining footprint is representative of the regional hydrology described for the study area earlier in this report. The Krom Antonies River dissects the western corner of the proposed mining area and is of particular importance to this assessment as it forms part of the Verlorenvlei catchment area. Further to this, the earmarked area harbours various drainage lines with associated floodplains and potential wetlands of importance.

CapeNature commented that the proposed mining area falls within the highly sensitive and already water stressed Verlorenvlei catchment. CapeNature highlighted that all new activities within the Krom Antonies River valley should result in active upgrading and rehabilitation of the riverine system, based on the ecological importance of the Verlorenvlei system and recognising the duty South Africans have at a national level to protect and conserve the wetlands associated with the RAMSAR site.

As posed by CapeNature the Verlorenvlei 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 redbin (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). The Krom Antonies River has a considerable number of critically endangered Verlorenvlei redbin in its upper reaches where the proposed mining footprint is located. Although this area is degraded in certain areas, with environmentally sensitive farming practices and proper rehabilitation, this river could return to a good condition with a highly conservation worthy fish assemblage. The Verlorenvlei system is already under high levels of water stress, with fish and other water dependent biota confined to small pools in summer. The indigenous fish in these pools are very susceptible to changes in water quality and water temperature during these periods.

Scientific Aquatic Services CC was contracted to undertake a comprehensive freshwater ecological assessment of the study area during the EIA process. The scope of works includes an investigation of the watercourses within the study area, as well as the delineation of those watercourses. The assessment will fulfil the ecological assessment requirements of the EIA process as required in terms of the NEMA, 1998, and will provide the required information for water use licensing in terms of the NWA, 1998. The report will include an assessment of the wetland ecology as well as aquatic ecology with specific reference to aquatic habitat units that may be impacted by the proposed mining development.

The state of the groundwater (site specific) and the associated potential impact of the proposed mining development thereon will be assessed by GHT Consulting Scientists. The study will include, amongst others, a hydro census, chemical water analysis, and a geophysical investigation.

#### **SITE SPECIFIC AIR QUALITY AND NOISE AMBIANCE**

Emission into the atmosphere is controlled by the National Environmental Management: Air Quality Act, 2004. The proposed mining activity does not trigger an application in terms of the said act, and emissions to be generated is expected to mainly entail dust due to the displacement of soil, blasting, crushing of ROM and transport of material on gravel roads. Noise will be generated as a result of blasting, crushing and screening, as well as loading, stockpiling and transporting of material.

The proposed impact of the Riviera Tungsten development on the air quality and noise ambiance of the receiving environment will be assessed during the EIA process by Enviroworks. The Air and Noise Impact Assessment will inform on the baseline air quality and noise ambiance of the study area, as well as advice on the potential impacts that the proposed mining activity may have on the receiving environment. The report will further proposed mitigation and management measures to address/minimise identified impacts.

## **SITE SPECIFIC MATTERS WITH REGARD TO THE MOUTONSHOEK PROTECTED ENVIRONMENT**

The proposed Riviera Tungsten project overlaps the MPE on Portion 1 of Farm 297, and Portion 21 of Namaquasfontein 76.

In terms of section 48(1) of the NEM:PAA, 2004: *"Despite other legislation, no person may conduct commercial prospecting or mining activities a) in a special nature reserve or nature reserve; b) in a protected environment without the written permission of the Minister and the Cabinet member responsible for minerals and energy affairs; or c) in a protected area referred to in section 9(b) or (d)".* Section 48(4) continues that *"When applying this section, the Minister must take into account the interests of local communities and the environmental principles referred to in section 2 of the NEMA, 1998."*

In light of the above, consideration of the MR application over a portion of the Moutonshoek Protected Environment rests with the DMR 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.

### **SITE SPECIFIC GROUNDCOVER**

Although the site specific groundcover of the study area could, to date, not be determined as access to the study area was denied, the situation is expected to be similar to the results observed by Dr Boucher during his study in 2008.

CapeNature confirmed, in their comments submitted on the BID, that although a portion of the area to be impacted directly by the proposed mining activities has largely been transformed by agricultural activities, there are still important areas supporting indigenous vegetation, including Leipoldtville Sand Fynbos (Endangered), Swartland Shale Renosterveld (Critically Endangered), Piketberg Quartz Succulent Shrubland (Critically Endangered according to the latest analyses conducted by CapeNature), Piketberg Sandstone Fynbos (Vulnerable), Cape Lowland Alluvial Vegetation (Critically Endangered), and Cape Lowland Freshwater Wetlands. CapeNature further state that the Western Cape Biodiversity Spatial Plan has determined terrestrial and aquatic Critical Biodiversity Areas (CBA's) as well as Ecological Support Areas (ESA's) within and adjacent to the application area. The area also falls within the Greater Cederberg Biodiversity Corridor.

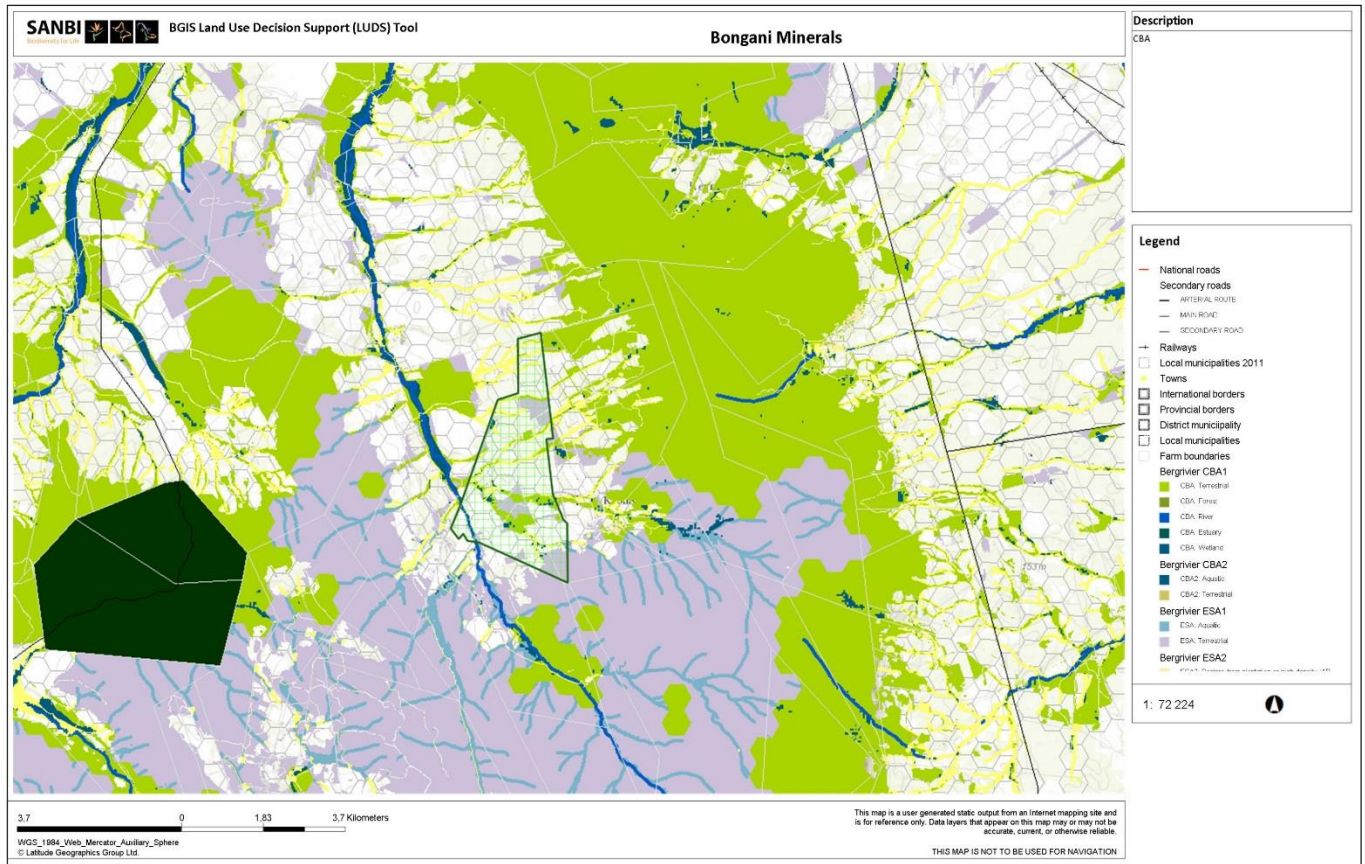


Figure 19: Map showing the position of the Bergivier CBA (green) and ESA (purple) areas in relation to the mining footprint.

Dr PJ du Preez (Enviro-Niche Consulting) was appointed to conduct a full ecological study of the proposed footprint area. The study will describe the *status quo* with regard to vegetation cover and the presence of terrestrial fauna, identify CBA's, ESA's and other areas/species of concern and proposed buffer zones, mitigation measures, and management actions to be considered during the EIA process. The findings of the study will be collated onto a sensitivity map to be overlain by the footprint of the proposed mining area. The study will be incorporated into the DEIAR to be distributed for public perusal.

**SITE SPECIFIC FAUNA**

The earmarked footprint has been greatly altered by agricultural activities and thus supports a low floral biodiversity and limited breeding habitats, with the exception of suitable habitat along the Krom Antonies River.

As mentioned earlier, Dr Du Preez will assess the terrestrial faunal component of the study area, identify specially protected species and/or species of concern, and proposed buffer zones and mitigation measures to be implemented during the operational phase of the project.

## **SITE SPECIFIC CULTURAL AND HERITAGE ENVIRONMENT**

The cultural and heritage environment with specific reference to archaeological- and palaeontological aspects will be assessed during the EIA process. Mr FP Coetzee (Department of Archaeology and Anthropology, UNISA) will be responsible for the compilation of the Phase 1 Heritage Impact Assessment Report (HIA). The HIA will describe all archaeological and historical artefacts, structures and settlements documented in the area, establish the level of sensitivity/importance of the archaeological and historical remains in the area, proposed practical mitigation measures for potential impacts, indicate limitations and assumptions, and propose recommendations on the way forward. Dr H Fourie will comment on the palaeontological status of the study area.

A Notice of Intend to Develop will be submitted to Heritage Western Cape (HWC), of which the HIA, inclusive of the palaeontological study, will form part as required in terms of the National Heritage Act, 1999. The outcome of the studies as well as comments received from HWC will be incorporated into the DEIAR.

## **SITE SPECIFIC SOCIO-ECONOMIC ENVIRONMENT**

A Social and Labour Plan (SLP) was submitted as part of the MR application of the Applicant and will be discussed in detail DEIAR. The SLP forms the basis for the implementation of programmes and projects as key activity drivers of the development and operation of the proposed Riviera Tungsten Project in Piketberg. It offers the building blocks for future economic development and growth of the local area. The scope of the document offers the Riviera Tungsten Project a platform to engage in the development of the local economy and community through a basis of human resource development, economic delivery, business development and community participation. The nature of the document is therefore aimed at the widest possible comprehension and stimulation for inputs.

The SLP notes that the Riviera Tungsten Mine proposes to have 211 employees who will support approximately 530 dependents. Due to the fact that most of the employees will reside within Bergrivier, it is fair to presume that the majority of monthly earned salaries will be spent in the local area. Indirectly, through the payment for services and suppliers the mine also supports employment of the procurement partners.

CapeNature highlighted investment made in projects and initiatives in the area and listed for example, the Working for Wetlands project focused on the clearing of alien vegetation from the Verlorenvlei system, and the development of eco-tourism initiatives within the Verlorenvlei system dependent on the long-term functioning of the wetland system.

Enviroworks was appointed to investigate and assess the potential socio-economic impact of the proposed project on the receiving environment.

## SITE SPECIFIC EXISTING INFRASTRUCTURE

A complete list of the site specific infrastructure, present within the proposed mining footprint, can only be compiled once access is granted to the study area.

Eskom supplied a map showing the location of 11kV overhead power lines within the proposed mining footprint area and submitted the following developmental conditions:

- ∞ No building may be erected within 9 (nine) metres from either side of the centre line from any Eskom 11 / 22kV power line crossing the property involved or within 6 (six) metres from any structure supporting mechanism.
- ∞ No building may be erected within 3 (three) metres from any Eskom underground cable.
- ∞ The location of the cable from the Eskom transformer to the distribution box must be pointed out to the contractor by the owner and is the owner's responsibility.
- ∞ A copy of this letter / documentation must be handed to the contractor who must have it available on site.
- ∞ That existing Eskom power lines and infrastructure are acknowledged as established infrastructure on the properties and any rerouting or relocation would be for the cost of the applicant/developer.

The engineering services report that will form part of the DEIAR will advise on the existing infrastructure and the possible use thereof, as well as the need for new structures and services.

### (d) Environmental and current land use map.

(Show all environmental, and current land use features)

The environmental and current land use map is attached as Appendix 6.

### i) Impacts identified

(Provide a list of the potential impacts identified of the activities described in the initial site layout that will be undertaken, as informed by both the typical known impacts of such activities, and as informed by the consultants with affected parties together with the significance, probability and duration of the impacts)

The following potential impacts were identified for the main activities associated with each phase of the proposed project. The listed impacts must be treated as preliminary, to be expanded upon proper assessment of the study area during the EIA process. The significance rating was determined using the methodology as explained under *j) Methodology used in determining and ranking the significance of environmental impacts*. The impact rating listed below was determined for each impact **prior** to bringing the proposed mitigation measures into consideration. The degree of mitigation indicates the possibility of partial, full or no mitigation of the identified impact.

**SITE ESTABLISHMENT:**

Mining within the Moutonshoek Protected Environment

**Rating: High**

**Degree of Mitigation: No Mitigation**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
5	5	5	5	5	5	5	25

Potential relocation of affected farm owners/residents

**Rating: High**

**Degree of Mitigation: Partial**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
5	5	4	4.6	5	5	5	23

Increased traffic on the DR02172

**Rating: High**

**Degree of Mitigation: Partial**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
3	5	4	4	5	5	5	20

Increased dust emissions along the DR02172

**Rating: High**

**Degree of Mitigation: Partial**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
4	5	4	4.3	5	5	5	21.5

Visual intrusion as a result of site establishment

**Rating: High**

**Degree of Mitigation: Partial**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
3	5	4	4	5	5	5	20

Destruction/loss of indigenous vegetation from mining footprint

**Rating: Medium**

**Degree of Mitigation: Partial**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
3	5	5	4.3	4	1	2.5	10.8



Potential loss of/negative impact on wetlands within the affected area

**Rating: Medium**

**Degree of Mitigation: Fully Mitigated**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
5	5	5	5	4	1	2.5	12.5

Potential impact on fauna within footprint area

**Rating: Low-Medium**

**Degree of Mitigation: Partial**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
3	5	5	4.3	3	1	2	8.6

Potential impact on areas/infrastructure of heritage or cultural concern

**Rating: Low-Medium**

**Degree of Mitigation: Fully Mitigated**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
5	5	5	5	2	1	1.5	7.5

Potential impact on the safety of the Moutonshoek Valley due to increased human concentration

**Rating: High**

**Degree of Mitigation: Partial**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
5	5	4	4.6	4	5	4.5	20.7

Increased work opportunities to local residents (**Positive Impact**)

**Rating: Medium-High**

**Degree of Mitigation: N/A**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
1	5	5	3.6	5	5	5	18

**STRIPPING AND STOCKPILING OF TOPSOIL:**

Dust nuisance caused by the disturbance of the soil

**Rating: Low-Medium**

**Degree of Mitigation: Fully Mitigated**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
3	2	4	3	4	2	3	9

Noise nuisance caused by earthmoving machinery

**Rating: Low-Medium**

**Degree of Mitigation: Partial**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
3	2	3	2.6	4	2	3	7.8

Potential infestation of the topsoil heaps with weeds or invader plant species

**Rating: Medium**

**Degree of Mitigation: Fully Mitigated**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
3	5	4	4	4	2	3	12

Loss/contamination of stockpiled topsoil

**Rating: Low-Medium**

**Degree of Mitigation: Fully Mitigated**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
3	5	1	3	4	2	3	9

Potential contamination of construction area and surface runoff as a result of hydrocarbon spillages

**Rating: Medium**

**Degree of Mitigation: Fully Mitigated**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
4	4	2	3.3	4	3	3.5	11.6

Potential erosion of denuded areas

**Rating: Low-Medium**

**Degree of Mitigation: Fully Mitigated**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
4	5	1	3.3	4	2	3	9.9

Potential sedimentation/contamination of the Krom Antonies River through surface runoff

**Rating: Medium**

**Degree of Mitigation: Fully Mitigated**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
4	5	5	4.6	4	2	3	13.8

**OVERBURDEN STRIPPING AND STOCKPILING:**

Visual intrusion associated with the excavation activities

**Rating: High**

**Degree of Mitigation: Partial**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
3	5	4	4	5	5	5	20

Dust nuisance caused by the transport of overburden and denuded stockpile area

**Rating: Medium**

**Degree of Mitigation: Fully Mitigated**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
3	2	3	2.6	5	5	5	13

Noise nuisance caused by earthmoving machinery

**Rating: Medium**

**Degree of Mitigation: Partial**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
3	2	3	2.6	4	5	4.5	11.7

Potential infestation of the overburden heaps with weeds or invader plant species

**Rating: Medium**

**Degree of Mitigation: Fully Mitigated**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
3	5	4	4	4	2	3	12

Potential contamination of surface runoff as a result of hydrocarbon spillages

**Rating: Medium**

**Degree of Mitigation: Fully Mitigated**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
4	4	2	3.3	4	3	3.5	11.6

Potential sedimentation/contamination of the Krom Antonies River through surface runoff

**Rating: Medium**

**Degree of Mitigation: Fully Mitigated**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
4	5	5	4.6	4	2	3	13.8

**OPENCAST MINING (INCLUDING BLASTING):**

Health and safety risk posed by blasting activities

**Rating: Medium**

**Degree of Mitigation: Fully Mitigated**

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
5	5	5	5	3	1	2	10

Dust nuisance as a result of blasting activities

**Rating: Medium-High**

**Degree of Mitigation: Partial**

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
4	5	4	4.3	5	3	4	17.2

Noise nuisance caused by blasting activities

**Rating: Medium-High**

**Degree of Mitigation: Partial**

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
4	5	4	4.3	5	3	4	17.2

Light pollution due to shift work

**Rating: Medium-High**

**Degree of Mitigation: Partial**

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
2	5	4	3.6	5	5	5	18

Potential flooding of opencast pit / other work areas

**Rating: Low**

**Degree of Mitigation: Partial**

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
3	1	1	1.6	3	2	2.5	4

**UNDERGROUND MINING:**

Potential health and safety impact to mine employees

**Rating: Medium**

**Degree of Mitigation: Fully Mitigated**

			Consequence			Likelihood	Significance
Severity	Duration	Extent		Probability	Frequency		
5	5	5	5	3	1	2	10

Potential impact on groundwater sources

**Rating: High**

**Degree of Mitigation: Fully Mitigated**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
4	5	5	4.6	4	5	4.5	20.7

Impact on surface stability

**Rating: Low-Medium**

**Degree of Mitigation: Fully Mitigated**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
5	5	1	3.6	4	1	2.5	9

**TRANSPORT OF ROM TO STOCKPILE AREA**

Dust nuisance due to the movement of earthmoving equipment and denuded stockpile area

**Rating: Medium**

**Degree of Mitigation: Fully Mitigated**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
3	2	3	2.6	5	5	5	13

Noise nuisance generated by earthmoving equipment

**Rating: Medium**

**Degree of Mitigation: Partial**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
3	2	3	2.6	4	5	4.5	11.7

Light pollution due to shift work

**Rating: Medium-High**

**Degree of Mitigation: Partial**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
2	5	4	3.6	5	5	5	18

Potential contamination of surface runoff as a result of hydrocarbon spillages

**Rating: Medium**

**Degree of Mitigation: Fully Mitigated**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
4	4	2	3.3	4	3	3.5	11.6

**PROCESSING OF ROM:**

Dust nuisance generated from the crushing and screening area

**Rating: Medium**

**Degree of Mitigation: Fully Mitigated**

Severity	Duration	Extent	Consequence	Probability	Frequency	Likelihood	Significance
3	2	3	2.6	5	5	5	13

Potential impact on the air quality of the affected environment

**Rating: Medium-High**

**Degree of Mitigation: Fully Mitigated**

Severity	Duration	Extent	Consequence	Probability	Frequency	Likelihood	Significance
4	5	4	4.3	4	5	4.5	19.4

Noise nuisance stemming from the crushing and screening infrastructure

**Rating: Medium**

**Degree of Mitigation: Partial**

Severity	Duration	Extent	Consequence	Probability	Frequency	Likelihood	Significance
3	2	3	2.6	4	5	4.5	11.7

Light pollution due to shift work

**Rating: Medium-High**

**Degree of Mitigation: Partial**

Severity	Duration	Extent	Consequence	Probability	Frequency	Likelihood	Significance
2	5	4	3.6	5	5	5	18

Potential seepage from the slimes dam

**Rating: Medium-High**

**Degree of Mitigation: Fully Mitigated**

Severity	Duration	Extent	Consequence	Probability	Frequency	Likelihood	Significance
4	5	5	4.6	3	5	4	18.4

Potential contamination of environment as a result of improper waste disposal

**Rating: Medium**

**Degree of Mitigation: Fully Mitigated**

Severity	Duration	Extent	Consequence	Probability	Frequency	Likelihood	Significance
4	4	2	3.3	4	3	3.5	11.6

Increased traffic along the DR02172 (transport of water)

**Rating: High**

**Degree of Mitigation: Partial**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
3	5	4	4	5	5	5	20

Potential decrease in water demand from local resources as a result of the offsite reverse osmosis plant  
**(Positive Impact)**

**Rating: Medium-High**

**Degree of Mitigation: N/A**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
1	5	5	5	5	5	5	18

**TRANSPORT OF APT TO SALDANHA BAY IDZ:**

Increased traffic along the DR02172

**Rating: High**

**Degree of Mitigation: Partial**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
3	5	4	4	5	5	5	20

Overloading of trucks impact road infrastructure

**Rating: Medium - High**

**Degree of Mitigation: Fully Mitigated**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
3	5	5	4.3	4	5	4.5	19.4

Increased income generated within the Moutonshoek Valley / Piketberg area **(Positive Impact)**

**Rating: Medium-High**

**Degree of Mitigation: N/A**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
1	5	5	3.6	5	5	5	18

Contribution of mine to local economic development **(Positive Impact)**

**Rating: Medium-High**

**Degree of Mitigation: N/A**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
1	5	5	3.6	5	5	5	18

**CUMULATIVE IMPACTS**

Potential impact on the Verlorenvlei RAMSAR site

**Rating: High**

**Degree of Mitigation: Fully Mitigated**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
5	5	5	5	4	5	4.5	22.5

Loss of agricultural- and tourism generated income during the operational phase of the mine (change of land use)

**Rating: High**

**Degree of Mitigation: Partial**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
4	5	5	4.6	5	5	5	23

Contribution of Riviera Tungsten mine to South African export (**Positive Impact**)

**Rating: Medium-High**

**Degree of Mitigation: N/A**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
1	5	5	3.6	5	5	5	18

**REHABILITATION UPON CLOSURE OF THE SITE**

Dust nuisance generated as a result of the rehabilitation/landscaping activities

**Rating: Low-Medium**

**Degree of Mitigation: Fully Mitigated**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
2	3	4	3	4	2	3	9

Noise nuisance caused by machinery during the decommissioning phase

**Rating: Low-Medium**

**Degree of Mitigation: Partial**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
3	2	3	2.6	4	2	3	7.8

Potential safety risk posed by unrehabilitated (unsloped/unsealed) areas

**Rating: Medium**

**Degree of Mitigation: Fully Mitigated**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
4	5	1	3.3	4	5	4.5	14.9



Potential increase in the risk of soil erosion from reinstated but denuded areas

**Rating: Medium**

**Degree of Mitigation: Fully Mitigated**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
4	4	1	3	4	5	4.5	13.5

Potential infestation of the reinstated areas by weeds and invader plant species

**Rating: Medium**

**Degree of Mitigation: Fully Mitigated**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
4	4	1	3	5	2	3.5	10.5

Potential contamination of environment as a result of improper waste disposal

**Rating: Medium**

**Degree of Mitigation: Fully Mitigated**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
4	4	2	3.3	4	5	4.5	14.9

Potential use of the rehabilitated opencast pit for water storage **(Positive Impact)**

**Rating: Medium**

**Degree of Mitigation: N/A**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
1	5	4	3.3	4	5	4.5	14.9

Potential use of the slimes dam for water storage or aquaculture purposes **(Positive Impact)**

**Rating: Medium**

**Degree of Mitigation: N/A**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
1	5	4	3.3	4	5	4.5	14.9

Return of the rehabilitated area to agricultural land use **(Positive Impact)**

**Rating: Medium-High**

**Degree of Mitigation: N/A**

Severity	Duration	Extent	Consequence			Likelihood	Significance
				Probability	Frequency		
1	5	5	3.6	5	5	5	18

## j) **Methodology used in determining the significance of environmental impacts**

(Describe how the significance, probability, and duration of the aforesaid identified impacts that were identified through the consultation process was determined in order to decide the extent to which the initial site layout needs revision)

### **Methodology for the assessment of the potential environmental, social and cultural impacts**

#### **DEFINITIONS AND CONCEPTS:**

##### ∞ **Environmental significance:**

The concept of significance is at the core of impact identification, evaluation and decision-making. The concept remains largely undefined and there is no international consensus on a single definition. The following common elements are recognized from the various interpretations:

- Environmental significance is a value judgment
- The degree of environmental significance depends on the nature of the impact
- The importance is rated in terms of both biophysical and socio-economic values
- Determining significance involves the amount of change to the environment perceived to be acceptable to affected communities.

Significance can be differentiated into impact magnitude and impact significance. Impact magnitude is the measurable change (i.e. intensity, duration and likelihood). Impact significance is the value placed on the change by different affected parties (i.e. level of acceptability) (DEAT (2002) Impact Significance, Integrated Environmental Management, Information Series 5).

The concept of risk has two dimensions, namely the consequence of an event or set of circumstances, and the likelihood of particular consequences being realized (Environment Australia (1999) Environmental Risk Management).

##### ∞ **Impact**

The positive or negative effects on human well-being and / or the environment.

##### ∞ **Consequence**

The intermediate or final outcome of an event or situation OR it is the result, on the environment, of an event.

##### ∞ **Likelihood**

A qualitative term covering both probability and frequency.

##### ∞ **Frequency**

The number of occurrences of a defined event in a given time or rate.

##### ∞ **Probability**

The likelihood of a specific outcome measured by the ratio of a specific outcome to the total number of possible outcomes.

∞ **Environment**

Surroundings in which an organisation operates, including air, water, land, natural resources, flora, fauna, humans and their interrelation (ISO 14004, 1996).

∞ **Methodology that will be used**

The environmental significance assessment methodology is based on the following determination:

$$\text{Environmental Significance} = \text{Overall Consequence} \times \text{Overall Likelihood}$$

**Determination of Overall Consequence**

Consequence analysis is a mixture of quantitative and qualitative information and the outcome can be positive or negative. Several factors can be used to determine consequence. For the purpose of determining the environmental significance in terms of consequence, the following factors were chosen: **Severity/Intensity, Duration and Extent/Spatial Scale**. Each factor is assigned a rating of 1 to 5, as described in the tables below.

**Determination of Severity / Intensity**

**Severity** relates to the nature of the event, aspect or impact to the environment and describes how severe the aspects impact on the biophysical and socio-economic environment.

Table 8: Table to be used to obtain an overall rating of severity, taking into consideration the various criteria.

Type of criteria	Rating				
	1	2	3	4	5
Quantitative	0-20%	21-40%	41-60%	61-80%	81-100%
Qualitative	Insignificant / Non-harmful	Small / Potentially harmful	Significant/ Harmful	Great/ Very harmful	Disastrous Extremely harmful
Social/ Community response	Acceptable / I&AP satisfied	Slightly tolerable / Possible objections	Intolerable/ Sporadic complaints	Unacceptable / Widespread complaints	Totally unacceptable / Possible legal action
Irreversibility	Very low cost to mitigate/ High potential to mitigate impacts to level of insignificance/ Easily reversible	Low cost to mitigate	Substantial cost to mitigate/ Potential to mitigate impacts/ Potential to reverse impact	High cost to mitigate	Prohibitive cost to mitigate/ Little or no mechanism to mitigate impact Irreversible
Biophysical (Air quality, water quantity and quality, waste production, fauna and flora)	Insignificant change / deterioration or disturbance	Moderate change / deterioration or disturbance	Significant change / deterioration or disturbance	Very significant change / deterioration or disturbance	Disastrous change / deterioration or disturbance

**Determination of Duration**

**Duration** refers to the amount of time that the environment will be affected by the event, risk or impact, if no intervention e.g. remedial action takes place.

Table 9: Criteria for the rating of duration.

Rating	Description
1	Up to ONE MONTH
2	ONE MONTH to THREE MONTHS (QUARTER)
3	THREE MONTHS to ONE YEAR
4	ONE to TEN YEARS
5	Beyond TEN YEARS

**Determination of Extent/Spatial Scale**

**Extent** or **spatial scale** is the area affected by the event, aspect or impact.

Table 10: Criteria for the rating of extent / spatial scale.

Rating	Description
1	Immediate, fully contained area
2	Surrounding area
3	Within Business Unit area of responsibility
4	Within the farm/neighbouring farm area
5	Regional, National, International

**Determination of Overall Consequence**

**Overall consequence** is determined by adding the factors determined above and summarized below, and then dividing the sum by 3.

Table 11: Example of calculating overall consequence.

Consequence	Rating
Severity	Example 4
Duration	Example 2
Extent	Example 4
<b>SUBTOTAL</b>	<b>10</b>
<b>TOTAL CONSEQUENCE:</b> (Subtotal divided by 3)	<b>3.3</b>

**Determination of Likelihood:**

The determination of likelihood is a combination of Frequency and Probability. Each factor is assigned a rating of 1 to 5, as described below and in tables 6 and 7.

**Determination of Frequency**

**Frequency** refers to how often the specific activity, related to the event, aspect or impact, is undertaken.

Table 12: Criteria for the rating of frequency.

Rating	Description
1	Once a year or once/more during operation
2	Once/more in 6 Months
3	Once/more a Month
4	Once/more a Week
5	Daily

**Determination of Probability**

**Probability** refers to how often the activity or aspect has an impact on the environment.

Table 13: Criteria for the rating of probability.

Rating	Description
1	Almost never / almost impossible
2	Very seldom / highly unlikely
3	Infrequent / unlikely / seldom
4	Often / regularly / likely / possible
5	Daily / highly likely / definitely

**Overall Likelihood**

Overall likelihood is calculated by adding the factors determined above and summarized below, and then dividing the sum by 2.

Table 14: Example of calculating overall likelihood.

Consequence	Rating
Frequency	Example 4
Probability	Example 2
<b>SUBTOTAL</b>	<b>6</b>
<b>TOTAL LIKELIHOOD</b> (Subtotal divided by 2)	<b>3</b>

**Determination of Overall Environmental Significance:**

The multiplication of overall consequence with overall likelihood will provide the environmental significance, which is a number that will then fall into a range of **LOW, LOW-MEDIUM, MEDIUM, MEDIUM-HIGH** or **HIGH**, as shown in the table below.

Table 15: Determination of overall environmental significance.

Significance or Risk	Low	Low-Medium	Medium	Medium-High	High
Overall Consequence X Overall Likelihood	1 - 4.9	5 - 9.9	10 - 14.9	15 – 19.9	20 - 25

**Qualitative description or magnitude of Environmental Significance**

This description is qualitative and is an indication of the nature or magnitude of the Environmental Significance. It also guides the prioritizations and decision making process associated with this event, aspect or impact.

Table 16: Description of environmental significance and related action required

Significance	Low	Low-Medium	Medium	Medium-High	High
Impact Magnitude	Impact is of very low order and therefore likely to have very little real effect. Acceptable.	Impact is of low order and therefore likely to have little real effect. Acceptable.	Impact is real, and potentially substantial in relation to other impacts. Can pose a risk to company	Impact is real and substantial in relation to other impacts. Pose a risk to the company. Unacceptable	Impact is of the highest order possible. Unacceptable. Fatal flaw.
Action Required	Maintain current management measures. Where possible improve.	Maintain current management measures. Implement monitoring and evaluate to determine potential increase in risk. Where possible improve	Implement monitoring. Investigate mitigation measures and improve management measures to reduce risk, where possible.	Improve management measures to reduce risk.	Implement significant mitigation measures or implement alternatives.

Based on the above, the significance rating scale has been determined as follows:

**High** Of the highest order possible within the bounds of impacts which could occur. In the case of negative impacts, 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. In the case of positive impacts, there is no real alternative to achieving the benefit.

**Medium-High** Impacts of a substantial order. In the case of negative impacts, mitigation and / or remedial activity would be feasible but difficult, expensive, time-consuming or some combination of these. In the case of positive impacts, other means of achieving this benefit would be feasible, but these would be more difficult, expensive, time-consuming or some combination of these.

**Medium** Impact would be real but not substantial within the bounds of those, which could occur. In the case of negative impacts, mitigation and / or remedial activity would be both feasible and fairly easily possible, In case of positive impacts; other means of achieving these benefits would be about equal in time, cost and effort.

Low-Medium Impact would be of a low order and with little real effect. In the case of negative impacts, mitigation and / or remedial activity would be either easily achieved or little would be required, or both. In case of positive impacts alternative means for achieving this benefit would likely be easier, cheaper, more effective, less time-consuming, or some combination of these.

Low Impact would be negligible. In the case of negative impacts, almost no mitigation and remedial activity would be needed, and any minor steps, which might be needed, would be easy, cheap and simple. In the case of positive impacts, alternative means would almost all likely be better, in one or a number of ways, than this means of achieving the benefit

Insignificant There would be a no impact at all – not even a very low impact on the system or any of its parts.

k) **The positive and negative impacts that the proposed activity (in terms of the initial site layout) and alternatives will have on the environment and the community that may be affected.**

(Provide a discussion in terms of advantages and disadvantages of the initial site layout compared to alternative layout options to accommodate concerns raised by affected parties)

The preferred site identified by the Applicant entails the mining of an area that extends over 531.44 ha, including Portion 1 of Farm 297, Portion 6 (Remaining Extent) of Namaquasfontein 76, and Portion 21 of Namaquasfontein 76. The footprint was identified during the planning phase by the Applicant and project team, as the preferred site based on the evaluation of the prospecting results and the corresponding position of the tungsten-molybdenum deposit. Should additional viable site alternatives be identified during the EIA process, the project team will heed the suggestions, and investigate the possible implementation thereof.

Project Alternative 1 entails the extraction of the tungsten-molybdenum resource in two phases through opencast and underground mining operations. Processing of excavated material on site to produce APT that is transported to the Saldanha Bay metallurgical plant, and the export of the final product via the Saldanha Bay harbour. Additional project alternatives can be considered during the EIA process as supplementary information is obtained from the specialist studies, and the stakeholders and I&AP's contribute their knowledge towards the proposed project.

As with the project alternatives, technology and design alternatives will be considered during the EIA process and discussed in the DEIAR.

Currently, the following potential impacts were identified that may have a negative impact on the receiving environment:

- ✘ Mining within the Moutonshoek Protected Environment;
- ✘ Potential relocation of affected farm owners/residents;
- ✘ Increased traffic on the DR02172;
- ✘ Increased dust emissions along the DR02172;
- ✘ Dust nuisance from mining footprint;
- ✘ Visual intrusion as a result of site establishment and operational phase;

- ✘ Destruction/loss of indigenous vegetation from mining footprint;
- ✘ Potential loss of / negative impact on wetlands within the affected area;
- ✘ Potential impact on fauna within the footprint area;
- ✘ Potential impact on areas/infrastructure of heritage or cultural concern;
- ✘ Potential impact on the safety of the Moutonshoek Valley due to increased human concentration;
- ✘ Noise nuisance generated during operational phase;
- ✘ Potential infestation of the footprint area with weeds and/or invader plant species;
- ✘ Loss/contamination of stockpiled topsoil;
- ✘ Potential contamination of construction area and surface runoff as a result of hydrocarbon spillages;
- ✘ Potential erosion of denuded areas;
- ✘ Potential sedimentation/contamination of the Krom Antonies River through surface runoff;
- ✘ Health and safety risk posed by blasting and/or underground mining;
- ✘ Light pollution due to shift work;
- ✘ Potential flooding of opencast pit / other work areas;
- ✘ Potential impact on groundwater sources;
- ✘ Impact on surface stability;
- ✘ Potential impact on the air quality of the affected environment;
- ✘ Potential seepage from the slimes dam;
- ✘ Potential contamination of environment as a result of improper waste disposal;
- ✘ Overloading of trucks impact road infrastructure;
- ✘ Potential impact on the Verlorenvlei RAMSAR site;
- ✘ Loss of agricultural-and tourism generated income during the operational phase of the mine (change of land use); and
- ✘ Potential safety risk posed by unrehabilitated (unsloped/unsealed) areas.
- ✘ Potential loss of existing investment in the eco-tourism sector in the region.
- ✘ Potential loss of existing investment in the wetland system connected with the Verlorenvlei system.

The potential positive impacts associated with the proposed Riviera Tungsten project includes:

- ✘ Increased work opportunities to local residents;
- ✘ Potential decrease in water demand from local resources as a result of the offsite reverse osmosis plant;
- ✘ Increased income generated within the Moutonshoek Valley / Piketberg area;
- ✘ Contribution of mine to local economic development;
- ✘ Contribution of Riviera Tungsten mine to South African export;
- ✘ Potential use of the rehabilitated opencast pit for water storage;
- ✘ Potential use of the slimes dam for water storage or aquaculture purposes; and
- ✘ Return of the rehabilitated area to agricultural land use (upon closure).



## l) The possible mitigation measures that could be applied and the level of risk.

(With regard to the issues and concerns raised by affected parties provide a list of the issues raised and an assessment/discussion of the mitigations or site layout alternatives available to accommodate or address their concerns, together with an assessment of the impacts or risks associated with the mitigation or alternatives considered).

In light of the above listed impacts that may have a negative impact on the study area, the following preliminary mitigation measures are proposed to address/minimize the resulting impacts:

### Potential relocation of affected farm owners / residents:

- ✘ Negotiations between the Applicant and landowners/residents must continue working towards a mutually acceptable solution;
- ✘ The mitigation measures associated with this impact must be expanded upon as part of the proposed socio-economic specialist study and associated EIA process.

### Increased traffic on the DR02172:

- ✘ The speed of all mining equipment/vehicles must be restricted to 40 km/h on the DR02172;
- ✘ The mitigation measures associated with this impact must be expanded upon as part of the proposed traffic impact assessment and associated EIA process.

### Dust emissions associated with the project:

- ✘ The liberation of dust into the surrounding environment must be effectively controlled by the use of, *inter alia*, water spraying and/or other dust-allaying agents;
- ✘ The roads and stockpile areas must be sprayed with water or an environmentally friendly dust-allaying agent that contains no PCB's (e.g. DAS products) if dust is generated above acceptable limits.
- ✘ The site manager must ensure continuous assessment of all dust suppression equipment to confirm its effectiveness in addressing dust suppression;
- ✘ Speed on the gravel roads must be limited to 40 km/h to prevent the generation of excessive dust;
- ✘ The crusher plant must have operational water sprayers to alleviate dust generation from the conveyor belts;
- ✘ Areas devoid of vegetation, which could act as a dust source, must be minimized and vegetation removal may only be done immediately prior to mining;
- ✘ Topsoil stockpiles must be covered alternatively planted with indigenous grass species to minimize exposed surface areas, and reduce windblown dust from the site. The vegetation will further assist in capturing wind born dust and minimizing the spread of dust from the site.
- ✘ Fines, blowing from the drop end of the crusher plant, must be minimized by attaching strips of used conveyor belts to the conveyor's end;
- ✘ Compacted dust must weekly be removed from the crusher plant to eliminate the dust source;
- ✘ The Applicant must implement a dust management plan and conduct fall-out dust monitoring on site to accurately determine the site specific dust levels;
- ✘ Weather conditions must be taken into consideration upon commencement of daily operations. Limiting operations during windy periods will reduce airborne dust and resulting impacts;

- ⌘ Dust generated from the stripping of topsoil and mining operations shall comply with the National Dust Control Regulations, GN No R827 promulgated in terms of NEM:AQA (Act 39 of 2004) and ASTM D1739 (SANS 1137:2012);
- ⌘ Best practice measures shall be implemented during the stripping of topsoil, processing and stockpiling activities in order to minimize potential dust impacts;
- ⌘ The mitigation measures associated with this impact must be expanded upon as part of the atmospheric impact assessment and associated EIA process.

Visual mitigation:

- ⌘ The site must have a neat appearance and be kept in good condition at all times;
- ⌘ Mining equipment must be stored neatly in dedicated areas when not in use;
- ⌘ The screening of mining infrastructure must be considered;
- ⌘ The right holder must limit vegetation removal, and stripping of topsoil may only be done immediately prior to the mining/use of a specific area;
- ⌘ The stockpile areas must be managed to prevent excessive storage periods of overburden material;
- ⌘ Upon closure, the site must be rehabilitated and topsoiled to reduce the visual impact of the mining activities and return the area to its prior status.

Potential impact on indigenous vegetation:

- ⌘ Buffer areas must be demarcated, sign posted and managed as no-go area around CBA and ESA areas;
- ⌘ A plant rescue must be conducted on natural (uncultivated) areas to be mined. Upon rehabilitation of the mining area, these areas must be replanted with the rescued plants as soon as the topsoil was replaced. A botanist must be consulted regarding other plant species that can be established on rehabilitated areas;
- ⌘ Areas currently cultivated, to be cultivated land after mining, the replanting of crops must take place as soon as feasible once the topsoil was replaced;
- ⌘ An invasive plant species management plan must be implemented on site to control weeds and invasive plants on denuded areas, topsoil heaps and reinstated areas;
- ⌘ The mitigation measures associated with this impact must be expanded upon as part of the ecological impact assessment and associated EIA process.

Potential impact on wetlands within the affected area:

- ⌘ Buffer areas must be demarcated, sign posted and managed as no-go area around wetlands identified within the footprint;
- ⌘ Any channelized flow off of mining areas must be slowed, and storm water management infrastructure must be implemented;
- ⌘ The mitigation measures associated with this impact must be expanded upon as part of the freshwater ecological assessment and associated EIA process.

Potential impact on fauna within the footprint area:

- ⌘ Site management must ensure no fauna is caught, killed, harmed, sold or played with at the mining area;
- ⌘ Workers must be instructed to report any animals that may be trapped in the working area;

- ⌘ No snares may be set or nests raided for eggs or young;
- ⌘ The mitigation measures associated with this impact must be expanded upon as part of the ecological impact assessment and associated EIA process.

Potential impact on areas/infrastructure of heritage or cultural concern:

- ⌘ All mining activities must be contained within the boundaries of the permitted area;
- ⌘ If during the pre-site establishment phase, site establishment-, operations- or closure phases of this project, any person employed by the developer, one of its subsidiaries, contractors and subcontractors, or service provider, finds any artefact of cultural significance or heritage site, this person must cease work at the site of the find and report this find to their immediate supervisor, and through their supervisor to the senior on-site manager;
- ⌘ It is the responsibility of the senior on-site Manager to make an initial assessment of the extent of the find, and confirm the extent of the work stoppage in that area;
- ⌘ The senior on-site Manager must inform the ECO (within the first hour of discovery) of the chance find and its immediate impact on operations. The ECO must then contact a professional archaeologist for an assessment of the finds who must notify the Heritage Western Cape (HWC);
- ⌘ Work may only commence once the area was cleared by HWC;
- ⌘ The mitigation measures associated with this impact must be expanded upon as part of the heritage- and palaeontological impact assessment and associated EIA process.

Potential impact on the safety of the Moutonshoek Valley due to increased human concentration:

- ⌘ Employees to be appointed must be vetted prior to inception of contract;
- ⌘ No employees may be allowed to reside within the mining area;
- ⌘ The Riviera Tungsten mine must make use of a registered safety company to guard the mining area;
- ⌘ The mitigation measures associated with this impact must be expanded upon as part of the socio-economic assessment and associated EIA process.

Noise mitigation measures:

- ⌘ All mining related vehicles must be equipped with silencers and maintained in a road worthy condition in terms of the National Road Traffic Act, 1996 (Act No 93 of 1996);
- ⌘ Noise generated by the proposed activity shall comply with the Western Cape Noise Control Regulations (PN 200/2013), June 2013;
- ⌘ Best practice measures shall be implemented in order to minimize potential noise impacts;
- ⌘ The Applicant must ensure that employees and staff conduct themselves in an acceptable manner while on site;
- ⌘ Employees will not be allowed to reside on site;
- ⌘ No loud music may be allowed on site;
- ⌘ Drilling and blasting may only take place from Monday – Friday during normal work hours (8:00 to 17:00);

- ⌘ A qualified occupational hygienist must be contracted to quarterly monitor and report on the personal noise exposure of the employees working at the mine. The monitoring must be done in accordance with the SANS 10083:2004 (Edition 5) sampling method as well as NEM:AQA, 2004, SANS 10103:2008;
- ⌘ The mitigation measures associated with this impact must be expanded upon as part of the noise impact assessment and associated EIA process.

#### Weeds and invader plants mitigation measures

- ⌘ An invasive plant species management plan must be implemented at the site to ensure the management and control of all species regarded as Category 1a and 1b invasive species in terms of NEM:BA (National Environmental Management: Biodiversity Act 10 of 2004 and regulations applicable thereto). Weed/alien clearing must be done on an ongoing basis throughout the life of the mining activities.
- ⌘ Management must take responsibility to control declared invader or exotic species on the rehabilitated areas. The following control methods can be used:
  - The plants can be uprooted, felled or cut off and can be destroyed completely.
  - The plants can be treated chemically by a registered PCO through the use of an herbicide recommended for use by the PCO in accordance with the directions for the use of such an herbicide.
- ⌘ All stockpiles must to be kept free of weeds.

#### Loss/contamination of stockpiled topsoil:

- ⌘ The first 300 mm of topsoil must be removed and stored within a designated, signposted stockpile area. Stockpiled topsoil must be protected from erosion and mixing with other material. The topsoil must be used to cover the rehabilitated area and improve the establishment of natural vegetation;
- ⌘ Topsoil stockpiles must be kept free of weeds;
- ⌘ Topsoil stockpiles must be placed on a levelled area and measures must be implemented to safeguard the piles from being washed away in the event of heavy rains/storm water;
- ⌘ Topsoil heaps may not exceed 1.5 m in order to preserve micro-organisms within the topsoil, which can be lost due to compaction and lack of oxygen;
- ⌘ Storm- and runoff water must be diverted around the stockpile area to prevent erosion.

#### Waste management:

- ⌘ Regular vehicle maintenance must be done at the site workshop. If emergency repairs are required on equipment not able to move to the workshop, drip trays must be present. All waste products must be disposed of in a 200 litre closed container/bin to be removed from the emergency service area to the workshop in order to ensure proper disposal;
- ⌘ Any effluents containing oil, grease or other industrial substances must be collected in a suitable receptacle and removed from the site, either for resale or for appropriate disposal at a recognized facility;
- ⌘ Spills must be cleaned up immediately (within the first hour of occurrence) to the satisfaction of the Regional Manager (DMR) by removing the spillage together with the polluted soil and by disposing it at a recognized facility. Proof must be filed;

- ⌘ Suitable covered receptacles must be available at all times and conveniently placed for the disposal of waste;
- ⌘ Non-biodegradable refuse such as glass bottles, plastic bags, metal scrap, etc, must be stored in a container with a closable lid at a collecting point to be collected at least once a month and disposed of at a recognized landfill site. Specific precautions must be taken to prevent refuse from being dumped on or in the vicinity of the mine area;
- ⌘ Biodegradable refuse must be handled as indicated above;
- ⌘ Ablutions must drain into a package plant installed by a qualified contractor and serviced when needed by a registered hazardous waste handling contractor.
- ⌘ The mitigation measures associated with this impact must be expanded upon as part of the engineering services report and associated EIA process.

#### Storm water handling:

- ⌘ A storm water management plan must be followed and implemented on site for the duration of the mining activities;
- ⌘ Storm water must be diverted around the topsoil heaps, mining area and access roads to prevent erosion and loss of material;
- ⌘ Channelled run-off from active or un-rehabilitated mine areas must be slowed through the installation of temporary sediment traps, such as small sand bag impoundments. The impounding structures must still allow all water to return to the natural river channels;
- ⌘ Mining must be conducted only in accordance with the Best Practice Guideline for small scale mining that relates to storm water management, erosion and sediment control and waste management, developed by the Department of Water and Sanitation (DWS), and any other conditions which that Department may impose:
  - Clean water (e.g. rainwater) must be kept clean and be routed to a natural watercourse by a system separate from the dirty water system. You must prevent clean water from running or spilling into dirty water systems.
  - Dirty water must be collected and contained in a system separate from the clean water system.
  - Dirty water must be prevented from spilling or seeping into clean water systems.
  - The storm water management plan must apply for the entire life cycle of the mine and over different hydrological cycles (rainfall patterns).
  - The statutory requirements of various regulatory agencies and the interests of stakeholders must be considered and incorporated into the storm water management plan.
- ⌘ The mitigation measures associated with this impact must be expanded upon as part of the freshwater ecological assessment and associated EIA process.

#### Potential sedimentation/contamination of the Krom Antonies River through surface runoff:

- ⌘ A storm water management plan must be followed and implemented on site for the duration of the mining activities;

- ⌘ The mitigation measures associated with this impact must be expanded upon as part of the freshwater ecological assessment and associated EIA process.

#### Management of health and safety risks:

- ⌘ The type, duration and timing of the blasting procedures must be planned with due cognizance of other land users and structures in the vicinity;
- ⌘ The surrounding landowners and communities must be informed in writing ahead of any blasting event;
- ⌘ Measures to limit flyrock must be taken;
- ⌘ Audible warning of a pending blast must be given at least 3 minutes in advance of the blast;
- ⌘ All flyrock (of diameter 150mm and larger) which falls beyond the working area, together with the rock spill must be collected and removed;
- ⌘ Workers must have access to the correct personal protection equipment (PPE) as required by law;
- ⌘ All operations must comply with the Mine Health and Safety Act, 1993 (Act No 85 of 1993).

#### Light pollution due to shift work:

- ⌘ Site management must plan the positioning of exterior lighting such that lamps and reflectors are not visible from beyond the mining footprint;
- ⌘ Lighting may not cause excessive reflected glare;
- ⌘ Direct lighting may not illuminate the night-time sky;
- ⌘ Illumination of the project and its immediate vicinity must be limited;
- ⌘ light fittings must incorporated fixture hoods/shielding with lights directed downwards or concentrated on the area to be illuminated;
- ⌘ Lighting shall be minimum necessary brightness and lights in high illumination areas shall have switches, timers, or motion detectors so that the lights operate only when needed;
- ⌘ The mitigation measures associated with this impact must be expanded upon as part of the engineering service report and EIA process.

#### Potential impact on groundwater sources:

- ⌘ Groundwater quality monitoring must be implemented for the duration of the operational phase;
  - The right holder must take an initial water sample from the existing borehole on the farm, of which the results will serve as baseline information.
  - Thereafter an annual water sample from the same borehole must be tested for changes in water quality.
  - Should the monitoring information show any significant changes, the opinion of a geohydrologist must be obtained (within a week from receipt of the results) and the findings must be submitted to DWS for further consideration.
- ⌘ Upon closure of the mining activities a final water sample must be tested. The results must be submitted to DWS and filed for auditing purposes;
- ⌘ The mitigation measures associated with this impact must be expanded upon as part of the geohydrological impact assessment and EIA process.

Potential seepage from the slimes dam:

- ✘ The footprint of the slimes dam must be sealed to prevent any seepage from the dam to enter the groundwater;
- ✘ Monthly inspections of the integrity of the slimes dam must be part of site managements responsibility;
- ✘ The mitigation measures associated with this impact must be expanded upon as part of the engineering service report and EIA process.

Mitigation of overloading:

- ✘ A weighing devise must be installed at the mining area to prevent overloading;
- ✘ Proof of load weights must be filed and be available for auditing by relevant officials.

Mitigation of negative impacts to existing infrastructure:

- ✘ The conditions as proposed by Eskom must for part of the EMP and be enforced on site for the duration of the site establishment-, operational-, and decommissioning phase.

Mitigation of cumulative impacts:

- ✘ The mitigation measures associated with these impacts must be expanded upon as part of the freshwater ecological assessment, socio-economic study and EIA process.

Rehabilitation of the excavated area:

- ✘ Incline shafts must be sealed;
- ✘ Rocks and coarse material removed during the operational phase must be dumped into the excavation;
- ✘ No waste may be permitted to be deposited into the excavations;
- ✘ Once overburden, rocks and coarse natural materials has been added to the excavation and it was profiled with acceptable contours and erosion control measures, the topsoil previously stored must be returned to its original depth over the area;
- ✘ The area must be fertilized if necessary to allow vegetation to establish rapidly. The site must be seeded with a local or adapted indigenous seed mix in order to propagate the locally or regionally occurring flora, should natural vegetation not re-establish within 6 months from closure of the site;
- ✘ If a reasonable assessment indicates that the re-establishment of vegetation is unacceptably slow, the Regional Manager may require that the soil be analyzed and any deleterious effects on the soil arising from the mining operation be corrected and the area be seeded with a vegetation seed mix to his or her specification.
- ✘ The mitigation measures associated with these impacts must be expanded upon as part of the closure plan and EIA process.

Rehabilitation of the mining related infrastructure:

- ✘ Rehabilitation of the surface area shall entail landscaping, levelling, top dressing, land preparation, seeding (if required) and maintenance, and weed / alien clearing;
- ✘ All infrastructure, temporary equipment and other items used during the mining period shall be removed from the site (section 44 of the MPRDA);

- ⌘ Waste material of any description, including receptacles, scrap, rubble and tyres, shall be removed entirely from the mining area and disposed of at a recognized landfill facility. It will not be permitted to be buried or burned on the site;
- ⌘ Weed / Alien clearing will be done in a sporadic manner during the life of the mining activities. Species regarded as Category 1a and 1b invasive species in terms of NEM:BA (National Environmental Management: Biodiversity Act 10 of 2004 and regulations applicable thereto) must be managed and controlled on site on an ongoing basis;
- ⌘ Final rehabilitation shall be completed within a period specified by the Regional Manager;
- ⌘ The mitigation measures associated with these impacts must be expanded upon as part of the closure plan and EIA process.

**m) The outcome of the site selection Matrix Final Site Layout Plan**

(Provide a final site layout plan as informed by the process of consultation with interested and affected parties)

The most current site layout plan was compiled by the project team based on the outcome of the prospecting results and is attached as Appendix 4 to this document.

**n) Motivation where no alternative sites were considered.**

Should the final Scoping Report be approved, the EIA process to follow will assess the implementation of site-, project-, technology and/or design alternatives and in the circumstance no motivation is required in terms of this heading.

**o) Statement motivating the preferred site.**

(Provide a statement motivation of the final site layout that is proposed)

The preferred site was identified during the planning phase by the Applicant and project team based on the evaluation of the prospecting results and the corresponding position of the tungsten-molybdenum deposit.

PA1 entails the extraction of the tungsten-molybdenum resource in two phases through opencast- and underground mining operations. Processing of excavated material on site to produce APT that is transported to the Saldanha Bay metallurgical plant, and the export of the final product via the Saldanha Bay harbour. As mentioned earlier, additional project alternatives can be considered during the EIA process as supplementary information is obtained from the specialist studies, and the stakeholders and I&AP's contribute their knowledge towards the proposed project.

The technology/design proposal as discussed in this report must be treated as preliminary, and will be assessed during the EIA process.



### 3) PLAN OF STUDY FOR THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

#### a) Description of alternatives to be considered including the option of not going ahead with the activity.

##### Site Alternatives

The preferred site was identified during the planning phase by the Applicant and project team based on the evaluation of the prospecting results and the corresponding position of the tungsten-molybdenum deposit. Should additional viable site alternatives be identified during the EIA process, the project team will heed the suggestions and investigate the possibility of implementation thereof. Additional site alternatives (if identified) will be discussed in detail in the draft EIAR to be distributed for public comments.

##### Project Alternatives

Project Alternative 1 entails the extraction of the tungsten-molybdenum resource in two phases through opencast and underground mining operations. Processing of excavated material on site to produce APT that is transported to the Saldanha Bay metallurgical plant, and the export of the final product via the Saldanha Bay harbour.

Additional project alternatives can be considered during the EIA process as supplementary information is obtained from the specialist studies, contributed by the stakeholders and I&AP's, and adjusted by the project team. Should project alternatives be identified it will be discussed during the EIA process of the application and included in the DEIAR to be distributed for public comments.

##### Technology/Design Alternatives

As with the project alternatives, technology and design alternatives will be considered during the EIA process and discussed in the DEIAR. The following technology/design principles will be considered by the Applicant and project team:

- ⌘ Alternative boxcut (secure and safe portals/accesses to the open-cast pit) positions and direction of mining for opencast operations;
- ⌘ Alternative locations of topsoil and overburden stockpile areas;
- ⌘ Alternative conveyor technology to solve environmental problems (e.g. noise, river crossings);
- ⌘ Alternative slime dam locations and designs;
- ⌘ Alternative alignments of access road and haul roads;
- ⌘ Alternative locations for mine infrastructure, including the locations of offices, workshops; refuelling bays, stores, magazines, and processing plants; and
- ⌘ The implementation of renewable energy sources will be considered;

## **No-go Alternative**

The no-go alternative entails no change to the *status quo* and is therefore a real alternative that needs to be considered. In the event that the no-go alternative is implemented the land use of the area will remain that of agriculture, conservation, livestock farming and tourism with the tungsten resources unmined. Amongst others, the socio-economic impact of mining on current, and future agriculture and tourism land uses of the study area will be compared to the *status quo* and will be considered as part of the EIA process, and discussed in the DEIAR.

## **b) Description of the aspects to be assessed as part of the environmental impact assessment process**

(The EAP must undertake to assess the aspects affected by each individual mining activity whether listed or not, including activities such as blasting, Loading, hauling and transport, and mining activities such as Excavations, stockpiles, discard dumps or dams, water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc....etc.)

The aspects to be assessed as part of the environmental impact assessment process that will follow upon approval of the Scoping Report by the DMR will include, but not be limited to, the following:

1. Various alternatives (project, technology, design etc.) will be considered during the EIA process as supplementary information becomes available. Identifying viable preferred alternatives will in turn dictate the design and layout of the proposed project as well as hone the proposed mining method.
2. Upon deciding on the preferred alternatives, the applicability of the listed activities identified in terms of the NEMA EIA Regulations, 2017 will be confirmed and aligned with the most recent proposal.
3. The need and desirability of the proposed activity will be discussed in detail and weighed against the no-go option of upholding the *status quo* at the study area.
4. The inputs received during the public participation process (first- and second phase) will be assessed and considered by the project team during the EIA process.
5. The findings, recommendations and management measure proposed in the specialist reports will be assessed during the EIA process and incorporated into the DEIAR. The following specialists were appointed as part of the project team:
  - ⌘ Agricultural Impact Assessment (Mr J Lanz);
  - ⌘ Air, Dust and Noise Impact Study (Enviroworks);
  - ⌘ Ecological Study (Enviro-Niche Consulting) inclusive of an avifaunal assessment;
  - ⌘ Engineering Services Report;
  - ⌘ Freshwater Ecological Assessment (Scientific Aquatic Services);
  - ⌘ Heritage Impact Assessment (Mr FP Coetzee);
  - ⌘ Hydrogeological Assessment (GHT Consulting Scientists);
  - ⌘ Palaeontological Impact Assessment (Dr H Fourie);
  - ⌘ Socio-economic Impact Assessment (Enviroworks); and

∞ Traffic Impact Assessment (BVI Consulting Engineers).

6. The impact of the proposed project on the physical-, biological-, and human environments will be assessed. The nature, probability and significance of the potential impacts associated with the project will be determined through the use of the above mentioned methodology.
7. Mitigation measures will be proposed to control, modify, remedy or stop the impacts associated with the proposed activity on the surrounding environment.
8. Any additional requirements submitted by the DMR will be incorporated into the DEIAR and treated accordingly.

### c) Description of aspects to be assessed by specialists

The following specialist studies will be conducted as part of the EIA process:

∞ Agricultural Impact Assessment (Mr J Lanz):

- Identify and assess potential impacts (direct, indirect and cumulative) of the proposed mine on soils, agricultural potential and agricultural production, particularly the extent to which agricultural production may be compromised on the post mining land;
- Describe and map soil types across the mine lease area (soil forms and families) and characteristics (soil depth, soil colour, limiting factors, and clay content of the top and sub soil layers);
- Map soil survey points;
- Describe the topography and climate of the site, as it pertains to agricultural potential;
- Summarize available water sources for agriculture;
- Determine and map the agricultural potential across the site;
- Detail and map current agricultural land use across the site and quantify production levels, relating these to the soils and agricultural potential map;
- Compare current production to the most productive possible agricultural land use that is appropriate for the agricultural potential and limitations across the site;
- Compare current and possible production to what is likely to be possible on the rehabilitated land after mining;
- Assess the potential financial loss of compromised production due to mining; and
- Provide recommended mitigation measures, monitoring requirements, and rehabilitation guidelines for all identified impacts and for rehabilitating the land for agricultural use after mining.

∞ Atmospheric Impact Assessment (Enviroworks):

- Gather information on the sources of emissions to conduct the air dispersion modelling study based on the purpose and objectives of the study identified (area-, line-, point-, volume-, and flair source);
- Gather information on the type of contaminants to be considered, including methods to determine appropriate pollutants emission rates;

- Assess the application and identify the best suited model to provide essential information, as well as determining model inputs;
  - Collect data on the existing baseline air quality to compute the cumulative impact;
  - Run model and prepare modelling output; and
  - Compile a full atmospheric impact assessment report inclusive of modelling results.
- ✧ Ecological Study (Enviro-Niche Consulting):
- Describe the vegetation and terrestrial fauna communities present within the proposed mining footprint area;
  - Identify ESA, CBA or similar areas of concern within the study area and collate the information in a sensitive map overlain by the proposed mining footprint;
  - Compile a list of endangered, red data, or otherwise protected plants and fauna observed during the study;
  - Assess the potential impacts that the proposed activity may have on the receiving ecology (including the Krom Antonies River Valley) as well as the conservation status of the Moutonshoek Protected Environment;
  - Compile recommendations, proposed management actions and mitigation measures to alleviate identified impacts.
  - Provide a detailed description as to the underlying values and rationale behind declaring Moutonshoek as a Protected Environment.
  - Provide a detailed analyses of how these values will be affected by the proposed development.
  - Provide a detailed analysis of the direct, indirect and cumulative impacts on affected ecosystems and social systems.
  - Provide a detailed analysis concerning the extent to which impacts can be mitigated, the extent to which they are reversible, and most importantly, whether or not there will be loss of irreplaceable resources (either directly or indirectly, that is, to Verlorenvlei or the Protected Environment itself).
  - Assess the impacts of mining within the Moutonshoek Valley on the Verlorenvlei Estuary.
  - The study will be expanded to include an avifaunal impact assessment compiled by a suitably qualified ornithologist.
- ✧ Engineering Services Report:
- This report will elaborate on the services associated with the proposed Riviera Tungsten mine, as well as implementation and management of the identified features. Services to be discussed will include, amongst others, electricity and water supply, lighting, handling and storage of dangerous goods, waste management, and road infrastructure.
- ✧ Freshwater Ecological Assessment (Scientific Aquatic Services CC):
- The scope of works includes an investigation of the watercourses within the study area, as well as the delineation of those watercourses within 500 m thereof in fulfilment of Regulation 509 of 2016 as it relates to the NWA, 1998.

- The assessment will fulfil the ecological assessment requirements of the EIA process as required in terms of the NEMA, 1998, and will provide the required information for water use licensing in terms of the NWA, 1998.
  - Desktop information will be gathered to obtain background information on the project. A field assessment will be undertaken to fulfil the watercourse ecological assessment requirements of the EIA process.
  - Current industry 'best practice' assessment methods will be applied to characterise the Present Ecological State (PES) and Ecological Importance and Sensitivity (EIS) of the freshwater ecological environment and to identify ecosystems and biological assemblages at risk.
  - A fact-presenting report will be generated, providing both qualitative and quantitative data on the PES of the watercourses associated with the study area. The studies will generate detailed site sensitivity maps and all results will be used to inform a detailed impact assessment.
  - Key mitigatory, to minimise impacts on both the local and regional wetlands and its water quality, and aquatic ecology will be highlighted.
  - The report will include an assessment of the wetland ecology as well as aquatic ecology with specific reference to aquatic habitat units that may be impacted by the proposed mining development.
  - Provide a detailed description as to the underlying values and rationale behind declaring Moutonshoek as a Protected Environment.
  - Provide a detailed analyses of how these values will be affected by the proposed development.
  - Provide a detailed analysis of the direct, indirect and cumulative impacts on affected ecosystems and social systems.
  - Provide a detailed analysis concerning the extent to which impacts can be mitigated, the extent to which they are reversible, and most importantly, whether or not there will be loss of irreplaceable resources (either directly or indirectly, that is, to Verlorenvlei or the Protected Environment itself).
- ∞ Heritage Impact Assessment (Mr FP Coetzee):
- The goal of the study will be the compilation of a Phase 1 Heritage Impact Assessment Report (HIA).
  - The HIA will describe all archaeological and historical artefacts, structures and settlements documented in the area;
  - Establish the level of sensitivity/importance of the archaeological and historical remains in the area;
  - Proposed practical mitigation measures for potential impacts;
  - Indicate limitations and assumptions; and
  - Propose recommendations on the way forward.
  - Provide a detailed description as to the underlying values and rationale behind declaring Moutonshoek as a Protected Environment.
  - Provide a detailed analyses of how these values will be affected by the proposed development.
  - Provide a detailed analysis of the direct, indirect and cumulative impacts on affected ecosystems and social systems.
  - Provide a detailed analysis concerning the extent to which impacts can be mitigated, the extent to which they are reversible, and most importantly, whether or not there will be loss of irreplaceable resources (either directly or indirectly, that is, to Verlorenvlei or the Protected Environment itself).

- ⌘ Hydrogeological Assessment (GHT Consulting Scientists):
  - The study will include an assessment of the immediate and long term effects of groundwater abstraction, assess the potential impact on the Verlorenvlei RAMSAR site, as well as the catchment areas for the Kruis-, Bergvallei-, Krom Antonies- and Hol river systems.
  - Describe and assess potential sources that could cause the contamination of groundwater and aquifers.
  - Provide a risk assessment to investigate and assess the potential risk to the main aquifer and impacts on boreholes that are within proximity of the proposed mining right area.
  - Provide a detailed description as to the underlying values and rationale behind declaring Moutonshoek as a Protected Environment.
  - Provide a detailed analyses of how these values will be affected by the proposed development.
  - Provide a detailed analysis of the direct, indirect and cumulative impacts on affected ecosystems and social systems.
  - Provide a detailed analysis concerning the extent to which impacts can be mitigated, the extent to which they are reversible, and most importantly, whether or not there will be loss of irreplaceable resources (either directly or indirectly, that is, to Verlorenvlei or the Protected Environment itself).
  
- ⌘ Noise Impact Assessment (Enviroworks):
  - The investigation purposes will be to assess the impact of the operation on the existing ambient noise climate of the area, which is primarily an agricultural district.
  - The study will also assess the expected response from the community to the noise impact, i.e. the change in ambient noise of the area, based on the SANS code 10103:2008, and expected in terms of the effects of impact, on a scale of NONE to VERY HIGH.
  
- ⌘ Palaeontological Impact Assessment (Dr H Fourie):
  - Dr Fourie will conduct a desktop study to determine the sensitivity of the palaeontological environment within the study area.
  - Identify any areas of concern and propose recommendations thereof.
  - Proposed management and mitigation measure for the proposed project.
  
- ⌘ Socio-economic Impact Assessment (Enviroworks):
  - Desktop review of previous studies applicable to tungsten mining in the Moutonshoek Valley.
  - Establish the socio-economic context of the Moutonshoek Valley, Piketberg, Eendekuil, Goedverwacht, and Wittewater.
  - Review of planning documents and assess alignment of the proposed mine with the existing planning documents.
  - Consultation with key stakeholders, and review of comments received during the EIA public participation process.

- Compilation of a report that elaborates on both the economic and socio impact of the proposed project on the receiving environment.
- The economic impact assessment will contextualise the proposed mining project in the situation of the regional economy and its outlook, will include results of consulted local and international literature detailing the expected benefits of mining projects, interpret the results of the Economic Impact Assessment and, in particular provide a clear analysis of the contribution and impact of the major sub-categories (e.g. construction, transport etc.) of the project's budget expenditure to the regional economy.
- Further to this the economic impact assessment report will provide a clear quantification of the overall contribution and impact of the project to the regional economy will be provided and compared to the economic potential of the affected area in a scenario "*without the project*". Where relevant and viable, national economic impacts will also be highlighted.
- The socio-section of the study will describe the socio context of the affected area, identify, assess and discuss socio-economic potential issues and perceived issues identified during the construction period.
- The study will also investigate the existing eco-tourism and related investments into the region, and consider sustainable livelihoods and economic opportunities.
- Provide recommendations to avoid (or minimize) potential negative impacts.
- Develop a monitoring and evaluation programme.
- Provide a detailed description as to the underlying values and rationale behind declaring Moutonshoek as a Protected Environment.
- Provide a detailed analyses of how these values will be affected by the proposed development.
- Provide a detailed analysis of the direct, indirect and cumulative impacts on affected ecosystems and social systems.
- Provide a detailed analysis concerning the extent to which impacts can be mitigated, the extent to which they are reversible, and most importantly, whether or not there will be loss of irreplaceable resources (either directly or indirectly, that is, to Verlorenvlei or the Protected Environment itself).

⌘ Traffic Impact Assessment (BVI Consulting Engineers).

- The traffic impact assessment will identify the potential impact of the proposed activity on the road infrastructure of the study area.
- The TIA will include traffic counts, analysis of the data, propose scenario data and conclude with recommendations to mitigate the identified impacts.

**d) Proposed method of assessing the environmental aspects including the proposed method of assessing alternatives**

The impact assessment component of the EIA is subdivided into several environmental aspects to be studied as listed below (preliminary list):

- ⌘ Hydrology including geohydrology;
- ⌘ Air quality and noise ambiance;

- ✘ Fauna and flora component;
- ✘ Cultural and heritage environment;
- ✘ Socio-economic environment;
- ✘ Existing infrastructure including access roads to be affected; and
- ✘ Site, project and/or design/technology alternatives including the no-go option.

Greenmined will use in-house specialists to review the environmental aspects which will be assessed as part of the environmental impact assessment process. The environmental aspects briefly described in the Scoping Report will be updated, and site and technology specific impacts and mitigation recommendations will be proposed to be reviewed by the project team, registered stakeholders and I&AP's and competent authority (DMR).

The significance of the impacts will be assessed in terms of the methodology described in *Section 2 j) Methodology Used in Determining and Ranking the Significance*.

#### e) **The proposed method of assessing duration significance**

The significance of the identified impacts will be determined using the approach outlined in *Section 2 j) Methodology Used in Determining and Ranking the Significance*. The environmental significance assessment methodology is based on the Overall Consequence x Overall Likelihood.

Consequence analysis is a mixture of quantitative and qualitative information and the outcome can be positive or negative. For the purpose of determining the environmental significance in terms of consequence, the following factors were chosen: Severity/Intensity, Duration and Extent/Spatial Scale.

The determination of likelihood is a combination of Frequency and Probability.

The multiplication of overall consequence with overall likelihood will provide the environmental significance, which is a number that will then fall into a range of LOW, LOW-MEDIUM, MEDIUM, MEDIUM-HIGH or HIGH.

Qualitative description or magnitude of Environmental Significance is qualitative and is an indication of the nature or magnitude of the Environmental Significance. It also guides the prioritizations and decision making process associated with this event, aspect or impact.

Assessing duration significance forms part of the environmental significance determination of the impacts and will be assessed accordingly

#### f) **The stages at which the competent authority will be consulted**

The DMR was consulted during a pre-application meeting and been kept informed during the application phase. As competent authority the DMR was invited to comment on the Draft Scoping Report (DSR). To date no comments were received from DMR.

Should the DMR approve the Final Scoping Report, the draft EIA report, including all investigations, assessments and specialist studies, will be circulated for a 30-day commenting period. Any additional requirements received from the DMR will be added to the Final EIA report to be submitted for approval.



As stipulated in the NEMA EIA Regulations, 2014 (as amended 2017) read together with the MPRDA, 2002, the EIA process will comprise of the following:

1. Application for Environmental Authorization and a Mining Right uploaded with accompanying documentation to the online SAMRAD system;
2. The DMR responds with reference number and accepts the application;
3. Draft Scoping Report circulated for perusal by I&AP's and stakeholders (including the DMR);
4. Final Scoping Report (FSR) submitted to the DMR;
5. The DMR decision on FSR;
6. If the FSR is approved, the Draft EIA report is circulated for perusal by I&AP's and stakeholders (including the DMR);
7. Final EIA report submitted to DMR;
8. DMR decision on Final EIA report;
9. if the FEAR is approved, the DMR issues the Environmental Authorizations;
10. Appeal period;
11. Submission of the Financial Provision amount;
12. Approval of supporting documentation including, but not limited to, the Mine Works Programme, Social and Labour Plan, and BEE structure; and finally
13. Issuing of the Mining Right.

**g) Particulars of the public participation process with regard to the Impact Assessment process that will be conducted**

**i) Steps to be taken to notify interested and affected parties.**

(These steps must include the steps that will be taken to ensure consultation with the affected parties identified in (h) (ii) herein).

The aspects to be assessed as part of the environmental impact assessment process was added to the Draft Scoping Report that was distributed to all stakeholders, landowners, directly surrounding landowners and the persons that registered on the previous mining right application submitted by Bongani Minerals (Pty) Ltd in 2009 for a 30 day commenting period.

The I&AP's and stakeholders were informed of the availability of the DSR for perusal and commenting through:

1. An email notification, with direct links to the electronic copy of the DSR and appendices, sent to all persons with email access;
2. A notice, sent via post/sms, informing I&AP's (without email access) of the availability of the DSR;
3. Access to a hard copy that was placed at the Piketberg- and Redelinghuys public libraries respectively;
4. A hard copy/electronic copy (in the form of a CD) that was sent to registered commenting authorities such as Bergrivier Local Municipality, CapeNature, DEA&DP, DoA, and West Coast District Municipality;

5. Email notification to all commenting authorities inviting comments on the DSR;
6. An advertisement placed in Die Burger inviting the general public to comment on the DSR.

The additional registrations, comments, concerns and recommendations received on the Draft Scoping Report were added to the Final Scoping Report to be submitted to the DMR for consideration.

## **ii) Details of the engagement process to be followed**

(Describe the process to be undertaken to consult interested and affected parties including public meetings and one on one consultation. NB the affected parties must be specifically consulted regardless of whether or not the attended public meetings and records of such consultation will be required in the EIA at a later stage).

Public participation during the impact assessment phase of the EIA will entail a review of the findings of the EIA, presented in the Final Scoping Report and Draft EIA and EMPr Reports. These reports will be made available for public comment as described above.

I&APs will be advised of the availability of these reports and how to obtain them. They will be encouraged to comment in writing (mail or email). Any issues, comments or suggestions raised during the comment period will be added to the Comments and Response Report (CRR) that will accompany the Final EIA & EMPR Report.

## **iii) Description of the information to be provided to Interested and Affected Parties.**

(Information to be provided must include the initial site plan and sufficient detail of the intended operation and the typical impacts of each activity, to enable them to assess what impact the activities will have on them or on the use of their land.)

Upon approval of the Final Scoping Report, the Draft EIA report will be compiled. The Draft EIA & EMPR report will be circulated to the registered I&AP's and stakeholders for their perusal over a 30-days period.

The Environmental Impact Assessment Report and Environmental Management Programme Report templates prescribed by the DMR in terms of the National Environmental Management Act, 1998 in respect of listed activities that have been triggered by this application will be used to assess the information with regard to the proposed mining project.

The research and analysis with regard to the project will be processed and interpreted to compile the information required in the abovementioned template to be distributed for public comment.

## **h) Description of the tasks that will be undertaken during the environmental impact assessment process**

The EIA process for the proposed Riviera Tungsten mining project is depicted below:

1. Application for Environmental Authorization and Mining Right to the DMR;
2. The DMR responds with reference number and accepts the application;
3. Draft Scoping Report circulated for perusal by I&AP's and stakeholders;
4. Final Scoping Report (FSR) submitted to the DMR;
5. The DMR decision on FSR;

6. Impact Assessment Process:
  - Project description and site environmental baseline;
  - Impact assessment;
  - Mitigation measures and recommendations;
  - EMPr compilation;
7. Draft EIA report circulated for perusal by I&AP's and stakeholders;
8. Final EIA report submitted to the DMR;
9. The DMR decision on Final EIA report;
10. Announcement of Environmental Authorization and Appeal Procedure;
11. Opportunity to Appeal;
12. Submission of Financial Provision amount;
13. Issuing of Mining Right.

i) **Measures to avoid, reverse, mitigate, or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored.**

Table 17: Table listing the identified impacts, residual risks to be managed and monitored.

<b>ACTIVITY</b> Whether listed or not listed  (E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply, dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc)	<b>POTENTIAL IMPACT</b> (e.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc...etc..)	<b>MITIGATION TYPE</b> (modify, remedy, control or stop) Through (e.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc...etc) E.g. Modify through alternative method. Control through noise control Control through management and monitoring through rehabilitation.	<b>POTENTIAL FOR RESIDUAL RISK</b>
✎ Demarcation of site with visible beacons.	✎ No impact could be identified other than the beacons being outside the boundaries of the approved mining area.	<u>Control:</u> Implementation of proper housekeeping and site management.	LOW
✎ Site establishment.	✎ Mining within the Moutonshoek Protected Environment	No mitigation possible.	HIGH
✎ Site establishment.	✎ Potential relocation of affected farm owners/residents.	<u>Modify:</u> Consideration of alternatives  <u>Remedy:</u> Compensation of affected parties	HIGH
✎ Site establishment; ✎ Processing of ROM and production of APT; and ✎ Transport of APT to saldanha metallurgical plant.	✎ Increased traffic on the DR02172; ✎ Increased traffic along the DR02172 (transport of water).	<u>Control:</u> Road and traffic management	HIGH
✎ Site establishment; ✎ Pre-stripping of top layer and stockpiling of topsoil;	✎ Increased dust emissions along the DR02172; ✎ Dust nuisance caused by the disturbance of soil;	<u>Control:</u> Dust suppression methods and proper housekeeping.	✎ HIGH ✎ LOW-MEDIUM ✎ MEDIUM ✎ MEDIUM-HIGH

<p><b>ACTIVITY</b></p> <p>Whether listed or not listed</p> <p>(E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply, dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc)</p>	<p><b>POTENTIAL IMPACT</b></p> <p>(e.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc...etc..)</p>	<p><b>MITIGATION TYPE</b></p> <p>(modify, remedy, control or stop)</p> <p>Through</p> <p>(e.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc...etc)</p> <p>E.g.</p> <p>Modify through alternative method.</p> <p>Control through noise control</p> <p>Control through management and monitoring through rehabilitation.</p>	<p><b>POTENTIAL FOR RESIDUAL RISK</b></p>
<ul style="list-style-type: none"> <li>⌘ Overburden stripping to access the ore and stockpiling;</li> <li>⌘ Opencast mining;</li> <li>⌘ Stockpiling and transporting of ROM;</li> <li>⌘ Processing of rom and production of APT; and</li> <li>⌘ Rehabilitation upon closure of the site.</li> </ul>	<ul style="list-style-type: none"> <li>⌘ Dust nuisance caused by the transport of overburden and denuded stockpile area;</li> <li>⌘ Dust nuisance as a result of blasting activities;</li> <li>⌘ Dust nuisance due to the movement of earthmoving equipment and denuded stockpile area;</li> <li>⌘ Dust nuisance generated from the crushing and screening area; and</li> <li>⌘ Dust nuisance generated as a result of the rehabilitation/landscaping activities.</li> </ul>		<ul style="list-style-type: none"> <li>⌘ MEDIUM</li> <li>⌘ MEDIUM</li> <li>⌘ LOW-MEDIUM</li> </ul>
<ul style="list-style-type: none"> <li>⌘ Site establishment; and</li> <li>⌘ Overburden stripping to access the ore and stockpiling.</li> </ul>	<ul style="list-style-type: none"> <li>⌘ Visual intrusion as a result of site establishment;</li> <li>⌘ Visual intrusion associated with the excavation activities.</li> </ul>	<p><u>Modify:</u> Consideration of alternatives</p> <p><u>Control:</u> Proper housekeeping</p>	<p>HIGH</p>
<ul style="list-style-type: none"> <li>⌘ Site establishment</li> </ul>	<ul style="list-style-type: none"> <li>⌘ Destruction/loss of indigenous vegetation from mining footprint.</li> </ul>	<p><u>Modify:</u> Consideration of alternatives</p> <p><u>Control:</u> Demarcation of no-go areas</p>	<p>MEDIUM</p>
<ul style="list-style-type: none"> <li>⌘ Site establishment</li> </ul>	<ul style="list-style-type: none"> <li>⌘ Potential loss of/negative impact on wetlands within the affected area.</li> </ul>	<p><u>Modify:</u> Consideration of alternatives</p> <p><u>Stop &amp; Control:</u> Demarcation of no-go areas</p>	<p>MEDIUM</p>

<p><b>ACTIVITY</b></p> <p>Whether listed or not listed</p> <p>(E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply, dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc)</p>	<p><b>POTENTIAL IMPACT</b></p> <p>(e.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc...etc..)</p>	<p><b>MITIGATION TYPE</b></p> <p>(modify, remedy, control or stop)</p> <p>Through</p> <p>(e.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc...etc)</p> <p>E.g.</p> <p>Modify through alternative method.</p> <p>Control through noise control</p> <p>Control through management and monitoring through rehabilitation.</p>	<p><b>POTENTIAL FOR RESIDUAL RISK</b></p>
<p>⌘ Site establishment</p>	<p>⌘ Potential impact on fauna within footprint area.</p>	<p><u>Modify:</u> Consideration of alternatives</p> <p><u>Stop &amp; Control:</u> Demarcation of no-go areas, and proper site management.</p>	<p>LOW-MEDIUM</p>
<p>⌘ Site establishment</p>	<p>⌘ Potential impact on areas/infrastructure of heritage or cultural concern.</p>	<p><u>Modify:</u> Consideration of alternatives</p> <p><u>Stop &amp; Control:</u> Demarcation of no-go areas.</p>	<p>LOW-MEDIUM</p>
<p>⌘ Site establishment</p>	<p>⌘ Potential impact on the safety of the Moutonshoek Valley due to increased human concentration.</p>	<p><u>Control:</u> Site management and proper housekeeping.</p>	<p>HIGH</p>
<p>⌘ Stripping and stockpiling of topsoil;</p> <p>⌘ Overburden stripping to access the ore and stockpiling;</p> <p>⌘ Opencast mining;</p> <p>⌘ Stockpiling and transporting of ROM;</p> <p>⌘ Processing of ROM and production of APT; and</p> <p>⌘ Rehabilitation upon closure of the site.</p>	<p>⌘ Noise nuisance caused by earthmoving machinery;</p> <p>⌘ Noise nuisance caused by earthmoving machinery;</p> <p>⌘ Noise nuisance caused by blasting activities;</p> <p>⌘ Noise nuisance generated by earthmoving equipment;</p> <p>⌘ Noise nuisance stemming from the crushing and screening infrastructure; and</p>	<p><u>Control:</u> Noise suppression methods and proper housekeeping.</p>	<p>⌘ LOW-MEDIUM</p> <p>⌘ MEDIUM</p>

<p><b>ACTIVITY</b></p> <p>Whether listed or not listed</p> <p>(E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply, dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc)</p>	<p><b>POTENTIAL IMPACT</b></p> <p>(e.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc...etc..)</p>	<p><b>MITIGATION TYPE</b></p> <p>(modify, remedy, control or stop)</p> <p>Through</p> <p>(e.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc...etc)</p> <p>E.g.</p> <p>Modify through alternative method.</p> <p>Control through noise control</p> <p>Control through management and monitoring through rehabilitation.</p>	<p><b>POTENTIAL FOR RESIDUAL RISK</b></p>
	<ul style="list-style-type: none"> <li>⌘ Noise nuisance caused by machinery during the decommissioning phase.</li> </ul>		
<ul style="list-style-type: none"> <li>⌘ Stripping and stockpiling of topsoil;</li> <li>⌘ Overburden stripping to access the ore and stockpiling; and</li> <li>⌘ Rehabilitation upon closure of the site.</li> </ul>	<ul style="list-style-type: none"> <li>⌘ Potential infestation of the topsoil heaps with weeds or invader plant species;</li> <li>⌘ Potential infestation of the overburden heaps with weeds or invader plant species; and</li> <li>⌘ Potential infestation of the reinstated areas by weeds and invader plant species.</li> </ul>	<p><u>Control &amp; Remedy:</u> Implementation of an invasive plant species management plan.</p>	<p>MEDIUM</p>
<ul style="list-style-type: none"> <li>⌘ Stripping and stockpiling of topsoil.</li> </ul>	<ul style="list-style-type: none"> <li>⌘ Loss/contamination of stockpiled topsoil.</li> </ul>	<p><u>Control &amp; Remedy:</u> Proper housekeeping and implementation of a stormwater management plan.</p>	<p>LOW-MEDIUM</p>
<ul style="list-style-type: none"> <li>⌘ Stripping and stockpiling of topsoil;</li> <li>⌘ Overburden stripping to access the ore and stockpiling; and</li> <li>⌘ Stockpiling and transporting of ROM.</li> </ul>	<ul style="list-style-type: none"> <li>⌘ Potential contamination of construction area and surface runoff as a result of hydrocarbon spillages.</li> </ul>	<p><u>Control &amp; Remedy:</u> Proper housekeeping and implementation of an emergency response plan.</p>	<p>MEDIUM</p>
<ul style="list-style-type: none"> <li>⌘ Stripping and stockpiling of topsoil; and</li> <li>⌘ Rehabilitation upon closure of the site.</li> </ul>	<ul style="list-style-type: none"> <li>⌘ Potential erosion of denuded areas; and</li> <li>⌘ Potential increase in the risk of soil erosion from reinstated but denuded areas.</li> </ul>	<p><u>Control &amp; Remedy:</u> Implementation of a stormwater management plan and closure plan.</p>	<ul style="list-style-type: none"> <li>⌘ LOW-MEDIUM</li> <li>⌘ MEDIUM</li> </ul>

<p><b>ACTIVITY</b></p> <p>Whether listed or not listed</p> <p>(E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply, dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc)</p>	<p><b>POTENTIAL IMPACT</b></p> <p>(e.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc...etc..)</p>	<p><b>MITIGATION TYPE</b></p> <p>(modify, remedy, control or stop)</p> <p>Through</p> <p>(e.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc...etc)</p> <p>E.g.</p> <p>Modify through alternative method.</p> <p>Control through noise control</p> <p>Control through management and monitoring through rehabilitation.</p>	<p><b>POTENTIAL FOR RESIDUAL RISK</b></p>
<ul style="list-style-type: none"> <li>⌘ Stripping and stockpiling of topsoil; and</li> <li>⌘ Overburden stripping to access the ore and stockpiling.</li> </ul>	<ul style="list-style-type: none"> <li>⌘ Potential sedimentation/contamination of the Krom Antonies River through surface runoff.</li> </ul>	<p><u>Modify:</u> Consideration of alternatives.</p> <p><u>Control:</u> Proper housekeeping and implementation of a stormwater management plan.</p>	<p>MEDIUM</p>
<ul style="list-style-type: none"> <li>⌘ Opencast mining; and</li> <li>⌘ Underground mining.</li> </ul>	<ul style="list-style-type: none"> <li>⌘ Health and safety risk posed by blasting activities; and</li> <li>⌘ Potential health and safety impact to mine employees.</li> </ul>	<p><u>Control:</u> Access control and notification of employees/surrounding residents. Continuous mine safety control.</p>	<p>MEDIUM</p>
<ul style="list-style-type: none"> <li>⌘ Opencast mining;</li> <li>⌘ Stockpiling and transporting of ROM; and</li> <li>⌘ Processing of ROM and production of APT.</li> </ul>	<ul style="list-style-type: none"> <li>⌘ Lighting pollution due to shift work.</li> </ul>	<p><u>Modify:</u> Implement alternative lighting options.</p>	<p>MEDIUM-HIGH</p>
<ul style="list-style-type: none"> <li>⌘ Opencast mining.</li> </ul>	<ul style="list-style-type: none"> <li>⌘ Potential flooding of opencast pit / other work areas.</li> </ul>	<p><u>Remedy:</u> Implementing a stormwater management plan.</p>	<p>LOW</p>
<ul style="list-style-type: none"> <li>⌘ Underground mining.</li> </ul>	<ul style="list-style-type: none"> <li>⌘ Potential impact on groundwater sources.</li> </ul>	<p><u>Modify:</u> Consider design alternatives.</p>	<p>HIGH</p>



<p><b>ACTIVITY</b></p> <p>Whether listed or not listed</p> <p>(E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply, dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc)</p>	<p><b>POTENTIAL IMPACT</b></p> <p>(e.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc...etc..)</p>	<p><b>MITIGATION TYPE</b></p> <p>(modify, remedy, control or stop)</p> <p>Through</p> <p>(e.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc...etc)</p> <p>E.g.</p> <p>Modify through alternative method.</p> <p>Control through noise control</p> <p>Control through management and monitoring through rehabilitation.</p>	<p><b>POTENTIAL FOR RESIDUAL RISK</b></p>
<p>⌘ Underground mining.</p>	<p>⌘ Impact on surface stability.</p>	<p><u>Control:</u> Compliance with mine safety regulations.</p>	<p>LOW-MEDIUM</p>
<p>⌘ Processing of ROM and production of APT.</p>	<p>⌘ Potential impact on the air quality of the affected environment.</p>	<p><u>Modify:</u> Consider alternative technology.</p> <p><u>Control:</u> Compliance with air emissions regulations.</p>	<p>MEDIUM-HIGH</p>
<p>⌘ Processing of ROM and production of APT.</p>	<p>⌘ Potential seepage from the slimes dam.</p>	<p><u>Modify:</u> Consider design alternatives</p> <p><u>Control:</u> Implementation of an emergency preparedness plan.</p>	<p>MEDIUM-HIGH</p>
<p>⌘ Processing of ROM and production of APT; and</p> <p>⌘ Rehabilitation upon closure of the site.</p>	<p>⌘ Potential contamination of environment as a result of improper waste disposal.</p>	<p><u>Control:</u> Implementation of a waste management plan.</p>	<p>MEDIUM</p>
<p>⌘ Transport of APT to saldanha metallurgical plant.</p>	<p>⌘ Overloading of trucks impact road infrastructure.</p>	<p><u>Control:</u> Adherence to road traffic requirements.</p>	<p>MEDIUM-HIGH</p>
<p>⌘ Cumulative impacts.</p>	<p>⌘ Potential impact on the Verlorenvlei RAMSAR site.</p>	<p><u>Modify:</u> Implementing site-, project-, or design alternatives.</p>	<p>HIGH</p>

<b>ACTIVITY</b> Whether listed or not listed  (E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply, dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc)	<b>POTENTIAL IMPACT</b> (e.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc...etc..)	<b>MITIGATION TYPE</b> (modify, remedy, control or stop) Through (e.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc...etc) E.g. Modify through alternative method. Control through noise control Control through management and monitoring through rehabilitation.	<b>POTENTIAL FOR RESIDUAL RISK</b>
		<u>Control:</u> Adherence to recommendations and mitigation measures as proposed by the project specialists and competent authorities.	
∞ Cumulative impacts.	∞ Loss of agricultural- and tourism generated income during the operational phase of the mine (change of land use).	<u>Modify:</u> Consider the implementation of alternatives.	HIGH
∞ Rehabilitation upon closure of the site.	∞ Potential safety risk posed by unrehabilitated (unsloped/unsealed) areas.	<u>Control:</u> Adherence to the closure plan.	MEDIUM

j) **Other Information required by the competent Authority**

- i) **Compliance with the provisions of sections 24(4)(a) and (b) read with section 24(3)(a) and (7) of the National Environmental Management Act (Act 107 of 1998) the EIA report must include the:**

**(1) Impact on the socio-economic conditions of any directly affected person.**

(Provide the results of Investigation, assessment, and evaluation of the impact of the mining, bulk sampling or alluvial diamond prospecting on any directly affected person including the landowner, lawful occupier, or, where applicable, potential beneficiaries of any land restitution claim, attach the investigation report as **Appendix 2.19.1** and confirm that the applicable mitigation is reflected in 2.5.3, 2.11.6 and 2.12 herein)

The following potential negative impacts were identified that are highly likely to have an impact on the socio-economic conditions of directly affected persons:

⌘ **Potential relocation of affected farm owners/residents:**

The nature of the proposed project requires the positioning of the opencast mine over areas currently used for agricultural purposes. The presence of the mineral dictate the position of the proposed opencast pit, and moving it is therefore impossible. Further to this, the current project proposal is for the mine to operate on a 24/7 basis, and it is highly unlikely that residents would prefer staying within close vicinity of the mine. The relocation of the landowners and lawful occupiers of the three earmarked farms is therefore a real concern that has to be considered when the socio-economic impact of the proposed project on the receiving environment is assessed as part of the socio-economic study during the EIA process.

⌘ **Increased traffic on the DR02172:**

Currently it is expected that the proposed project will increase the present traffic load on the DR02172 with 12 trucks per day transporting amongst others, water from the reverse osmosis plant to the mine, and APT from the mine to Saldanha Bay. Heavy vehicle traffic will be restricted to daylight hours. The degree of impact as well as the significance of increased traffic on the DR02172 will be assessed by the traffic engineer and recommendations and mitigation measures will be assessed during the EIA process.

⌘ **Visual intrusion as a result of the proposed mining area:**

The presence of mining related infrastructure (i.e. crushing infrastructure, slimes dam, processing plant) as well as the opencast pit to be established will impact on the visual character of the study area in particular the "sense of place" of the MPE. The significance of this impact must be fully assessed during the EIA process taking site-, project-, design alternatives and screening methods into consideration in an attempt to reduce the impact as much as possible.

⌘ **Potential impact on the safety of the Moutonshoek Valley due to increased human concentration:**

As mentioned earlier the increased concentration of people, as a result of the proposed project, may negatively affect the safety status of the Moutonshoek Valley. Although this is a highly speculative matter, it is widely accepted that crime follows areas of higher concentration and

opportunity. The Applicant must acknowledge the possibility, and commit to taking part in local security forums and neighbourhood watches to alleviate the significance of the impact.

✘ **Impact on the air quality and noise ambiance of the valley:**

The presence of the crushing and screening infrastructure, opencast mining and the use of earthmoving equipment all increase the possibility of dust and noise generation as a result of the proposed mining activities. The air quality and noise impact specialist has to consider this when conducting their assessment and proposing mitigation measures. By nature these impacts require constant monitoring to be implemented throughout the site establishment-, operational-, and decommissioning phases of a project.

✘ **Light pollution due to shift work:**

Bettering the illumination of an area is commonly associated with improved safety and security. Excessive lighting or inconsiderate reflections however contribute more towards a negative impact than the above mentioned positive adjustment. Artificial illumination of the night sky within a protected environment is also highly undesirable. This impact must therefore be addressed as part of the engineering services report and viable alternatives must be proposed that will minimize the significance of the impact on the receiving environment.

✘ **Loss of agricultural- and tourism generated income during the operational phase of the mine (change of land use):**

The Applicant applied for the mining right to be approved for a 30-year period during which (should the MR be granted) the proposed footprint becomes unavailable for farming, horse breeding, or other cultivation processes. The significance that the proposed mining activity will have on the receiving environment in particular the agricultural- and tourism sectors must be assessed as part of the socio-economic and agricultural impact assessments, upon which the conclusions will be presented in the DEIAR.

The following potential positive impacts were identified that are highly likely to have an impact on the socio-economic conditions of directly affected persons:

✘ **Increased work opportunities to local residents**

The proposed labour component of the Riviera Tungsten project is expected to be 211 including management. The largest majority of this number will be employed from the immediate surrounding communities. In light of the high unemployment figures of the Bergrivier Municipal area, the generation of work opportunities are of high significance. As a result of the multiplier effect it is expected that the income of 211 employees will support 530 dependents, and due to the fact that most of the employees will reside within the Bergrivier Municipal area, it is fair to presume that the majority of monthly earned salaries will be spent within the local area. Indirectly, through the payment for services and suppliers, the mine will also support employment of the procurement partners.

⌘ **Potential decrease in water demand from local resources as a result of the offsite reverse osmosis plant**

The Applicant intends to transport the process water to the mining area from an offsite reverse osmosis plant, instead of making use of the potable water in the Valley. Presently, the landowners of the three earmarked farms use ground-, and surface water for agricultural and household purposes. Should the land use temporarily change from agriculture to mining (30-year mining period), the current demand on the site specific water resources will be greatly reduced. The impact thereof must be considered by the hydrologist as well as the geohydrologist during the EIA process.

⌘ **Increased income generated within the Moutonshoek Valley / Piketberg area**

The potential increase in income generated within the Moutonshoek Valley / Piketberg area as a result of the change of land use from agriculture to mining must be assessed by the socio-economic specialist during the EIA process. Should the proposed mine however generate a higher income than the current land use of the area, the multiplier effect will once again come into play through an increase in wages, improved socio-character of employees, support of the local economy and overall growth of the receiving community.

⌘ **Contribution of mine to local economic development**

A mining right holder is required by law to contribute to the local economic development (LED) of the local community. The presence of a mine within the Moutonshoek Valley will therefore generate funds that can be used in the development of the area. Identifying a suitable LED project must be conducted in consultation with the local municipality, to be committed to in the Social and Labour Plan that needs to be approved prior to the granting of a mining right.

⌘ **Potential use of decommissioned mine infrastructure/areas for alternative purposes such as water storage:**

Upon closure of the mining area the right holder has an obligation in terms of the MPRDA, 2002 and NEMA, 1998 to rehabilitate the affected area to the satisfaction of the Regional Manager (DMR). The likelihood and significance that decommissioned infrastructure can be implemented for future use by landowners must be assessed during the EIA process. These possibilities must form part of the closure plan to be approved for the mining area, and must include options such as, but not limited to, the possible use of the slimes dam for aquaculture purposes, use of the opencast pit for water storage, use of warehouses and internal roads by the landowner etc.

## **(2) Impact on any national estate referred to in section 3(2) of the National Heritage Resources Act.**

(Provide the results of Investigation, assessment, and evaluation of the impact of the mining, bulk sampling or alluvial diamond prospecting on any national estate referred to in section 3(2) of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) with the exception of the national estate contemplated in section 3(2)(i)(vi) and (vii) of that Act, attach the investigation report as **Appendix 2.19.2** and confirm that the applicable mitigation is reflected in 2.5.3, 2.11.6 and 2.12 herein)

The presence of national estate as referred to in section 3(2) of the NHRA, 1999 will be assessed by the archaeologist as part of the phase 1 heritage impact assessment to follow during the EIA process. The altered nature of the operational farms, being applied over, do reduce the possibility of the presence of areas/artefacts of national estate value, however this will be confirmed by an appropriately qualified specialist. The Applicant indicated that should such areas of importance be identified the recommendations of the specialist will be heeded with changes being made to the design and or layout of the proposed project.

### **k) Other matters required in terms of sections 24(4)(a) and (b) of the Act.**

(the EAP managing the application must provide the competent authority with detailed, written proof of an investigation as required by section 24(4)(b)(i) of the Act and motivation if no reasonable or feasible alternatives as contemplated in sub-regulation 22(2)(h), exist. The EAP must attach such motivation as **Appendix 4**)

The alternatives to be considered during the impact assessment process will be done at the hand of information obtained during the site investigation, public participation process, desktop studies as well as specialist studies conducted of the study area. As discussed earlier the following alternatives will be assessed in the EIAR:

#### **Site Alternatives**

Should additional viable site alternatives be identified during the EIA process, the project team will heed the suggestions and investigate the possibility of implementation thereof. Additional site alternatives (if identified) will be discussed in detail in the draft EIAR to be distributed for public comments.

#### **Project Alternatives**

Additional project alternatives can be considered during the EIA process as supplementary information is obtained from the specialist studies, contributed by the stakeholders and I&AP's, and adjusted by the project team. Should project alternatives be identified it will be discussed during the EIA process of the application and included in the DEIAR to be distributed for public comments.

#### **Technology/Design Alternatives**

As with the project alternatives, technology and design alternatives will be considered during the EIA process and discussed in the DEIAR. The following technology/design principles will be considered by the Applicant and project team:

- ⌘ Alternative boxcut (secure and safe portals/accesses to the open-cast pit) positions and direction of mining for opencast operations;

- ⌘ Alternative locations of topsoil and overburden stockpile areas;
- ⌘ Alternative conveyor technology to solve environmental problems (e.g. noise, river crossings);
- ⌘ Alternative slime dam locations and designs;
- ⌘ Alternative alignments of access road and haul roads;
- ⌘ Alternative locations for mine infrastructure, including the locations of offices, workshops; refuelling bays, stores, magazines, and processing plants; and
- ⌘ The implementation of renewable energy sources will be considered;

### **No-go Alternative**

The no-go alternative entails no change to the *status quo* and is therefore a real alternative that needs to be considered. In the event that the no-go alternative is implemented the land use of the area will remain that of agriculture, conservation, livestock farming and tourism with the tungsten resources unmined. Amongst others, the socio-economic impact of mining on current, and future agriculture and tourism land uses of the study area will be compared to the *status quo* and will be considered as part of the EIA process, and discussed in the DEIAR.

## **l) UNDERTAKING REGARDING CORRECTNESS OF INFORMATION**

**I Christine Fouché herewith undertake that the information provided in the foregoing report is correct, and that the comments and inputs from stakeholders and Interested and Affected parties has been correctly recorded in the report.**



**Signature of the EAP**

**DATE:** 15 February 2019

## **m) UNDERTAKING REGARDING LEVEL OF AGREEMENT**

**I Christine Fouché herewith undertake that the information provided in the foregoing report is correct, and that the level of agreement with interested and Affected Parties and stakeholders has been correctly recorded and reported herein.**



**Signature of the EAP**

**DATE:** 15 February 2019

**- END -**