

**Heritage impact assessment for the
PROPOSED HOTEL DEVELOPMENT, MALELANE GATE, KRUGER
NATIONAL PARK, MPUMALANGA PROVINCE**



**HERITAGE IMPACT ASSESSMENT FOR THE PROPOSED HOTEL
DEVELOPMENT, MALELANE GATE, KRUGER NATIONAL PARK,
MPUMALANGA PROVINCE**

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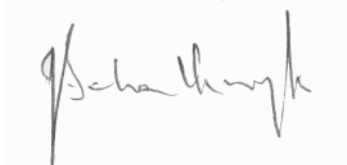
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Declaration:

I, J.A. van Schalkwyk, declare that I do not have any financial or personal interest in the proposed development, nor its developers or any of their subsidiaries, apart from the provision of heritage assessment and management services.



J A van Schalkwyk (D Litt et Phil)
Heritage Consultant
September 2010

EXECUTIVE SUMMARY

HERITAGE IMPACT ASSESSMENT FOR THE PROPOSED HOTEL DEVELOPMENT, MALELANE GATE, KRUGER NATIONAL PARK, MPUMALANGA PROVINCE

It is proposed to develop a 240 bed hotel with a four star rating near the Malelane gate in the Kruger National Park. An area, to be used as park and ride facility, will be developed at the Malelane gate in order for visitors to leave their vehicles there, after which they will be transported to the hotel facility.

The aim of this survey was to locate, identify, evaluate and document sites, objects and structures of cultural significance found within the area of the proposed development and to assess the significance thereof and to consider alternatives and plans for the mitigation of any adverse impacts.

- As no sites, features or objects of cultural heritage significance were identified in the either of the study areas, there would be no impact from the proposed development.

Therefore, from a heritage point of view it is recommended that the proposed development be allowed to continue. However, it is requested that should archaeological sites or graves be exposed during construction work, it must immediately be reported to a heritage practitioner so that an investigation and evaluation of the finds can be made.



J A van Schalkwyk
Heritage Consultant
September 2010

TECHNICAL SUMMARY

| Property details | | | | | | |
|-------------------------|----------------------|------------|------------|----|------------|------------|
| Province | Mpumalanga | | | | | |
| Magisterial district | Witrivier | | | | | |
| Topo-cadastral map | 2531BC | | | | | |
| Closest town | Malelane | | | | | |
| Farm name | Kruger National Park | | | | | |
| Portions/Holdings | | | | | | |
| Coordinates | Polygon | | | | | |
| | No | Latitude | Longitude | No | Latitude | Longitude |
| | 1 | S 25.41668 | E 31.55893 | 2 | S 25.41758 | E 31.55157 |
| | 3 | S 25.42126 | E 31.55208 | 4 | S 25.42175 | E 31.55848 |
| | 5 | S 25.41790 | E 31.55857 | | | |

| Development criteria in terms of Section 38(1) of the NHR Act | Yes/No |
|---|--------|
| Construction of road, wall, power line, pipeline, canal or other linear form of development or barrier exceeding 300m in length | No |
| Construction of bridge or similar structure exceeding 50m in length | No |
| Development exceeding 5000 sq m | Yes |
| Development involving three or more existing erven or subdivisions | No |
| Development involving three or more erven or divisions that have been consolidated within past five years | No |
| Rezoning of site exceeding 10 000 sq m | No |
| Any other development category, public open space, squares, parks, recreation grounds | No |

| Development | |
|--------------------|--------------------------------|
| Description | Development of a hotel complex |
| Project name | Malelane Hotel |

| Land use | |
|-------------------|---------------|
| Previous land use | National Park |
| Current land use | National Park |

| Heritage sites assessment | | |
|----------------------------------|--------------------------|---|
| <i>Site type</i> | <i>Site significance</i> | <i>Site grading (Section 7 of NHRA)</i> |
| None | - | - |
| Impact assessment | | |
| <i>Impact</i> | <i>Mitigation</i> | <i>Permits required</i> |
| - | - | - |

TABLE OF CONTENTS

| | Page |
|---|------|
| EXECUTIVE SUMMARY | III |
| TECHNICAL SUMMARY | IV |
| TABLE OF CONTENTS..... | V |
| LIST OF FIGURES..... | V |
| GLOSSARY OF TERMS AND ABBREVIATIONS..... | VI |
| 1. INTRODUCTION..... | 7 |
| 2. TERMS OF REFERENCE | 7 |
| 3. HERITAGE RESOURCES..... | 8 |
| 4. STUDY APPROACH AND METHODOLOGY | 9 |
| 5. DESCRIPTION OF THE AFFECTED ENVIRONMENT | 11 |
| 6. SITE SIGNIFICANCE AND ASSESSMENT | 13 |
| 7. CONCLUSIONS..... | 14 |
| 8. REFERENCES..... | 15 |
| APPENDIX 1: CONVENTIONS USED TO ASSESS THE IMPACT OF PROJECTS ON HERITAGE RESOURCES..... | 16 |
| APPENDIX 2. RELEVANT LEGISLATION | 18 |
| APPENDIX 3: SURVEY RESULTS | 19 |
| APPENDIX 4: ILLUSTRATIONS..... | 20 |

LIST OF FIGURES

| | Page |
|--|------|
| Fig. 1. Illustrating the vegetation growth that was encountered on the site..... | 10 |
| Fig. 2. Location of the study areas in regional context. | 11 |
| Fig. 3. Location of the study areas, outlined in yellow. | 19 |
| Fig. 4. The position of the two sites. | 20 |
| Fig. 5. Aerial view of the study area..... | 20 |
| Fig. 5: Layout of the hotel complex. | 21 |
| Fig. 6. View over the site looking west..... | 21 |
| Fig. 7. View over the area looking south..... | 22 |
| Fig. 8. The Timfeneni River..... | 22 |

GLOSSARY OF TERMS AND ABBREVIATIONS

TERMS

Study area: Refers to the entire study area as indicated by the client in the accompanying Fig. 1 - 2.

Stone Age: The first and longest part of human history is the Stone Age, which began with the appearance of early humans between 3-2 million years ago. Stone Age people were hunters, gatherers and scavengers who did not live in permanently settled communities. Their stone tools preserve well and are found in most places in South Africa and elsewhere.

| | |
|------------------|---|
| Early Stone Age | 2 000 000 - 150 000 Before Present (BP) |
| Middle Stone Age | 150 000 - 30 000 BP |
| Later Stone Age | 30 000 - until c. AD 200 |

Iron Age: Period covering the last 1800 years, when new people brought a new way of life to Southern Africa. They established settled villages, cultivated domestic crops such as sorghum, millet and beans, and they herded cattle as well as sheep and goats. These people, according to archaeological evidence, spoke early variations of the Bantu Language. Because they produced their own iron tools, archaeologists call this the Iron Age.

| | |
|-----------------|-------------------|
| Early Iron Age | AD 200 - AD 900 |
| Middle Iron Age | AD 900 - AD 1300 |
| Late Iron Age | AD 1300 - AD 1830 |

Historical Period: Since the arrival of the white settlers - c. AD 1840 - in this part of the country

ABBREVIATIONS

| | |
|-------|---|
| ADRC | Archaeological Data Recording Centre |
| ASAPA | Association of Southern African Professional Archaeologists |
| CS-G | Chief Surveyor-General |
| EIA | Early Iron Age |
| ESA | Early Stone Age |
| LIA | Late Iron Age |
| LSA | Later Stone Age |
| HIA | Heritage Impact Assessment |
| MSA | Middle Stone Age |
| NASA | National Archives of South Africa |
| NHRA | National Heritage Resources Act |
| PHRA | Provincial Heritage Resources Agency |
| SAHRA | South African Heritage Resources Agency |

HERITAGE IMPACT ASSESSMENT FOR THE PROPOSED HOTEL DEVELOPMENT, MALELANE GATE, KRUGER NATIONAL PARK, MPUMALANGA PROVINCE

1. INTRODUCTION

It is proposed to develop a 240 bed hotel with a four star rating near the Malelane gate in the Kruger National Park. It will include the following facilities as well as activities:

1. Accommodation in executive suites, standards rooms or family suites
2. Game Drives
3. Environmental Education
4. Fine Dining including breakfast, lunch and dinner
5. Pool area
6. Bar
7. Conference Venue
8. Spa
9. Curio shop with locally sourced handicrafts and products
10. Exposure to the local culture through planned events e.g. dancing, choirs, storytelling
11. Cultural and Heritage Education

In addition, an area to be used as park and ride facility will be developed at the Malelane gate in order for visitors to leave their vehicles there, after which they will be transported to the hotel facility.

South Africa's heritage resources, also described as the 'national estate', comprise a wide range of sites, features, objects and beliefs. According to Section 27(18) of the National Heritage Resources Act (NHRA), No. 25 of 1999, no person may destroy, damage, deface, excavate, alter, remove from its original position, subdivide or change the planning status of any heritage site without a permit issued by the heritage resources authority responsible for the protection of such site.

In accordance with Section 38 of the NHRA, an independent heritage consultant was appointed by **Interdesign Landscape Architects** to conduct a Heritage Impact Assessment (HIA) to determine if any sites, features or objects of cultural heritage significance occur within the boundaries of the area where the abovementioned development is to take place.

2. TERMS OF REFERENCE

The scope of work for this study consisted of:

- Conducting of a desk-top investigation of the area, in which all available literature, reports, databases and maps were studied;
- A visit to the proposed development area.

The objectives were to

- Identify possible archaeological, cultural and historic sites within the proposed development area;
- Evaluate the potential impacts of construction, operation and maintenance of the proposed development on archaeological, cultural and historical resources;
- Recommend mitigation measures to ameliorate any negative impacts on areas of archaeological, cultural or historical importance.

This report:

| Type of study | Aim | SAHRA involved | SAHRA response |
|----------------------------|--|--|--|
| Heritage Impact Assessment | The aim of a full HIA investigation is to provide an informed heritage-related opinion about the proposed development by an appropriate heritage specialist. The objectives are to identify heritage resources (involving site inspections, existing heritage data and additional heritage specialists if necessary); assess their significances; assess alternatives in order to promote heritage conservation issues; and to assess the acceptability of the proposed development from a heritage perspective. | Provincial Heritage Resources Authority | Comments on built environment and decision to approve or not |
| | The result of this investigation is a heritage impact assessment report indicating the presence/ absence of heritage resources and how to manage them in the context of the proposed development. Depending on SAHRA's acceptance of this report, the developer will receive permission to proceed with the proposed development, on condition of successful implementation of proposed mitigation measures. | SAHRA Archaeology, Palaeontology and Meteorites Unit | Comments and decision to approve or not |

3. HERITAGE RESOURCES

3.1 The National Estate

The NHRA (No. 25 of 1999) defines the heritage resources of South Africa which are of cultural significance or other special value for the present community and for future generations that must be considered part of the national estate to include:

- places, buildings, structures and equipment of cultural significance;
- places to which oral traditions are attached or which are associated with living heritage;
- historical settlements and townscapes;
- landscapes and natural features of cultural significance;
- geological sites of scientific or cultural importance;
- archaeological and palaeontological sites;
- graves and burial grounds, including-
 - ancestral graves;
 - royal graves and graves of traditional leaders;
 - graves of victims of conflict;
 - graves of individuals designated by the Minister by notice in the Gazette;
 - historical graves and cemeteries; and
 - other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
- sites of significance relating to the history of slavery in South Africa;
- movable objects, including-
 - objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects and material, meteorites and rare geological specimens;
 - objects to which oral traditions are attached or which are associated with living heritage;
 - ethnographic art and objects;

- military objects;
- objects of decorative or fine art;
- objects of scientific or technological interest; and
- books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).

3.2 Cultural significance

In the NHRA, Section 2 (vi), it is stated that “cultural significance” means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance. This is determined in relation to a site or feature’s uniqueness, condition of preservation and research potential.

According to Section 3(3) of the NHRA, a place or object is to be considered part of the national estate if it has cultural significance or other special value because of

- its importance in the community, or pattern of South Africa's history;
- its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;
- its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects;
- its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
- its importance in demonstrating a high degree of creative or technical achievement at a particular period;
- its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;
- its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa; and
- sites of significance relating to the history of slavery in South Africa.

4. STUDY APPROACH AND METHODOLOGY

4.1 Extent of the Study

This survey and impact assessment covers the area as presented in Section 5 and as illustrated in Figures 1 - 2.

4.2 Methodology

4.2.1 Preliminary investigation

4.2.1.1 Survey of the literature

A survey of the relevant literature was conducted with the aim of reviewing the previous research done and determining the potential of the area. In this regard, various anthropological, archaeological and historical sources were consulted.

- A number of publications and reports dealing with heritage in the larger region was identified (Barnard 1975, Meyer 1986, De Jong, Van der Waal & Heydenrych 1988, Raper 2004, Pienaar 2007) and was studied to gain insight into the scope of heritage in the study site. Similarly, previous heritage impact assessment studies done in the region (Van Schalkwyk 2002, 2005, 2007, 2009) was also accessed.

4.2.1.2 Data bases

The *Heritage Atlas Database*, the *Environmental Potential Atlas*, the *Chief Surveyor General (CS-G)* and the *National Archives of South Africa (NASA)* were consulted.

- Database surveys produced a number of sites located in the larger region of the proposed development.

4.2.1.3 Other sources

Aerial photographs and topocadastral and other maps were also studied - see the list of references below.

- Information of a very general nature was obtained from these sources.

4.2.2 Field survey

The area that had to be investigated was identified by **Interdesign Landscape Architects** by means of maps. The site was surveyed by walking a number of parallel transects over it.

4.3 Limitations

Dense vegetation was encountered during the survey, limiting archaeological visibility.



Fig. 1. Illustrating the vegetation growth that was encountered on the site.

5. DESCRIPTION OF THE AFFECTED ENVIRONMENT

5.1 Site location and description

The park and ride site is located adjacent to the Malelane gate. It is to be approximately 100 x 100 m in size. The second site is a near rectangular section of land located on the left bank of the Crocodile River in the Kruger National Park (Fig. 2 & 3). For more information, please see the Technical summary above.

The geology is made up of lava, with gneiss occurring just to the west of the study area. The original vegetation is classified as Sour Lowveld Bushveld. The topography is flat, with the only change brought about by the Crocodile River that forms the eastern boundary of the development sites and the Timfeneni River, a non-perennial stream that passes through the planned hotel area.



Fig. 2. Location of the study areas in regional context.
(Map 2530: Chief Surveyor-General)

5.2 Regional overview

5.2.1 Stone Age

Occupation of this area took place since Early Stone Age times and it was mostly open sites located close to watercourses that were occupied. However, during the Later Stone Age, people become more settled and occupied sites over long periods of time. A number of rock shelters containing San rock art are known to exist in the region. These usually occur in

shelters located on the granite outcrops, e.g. in the Mthethemousha Nature Reserve and K'Shani Nature Reserve. Unfortunately the information on the location of rock art sites in the Kruger National Park is not available, but it is expected that they would occur in a similar setting.

5.2.2 Iron Age occupation

Iron Age people moved into southern Africa by ca. AD 200, entering the area either by moving down the coastal plains, or by using a more central route. It seems more likely that the first option was what brought people into the study area. From the coast they followed the various rivers inland. One of the earliest dated sites is located near Tzaneen, with others for example at Matola in Mozambique. Some sites dating to this and to a slightly later period were identified at Plaston and, still closer to the study area, on the farms Vergenoeg and The Curlews east of Nelspruit. Meyer (1986) has done an intensive survey of Iron Age sites in the Kruger National Park.

5.2.3 Colonial exploration

In 1725 Jan van de Capelle, in charge of the Dutch fortification and trading post *Fort Lijdzaamheid* at Delagoa Bay (Maputo), sent an expedition to explore an inland route to the fabled land of Monomotapa.

In the 1830s various Voortrekker groups led by Louis Tregard, Karel Tregard, Andries Potgieter and Hans van Rensburg penetrated Mozambique but they did not use the Komatipoort route.

Most of the railways in the *Zuid-Afrikaansche Republiek* (Transvaal Boer Republic) were constructed and operated by the *Nederlandsche Zuid-Afrikaansche Spoorweg-Maatschappij* (Netherlands South African Railway Company, or NZASM), a shareholder company with German and Dutch capital. Founded in Amsterdam in 1887, the NZASM's main objective was the establishment of a railway line between Pretoria and Komatipoort, known together with the Komatipoort-Maputo railway of the Portuguese colony of Mozambique as the Eastern Line.

Piernaar (2007) comprehensively documented the history of the Kruger National Park as well as located most known sites of historic significance.

5.3 Identified sites

For more information, please see Appendix 3:

5.3.1 Stone Age

- A few stone tools, flakes and cores dating to the Middle Stone Age were identified scattered around on right bank of the Timfeneni River in the hotel area. However, as these are surface finds, they are viewed to be out of context and therefore have a very low significance.

5.3.2 Iron Age

- No sites, features or objects dating to the Iron Age were identified in the study area.

5.3.3 Historic period

- No sites, features or objects dating to the historic period were identified in the study areas. However, some graves are known to exist approximately 300 m west of the park and ride area. They would therefore not be impacted on by the proposed development.

6. SITE SIGNIFICANCE AND ASSESSMENT

6.1 Heritage assessment criteria and grading

The NHRA stipulates the assessment criteria and grading of archaeological sites. The following categories are distinguished in Section 7 of the Act:

- **Grade I:** Heritage resources with qualities so exceptional that they are of special national significance;
- **Grade II:** Heritage resources which, although forming part of the national estate, can be considered to have special qualities which make them significant within the context of a province or a region; and
- **Grade III:** Other heritage resources worthy of conservation on a local authority level.

The occurrence of sites with a Grade I significance will demand that the development activities be drastically altered in order to retain these sites in their original state. For Grade II and Grade III sites, the applicable of mitigation measures would allow the development activities to continue.

6.2 Statement of significance

A matrix was developed whereby the above criteria, as set out in Sections 3(3) and 7 of the NHRA, No. 25 of 1999, were applied for each identified site (see Appendix 1). This allowed some form of control over the application of similar values for similar sites. Three categories of significance are recognized: low, medium and high. In terms of Section 7 of the NHRA, all the sites currently known or which are expected to occur in the study area are evaluated to have a grading as identified in the table below.

| Identified heritage resources | |
|--|-----------------------------------|
| <i>Category, according to NHRA</i> | <i>Identification/Description</i> |
| Formal protections (NHRA) | |
| National heritage site (Section 27) | None |
| Provincial heritage site (Section 27) | None |
| Provisional protection (Section 29) | None |
| Place listed in heritage register (Section 30) | None |
| General protections (NHRA) | |
| structures older than 60 years (Section 34) | None |
| archaeological site or material (Section 35) | None |
| palaeontological site or material (Section 35) | None |
| graves or burial grounds (Section 36) | None |
| public monuments or memorials (Section 37) | None |

| | |
|---|------|
| Other | |
| Any other heritage resources (describe) | None |

Table 1. Summary of identified heritage resources in the study area.

6.3 Impact assessment

Impact analysis of cultural heritage resources under threat of the proposed development, are based on the present understanding of the development.

| Heritage sites assessment | | |
|----------------------------------|--------------------------|---|
| <i>Site type</i> | <i>Site significance</i> | <i>Site grading (Section 7 of NHRA)</i> |
| None | - | - |
| Impact assessment | | |
| <i>Impact</i> | <i>Mitigation</i> | <i>Permits required</i> |
| None | - | - |

Table 2. Summary of identified sites.

- As no sites, features or objects of cultural heritage significance were identified in the either of the study areas, there would be no impact from the proposed development.

7. CONCLUSIONS

The aim of this survey was to locate, identify, evaluate and document sites, objects and structures of cultural significance found within the area of the proposed development and to assess the significance thereof and to consider alternatives and plans for the mitigation of any adverse impacts.

- As no sites, features or objects of cultural heritage significance were identified in the either of the study areas, there would be no impact from the proposed development.

Therefore, from a heritage point of view it is recommended that the proposed development be allowed to continue. However, it is requested that should archaeological sites or graves be exposed during construction work, it must immediately be reported to a heritage practitioner so that an investigation and evaluation of the finds can be made.

8. REFERENCES

8.1 Data bases

Chief Surveyor General
Environmental Potential Atlas, Department of Environmental Affairs and Tourism.
Heritage Atlas Database, Pretoria.
National Archives of South Africa
SAHRA Archaeology and Palaeontology Report Mapping Project (2009)

8.2 Literature

Acocks, J.P.H. 1975. *Veld Types of South Africa*. Memoirs of the Botanical Survey of South Africa, No. 40. Pretoria: Botanical Research Institute.

Barnard, C. (red.) 1975. *Die Transvaalse Laeveld: kamee van 'n kontrei*. Kaapstad: Tafelberg Uitgewers.

De Jong, R.C, Van der Waal, G-M. & Heydenrych, D.H. 1988. *NZASM 100: The buildings, steam engines and structures of the Netherlands South African Railway Company*. Pretoria: Chris van Rensburg Publications.

Holm, S.E. 1966. *Bibliography of South African Pre- and Protohistoric archaeology*. Pretoria: J.L. van Schaik.

Meyer, A. 1986. 'n Kultuurhistoriese interpretasie van die Ystertydperk in the Nasionale Krugerwildtuin. Ongepubliseerde D Phil proefskrif. Pretoria: Universiteit van Pretoria.

Pienaar, U de V. (red.) 2007. *Neem uit die verlede*. Pretoria: Protea Boekhuis.

Raper, P.E. 2004. *South African place names*. Johannesburg: Jonathan Ball Publishers.

Van Schalkwyk, J.A. 2002. *Archaeological survey of a section of the Secunda-Mozambique gas pipeline, Barberton district, Mpumalanga*. Unpublished report 2002KH037. Pretoria.

Van Schalkwyk, J.A. 2005. *Heritage impact assessment, Portion 40, Malelane Estate 140JU*. Unpublished report 2005KH006. Pretoria.

Van Schalkwyk, J.A. 2007. *Heritage survey report for the Boulders-Malelane 132kV power line, Mpumalanga*. Unpublished report 2007/JvS/076.

Van Schalkwyk, J.A. 2009. *Archaeological impact survey report for the proposed Tenbosch estate development, Barberton magisterial district, Mpumalanga Province*. Unpublished report 2009/JvS/022. Pretoria.

8.3 Maps and aerial photographs

1: 50 000 Topocadastral maps: 2531BC
Google Earth

APPENDIX 1: CONVENTIONS USED TO ASSESS THE IMPACT OF PROJECTS ON HERITAGE RESOURCES

Significance

According to the NHRA, Section 2(vi) the **significance** of heritage sites and artefacts is determined by its aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technical value in relation to the uniqueness, condition of preservation and research potential. It must be kept in mind that the various aspects are not mutually exclusive, and that the evaluation of any site is done with reference to any number of these.

Matrix used for assessing the significance of each identified site/feature

| | | | |
|---|--------|--------|-----|
| 1. Historic value | | | |
| Is it important in the community, or pattern of history | | | |
| Does it have strong or special association with the life or work of a person, group or organisation of importance in history | | | |
| Does it have significance relating to the history of slavery | | | |
| 2. Aesthetic value | | | |
| It is important in exhibiting particular aesthetic characteristics valued by a community or cultural group | | | |
| 3. Scientific value | | | |
| Does it have potential to yield information that will contribute to an understanding of natural or cultural heritage | | | |
| Is it important in demonstrating a high degree of creative or technical achievement at a particular period | | | |
| 4. Social value | | | |
| Does it have strong or special association with a particular community or cultural group for social, cultural or spiritual reasons | | | |
| 5. Rarity | | | |
| Does it possess uncommon, rare or endangered aspects of natural or cultural heritage | | | |
| 6. Representivity | | | |
| Is it important in demonstrating the principal characteristics of a particular class of natural or cultural places or objects | | | |
| Importance in demonstrating the principal characteristics of a range of landscapes or environments, the attributes of which identify it as being characteristic of its class | | | |
| Importance in demonstrating the principal characteristics of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, province, region or locality. | | | |
| 7. Sphere of Significance | | | |
| | High | Medium | Low |
| International | | | |
| National | | | |
| Provincial | | | |
| Regional | | | |
| Local | | | |
| Specific community | | | |
| 8. Significance rating of feature | | | |
| 1. | Low | | |
| 2. | Medium | | |
| 3. | High | | |

Significance of impact:

- low where the impact will not have an influence on or require to be significantly accommodated in the project design
- medium where the impact could have an influence which will require modification of the project design or alternative mitigation
- high where it would have a “no-go” implication on the project regardless of any mitigation

Certainty of prediction:

- Definite: More than 90% sure of a particular fact. Substantial supportive data to verify assessment
- Probable: More than 70% sure of a particular fact, or of the likelihood of that impact occurring
- Possible: Only more than 40% sure of a particular fact, or of the likelihood of an impact occurring
- Unsure: Less than 40% sure of a particular fact, or the likelihood of an impact occurring

Recommended management action:

For each impact, the recommended practically attainable mitigation actions which would result in a measurable reduction of the impact, must be identified. This is expressed according to the following:

- 1 = no further investigation/action necessary
- 2 = controlled sampling and/or mapping of the site necessary
- 3 = preserve site if possible, otherwise extensive salvage excavation and/or mapping necessary
- 4 = preserve site at all costs
- 5 = retain graves

Legal requirements:

Identify and list the specific legislation and permit requirements which potentially could be infringed upon by the proposed project, if mitigation is necessary.

APPENDIX 2. RELEVANT LEGISLATION

All archaeological and palaeontological sites and meteorites are protected by the National Heritage Resources Act (Act no 25 of 1999) as stated in Section 35:

(1) Subject to the provisions of section 8, the protection of archaeological and palaeontological sites and material and meteorites is the responsibility of a provincial heritage resources authority: Provided that the protection of any wreck in the territorial waters and the maritime cultural zone shall be the responsibility of SAHRA.

(2) Subject to the provisions of subsection (8)(a), all archaeological objects, palaeontological material and meteorites are the property of the State. The responsible heritage authority must, on behalf of the State, at its discretion ensure that such objects are lodged with a museum or other public institution that has a collection policy acceptable to the heritage resources authority and may in so doing establish such terms and conditions as it sees fit for the conservation of such objects.

(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 offices or museum, which must immediately notify such heritage resources authority.

(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;
- (b) destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;
- (c) trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or palaeontological material or object, or any meteorite;
- (d) bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment which assist in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.

In terms of cemeteries and graves the following (Section 36):

(1) Where it is not the responsibility of any other authority, SAHRA must conserve and generally care for burial grounds and graves protected in terms of this section, and it may make such arrangements for their conservation as it sees fit.

(2) SAHRA must identify and record the graves of victims of conflict and any other graves which it deems to be of cultural significance and may erect memorials associated with the grave referred to in subsection (1), and must maintain such memorials.

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

- (a) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;
- (b) 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
- (c) 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 the detection or recovery of metals.

(4) SAHRA or a provincial heritage resources authority may not issue a permit for the destruction or damage of any burial ground or grave referred to in subsection (3)(a) unless it is satisfied that the applicant has made satisfactory arrangements for the exhumation and re-interment of the contents of such graves, at the cost of the applicant and in accordance with any regulations made by the responsible heritage resources authority.

APPENDIX 3: SURVEY RESULTS

See Appendix 1 for an explanation of the conventions used in assessing the significance of the cultural remains.

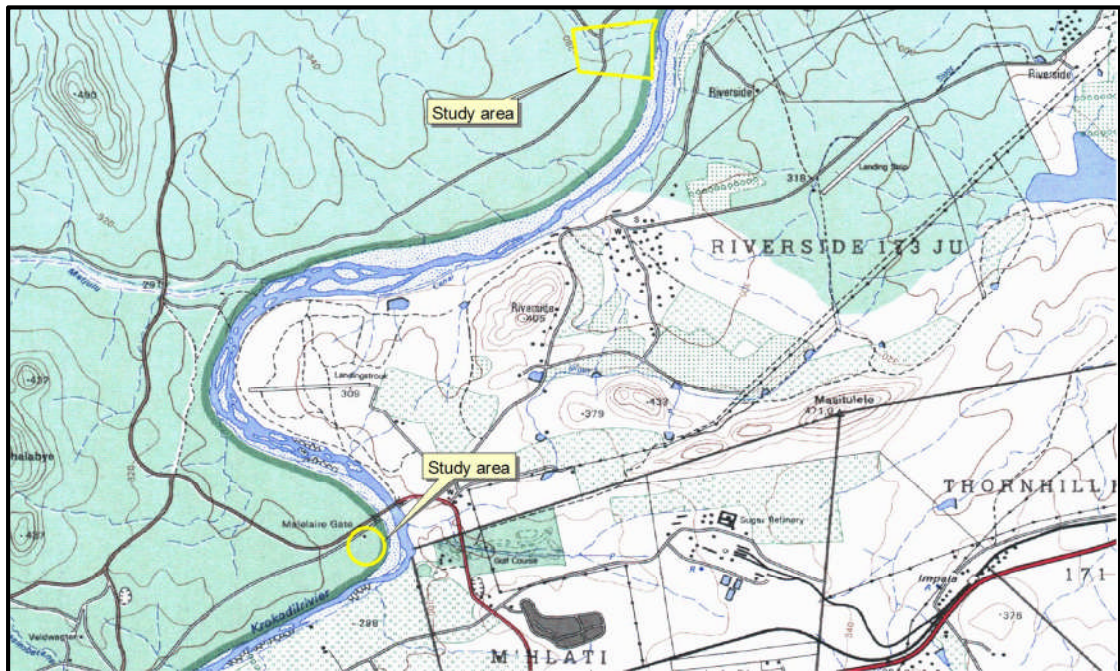


Fig. 3. Location of the study areas, outlined in yellow.
(Maps 2531BC: Chief Surveyor-General).

Sites identified in the study area:

Nil

APPENDIX 4: ILLUSTRATIONS



Fig. 4. The position of the two sites.

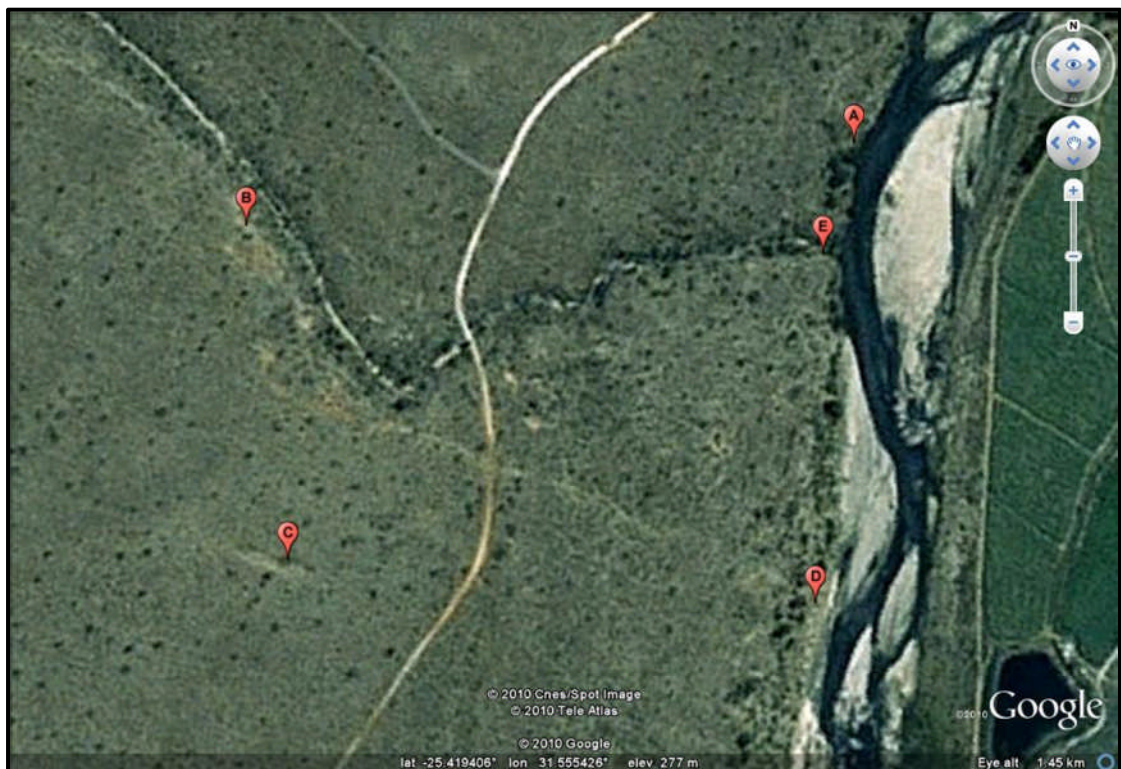


Fig. 5. Aerial view of the study area.
(Photo: Google Earth)



Fig. 5: Layout of the hotel complex.



Fig. 6: View over the site looking west.



Fig. 7. View over the area looking south.



Fig. 8. The Timfeneni River.