



**SOUTH AFRICAN HERITAGE RESOURCES AGENCY**  
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FOR ATTENTION: **PHRA: Eastern Cape**

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## **REVIEW COMMENT ON ARCHAEOLOGICAL AND PALAEONTOLOGICAL IMPACT ASSESSMENTS**

**BY ARCHAEOLOGY, PALAEONTOLOGY AND METEORITES UNIT OF THE SOUTH AFRICAN HERITAGE RESOURCES AGENCY**

*South Africa has a unique and non-renewable archaeological and palaeontological heritage. Archaeological and palaeontological sites are protected in terms of the National Heritage Resources Act (Act No 25 of 1999) and may not be disturbed without a permit. Archaeological Impact Assessments (AIAs) and Palaeontological Impact Assessments (PIAs) identify and assess the significance of the sites, assess the potential impact of developments upon such sites, and make recommendations concerning mitigation and management of these sites. On the basis of satisfactory specialist reports SAHRA or the relevant heritage resources agency can assess whether or not it has objection to a development and indicate the conditions upon which such development might proceed and assess whether or not to issue permission to destroy such sites.*

*AIAs and PIAs often form part of the heritage component of an Environmental Impact Assessment or Environmental Management Plan. They may also form part of a Heritage Impact Assessment called for in terms of section 38 of the National Heritage Resources Act, Act No. 25, 1999. They may have other origins. In any event they should comply with basic minimum standards of reporting as indicated in SAHRA Regulations and Guidelines.*

*This form provides review comment from the Archaeologist of the relevant heritage resources authority for use by Heritage Managers, for example, when informing authorities that have applied to SAHRA for comment and for inclusion in documentation sent to environmental authorities. It may be used in conjunction with Form B, which provides relevant peer review comment.*

**A. PROVINCIAL HERITAGE RESOURCES AUTHORITY: Eastern Cape, Mr Sello Mokhanya**

**B. AUTHOR OF THE REPORT: Len van Schalkwyk and Elizabeth Wahl**

**C. ARCHAEOLOGY CONTRACT GROUP: eThembeni**

**D. CONTACT DETAILS: Box 20057, Ashburton, Pietermaritzburg, email: thembeni@iafrica.com**

**E. DATE OF REPORT: 31 October 2011**

**F. TITLE OF REPORT: Phase 1 HIA of proposed network strengthening of the Ruigtevallei-Dreunberg 132kV power line, local municipality (sic), Eastern Cape Province, South Africa**

**B. AUTHOR OF THE REPORT: Dr John Almond**

**C. ARCHAEOLOGY CONTRACT GROUP: Natura Viva CC**

**D. CONTACT DETAILS: P.O. Box 12410, Mill Street, Cape Town 8010, email: naturaviva@universe.co.za**

**E. DATE OF REPORT: October 2011**

- F. TITLE OF REPORT: **Palaeontological Specialist Study: Desktop Assessment Proposed Ruigtevallei – Dreunberg 132 kV transmission line, Gariep Local Municipality, Eastern Cape**
- G. Please circle as relevant: Archaeological and Palaeontological components of EIA / EMP / HIA / CMP/ Other (Specify) **BAR**.....
- H. REPORT COMMISSIONED BY (CONSULTANT OR DEVELOPER): **Arcus GIBB Engineering and Science**
- I. CONTACT DETAILS: **Box 19844, Tecoma, 5214, Ms Mary Anne Crocker, email: macrocker@gibb.co.za**
- J. COMMENTS: .....
- Please see comment on next page .....*

## **REVIEW COMMENT ON ARCHAEOLOGICAL AND PALAEOONTOLOGICAL IMPACT ASSESSMENTS**

**Mr L. van Schalkwyk and Ms E. Wahl**

**Dated: October 2011, Received: May 2012**

**Phase 1 HIA of proposed network strengthening of the Ruigtevallei-Dreunberg 132kV power line, local municipality (*sic*), Eastern Cape Province, South Africa**

**Dr J. Almond,**

**Dated: October 2011, Received: May 2012**

**Palaeontological Specialist Study: Desktop Assessment Proposed Ruigtevallei – Dreunberg 132 kV transmission line, Gariep Local Municipality, Eastern Cape**

### **INTRODUCTION**

Eskom is proposing the establishment of a new 132kV 90km overhead power line from the Ruigtevallei substation to the Dreunberg substation in the Gariep Local Municipality. In terms of the National Environmental Management Act, this project requires the compilation of a Basic Assessment report, the draft version of which was submitted to SAHRA on the 15<sup>th</sup> of May 2012 by the Environmental Independent Practitioner, Arcus GIBB Engineering and Science. While three alternatives are currently proposed for the line, Alternative 1 is the preferred and shortest route.

The power line will require the erection of towers every 1.5km and the establishment of a 6m wide strip along the entire route. The project will also require a construction area and a blast area of 1.5 x 1.5 x 2.5m for each tower, access roads and construction camps.

An archaeological impact assessment and a palaeontological desktop assessment were included in the Draft Basic Assessment Report.

### **DISCUSSION**

The archaeological impact assessment is, as a matter of fact, a scoping report, and therefore an archaeological field survey is still necessary before the final route of the power line may be decided.

The proposed line was driven and walked over two days by eThembeni and the specialists identified no heritage resources which may be affected by the development. No details about the methodology are given in the report and it is therefore not known which sections of the route were walked and which were driven and why.

Previous assessments undertaken in the province have identified a high number of graves along proposed power lines. It is therefore likely that burials may be located along the route.

Identification of heritage resources at a later stage will most likely require mitigation and re-routing of the power line. Hence, considering the general tight time frame of this type of projects, SAHRA recommends that the field survey is undertaken well before construction is planned and the report from the field survey must be submitted to the heritage agency before the Environmental Authorization is awarded.

From a geological perspective the three alternatives are underlain by sediments of the Lower and Upper Beaufort Group intruded by dolerite and capped by Quaternary to recent superficial deposits.

The Adelaide Subgroup, of the Lower Beaufort Group is represented within the study area by the *Cistecephalus*, *Dicynodon* and lowermost *Lystrosaurus* Assemblage Zones, all of which are of high palaeontological sensitivity.

The Upper Beaufort Group is underlying all three alternatives with the Tarkastad Subgroup here divided into the two successive Katberg and Burgersdorp Formations, both of which are of high palaeontological sensitivity.

While the Karoo Dolerite Suite contains no fossils, the more recent superficial deposits may be fossiliferous. However, only a field survey will confirm this.

Considering all the above, from a palaeontological perspective all alternatives are equally preferred.

It is unclear why it was decided to undertake a desktop study instead of a Phase 1 PIA inclusive of a field assessment, however this must be undertaken before an Environmental Authorization is awarded. If palaeontological resources of significance are identified along the route during the assessment, mitigation may be necessary.

Alternative 1 of the power line is expected to border the Oviston Nature Reserve for about 500m and the specialists inform that the proposed power line may impact on the visual aspect of the Reserve, however no mitigations is suggested for this.

### SAHRA RECOMMENDATIONS

After assessing the archaeological and the palaeontological reports SAHRA requires that:

- A Phase 1 Palaeontological Impact Assessment inclusive of a field survey be undertaken as soon as possible to understand the real impact of the proposed power line on fossil material. The report must be then submitted to SAHRA for further comments. Mitigation of sites may be required.
- A Phase 1 Archaeological Impact Assessment inclusive of a field survey be undertaken as soon as possible to identify archaeological material and burial grounds and graves which may be impacted by the development. The report must be then submitted to SAHRA for further comments. Rerouting of the power line or mitigation of sites may be required.

### CONCLUSION

SAHRA will make further recommendations on this project once the reports from the archaeological and palaeontological field surveys are submitted. No construction or development should commence before further recommendations are received.

Please note that it is normal practice for a field survey to be undertaken as Phase 1 of the Archaeological and Palaeontological Impact Assessment and not a later stage as in this instance. SAHRA discourages practitioners from undertaking this practice in the future.

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SIGNATURE OF SAHRA HEAD ARCHAEOLOGIST: ..... 

EMAIL: cscheermeyer@sahra.org.za .....

NAME OF HERITAGE RESOURCES AGENCY: SAHRA .....

PLEASE NOTE THAT THE COMMENT (ABOVE OR APPENDED) CONSTITUTES THE COMMENT OF THE HERITAGE RESOURCES AGENCY ARCHAEOLOGIST AND THAT ANY DEVELOPMENT THAT INVOLVES DESTRUCTION OF ANY ARCHAEOLOGICAL/PALAEONTOLOGICAL SITE IS STILL SUBJECT TO A PERMIT/PERMISSION FOR DESTRUCTION OF SUCH SITE GIVEN TO THE DEVELOPER BY THE RELEVANT HERITAGE RESOURCES AGENCY ARCHAEOLOGICAL AND PALAEONTOLOGICAL PERMIT COMMITTEE (THIS WILL BE SUBJECT TO APPROVAL OF THE PHASE 2 OR ARCHAEOLOGICAL/ PALAEONTOLOGICAL MITIGATION AS NECESSARY). THIS REPORT MAY BE TAKEN ONLY AS APPROVAL IN TERMS OF SECTION 35 OF THE NATIONAL HERITAGE RESOURCES ACT. THE PROVINCIAL MANAGER OF THE HERITAGE RESOURCES AUTHORITY MUST ADVISE AS TO APPROVAL IN TERMS OF HERITAGE ISSUES ENCOMPASSED BY OTHER ASPECTS OF THE LEGISLATION, SUCH AS ISSUES OF THE BUILT ENVIRONMENT (STRUCTURES (E.G. FARM HOUSES), OVER 60 YEARS), INDIGENOUS KNOWLEDGE SYSTEMS OR OF CULTURAL LANDSCAPES AS THIS IS NOT WITHIN THE SCOPE OF THE ARCHAEOLOGIST.