



Archaetnos Culture & Cultural
Resource Consultants
BK 98 09854/23

**A REPORT ON AN ARCHAEOLOGICAL AND BUILT ENVIRONMENT HERITAGE
IMPACT ASSESSMENT FOR A PROPOSED VENTILATION SHAFT AT THE NEW
DENMARK COLLIERY, MPUMALANGA PROVINCE**

For:

***New Denmark Colliery
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REPORT NO.: AE02009V

By:

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27 February 2020

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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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EXECUTIVE SUMMARY

New Denmark Colliery has requested Archaetnos to conduct an Archaeological and Built Environment Heritage Impact Assessment. This is planned on Portion 6 of the farm Meyersvallei 354 IS. The project is located in the Lekwa Local Municipality and Gert Sibanda District Municipality, Mpumalanga Province. The nearest towns are Bethal and Standerton.

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

One site of cultural heritage significance was identified. The following is recommended:

The following is recommended:

1. The cultural significance of site no. 1 (cemetery) is High And the Field rating is Local Grade IIIB. The site should be included in the heritage register and may be mitigated. Mitigation is subject to a permit application lodged with the relevant heritage authority.

In this instance two possibilities exist. The first option would be to fence the graves in and have a management plan drafted for the sustainable preservation thereof. This should be written by a heritage expert. This usually is done when the graves are in no danger of being damaged, but where there will be a secondary impact due to the activities of the mine.

The second option is to exhume the mortal remains and then to have it relocated. This usually is done when the graves are in the area to be directly affected by the mining activities. For this a specific procedure should be followed which includes social consultation. For graves younger than 60 years only an undertaker is needed. For those older than 60 years and unknown graves an undertaker and archaeologist is needed. Permits should be obtained from the Burial Grounds and Graves unit of SAHRA. This procedure is quite lengthy and involves social consultation.

A proposed fencing of the cemetery is indicated in the development plan and accordingly Option 1 is recommended. The development is planned 70 m from the graves, which is regarded as an acceptable distance.

2. The proposed development may continue after receiving comments from the relevant heritage authority and implementation of the mitigation measures indicated.

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.*

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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- DPhil Archaeology 2001, University of Pretoria.
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EMPLOYMENT HISTORY

- *1988-1991*: Fort Klapperkop Military Museum - Researcher
- *1991-1999*: National Cultural History Museum. Work as Archaeologist, as well as Curator/Manager of Pioneer Museum (1994-1997)
- *1999-2002*: City Council of Pretoria. Work as Curator: Fort Klapperkop Heritage Site and Acting Deputy Manager Museums and Heritage.
- *2002-2007*: City of Tshwane Metropolitan Municipality. Work as Deputy Manager Museums and Heritage.
- *August 2007* – present – Managing Director for Archaetnos Archaeologists.
- *1988-2003*: Part-time lecturer in Archaeology at the University of Pretoria and a part-time lecturer on Cultural Resources Management in the Department of History at the University of Pretoria.
- *2014-2015*: Part-time lecturer for the Honours degree in Museum Sciences in the Department of History and Heritage Studies at the University of Pretoria
- *Since 2015*: Extraordinary Professor of History at the Mahikeng campus of the Northwest University

OTHER

- Has published 35 peer-reviewed and 43 popular articles.
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- Has been the author and co-author of over 973 unpublished reports on cultural resources surveys and archaeological work.
- Has delivered more than 75 papers and lectures at national and international conferences.
- Member of SAHRA Council for 2003 – 2006.
- Member of the South African Academy for Science and Art.

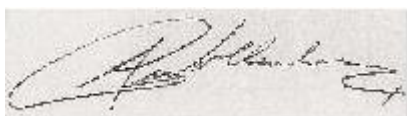
- Member of Association for South African Professional Archaeologists.
- Member of the South African Society for Cultural History (Chairperson 2006-2008; 2012-2014; 2018-2020).
- Has been editor for the SA Journal of Cultural History 2002-2004.
- Editorial member of various scientific journals.
- Member of the Provincial Heritage Resources Agency, Gauteng's Council.
- Member of Provincial Heritage Resources Agency, Gauteng's HIA adjudication committee (Chairperson 2012-2020).

A list of reports can be viewed on www.archaetnos.co.za.

DECLARATION OF INDEPENDENCE

I, Anton Carl van Vollenhoven from Archaetnos, hereby declare that I am an independent specialist within the field of heritage management. The report complies with the SAHRA 2007 Minimum Standards for *Archaeological Components of Impact Assessment Reports*.

Signed:



Date: 27 February 2020

LIST OF ACRONYMS:

AIA – Archaeological Impact Assessment
CMP – Cultural Management Plan
EAP – Environmental Assessment Practitioner
EIA – Environmental Impact Assessment
HIA – Heritage Impact Assessment
PIA – Palaeontological Impact Assessment
SAHRA – South African Heritage Resources Agency

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1. INTRODUCTION

New Denmark Colliery has requested Archaetnos to conduct an Archaeological and Built Environment Heritage Impact Assessment related to the proposed sinking of a shaft and access road. This is planned on Portion 6 of the farm Meyersvallei 354 IS. The project is located in the Lekwa Local Municipality and Gert Sibanda District Municipality, Mpumalanga Province. The nearest towns are Bethal and Standerton (Figure 1-4).

The project is in the BAR phase, but the ventilation shaft doesn't trigger any EIA activities. However, the DMR requested that a heritage study be done to accompany the Part 2 EMPR Amendment application.

A Ventilation Shaft (footprint size 0.65 ha), with associated underground powerlines (22 kV) and access gravel road (10 m wide, 760 m length) are required to ensure that the underground mine remains well ventilated for the safety of the workers. The vent shaft will be constructed 27 m away from the graves whose families are known by New Denmark Colliery. The proposed road will cross an artificial wetland, due to seepage from a farmer's dam, that will require a crossing (bridge or culverts to be constructed).

A central coordinate for the development is: 26°45'40.22"S; 29°14'54.23"E. The client indicated the area to be investigated which was surveyed by off road vehicle and, where possible, by foot.

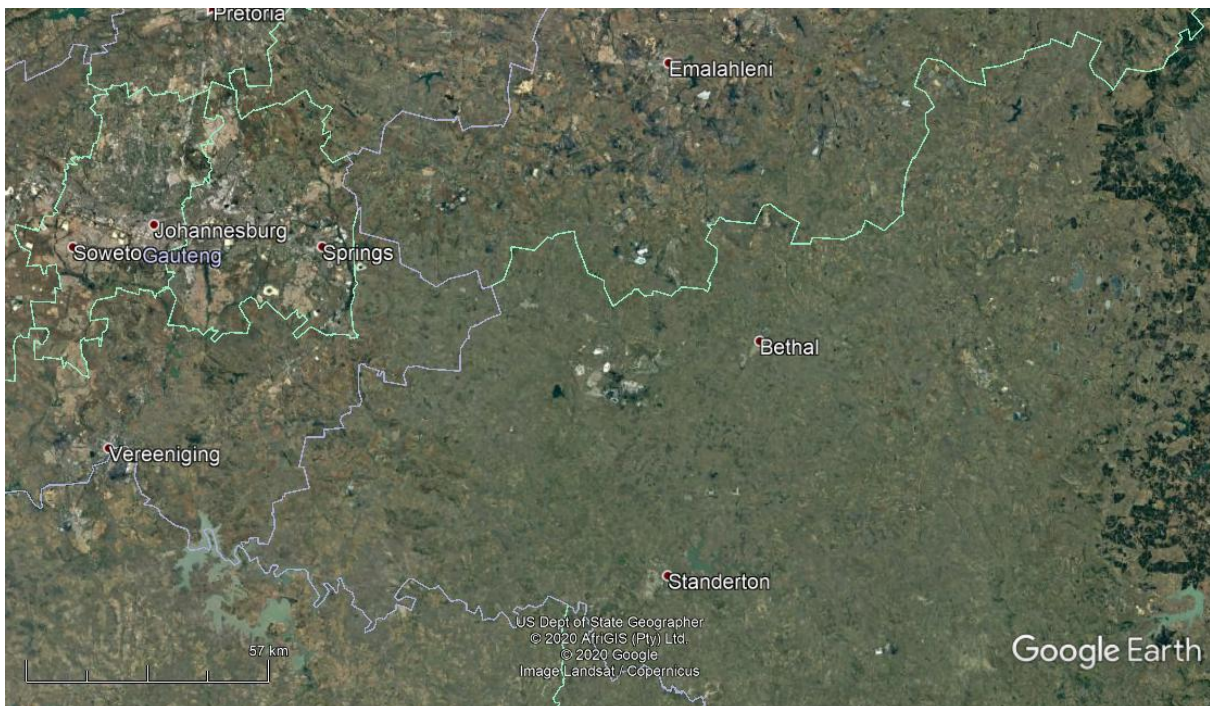


Figure 1: Location of Bethal and Standerton in the Mpumalanga Province. North reference is to the top.

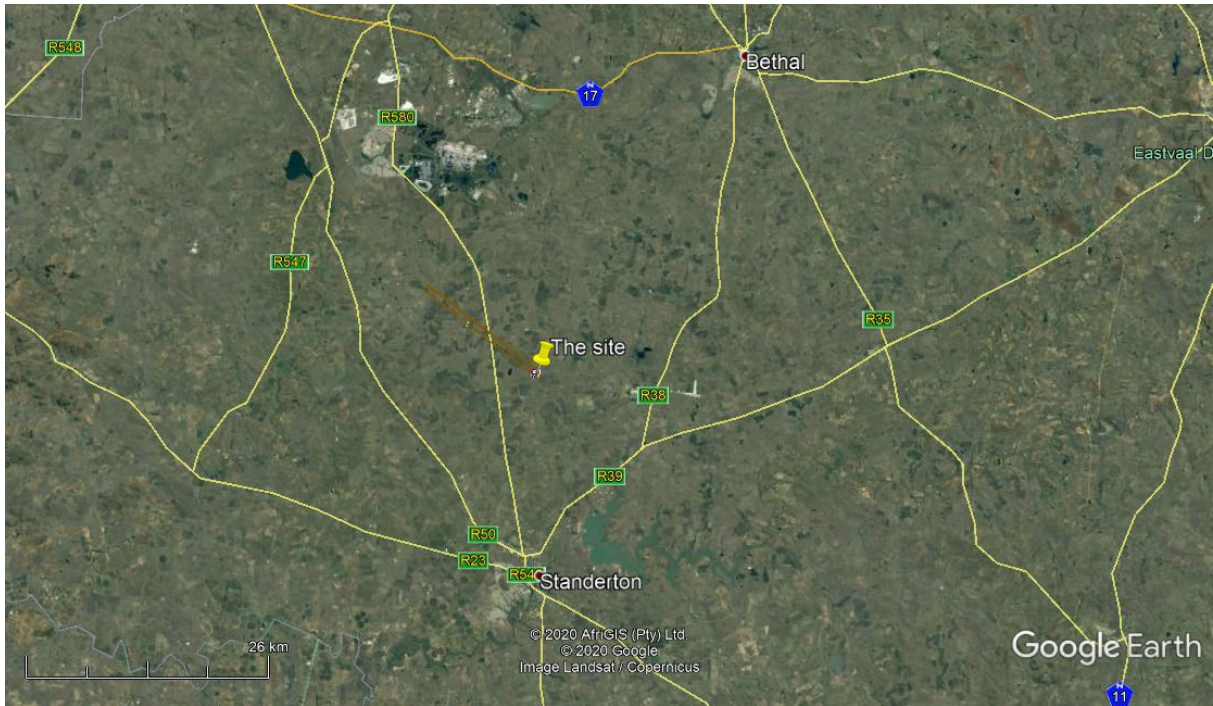


Figure 2: Location of the surveyed site in relation to Bethal and Standerton.



Figure 3: Detailed view of the site development. Note that the shaft is in the south east of the property and thus this is the only area to be impacted. The purple rectangle indicates known graves close to the impacted site.

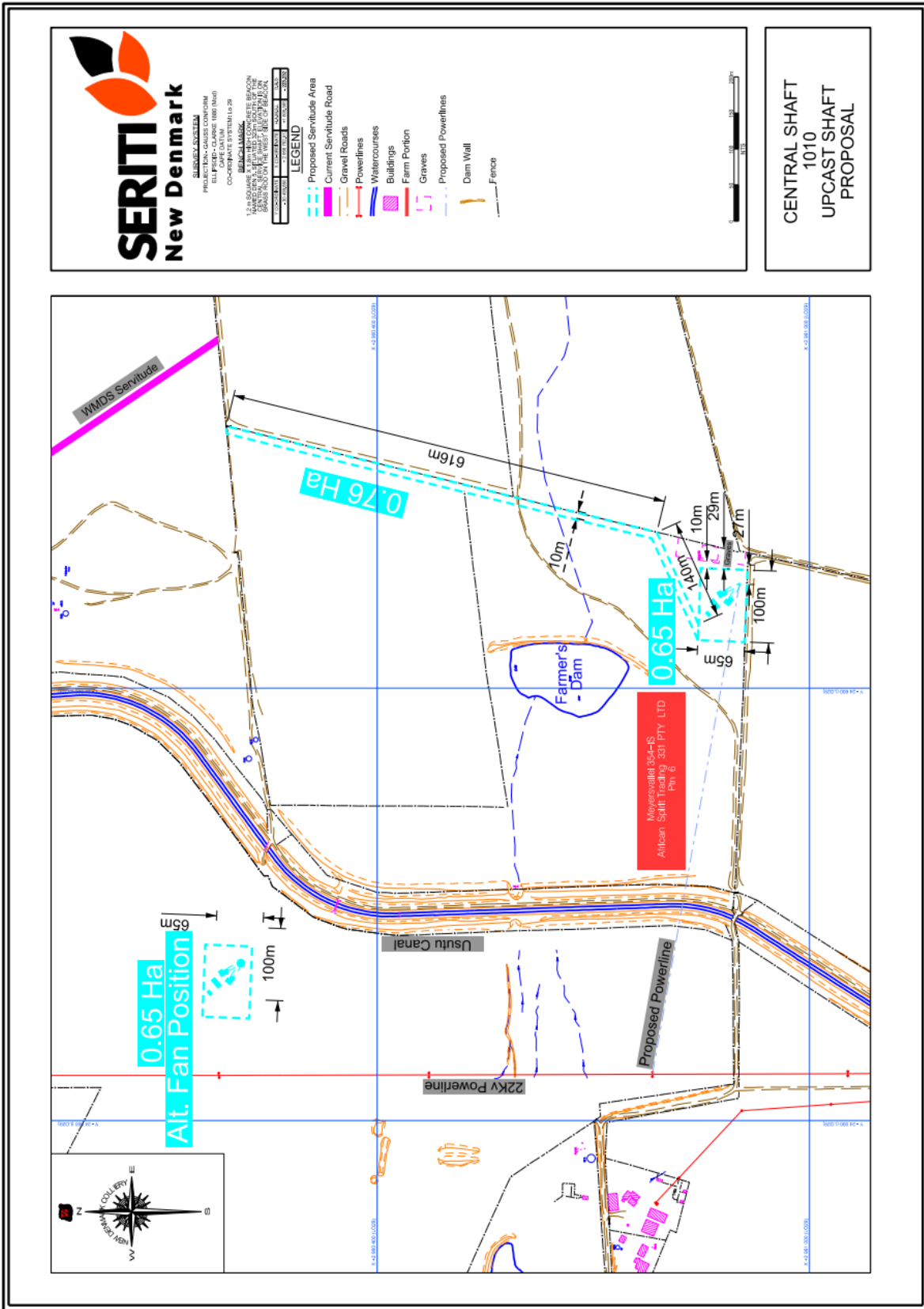


FIGURE 4: MAP INDICATING THE DEVELOPMENT (SERITI NEW DENMARK).

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.
3. 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. The vegetation cover on site varies in density and height from open patches with low growing crops(soya) and short grass to areas with medium high plant growth. In general both the horizontal and the vertical 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 of 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;

- 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;
- 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:

- a. 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;
- 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.

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)**.

4.2 The 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 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 not 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 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.

Three previous heritage studies could be found, done at the New Denmark Colliery (SAHRIS Database; Archaetnos database). These are referred to below.

6.2 Field survey

The survey was conducted according to generally accepted AIA practices and was aimed at locating possible objects, sites and features of cultural significance in the area of proposed development. 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 size of the surveyed site is approximately 0,65 Ha. 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.

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



Figure 5: GPS track of the field survey. Note that only the shaft area in the south east and the proposed road to the site, was to be studied. North reference is to the top.

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 to facilitate the identification of each locality.

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 surveyed site is on an open field and is surrounded by agricultural land (Figure 6). The vegetation consists mostly of short and medium high grass with no trees and shrubs.

The topography is reasonably flat with a slight fall towards the marshland and the dam in the north of the study area, where the proposed road will cross (Figure 7) and leading into cultivated land (Figure 8). The soil is a mixture of clay and turf. An irrigation canal is located to the west but is not part of the survey area..



Figure 6: The site surrounded by agricultural land.



Figure 7: General view of the area showing the marshland and tall grasses.



Figure 8: View of soya field where proposed road will lead into.

8. HISTORICAL CONTEXT

During the survey one site of cultural heritage importance was identified. In order to understand the broader history of the larger geographical area, as well as to contextualize possible additional finds that could be unearthed during the development, it is necessary to give a background regarding the different phases of human history in the area.

As indicated above, three previous heritage surveys were done at New Denmark Colliery. A few heritage reports were written in the Standerton area. These however either indicated that nothing of heritage significance was found, or the sites that were found has no contextual link to the current surveyed area. The report written by Prins & Hall (2011) indicated that no sites were identified. The report by Van Vollenhoven (2013) identified three sites, two of these farmyards and the third some graves. Another report by Van Vollenhoven (2016) indicated that three graveyards were identified (SAHRIS database; Archaetnos' database).

7.1 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:

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.

The geographical area around the towns of Standerton and Bethal is not known as an area containing prehistoric sites dating to the Stone Age. For instance no such sites are indicated on maps contained in a historical atlas of this area (Bergh 1999: 4-5). However this may only be since no research has actually been done in this area. The closest known Stone Age occurrences are a Late Stone Age site at the town of Ermelo and rock art sites far to the west of Standerton (Bergh 1999: 4-5).

The environment definitely would be supportive to Stone Age activities. The good vegetation in the surrounding area and the rivers indicated that ample grazing and water may have been available, making it a prime spot for hunting in the past. Therefore one may assume that Stone Age people probably would have at least moved through the area. As no natural shelters were seen during the survey and therefore it is possible that these people did not stay here for long periods of time.

As it is possible that Stone Age material may be found during construction and mining activities on site, one should be on the lookout for it. If large quantities of stone tools are found in one location will constitute a site and will have to be investigated further.

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 (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:

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.

Also no sites from the Early Iron Age have been identified in the area (Bergh 1999: 6). Again it needs to be stated that this may only be a result of the lack of research done in this part of the country.

It is known that Late Iron Age sites are found in a large area around the towns of Bethal and Standerton. It includes at least 585 such sites. At none of these indications of metal working has been found (Bergh 1999: 6-7), meaning that it would mostly consist of stone walled living complexes. It is also known that the early trade routes did not run through this area (Bergh 1999: 9).

However, during the survey no such sites were identified. The good grazing in the broader environment however would have provided a good environment for Iron Age people although building material would have been reasonably scarce. One would therefore expect that Iron Age people may have utilized the area. The white settlers moved into this environment later on for the same reason.

7.3 Historical 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. This era is sometimes called the Colonial era or the recent past.

Due to factors such as population growth and a decrease in mortality rates, more people inhabited the country during the recent historical past. Therefore and because less time has passed, much more cultural heritage resources from this era have been left on the landscape. It is important to note that all cultural resources older than 60 years are potentially regarded as part of the heritage and that detailed studies are needed in order to determine whether these indeed have cultural significance. Factors to be considered include aesthetic, scientific, cultural and religious value of such resources.

At the beginning of the 19th century the Phuthing, a South Sotho group, stayed in the vicinity of modern day Standerton. 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 north of Bethal (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). The town of Standerton was established in 1879 although it already was a district in 1878. Bethal was established in 1880 and it became an independent district in 1898 (Bergh 1999: 20-21).

During the Anglo-Transvaal War (1880-1881) the British garrison in Standerton was beleaguered by the Boer forces (Bergh 1999: 46). The Highveld areas also saw much action consisting of various skirmishes between Boer and Brit during the Anglo-Boer War (1899-1902). It includes skirmishes on the farms Oshoek (4 December 1901), Trigaardsfontein (10 December 1901), Witbank (11 January 1902) and Nelspan (26 January 1902) (Bergh 1999: 51, 54). It however is not possible to indicate how close these came to the project area. At Standerton there was both a concentration camp for white and for black people (Bergh 1999: 54).

One may therefore expect to find farm buildings, structures and objects from this time period in the area. Such sites were indeed identified during previous surveys, but these are all far from the current development (see Figure 9). None of these will however be impacted on by the proposed development. Many graveyards from this period in time have also been identified in surrounding areas during past surveys (Archaetnos database).

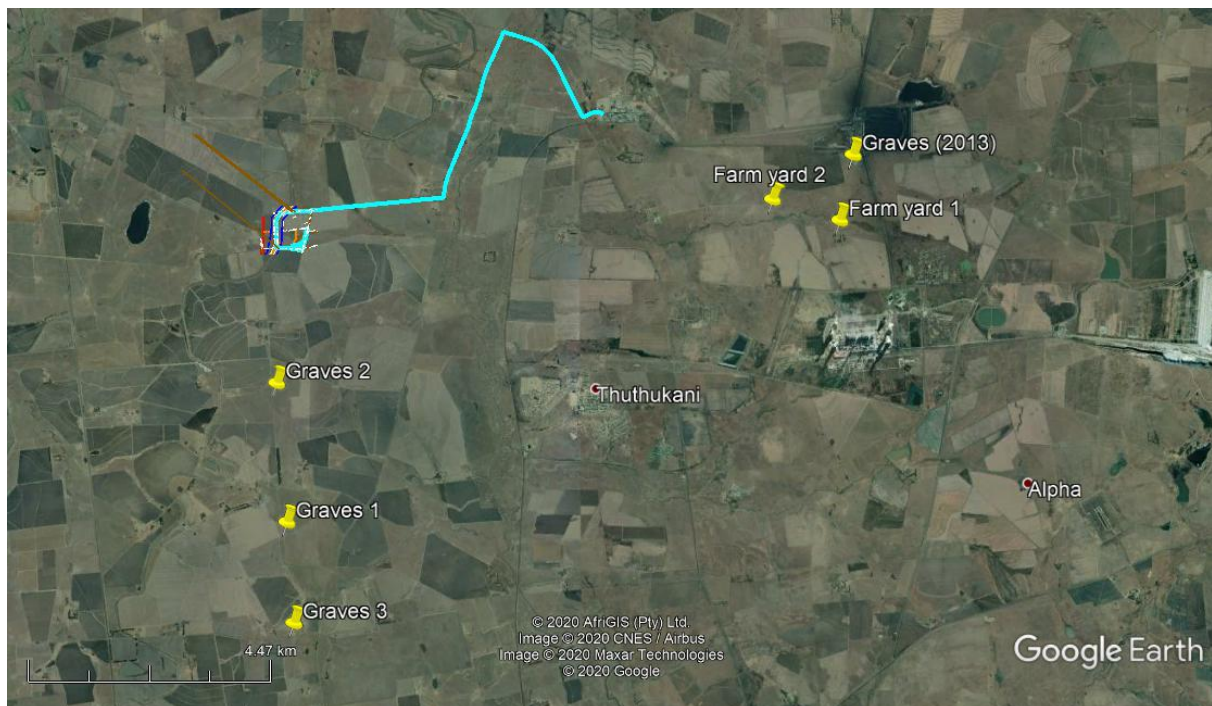


Figure 9: Heritage sites identified during previous surveys in the area.

9. SITES IDENTIFIED IN THE SURVEYED AREA

One site was identified and is discussed below.

9.1 Site 1 - Cemetery

The grave site is about 100 m x 23 m in size and is located about 10 m east of the proposed site and consists of approximately 68 graves (Figure 10-12). Some of the graves were fenced in, but only the remains of a fence are still visible. The site is covered in grass. There are only a few grave goods on some of the more formal graves. Graves are orientated east to west.

GPS: 26°45'39.86"S 29°14'56.10"E

No graves are older than 60 years of age and five graves are younger than 60 years. The unmarked graves thus are 63. The oldest grave is that of Efrem Shabalala who died on 10/02/1963 and the youngest is that of Madla Joel Madonsela who died on --/11/2008 [day illegible]. Other names and dates noted are Lephoto [surname illegible] 30/01/1969 and Gamazwe Phillemon Hlatshwayo 09/11/1992.

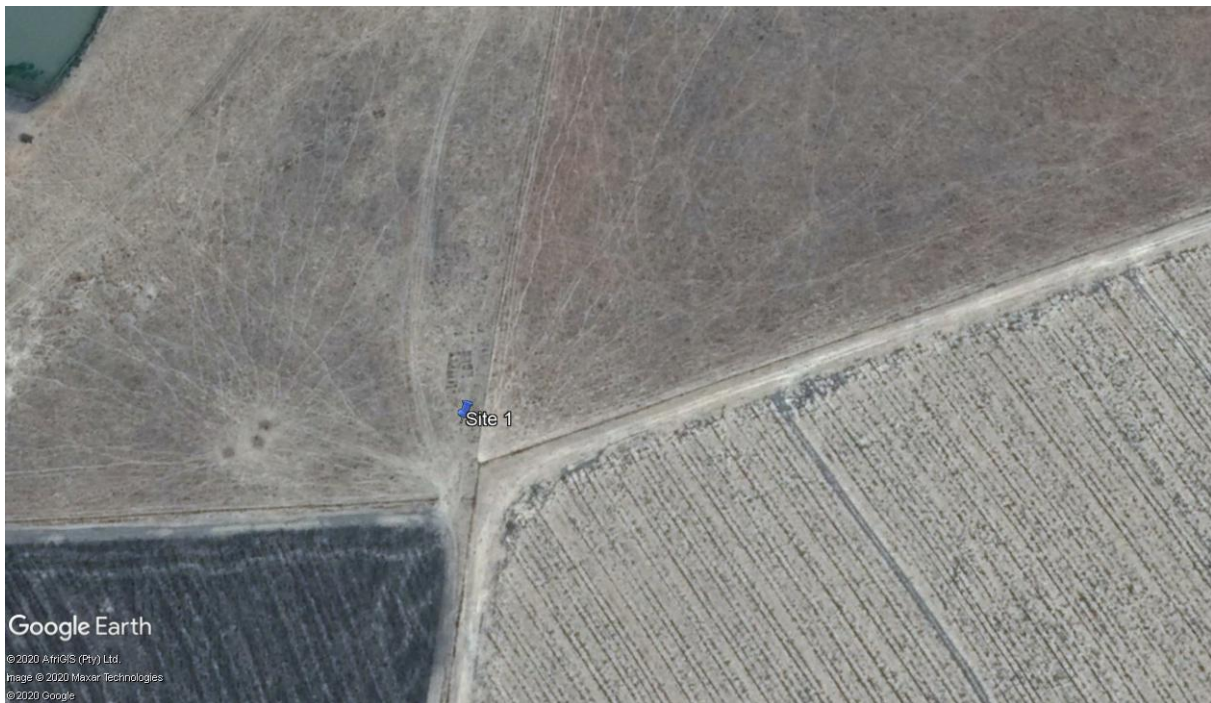


Figure 10: Location of cemetery.



Figure 11: Cemetery found during survey.



Figure 12: Example of one of the graves.

Cultural significance Table: Site

A place is considered to be part of the national estate if it has cultural significance because of -	Applicable or not	Rating: 1 - Negligible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 - Medium-High/ 6 - High/ 7 - Very High
Its importance in the community or pattern of South Africa's history	Y	High
Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	Y	High
Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	Y	Medium
Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	Y	High
Its importance in exhibiting particular aesthetic characteristics valued by a community cultural group	N	
Its importance in demonstrating a high degree of creative or technical achievement at a particular period	N	

Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	Y	Medium-High
Its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa	N	
Sites of significance relating to the history of slavery in South Africa	N	
Reasoned assessment of significance using appropriate indicators outlined above:		High

Integrity scale:

- 1 – Bad state of preservation, but no contextual information
- 2 – Bad state of preservation and includes contextual information
- 3 – Reasonable state of preservation, but no contextual information
- 4 – Reasonable state of preservation and includes contextual information
- 5 – Good state of preservation, but no contextual information
- 6 - Good state of preservation and includes contextual information
- 7 – Excellent state of preservation, but no contextual information
- 8 – Excellent state of preservation and includes contextual information

Field-rating = Cultural significance x Integrity

= 6 (High) x 2

= 12

Field-rating: Local Grade IIIB

The site should be included in the heritage register and may be mitigated. Mitigation is subject to a permit application lodged with the relevant heritage authority.

Two possibilities exist. The first option would be to fence the graves in and have a management plan drafted for the sustainable preservation thereof. This should be written by a heritage expert. This usually is done when the graves are in no danger of

being damaged, but where there will be a secondary impact due to the activities of the mine.

The second option is to exhume the mortal remains and then to have it relocated. This usually is done when the graves are in the area to be directly affected by the mining activities. For this a specific procedure should be followed which includes social consultation. For graves younger than 60 years only an undertaker is needed. For those older than 60 years and unknown graves an undertaker and archaeologist is needed. Permits should be obtained from the Burial Grounds and Graves unit of SAHRA. This procedure is quite lengthy and involves social consultation.

A proposed fencing of the cemetery is indicated in the development plan and accordingly Option 1 is recommended.

10. PUBLIC CONSULTATION

The mine did the public consultation themselves. It consisted of:

- A Newspaper advertisement was placed in the Standerton Advertiser and Cosmos on the 10th December 2019.
- Five (5) site notices was be placed around the proposed project site as well as on the existing mine.
- Written notices (including BIDs) was distributed to Interested and Affected Parties (I&APs).
- The draft scoping report was made available for public and stakeholder review for a period of 30 days (from 10 December 2019 – 31 January 2020). Notices providing the detail of the public viewing station and review period, were sent to registered I&APs via e-mail. This notification also formed part of the above-mentioned advertisement and site notices.
- The following stakeholders were engaged with:
 - Department of Mineral Resources and Energy.
 - Mpumalanga Department of Agriculture, Rural Development, Land and Environmental Affairs.
 - Department of Human Settlements Water and Sanitation,
 - Lekwa Local Municipality,
 - Gert Sibanda District Municipality,
 - Roads Department
 - Eskom
 - Portion 6 of the farm Meyersvallei 354-IS
 - Adjacent landowners.

11. CONCLUSION AND RECOMMENDATIONS

The heritage survey of the indicated area was completed successfully. One site was identified (Figure 13).



Figure 13: Indication of the location of the identified sites in relation to the development.

The following is recommended:

1. The cultural significance of site no. 1 (cemetery) is High And the Field rating is Local Grade IIIB. The site should be included in the heritage register and may be mitigated. Mitigation is subject to a permit application lodged with the relevant heritage authority.
2. In this instance two possibilities exist. The first option would be to fence the graves in and have a management plan drafted for the sustainable preservation thereof. This should be written by a heritage expert. This usually is done when the graves are in no danger of being damaged, but where there will be a secondary impact due to the activities of the mine.
3. The second option is to exhume the mortal remains and then to have it relocated. This usually is done when the graves are in the area to be directly affected by the mining activities. For this a specific procedure should be followed which includes social consultation. For graves younger than 60 years only an undertaker is needed. For those older than 60 years and unknown graves an undertaker and archaeologist is needed. Permits should be obtained from the Burial Grounds and Graves unit of SAHRA. This procedure is quite lengthy and involves social consultation.

4. A proposed fencing of the cemetery is indicated in the development plan and accordingly Option 1 is recommended. The development is planned 70 m from the graves, which is regarded as an acceptable distance.
5. The proposed development may continue after receiving comments from the relevant heritage authority and implementation of the mitigation measures indicated.
6. 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.*

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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 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, land-use, function, design or technique) in the environment of the nation, province region or locality.

APPENDIX C

SIGNIFICANCE AND FIELD RATING:

Cultural significance:

- Negligible – The site has no heritage significance, although it may be older than 60 years.
- Low - A cultural object being found out of context, not being part of a site or without any related feature/structure in its surroundings. A site with minimal importance which is decreased by its bad state of decay.
- Low-Medium - A site of lesser importance, which is increased by a good state of preservation and contextual importance (e.g. a specific community).
- 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.
- Medium-High - A site that has high importance due to its age or uniqueness, but which decreases due to its bad state of decay.
- High - Any site, structure or feature regarded as important because of its age or uniqueness. Also any important object found within a specific context.
- Very High - A site of exceptional importance due to its age, uniqueness and good state of preservation.

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: The site should be managed as part of the national estate, should be nominated as Grad I site, should be maintained in situ with a protected buffer zone and a CMP must be recommended. Score above 50.

Provincial Grade II significance: The site should be managed as part of the provincial estate, should be nominated as Grade II site, should be maintained in situ with a protected buffer zone and a CMP must be recommended. Score between 40 and 50.

Local Grade IIIA: The site should be included in the heritage register and not be mitigated (high significance), should be maintained in situ with a protected buffer zone and a CMP must be recommended. Score between 36 and 40.

Local Grade IIIB: The site should be included in the heritage register and may be mitigated (high/ medium significance). Mitigation is subject to a permit application lodged with the relevant heritage authority. Score between 6 and 35.

Local Grade IIIC: The description in the phase 1 heritage report is seen as sufficient recording (low significance) and it may be granted destruction at the discretion of the relevant heritage authority without a formal permit application, subjected to the granting of Environmental Authorisation. Score below 5.

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.