



**the dme**

Department:  
Minerals and Energy  
REPUBLIC OF SOUTH AFRICA

DME 12

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Our Ref. No. (WC) 30/5/1/2/3/2/1 (328) EM  
Date: 24 June 2009

**REGISTERED MAIL**

**Bongani Minerals (Pty) Ltd**  
P O Box 340  
STELLENBOSCH  
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Sir

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**SCOPING REPORT: BONGANI MINERALS, RIVIERA TUNGSTEN OPEN-CAST PROJECT ON THE FARM NAMAQUASFONTEIN NO 76 PORTIONS 1,6,13 AND FARM NO 297 PORTION 1; DISTRICT, PIKETBERG**

Your Scoping reports received 6 May 2009 refer.

The Department consulted the scoping report with other Government Departments in terms of regulation 49 (3) of GN No. R. 527 of 23 April 2004, promulgated under section 107(1) of the Mineral and Petroleum Resources Development Act, 2002 (Act No.28 of 2002) and requested these organs of state to provide comment. Herewith, in terms of regulation 49 (5) find the copies of their comments for you to consider and address and incorporate in the EIA and EMP:

- The Department Environmental Affairs and Development Planning.
- Cape Nature.
- Agriculture.
- Local Authority.
- Department: Water Affairs and Forestry

The following is regarded to be key issues that require further input. It must be mentioned that it was difficult to comment on the document because the information provided to explain the project was mostly general, and not specific to make constructive and specific comment possible. This office requests you to address the following aspects in the process and environmental impact assessment report and environmental management programme before an informed decision can be made:

1. **Submit a final Scoping** report that include all the comments/ objections and your responses and allow I&APs to comment on this document before or on 20 July 2009. The process must at least include those I&APs involved in the process up to now.

This office advises you to attempt to resolve concerns and objections with directly affected parties and relevant authorities. Provide proof that objections and concerns have been resolved and/or incorporated in the EMP. Submit the "results" of consultation (i.e. written agreement / solved disagreements / or deliberated disagreements) with affected parties and the authorities

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Consult with the Local Authority to explain the project's demand on infrastructure and find how the project may fit into local development plans for the area. Consult the appropriate roads authority regarding access road and submit the drawings for the upgraded access roads and electricity supply.

Consult with DWAF and apply for a water use licence for the use and release of water as well as for the water loss from evaporation from the proposed dam as an end-land-use. Submit proof that such application was lodged and include the information required by DWAF to allow such decision or proof of the approval of such water uses and final dam.

2. **The project description** in the updated final scoping report must be explained and resource requirements from the environment and releases to the environment must be clear and without ambiguity. This is required to allow specialist to define the scope of specialist studies and authorities and I&APs to comment and assess the reports, i.e. the following information is required:
- the size, shape and location of the excavation must be based on prospecting information and mining methods to be used;
  - the size, location, slope and height of the slimes dam and overburden dump;
  - the predicted volume of the slimes that will be produced based on the prospecting information;
  - the chemistry of the ore and resultant tailings must be provided and based on the prospecting information;
  - the predicted structure of the slimes;
  - the chemistry and structure of overburden;
  - the volume of water to be used by the plant, people and dust suppression and the proposed source thereof;
  - the volume and quality of water that will be released into the environment;
  - details regarding the volume and type and concentration of each chemical used and released by all the different processes in the plant;
  - the electricity demand of the total project;
  - the depth, volume of overburden must be provided from the prospecting information;
  - the volume of all other wastes that may be produced;
  - volume and method of fuel storage;
  - details regarding the predicted noise and dust emissions from the crushing plant and mining;
  - the location and size of housing and offices of all the employees;
  - the design of a sewage plant with a capacity for all staff members;
  - the report must further indicate all internal roads, conveyers or pipelines routes;
  - the predicted volume and weight of traffic out of and onto the valley; and
  - the maps included in the report must be drawn up by a surveyor and with a scale suitable to define impacts, it must indicate the size and location and slopes of the excavation, dumps and infrastructure and be used to describe the mining phases, explain proposed mitigation measures and allow the monitoring of compliance.
3. The full project details regarding each component of the mining project must be made available to specialists and I&AP's to allow the identification of all potential

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impacts and to allow the ToR for such studies to be fine-tuned and based on an understanding of the total project.

4. Consider and weigh up alternatives. The amended final Scoping report must provide all the relevant information that allow the comparative investigation and assessment of **project alternatives** as required in terms of IEM and Reg. 49 1(d) of the MPRDA.
5. The report must provide specific "**prospecting information**" that indicates the depth and properties of the soil, overburden and ore layers. The grades of the products and chemistry of the ore as well as clarity on the volumes and composition of the tailings must be provided. Specific and detailed prospecting information is vital to plan the mine and determine and predict and assess impacts, to enable input, to do a cost benefit analysis and to assess alternatives. A report with facts and compiled by a geologist must be submitted and used to plan the plant and compile the mine plans and specify the chemistry of waste materials.
6. **A feasibility- and sensitivity assessment** taking into account factors such as tonnes of ore, grades and value of ore, capital expenditure, operating expense (blasting/ m<sup>3</sup>, hauling/ m<sup>3</sup>, milling/ m<sup>3</sup>, extraction/ m<sup>3</sup>, handle slimes/ m<sup>3</sup>, remove and handle overburden/ m<sup>3</sup>, salaries, and rehabilitation), exchange rate, discount rate, tax and royalties.
7. The mining area is situated in a secluded valley that has been intensively farmed with potential tourism potential. Conduct full **Socio-Economic Impact** assessment to determine and compare the feasibility of the proposed mine with that of the existing land use. A comparative assessment of reasonable and existing land use / development alternatives to the operation must be done as contemplated in Reg. 49(1)(d). The reliance of land use on clean water, clean air and infrastructure must be explained. Consider the Risk, Costs and Benefits of the different options in strategic context based on relevant information.

The proposed specialist socio-economic study as described in 9.1.1.6 must include all risks, impacts and costs on current land-use namely agriculture and others, schools, crèches, training, housing, land values, jobs, lifestyle, quality of life, soils, projects, road infrastructure, current water users and electricity supply, and other industries such as agriculture and tourism. It must further submit verifiable details of the income and benefits of the mine. A Social and Labour Plan should not be regarded as a Socio-Economic Impact assessment (see 6.11). Submit the ToR for such a study to this department and all other authorities before or on 20 July 2009.

The following is specialist studies that must be submitted in the EIA/EMP:

8. The **hydrological study** must be conducted over at least a dry and this current wet cycle. The hydrological study must investigate the effect of dewatering and mining activity at this particular site and water uses and to water users lower down the catchment, especially during the predicted future dry seasons. The hydrological study must also determine the 1:100 year flood-lines and take into account the geochemistry of the ore and associated rock, overburden and slimes

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in the slimes dam and the predicted releases to the environment. The contamination and risk of contamination of water and the role that the water from the Krom Antonies River play in the Verlorenvlei system must be explained and negative impact mitigated. This impact must be based on an understanding of the actual complexity and properties of the geological layers and groundwater flow and interaction between surface and groundwater in the network, not broad assumptions. The EMP must include a detailed water quality management and monitoring plan.

9. The slimes dam may add a significant risk of siltation of the river and estuary and a report must address the risk of **siltation** of the River by the mining and dumps and mitigation and monitoring measures, comprehensively.
10. Set clear and specific standards for the salinity, chemistry and turbidity of the groundwater and surrounding surface water and commit to monitoring the salinity content of surrounding boreholes and sample sites.
11. **Baseline noise and dust** measurements and predicted noise and dust emissions from the plant, mill and other mining activities. As well as an assessment of how the current land use in the valley may be affected.
12. **Visual assessment** based on the actual project specifications and from affected peoples residence.
13. The study assessing the impact on **soils and land capability** must include a description of the soil, but also assess the impact of dust, water loss and water quality as well as on the soils on agriculture production and propose mitigation measures that limit this impact to the minimum possible.
14. An avi-fauna specialist study that focus on the fish and the reliance and sensitivity of the Berg river redfin and the waterbirds of the Verlorenvlei on the water from this sub-catchments.
15. The **botanical** specialist must do a baseline study that describes all natural veldt that may be impacted on and give advice on a phased **rehabilitation plan** for the mine. The specialist must advise on topsoil use and the future state of the rehabilitation must be described and how to achieve this. The botanist must advise on the state and viability of the riparian zone and then recommend specific buffer along water courses and monitoring activities.
16. The project must indicate what road infrastructure is required. The access road to and from the mine onto the N7 and the anticipated volume of traffic/trucks on this road must be determined and clearly indicated on maps. Consult the state, maintenance and safety along the access road up to the main road with the relevant roads authority (District Road Engineer or PAWC: Department of Transport). A **traffic** impact assessment along the dirt road and up to the main road N7 is required.
17. Undertake a Heritage Impact and Archaeological Impact assessments as required by the National Heritage Resources Act (25 of 1999).

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Be advised that the EMP must include amongst others the following:

18. A storm water management plan.
19. A detailed water quality management and monitoring plan and a detailed water supply and sewage disposal management plan.
20. Set clear and specific standards for noise, dust, and visual levels and commit to monitor these levels.
21. The mine plan in the EMP must be drawn up by a qualified surveyor and with a scale suitable to define impacts, to be used for consulting, describe the mining phases in more detail, propose mitigation measures and monitor compliance. The maps and information provided in the report must be of a suitable scale does to make assessment of the impacts impossible. The document must contain mine plans of the proposed mining area and associated infrastructure that are of a sufficient scale to be used for planning and monitoring of the activities at the mine.
  - o Include a mine and rehabilitation plan that indicates the different phases of mining activities based on the actual figures.
  - o Include a layout plan that indicate the topography, position, surface area in hectares and the depth and slopes of the excavation, the stockpile areas, topsoil, overburden dump and slimes dam.
  - o The overburden dump and slimes dam must be designed to optimise concurrent rehabilitation and limit the visual impact
  - o Include a layout plan that indicates all structures and associated infrastructure.
22. Clearly delineate a no-go area along the boundaries for each activity to limit the impact.
23. The environmental management programme must include how the *quantum for financial provision* for remediation and rehabilitation was calculated and the method of financial provision.
24. The applicant must sign the *undertaking* in the environmental management programme and layout plans to comply with the provisions of the Act and regulations thereto.
25. The applicant must commit to monitoring of all main impacts and indicate the standards, methods and timeframes when *monitoring and performance assessment* of the EMP will be done. The EMP should provide a layout and a description of such a monitoring and performance assessment report.
26. The applicant must include an environmental *awareness programme* in terms of section 39(3)(c) of the Act. *Inter alia*, the awareness programme should inform and sensitise the personnel regarding the environmental management programme and the possible environmental risk involved (for example, slope

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failure, disturbing primary dune vegetation, traffic, oil pollution, ..).

27. The applicant must include the procedures that relate to *emergencies* and the proposed remediation thereto, for example, discuss the contingency plans with respect to floods, accidental spills and management of hazardous material such as oil, diesel, etc. in the proposed mining area.
28. The applicant must state its *closure* objectives.
  - o The applicant should indicate what process would be followed to reach these objectives.
  - o Possible risk factors that could be considered are soil/topsoil (quantity and quality), land capability and value, social impact, ground and surface water, the Verlorenvei functioning, fish populations, and the visual impact the mine or other elements of the mining operation.
29. The applicant should indicate whether this operation would require an authorisation from any other organ of state or local authority and if so, submit proof that such an application was lodged.
30. During the EIA/EMP development phase of the application, I&APs and relevant authorities must be consulted before the EIA/EMP is submitted. Attempt to resolve possible concerns / objections with the relevant affected parties and provide proof of an agreement that objections and concerns have been resolved and/or incorporated in the EIA/EMP. Include in the EIA/EMP proof of the "results" of further consultation (i.e. written agreement / solved disagreements / deliberated disagreements) with the affected parties to this office on or before the EIA/EMP is submitted.

If you have any further queries, you may contact above-mentioned officer at above-mentioned contact details.

This Department reserves the right to revise initial comments and may request further information from you based on the revised information received.

Yours faithfully

  
**Aet. REGIONAL MANAGER: MINERAL REGULATION  
WESTERN CAPE**

CC: Withers Environmental Consultants

Fax: 021 883 2952



## HEAD OFFICE

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 date 15 May 2009

The Regional Manager  
 Mineral Regulation Western Cape  
 Att: Jan Briers  
 By email: [jan.briers@dme.gov.za](mailto:jan.briers@dme.gov.za)

Dear Mr. Briers

**RE: Proposed Riviera Tungsten Open-cast mining project on portions 1, 6 and 13 of Farm Namaquasfontein 76 and portion 1 of Farm 297, Piketberg – Scoping Report for the Department of Minerals and Energy.**

CapeNature would like to thank you for the opportunity to comment on this proposed activity and would like to make the following comments:

1. The area which would be directly impacted by the mining activities has largely been transformed by agricultural activities. However, there are still important fragments of indigenous vegetation, including Leipoldtville Sand Fynbos, which is classified as endangered, Swartland Shale Renosterveld, which is classified as critically endangered, Piketberg Quartz Succulent Shrubland, which should be classified as endangered because of the extremely small area it covers, Piketberg Sandstone Fynbos, Cape Lowland Alluvial Vegetation, which is also classified as critically endangered, and Cape Lowland Freshwater Wetlands. CapeNature does not support any further loss of any endangered or critically endangered vegetation types. The CAPE fine-scale planning process has also classified terrestrial and aquatic Critical Biodiversity Areas (CBAs) within and adjacent to the application area. These CBAs must be taken into consideration in any further specialist studies.
2. Furthermore, it is apparent that 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 recognised 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 recognising the duty South Africans have at a national level to protect and conserve the wetlands associated with the Ramsar site, all new activities within the Krom Antonies River valley should result in active upgrading and rehabilitation of the riverine ecosystems.
3. In addition to several rare bird species, the Verlorenvlei system also supports four indigenous freshwater fish species, of which three are likely new species that have not been found anywhere else (Ernst Swartz of SAIAB and Dean Impson of CapeNature, pers.com.).
4. These are the Verlorenvlei redbin (now part of the Pseudobarbus group), the Cape kurper (the Verlorenvlei population is genetically very distinct) and Cape Galaxias (two species, one

The Western Cape Nature Conservation Board trades as CapeNature

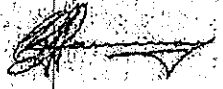
Board Members: Mr Mark Botha (Chairperson), Mr Elton Jethas, Adv Mandla Mdludlu, Ms Yasmina Pandy, Mr Hoosain Kagee, Ms Nomliza Dima, Mr Johan van der Merwe, Prof Sulaiman Gool

genetically very distinct and restricted to the Verlorenvlei). The Krom Antonies River has a considerable number of critically endangered Verlorenvlei reedfin in its upper reaches. 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.

5. CapeNature would like to draw your attention to the significant investment already made in projects and initiatives in this area. For example, the Working for Wetlands project which has already had an amount of R3-million invested in it 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 the mine go ahead, this would almost certainly negate these positive efforts.
6. The area also falls within the Greater Cederberg Biodiversity Corridor, which aims to conserve and restore the unique biodiversity of this region and encourage sustainable land use practices.
7. It is imperative that the following information (which is in accordance with and in addition to the recommendations made by the specialists) be obtained through further specialist and technical studies:
  - a. An accurate determination of the amount of water the mining activities will require and which surface and ground water resources it will be abstracted from.
  - b. Details of the likely extent of groundwater drawdown associated with dewatering activities.
  - c. An accurate determination of the volume of waste water which will need to be disposed of (from factory processes, ablution facilities and dewatering activities from the pit).
  - d. A precise description of how it is proposed to dispose of polluted wastewater (including a detailed stormwater management plan), as well as solid and chemical waste.
  - e. An assessment of how the abstraction (including dewatering) and disposal of water will affect the water quality of the freshwater ecosystems in the Krom Antonies Valley and the entire Verlorenvlei catchment and a follow on study should be conducted by an avifaunal specialist and a freshwater fish specialist to determine the likely impacts this will have on bird and fish populations in the catchment respectively.
8. The client must provide accurate and detailed information to all the specialists regarding their intended scale and extent of mining activities, details of the physical and chemical processes that will be used and descriptions of all infrastructure that would need to be built.
9. Based on the current information available, CapeNature believes that the proposed mining activities and the associated 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. We believe that the proposed mine is entirely inappropriate for the area and could have significant and irreversible impacts on the environment.
10. We will therefore continue to oppose any open cast mining of this magnitude in the upper catchment of the Verlorenvlei system.

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

Yours sincerely,



**Dr. Kas Hamman**  
**DIRECTOR: BIODIVERSITY**

*(Copy also sent to:*  
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*On 18 May 2009*

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Verwysing Reference Iselathiso E12/2/3/5-F1/11-WJ088/09

Nawae Enquiries Imibuzo TARYN MAART

Datum Date Imhla 05/06/2009



Departement van Omgewingsake en Ontwikkelingsbeplanning  
 Department of Environmental Affairs and Development Planning  
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Dear Sir

**RE: COMMENTS ON THE SCOPING REPORT REGARDING THE PROPOSED RIVIERA TUNGSTEN OPEN-CAST MINING PROJECT ON PORTIONS 1, 6 AND 13 OF THE FARM NAMAQUASFONTEIN NO. 76 AND PORTION 1 OF FARM NO. 297, PIKETBERG.**

The Scoping Report dated April 2009 and your letter (DME ref: 30/5/1/2/3/2/1(328) EM) dated 8 May 2009 received from your Department on 13 May 2009 refers.

**Executive Summary**

Based on the information contained in the aforementioned Scoping Report, this Department has determined that the proposed mining operations constitute listed activities in terms of the NEMA EIA Regulations. In addition, this Department has identified that the proposed mining operations pose significant impacts on the receiving and surrounding environment. The Scoping Report fails to provide an adequate description of the proposed mining operations, and also fails to identify the magnitude of the potential impacts associated with the proposed mining operations. Adopting the required risk averse and cautious approach, the Scoping Report must not be approved in its current form. Until such time as the environmental issues have been adequately addressed, this Department objects to the granting of approval to proceed with the mining operation in terms of Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) ("MPRDA").

**1. NEMA EIA Regulations**

1.1. On 21 April 2006 the Minister of Environmental Affairs and Tourism ("DEAT") promulgated Regulations in terms of Chapter 5 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") (Government Notice No. R. 385, R. 386, and R. 387 in Government Gazette No. 28753 of 21 April 2006 refer). The NEMA EIA Regulations replace the EIA Regulations that were promulgated in terms of the ECA and also introduces new provisions

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regarding environmental impact assessments. All activities ("listed activities") identified in GN No. R. 386 and GN No. R. 387 which have not commenced by the date of effect of the NEMA EIA Regulations (3 July 2006) may not commence without prior environmental authorisation from the competent authority. GN R. 385 stipulates the procedures to be followed in applying for environmental authorisation.

- 1.2 GN No. R. 386 came into effect on 3 July 2006 except for activities 8 & 9, and GN No. R. 387 came into effect on 3 July 2006 except for activities 7 & 8 (Government Notice No. R. 612, R. 613, R. 614, R. 615, and R. 616 in Government Gazette No. 28938 of 23 June 2006 refer). The prospecting and mining activities will come into effect on a date still to be published. Therefore although prospecting and mining activities *per se* are (not yet) listed (the activities not yet having come into effect), prospecting and mining that constitute (that trigger) activities that are listed in GN No. R. 386 and R. 387 that have already come into effect on 3 July 2006, may not commence without environmental authorisation in terms of NEMA.

- 1.3 As such, you are hereby informed that based on the information contained in the Scoping report, the proposed development constitutes an activity listed in terms of GN No. R. 387 of 21 April 2006 that have come into effect, being:

**Activity 2:** Any development activity, including associated structures and infrastructure, where the total area of the developed area is or intended to be 20 hectares or more.

- 1.4 You are further advised that the proposed mining activity constitutes the following activities listed in terms of GN No. R. 386 of 21 April 2006 that have come into effect, being:

**Activity 1:** The construction of facilities or infrastructure, including associated structures or infrastructure, for –

- (k) the bulk transportation of sewage and water, including storm water, in pipelines with -
  - (i) an internal diameter of 0,36 metres or more; or
  - (ii) a peak throughput of 120 litres per second or more;
- (m) any purpose in the one in ten year flood line of a river or stream, or within 32 metres from the bank of a river or stream where the flood line is unknown, excluding purposes associated with existing residential use, but including -
  - (i) canals;
  - (ii) channels;
  - (iii) bridges;
  - (iv) dams; and
  - (v) weirs.

**Activity 15:** The construction of a road that is wider than 4 metres or that has a reserve wider than 6 metres, excluding roads that fall within the ambit of another listed activity or which are access roads of less than 30 metres long.

**Activity 16:** The transformation of undeveloped, vacant or derelict land to –

- (b) residential, mixed, retail, commercial, industrial or institutional use where such development does not constitute infill and where the total area to be transformed is bigger than 1 hectare.

- 1.5. In addition to the above, the following listed activities may also be triggered:

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- Activity 4:** *The dredging, excavation, infilling, removal or moving of soil, sand or rock exceeding 5 cubic metres from a river, tidal lagoon, tidal river, lake, in-stream dam, floodplain or wetland.*
- Activity 12:** *The transformation or removal of indigenous vegetation of 3 hectares or more or of any size where the transformation or removal would occur within a critically endangered or an endangered ecosystem listed in terms of section 52 of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004).*
- Activity 25:** *The expansion of or changes to existing facilities for any process or activity, which requires an amendment of an existing permit or license or a new permit or license in terms of legislation governing the release of emissions, pollution, effluent.*

As such, the Bongani Minerals (Pty) Ltd must obtain the necessary approvals in terms of both the MPRDA and the NEMA EIA Regulations. To allow for cooperative governance and integrated decision-making, as called for by the Constitution and NEMA, the NEMA EIA process and the process in terms of the MPRDA should have been run in parallel. This Department, however, trusts that Bongani Minerals will submit their application for environmental authorisation to this Department in the very near future.

## 2. Mining and Local Authorities & LUPO:

With regards to the above, the Department would like to quote the following from the Mineral and Mining Policy for South Africa<sup>1</sup>:

*Government will seek to create an enabling environment for municipalities to maximise the positive role the mining sector can play in promoting Local Economic Development and Integrated Development Planning.*

*Government will encourage municipalities to capitalise on the comparative advantage associated with mining activity in their area of jurisdiction and will support mutually beneficial partnership between the mining industry and municipalities.*

*Mining companies will be required to comply with the local Development Objectives, spatial development framework and Integrated Development Planning of the municipalities within which they operate...*

*The minerals and mining industry will be governed at national level through a single lead department, but will obviously be required to comply with all national, provincial and municipal legislation.*

- 2.1. It must be noted that the property in question will either have to be rezoned or a temporary land use departure will have to be granted in terms of the Land Use Planning Ordinance, 1985 (Ordinance No. 15 of 1985) ("LUPO") before the land can be used for a use other than that permitted by the current zoning of the property.

<sup>1</sup> "The White Paper - A Mineral and Mining Policy for South Africa", Department of Minerals and Energy, 1998.

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Directorate: Integrated Environmental Management (Region B)*

**3. Preliminary comments on the Scoping Report:**

A proposed molybdenum ore and tungsten ore prospecting right application was previously commented on by this Department on 20 March 2009 (DME reference: 30/5/11/3/2/1(359) EM). In terms of this application, the applicant Nanda Investments (Pty) Ltd. has applied to prospect for these minerals on portions 2, 3, 4, 5, 7, 10, 11, 13 and the remainder of the Farm Namaquasfontein No.76, as well as portions 1, 2, 3, 5, 6 and 9 of the Farm Wilgenhoutdrift No. 48. Farm Wilgenhoutdrift No. 48 is located just north of Farm Namaquasfontein No.76. As such, this Department requests clarity regarding the inclusion of portion 13 in this application given that this portion is included in Bongani Minerals (Pty) Ltd. application for a mining permit. In addition, this Department would like to express its concern regarding the potential impacts the proposed mining activities may inflict on this area from a cumulative perspective. Careful consideration must therefore be exercised regarding mining activities of this magnitude since they pose a significant threat to natural ecosystems, land use and surrounding livelihoods. Cumulative impacts must be adequately considered.

**3.1. Specific issues:**

The following are key concerns this Department has identified:

**3.1.1. Impacts on the Verlorenvlei River Catchment:**

This Department is highly concerned with the proposed impacts that the proposed mining activity poses to the river directly affected by mining operations, namely the Krom Antonies River as well as the number of smaller tributaries that flow through the site into the larger Verlorenvlei River. The Verlorenvlei, a proposed RAMSAR protected site, is one of the largest wetlands on the West Coast that flows into the Atlantic Ocean at Elands Bay. At present, the Verlorenvlei is threatened by increased development along the coastline of Elands Bay, it is negatively impacted upon by overgrazing and ploughing as well as an increase in abstraction of groundwater resources for irrigation purposes on privately owned agricultural land. As such, the proposed mining activity must assess all potential direct, indirect and cumulative impacts. Additional information is however required in relation to the exact location of the proposed quarry in this regard. This prominent wetland is home to an abundant species of birdlife, fish and plant species, which must be protected. The ecological importance of the Verlorenvlei must therefore be highlighted as an important factor to be considered.

In light of the above, this Department supports the recommendation in Appendix 3a of the Scoping Report provided in the desktop Hydrology Report compiled by Withers Environmental Consulting (Pty) Ltd. which states, "it is recommended that a land-use survey for the entire Verlorenvlei River catchment be undertaken using remote sensing and verification by means of a field trip and if possible communication with farmers". In addition, the Scoping Report must provide full details regarding each component of the proposed mining processes in order to firstly identify the potential impacts that may be inflicted on river, its various tributaries and the catchment. At this stage, the Scoping Report does not contain enough information to clearly justify that these natural resources and critical ecosystems will not be negatively impacted upon. This Department hereby highlights the importance of identifying not only the direct impacts on the river catchment, but also the cumulative impacts associated with the proposed activity.

**3.1.2. Freshwater Resources:**

The draft Freshwater Impact Assessment Report compiled by Dr. Liz Day, dated April 2009, indicates that at this stage it is not possible to fully identify and assess the impacts likely to be associated with the proposed development. As such, this Department

*Department of Environmental Affairs and Development Planning  
Directorate: Integrated Environmental Management (Region B)*

reiterates its concerns regarding the lack of detail provided regarding the mining process. A detailed assessment is therefore required to ascertain what the potential impacts on freshwater ecosystems will be as a result of the mining operations, which include water quality changes, increase in sedimentation, increase in alien vegetation, loss of wetlands, encroachment on riverine buffer areas, etc. The Freshwater Report indicates that additional information is required prior to any formal assessment being carried out. As such, it is clear that the Scoping Report should have included this information. In terms of groundwater impacts, a detailed groundwater assessment must be conducted to determine the groundwater quality of the catchment presently as well as the potential pollution of groundwater resources as a result of the mining activity and the potential impact on groundwater flow in the long term.

**3.1.3. Water Demand:**

The Scoping Report does not provide any information on the estimated volumes of water that will be utilised during mining operation. In addition, no information is provided regarding any conservation measures that will be implemented. This Department is concerned about the amount of water that may be utilised by the proposed mining activity at this stage, based on the surrounding land uses that are highly dependent on the water resources. As such, this Department requests that a detailed assessment is completed. Since mining is proposed for a period of ± 20 years, the impact on water resource is of particular concern.

**3.1.4. Botany:**

In terms of the botanical impacts associated with the proposed mining operations, this Department would like to highlight the importance of protecting critically endangered as well as endangered ecosystems. In addition, areas which inhabit alien vegetation and which are over-grazed should not automatically be nominated as areas suitable for mining. A more detailed botanical specialist assessment is required to ascertain whether there are any additional species and remnants that are critically endangered. The Scoping Report does not provide any detailed information regarding the potential impacts associated with the proposed mining activities on the vegetation within the riverine environment. As such, these impacts must be assessed in more detail along with the botanical assessment.

**3.1.5. Land Use:**

Since the surrounding land uses mainly consist of agricultural activities, a precautionary approach must be applied when reviewing mining applications on agricultural land. Agricultural resources are currently threatened by increasing pressures of urban development and mining. As such, a detailed soil study of the Farm of Namaquasfontein, No. 76 and Farm No.297 must be done to assess its soil capability. The potential impacts of the proposed mining activity on the surrounding farms during the short and long term must therefore be identified and assessed.

**3.1.6. Public Participation Requirements:**

A number of concerns have been highlighted by interested and affected parties ("I&APs") regarding the proposed mining activity. In addition, this Department has also received a number of concerns from I&APs regarding this project. As such, this Department would like to highlight that all concerns raised by the I&APs must be considered throughout the application process. Public participation and the inputs and comments received from the public must inform the identification of key impacts and the formulation of feasible and reasonable alternatives.

*Department of Environmental Affairs and Development Planning  
Directorate: Integrated Environmental Management (Region B)*

**3.1.7. Alternatives:**

You are hereby reminded of the importance of providing a detailed description of all alternatives identified. It should be emphasized that reasonable alternatives must always be considered. This means that alternatives that have the potential to be implemented should be investigated. The reasons for considering one of the alternatives as the 'preferred alternative' must be clearly described. The project alternatives must be practical and realistic (i.e. have the potential to be implemented). It is not considered to be good professional practice to generate alternatives purely for the purpose of meeting the requirements of the applicable legislation. In terms of the alternatives identified in the Scoping Report, it is indicated that no activity alternatives will be investigated. You are hereby advised that this conclusion can only be determined once all the impacts have been identified and assessed. It is also critical to note that specialist advice and the concerns received from I&APs are essential in identifying and assessing alternatives. With regard to alternatives it is also significant to note that Regulation 49(1)(d) of GN No. R. 527 of 23 April 2004 specifies that a Scoping Report must "identify and describe reasonable land use or development alternatives to the proposed operation, alternative means of carrying out the proposed operation and the consequences of not proceeding with the proposed operation". While "alternative means" and the option of "not proceeding" have been addressed, the Scoping Report fails to meet the requirement in terms of Regulation 49(1)(d) which calls for the identification and description of "land use and development alternatives". Therefore, at this stage this Department is not satisfied with the information provided on alternatives.

**3.1.8. Air Quality Impacts:**

Details regarding the potential air quality impacts associated with the proposed mining activity must be provided. The accumulation of dust is a common concern that must be addressed in all mining applications since the larger mining plants often generate large amounts of dust. This issue was not adequately addressed considering that the combined mining activities may emit a substantial volume of dust. The importance of the establishment/implementation of adequate and realistic mitigation measures are thus highlighted in this regard.

**3.1.9. Roads and Traffic**

It is not clear which road infrastructure will be utilised by collection trucks. The report must include a map indicating the road infrastructure (names of the roads) that will be used by mining vehicles that will transport materials from the facility. As such, the applicant must also obtain comments from the Municipality and/or the Western Cape Department of Transport and Public Works regarding the potential traffic impacts associated with the proposed activity.

**3.1.10. Slime Dam:**

The Scoping Report fails to provide information regarding the potential impacts associated with the proposed slime dam. Slime dams often contain toxic chemicals and contents that could pose significant impacts on soil and water resources. These potential impacts must be identified in order to adequately scope and assess the associated impacts, and to formulate mitigation and management measures.

**3.1.11. Stormwater System:**

The Scoping Report does not provide any information regarding the proposed stormwater system to be implemented, which will ensure that the rate of runoff into freshwater ecosystems is reduced and the quality of runoff is managed appropriately.

*Department of Environmental Affairs and Development Planning  
Directorate: Integrated Environmental Management (Region B)*

3.2. The Scoping Report fails to provide information regarding the following:

3.2.1. In terms of the <sup>specified</sup> proposed layout, the Report must provide information regarding the following:

- the extent (area that will be covered in ha and/or m<sup>2</sup>) of the proposed pit areas;
- the extent of the waste dump;
- the extent of the slime dam; and
- location of the proposed haul road

**3.2.2. Processing Operations:**

3.2.2.1. In terms of processing operations, information must be provided in terms of the following:

- details regarding what each of the components in the process entails, which includes the two operations within the metallurgical plant. In addition to this, details must be provided regarding the infrastructure and/or equipment that will allow for crushing and stockpiling, flotation, gravity concentration, thickening and water storage, etc.;
- potential impacts that may be caused by specific components in the process;
- the volumes of waste material to be stockpiled;
- how often processed materials will be transported from the facility and how many tons will each truck be able to transport per trip; and
- how hazardous and general solid waste will be disposed.

3.2.2.2. As indicated above, it is essential that specific details regarding the proposed infrastructure are included in the report. This is essential since specific impacts would be associated with each of these components. The Scoping Report indicates that the proposed project would comprise of the establishment of a crushing and screening plant with a stockpiling and loading area, but no details, locations or adequate identification of the impacts associated with its establishment was provided. Crushers produce a large amount of noise, as well as dust, and the impacts of these activities on the surrounding areas are not adequately defined.

3.2.2.3. In terms of power supply that will be utilised, additional information regarding the power supply for the crusher plant generator must be provided. This information must be provided since the aboveground storage of fuel may constitute listed activity 7 of GN No. R.385 of 21 April 2006, which states: "The above ground storage of a dangerous good, including petrol, diesel, liquid petroleum gas or paraffin, in containers with a combined capacity of more than 30 cubic metres but less than 1 000 cubic metres at any one location or site".

|| 3.2.2.4. In addition, the report does not provide any information regarding infrastructure required for the mining plant such as water, electricity, waste and sewage disposal facilities.

**4. NEMA & Mining**

4.1. The National Environmental Management Principles (set out in Section 2 of the National Environmental Management Act, 1998 (Act No. 107 of 1998), which apply to the actions of all

328MR



**DEPARTMENT  
of AGRICULTURE**  
Provincial Government of the Western Cape



SUSTAINABLE RESOURCE MANAGEMENT: LandCare

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DEPT. VAN MINERALE EN ENERGIË PRIVAATSAK/PRIVATE BAG X9
ROEGGERAAN NO 12 DEPT. OF MINERALS AND ENERGY

REFERENCE: DME WC 30/5/11/3/2/1 (328) EM 2009-06-08

ENQUIRIES: P Herselman

For attention: Regional Manager, WC DME

Posted

**COMMENT: Scoping Report for Environmental Impact Assessment: Proposed Riviera Tungsten Open-cast Mining Project – Portion of Farm Namaquasfontein 76 & portion of Farm 297, Piketberg, Berg River Municipality. [Applicant: Bongani Minerals (Pty) Ltd – Molybdenum & Tungsten Ores.]**

The Western Cape Department of Agriculture wishes to thank you for the opportunity to comment on the above.

**Previous Public Participation Process (PPP.)**

This Office understands that there has been previous legal action during a previous, related Application regarding this Applicant, for rights on similar, if not the same, portions of land. This came about as a result of previous Public Participation – this Office is bemused as to why this legal action is not being taken into account by DME in an effort to spare this and other commenting authorities time & resource wastage.

This Office has been made fully aware of the many objections of the landowners in the area to this application & this Office is in possession of various letters of objection from landowners in the Moutonshoek Valley to this Application by Bongani Minerals.

This Office feels that because of the previous events this PPP needs to be both more comprehensive & more thoroughly interrogated than usual and requests that a very transparent & thorough PPP be ensured by DME during this Application.

**Comments:**

1. This Office is very concerned about the impact of eventual possible mining activities which would impact on the existing agricultural activities in what is considered to be a highly productive valley, able to sustain a rich & diverse variety of agricultural practices. This Office requests a fully comprehensive & independent Specialist Study to determine the Agricultural Potential of the land before any prospecting right be awarded, and more specifically, the potential loss of agricultural land should mining activities begin:

*Content of Specialist Study to include the following (suggested & possibly incomplete):*

- Conduct a comprehensive soil classification & soil potential study;
- Review the relationship between the soil study and the extent and potential of the present Agricultural activities on the land;
- Assess the loss of land to agriculture that the proposed activities would create, including estimated losses to (estimated / potential) mining activities;
- Assess the potential financial loss to agriculture (and individual landowners, in particular) should the proposed activities lead to the establishment of a mine; &

- Review mitigating measures for all of the above circumstances, including the possibility of calling the entire Valley a "no-go" area for this & similar Applications.

2. The Report indicates that the proposed prospecting activities will result in a pit depth of approx 200m, with the first ore being at approx 60m. This Office is concerned for the aquifers in the proposed area of activity lie 10 – 30m below the surface (see Preliminary Assessment of Impact of proposed Activities on Groundwater Resources.) It is also clear that this could lead to the accumulation of surface water which could potentially become contaminated enroute to the aquifer (see 2x Reports concerning present Water Quality & the Effect the Proposed Activities could have on the Quality of Freshwater) leading contamination of the aquifers in the Valley (SEE POINT #10 BELOW REGARDING MOLYBDENUM & OTHER ORES BEING CLASSED AS SULPHIDE ORES & THEIR POTENTIAL TO ACID FORMATION) and, as is clearly stated in the Report, most landowners make use of the groundwater for domestic and livestock watering purposes, and some for crop production.

Contamination of the groundwater would rob the Agricultural landowners of their right to make a living.

Due to this the Reports not fully dismissing the potential dangers pointed out above, this Office feels justified in requesting a more focused Specialist Study on the Impact of the Proposed Activity on the Groundwater Supply and Quality.

*Content of Specialist Groundwater Study (suggested & possibly incomplete):*

- Establish the depth of groundwater and groundwater quality;
- Establish a database to show the groundwater flow network for the area where drilling is contemplated & in the surrounding areas where the resource may be affected;
- Assess the impact resulting from the activities created by prospecting on the groundwater regime and the water table, and possible mining in the future;
- Assess the impact of the activities on the broader region's surrounding aquifers, including all neighbouring and other landowners who may source water from these underground reserves;
- Assess the impact of the drilling activity in the vicinity of any natural usage points (e.g. use at natural springs / fountains and wetlands);
- Investigate where the prospecting and potential mining operations will source water if not from underground sources on site and long-term effects on the entire Region; &
- Propose mitigation measures to minimize impacts to the satisfaction of all I&APs, including the possibility of recommending that the region be declared a "no-go" area to such Applications.

This Office is also aware that the Moutonshoek Valley is the most significant catchment & source of both surface water & "slower released" seepage water for the very significant wetland lower down in the river system known as Verlorenvlei. Natural wetlands are extremely important to agricultural production as they filter silt & other particles out of the water in & around rivers to create clean, usable water. Much of the economy of the rural town Elandsbaai is dependent on the Verlorenvlei - as a declared Ramsar site it is a significant tourist attraction and agricultural practices offer seasonal workers an income & is therefore also a large contributor to the town's economy. Should mining approval be sought & granted at a later stage the "Ramsar" designation will be withdrawn as one of the requirements of a Ramsar site is that it is 'not affected by mining activities' AND there could be significant damage done to the agricultural practices of the region. The result of these events would potentially deprive most residents of their present incomes in an area already reeling under the collapse of the fishing industry on the West Coast.

As far back as 2003 the CSIR's Lara van Niekerk did a **rapid reserve determination study (RDS) for Verlorenvlei** in which questions were raised regarding the understanding of the replenishment of the wetland which is obviously very complex. It could therefore be argued that any perceived threat to the source of the water feeding Verlorenvlei, if viewed as being a threat of such major proportions as to be able to result in the total destruction of the Verlorenvlei, needs to be viewed in a very serious light as it is **illegal to destroy a wetland. The loss of the Verlorenvlei would affect agricultural practices in the region.**

**This Office feels justified in requesting that the above "Specialist Study on the Impact of the Proposed Activity on the Groundwater Supply and Quality" be expanded to include a comprehensive "Reserve Determination Study for the Verlorenvlei" in order to determine that the proposed activities will not adversely affect the wetland (Verlorenvlei) which is regarded as being very significant in the bio-diversity which contributes to agricultural production in the region.**

*Content of a Specialist Reserve Determination Study for the Verlorenvlei which should follow the prescribed DWAF Methods (DWAF 2004) which is to be included as part of the Specialist Groundwater Study (suggested & possibly incomplete):*

- Undertake a comprehensive hydrological study that links and determines groundwater and surface water resources to the replenishment regime of the Verlorenvlei;
- Determine & assess the total contribution (groundwater and surface water) contributed by the Moutonshoek Valley;
- Determine & assess the potential water resource which the mining activities could remove from this contribution due to actions related directly & indirectly to future prospecting and mining activities i.e. water utilization / consumption, including a clear stipulation and identification of all recycled ("grey") water & non-reusable waters (without referring to "theoretical" or "potentially reusable" volumes – there are similar operations in practice and the Study is to use them as examples & identify them in the Report);
- Determine & assess the potential loss to the resource should the potential pollution threat caused by mining activities become a reality (see the potential dangers of sulphide ores and acid formation in point 10 below.)
- Review all information gathered, assess whether there are other contributing factors & potential contributors of value not yet considered, and, after reviewing those / their contributions, recommend mitigation measures, including the possibility of declaring the area a "no-go" region for the applied for activities.

**3. The area contains sensitive features that are essential to the sustainable functioning of the ecosystem and thus agriculture. The following need to be incorporated as conditions of the Activity:**

- That no wetland or drainage area be disturbed or crossed, and no activity be carried out within 100 m of the edge of such a feature or possible feature;
- That no natural water run-off or natural water drainage (conveyance) or dry river beds be disturbed or crossed, and no activity be carried out within 50 m of the edge of such a feature (or 100m from the lowest natural line running down such a feature) or possible / suspected feature, &

**This Office further recommends that a Specialist GIS desk top and site study be undertaken to map exactly which areas may be utilised for the proposed activities, and which may not, to produce a working / site map which identifies areas where boreholes can be drilled which needs to be fully workshopped with the landowners and I&APs.**

4. Any proposed activity on the properties would potentially affect the landowners' and neighbours' activities in the generation of their income and it is therefore recommended that
- No activities be carried out within a 250 m radius from any residence;
  - No activities be carried out within a 100 m radius from any existing infrastructure, including roads, drinking troughs, fences, cables, etc;
  - No activities be carried out without prior discussion and written consent from the landowner.
5. All prospecting sites need to be fully fenced off during activities and all prospecting holes need to be closed off immediately after the cessation of activities. No holes are to be left uncovered when the fence is removed due to the danger posed to humans and animals.
6. The mitigation of dust creation & dust control during the prospecting is very important. Using water to dampen dust "down" is not sufficient, and more attention to detail regarding this aspect is requested.
7. The use of drip trays and impenetrable surfaces under vehicles for the control of oil spillages and other contaminants while at drilling sites (especially the drilling rig/s) is to be enforced as an essential part of the protocol, and this Office requests that this be made a part of the requirements of the Report.
8. All heavy vehicles need to be parked on impenetrable surfaces overnight and over longer periods of inactivity during the proposed prospecting period. This is an essential part of the protocol, and this Office requests that this be made a part of the conditions of the activity, and of course attention & responsibility needs to be proportioned regarding the roads in the area which will need to be upgraded & maintained to handle the heavier vehicles.
9. Responsibility for actions on the prospecting site is not fully defined in the report. An on-site person would be an ideal candidate. This is an essential part of the protocol, and this Office requests that this be made a part of the conditions of the activity.
10. **Tailing Dumps & Slimes Dams.** The storage and or disposal of the waste materials at a Molybdenum / Tungsten mine could directly and indirectly affect agricultural practices in the proximity of such a mine as well as further afield and potentially have a significant impact on agricultural production in the Valley. All types of mines, large and small, produce some waste materials, and in the case of Molybdenum & Tungsten ores these are the tailings (from the process of ore extraction) and the much larger sized waste rock (non ore bearing rocks) from the mine itself and **two aspects related to this greatly concerns this Office:**
- On the "physical level," the coarse waste rock is typically stored in large dumps or piles & the stability of these heaps and their resistance to water and wind erosion are important factors in determining the short and long term viability of the surrounding agricultural practices.
  - On the "chemical reactivity level," some minerals, especially sulfide minerals (of which molybdenum is one) will eventually, on exposure to air and water, begin to produce acid which will leach into run-off water to be dispersed into both ground and surface water.

It is therefore clear that certain significant hazards to the landscape, agricultural practices and possibly the health of residents could exist in the event of this activity resulting in a mine (lead and copper are also sulfide minerals.) This Office therefore requests a **Specialist Study at this early stage of the process to investigate and Review the proposed Storage, Processing**

**and Waste Handling, as well as the potential danger imposed by such Waste as a Pollutant to Surface & Groundwater, of Mining Sites similar to this one.**

*Content of Specialist Mine Waste Production & Handling Study (suggested & possibly incomplete):*

- The expected volumes and storage of mine waste by-products generated by a mine similar in size to the one which the Applicant expects to establish on the site (according to knowledge at hand);
- Review whether tailings would be placed into earth dams, and specifically review the planning of these dams, the long term stability of the walls as well as the permeability of the dams insofar as leaking and leaching is concerned;
- Review the physical safety as well as long term stability of these waste storage areas;
- The chemical reactivity of the waste with the environment, especially regarding sulphide minerals, most importantly those of copper, lead & molybdenum;
- Review the health risk posed to the environment & humans in the region of the proposed mine;
- Review methods to delay the onset and minimize the extent of these potentially harmful reactions;
- Propose mitigation measures to minimize the permeation of air and water into waste piles;
- Recommend mitigation measures for all of the negative impacts the Study flags; &
- Review whether or not such mitigation measures will be sufficient to prevent all pollution of the air & water, and if necessary make further recommendations for mitigation measures, including recommending the area as a "no-go" area for the activities.

11. The Report's Social Commitment report is very quick to refer to all of the benefits that the granting of the Application could potentially achieve. **There is always a practical flip side to such benefits: Increased pressures on the local small school (= new resources would be required from the Govt); potential migration of farm workers from their present employment (= labour shortages on the farms); requirements for increased policing (= new resources would be required from the Govt); etc; etc.** These potential Social "downsides" need to be considered together with the "upside" as outlined in the Report, and it needs to be made part of the consideration process in granting the Application.

No financial guarantee is yet being mentioned, but in anticipation of such figures being negotiated, this Office estimates the rehabilitation cost at a minimum of R 10 000-/m<sup>2</sup>, a figure which should allow the DME to undertake the rehabilitation of the damage in the event of it being required to do so. **This Office therefore requests that the financial provision for the proposed activity be set at a figure of R 406,6 million (40 625m<sup>2</sup> - 325m x 125m - @ R 10 000 / m<sup>2</sup> + roads @ R 350 000-),** while making it clear that the granting of the Application does not in any way absolve the Applicant from future litigation by the Agricultural Community for loss of income / ability to make a living on the surrounding land due to the proposed activity.

**Request for the Inclusion into the Report of an Agreement for the Rejection of any further Application on the Grounds of the Prospecting Activities revealing that Mining of Ore could be classified as Marginal.**

This Office requests that in the event of the any Permit being awarded, any indication during future consideration of mining of the ores being applied for in this Application would be of an economically marginal nature, that the application for a Mining Permit be declared as a 'no-go' option as part of this EMP to which all parties agree.

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.



**Paul Herselman**  
4 June 2009.

cc **The Municipal Manager – Berg River Municipality.**

**JH Briers – Regional Manager: Mineral Development - WC Region, DME, CAPE TOWN. 021-419 6260**

**J Melj – PDA: LandCare, MOORREESBURG 022-433 2330**

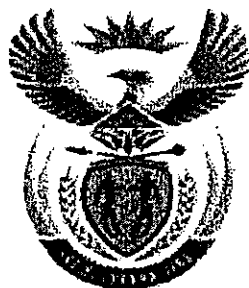
**MM Charle – Head of Audit Office: Land Use & Soil Man, NDA - BELLVILLE. 021-949 9886.**

**J Smit – Manager: Land Use, WC Department of Agriculture, P/Bag X1, ELSENBURG 7607**

**D. Malherbe - CN**

**G. Garber - DEA&DP**

**C. Malherbe – Conservation Officer, CWDM**



# water & forestry

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**REPUBLIC OF SOUTH AFRICA**

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Withers Environmental Consultants

P.O. Box 6118

**UNIEDAL**

7612

**Attention: Mr. A Withers**

Dear Sir

**PROPOSED RIVIERA TUNGSTEN OPEN-CAST MINING PROJECT, SCOPING REPORT ON PORTIONS 1, 6, 13 OF THE FARM NO. 297, PIKETBERG**

The scoping report received from Withers Environmental Consultants (dated 05 May 2009, reference: WC 30/5/1/2/2(328) MR) has reference.

The Department has reviewed the document and has the following comments:

**This Department have serious concerns regarding this application and the impacts the project can have on surface and groundwater. This project will also have negative impacts on other water users in this catchment.**

- **Please note that the mining company (Bongani Minerals (Pty) Ltd) will have to apply for a water use licence to this Department. The applicant**

**will have to convince this Department why a licence should be granted and how negative impacts will be mitigated.**

- Please note that the application for an Authorisation must be made in terms of sections 21 (c), (i) and (j) of the National Act (Act 36 of 1998).

### **5.1.3 WATER QUALITY**

- Please refer to the report of water quality by J. N. Roussow. J.N Roussow stated that the river must be maintained at its present state to prevent further deterioration in quality in the ecological sensitive Verlorenvlei. A thorough water quality management plan will have to be provided to this Department as part of licence application. This plan must include aspects such as a water quality monitoring programme; impacts on the water resources and wetland before, during commissioning and after mining activities have ceased.

Please note that the Verlorenvlei is listed as a RAMSAR site and therefore regarded as a protected resource. **Verlorenvlei is already threatened due to other activities and mining will cause further negative impacts on the resource.**

- **Please note that a comprehensive study must be done on the wetland.**

### **5.1.7 FRESHWATER ECOSYSTEMS**

- Potential impacts identified by Dr. Day are of serious concern to this Department as it can have a negative impact on the water resource. This Department is interested to know what the present ecological state and classification of the river is and how the mining activity will impact on the present state.
- **Please provide this Department with:**
  - A Storm water management plan. This plan must include specific measures to reduce the rate of runoff into freshwater ecosystems and to manage the quality of runoff.
  - Detailed estimates for dewatering and include estimates of water volume. Also note that leaving a final void is not acceptable and this issue will have to be addressed in the report.

- A comprehensive groundwater study. This report must include the breakdown of groundwater quality, interactions between surface and groundwater etc.
- Please provide details on water supply and sewage disposal management.
- Please provide this Department with a detailed rehabilitation and end use plan.

Please do not hesitate to contact the above mentioned official, should you have any queries.

Yours faithfully

  
AA **CHIEF DIRECTOR: WESTERN CAPE**

Date: 5 June 2009

**cc. Department Minerals and Energy: Ms N. Mgcolwa, Fax: 021 419 6262**

**cc. Department Environmental and Development Planning: Ms T. Maart,**  
email: [tmaat@pgwc.gov.za](mailto:tmaat@pgwc.gov.za)

27. May. 2009 9:47

BERGRIVIER MUNICIPALITY

No. 4016 P. 1/3

**MUNISIPALITEIT BERGRIVIER MUNICIPALITY**

Rig alle korrespondensie aan:  
Die Munisipale Bestuurder

Address all correspondence to:  
The Municipal Manager



P O Box 60  
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bergrivier@bergmun.net

Verwysing/Reference 16/M

Navraag/Enquiries W. Wagner

28 May 2009

The Regional Manager: Mineral Regulation  
Department Minerals and Energy  
Private Bag X9  
ROGGE BAY  
8012

**CONSULTATION IN TERMS OF SECTION 49 OF THE MINERAL AND PETROLEUM  
RESOURCES DEVELOPMENT ACT, 2002 (ACT 28 OF 2002) FOR INPUT INTO SCOPING  
PROCESS AND EIA  
(PORTION OF FARM NAMAQUASFONTEIN 76 AND PORTION 1 OF FARM NO. 297,  
PIKETBERG MAGISTERIAL DISTRICT)**

Your letter referenced WC 30/5/1/2/3/2/1(328) EM dated 8 May 2009 refers.

In terms of the Land Use Planning Ordinance, 1985 (Ordinance 15 of 1985) no person shall contravene or fail to comply with the provisions incorporated in a zoning scheme compiled in terms of Ordinance 15 of 1985. The subject property is located in an area where the Scheme Regulations compiled in terms of Section 8 of Ordinance 15 of 1985 are applicable.

The subject property is currently zoned Agricultural Zone 1, which does not make provision for mining. Mining activities are accommodated as the primary use of Industrial Zone 3. The subject property will therefore have to be rezoned in order to legally operate a mine. Alternatively application can be made in terms of Section 15 of Ordinance 15 of 1985 to utilise the agricultural zoned land, on a temporary basis, for mining activities.

Mining activities must furthermore comply with the policy guidelines contained in the Berg River Municipal Spatial Development Framework (approved in terms of the Municipal Systems Act, 2000 via Council Resolution RB 730 of 20 October 2008). A copy of the relevant policy guidelines are hereby attached.

Regards

  
JD JOUBERT  
DIRECTOR: ADMINISTRATIVE SERVICES

27. May. 2009 9:47

BERGRIVIER MUNICIPALITY

No. 4016 P. 2/3

### Bergrivier Spatial Development Framework, 2008

verwerkingsaanlegte, steenmakerye, metaalwerke, akwakultuur, ens.

- Ligte nywerheidsgebiede moet ingesluit word as Subkategorie E.b-gebiede.
- Waar 'n ligte nywerheid saam met 'n ontginningsnywerheid ontwikkel word, bv. waar klei ontgin word en 'n steenmakery voorkom, moet aan alle wetlike regulasies voldoen word en permitte verkry word vir die ontginning van minerale. Sien ook afdeling oor ontginningsnywerhede.
- Sleigs nywerhede wat waardetoevoegend tot die landbou-, mariene- en mynbousektore is behoort oorwegend te word.
- Die estetiese gehalte van 'n gebied moet 'n bepalende faktor wees ten opsigte van die skaal en vorm van die nywerheid.
- Nuwe ontwikkelings moet kompakte eenhede uitmaak om onderandere dienste- en infrastruktuur voorsiening te rationaliseer.
- Waar nywerhede langs vername roetes gebou staan te word behoort aan die vereistes van die verantwoordelike padowerhede voldoen word, veral die standaard norme wat vir toegang en verkeersbeweging toegepas word.
- Ontwikkelings moet ooreenkomstig terrein-spesifieke ontwerp- en beplanningariglyne uitgevoer word.
- Die beplanning- en ontwerpproses moet onderandere die volgende aanspreek:
  - Argitektoniese ontwerp.
  - Stadsontwerp om 'ruimte' te bou.
  - Materiaal wat gebruik moet word.
  - Omhulings (indien enige).
  - Hoogte en omvang van strukture.
  - Aantal strukture.
  - Landakapering.
  - Voorsiening van toegang, parkering en draairuimtes
  - Advertensietekens.
- Die plaasing van geboue op die terrein moet die natuurlike helling, plantegroei, ens. in ag neem.
- Toepaslike landakaperingstrategieë moet deel uitmaak van ontwikkelingsvoorstelle.
- 'n Aanduiding moet gegee word van die mase waarin die aanleë van dienste die omgewing sal raak en voorgestelde rehabilitasie maatreëls indien nodig.
- Kleinskaalse omgewingsensitiewe nywerhede ("home-based") is toelaatbaar in die landelike gebied buite Subkategorie E.a-gebiede, mits dit nie 'n negatiewe impak op die oorheersende landelike karakter van sodanige gebied het nie en dit ook 'n bydrae kan lewer tot die bevordering van die toerismepotensiaal en skop van werksgeleenthede.

#### 5.3.4.3 Ontginningsnywerheid (mynbou)

Dit word gemerk dat daar slegs beperkte mineraalbronne binne die studiegebied is wat ontgin kan word. Waar ontginning agter wel moontlik is behoort aansoekers om mynbou-ontwikkeling aan die volgende riglyne te voldoen:

- Ontginningsnywerhede moet ingesluit word as Subkategorie E.d-gebiede.
- Toewysings van grond vir mynbou en groewe in gebiede waar beskermde of omgewingsensitiewe elemente onherstelbaar versteur kan word moet verbied word.
- Na gelang van die verwagte impak en omvang van die voorgestelde mynboubedrywigheid, kan 'n volledige OIB en volle publieke deelname vereis word.
- Die nodige permitte om minerale, klippe en sand te myn, moet kragtens die Wet op Minerale, 1991 (Wet 50 van 1991) van die Departement Minerale en Energie verkry word.
- Aansoekers moet kragtens artikel 15(1)(a)(ii) van die Wes-Kaapse Wet op Beplanning en Ontwikkeling, 1999 aansoek doen om 'n tydelike afwyking om die grond tydelik vir 'n termyn van 10 jaar of 'n verlengde tydperk te gebruik.
- 'n Omgewingsbestuursprogramverdrag moet aan die Departement van Minerale en Energie voorgelê en goedgekeur word voordat mynboubedrywighede kan plaasvind.
- Rehabilitasie van dele van die ontginde gebied moet saam met die mynboubedrywighede plaasvind, veral t.o.v. sand-, klip en gruismynbou. 'n Omgewingsbestuurbeampte moet aangestel word om die rehabilitasie te monitor en finansiële waarborgs moet in plek gestel word om die rehabilitasie te doen.

... plaasvind, verkry word.

Sorg behoort gedra te word dat rioolsypeling, waar ontwikkelings naby 'n strand, agter die primêre duinstelsel of aanliggend aan 'n rivier en monding toegelaat word nie die

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