



Archaetnos Culture & Cultural  
Resource Consultants  
BK 98 09854/23

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**A REPORT ON AN ARCHAEOLOGICAL IMPACT ASSESSMENT FOR THE  
PROPOSED KWAMHLANGA 132/22KV 2X40MVA SUBSTATION AND 11KV TO  
22KV NETWORK CONVERSION ESKOM, MPUMALANGA PROVINCE**

For:

**WSP**

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**REPORT NO.: AE02032V**

By:

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***28 September 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.**

**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. Archaetnos and its personnel will not be held liable for such oversights or for costs incurred as a result thereof.**

**Should it be necessary to visit a site again as a result of the above mentioned, an additional appointment is required.**

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**Any changes to the scope of a project will require an additional appointment.**

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No.	Requirement	Section in report
1	A specialist report prepared in terms NEMA EIA Regulation 982 must contain:	
a)	Details of -	
(i)	The specialist who prepared the report	Title page
(ii)	The expertise of that specialist to compile a specialist report including a curriculum vitae	p. 8
b)	A declaration that the specialist is independent	p. 9
c)	An indication of the scope of, and the purpose for which, the report was prepared	1
cA)	An indication of the quality and age of base data used for the specialist report	7
cB)	A description of existing impacts on the site, cumulative impacts of the proposed development and levels of acceptable change	9
d)	The duration, date and season of the site investigation and the relevance of the season to the outcome of the assessment	4
e)	A description of the methodology adopted in preparing the report or carrying out the specialised process inclusive of equipment and modelling used	4
f)	Details of an assessment of the specific identified sensitivity of the site related to the proposed activity or activities and its associated structures and infrastructure, inclusive of site plan identifying site alternatives	9
g)	An identification of any areas to be avoided, including buffers	9
h)	A map superimposing the activity including the associated structure and infrastructure on the environmental sensitivities of the site including areas to be avoided, including buffers	n/a
i)	A description of any assumption made and any uncertainties or gaps in knowledge	5
j)	A description the findings and potential implication\ of such findings on the impact of the proposed activity, including identified alternatives on the environment or activities	8
k)	Any mitigation measures for inclusion in the EMPr	n/a
l)	Any conditions for inclusion in the environmental authorisation	n/a
m)	Any monitoring requirements for inclusion in the EMPr or environmental authorisation	n/a
n)	A reasoned opinion -	
(i)	As to whether the proposed activity, activities or portions thereof should be authorised	9
(iA)	Regarding the acceptability of the proposed activity or activities	9
(ii)	If the opinion is that the proposed activity, activities or portions thereof should be authorised, any avoidance, management and mitigation measures that should be included in the EMPr, and where applicable, the closure plan	9
o)	A description of any consultation process that was undertaken during the course of preparing the specialist report	n/a
p)	A summary and copies of any comments received during any consultation process and where applicable all responses thereto; and	n/a
q)	Any other information requested by the competent authority	3, 6 and 7

## EXECUTIVE SUMMARY

Archaetnos cc was requested by WSP to conduct an archaeological impact assessment (AIA) for the proposed KwaMhlanga 132/22kV 2x40MVA Substation and 11kV to 22kV network conversion. This is in KwaMhlanga, in the Herry Thembisile Hani Local Municipality, Mpumalanga Province.

The AIA forms part of the environmental BAR phase. The applicable farms related to the project is KwaMhlanga 617 JR, Enkeldoorn 217 JR, Zustershoek 246 JR, Enkeldoring 651 JR, Graslaagte 232 JR and Gemsbokfontein 231 JR. The client indicated the study area, which was surveyed by means of a foot survey and an off-road vehicle.

The methodology for the study includes a survey of literature and a field survey. The latter was conducted according to generally accepted HIA practices and was aimed at locating all possible objects, sites and features of cultural significance in the area of proposed development.

If required, the location/position of any site was determined by means of a Global Positioning System (GPS), 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. Certain factors, such as accessibility, density of vegetation, etc. may however influence the coverage.

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 GPS. The information was added to the description in order to facilitate the identification of each locality.

During the survey seven sites of cultural heritage significance were identified within the immediate project area.

Recommendations:

The following is recommended:

- Three of the sites identified, number 1, 3 and 7, are graveyards. There are always of high heritage significance. There are two ways of dealing with graves.
  - 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 and relocate the mortal remains. 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 are needed. Permits should be obtained from the Burial Grounds and Graves unit of SAHRA. This procedure is quite lengthy.

However, none of the graves are in danger of being impacted by the development. Therefore they may merely be left *in situ*. It should however be included in the heritage register.

- All other sites, i.e. farmyards and historical structures (site 2, 4, 5 and 6) are of low heritage significance. The description in this phase 1 heritage report is seen as sufficient recording 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.

It is however unlikely that any of these sites will be impacted on as the nearest one is 20 m from option 1 for the power line.

- From a heritage perspective there is no preference for any of the two options for the power line. Any of these may thus be used.
- The proposed development may continue after receiving the necessary authorisation from the relevant heritage authority.
- It should be noted that the subterranean presence of archaeological and/or historical sites, features or artifacts is always a distinct possibility. Due to the density of vegetation it is also possible that some sites may only become known later on. Operating controls and monitoring should therefore be aimed at the possible unearthing of such features. Care should therefore be taken when development commences that if any of these are discovered, a qualified archaeologist be called in to investigate the occurrence.
- In This regards the following 'Chance find Procedure' should be followed:
  1. Upon finding any archaeological or historical material all work at the affected area must cease.
  2. The area should be demarcated in order to prevent any further work there until an investigation has been completed.
  3. An archaeologist should be contacted immediately to provide advice on the matter.
  4. Should it be a minor issue, the archaeologist will decide on future action, which could include adapting the HIA or not. Depending on the nature of the find, it may include a site visit.
  5. SAHRA's APM Unit may also be notified.
  6. If needed, the necessary permit will be applied for with SAHRA. This will be done in conjunction with the appointed archaeologist.
  7. 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.

8. Work on site will only continue after removal of the archaeological/ historical material was done.

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## CURRICULUM VITAE OF SPECIALIST: PROF ANTON CARL VAN VOLLENHOVEN

### Tertiary education

- BA 1986, University of Pretoria
- BA (HONS) Archaeology 1988 (cum laude), University of Pretoria
- MA Archaeology 1992, University of Pretoria
- Post-Graduate Diploma in Museology 1993 (cum laude), University of Pretoria
- Diploma Tertiary Education 1993, University of Pretoria
- DPhil Archaeology 2001, University of Pretoria.
- MA Cultural History 1998 (cum laude), University of Stellenbosch
- Management Diploma 2007 (cum laude), Tshwane University of Technology
- DPhil History 2010, University of Stellenbosch

### 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*: Part-time lecturer for the Honours degree in Museum Sciences in the Department of History and Heritage Studies at the University of Pretoria
- *2015*: Appointed extraordinary professor in history at the Mafikeng Campus of the Northwest University

### Other

- Published 75 articles in scientific and popular journals on archaeology and history.
- Author and co-author of over 580 unpublished reports on cultural resources surveys and archaeological work. A list of reports can be viewed on [www.archaetnos.co.za](http://www.archaetnos.co.za)
- Published a book on the Military Fortifications of Pretoria.
- Contributed to a book on Mapungubwe.
- Delivered more than 50 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.
- Accredited professional member of Association for South African Professional Archaeologists.
- Accredited professional member of the South African Society for Cultural History (Chairperson 2006-2008; 2012-2014).
- Has been editor for the SA Journal of Cultural History 2002-2004.
- Member of the Provincial Heritage Resources Agency, Gauteng's Council.
- Member of Provincial Heritage Resources Agency, Gauteng's HIA adjudication committee (Chairperson 2012-2019).

ASAPA Accreditation number: 166

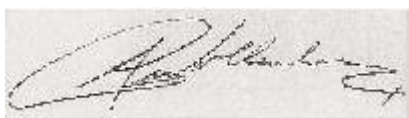
SASCH Accreditation number: CH001



## DECLARATION OF INDEPENDENCE

I, Anton Carl van Vollenhoven from Archaetnos, hereby declare that I am an independent specialist within the field of heritage management.

Signed:



Date: 28 September 2020

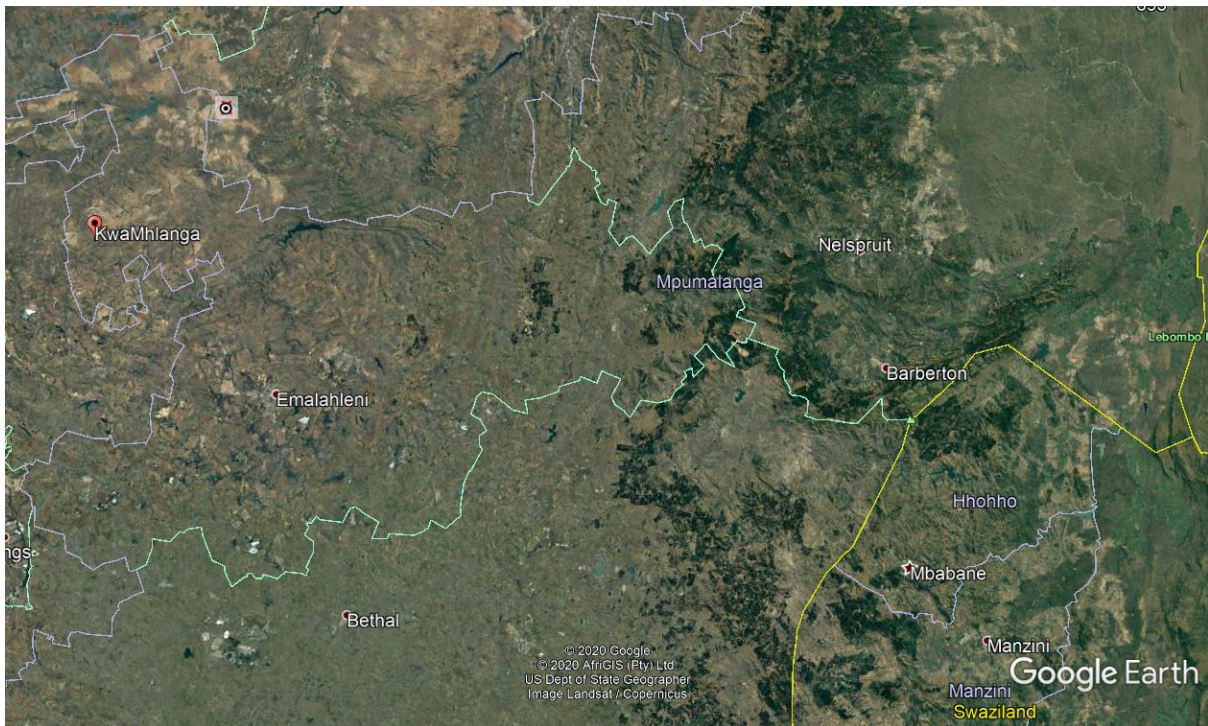
### LIST OF ACRONYMS:

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

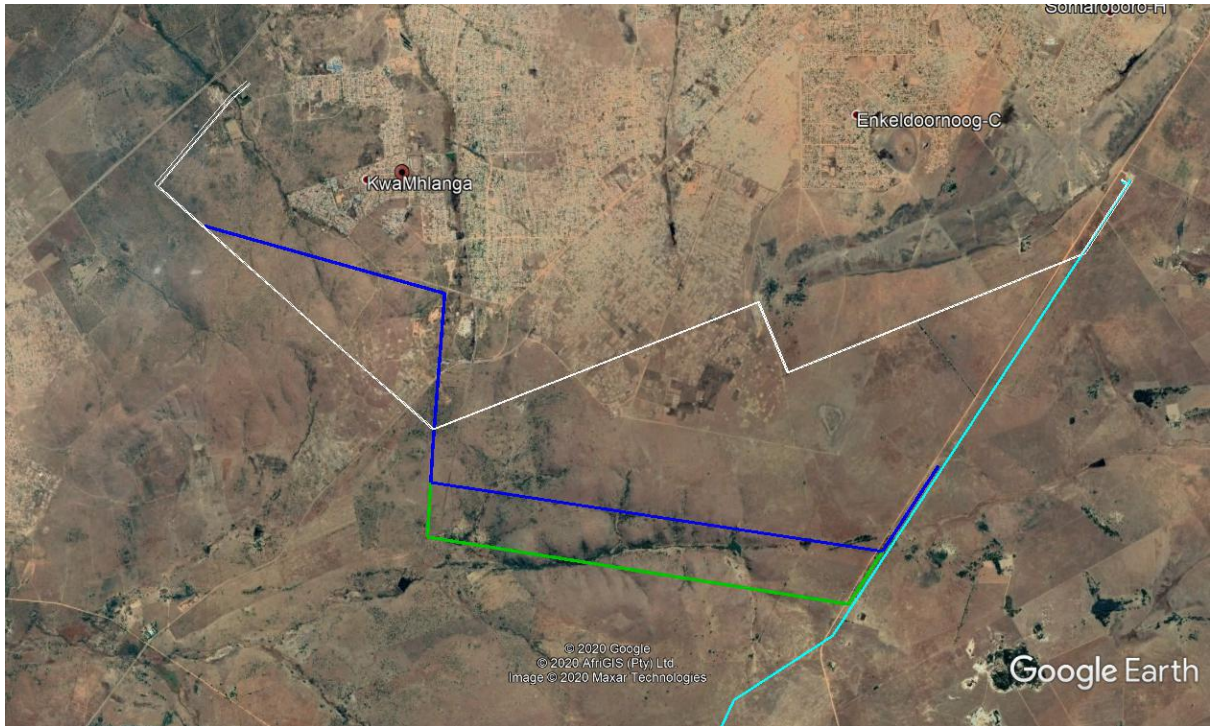
## 1. INTRODUCTION

Archaetnos cc was requested by WSP to conduct an archaeological impact assessment (AIA) for the proposed KwaMhlanga 132/22kV 2x40MVA Substation and 11kV to 22kV network conversion. This is in KwaMhlanga, in the Herry Thembisile Hani Local Municipality, Mpumalanga Province (Figure 1-2).

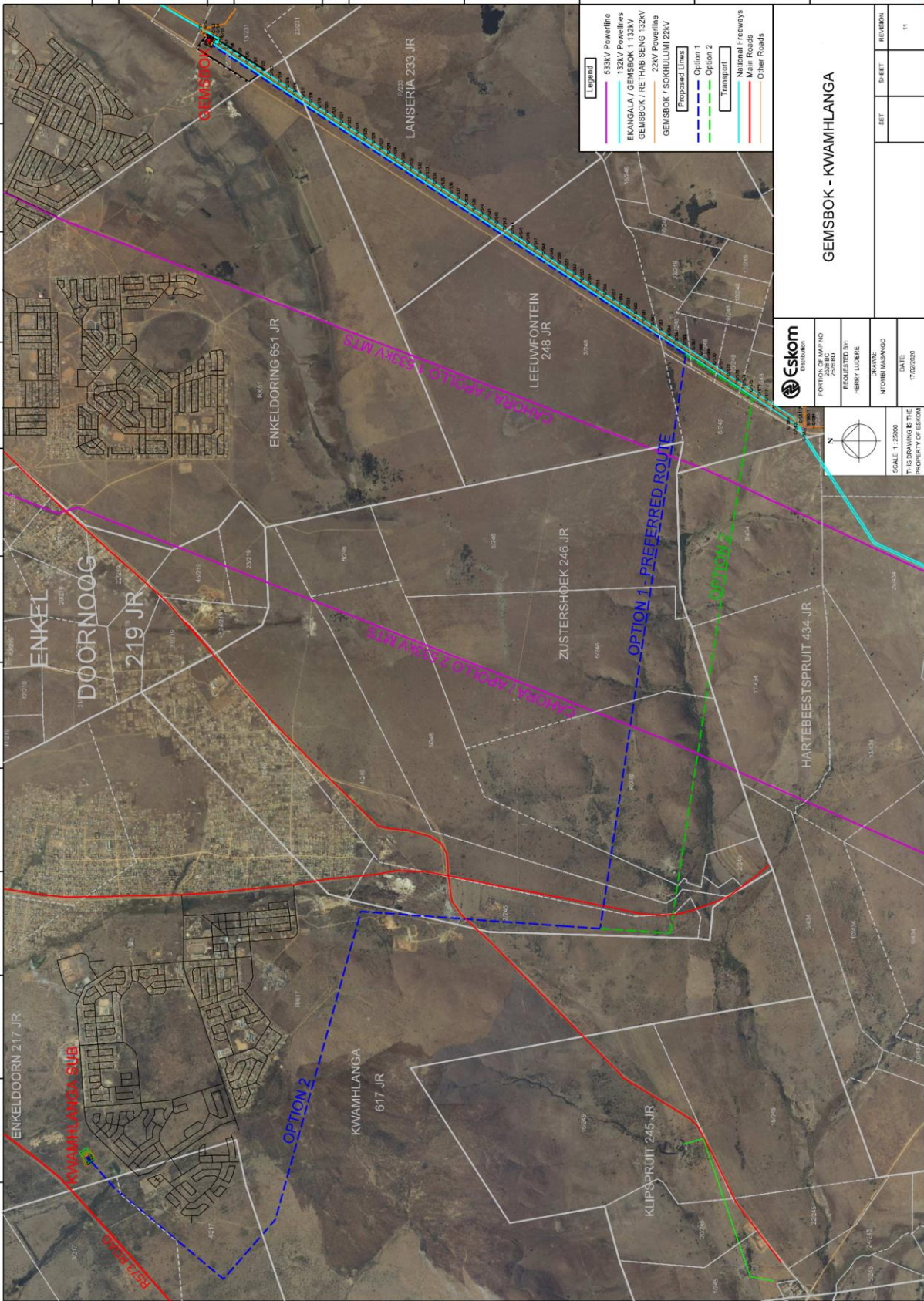
The AIA forms part of the environmental BAR phase. The applicable farms related to the project is KwaMhlanga 617 JR, Enkeldoorn 217 JR, Zustershoek 246 JR, Enkeldoring 651 JR, Graslaagte 232 JR and Gembokfontein 231 JR. The client indicated the study area (Figure 3), which was surveyed by means of a foot survey and an off-road vehicle.



**FIGURE 1: LOCATION OF KWAMHLANGA IN THE MPUMALANGA PROVINCE.**



**FIGURE 2: LOCATION OF THE PROJECT AREA IN RELATION TO KWAMHLANGA.**



**FIGURE 3: DETAILED VIEW OF THE PROPOSED DEVELOPMENT (WSP).**

## **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 on the property (see Appendix A).
2. Document the found cultural heritage sites according to best practice standards for heritage related studies.
3. Study background information on the area to be developed.
4. Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value (see Appendix B).
5. Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions.
6. Recommend suitable mitigation measures to minimize possible negative impacts on the cultural resources by the proposed development.
7. Review applicable legislative requirements.

## **3. LEGISLATIVE REQUIREMENTS**

Aspects concerning the conservation of cultural resources are dealt with mainly in two acts. The first of these are the National Heritage Resources Act (Act 25 of 1999) which deals with the cultural heritage of the Republic of South Africa. The second is the National Environmental Management Act (Act 107 of 1998) which inter alia deals with cultural heritage as part of the Environmental Impact Assessment process.

### **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 (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.

A Palaeontological Impact Assessment (PIA) is an assessment of palaeontological heritage. Palaeontology is a different field of study, and although also sometimes required by the South African Heritage Resources Agency (SAHRA)<sup>1</sup>, should be done by a professional palaeontologist.

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 000m<sup>2</sup> or involve three or more existing erven or subdivisions thereof
- d. Re-zoning of a site exceeding 10 000 m<sup>2</sup>
- e. Any other category provided for in the regulations of SAHRA or a provincial heritage authority

### **Structures**

Section 34 (1) of the 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.

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<sup>1</sup> Please consult SAHRA to determine whether a PIA is necessary.

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; or
- d. bring onto or use at an archaeological or paleontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and paleontological material or objects or use such equipment for the recovery of meteorites.
- e. alter or demolish any structure or part of a structure which is older than 60 years as protected.

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

### **Human remains**

Graves and burial grounds are divided into the following:

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

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

- 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.

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)**.

### **3.2 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.

### **3.3 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). Any 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 includes the possible maintenance of such sites in situ, or when not possible, the restoration of the functionality of the cultural heritage in a different location. When cultural historical and archaeological artifacts and structures need to be removed, this 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 affected communities. Again, professionals should carry out the work and adhere to the best available techniques.

Consultation with affected communities should be conducted. This entails that such communities should be granted access 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 affected 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.

## **4. METHODOLOGY**

### **4.1 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.

### **4.2 Reference to other specialist desktop studies**

Only a few heritage reports are known from previous studies in the area (see later). Other specialist reports are also currently under way.

### **4.3 Public consultation and stakeholder engagement**

This is undertaken by the EIP and is available on request.

### **4.4 Physical field survey**

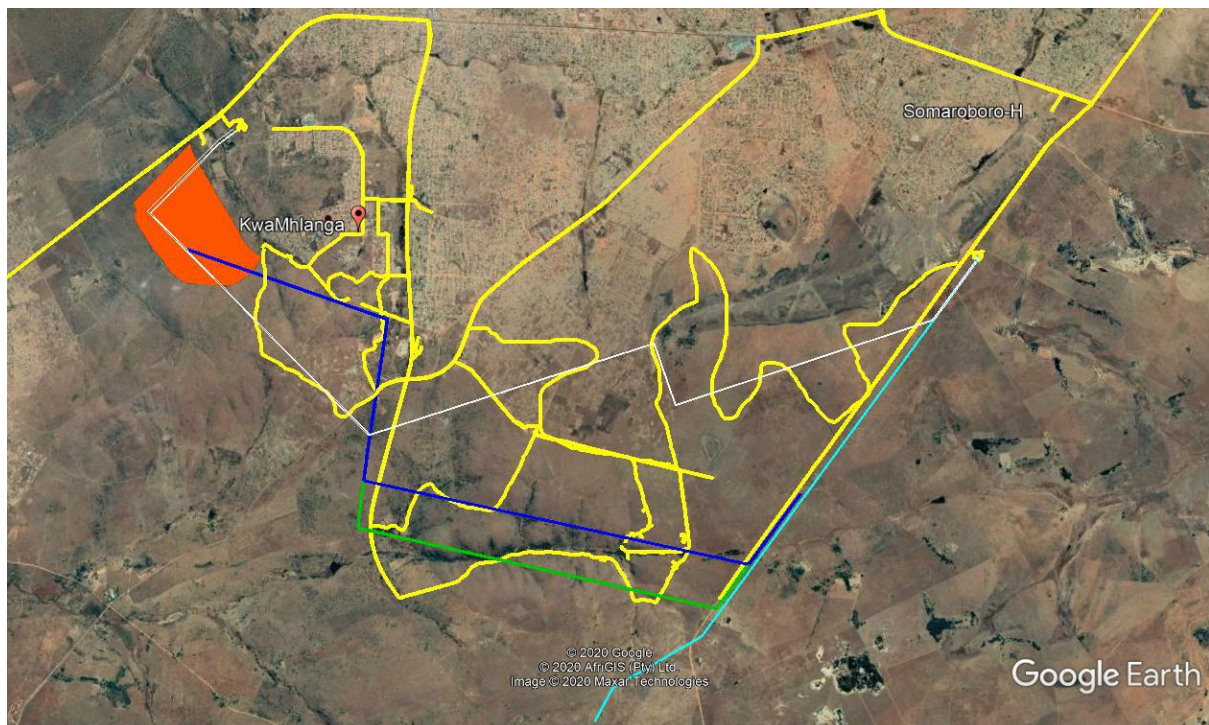
The survey was conducted according to generally accepted AIA/HIA practices and was aimed at locating all possible objects, sites and features of cultural significance in

the area of proposed development. One regularly looks a bit wider than the demarcated area, as the surrounding context needs to be taken into consideration.

If required, the location/position of any site was determined by means of a Global Positioning System (GPS)<sup>2</sup>, 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 4).

The study was done during the early Spring, i.e. September 2020. Certain factors, such as accessibility, density of vegetation, etc. may however influence the coverage. Plant growth in the study area was low to medium in height and even lower on top of the hills. Many areas have been disturbed. On top of the hill to the North the area is undergoing development, whereas dumping and development is in progress in the western side. The south of the area is disturbed by farming activities. Both the horizontal and the vertical archaeological visibility for most of the surveyed area were therefore good.

The length of the proposed development is 16 km, but two alternatives were investigated. Due to the hills in the area, the survey took 16 hours to complete.



**FIGURE 4: TRACK ROUTE OF THE SURVEY (YELLOW LINES). NO ACCESS COULD BE GAINED TO THE ORANGE AREA.**

<sup>2</sup> A Garmin Oregon 550 with an accuracy factor of a few meters.

## **4.5 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 GPS. The information was added to the description in order to facilitate the identification of each locality.

## **4.6 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.

## **5. ASSUMPTIONS, GAPS, RESTRICTIONS, CONDITIONS AND LIMITATIONS**

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, structures and artifacts 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 artifacts 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 cognisance of the relevant legislation.
6. It has to 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 the report should make it clear how to handle any other finds that might occur.
7. Some sections of the surveyed area have been disturbed by recent human activities associated with housing development. Accordingly, these areas are seen as low risk to reveal heritage sites.
8. The vegetation cover is reasonably low and open, which had a positive effect on both the horizontal and the vertical archaeological visibility.
9. Certain areas could not be accessed due to the lack access points (locked gates and high fences).

## **6. DESCRIPTION OF THE PHYSICAL ENVIRONMENT**

The surveyed area shows signs of recent human activities in the form of power lines, electrical substation, earthworks, illegal dumping and housing developments (Figure 5-8). As indicated a section in the surveyed area could not be accessed directly due to a lack of an access points (Figure 9). However, the general view here seems similar than in the rest of the surveyed area.

Vegetation varied from low to medium in height (Figure 10). The vegetation cover consists of mostly endemic grasses shrubs and trees. Many pioneer species, an indication of earlier disturbance, is also visible.

The topography of the area is generally flat with hills and foothills to the west and south of the surveyed area (Figure 11). The area is mostly rock. There is a dry riverbed to the south, between the southern foothills.



**FIGURE 5: POWER LINE IN THE SURVEYED AREA.**



**FIGURE 6: EARTHWORKS NORTH IN THE SURVEYED AREA.**



**FIGURE 7: ILLEGAL DUMPING IN SURVEYED AREA.**



**FIGURE 8: HOUSING DEVELOPMENT TO THE WEST AND NORHT OF SURVEYD AREA**



**FIGURE 9: SECTION THAT COULD NOT BE ACCESSED IN THE SURVEYED AREA.**



**FIGURE 10: GENERAL VIEW OF VEGETATION IN SURVEYED AREA.**



**FIGURE 11: GENERAL ENVIROMENT OF THE SURVEYED AREA.**

## **7. HISTORICAL CONTEXT**

Seven 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.

No heritage reports related to the farms indicated, could be identified on SAHRIS. A few reports have however been done in the area by Archaetnos (Archaetnos' database; SAHRIS database). The information is included below.

### **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:

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.

Stone Age material are usually found close to rivers or mountains, the latter which provided shelter to the people. Such areas should therefore be carefully monitored for the possible existence of stone tools.



## **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:

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.

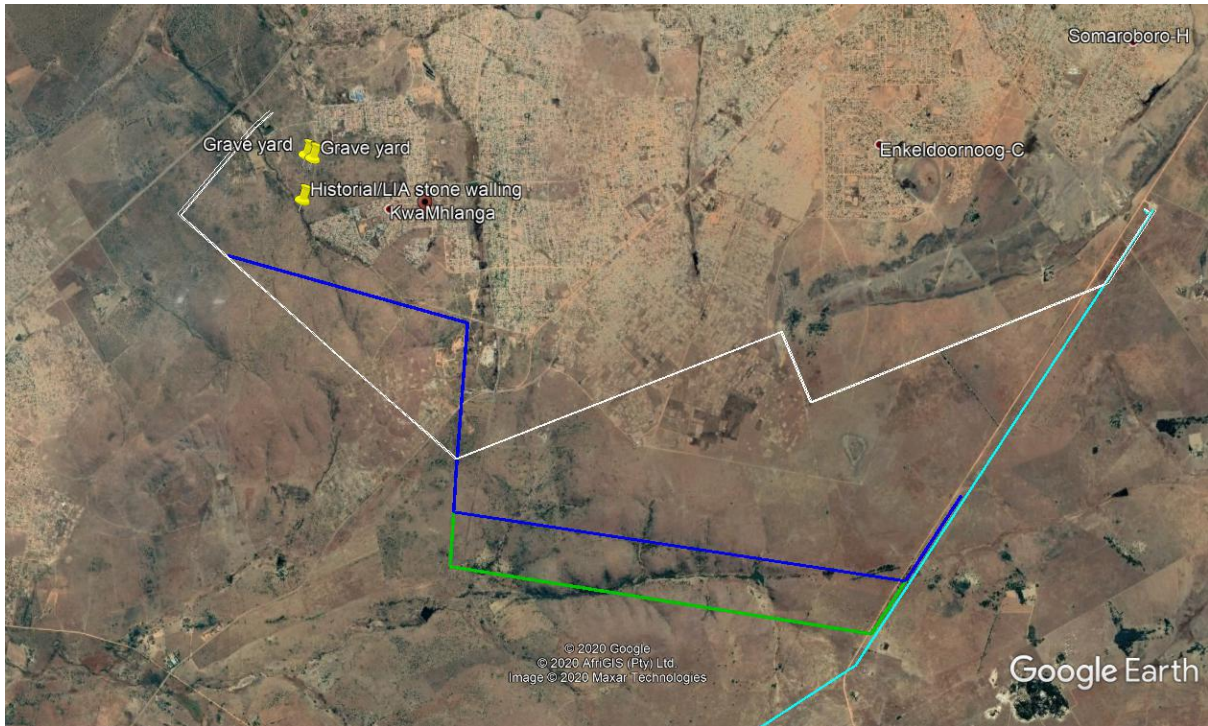
Iron Age sites are usually found close to mountains, either on the foothills, but sometimes on the top. The investigated area has an environment which would have lured Iron Age herders and farmers due to the food grazing. One should therefore be on the lookout for pottery and stone walling, but it is unlikely that such features will be found within the already disturbed development node.

## **8.3 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.

Historical structures, such as farmhouses and infrastructure relating to these times, may be found in the surveyed area. Any structure, building, feature or artefact older than 60 years are protected by heritage legislation, as indicated above.

It is also possible to that graves associated with the above, may be present. Graves were indeed noted during an earlier heritage assessment in the KwaMhalanga area. Historical/Late Iron Age stone walling were also identified here (Archaetnos database) (Figure 12).



**FIGURE 12: NOTE THE LOCATION OF KNOWN SITES IN RELATION TO THE DEVELOPMENT.**

## **8. SITES IDENTIFIED DURING THE SURVEY**

Seven sites were identified and is discussed below.

### **8.1 Site 1 – Cemetery**

The grave site is about 364m x 200m in size and is located about 2,6km northeast of the Gemsbok substation and consists of approximately 2223 graves. This is a formal cemetery that is still in use and is surrounded by a fence. Headstones are made from granite, cement and metal plaques, the grave dressings are constructed out of granite, bricks, cement and stone and gravel. Grave goods are present on the graves. Graves are orientated southeast to northwest (Figure 13-14).

GPS: 25°24'33.61"S 28°49'25.78"E

No graves older than 60 years of age were found. Most of the graves are younger than 60 years and there are approximately 20 new unmarked graves.



**FIGURE 13: LOCATION OF SITE 1.**



**FIGURE 14: CEMETERY AT SITE 1.**

**Cultural significance Table: Site 1**

<b>A place is considered to be part of the national estate if it has cultural significance because of -</b>	<b>Applicable or not</b>	<b>Rating: 1 - Negligible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 - Medium-High/ 6 - High/ 7 - Very High</b>
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	
<b>Reasoned assessment of significance using appropriate indicators outlined above:</b>		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 4

= 24

Field-rating: 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.

## 8.2 Site 2 – Farm yard

The site is about 327m x 125m in size and is located about 50m north of the proposed option 1 powerline (indicated by the blue line) and consists of approximately 8 structures and is historic in nature. Four of these are collapsed structures that are made from mud bricks. One is measuring about 12m x 10m with 4 rooms. The second one is measuring about 20m x 20m with 4 rooms, and one partial mud wall was still standing. The third structure measures about 5m x 4m and has one room with one partial mud wall. The fourth structure measures about 14m x 10m and had 3 rooms with partial mud walls still standing. A broken lower grinding stone was found in the fourth structure. The other four structures are stone animal kraals; two rectangles of 20m x 16 and two rectangles of 10m x 9m (Figure 15-18).

GPS: 25°28'30.92"S 28°45'41.58"E



**FIGURE 15: LOCATION OF SITE 2.**



**FIGURE 16: STONE KRAAL AT SITE 2.**



**FIGURE 17: STRUCTURES AT SITE 2.**



**FIGURE 18: BROKEN LOWER GRINDING STONE AT SITE 2.**

**Cultural significance Table: Site 2**

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	Low
Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	Y	Low
Its potential to yield information that will contribute to an understanding of South Africa's	Y	Low



natural or cultural heritage		
Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	Y	Medium
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	Low
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	
<b>Reasoned assessment of significance using appropriate indicators outlined above:</b>		Low

**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**

= 2(Low)x 2

= 4

Field-rating: 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.

**8.3 Site 3 – Cemetery**

The grave site is about 376m x 190m in size and is located about 480m east of the proposed option 1 powerline (indicated by the blue line) and consists of approximately 2775 graves. This is a formal cemetery that is still in use and is surrounded by a fence. Headstones are made from granite, cement and metal plaques, and the grave dressings are constructed out of granite, bricks, cement and stone and gravel. Grave goods are present on the graves. Graves are orientated east to west (Figure 19-20).

GPS: 25°26'54.05"S 28°43'26.48"E

No graves are older than 60 years of age were found. Most of the graves are younger than 60 years and there are several new unmarked graves.



**FIGURE 19: LOCATION OF SITE 3.**



**FIGURE 20: CEMETERY AT SITE 3.**

**Cultural significance Table: Site 3**

<b>A place is considered to be part of the national estate if it has cultural significance because of -</b>	<b>Applicable or not</b>	<b>Rating: 1 - Negligible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 - Medium-High/ 6 - High/ 7 - Very High</b>
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	
<b>Reasoned assessment of significance using appropriate indicators outlined above:</b>		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 4

= 24

Field-rating: 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.

#### 8.4 Site 4 – Stone kraal

The site is about 13m x 12m in size and is located about 20m south of the proposed option 1 powerline (indicated by the blue line) and consists of a single stone kraal which is historic in nature. There are signs of animal activity that has caused the collapse of most of the walls (Figure 21-22).

GPS: 25°28'21.41"S 28°44'13.28"E



**FIGURE 21: LOCATION OF SITE 4.**



**FIGURE 22: STONE KRAAL AT SITE 4.**

**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	Low
Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	Y	Low
Its potential to yield information that will contribute to an understanding of South Africa's	Y	Low

natural or cultural heritage		
Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	Y	Low
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	Low
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	
<b>Reasoned assessment of significance using appropriate indicators outlined above:</b>		Low



**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**

= 2(Low)x 1

= 2

Field-rating: 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.

**8.5 Site 5 – Farmyard**

The site is about 100m x 51m in size and is located about 240m north of the proposed option 2 powerline (indicated by the green line) and consists of approximately 4 structures and is Historic in nature. The first is a circular structure with 1 room with 4 windows and is 3m in diameter. The second structure is 14m x 9m mud brick structure and has 4 rooms. The last two structures are about 10m x 4m, has one room each and is constructed with mud bricks and stones (Figure 23-24).

GPS: 25°28'41.44"S 28°44'48.92"E



**FIGURE 23: LOCATION OF SITE 5.**



**FIGURE 24: STRUCTURES AT SITE 5.**

**Cultural significance Table: Site**

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

Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	Y	Low
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	
<b>Reasoned assessment of significance using appropriate indicators outlined above:</b>		Low

**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**

= 2(Low)x 2

= 4

Field-rating: Local Grade III C

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.

## 8.6 Site 6 – Stone houses

The site is about 147m x 20m in size and is located about 340m north of the proposed option 2 powerline (indicated by the green line) and consists of 3 structures and is Historic in nature. All three of the houses is about 8m x 4m in size and has 4 windows in door opening. They are constructed out of rock and cement. The first two only has one room and the last one has two (Figure 25-26).

GPS: 25°28'43.86"S 28°45'21.64"E



**FIGURE 25: LOCATION OF SITE 6.**



**FIGURE 26: STONE HOUSE AT SITE 6.**

**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	Low
Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	Y	Low
Its potential to yield information that will contribute to an understanding of South Africa's	Y	Low

natural or cultural heritage		
Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	Y	Medium
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	Low
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	
<b>Reasoned assessment of significance using appropriate indicators outlined above:</b>		Low

**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**

= 2(Low)x 2

= 4

Field-rating: 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.

**8.7 Site 7 – Graves**

The grave site is about 7m x 3m in size and is located about 80m south of the proposed option 1 powerline (indicated by the blue line) and consists of 4 graves. These graves are located next to a dirt road with no fences. Headstones are made with granite and cement and the grave dressings are constructed out of granite, bricks and stone. Grave goods are present on the graves. Graves are orientated east to west (Figure 27-28).

GPS: 25°26'42.86"S 28°43'6.45"E

There are two graves 60 years and older and two graves younger than 60 years. No unmarked graves were found.





**FIGURE 27: LOCATION OF SITE 7.**



**FIGURE 28: GRAVES AT SITE 7.**

**Cultural significance Table: Site**

<b>A place is considered to be part of the national estate if it has cultural significance because of -</b>	<b>Applicable or not</b>	<b>Rating: 1 - Negligible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 - Medium-High/ 6 - High/ 7 - Very High</b>
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	
<b>Reasoned assessment of significance using appropriate indicators outlined above:</b>		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 4

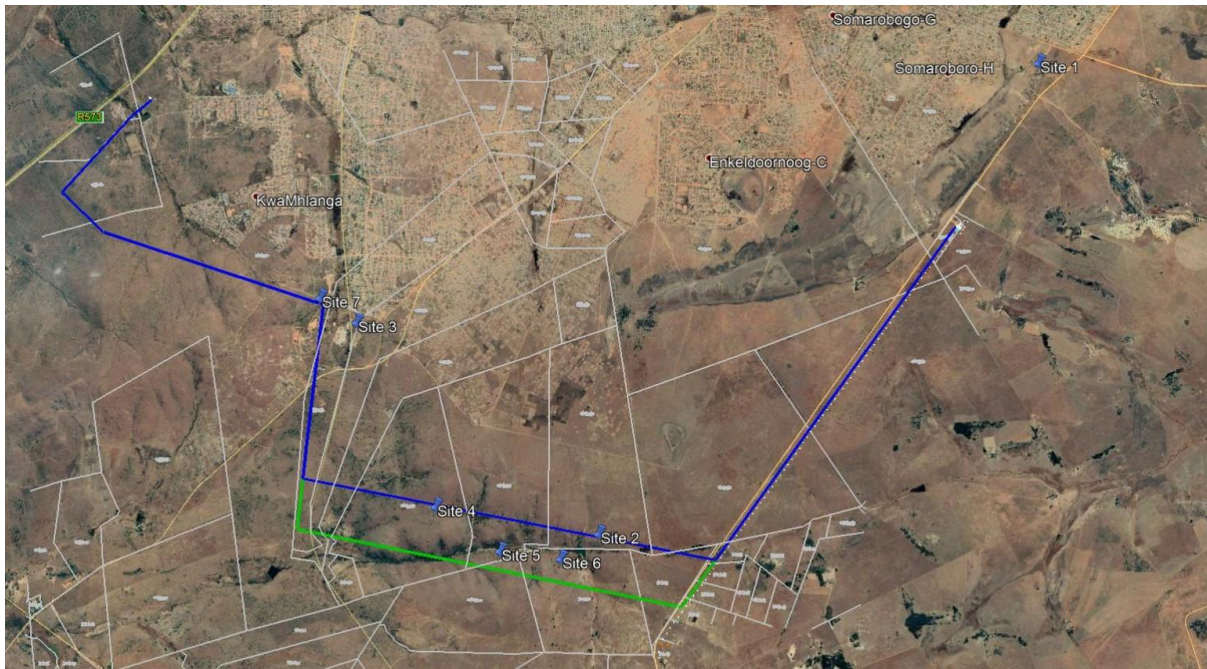
= 24

Field-rating: 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.

## 9. CONCLUSION AND RECOMMENDATIONS

The survey of the indicated areas was completed successfully. As indicated seven sites of cultural heritage significance were identified (Figure 29).



**Figure 29: Indication of the location of the identified sites in relation to the development.**

The following is recommended:

- Three of the sites identified, number 1, 3 and 7, are graveyards. There are always of high heritage significance. There are two ways of dealing with graves.
  - 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 and relocate the mortal remains. 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 are needed. Permits should be obtained from the Burial Grounds and Graves unit of SAHRA. This procedure is quite lengthy.

However, none of the graves are in danger of being impacted by the development. Therefore they may merely be left *in situ*. It should however be included in the heritage register.

- All other sites, i.e. farmyards and historical structures (site 2, 4, 5 and 6) are of low heritage significance. The description in this phase 1 heritage report is seen as sufficient recording 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.

It is however unlikely that any of these sites will be impacted on as the nearest one is 20 m from option 1 of the power line.

- From a heritage perspective there is no preference for any of the two options for the power line. Any of these may thus be used.
- The proposed development may continue after receiving the necessary authorisation from the relevant heritage authority.
- It should be noted that the subterranean presence of archaeological and/or historical sites, features or artifacts is always a distinct possibility. Due to the density of vegetation it is also possible that some sites may only become known later on. Operating controls and monitoring should therefore be aimed at the possible unearthing of such features. Care should therefore be taken when development commences and if any of these are discovered, a qualified archaeologist be called in to investigate the occurrence.
- In this regards the following 'Chance find Procedure' should be followed:
  1. Upon finding any archaeological or historical material all work at the affected area must cease.
  2. The area should be demarcated in order to prevent any further work there until an investigation has been completed.
  3. An archaeologist should be contacted immediately to provide advice on the matter.
  4. Should it be a minor issue, the archaeologist will decide on future action, which could include adapting the HIA or not. Depending on the nature of the find, it may include a site visit.
  5. SAHRA's APM Unit may also be notified.
  6. If needed, the necessary permit will be applied for with SAHRA. This will be done in conjunction with the appointed archaeologist.
  7. 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.
  8. Work on site will only continue after removal of the archaeological/ historical material was done.

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## **APPENDIX A**

### **DEFINITION OF TERMS:**

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

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

Feature: A coincidental find of movable cultural objects.

Object: Artifact (cultural object).

(Also see Knudson 1978: 20).

## **APPENDIX B**

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

- Historic value: Important in the community or pattern of history or has an association with the life or work of a person, group or organization of importance in history.
- Aesthetic value: Important in exhibiting particular aesthetic characteristics valued by a community or cultural group.
- Scientific value: Potential to yield information that will contribute to an understanding of natural or cultural history or is important in demonstrating a high degree of creative or technical achievement of a particular period
- Social value: Have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.
- Rarity: Does it possess uncommon, rare or endangered aspects of natural or cultural heritage.
- Representivity: Important in demonstrating the principal characteristics of a particular class of natural or cultural places or object or a range of landscapes or environments characteristic of its class or of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, province region or locality.



## **APPENDIX C**

### **SIGNIFICANCE AND FIELD RATING:**

#### **Cultural significance:**

- 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 37 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 36.

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.