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**A Phase 1 Heritage Impact Assessment & Report for the Proposed Formalization  
of the Msukaligwa Informal Settlement  
near Davel/Kwadela  
Msukaligwa Local Municipality, Mpumalanga**

For:

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REPORT: **APAC023/32**

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## SUMMARY

APelser Archaeological Consulting cc (APAC cc) was appointed by Mang Geoenviro Services, on behalf of the Msukaligwa Local Municipality (comprising Davel/Kwadela), to conduct a Phase 1 Heritage Impact Assessment for proposed Formalization of the Msukaligwa Informal Settlement in the Mpumalanga Province. The study and development area are located west of Davel/Kwadela and north of the N17.

The literature review indicates that there are some cultural heritage (archaeological & historical) sites and features in the larger geographical area within which the study area falls. Besides a recent, formal cemetery situated adjacent and to the north of the informal settlement, no significant sites, features, or material of cultural heritage (archaeological and/or historical) origin were identified and recorded in the larger study and the proposed development area during the April 2023 field assessment. This report discusses the results of both the background literature research and physical assessment and provides recommendations on the way forward.

From a Cultural Heritage point of view, it was determined that the proposed Formalization of the Msukaligwa Informal Settlement should be allowed to continue taking into consideration the recommendations provide at the end of this document.

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## **1. INTRODUCTION**

APelser Archaeological Consulting cc (APAC cc) was appointed by Mang Geoenviro Services, on behalf of the Msukaligwa Local Municipality (comprising Davel/Kwadela), to conduct a Phase 1 Heritage Impact Assessment for proposed Formalization of the Msukaligwa Informal Settlement in the Mpumalanga Province. The study and development area are located west of Davel/Kwadela and north of the N17.

The literature review indicates that there are some cultural heritage (archaeological & historical) sites and features in the larger geographical area within which the study area falls. Besides a recent, formal cemetery situated adjacent and to the north of the informal settlement, no significant sites, features, or material of cultural heritage (archaeological and/or historical) origin were identified and recorded in the larger study and the proposed development area during the April 2023 field assessment.

The location and boundaries of the study & development area footprint were provided to the Specialist, and the assessment focused on this area.

## **2. TERMS OF REFERENCE**

The Terms of Reference for the study was to:

1. Identify all objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) located on the portion of land that will be impacted upon by the proposed development;
2. Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value;
3. Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions;
4. Propose suitable mitigation measures to minimize possible negative impacts on the cultural resources;
5. Review applicable legislative requirements;

## **3. LEGISLATIVE REQUIREMENTS**

Aspects are dealt with mainly in. The National Heritage Resources Act (Act 25 of 1999) and the National Environmental Management Act (Act 107 of 1998) are the two main legislations concerning the conservation of cultural resources, used as guidelines when conducting the Heritage Impact Assessment.

### **3.1. The National Heritage Resources Act (Act 25 of 1999)**

According to the National Heritage Resources Act (Act 25 of 1999) (NHRA), the following is protected as cultural heritage resources:

- a. Archaeological artifacts, structures, and sites older than 100 years
- b. Ethnographic art objects (e.g. prehistoric rock art) and ethnography
- c. Objects of decorative and visual arts
- d. Military objects, structures, and sites older than 75 years
- e. Historical objects, structures, and sites older than 60 years
- f. Proclaimed heritage sites
- g. Grave yards and graves older than 60 years
- h. Meteorites and fossils
- i. Objects, structures and sites of scientific or technological value.

#### **The National Estate includes the following:**

- a. Places, buildings, structures, and equipment of cultural significance
- b. Places to which oral traditions are attached or which are associated with living heritage
- c. Historical settlements and townscapes
- d. Landscapes and features of cultural significance
- e. Geological sites of scientific or cultural importance
- f. Sites of Archaeological and paleontological importance
- g. Graves and burial grounds
- h. Sites of significance relating to the history of slavery
- i. Movable objects (e.g. archaeological, paleontological, meteorites, geological specimens, military, ethnographic, books etc.)

The Heritage Impact Assessment (HIA) process is done to determine whether there are any heritage resources located within the area to be developed as well as to determine the possible impacts of the proposed development. An Archaeological Impact Assessment (AIA) only looks at archaeological resources, such as material remains of human life or activities which are at least 100 years of age, and which are of archaeological interest. A HIA must be done under the following circumstances:

- a. The construction of a linear development (road, wall, power line, canal etc.) exceeding 300m in length
- b. The construction of a bridge or similar structure exceeding 50m in length
- c. Any development or other activity that will change the character of a site and exceed 5 000m<sup>2</sup> or involve three or more existing erven or subdivisions thereof
- d. Re-zoning of a site exceeding 10 000m<sup>2</sup>
- e. Any other category provided for in the regulations of SAHRA or a provincial heritage authority

## **Structures**

Section 34(1) of the Act states that no person may demolish any structure or part thereof that is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

A structure refers to any building, works, device or other facility made by people, and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith.

To alter means any action taken that affects the structure, appearance or physical properties of a place or object, whether by way of structural or other works, by painting, plastering or the decoration or any other means.

## **Archaeology, palaeontology, and Meteorites**

Section 35(4) of the Act deals with archaeology, palaeontology, and meteorites. The Act states that no person may, without a permit issued by the responsible heritage resources authority (national or provincial)

- a. destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or paleontological site or any meteorite;
- b. destroy, damage, excavate, remove from its original position, collect or own any archaeological or paleontological 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 paleontological material or object, or any meteorite; or
- d. bring onto or use at an archaeological or paleontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and paleontological material or objects, or use such equipment for the recovery of meteorites.
- e. alter or demolish any structure or part of a structure which is older than 60 years as protected.

**The above mentioned may only be disturbed or moved by an archaeologist, after receiving a permit from the South African Heritage Resources Agency (SAHRA). In order to demolish such a site or structure, a destruction permit from SAHRA will also be needed.**

## **Human remains**

Graves and burial grounds are divided into the following:

- a. ancestral graves
- b. royal graves and graves of traditional leaders
- c. graves of victims of conflict
- d. graves designated by the Minister
- e. historical graves and cemeteries
- f. human remains

In terms of Section 36(3) of the National Heritage Resources Act, no person may, without a permit issued by the relevant heritage resources authority:

- i. 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;
- ii. destroy, damage, alter, exhume, or 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
- iii. bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation, or any equipment which assists in the detection or recovery of metals.

Human remains that are less than 60 years old are subject to provisions of the Human Tissue Act (Act 65 of 1983) and to local regulations. Exhumation of graves must conform to the standards set out in the **Ordinance on Excavations (Ordinance no. 12 of 1980)** (replacing the old Transvaal Ordinance no. 7 of 1925).

Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province, and local police. Furthermore, permission must also be gained from the various landowners (i.e., where the graves are located and where they are to be relocated to) before exhumation can take place.

Human remains can only be handled by a registered undertaker, or an institution declared under the **Human Tissues Act (Act 65 of 1983 as amended)**.

### **3.2. The National Environmental Management Act (No. 107 of 1998)**

This Act states that a survey and evaluation of cultural resources must be done in areas where development projects, that will change the face of the environment, will be undertaken. The impact of the development on these resources should be determined and proposals for the mitigation thereof are made.

Environmental management should also take the cultural and social needs of people into account. Any disturbance of landscapes and sites that constitute the nation's cultural heritage should be avoided as far as possible and where this is not possible the disturbance should be minimized and remedied.

The specific requirements that specialist studies and reports must adhere to are contained in Appendix 6 of the EIA Regulations.



## **4. METHODOLOGY**

### **4.1. Review of literature**

A review of available literature was undertaken in order to place the development area in an archaeological and historical context. The sources utilized in this regard are indicated in the bibliography. These include Bergh (1999), Huffman (2007) & Lombard et.al (2012).

### **4.2. Field survey**

The field assessment component of the study was conducted on the 5<sup>th</sup> of April 2023 according to generally accepted HIA practices and aimed at locating all possible objects, sites, and features of heritage significance in the area of the proposed development. The location/position of all sites, features and objects is determined by means of a Global Positioning System (GPS) where possible, while detail photographs are also taken where needed. Where possible grids were walked in the area where development is proposed.

### **4.3. Documentation**

All sites, objects, features, and structures identified are documented according to a general set of minimum standards. Co-ordinates of individual localities are determined by means of the Global Positioning System (GPS). The information is added to the description in order to facilitate the identification of each locality.

## **6. DESCRIPTION OF THE AREA**

The project entails the proposed formalization of the existing Msukaligwa Informal Settlement, west of Davel/Kwadela (Msukaligwa Local Municipality) in Mpumalanga. The study area has been settled (informally) to a large extent already, with only small sections not settled or transformed as a result.

The topography of the area is in general fairly flat and open, with no real rocky outcrops, ridges or hills present. Due to the extensive (mostly) informal settlement in the area, most of the original historical & natural landscape of the area has been nearly totally altered. Only a few small pockets of natural landscape remain, but these would also have been impacted in the recent past by agricultural activities such as ploughing/crop raising and livestock keeping and grazing. As a result, if any cultural heritage (archaeological and/or historical) sites, features or material of any significance did exist here, it would have been extensively disturbed and largely destroyed. The study area is surrounded by existing residential settlement and business-related developments.



**Figure 1: General location of study area indicated by red polygon (Google Earth 2023).**



**Figure 2: Closer view of study and development area (Google Earth 2023).**

## 7. DISCUSSION

### 7.1 Stone age

The Stone Age is the period in human history when lithic (stone) material was mainly used to produce tools. In South Africa the Stone Age can be divided into three periods as listed below. It is important to note that dates are relative and only provide a broad framework for interpretation. A basic sequence for the South African Stone Age (Lombard et.al 2012) is as follows:

- Earlier Stone Age (ESA) up to 2 million – more than 200 000 years ago
- Middle Stone Age (MSA) less than 300 000 – 20 000 years ago
- Later Stone Age (LSA) 40 000 years ago – 2000 years ago

It should also be noted that these dates are not a neat fit because of variability and overlapping ages between sites (Lombard et.al 2012: 125).

The closest known Stone Age occurrences are Late Stone Age sites at Carolina and Badplaas, and rock painting sites close to Machadodorp, Badplaas and Carolina. Rock art is also found close to the Olifants River and at the Rietspruit near Witbank (Emalahleni) [Bergh 1999: 4-5].

Many of the cultural resources management (CRM) surveys carried out in the larger area have been related to coal mining. Van Schalkwyk (2003) noted that Stone Age artifacts are commonly encountered in the area, but he is of the opinion that they are all in secondary contexts and of little heritage value. Van Vollenhoven (2016), on the other hand, suggests that Stone Age occupation is not known from the area, but that local research has been minimal (Orton 2017: 10).

***No Stone Age sites or material were identified in the study area during the April 2023 field assessment. If any were to be present they would most likely be individual stone tools or low density scatters in open-air surface scatters around the area.***

### 7.2 Iron age

The Iron Age is the name given to the period of human history when metal was mainly used to produce metal artifacts. In South Africa it can be divided in two separate phases (Bergh1999: 96-98), namely:

- Early Iron Age (EIA) 200 – 1000 A.D
- Late Iron Age (LIA) 1000 – 1850 A.D.

Huffman (2007: xiii) however indicates that a Middle Iron Age should be included. His dates, which now seem to be widely accepted in archaeological circles, are:

- Early Iron Age (EIA) 250 – 900 A.D.
- Middle Iron Age (MIA) 900 – 1300 A.D.

- Late Iron Age (LIA) 1300 – 1840 A.D.

During a 1992 survey of the Kriel Area, Van Schalkwyk found a number of Iron Age occurrences (pottery etc.) near the Steenkoolspruit (Van Schalkwyk et.al. 1992: 2). No Early or Middle Iron Age sites have thus far been located on the Highveld. However, Late Iron Age stone walled sites do occur in the area. Several large Late Iron Age settlement complexes occur in this region, especially to the south of Kriel and on the farm Wildebeestkuil, close to Kinross, 24km south west of Kriel. This site was probably occupied at a very late stage in the Iron Age, after the Hlubi attack on the Tlokoa which marked the start of the Difaqane in 1821. Ceramics from these Late Iron Age sites are part of the Uitkomst Facies of the Blackburn Branch, while the site layout type is referred to as Klipriviersberg/Group III. They were most likely occupied between AD 1650 and AD 1820 (Orton 2017: 9-10).

Van Schalkwyk noted in 2003 that Iron Age occupation only commenced circa AD1500 in the vicinity of Kriel and that settlement tended to be near to water sources and rock outcrops. He mapped a number of Iron Age sites about 10 km south of Kriel. Van Vollenhoven (in 2016) reported two Late Iron Age sites to the southeast of Kriel. Huffman and Calabrese (in 1996) located just three Iron Age (Moloko) potsherds during their survey some 5km northeast of the present study area but no sites (Orton 2017:10). The author of this report worked on Late Iron Age sites near Kriel (See Pelsler et.al 2007), while he recently recorded similar sites near Secunda (2019).

***No Iron Age sites, features or material were identified in the area during the April 2023 field assessment.***

### 7.3 Historic age

The historical age started with the first recorded oral histories in the area. It includes the moving into the area of people that were able to read and write. The first Europeans to move through and into the area were the groups of Schoon and McLuckie and the missionaries Archbell and Moffat in 1829 (Bergh 1999: 12). They were followed by others such as Andrew Smith (1835), Cornwallis Harris (1836) and David Livingstone in 1847 (Bergh 1999: 13). These groups were closely followed by the Voortrekkers after 1844 and Pretoria was established in 1855 (Bergh 1999: 14-17). European settlers started to occupy huge tracts of land, claiming it as farms after the late 1840s.

**Besides a large, formal cemetery located north of the informal settlement, no recent historical sites and features were identified and recorded in the study & application area in April 2023.**

### **Results of the April 2023 Field Assessment**

No sites, features or material of archaeological and/or historical origin or significance were identified in the study and Msukaligwa Informal Settlement Formalization area. The area has been nearly completely altered from its original natural and historical landscape through the recent informal settlement, while earlier agricultural activities such as ploughing, crop

growing and livestock keeping and grazing also had an impact. As a result, if any sites and features were located here in the past it would more than likely have been extensively disturbed or destroyed by these activities.

Aerial images (Google Earth) of the study and development area – dating to between 2003 and 2023 - clearly shows how the continuous expanding informal settlement and related developments have encroached into the area. Very little open areas (natural landscape) still exist. No archaeological (Iron Age stone-walling for example) and/or recent historical sites or remains (farmsteads, homestead ruins) are visible on these earlier images as well.

The only recent historical site identified is an existing, large, formal cemetery in the area. The cemetery is not located within the boundaries of the study area, and will not be affected by the proposed formalization of the Msukaligwa Informal Settlement. The ages of the graves here were not determined, but it is envisaged that most (if not all) of the graves here are less than 60 years of age. However, graves and grave sites/cemeteries always carry a High Cultural Heritage Significance Rating and care should be taken to never negatively impact on these as a result of proposed or future development. If the cemetery is to be included as part of the formalization of the Msukaligwa Informal Settlement process, it is recommended that the site be properly fenced-in, kept clean and a detailed register of graves drawn-up for use by the Local Municipality. Although there is a fence around the area demarcating the site, this is not in a good condition and the cemetery is overgrown with vegetation. Some recent burials are situated outside of the formal boundary fence as well.

**GPS Location of Cemetery: S26 27 21.65 E29 39 28.41.**



**Figure 3: A view of some of the informal dwellings that cover the study area.**



**Figure 4: Another section.**



**Figure 5: The topography of the general area is flat and open, although there is some grass cover hampering visibility in those sections not settled on yet.**



**Figure 6: Closer view of the informal dwellings in the settlement.**



**Figure 7: A partial view of the Formal Cemetery located outside and to the north of the Informal Settlement.**



**Figure 8: In 2003 the study area had not yet been impacted by Informal Settlement. Evidence of earlier agricultural activities (ploughing) is visible (Google Earth 2023).**



**Figure 9: By 2017 Informal Settlement had already commenced (Google Earth 2023).**





**Figure 10: By 2020 the extent and impact of informal settlement in the area is very clear (Google Earth 2023).**



**Figure 11: The location of the cemetery in relation to the Msukaligwa Informal Settlement (Google Earth 2023).**

## Impact Assessment and Mitigation Measures

*The significance of impacts is determined using the following criteria:*

**Probability:** describes the likelihood of the impact actually occurring

- **Improbable:** the possibility of the impact occurring is very low, due to the circumstances, design or experience.
- **Probable:** there is a probability that the impact will occur to the extent that provision must be made therefore.
- **Highly probable:** it is most likely that the impact will occur at some stage of the development.
- **Definite:** the impact will take place regardless of any prevention plans and there can only be relied on mitigation measures or contingency plans to contain the effect.

**Duration:** the lifetime of the impact

- **Short Term:** the impact will either disappear with mitigation or will be mitigated through natural processes in a time span shorter than any of the phases.
- **Medium Term:** the impact will last up to the end of the phases, where after it will be negated.
- **Long Term:** the impact will last for the entire operational phase of the project but will be mitigated by direct human action or by natural processes thereafter.
- **Permanent:** the impact is non-transitory. Mitigation either by man or natural processes will not occur in such a way or in such a time span that the impact can be considered transient.

**Scale:** the physical and spatial size of the impact

- **Local:** the impacted area extends only as far as the activity, e.g. footprint
- **Site:** the impact could affect the whole or measurable portion of the abovementioned property.
- **Regional:** the impact could affect the area including the neighboring residential areas.

**Magnitude/Severity: Does the impact destroy the environment, or alter its function**

- **Low:** the impact alters the affected environment in such a way that natural processes are not affected.
- **Medium:** the affected environment is altered, but functions and processes continue in a modified way.
- **High:** function or process of the affected environment is disturbed to the extent where it temporarily or permanently ceases.

**Significance: This is an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required.**

- **Negligible:** the impact is non-existent or unsubstantial and is of no or little importance to any stakeholder and can be ignored.
- **Low:** the impact is limited in extent, has low to medium intensity; whatever its probability of occurrence is, the impact will not have a material effect on the decision and is likely to require management intervention with increased costs.
- **Moderate:** the impact is of importance to one or more stakeholders, and its intensity will be medium or high; therefore, the impact may materially affect the decision, and management intervention will be required.
- **High:** The impact could render development options controversial or the project unacceptable if it cannot be reduced to acceptable levels; and/or the cost of management intervention will be a significant factor in mitigation.

The significance is calculated by combining the criteria in the following formula:

Sum (Duration, Scale, Magnitude) x Probability

S = Significance weighting; Sc = Scale; D = Duration; M = Magnitude; P = Probability

With no sites, features and material of cultural heritage origin and significance found in the area during the assessment, the current site layout/footprint will not impact negatively on any known sites. The impact of the proposed development on recorded and known heritage sites is therefore deemed as Negligible.

Aspect	Description	Weight
<b>Probability</b>	<b>Improbable</b>	<b>1</b>
	Probable	2
	Highly Probable	4
	Definite	5
<b>Duration</b>	<b>Short Term</b>	<b>1</b>
	Medium Term	3
	Long Term	4
	Permanent	5
<b>Scale</b>	Local	1
	<b>Site</b>	<b>2</b>
	Regional	3
<b>Magnitude/Severity</b>	<b>Low</b>	<b>2</b>
	Medium	6

	High	8
<b>Significance</b>	<b>Sum (Duration, Scale, Magnitude)</b>	<b>x Probability</b>
	<b>Neglible</b>	<b>≤20</b>
	Low	>20≤40
	Moderate	>40≤60
	High	>60

**Results: 1+2+2×1 = 5 i.e., ≤20**

The impact of the proposed development on recorded and known cultural heritage sites in the area is therefore deemed as Neglible based on the Impact Assessment criteria used. However, there is always a possibility of sites, features and material being missed as a result of various factors such as vegetation cover hampering visibility on the ground, as well as the often-subterranean nature of cultural heritage resources (including low stone-packed or unmarked graves). These factors need to be taken into consideration and it is therefore recommended that a Chance Finds Protocol be drafted and implemented for the proposed Msukaligwa Informal Settlement Formalization project.

Based on the desktop research and April 2023 field assessment it is clear that there are some cultural heritage sites and features present in the larger geographical area within which the study & proposed township formalization project is located

Besides the recent formal cemetery located to the north of and adjacent to the Informal Settlement, no other sites, features or material of cultural heritage origin or significance were identified in the area during the recent assessment.

It should also be noted that although all efforts are made to locate, identify and record all possible cultural heritage sites and features (including archaeological remains) in an area that there is always a possibility that some might have been missed as a result of vegetation cover, access issued and other factors.

## **7. CONCLUSIONS AND RECOMMENDATIONS**

APelser Archaeological Consulting cc (APAC cc) was appointed by Mang Geoenviro Services, on behalf of the Msukaligwa Local Municipality (comprising Davel/Kwadela), to conduct a Phase 1 Heritage Impact Assessment for proposed Formalization of the Msukaligwa Informal Settlement in the Mpumalanga Province. The study and development area are located west of Davel/Kwadela and north of the N17.

The literature review indicated that there are some cultural heritage (archaeological & historical) sites and features in the larger geographical area within which the study area falls. Besides a recent, formal cemetery situated adjacent and to the north of the informal settlement, no significant sites, features, or material of cultural heritage origin and significance were identified and recorded in the larger study and the Msukaligwa Informal Settlement area during the April 2023 field assessment.

The impact of the proposed development on recorded and known cultural heritage sites in the area is deemed as Negligible based on the Impact Assessment criteria used.

From a Cultural Heritage point of view, it is recommended that the proposed Formalization of the Msukaligwa Informal Settlement should be allowed to continue taking into consideration the recommendations provided below.

***The often subterranean nature of cultural heritage resources (including low stone-packed or unmarked graves) should also be taken into consideration. Should any previously unknown or buried sites, features or material be uncovered during any development actions then an Archaeological expert should be contacted to investigate and provide recommendations on the way forward. It is therefore recommended that a Chance Finds Protocol be drafted and implemented for the proposed Msukaligwa Informal Settlement Formalization project.***

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## **APPENDIX A: DEFINITION OF TERMS:**

**Site:** A large place with extensive structures and related cultural objects. It can also be a large assemblage of cultural artifacts, found on a single location.

**Structure:** A permanent building found in isolation or which forms a site in conjunction with other structures.

**Feature:** A coincidental find of movable cultural objects.

**Object:** Artifact (cultural object).

(Also see Knudson 1978: 20).

## **APPENDIX B: DEFINITION/ STATEMENT OF HERITAGE SIGNIFICANCE**

**Historic value:** Important in the community or pattern of history or has an association with the life or work of a person, group or organization of importance in history.

**Aesthetic value:** Important in exhibiting particular aesthetic characteristics valued by a community or cultural group.

**Scientific value:** Potential to yield information that will contribute to an understanding of natural or cultural history or is important in demonstrating a high degree of creative or technical achievement of a particular period

**Social value:** Have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.

**Rarity:** Does it possess uncommon, rare or endangered aspects of natural or cultural heritage.

**Representivity:** Important in demonstrating the principal characteristics of a particular class of natural or cultural places or object or a range of landscapes or environments characteristic of its class or 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.



## **APPENDIX C: SIGNIFICANCE AND FIELD RATING:**

### **Cultural significance:**

- Low: A cultural object being found out of context, not being part of a site or without any related feature/structure in its surroundings.
- Medium: Any site, structure or feature being regarded less important due to a number of factors, such as date and frequency. Also any important object found out of context.
- High: Any site, structure or feature regarded as important because of its age or uniqueness. Graves are always categorized as of a high importance. Also any important object found within a specific context.

### **Heritage significance:**

- Grade I: Heritage resources with exceptional qualities to the extent that they are of national significance
- Grade II: Heritage resources with qualities giving it provincial or regional importance although it may form part of the national estate
- Grade III: Other heritage resources of local importance and therefore worthy of conservation

### **Field ratings:**

- i. National Grade I significance: should be managed as part of the national estate
- ii. Provincial Grade II significance: should be managed as part of the provincial estate
- iii. Local Grade IIIA: should be included in the heritage register and not be mitigated (high significance)
- iv. Local Grade IIIB: should be included in the heritage register and may be mitigated (high/medium significance)
- v. General protection A (IV A): site should be mitigated before destruction (high/medium significance)
- vi. General protection B (IV B): site should be recorded before destruction (medium significance)
- vii. General protection C (IV C): phase 1 is seen as sufficient recording and it may be demolished (low significance)

## **APPENDIX D: PROTECTION OF HERITAGE RESOURCES:**

### **Formal protection:**

National heritage sites and Provincial heritage sites – Grade I and II

Protected areas - An area surrounding a heritage site

Provisional protection – For a maximum period of two years

Heritage registers – Listing Grades II and III

Heritage areas – Areas with more than one heritage site included

Heritage objects – e.g. Archaeological, paleontological, meteorites, geological specimens, visual art, military, numismatic, books, etc.

### **General protection:**

Objects protected by the laws of foreign states

Structures – Older than 60 years

Archaeology, paleontology and meteorites

Burial grounds and graves

Public monuments and memorials

## **APPENDIX E: HERITAGE IMPACT ASSESSMENT PHASES**

1. Pre-assessment or Scoping Phase – Establishment of the scope of the project and terms of reference.
2. Baseline Assessment – Establishment of a broad framework of the potential heritage of an area.
3. Phase I Impact Assessment – Identifying sites, assess their significance, make comments on the impact of the development and makes recommendations for mitigation or conservation.
4. Letter of recommendation for exemption – If there is no likelihood that any sites will be impacted.
5. Phase II Mitigation or Rescue – Planning for the protection of significant sites or sampling through excavation or collection (after receiving a permit) of sites that may be lost.
6. Phase III Management Plan – For rare cases where sites are so important that development cannot be allowed.