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**PHASE 1 HERITAGE IMPACT ASSESSMENT (HIA) REPORT FOR THE PROPOSED
KROON'S CHICKENS LAYER FARM
ON THE REMAINING EXTENT OF PORTION 17 OF THE FARM SCHIETFONTEIN 437JQ
MADIBENG LOCAL MUNICIPALITY, NORTHWEST PROVINCE**

For:

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REPORT: **APAC019/89**

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A handwritten signature in black ink, appearing to be 'A. Elser', is centered on the page.

SUMMARY

APelser Archaeological Consulting (APAC) was appointed by Bokamoso Landscape Architects and Environmental Consultants CC to conduct a Phase 1 Heritage Impact Assessment (HIA) for the proposed Kroon's Chickens Layer Farm. The proposed development and study area is located on the Remaining Extent of Portion 17 of the Farm Schietfontein 437JQ, in the Madibeng Local Municipality near Brits in the Northwest Province.

Background research indicated that there are a number of cultural heritage (archaeological and historical) sites and features in the larger geographical area within which the study site falls. There are no known sites in the specific study areas and no sites, features or material of cultural heritage (archaeological and/or historical) origin or significance was identified in the study area during the field assessment. This report discusses the results of both the background research and physical assessment and provides recommendations on the way forward.

From a Cultural Heritage point of view it is recommended that the proposed development be allowed to continue, taking into consideration the recommendations put forward at the end of the report.

CONTENTS

1. INTRODUCTION	5
2. TERMS OF REFERENCE	5
3. LEGISLATIVE REQUIREMENTS	5
4. METHODOLOGY	8
5. DESCRIPTION OF THE AREA	9
6. DISCUSSION	13
7. CONCLUSIONS AND RECOMMENDATIONS	21
8. REFERENCES	22
APPENDIX A: DEFINITION OF TERMS:	23
APPENDIX B: DEFINITION/ STATEMENT OF HERITAGE SIGNIFICANCE	24
APPENDIX C: SIGNIFICANCE AND FIELD RATING:	25
APPENDIX D: PROTECTION OF HERITAGE RESOURCES:	26
APPENDIX E: HERITAGE IMPACT ASSESSMENT PHASES	27

1. INTRODUCTION

APelser Archaeological Consulting (APAC) was appointed by Bokamoso Landscape Architects and Environmental Consultants CC to conduct a Phase 1 Heritage Impact Assessment (HIA) for the proposed Kroon's Chickens Layer Farm. The proposed development and study area is located on the Remaining Extent of Portion 17 of the Farm Schietfontein 437JQ, in the Madibeng Local Municipality near Brits in the Northwest Province.

Background research indicated that there are a number of cultural heritage (archaeological and historical) sites and features in the larger geographical area within which the study area falls. There are no known sites in the specific study areas and no sites, features or material of cultural heritage (archaeological and/or historical) origin or significance was identified in the study area during the field assessment.

The client indicated the location and the boundaries of the study area and the assessment concentrated on the specific farm portion that will be impacted on by the proposed development. A total of 163 ha had to be assessed.

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; and
5. Review applicable legislative requirements.

3. LEGISLATIVE REQUIREMENTS

Aspects concerning the conservation of cultural resources are dealt with mainly in two acts. These are the National Heritage Resources Act, 1999 (Act No. 25 of 1999) and the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

3.1. The National Heritage Resources Act

According to the above-mentioned act 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.).

A Heritage Impact Assessment (HIA) is the process to be followed in order to determine whether any heritage resources are located within the area to be developed as well as the possible impact of the proposed development thereon. An Archaeological Impact Assessment (AIA) only looks at archaeological resources. An 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 000m² or involve three or more existing erven or subdivisions thereof
- d. Re-zoning of a site exceeding 10 000 m²
- e. Any other category provided for in the regulations of the South African Heritage Resources Agency (SAHRA) or a provincial heritage authority.

Structures

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

A structure means 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.

Alter means any action affecting 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 this 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 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; or
- d. bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and palaeontological 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 SAHRA. In order to demolish such a site or structure, a destruction permit from the 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:

- 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 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
- c. 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 No. 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, 1983 (Act No. 65 of 1983 as amended)**.

3.2. The National Environmental Management Act

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.

4. METHODOLOGY

4.1. Survey of literature

A survey 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.

4.2. Field survey

The field assessment section of the study was conducted 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.

4.3. Oral histories

People from local communities are sometimes interviewed in order to obtain information relating to the surveyed area. It needs to be stated that this is not applicable under all circumstances. When applicable, the information is included in the text and referred to in the bibliography.

4.4. 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.

5. DESCRIPTION OF THE AREA

The proposed Kroon's Chickens Layer Farm development and study area is located on the Remaining Extent of Portion 17 of the Farm Schietfontein 437 JQ. It is situated within the area of Jurisdiction of the Madibeng Local Municipality, near Brits in the North West Province.

The topography of the study area is flat and open with no rocky ridges or outcrops present. The vegetation (grass and tree cover) in large sections was fairly dense during the assessment, and this made visibility difficult, although there were more open areas as well. The landscape and vegetation are fairly homogenous throughout the whole study area.

The study area has been used in the past for agricultural purposes (mostly for cattle grazing), and currently some cattle kraals and cattle are still present in the area. Although this activity would not have had a major impact on any archaeological and/or historical sites in the area, none were present or identified during the assessment.



Figure 1: General location of the study area (Google Earth 2019).



Figure 2: Closer view of study area (in red polygon) location and footprint (Google Earth 2019).



Figure 3: A general view of a section of the study area.



Figure 4: A view of the cattle pen (kraal) on the property.



Figure 5: Some cattle in the area.



Figure 6: Another general view of the study area.



Figure 7: In some sections the vegetation was very dense.

6. DISCUSSION

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 basically be divided into three periods. It is however 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 sites in the larger area are found in the so-called Magaliesberg Research Area. It consists of a number of sites including rock shelters such as Jubilee Shelter F and Kruger Cave south of Brits. These sites date back to the Middle and Later Stone Age and include rock engravings (Bergh 1999: 4 – 5).

There are no known Stone Age sites (including rock art) in the area, and none was found during the survey. If any Stone Age material is to be located here it would be single, out of context stone tools scattered across the area.

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 (Bergh 1999: 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.

Late Iron Age sites have been identified in the larger geographical area within which the study area falls. In a band stretching roughly from Brits in the east to Zeerust in the west many Iron Age sites have been discovered previously (Bergh 1999: 7-8). These all belong to the Later Iron Age (Bergh 1999: 8-9). A copper smelting site was identified along the Hex River to the northwest of the surveyed area (Bergh 1999: 8). The closest Earlier Iron Age site is located at Broederstroom near Brits (Bergh 1999: 6).

During earlier times the area was settled by the Fokeng. In the 19th century this group inhabited this area with other Tswana groups including the Kwena and the Po (Bergh 1999: 9-10). During the difaqane (the time of upheaval in South Africa during the 1820's), these people moved further to the west, but they returned later on (Bergh 1999: 11).

According to the research of Tom Huffman the following Iron Age traditions could be present in the area: (a) the Mzonjani facies of the Urewe tradition (Broederstroom) dating to AD450 – AD750 (b) Olifantspoort facies of the same tradition AD1500 – AD1700 (c) Uitkomst facies of Urewe AD1650 – AD1820 and (d) Buispoort facies of Urewe dating to around AD1700 - AD1840 (Huffman 2007: 127; 171; 191 & 203).

No Iron Age sites, features or cultural material was identified during the assessment of the study area.

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. Early travelers have moved through this part of the North West Province. This included David Hume in 1825, Robert Scoon and William McLuckie in 1829 and Dr. Robert Moffat and Reverend James Archbell in 1829 (Bergh 1999: 12, 117-119).

Hume again moved through this area in 1830 followed by the expedition of Dr. Andrew Smith in 1835 (Bergh 1999: 13, 120-121). In 1836 William Cornwallis Harris visited the area. The well-known explorer Dr. David Livingstone passed through this area between 1841 and 1847 (Bergh 1999: 13, 119-122).

The area also saw some action during the Anglo-Boer War (1899-1902), with a number of skirmishes between the Boer and British forces (Bergh 1999: 51; 54).

Some sites from the recent historical time-period were identified in the area during the assessment, but these are not older than 60 years of age or of any cultural heritage significance.

The oldest map for the Farm Schietfontein 437JQ (for Portion 1) that could be obtained from the database of the Chief Surveyor General dates to 1916 (www.csg.dla.gov.za – CSG Document 10GAVE01). It shows that the farm was then numbered as No.82 and that it was located in the District of Pretoria and in the Crocodile River Ward of the Zuid-Afrikaansche Republiek (ZAR). Portion 1 was surveyed between August 1895 & January 1896 for one F.W. Backenberg. A 1955 map for Portion 17 (numbered as 82 as well and located in the Brits District of the Transvaal Province) shows that it was surveyed between January & November 1954 (CSG Document 10212421). No historical sites or features could be identified on either of these two maps.

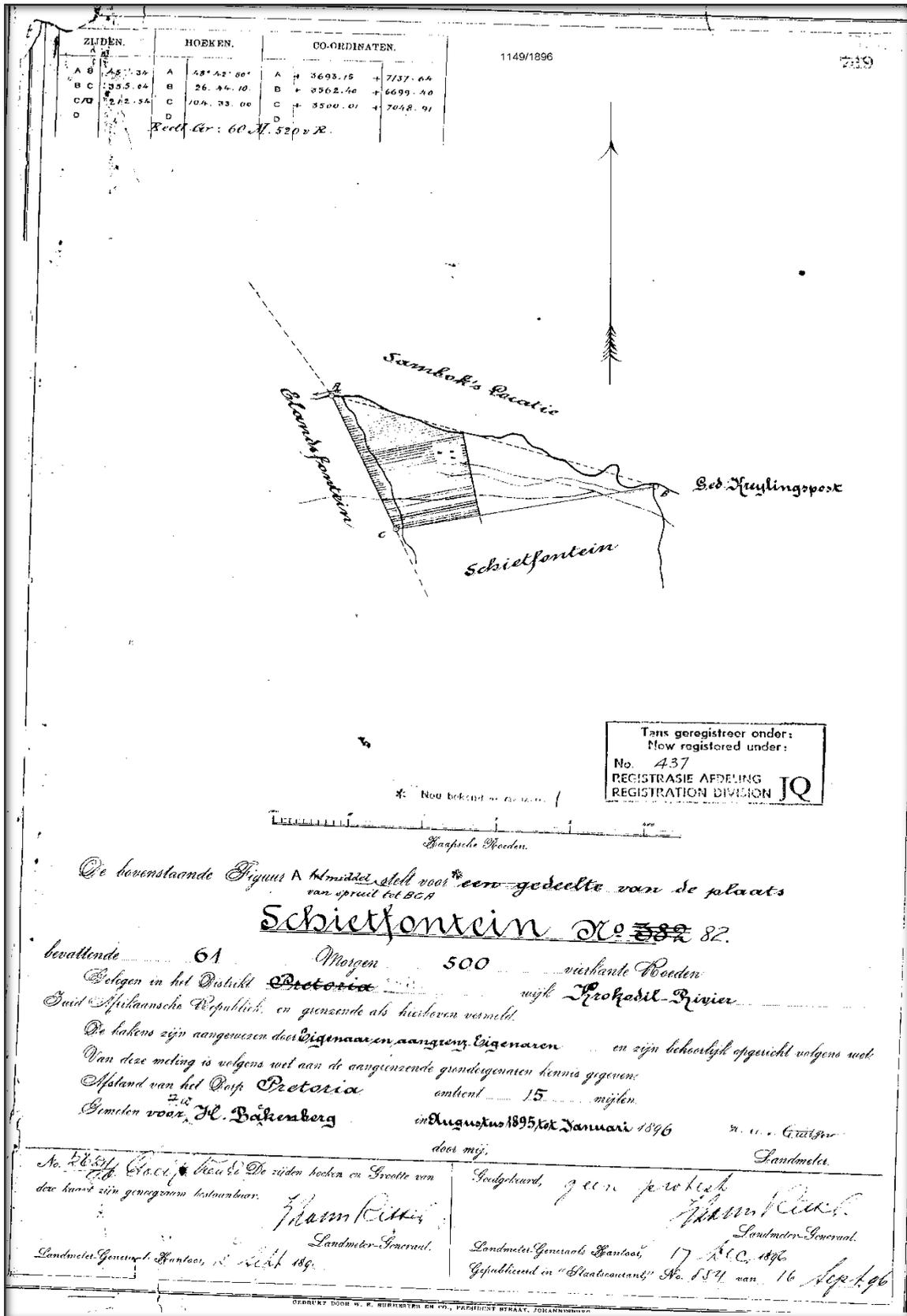


Figure 9: An 1896 map of Portion 1 of the farm (www.csg.dla.gov.za).



Figure 11: One of the cement and brick drinking/feeding troughs in the area.



Figure 12: Another of the drinking/feeding troughs.



Figure 13: A view of the new fence line that is being erected.



Figure 14: The holes for the fence posts and soil heaps next to them were inspected for any possible archaeological/cultural deposits.

It should be noted that although all efforts are made to cover a total area during any assessment and therefore to identify all possible sites or features of cultural (archaeological and/or historical) heritage origin and significance, that there is always the possibility of something being missed. This will include low stone-packed or unmarked graves. This aspect should be kept in mind when development work commences and if any sites (including graves) are identified then an expert should be called in to investigate and recommend on the best way forward.

7. CONCLUSIONS AND RECOMMENDATIONS

In conclusion it is possible to say that the Phase 1 HIA for the proposed Kroon's Chickens Layer Farm was conducted successfully. The proposed layer farm will be located on the Remaining Extent of Portion 17 of the Farm Schietfontein 437 JQ. The proposed development and study area is located in the Madibeng Local Municipality near Brits in the Northwest Province.

Background research indicated that there are a number of cultural heritage (archaeological and historical) sites and features in the larger geographical area within which the study area falls. There are no known sites in the specific study area.

No sites, features or material of any cultural heritage significance were identified in the study area and the study site during the assessment. Some cement and brick drinking/feed troughs were found through the area, but these are all of recent age (not older than 60 years of age) and not of any cultural heritage significance.

A new fence line in a section of the study area (being erected) was also checked for evidence of archaeological deposit. The holes and spoil heaps next to them showed no signs of any material or deposit.

From a Cultural Heritage point of view it is therefore recommended that the proposed development of the new Kroon's Chickens Layer Farm on the Remaining Extent of Portion 17 of Schietfontein 437 JQ be allowed to continue.

Finally, it should be noted that although all efforts are made to locate, identify and record all possible cultural heritage sites and features (including archaeological remains) there is always a possibility that some might have been missed as a result of grass cover and other factors. The subterranean nature of these resources (including low stone-packed or unmarked graves) should also be taken into consideration. Should any previously unknown or invisible sites, features or material be uncovered during any development actions then an expert should be contacted to investigate and provide recommendations on the way forward.

8. REFERENCES

General and Closer Views of Study Area Location & Footprint: Google Earth 2019.

Bergh, J.S. (red.). 1999. **Geskiedenisatlas van Suid-Afrika. Die vier noordelike provinsies**. Pretoria: J.L. van Schaik.

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Republic of South Africa. 1999. **National Heritage Resources Act** (No 25 of 1999). Pretoria: the Government Printer.

Republic of South Africa. 1998. **National Environmental Management Act** (no 107 of 1998). Pretoria: The Government Printer.

Chief Surveyor General Database (www.csg.dla.gov.za): Documents (1) 10GAVE01 & (2) 10212421

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, palaeontological 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, palaeontology 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.