



# PHASE 1

## HERITAGE SCOPING STUDY

### AN

# ARCHAEOLOGICAL INVESTIGATION FOR THE PROPOSED MARAPYANE SITE DEMACATION WITHIN DR.JS MOROKA LOCAL MUNICIPALITY OF NKANGALA DISTRICT, MPUMALANGA PROVINCE.

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## **Executive Summary**

**Site name and location:** The proposed Marapyane site demarcation is situated at the Southern side of Senotlelo village and Northern side of Troya Village, within Dr. JS Moroka Local Municipality Nkangala District, Mpumalanga Province of South Africa.

**Local Authority:** Dr. JS Moroka Local Municipality

**Date of field work:** 17 March 2010

**Date of report:** March 2010

**Findings:** The phase 1 heritage scoping study as required in terms of section 38 of the National Heritage Resource Act (Act 25 of 1999) was done for the proposed Marapyane mix land use development within Dr. JS Moroka local Municipality Mpumalanga Province.

The aims with the phase 1 Heritage Impact assessment (HIA) program were the following:

- To establish whether any of the type and ranges of heritage resources as outlined in section 3 of the National Heritage Resource Act (Act 25 of 1999) do occur in or near the proposed area, and if so, to establish the significance of these heritage resources.
- To establish whether such heritage resources will be affected by the proposed Development, and if so, to determine possible mitigation measures that can be applied to these heritage resources.

The phase 1 heritage impact assessments for the proposed Development revealed no heritage resources within the study area.

No further studies/Mitigations are recommended as within the proposed area and its surrounding there is no archaeological or place of historical significance that will

be impacted by the proposed Marapyane mix land use development. However, should any chance archaeological or any other physical cultural resources be discovered subsurface, heritage authorities should be informed. From an archaeological and cultural heritage resources perspective, there are no objections to the proposed development and we recommend to South African Heritage Resources Agency (SAHRA) authorities to approve the project as planned

**Acknowledgements:**

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# TABLE OF CONTENTS

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| <b>CONTENT</b>                              | <b>PAGE</b> |
|---|-------------|
| <b>EXECUTIVE SUMMARY .....</b>              | <b>II</b>   |
| <b>ACKNOWLEDGEMENTS:.....</b>               | <b>IV</b>   |
| <b>1. INTRODUCTION.....</b>                 | <b>6</b>    |
| HISTORICAL REMAINS .....                    | 7           |
| ARCHAEOLOGICAL REMAINS .....                | 7           |
| BURIAL GROUNDS AND GRAVES.....              | 7           |
| CULTURE RESOURCE MANAGEMENT .....           | 8           |
| <b>2. AIM OF STUDY.....</b>                 | <b>8</b>    |
| 2.1 PROJECT DEVELOPERS AND CONSULTANTS..... | 9           |
| <b>3. TERMS OF REFERENCE .....</b>          | <b>9</b>    |
| <b>4. TERMINOLOGY.....</b>                  | <b>10</b>   |
| <b>5. METHODOLOGY.....</b>                  | <b>11</b>   |
| PHYSICAL SURVEY .....                       | 11          |
| RESTRICTIONS .....                          | 11          |
| DOCUMENTATION .....                         | 12          |
| <b>6. ASSESMENT CRITERIA .....</b>          | <b>12</b>   |
| 6.1 SITE SIGNIFICANCE .....                 | 12          |
| 6.2 IMPACT RATING .....                     | 13          |
| 6.3 CERTAINTY .....                         | 15          |
| 6.4 DURATION .....                          | 15          |
| 6.5 MITIGATION.....                         | 15          |
| <b>7. SITE LOCATION.....</b>                | <b>16</b>   |
| <b>9. ASSESMENT OF SITES AND FINDS.....</b> | <b>18</b>   |
| <b>10. RECOMMENDATIONS.....</b>             | <b>19</b>   |
| <b>12. REFERENCE.....</b>                   | <b>19</b>   |

## 1. INTRODUCTION

Tshikovha Environmental & Communications Consulting was appointed by Purple Stone Investment (Pty)Ltd to handle the environmental aspects of the proposed project. They appointed Vhufashu Heritage Consultants to conduct an Archaeological and Cultural Heritage Impact Assessment study as part of the Environmental Impact Assessment (EIA) for the proposed project.

As part of the development process, an application for an Environmental Assessment Authorization must be completed. This report is one of a series of appendices prepared for the impact assessment that is to be submitted to the Department of Economic Environment and Tourism (DEAT) \_environmental assessment office, in support of the application as amended by the National Environmental Management (NEMA) Act no 107 of 1998 regulation in terms of chapter 5 section (32)(2)(d) and section (34) (b), The Mineral and Petroleum Resource Development (MPRDA) Act 28 of 2002 and Development Facilitation (DFA) Act 67 of 1995 regulation GNR1 of 7 January 2000 section 31 . The information presented in this report provides the background and the basis for the Heritage Resources component of the Project impact assessment. The heritage resources impact assessment focused on archaeological sites.

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. In terms of the National Heritage Resources Act (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(4)** No person may, without a permit issued by the responsible heritage resources authority:

- 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:

**(i)** 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

**(ii)** bring onto or use at a burial ground or grave any excavation equipment, or any equipment which assists in detection or recovery of metals.

## ***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:

- (i) Construction, alteration, demolition, removal or change of use of a place or a structure at a place;
- (ii) Any change to the natural or existing condition or topography of land, and
- (iii) 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.

## **2. AIM OF STUDY**

The aim of this Heritage Impact Assessment (HIA) Study was to determine the presence or absence of heritage resources such as archaeological, historical sites, features, graves, places of religious and cultural significance, and to submit appropriate mitigation recommendations with regard to the identified cultural resources management measures that may be affected by the proposed development.



## 2.1 Project Developers and Consultants

Developers are encouraged to consider archaeological values in their project planning and design from the outset. This will minimize scheduling and budget difficulties at later stages. As Consultants in the archaeological assessment process, we are responsible for: (see table 1)

- ❖ Determining the presence of archaeological sites that may be adversely impacted by the proposed development, and evaluate their significance.
- ❖ Identification of potential adverse impacts to archaeological sites protected under the National Heritage Resources Act No: 25 of 1999.
- ❖ Assessing of the heritage significance of identified archaeological sites to assist in the development of appropriate mitigation strategies.
- ❖ Make recommendations for avoidance or mitigation of protected or otherwise significant archaeological sites.
- ❖ Reporting the results of these studies to the Heritage Authorities.

Table 1

## 3. TERMS OF REFERENCE

The **Terms of Reference** for the study were to:

- (I) To establish whether any of the type and ranges of heritage resources as outlined in section 3 of the National Heritage Resources Act (Act 25 of 1999) do occur in or near the proposed project, and, if so to establish the significance of such cultural resources within their aspect of their occurrence in terms of their historical, social, religious, aesthetic and scientific value.

- (II) To establish whether such heritage resources will be affected by the proposed development, and if so, to determine/develop possible mitigation or control measures that can be applied to these heritage resources to minimize/preserve the identified cultural resources
  
- (III) Develop procedures to be implemented if previously unidentified cultural resources are uncovered during the construction.

#### 4. TERMINOLOGY

The following aspects have direct bearing on the survey and the resulting report:

- **Archaeological sites** are places where people lived and left evidence of their presence in the form of artifacts, food remains and other traces such as rock paintings or engravings, burials, fireplaces and structures.
- **Cultural Resources** are all non-physical human-made occurrences, as well as natural occurrences that are associated with human activity. These include all sites, structures and artifacts of importance, either individually or in groups, in the history, architecture and archaeology of human (cultural) development.
- **Cultural Significance** is the aesthetic, historical, scientific and social value for past, present and future generations.
- **Conservation** means all the processes of looking after a place so as to retain its cultural significance.
- **Historic** means significant in history.
- **Historical** means belonging to the past.
- ***In Situ* material** means archaeological remains that have not been disturbed.
- **Place** means site, area, building or other work, group of buildings or other works, together with pertinent contents, surroundings and historical and archaeological deposits.

- **Preservation** means protecting and maintaining the fabric of a place in its existing state and retarding deterioration or change, and may include stabilization where necessary.

## 5. METHODOLOGY

### *Physical Survey*

The extent of the proposed area and corridors were determined as well as the extent of the areas to be affected by secondary activities (access route) during the development. Physical survey was aided by vehicle and on foot covering the proposed area, peripheral areas which will not be affected by the proposed project. A systematic inspection of the area on along linear transects resulted in the maximum coverage of the proposed area. The survey was conducted in March 2010.

A brief literature survey relating to the Pre-historical and historical context of the project area where the proposed demarcation have been earmarked was consulted, Institute such as South African Heritage resource agency office in Nelspruit were consulted to determine whether any heritage resources have been identified during earlier archaeological survey near the proposed site. In addition, the proposed site was studied by means of the 1:50 000 topographical maps and the 1:250 000 map on which the proposed study area appears.

### *Restrictions*

It must be pointed out that heritage resources can be found in unexpected places, it must also be borne in mind that survey may not detect all the heritage resources in a given project area. While some remains may simply be missed during surveys (observation) others may occur below the surface of the earth and may be exposed once development (such as the construction of the buildings and access roads) commences.

## ***Documentation***

All sites/find spots located during the foot surveys were briefly documented. The documentation included digital photographs and descriptions as to the nature and condition of the site and recovered materials. The sites/find spots were plotted using a Global Positioning System (GPS) (Garmin E-Trek Legend) and numbered accordingly.

## **6. ASSESMENT CRITERIA**

This section describes the evaluation criteria used for determining the significance of archaeological and heritage sites. The significance of archaeological and heritage sites were based on the following criteria:

- ✓ The unique nature of a site
- ✓ The amount/depth of the archaeological deposit and the range of features (stone walls, activity areas etc.)
- ✓ The wider historic, archaeological and geographic context of the site.
- ✓ The preservation condition and integrity of the site
- ✓ The potential to answer present research questions.

### ***6.1 Site Significance***

The site significance classification standards is indicated by means of stipulation derived from the National Heritage Resources Act (Act 25 of 1999) and endorsed by the South African Heritage Resources Agency (2006) approved by the Association for Southern African Professional Archaeologists (ASAPA) for the Southern African Development Community (SADC) region, have been used as guidelines in determining the site significance for the purpose of this report

| <b>FIELD RATING</b>          | <b>GRADE</b> | <b>SIGNIFICANCE</b>        | <b>RECOMMENDED MITIGATION</b>                |
|------------------------------|--------------|----------------------------|--|
| National Significance (NS)   | Grade 1      | -                          | Conservation; National Site nomination       |
| Provincial Significance (PS) | Grade 2      | -                          | Conservation; Provincial Site nomination     |
| Local Significance (LS)      | Grade 3A     | High Significance          | Conservation; Mitigation not advised         |
| Local Significance (LS)      | Grade 3B     | High Significance          | Mitigation (Part of site should be retained) |
| Generally Protected A (GP.A) | Grade 4A     | High / Medium Significance | Mitigation before destruction                |
| Generally Protected B (GP.B) | Grade 4B     | Medium Significance        | Recording before destruction                 |
| Generally Protected C (GP.C) | Grade 4C     | Low Significance           | Destruction                                  |

*Grading and rating systems of identified heritage resources in terms of National Heritage Resources Act (Act 25 of 1999).*

### **6.2 Impact Rating**

#### **VERY HIGH**

These impacts would be considered by society as constituting a major and usually permanent change to the (natural and/or cultural) environment, and usually result in severe or very severe effects, or beneficial or very beneficial effects.

**Example:** The loss of a species would be viewed by informed society as being of VERY HIGH significance.

**Example:** The establishment of a large amount of infrastructure in a rural area, which previously had very few services, would be regarded by the affected parties as resulting in benefits with VERY HIGH significance.

## **HIGH**

These impacts will usually result in long term effects on the social and /or natural environment. Impacts rated as HIGH will need to be considered by society as constituting an important and usually long term change to the (natural and/or social) environment. Society would probably view these impacts in a serious light.

**Example:** The loss of a diverse vegetation type, which is fairly common elsewhere, would have a significance rating of HIGH over the long term, as the area could be rehabilitated.

**Example:** The change to soil conditions will impact the natural system, and the impact on affected parties (e.g. farmers) would be HIGH.

## **MODERATE**

These impacts will usually result in medium- to long-term effects on the social and/or natural environment. Impacts rated as MODERATE will need to be considered by the public or the specialist as constituting a fairly unimportant and usually short term change to the (natural and/or social) environment. These impacts are real, but not substantial.

**Example:** The loss of a sparse, open vegetation type of low diversity may be regarded as MODERATELY significant.

**Example:** The provision of a clinic in a rural area would result in a benefit of MODERATE significance.

## **LOW**

These impacts will usually result in medium to short term effects on the social and/or natural environment. Impacts rated as LOW will need to be considered by society as constituting a fairly important and usually medium term change to the (natural and/or social) environment. These impacts are not substantial and are likely to have little real effect.

**Example:** The temporary changes in the water table of a wetland habitat, as these systems are adapted to fluctuating water levels.

**Example:** The increased earning potential of people employed as a result of a development would only result in benefits of LOW significance to people living some distance away.

### **NO SIGNIFICANCE**

There are no primary or secondary effects at all that are important to scientists or the public.

**Example:** A change to the geology of a certain formation may be regarded as severe from a geological perspective, but is of NO SIGNIFICANCE in the overall context.

### **6.3 Certainty**

*DEFINITE:* More than 90% sure of a particular fact. Substantial supportive data exist to verify the assessment.

*PROBABLE:* Over 70% sure of a particular fact, or of the likelihood of an impact occurring.

*POSSIBLE:* Only over 40% sure of a particular fact, or of the likelihood of an impact occurring.

*UNSURE:* Less than 40% sure of a particular fact, or of the likelihood of an impact occurring.

### **6.4 Duration**

*SHORT TERM* : 0 – 5 years

*MEDIUM:* 6 – 20 years

*LONG TERM:* more than 20 years

*DEMOLISHED:* site will be demolished or is already demolished

### **6.5 Mitigation**

Management actions and recommended mitigation, which will result in a reduction in the impact on the sites, will be classified as follows:

- ✓ **A** – No further action necessary
- ✓ **B** – Mapping of the site and controlled sampling required
- ✓ **C** – Preserve site, or extensive data collection and mapping required; and
- ✓ **D** – Preserve site

## **7. SITE LOCATION**

The Marapyane is situated at the South eastern side of Maubane and the proposed site for the Project situated at the southern side of Senotlelo village and Northern side of Troya Village, within Dr. JS Moroka Local Municipality Nkangala District, Mpumalanga Province of South Africa.

The proposed site earmarked for the Mix land use Development is already disturbed by the agricultural activities.

Site global positioning system co-ordinates (GPS S25°01'57"E28°47'59")





**Figure 1:** View of the study area covered by grass and acacia trees .



**Figure 2:** The track cutting through the section of the proposed site.

## 8. ASSESMENT OF SITES AND FINDS



**Figure:3** View of the road which divide the proposed residential properties and business properties

This section contains the results of the heritage site/find assessment. The phase 1 heritage scoping assessment program as required in terms of the section 38 of the National Heritage Resource Act (Act 25 of 1999) done for the proposed project.

There are no primary or secondary effect at all that are important to scientist or the general public.

|                               |                 |
|-------------------------------|-----------------|
| <i>Heritage Significance:</i> | No significance |
| <i>Impact:</i>                | Negative        |
| <i>Impact Significance:</i>   | High            |
| <i>Certainty:</i>             | Probable        |
| <i>Duration:</i>              | Permanent       |

## **9. RECOMMENDATIONS**

No further studies/Mitigations are recommended for the proposed project and there are no archaeological or place of historical significance that will be impacted by the proposed project. However, should any chance archaeological or any other physical cultural resources be discovered subsurface, heritage authorities should be informed. From an archaeological and cultural heritage resources perspective, there are no objections to the proposed project and we recommend to South African Heritage Resources Agency (SAHRA) authorities to approve the project as planned.

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