

Archaetnos Culture & Cultural Resource Consultants BK 98 09854/23

A REPORT ON A HERITAGE IMPACT ASSESSMENT FOR THE PROPOSED DEVIATION OF GROOTPAN-KLIPSPRUIT AND COLOGNE-WILGE 132KV LINES, CLOSE TO OGIES, MPUMALANGA PROVINCE

For:

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REPORT NO.: AE01762V

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SUBMISSION OF REPORT

Please note that the South African Heritage Resources Agency (SAHRA) or one of its subsidiary bodies needs to comment on this report.

It is the client's responsibility to do the submission via the SAHRIS System on the SAHRA website. Arrangements can however be made if necessary.

Clients are advised not to proceed with any action before receiving the necessary comments from SAHRA.

DISCLAIMER

Although all possible care is taken to identify all sites of cultural importance during the survey of study areas, the nature of archaeological and historical sites is as such that it always is possible that hidden or subterranean sites could be overlooked during the study. Access to certain areas is also sometimes limited. Archaetnos and its personnel will not be held liable for such oversights or for costs incurred as a result thereof. Any additional sites identified can be visited and assessed afterwards and the report amended, but only upon receiving an additional appointment.

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SUMMARY

Archaetnos cc was requested by Setala Environmental to conduct a Heritage Impact Assessment (HIA) related to the proposed deviation of the Grootpan-Klipspruit 132kV and Cologne-Wilge 132kV power lines. This is close to the town of Ogies, Mpumalanga Province.

A survey of the available literature was undertaken in order to obtain background information regarding the area. This was followed by the field survey which was conducted according to generally accepted HIA practices, aimed at locating all possible objects, sites and features of cultural significance in the area of the proposed development.

The two power lines to be deviated will be on a double circuit structure where both lines are mounted on the same structure (pylon). Two alternative deviation routes were investigated. During the survey no sites of cultural heritage significance were identified. Since the entire area that were investigated is disturbed, chances of locating such sites are very slim. From a heritage perspective, the proposed development may therefore continue on any of the two alternatives.

It should be noted however that the subterranean presence of archaeological and/or historical sites, features or artefacts is always a distinct possibility. Care should therefore be taken when the development commences further that if any of these are discovered, a qualified archaeologist be called in to investigate and that the assessment be amended if necessary.

It is also important to take cognizance that it is the client's responsibility to do the submission of this report via the SAHRIS System on the SAHRA website. No work on site may commence before receiving the necessary comments from SAHRA.

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1. INTRODUCTION

Eskom Holdings SOC Ltd (the applicant) appointed Setala Environmental as the independent environmental assessment practitioner (EAP) to undertake the Environmental Impact Assessment (EIA) for the proposed power line deviation project.

Archaetnos cc was requested by Setala Environmental Services to conduct a Heritage Impact Assessment (HIA) related to the proposed deviation of two power lines at the Klipspruit Colliery. This is close to the town of Ogies, Mpumalanga Province (Figure 1-4).

Klipspruit Colliery is an opencast coal mine operated by South32 SA Coal Holdings (Pty) Limited consisting of three main pits, namely, Klipspruit Main Pit, Smaldeel and Bankfontein. A portion of the Smaldeel pit was rehabilitated in the second half of 2015. Spoils for rehabilitation are typically sourced from mine stockpiles comprising of soft and hard overburden, as well as interburden material.

The Mine is planning to deviate the Grootpan-Klipspruit 132 KV line and the Cologne-Wilge 132 KV line onto a section of the backfilled and rehabilitated Smaldeel opencast pit. The lines need to be deviated since it runs over an area where the mine wishes to expand its operations. The planned new position is approximately 200 m east of the existing alignment.

The two power lines to be deviated will be on a double circuit structure where both lines are mounted on the same structure (pylon). Two alternative deviation routes were investigated. The client indicated the area to be investigated which was surveyed by foot.



Figure 1: Location of Ogies in the Mpumalanga Province. North reference is to the top.

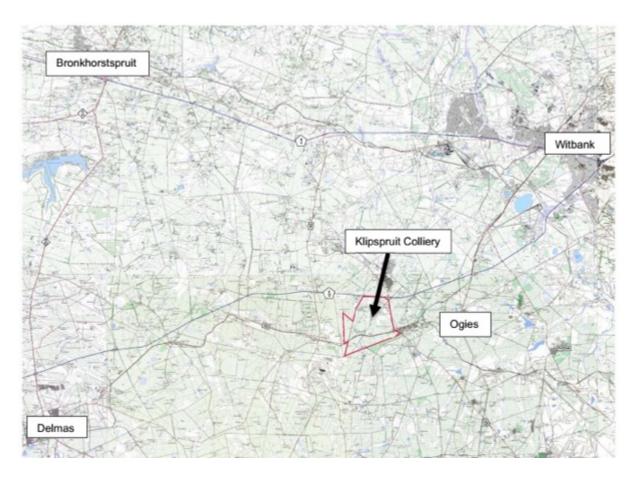


Figure 2: Location of the Klipspruit Colliery in relation to Ogies.



Figure 3: Proposed position of the deviated lines. Also note the disturbance of the landscape.



Figure 4: Detail of the proposed deviation. The black line is alternative 1 and the purple, alternative two.

2. TERMS OF REFERENCE

The Terms of Reference for the survey were to:

- 1. Identify objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) located in the surveyed area (see Appendix A).
- 2. Study background information on the area to be developed.
- Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, and aesthetic and tourism value (see Appendix B).
- 4. Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions.
- 5. Recommend suitable mitigation measures to minimize possible negative impacts on the cultural resources by the proposed development.
- 6. Review applicable legislative requirements.

3. CONDITIONS & ASSUMPTIONS

The following conditions and assumptions have a direct bearing on the survey and the resulting report:

- 1. Cultural Resources are all non-physical and physical man-made occurrences, as well as natural occurrences associated with human activity (Appendix A). These include all sites, structure and artefacts of importance, either individually or in groups, in the history, architecture and archaeology of human (cultural) development. Graves and cemeteries are included in this.
- 2. The significance of the sites, structures and artefacts is determined by means of their historical, social, aesthetic, technological and scientific value in relation to their uniqueness, condition of preservation and research potential. The various aspects are not mutually exclusive, and the evaluation of any site is done with reference to any number of these aspects.
- 3. Cultural significance is site-specific and relates to the content and context of the site. Sites regarded as having low cultural significance have already been recorded in full and require no further mitigation. Sites with medium cultural significance may or may not require mitigation depending on other factors such as the significance of impact on the site. Sites with a high cultural significance require further mitigation (see Appendix C).

- 4. The latitude and longitude of any archaeological or historical site or feature, is to be treated as sensitive information by the developer and should not be disclosed to members of the public.
- 5. All recommendations are made with full cognizance of the relevant legislation.
- 6. It must be mentioned that it is almost impossible to locate all the cultural resources in a given area, as it will be very time consuming. Developers should however note that this report should make it clear how to handle any other finds that might occur.
- 7. Only a small section of the surveyed route has natural vegetation and even this probably is regrowth. The vegetation is low and open and therefore archaeological visibility was good.

4. LEGISLATIVE REQUIREMENTS

Aspects concerning the conservation of cultural resources are dealt with mainly in two acts. These are the National Heritage Resources Act (Act 25 of 1999) and the National Environmental Management Act (Act 107 of 1998).

4.1 The National Heritage Resources Act

According to the above-mentioned act the following is protected as cultural heritage resources:

- a. Archaeological artefacts, 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 or scientific or technological value.

The national estate (see Appendix D) 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. 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. The different phases during the HIA process are described in Appendix E.

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 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 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;
- 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;

- 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, or
- 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). 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:

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

Unidentified/unknown graves are also handled as older than 60 until proven otherwise.

Human remains that are less than 60 years old are subject to provisions of the **National Health Act** (**Act 61 of 2003**) 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) before exhumation can take place. Human remains can only be handled by a

registered undertaker or an institution declared under the **National Health Act** (**Act 61 of 2003**).

4.2The National Environmental Management Act

This act (Act 107 of 1998) 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.

5. THE INTERNATIONAL FINANCE CORPORATIONS' PERFORMANCE STANDARD FOR CULTURAL HERITAGE

This standard recognizes the importance of cultural heritage for current and future generations. It aims to ensure that clients protect cultural heritage in the course of their project activities.

This is done by clients abiding to the law and having heritage surveys done in order to identify and protect cultural heritage resources via field studies and the documentation of such resources. These need to be done by competent professionals (e.g. archaeologists and cultural historians). Possible chance finds, encountered during the project development, also needs to be managed by not disturbing it and by having it assessed by professionals.

Impacts on the cultural heritage should be minimized. This include the possible maintenance of such sites in situ, or when impossible, the restoration of the functionality of the cultural heritage in a different location. When cultural historical and archaeological artefacts and structures need to be removed is should be done by professionals and by abiding to the applicable legislation.

The removal of cultural heritage resources may however only be considered if there are no technically or financially feasible alternatives. In considering the removal of cultural resources, it should be outweighed by the benefits of the overall project to the effected communities. Again, professionals should carry out the work and adhere to the best available techniques.

Consultation with affected communities should be engaged in. This entails that access to such communities should be granted to their cultural heritage if this is applicable. Compensation for the loss of cultural heritage should only be given in extra-ordinary circumstances.

Critical cultural heritage may not be impacted on. Professionals should be used to advise on the assessment and protection thereof. Utilization of cultural heritage

resources should always be done in consultation with the effected communities in order to be consistent with their customs and traditions and to come to agreements with relation to possible equitable sharing of benefits from commercialization.

6. METHODOLOGY

6.1 Survey of literature

A survey of literature was undertaken in order to obtain background information regarding the area. Sources consulted in this regard are indicated in the bibliography.

6.2 Field survey

The survey was conducted according to generally accepted HIA practices and was aimed at locating possible objects, sites and features of cultural significance in the area of proposed development. Since it was a basic assessment the aim was only to get a good idea of the heritage in the area. One sometimes looks a bit wider than the demarcated area, as the surrounding context needs to be taken into consideration.

Where required, the location/position of any site was determined by means of a Global Positioning System (GPS)¹, while photographs were also taken where needed. The survey was undertaken by doing a physical survey via off-road vehicle and on foot and covered as much as possible of the area to be studied (Figure 5). Certain factors, such as accessibility, density of vegetation, etc. may however influence the coverage. The surveyed area is approximately 1 km long and the survey took about 2 hours to complete.

6.3 Oral histories

People from local communities are 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.

6.4 Documentation

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

¹ A Garmin Oregon 550 with an accuracy factor of a few meters.



Figure 4: GPS track of the field survey (green lines). North reference is to the top.

6.5 Evaluation of Heritage sites

The evaluation of heritage sites is done by giving a field rating of each (see Appendix C) using the following criteria:

- The unique nature of a site
- The integrity of the archaeological deposit
- The wider historic, archaeological and geographic context of the site
- The location of the site in relation to other similar sites or features
- The depth of the archaeological deposit (when it can be determined or is known)
- The preservation condition of the site
- · Uniqueness of the site and
- Potential to answer present research questions.

7. DESCRIPTION OF THE ENVIRONMENT

The environment of both route alternatives is similar, and entirely disturbed. Vegetation cover is mainly concentrated along the existing power lines. The vegetation is low and open (Figure 6-7).

The area towards the east, where it is proposed to deviate the lines to, consist of rehabilitated mine area. Vegetation cover here varies between dense and scarce, but of course is nothing more than regrowth and pioneer species (Figure 8-9). Many open patches of soil are visible (Figure 10), as well as a large open area towards the north

(Figure 11). The area is flanked by a mine road (Figure 12) and mine dump in the north-east (Figure 13).



Figure 6: View of vegetation along the existing line. Note the mine dumps on both sides.



Figure 7: Vegetation at the pylon where the existing line and proposed alternatives merge.



Figure 8: Regrowth and pioneer plant species in rehabilitated mine area where the lines will be deviated to.



Figure 9: Regrowth and pioneer plant species along the proposed routes.



Figure 10: Open area along the proposed routes.



Figure 11: Large open area consisting of soil brought in to rehabilitate the area.



Figure 12: Road and mining activities adjacent to the proposed routes.



Figure 13: Mine dump close to the surveyed area.

8. HISTORICAL CONTEXT

This geographical area is not well-known as one containing many prehistoric sites. One however has to realize that this most likely only indicates that not much research has been done here before. On the existing SAHRA database no such sites are indicated here, but there are a few heritage surveys that were done in the area as was

research done in the wider geographical region (SAHRIS database; Archaetnos' database). This information is included in the discussion.

No sites of cultural heritage significance were located during the survey. Some background information is given in order to place the surveyed area in a broad historical and geographical context and to contextualize possible finds that could be unearthed during construction activities.

8.1 Stone Age

The Stone Age is the period in human history when lithic material was mainly used to produce tools (Coertze & Coertze 1996: 293). In South Africa the Stone Age can be divided in three periods. It is, however, important to note that dates are relative and only provide a broad framework for interpretation. The division for the Stone Age according to Korsman & Meyer (1999: 93-94) is as follows:

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Early Stone Age (ESA) 2 million – 150 000 years ago Middle Stone Age (MSA) 150 000 – 30 000 years ago Late Stone Age (LSA) 40 000 years ago – 1850 - A.D.
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No Stone Age sites are indicated on a map contained in a historical atlas of this area (Bergh 1999: 4). The closest known Stone Age occurrence is that of rock art close to the Olifants River to the south of Witbank (Bergh 1999: 5). This however should rather be seen as a lack of research in the area and not as an indication that such features do not occur. Some Middle Stone Age artifacts were identified out of context during previous surveys in the wider geographical area (Archaetnos' database).

However, no natural shelters were seen during the survey and therefore it is possible that these people did not stay here for long times. The close vicinity of water sources and ample grazing would have made it a prime spot for hunting and obtaining water during the past. Therefore, one may assume that Stone Age people probably would have moved through the area.

8.2 Iron Age

The Iron Age is the name given to the period of human history when metal was mainly used to produce metal artifacts (Coertze & Coertze 1996: 346). In South Africa it can be divided in two separate phases according to Van der Ryst & Meyer (1999: 96-98), namely:

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

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Early Iron Age (EIA) 250 – 900 A.D.
Middle Iron Age (MIA) 900 – 1300 A.D.
Late Iron Age (LIA) 1300 – 1840 A.D.
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No Iron Age sites are indicated in a historical atlas around the town of Witbank, but this may only indicate a lack of research. The closest known Iron Age occurrences to the surveyed area are Late Iron Age sites that have been identified to the west of Bronkhorstspruit and in the vicinity of Bethal (Bergh 1999: 7-8).

The good grazing and access water in the area would have provided a good environment for Iron Age people although building material seem to be reasonably scarce. One would therefore expect that Iron Age people may have utilized the area. This is the same reason why white settlers moved into this environment later on.

8.3 Historical Age

The Historical Age started with the first recorded oral histories in the area. It includes the in-migration of people that were able to read and write.

The first white people to move through this area were the party of the traveler, Robert Scoon who passed through during 1836 (Bergh 1999: 13). Although the Voortrekkers moved across the Vaal River during the 1830's, it seems as if white people only settled here after 1850 (Bergh 1999: 14-15).

At the beginning of the 19th century the Phuthing, a South Sotho group, stayed in the vicinity of modern day Kriel and Bethal to the south of the surveyed area. During the Difaquane they fled to the south (Bergh 1999: 10-11; 109). In 1829 the traveler Robert Scoon passed through an area to the south of Witbank (Bergh 1999: 13). The first white farmers only settled here during the late 1850's. By the 1890's this area was inhabited by many white farmers (Bergh 1999: 18-20).

During the Anglo-Boer War the Highveld areas saw much action consisting of various skirmishes between Boer and Brit (Bergh 1999: 51, 54). It includes skirmishes on the farms Oshoek (4 December 1901), Trigaardsfontein (10 December 1901), Witbank (11 January 1902) and Nelspan (26 January 1902).

One may therefore expect to find farm buildings, structures and objects from this time period in the area. Many graveyards from this period in time have also been identified in surrounding areas during past surveys. This is however outside of the current sites investigated.

9. CONCLUSION AND RECOMMENDATIONS

The heritage survey of the indicated area was completed successfully. No site was identified.

The following is recommended:

1. No sites were identified on any of the two alternatives. Therefore, there is no specific preference from a heritage perspective for any of these two alternatives.

- 2. This report is seen as sufficient mitigation and the proposed development may therefore continue.
- 3. It should be noted that the subterranean presence of archaeological and/or historical sites, features or artefacts is always a distinct possibility. Care should therefore be taken when development commences that if any of these are discovered, work on site immediate cease and a qualified archaeologist be called in to investigate the occurrence.

In this regard the following 'Chance find Procedure' should be followed:

- Upon finding any archaeological or historical material all work at the affected area must cease.
- The area should be demarcated in order to prevent any further work there until an investigation has been completed.
- An archaeologist should be contacted immediately to provide advice on the matter.
- Should it be a minor issue, the archaeologist will decide on future action. Depending on the nature of the find, it may include a site visit.
- SAHRA's APM Unit may also be notified.
- If needed the necessary permit will be applied for with SAHRA. This will be done in conjunction with the appointed archaeologist.
- The removal of such archaeological material will be done by the archaeologist in lieu of the approval given by SAHRA, including any conditions stipulated by the latter.
- Work on site will only continue after the archaeologist/ SAHRA has agreed to such a matter.

10. REFERENCES

Archaetnos database.

- Bergh, J.S. (red.). 1999. **Geskiedenisatlas van Suid-Afrika. Die vier noordelike provinsies.** Pretoria: J.L. van Schaik.
- Coertze, P.J. & Coertze, R.D. 1996. **Verklarende vakwoordeboek vir Antropologie en Argeologie.** Pretoria: R.D. Coertze.
- Huffman, T.N. 2007. Handbook to the Iron Age: The Archaeology of Pre-Colonial Farming Societies in Southern Africa. Scotsville: University of KwaZulu-Natal Press.
- International Finance Corporation. 2012. **Overview of performance standards on Environmental and Social Sustainability. Performance Standard 8, Cultural Heritage.** World Bank Group.
- Knudson, S.J. 1978. **Culture in retrospect.** Chicago: Rand McNally College Publishing Company.
- Korsman, S.A. & Meyer, A. 1999. Die Steentydperk en rotskuns. Bergh, J.S. (red.). **Geskiedenisatlas van Suid-Afrika. Die vier noordelike provinsies.** Pretoria: J.L. van Schaik.

- Republic of South Africa. 2003. **National Health Act** (Act 61 of 2003). The Government Printer: Pretoria.
- 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.
- Republic of South Africa. 1980. Ordinance on Excavations (Ordinance no. 12 of 1980). The Government Printer: Pretoria.
- SAHRA database (SAHRIS).
- Van der Ryst, M.M. & Meyer, A. 1999. Die Ystertydperk. Bergh, J.S. (red.).

 Geskiedenisatlas van Suid-Afrika. Die vier noordelike provinsies.

 Pretoria: J.L. van Schaik.

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 artefacts, 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: Artefact (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, landuse, 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:

National Grade I significance should be managed as part of the national estate should be managed as part of the provincial estate should be included in the heritage register and not

be mitigated (high significance)

General protection A (IV A) site should be mitigated before destruction (high/

medium significance)

General protection B (IV B) site should be recorded before destruction (medium

significance)

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.