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19 November 2011

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***Phase 1 Heritage Resource Impact Assessment (Scoping & Evaluation)***  
**45MW SOLAR POWER FARM AT KA-SIYANDANI**  
**GIYANI: MOPANI DISTRICT - LIMPOPO PROVINCE**  
**STATEMENT WITH REGARD TO HERITAGE RESOURCES MANAGEMENT**

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**Map reference:** South Africa 1:50000 2330 BC  
**General co-ordinates:** S23°16'17.4" E30°41'05.70"

### **INTRODUCTION**

The statement with regard to heritage resources management addresses the proposed development of a 45MW solar power farm at Ka-Siyandani Village near Giyani (farm Greater Giyani 891 LT).

The Project proposal constitutes an activity, which may potentially be harmful to heritage resources that may occur in the demarcated area. The National Heritage Resources Act (NHRA - Act No. 25 of 1999) protects all structures and features older than 60 years (section 34), archaeological sites and material (section 35) and graves and burial sites (section 36). In order to comply with the legislation, the Applicant requires information on the heritage resources, and their significance that occur in the demarcated area. This will enable the Applicant to take pro-active measures to limit the adverse effects that the development could have on such heritage resources. (For pertinent legislation see Appendix A)

In order to comply with legislation, the developer requires information on the heritage resources, and their significance that may occur on the demarcated site. This would enable the developer to take pro-active measures to limit the adverse effects, which the development could have on any heritage resources. (For pertinent terminology see Appendix B).

### **TERMS OF REFERENCE**

The author was contracted to undertake a Phase 1 *Heritage Resources Impact Assessment* for the proposed development. The aim of the assessment was to determine the **probability** of the presence of heritage resources such as archaeological or historical sites and features, graves and places of religious and cultural significance; to assess the impact of the proposed project on such heritage resources; and to submit appropriate recommendations with regard to the cultural resources management measures that may be required at affected sites / features. This survey forms part of the EIA-scoping process and data regarding the environmental and socio-demographic conditions and issues should be read in the main report.

Consequently, a letter containing a qualified statement of the *status quo* with regard to heritage resources, instead of a full report, is deemed sufficient.

## **DESCRIPTION OF THE TERRAIN**

The proposed terrain is located approximately 2km north-west of the Giyani CBD. The vegetation seems to be on the border of Mixed Lowveld Bushveld and Mopane Bushveld (Low & Rebelo 1996). Parts of the surface area have been degraded by agricultural activities and bush clearance. Most of the area is now used for grazing and numerous foot paths cross the terrain.

## **METHODOLOGY**

A pedestrian survey of the demarcated area was undertaken, during which standard methods of observation were applied. Visibility was good and no limitations were experienced. As most archaeological material occur in single or multiple stratified layers beneath the soil surface, special attention was given to disturbances, both man-made such as roads and clearings, as well as those made by natural agents such as burrowing animals and erosion. Special attention was given to disturbances, either natural or man-made, as well as changes in vegetation that may have resulted from previous human intervention.

## **DISCUSSION**

According to the most recent archaeological cultural distribution sequences by Huffman (2007), this area falls within the distribution area of various cultural groupings originating out of both the Urewe Tradition (eastern stream of migration) and the Kalundu Tradition (western stream of migration). The facies that may be present are:

|                                 |  |
|---------------------------------|--|
| Urewe Tradition: Kwale branch – | Silver Leaves facies AD 280 – 450 (Early Iron Age) |
|                                 | Mzonjani facies AD 450 – 750 (Early Iron Age)      |
|                                 | Garonga facies AD 750 – 900 (Early Iron Age)       |
| Moloko branch -                 | Icon facies AD 1300 - 1500 (Late Iron Age)         |
| Kalundu Tradition: –            | Kgopolwe facies AD 1030 – 1350 (Middle Iron Age)   |
|                                 | Tavatshena facies AD 1450 – 1600 (Late Iron Age)   |
|                                 | Letaba facies AD 1600 - 1840 (Late Iron Age)       |

None of the above-mentioned archaeological remains or other heritage remains of importance were noted on the terrain. No archaeologically induced ecologically disturbed area was observed either. However, the archaeological cultures referred to above may be present as obscured subterranean deposits.

## **MANAGEMENT AND MITIGATION MEASURES**

No management or mitigation measures are required. This letter serves to confirm that *no significant heritage resources* such as archaeological or historical material or places of social or religious significance were found on the site of the proposed development. *From a heritage resources management point of view, we have no objection with regard to the development.*

*The discovery of previously undetected subterranean heritage remains on the terrain must be reported to the Limpopo Heritage Authority or the archaeologist, and may require further mitigation measures.*

## REFERENCE

**Huffman, T.N. 2007.** *Handbook to the Iron Age. The Archaeology of Pre-colonial Farming Societies in Southern Africa.* University of KwaZulu-Natal Press.

**Low, A.B. and Rebelo, T.G. 1996.** *Vegetation of South Africa, Lesotho and Swaziland.* Pretoria, South Africa. Dept. of Environmental Affairs and Tourism, Pretoria.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Roodt', written in a cursive style.

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FRANS ROODT (*BA Hons, MA Archaeology, Post Grad. Dip. Museology: UP*)  
Principal Investigator for R & R Cultural Resource Consultants

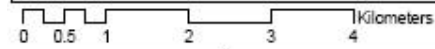
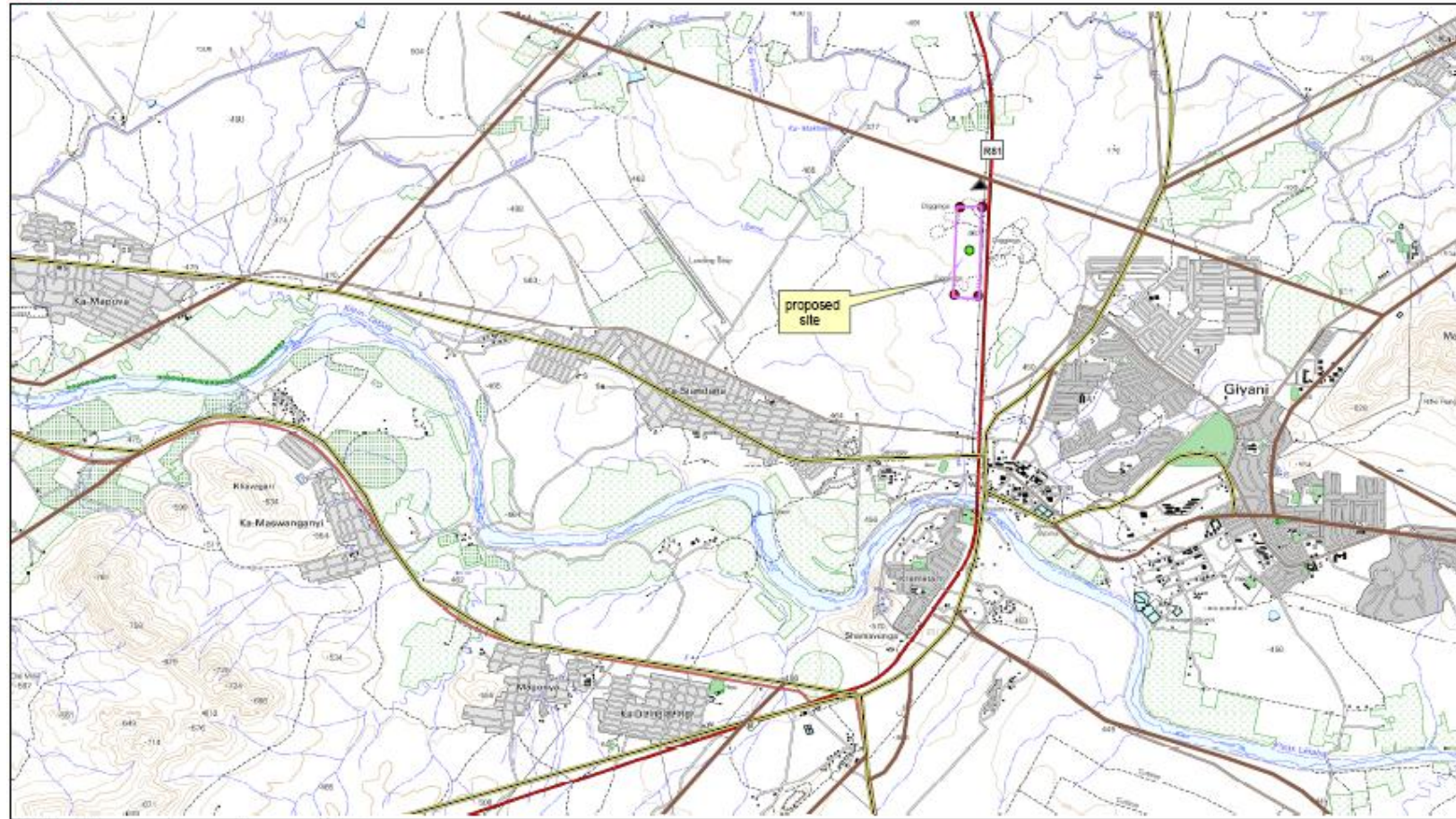


Fig 1. General view of the terrain. Note deforestation.



Google image of the proposed terrain.

2330BC



1:50 000

|  |   |  |  |   |  |
|--|---|--|--|---|--|
| <p><u>Title:</u><br/>locality map for the proposed development of the 45mw solar power station</p> | <p> River/Stream<br/> Primary Road<br/> Tertiary road<br/> Secondary road</p> | <p><u>Legend:</u><br/> Boundaries<br/> Bush<br/> plantations<br/> Access point<br/> Dam<br/> Buildings</p> | <p><u>Central Co-ordinates:</u><br/><br/>30°41'5.96"E, 23°16'54.31"S</p> | <p><u>Prepared by:</u><br/>Phaki-Phakanani Enviromental Consultants<br/><i>'Gantsoe Bontsoale Phakane Tshepo'</i><br/>Drawn by: Ntwanano Marima<br/>email: Ntwanano@phakanani.co.za</p> | <br>06 Paul Kruger Street<br>POLOKWANE<br>0700<br>Tel: 015 295 7301<br>Fax: 086 618 5960 |
|--|---|--|--|---|--|

Locality Map

## **APPENDIX A**

In terms of the National Heritage Resources Act 25 of 1999 the following is of relevance:

### **Historical remains**

**Section 34(1)** No person may alter or demolish any structure or part of a structure, which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

### **Archaeological remains**

**Section 35(3)** Any person who discovers archaeological or palaeontological objects or material or a meteorite in the course of development or agricultural activity must immediately report the find to the responsible heritage resources authority, or to the nearest local authority or museum, which must immediately notify such heritage resources authority.

**Section 35(4)** No person may, without a permit issued by the responsible heritage resources authority-

- (a) destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite.

### **Burial grounds and graves**

**Section 36 (3)** No person may, without a permit issued by SAHRA or a provincial heritage resources authority-

- (a) destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or
- (b) bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation equipment, or any equipment which assists in detection or recovery of metals.

**Section 36 (6)** Subject to the provision of any law, any person who in the course of development or any other activity discovers the location of a grave, the existence of which was previously unknown, must immediately cease such activity and report the discovery to the responsible heritage resources authority which must, in co-operation with the South African Police Service and in accordance with regulations of the responsible heritage resources authority-

- (a) carry out an investigation for the purpose of obtaining information on whether or not such grave is protected in terms of this Act or is of significance to any community; and
- (b) if such grave is protected or is of significance, assist any person who or community which is a direct descendant to make arrangements for the exhumation and re-interment of the content of such grave or, in the absence of such person or community, make any such arrangement as it deems fit.

### **Culture resource management**

**Section 38(1)** Subject to the provisions of subsection (7), (8) and (9), any person who intends to undertake a development\* ...must at the very earliest stages of initiating such development notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

\***'development'** means any physical intervention, excavation, or action, other than those caused by natural forces, which may in the opinion of the heritage authority in any way result in a change to the nature, appearance or physical nature of a place, or influence its stability and future well-being, including-

- (a) construction, alteration, demolition, removal or change of use of a place or a structure at a place;
- (b) carry out any works on or over or under a place\*;
- (e) any change to the natural or existing condition or topography of land, and
- (f) any removal or destruction of trees, or removal of vegetation or topsoil;

\***'place'** means a site, area or region, a building or other structure\* ...

\***'structure'** means any building, works, device or other facility made by people and which is fixed to the ground, ...

## **Terminology:**

**Early Stone Age:** Predominantly the Acheulean hand axe industry complex dating to + 1Myr yrs – 250 000 yrs before present.

**Middle Stone Age:** Various lithic industries in SA dating from ± 250 000 yr - 30 000 yrs before present.

**Late Stone Age:** The period from ± 30 000-yr to contact period with either Iron Age farmers or European colonists.

**Early Iron Age:** Most of the first millennium AD.

**Middle Iron Age:** 10<sup>th</sup> to 13<sup>th</sup> centuries AD.

**Late Iron Age:** 14<sup>th</sup> century to colonial period. *The entire Iron Age represents the spread of Bantu speaking peoples.*

**Historical:** Mainly cultural remains of western influence and settlement from AD 1652 onwards – mostly structures older than 60 years in terms of Section 34 of the NHRA.

**Phase 1 assessments:** Scoping surveys to establish the presence of and to evaluate heritage resources in a given area.

**Phase 2 assessments:** In depth culture resources management studies which could include major archaeological excavations, detailed site surveys and mapping / plans of sites, including historical / architectural structures and features. Alternatively, the sampling of sites by collecting material, small test pit excavations or auger sampling is required.