



SEBATA
INSTITUTE

CONSULTING
...
DEVELOPMENT

Our reference: 1200055

Your Ref: 16/1/5/5 Eskom Kusile Coal Fired Power Station

13 June 2013

Attention: Ms Jenna Lavin

South African Heritage Resources Agency (SAHRA)
PO Box 4637
Cape Town
8000

Dear Madam,

APPLICATION FOR AN INTEGRATED ENVIRONMENTAL AUTHORISATION AND WASTE MANAGEMENT LICENCE IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) AS AMENDED AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS 2010 AND THE NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT, 2008 (ACT 59 OF 2008) FOR THE CO-DISPOSAL OF ASH AND GYPSUM AT THE KUSILE COAL-FIRED POWER STATION ASH DISPOSAL FACILITY IN WITBANK, MPUMALANGA

DEA REFERENCE:

Your letter dated 4 June 2013 refers.

Sebata Institute submitted the Draft Scoping Report for an application for an Integrated Environmental Authorisation and Waste Management Licence to the South African Heritage Resources Agency (SAHRA), via the South African Heritage Resources Information System (SAHRIS) on 15 April 2013 for comment. The Department responded on 24 May 2013. Please find our responses to the comments below.

- 1. The revised HIA included as Annexure W in the Final EIA for the Kusile Power Station 9 (page 118).**

Please refer to **Appendix A**.

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DIRECTORS: MATHOMI EDUNO & MATHOMI
COMPANY REGISTRATION NUMBER: 2007/055374/07

2. An indication of what heritage resources were impacted by the development of the Kusile Power Station and how these impacts were mitigated.

A Heritage Impact Assessment was conducted in 2006 for the Kusile Power Station project area. The positions of the identified sites were mapped (please refer to **Appendix B**). The HIA included identification of potential heritage sites that may be affected by the development and mitigation measures that may be implemented to minimise or avoid the potential impacts. The findings of the HIA were as follows:

- Some interesting structures (houses and outbuildings) were identified and, if they cannot be rehabilitated and reused, they can be demolished after they have been recorded in full, in which case SAHRA would issue a permit for their destruction.
- The graves also do not present a problem as they can be relocated to new cemeteries, after the correct procedure has been followed. This include, inter alia, notification of intent to remove the graves, consultation with descendants, permits from the police and provincial authorities, and, in cases where the graves are older than 60 years, a permit from SAHRA as well.

Prior to commencement of construction in 2008, the graves that were identified during the 2006 HIA were fenced off to protect them from damage. However a number of additional sites have been identified since commencement of construction and in line with the mitigation measures identified by the Heritage specialist, Kusile Power Station applied for the necessary permit as follows:

- In 2008 Kusile Power Station applied for a permit for the exhumation of graves older than 60 years that may be affected by the project and the relocation of the graves to the Phola and Witbank cemeteries. SAHRA issued the permit on 22 August 2008 (Ref; 80/08/07/007/51). The permit is attached as **Appendix C**.
- In 2009, Kusile Power Station applied for an extension to the 2008 permit for the exhumation and relocation to include graves that had been tempered with during construction. The graves were initially considered to be outside the project works and had not been fenced off. The permit was extended by SAHRA on 12 October 2009 (Ref: 9/2/228/003). Please refer to **Appendix D** for a copy of the permit.
- In 2012, suspected graves were identified and reported to the police. Kusile Power Station applied for a permit and prepared a supporting mitigation report to exhume the graves (**Appendix E**). The application and supporting information were submitted to the SAHRA in 2012. SAHRA issued Kusile Power Station with a permit on 8 August 2012 (Ref: 12/07/001/86). However, no human remains were found in the suspected graves, therefore no exhumation was conducted.

3. A Palaeontological Impact Assessment or a letter of exemption from conducting a palaeontological study from a palaeontologist,

A suitably qualified palaeontologist will be appointed during the EIA phase to either prepare a letter of exemption from conducting the palaeontological study or if necessary to conduct the impact assessment.

4. **An indication of what heritage resources, if any, will be impacted by the proposed development including a map of the layout of the proposed ash dump in relation to the heritage resources identified in the 2006 HIA as well as in relation to the existing Kusile Power Station.**

There are no heritage resources that were identified by the Heritage Specialist that will be impacted by the ash disposal facility. If however, there are any heritage resources that will be encountered during construction; Kusile Power Station will ensure that the necessary steps are taken to protect the resources. Where it is not possible to protect the resources, Kusile Power Station will contact SAHRA and will apply for the necessary permits for the relocation of the resources.

Please refer to the attached figure in **Appendix B** for the location of all the heritage resources that were identified in 2006.

I trust that you will find this in order.

Yours faithfully,

PP 

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Mr Deon Esterhuizen

Environmental Assessment Practitioner (Sebata Institute)

APPENDIX A

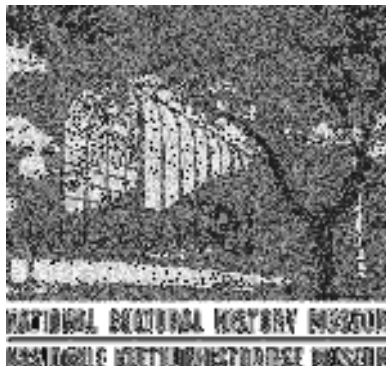
**REVISED HIA INCLUDED AS ANNEXURE W IN THE
FINAL EIA FOR THE KUSILE POWER STATION**

HERITAGE IMPACT ASSESSMENT FOR THE PROPOSED NEW POWER STATION, WITBANK AREA

Report No: 2006KH111
Status: Final
Revision No: 1
Date: October 2006

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SUMMARY AND RECOMMENDATIONS

HERITAGE IMPACT ASSESSMENT FOR THE PROPOSED NEW POWER STATION, WITBANK AREA

The aim of the survey was to locate, identify and evaluate sites, objects and structures of cultural significance found within the boundaries of the area in which it is proposed to develop a coal-fired power station and its infrastructure. The two areas are located on the highveld, which did not see much human occupation in pre-colonial times. This very much has to do with economic strategies, cultural preferences and climate fluctuations. It was only after white settlers entered the area that population numbers increased significantly.

A large number of sites of cultural significance were identified in the two study areas. These date mostly from historic times and can be categorised as structures (farmsteads/homesteads) and cemeteries/graves. None of the sites are deemed to be of such significance that it would prevent development in any of the two study areas.

Some interesting structures (houses and outbuildings) were identified and, if they cannot be rehabilitated and reused, they can be demolished after they have been recorded in full, in which case SAHRA would issue a permit for their destruction. Similarly, the graves also do not present a problem as they can be relocated to new cemeteries, after the correct procedure has been followed. This include, inter alia, notification of intent to remove the graves, consultation with descendants, permits from the police and provincial authorities, and, in cases where the graves are older than 60 years, a permit from SAHRA as well.

It is our viewpoint that the proposed development can take place in any of the two study areas, and we therefore put forward the following recommendations:

- Development can continue only on condition of acceptance of the proposed mitigation measures set out for each particular site (see Appendix 2).

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GLOSSARY OF TERMS AND ABBREVIATIONS**STONE AGE**

Early Stone Age (ESA)	2 000 000 - 150 000 Before Present
Middle Stone Age (MSA)	150 000 - 30 000 BP
Late Stone Age (LSA)	30 000 - until c. AD 200

IRON AGE

Early Iron Age (EIA)	AD 200 - AD 1000
Late Iron Age (LIA)	AD 1000 - AD 1830

HISTORIC PERIOD

Since the arrival of the white settlers - c. AD 1840 in this part of the country

ADRC - Archaeological Data Recording Centre

Impact - A description of the effect of an aspect of the development on a specified component of the biophysical, social or economic environment within a defined time and space

PHRA – Provincial Heritage Resources Agency

SAHRA - South African Heritage Resources Agency

DEFINITIONS AND ASSUMPTIONS

- *Cultural resources* are all non-physical and physical human-made occurrences, as well as natural occurrences that are associated with human activity. These include all sites, structures and artefacts of importance, either individually or in groups, in the history, architecture and archaeology of human (cultural) development.
- The *significance* of the sites and artefacts are determined by means of their historical, social, aesthetic, technological and scientific value in relation to their uniqueness, condition of preservation and research potential. It must be kept in mind that the various aspects are not mutually exclusive, and that the evaluation of any site is done with reference to any number of these.
- Sites regarded as having low significance have already been recorded in full and require no further mitigation. Sites with medium to high significance require further mitigation.
- Archaeological sites: any area of land containing artefacts, ecofacts, features and structures in any combination of the above.
- Isolated occurrences: findings of artefacts or other remains located apart from archaeological sites. Although these are noted and samples are collected, it is not used in impact assessment and therefore do not feature in the report.
- Traditional cultural use: resources which are culturally important to people.
- The latitude and longitude of archaeological sites are to be treated as sensitive information by the developer and should not unduly be disclosed to members of the public.

HERITAGE IMPACT ASSESSMENT FOR THE PROPOSED NEW POWER STATION, WITBANK AREA

1. INTRODUCTION

The National Cultural History Museum¹, Pretoria, was appointed by Ninham Shand Consulting Services to conduct a Heritage Impact Assessment of two areas, one of which is to be selected for the construction of a coal-fired power station and its associated infrastructure.

2. SCOPE OF WORK

The scope of work consisted of conducting a Phase 1 archaeological survey of the site in accordance with the requirements of Section 38(3) of the National Heritage Resources Act (Act 25 of 1999).

This include:

- Conducting a desk-top investigation of the area;
- A visit to the proposed development site.

The objectives were to

- Identify possible archaeological, cultural and historic sites within the proposed development areas;
- Evaluate the potential impacts of construction, operation and maintenance of the proposed development on archaeological, cultural and historical resources;
- Indicated which would be the preferred site for the proposed development;
- Recommend mitigation measures to ameliorate any negative impacts on areas of archaeological, cultural or historical importance.

Limitations

In some sections of the surveyed areas, the grass cover is very tall and dense, making the detection of sites, features and objects of cultural significance very difficult.

¹ The National Cultural History Museum is affiliated to the Northern Flagship Institution, which acts as parent body for a number of museums, all of which resort under the Department of Arts and Culture.

3. STUDY APPROACH AND METHODOLOGY

3.1 Extent of the Study

This survey and impact assessment covers the areas of the proposed developments and its related infrastructure, as presented in Section 4 and illustrated in Figure 1.

3.2 Methodology

3.1 Preliminary investigation

3.1.1 Survey of the literature

A survey of the relevant literature was conducted with the aim of reviewing the previous research done and determining the potential of the area. In this regard, various reports, anthropological, archaeological and historical sources were consulted - see the list of references below. Very little pertaining to the area specific was found and most sources deal with topics in the larger geographical region.

3.1.2 Data bases

The *Heritage Sites Database* and the *Environmental Potential Atlas* was consulted.

3.1.3 Other sources

Topocadastral and other maps were also studied - see the list of references below.

3.2 Field survey

The two areas were divided into blocks by using natural (e.g. rivers) as well as manmade (e.g. roads), and each block was surveyed, either by foot, or by driving across it in a number of transects. Fences and rivers obviously necessitated a deviation from this strategy. In addition, farm owners and workers were interviewed and with their help a number of sites were identified.

3.3 Documentation

Sites, objects and structures that are identified are documented according to the general minimum standards accepted by the archaeological profession. Coordinates of individual localities are determined by means of the *Global Positioning System* (GPS)² and plotted on a map. This information is added to the description in order to facilitate the identification of each locality.

Map datum used: Hartebeeshoek 94 (WGS84).

² According to the manufacturer a certain deviation may be expected for each reading. Care was, however, taken to obtain as accurate a reading as possible, and then to correlate it with reference to the physical environment before plotting it on the map.

4. DESCRIPTION OF THE AFFECTED ENVIRONMENT

4.1 Location

The two surveyed areas are located south of the N4, linking the towns of Bronkhorstspuit and Witbank, and north of the N12, linking Johannesburg and Witbank (Fig. 1).

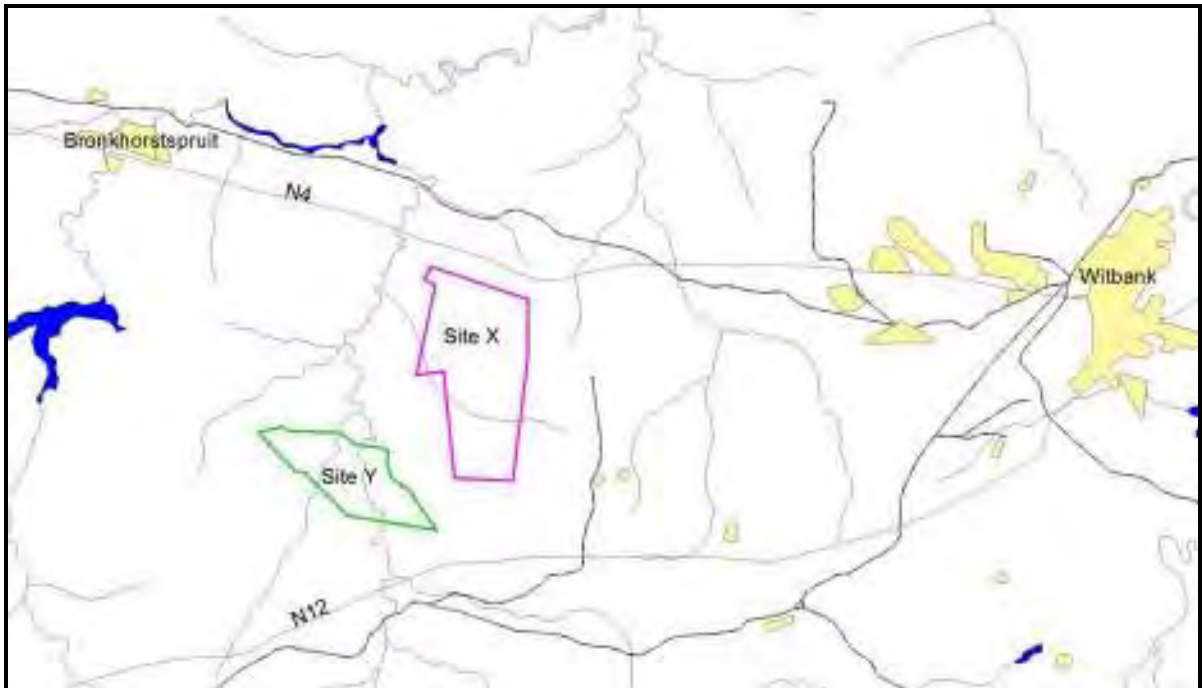


Fig. 1. Location of the two study areas in regional context.

4.2 Site Description

The geology of the area is quite complex, being made up of irregular intrusions of tillite, norite, arenite and granite, overlain in areas by shale. The original vegetation is classified as Moist Cool Highveld Grassland, but has been replaced over most of the area by agricultural fields, or black wattle plantations. The topography is described as gently rolling hills. A few small rivers pass through the area, with the Wilge river as the most significant. A number of pans occur sporadically.

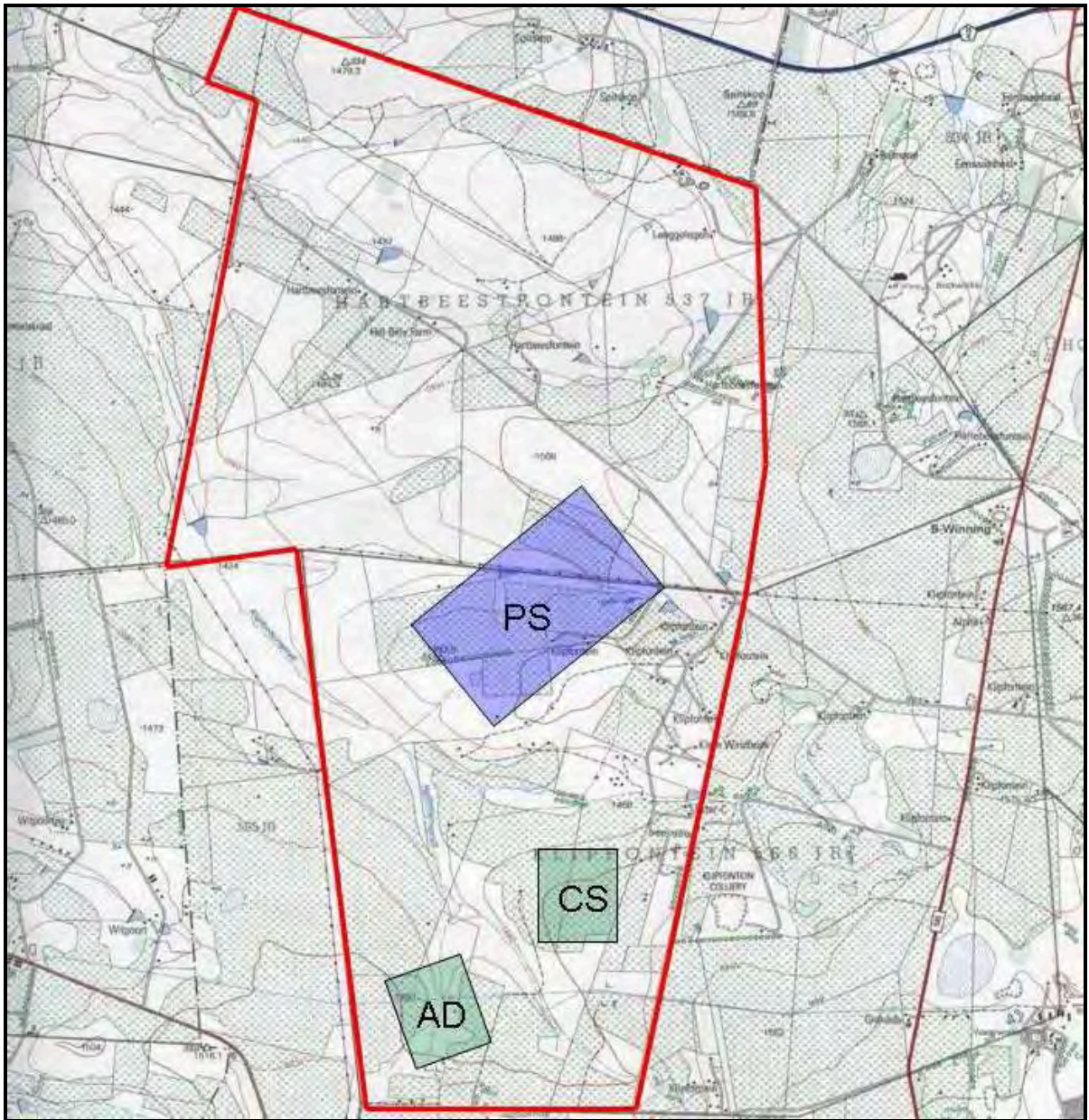


Fig. 2. Proposed layout of the power station for site X.

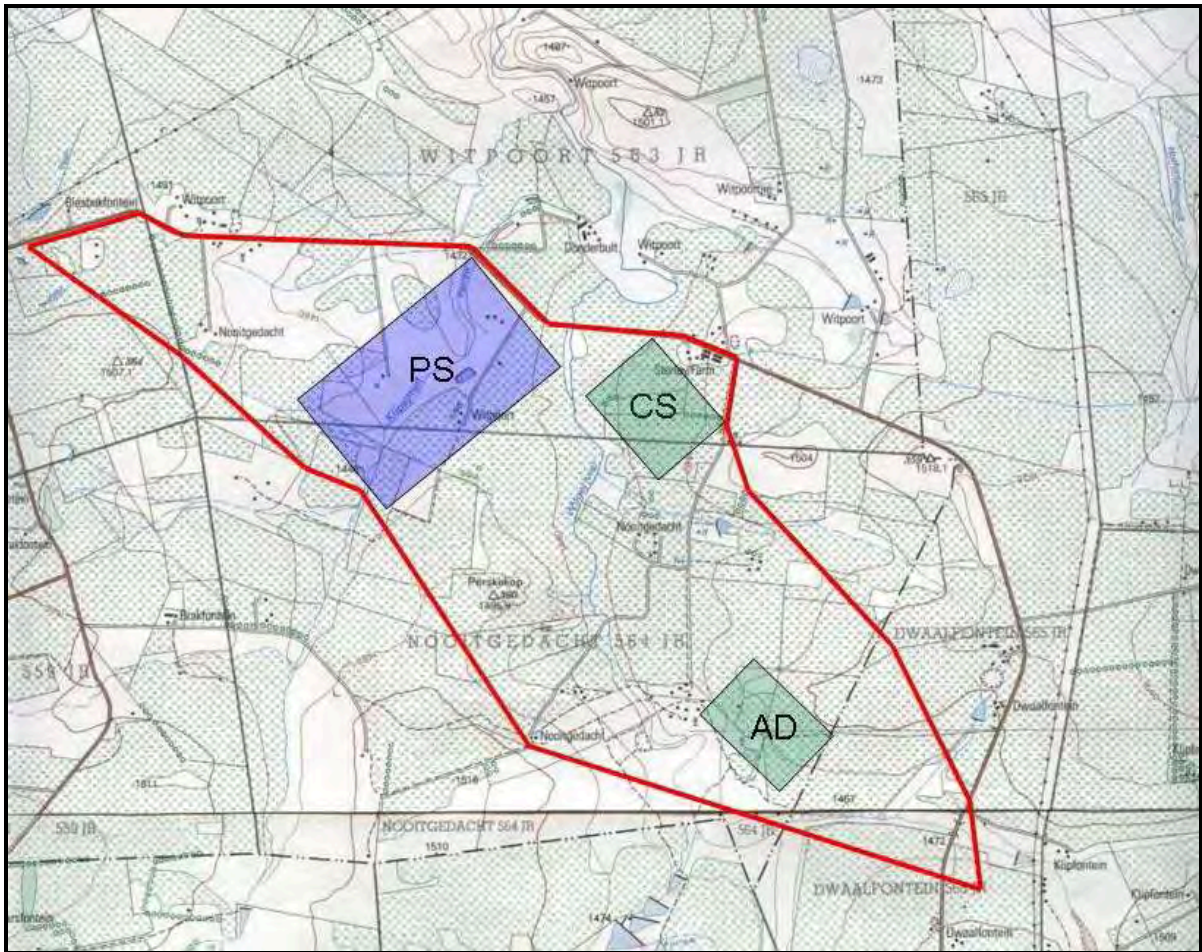


Fig. 3. Proposed layout of the power station for site Y.

4.3 Overview of the region

Stone Age

Very little habitation of the highveld area took place during Stone Age times. Tools dating to the Early Stone Age period are mostly found in the vicinity of larger watercourses, e.g. the Vaal River, or in sheltered areas such as the Magaliesberg. During Middle Stone Age (MSA) times (c. 150 000 – 30 000 BP), people became more mobile, occupying areas formerly avoided. The MSA is a technological stage characterized by flakes and flake-blades with faceted platforms, produced from prepared cores, as distinct from the core tool-based ESA technology. Open sites were still preferred near watercourses. These people were adept at exploiting the huge herds of animals that passed through the area, on their seasonal migration.

Late Stone Age (LSA) people had even more advanced technology than the MSA people and therefore succeeded in occupying even more diverse habitats. Some sites are known to occur in the region. These vary from sealed (i.e. cave) sites, located to the north and south of the study area, to open sites in the Magaliesberg. Also, for the first time we get evidence of people's activities derived from material other than stone tools. Ostrich eggshell beads, ground bone arrowheads, small bored stones and wood fragments with incised markings are traditionally linked with the LSA. The LSA people have also left us with a rich legacy of rock art, which is an expression of their complex social and spiritual beliefs.

Iron Age

Iron Age people started to settle in southern Africa c. AD 300, with one of the oldest known sites at Broederstroom south of Hartebeespoort Dam dating to AD 470. Having only had cereals (sorghum, millet) that need summer rainfall, Early Iron Age (EIA) people did not move outside this rainfall zone, and neither did they occupy the central interior highveld area. Because of their specific technology and economy, Iron Age people preferred to settle on the alluvial soils near rivers for agricultural purposes, but also for firewood and water.

The occupation of the larger geographical area (including the study area) did not start much before the 1500s. By the 16th century things changed, with the climate becoming warmer and wetter, creating condition that allowed Late Iron Age (LIA) farmers to occupy areas previously unsuitable, for example the treeless plains of the Free State and the Mpumalanga highveld.

This wet period came to a sudden end sometime between 1800 and 1820 by a major drought lasting 3 to 5 years. The drought must have caused an agricultural collapse on a large, subcontinent scale.

This was also a period of great military tension. Military pressure from Zululand spilled onto the highveld by at least 1821. Various marauding groups of displaced Sotho-Tswana moved across the plateau in the 1820s. Mzilikazi raided the plateau extensively between 1825 and 1837. The Boers trekked into this area in the 1830s. And throughout this time settled communities of Tswana people also attacked each other.

As a result of this troubled period, Sotho-Tswana people concentrated into large towns for defensive purposes. Because of the lack of trees they built their settlements in stone. These stone-walled villages were almost always located near cultivatable soil and a source of water. Such sites are known to occur near Kriel (e.g. Pelsler, et al 2006) and in the Bornkhorstspuit area.

Historic period

White settlers moved into the area during the first half of the 19th century. They were largely self-sufficient, basing their survival on cattle/sheep farming and hunting. Few towns were established and it remained an undeveloped area until the discovery of coal and later gold. The establishment of the NZASM railway line in the 1880s, linking Pretoria with Lourenço Marques and the world at large, brought much infra-structural and administrative development to the area. This railway line also became the scene of many battles during the Anglo-Boer War and a concentration camp was established near the Balmoral station, northwest of Site X.

During the Anglo-Boer War, a number of skirmishes occurred in the larger region, with one of the last and biggest battles fought that being at Bakenlaagte south of the town of Kriel on 30 October 1901. In line with the 'scorched earth' policy, most farmsteads were destroyed by the British during the latter part of the hostilities.

Coal mining occurred only sporadically in the area. However, with the discovery of the Witwatersrand gold fields, the need for a source of cheap energy became important, and coal mining developed on a large scale in various regions. By 1899, at least four collieries were operating in the Middelburg-Witbank³ district, supplying the gold mining industry.

4.4 Identified sites

³ Witbank was only established after 1903.

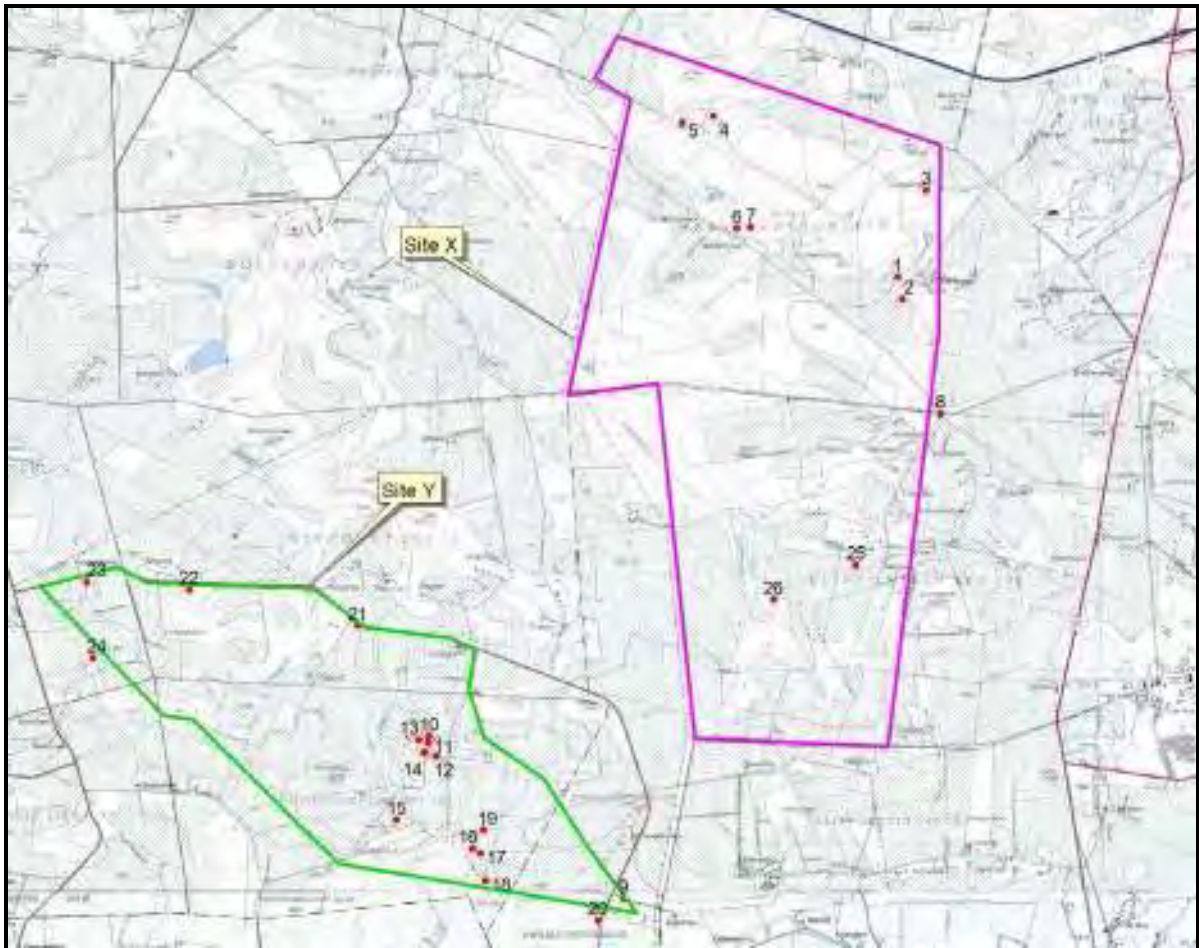


Fig. 4. The location of the identified sites within the study areas. For detailed discussions of all of them, see Appendix 2.

4.4.1 Stone Age

No sites, objects or features dating to the Stone Age were identified.

4.4.2 Iron Age

No sites, objects or features dating to the Iron Age were identified.

4.4.3 Historic period

Remains dating to the historic period fall into two categories, which are actually intimately linked with each other, but for the purpose of the study are separated.

- Farmsteads/homesteads: Some of the formal structures (houses and outbuildings) identified date back to the late 19th century. However, most buildings date to a much later period, c. the middle of the 20th century. This also holds true for the farm labourer houses, as they were much

more likely to be moved by the landowner, or abandoning a homestead to find work on a different farm.

- Cemeteries/graves: These are obviously related to the people occupying the various farmsteads, as well as the people who worked on the farms as labourers. It is expected that many more such informal cemeteries would be located if the vegetation has died (burned) down.

5. IDENTIFICATION OF RISK SOURCES

Heritage sites are fixed features in the environment, occurring within specific spatial confines. Any impact upon them is permanent and non-reversible. Those resources that cannot be avoided and that are directly impacted by the development can be excavated/recorded and a management plan can be developed for future action. Those sites that are not impacted on can be written into the management plan, whence they can be avoided or cared for in the future.

The following project actions may impact negatively on heritage sites and other features of cultural importance. The actions are most likely to occur during the construction phase of a project.

Table 1

Construction phase:

Possible Risks	Source of the risk
Actually identified risks	
- damage to sites	Construction work
Anticipated risks	
- looting of sites	Curious workers

Operation phase:

Possible risks	Source of risk
Actually identified risks	
- damage to sites	Not keeping to development plans
Anticipated risks	
- damage to sites	Unscheduled construction/developments
- looting of sites	Curious workers/visitors

6. SUMMARY AND RECOMMENDATIONS

The aim of the survey was to locate, identify and evaluate sites, objects and structures of cultural significance found within the boundaries of the area in which it is proposed to develop a coal-fired power station and its infrastructure. The two areas are located on the highveld, which did not see much human occupation in pre-colonial times. This very much has to do with economic strategies, cultural preferences and climate fluctuations. It was only after white settlers entered the area that population numbers increased significantly.

A large number of sites of cultural significance were identified in the two study areas. These date mostly from historic times and can be categorised as structures (farmsteads/homesteads) and cemeteries/graves. None of the sites are deemed to be of such significance that it would prevent development in any of the two study areas.

Some interesting structures (houses and outbuildings) were identified and, if they cannot be rehabilitated and reused, they can be demolished after they have been recorded in full, in which case SAHRA would issue a permit for their destruction. Similarly, the graves also do not present a problem as they can be relocated to new cemeteries, after the correct procedure has been followed. This include, inter alia, notification of intent to remove the graves, consultation with descendants, permits from the police and provincial authorities, and, in cases where the graves are older than 60 years, a permit from SAHRA as well.

It is our viewpoint that the proposed development can take place in any of the two study areas, and we therefore put forward the following recommendations:

- Development can continue only on condition of acceptance of the proposed mitigation measures set out for each particular site (see Appendix 2).
- Once a final site has been selected and the 'footprint' of the development is known, it should again be surveyed by an archaeologist.

7. REFERENCES

7.1 Data bases

Heritage Sites Database, Pretoria.

Environmental Potential Atlas, Department of Environmental Affairs and Tourism.

7.2 Literature

Acocks, J.P.H. 1975. *Veld Types of South Africa*. Memoirs of the Botanical Survey of South Africa, No. 40. Pretoria: Botanical Research Institute.

Cloete, P.G. 2000. *The Anglo-Boer War: a Chronology*. Pretoria: JP van der Walt

Hartdegen, P. (ed.) 1988. *Our building heritage*. Halfway House: Ryll's Publishing Co.

Holm, S.E. 1966. *Bibliography of South African Pre- and Protohistoric archaeology*. Pretoria: J.L. van Schaik.

Mason, R.J. 1962. *Prehistory of the Transvaal*. Johannesburg: Witwatersrand University Press.

Pelser, A., Van Schalkwyk, J., Teichert, F. & Masiteng, I. 2006. The archaeological investigation of an Iron Age site on the farm Rietfontein 101IS, Emalahleni district, Mpumalanga Province. *Research by the National Cultural History Museum*, Vol. 14. In press.

Richardson, D. 2001. *Historic sites of South Africa*. Cape Town: Struik Publishers.

Van Riet Lowe, C. n.d. *The distribution of Prehistoric rock engravings and paintings in South Africa*. Archaeological Survey, Archaeological Series No. 7.

Van Warmelo, N.J. 1935. *A Preliminary survey of the Bantu Tribes of South Africa*. Ethnological Publications No. 5. Pretoria: Government Printer.

7.3 Maps

1: 50 000 Topocadastral maps – 2528DD, 2628BB

8. PROJECT TEAM

J van Schalkwyk, principal investigator
C Meyer, cultural historian

APPENDIX 1: STANDARDIZED SET OF CONVENTIONS USED TO ASSESS THE IMPACT OF PROJECTS ON CULTURAL RESOURCES

Significance

The *significance* of the sites and artefacts are determined by means of their historical, social, aesthetic, technological and scientific value in relation to their uniqueness, condition of preservation and research potential. It must be kept in mind that the various aspects are not mutually exclusive, and that the evaluation of any site is done with reference to any number of these.

Matrix used for assessing the significance of each identified site/feature

1. Historic value					
Is it important in the community, or pattern of history					
Does it have strong or special association with the life or work of a person, group or organisation of importance in history					
Does it have significance relating to the history of slavery					
2. Aesthetic value					
It is important in exhibiting particular aesthetic characteristics valued by a community or cultural group					
3. Scientific value					
Does it have potential to yield information that will contribute to an understanding of natural or cultural heritage					
Is it important in demonstrating a high degree of creative or technical achievement at a particular period					
4. Social value					
Does it have strong or special association with a particular community or cultural group for social, cultural or spiritual reasons					
5. Rarity					
Does it possess uncommon, rare or endangered aspects of natural or cultural heritage					
6. Representivity					
Is it important in demonstrating the principal characteristics of a particular class of natural or cultural places or objects					
Importance in demonstrating the principal characteristics of a range of landscapes or environments, the attributes of which identify it as being characteristic of its class					
Importance in demonstrating the principal characteristics 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.					
7. Sphere of Significance			High	Medium	Low
International					
National					
Provincial					
Regional					
Local					
Specific community					
8. Significance rating of feature					
1.	Low				
2.	Medium				
3.	High				

Significance of impact:

- low where the impact will not have an influence on or require to be significantly accommodated in the project design
- medium where the impact could have an influence which will require modification of the project design or alternative mitigation
- high where it would have a “no-go” implication on the project regardless of any mitigation

Certainty of prediction:

- Definite: More than 90% sure of a particular fact. Substantial supportive data to verify assessment
- Probable: More than 70% sure of a particular fact, or of the likelihood of that impact occurring

- Possible: Only more than 40% sure of a particular fact, or of the likelihood of an impact occurring
- Unsure: Less than 40% sure of a particular fact, or the likelihood of an impact occurring

Recommended management action:

For each impact, the recommended practically attainable mitigation actions which would result in a measurable reduction of the impact, must be identified. This is expressed according to the following:

- 1 = no further investigation/action necessary
- 2 = controlled sampling and/or mapping of the site necessary
- 3 = preserve site if possible, otherwise extensive salvage excavation and/or mapping necessary
- 4 = preserve site at all costs

Legal requirements:

Identify and list the specific legislation and permit requirements which potentially could be infringed upon by the proposed project, if mitigation is necessary.

APPENDIX 2: SURVEY RESULTS⁴

[Previous site numbers relate to other known sites on a particular ¼ degree sheet already documented in the ADRC, and does not necessarily refer to sites occurring on or close to the specific area of development.]

Map datum used: Hartebeeshoek 94 (WGS84).

1. Location: Hartbeestfontein 537JR (S 25.90767; E 28.92958)

Description: Old house, dating to the 1890s, showing Late Victorian style features. This is one of a very few houses dating to the period prior to the Anglo-Boer War. It was built by the Prinsloo family, who played a significant role in the history of the region (Fig. 5).

Evaluation of significance: High, on regional basis.

Discussion: It would be a great pity if this building is to be destroyed. Although run down at present, it is possible to retain it and after restoration to use it e.g. as corporate offices.

Significance of impact: High

Certainty of prediction: Probable

Recommended management action: 3 = preserve site if possible, otherwise extensive mapping/documentation necessary

Legal requirements: SAHRA permit



Fig. 5. The old Prinsloo house

⁴ See Appendix 1 for an explanation of the conventions used in assessing the cultural remains.

2. Location: Hartbeestfontein 537JR (S 25.91104; E 28.93030)

Description: Three graves, dating to between 1903 and 1971 (Fig. 6)

Evaluation of significance: High, for specific community

Discussion: Some of these graves are older than 60 years and have monumental headstones.

Significance of impact: High

Certainty of prediction: Probable

Recommended management action: 3 = preserve site if possible, otherwise relocate after excavation and documentation

Legal requirements: Consultation, permits, SAHRA permit



Fig. 6. Grave with a monumental headstone.

3. Location: Hartbeestfontein 537JR (S 25.89454; E 28.93384)

Description: Grave of AS van Dyk, 1919.

Evaluation of significance: High, for a specific community

Discussion: This grave is older than 60 years, although the headstone might be more recent.

Significance of impact: High

Certainty of prediction: Probable

Recommended management action: 3 = preserve site if possible, otherwise relocate after excavation and documentation

Legal requirements: Consultation, permits, SAHRA permit

4. Location: Hartbeestfontein 537JR (S 25.88335; E 28.90171)

Description: Informal cemetery with c. 30 graves, mostly Sibanyoni and Skhosana families. Not all have headstones with inscriptions.

Evaluation of significance: High, for specific community

Discussion: The graves seems to be younger than 60 years

Significance of impact: High

Certainty of prediction: Probable

Recommended management action: 3 = preserve site if possible, otherwise relocate after excavation and documentation

Legal requirements: Consultation, permits

5. Location: Hartbeestfontein 537JR (S 25.88437; E 28.89693)

Description: Single grave, of S Ntuli, 1934 (Fig. 7).

Evaluation of significance: High, for specific community

Discussion: This grave is older than 60 years.

Significance of impact: High

Certainty of prediction: Probable

Recommended management action: 3 = preserve site if possible, otherwise relocate after excavation and documentation

Legal requirements: Consultation, permits, SAHRA permit



Fig. 7. Grave with a small, informal headstone.

6. Location: Hartbeestfontein 537JR (S 25.90029; E 28.90524)

Description: Old farmstead, dating to 1904, showing Victorian and Edwardian style elements. Built by Van Dyk family. Old barn dating to same period located adjacent to it (Fig. 8).

Evaluation of significance: High, on regional basis.

Discussion: This structure exhibit some interesting features and it would be a pity if it is demolished.

Significance of impact: High

Certainty of prediction: Probable

Recommended management action: 3 = preserve site if possible, otherwise extensive salvage excavation and/or mapping necessary

Legal requirements: SAHRA permit



Fig. 8. The house built by the Van Dyk family.

7. Location: Hartbeestfontein 537JR (S 25.90015; E 28.90735)

Description: Three graves, dating to between 1911 and 1987

Evaluation of significance: High, for specific community

Discussion: Some of the graves are older than 60 years. The headstones exhibit interesting folk art.

Significance of impact: High

Certainty of prediction: Probable

Recommended management action: 3 = preserve site if possible, otherwise relocate after excavation and documentation

Legal requirements: Consultation, permits, SAHRA permit

8. Location: Klipfontein 566JR (S 25.92836; E 28.93611)

Description: Six graves in an informal cemetery

Evaluation of significance: High, for specific community

Discussion: This site possibly falls just outside of the development area.

Significance of impact: Low

Certainty of prediction: Probable

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: SAHRA permit

9. Location: Dwaalfontein 565JR (S 26.00186; E 28.88811)

Description: Large informal cemetery, few graves with names, mostly Skhosana.

Evaluation of significance: High, for specific community

Discussion: This site probably falls just outside of the development area.

Significance of impact: Low

Certainty of prediction: Probable

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

10. Location: Nooitgedacht 564JR (S 25.97719; E 28.85869)

Description: Two graves, one unmarked and the other HM Booysen, 1912

Evaluation of significance: High, for specific community

Discussion: These graves are older than 60 years

Significance of impact: High

Certainty of prediction: Probable

Recommended management action: 3 = preserve site if possible, otherwise relocate after excavation and documentation

Legal requirements: SAHRA permit

11. Location: Nooitgedacht 564JR (S 25.97822; E 28.85858)

Description: Old farm house dating to the period prior to the Anglo-Boer War

Evaluation of significance: Medium, on regional basis

Discussion: This house does not exhibit any interesting attributes

Significance of impact: High

Certainty of prediction: Probable

Recommended management action: 3 = preserve site if possible, otherwise extensive salvage excavation and/or mapping necessary

Legal requirements: SAHRA permit

12. Location: Nooitgedacht 564JR (S 25.98019; E 85974)

Description: Single grave, JA Prinsloo, 1950

Evaluation of significance: High, for specific community

Discussion: This grave is not yet 60 years old

Significance of impact: High

Certainty of prediction: Probable

Recommended management action: 3 = preserve site if possible, otherwise relocate after excavation and documentation

Legal requirements: Consultation, permits

13. Location: Nooitgedacht 564JR (S 25.97778; E 28.85716)

Description: Old farmhouse, built before the Anglo Boer War, also showing Late Victoria style features (Fig. 9).

Evaluation of significance: High, on regional basis

Discussion: This house shows interesting attributes and should be retained if possible

Significance of impact: High

Certainty of prediction: Probable

Recommended management action: 3 = preserve site if possible, otherwise extensive salvage excavation and/or mapping necessary

Legal requirements: SAHRA permit



Fig. 9. Old house, probably built by one of the Joubert brothers.

14. Location: Nooitgedacht 564JR (S 25.97968; E 28.85798)

Description: Two graves, only one visible, AM Joubert, 1934.

Evaluation of significance: High, for specific community

Discussion: These graves are older than 60 years

Significance of impact: High

Certainty of prediction: Probable

Recommended management action: 3 = preserve site if possible, otherwise relocate after excavation and documentation

Legal requirements: Consultation, permits, SAHRA permit

15. Location: Nooitgedacht 564JR (S 25.98991; E 25.85376)

Description: Informal cemetery with c. 30 graves, mostly Skhosana, Ntuli and Mahlangu families. Many do not have dated headstones.

Evaluation of significance: High, for specific community

Discussion: Most of these graves are less than 60 years old

Significance of impact: High

Certainty of prediction: Probable

Recommended management action: 3 = preserve site if possible, otherwise relocate after excavation and documentation

Legal requirements: Consultation, permits

16. Location: Nooitgedacht 564JR (S 25.99426; E 86527)

Description: 13 graves dating to the 1980s.

Evaluation of significance: High, for specific community

Discussion: These graves are of recent origin

Significance of impact: High

Certainty of prediction: Probable

Recommended management action: 3 = preserve site if possible, otherwise relocate after excavation and documentation

Legal requirements: Consultation, permits

17. Location: Nooitgedacht 564JR (S 25.99497; E 28.86641)

Description: Informal cemetery with c. 10 graves, mostly Skhosana and Masuku families.

Evaluation of significance: High, for specific community

Discussion: These grave all seems to be less than 60 years old

Significance of impact: High

Certainty of prediction: Probable

Recommended management action: 3 = preserve site if possible, otherwise relocate after excavation and documentation

Legal requirements: Consultation, permits

18. Location: Nooitgedacht 564JR (S 25.99910; E 28.86718)

Description: Informal cemetery with c. 50 graves, mostly Skhosana, Ntuli and Masuku families

Evaluation of significance: High, for specific community

Discussion: Many graves do not have dated headstones

Significance of impact: High

Certainty of prediction: Probable

Recommended management action: 3 = preserve site if possible, otherwise relocate after excavation and documentation

Legal requirements: Consultation, permits, SAHRA permit

19. Location: Nooitgedacht 564JR (S 25.99147; E 86692)

Description: Informal cemetery with c. 15 graves, mostly Nkabinde family

Evaluation of significance: High, for specific community

Discussion: Most of the graves seem to be younger than 60 years

Significance of impact: High

Certainty of prediction: Probable

Recommended management action: 3 = preserve site if possible, otherwise relocate after excavation and documentation

Legal requirements: Consultation, permits

20. Location: Dwaalfontein 565JR (S 26.00516; E 28.88419)

Description: Approximately 9 graves close to the road. Most do not have headstones

Evaluation of significance: High, for specific community

Discussion: This site probably falls just outside the development area.

Significance of impact: Low

Certainty of prediction: Probable

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

21. Location: Witpoort 563JR (S 25.96047; E 28.84790)

Description: Four graves, two with headstones – inscriptions illegible

Evaluation of significance: High, for specific community

Discussion: This site falls on the border of the development area.

Significance of impact: High

Certainty of prediction: Probable

Recommended management action: 3 = preserve site if possible, otherwise relocate after excavation and documentation

Legal requirements: SAHRA permit

22. Location: Witpoort 563JR (S 25.95504; E 28.82241)

Description: Typical Ndebele-speaking farm labourer house, inhabited by an extended family (Fig. 10).

Evaluation of significance: Low, on a regional basis

Discussion: Although large numbers of such houses dot the landscape, they are usually ignored during development projects. However, they show great ingenuity and artistry, and at least some of them should be documented as a representative sample before development starts.

Significance of impact: High

Certainty of prediction: Probable

Recommended management action: 2 = controlled sampling and/or mapping of the site necessary

Legal requirements: None



Fig. 10. Typical painted Ndebele-speaker house

23. Location: Blesbokfontein 558JR (S 25.95382; E 80692)

Description: Two graves

Evaluation of significance: High, for specific community

Discussion: These two graves are located within a community of farm workers

Significance of impact: High

Certainty of prediction: Probable

Recommended management action: 3 = preserve site if possible, otherwise relocate after excavation and documentation

Legal requirements: Consultation, permits

24. Location: Blesbokfontein 558JR (S 25.96534; 28.80781)

Description: Fourteen graves of Mgidi and Malobola families, dating from 1950s to recent times

Evaluation of significance: High, for specific community

Discussion: It seems as if this cemetery is still expanding

Significance of impact: High

Certainty of prediction: Probable

Recommended management action: 3 = preserve site if possible, otherwise relocate after excavation and documentation

Legal requirements: Consultation, permits

25. Location: Klipfontein 566JR (S 25.95132; E 28.92326)

Description: Ten graves, all Ntuli family, dating to between 1920 and 1970

Evaluation of significance: High, for specific community

Discussion: Although no new graves are found here, family members still visit some of the graves

Significance of impact: High

Certainty of prediction: Probable

Recommended management action: 3 = preserve site if possible, otherwise relocate after excavation and documentation

Legal requirements: Consultation, permits, SAHRA permit

26. Location: Klipfontein 566JR (S 25.95652; E 28.91084)

Description: Ten graves, all of Mahlangu family, dating to between 1920 and 1930 (Fig. 11).

Evaluation of significance: High, for specific community

Discussion: This is a very isolated area and seems to be abandoned

Significance of impact: High

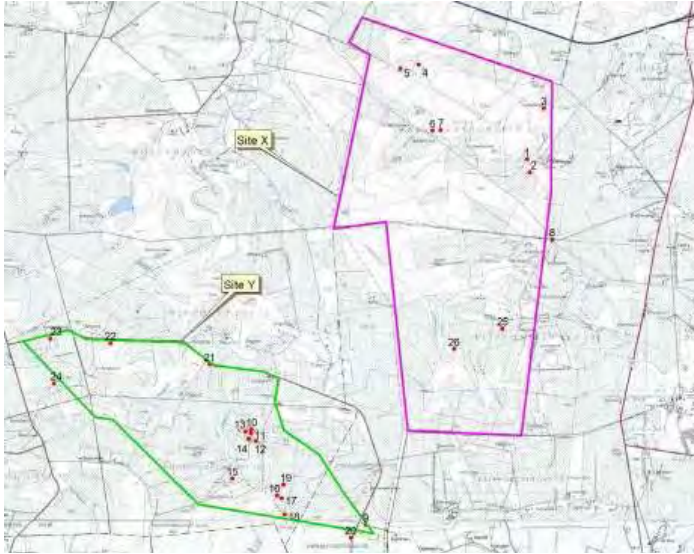
Certainty of prediction: Probable

Recommended management action: 3 = preserve site if possible, otherwise relocate after excavation and documentation

Legal requirements: Consultation, permits, SAHRA permit



Fig. 11. The Mahlangu family cemetery



1. Location: Hartbeestfontein 537JR (S 25.90767; E 28.92958)

Description: Old house, dating to the 1890s, showing Late Victorian style features. This is one of a very few houses dating to the period prior to the Anglo-Boer War. It was built by the Prinsloo family, who played a significant role in the history of the region (Fig. 5).

Evaluation of significance: High, on regional basis.

Discussion: It would be a great pity if this building is to be destroyed. Although run down at present, it is possible to retain it and after restoration to use it e.g. as corporate offices.

Significance of impact: High

Certainty of prediction: Probable

Recommended management action: 3 = preserve site if possible, otherwise extensive mapping/documentation necessary

Legal requirements: SAHRA permit

Fig. 5. The old Prinsloo house

⁴ See Appendix 1 for an explanation of the conventions used in assessing the cultural remains.



Fig. 5. The old Prinsloo house

2. Location: Hartbeestfontein 537JR (S 25.91104; E 28.93030)

Description: Three graves, dating to between 1903 and 1971 (Fig. 6)

Evaluation of significance: High, for specific community

Discussion: Some of these graves are older than 60 years and have monumental headstones.

Significance of impact: High

Certainty of prediction: Probable

Recommended management action: 3 = preserve site if possible, otherwise relocate after excavation and documentation

Legal requirements: Consultation, permits, SAHRA permit



Fig. 6. Grave with a monumental headstone.

3. Location: Hartbeestfontein 537JR (S 25.89454; E 28.93384)
Description: Grave of AS van Dyk, 1919.
Evaluation of significance: High, for a specific community
Discussion: This grave is older than 60 years, although the headstone might be more recent.
Significance of impact: High
Certainty of prediction: Probable
Recommended management action: 3 = preserve site if possible, otherwise relocate after excavation and documentation
Legal requirements: Consultation, permits, SAHRA permit

4. Location: Hartbeestfontein 537JR (S 25.88335; E 28.90171)
Description: Informal cemetery with c. 30 graves, mostly Sibanyoni and Skhosana families. Not all have headstones with inscriptions.
Evaluation of significance: High, for specific community
Discussion: The graves seems to be younger than 60 years
Significance of impact: High
Certainty of prediction: Probable
Recommended management action: 3 = preserve site if possible, otherwise relocate after excavation and documentation
Legal requirements: Consultation, permits

5. Location: Hartbeestfontein 537JR (S 25.88437; E 28.89693)
Description: Single grave, of S Ntuli, 1934 (Fig. 7).
Evaluation of significance: High, for specific community
Discussion: This grave is older than 60 years.
Significance of impact: High
Certainty of prediction: Probable
Recommended management action: 3 = preserve site if possible, otherwise relocate after excavation and documentation
Legal requirements: Consultation, permits, SAHRA permit



Fig. 7. Grave with a small, informal headstone.

6. Location: Hartbeestfontein 537JR (S 25.90029; E 28.90524)
Description: Old farmstead, dating to 1904, showing Victorian and Edwardian style elements. Built by Van Dyk family. Old barn dating to same period located adjacent to it (Fig. 8).
Evaluation of significance: High, on regional basis.
Discussion: This structure exhibit some interesting features and it would be a pity if it is demolished.
Significance of impact: High
Certainty of prediction: Probable

Recommended management action: 3 = preserve site if possible, otherwise extensive salvage excavation and/or mapping necessary
Legal requirements: SAHRA permit



Fig. 8. The house built by the Van Dyk family.

7. Location: Hartbeestfontein 537JR (S 25.90015; E 28.90735)
Description: Three graves, dating to between 1911 and 1987
Evaluation of significance: High, for specific community
Discussion: Some of the graves are older than 60 years. The headstones exhibit interesting folk art.
Significance of impact: High
Certainty of prediction: Probable
Recommended management action: 3 = preserve site if possible, otherwise relocate after excavation and documentation
Legal requirements: Consultation, permits, SAHRA permit

25. Location: Klipfontein 566JR (S 25.95132; E 28.92326)
Description: Ten graves, all Ntuli family, dating to between 1920 and 1970
Evaluation of significance: High, for specific community
Discussion: Although no new graves are found here, family members still visit some of the graves
Significance of impact: High
Certainty of prediction: Probable
Recommended management action: 3 = preserve site if possible, otherwise relocate after excavation and documentation
Legal requirements: Consultation, permits, SAHRA permit

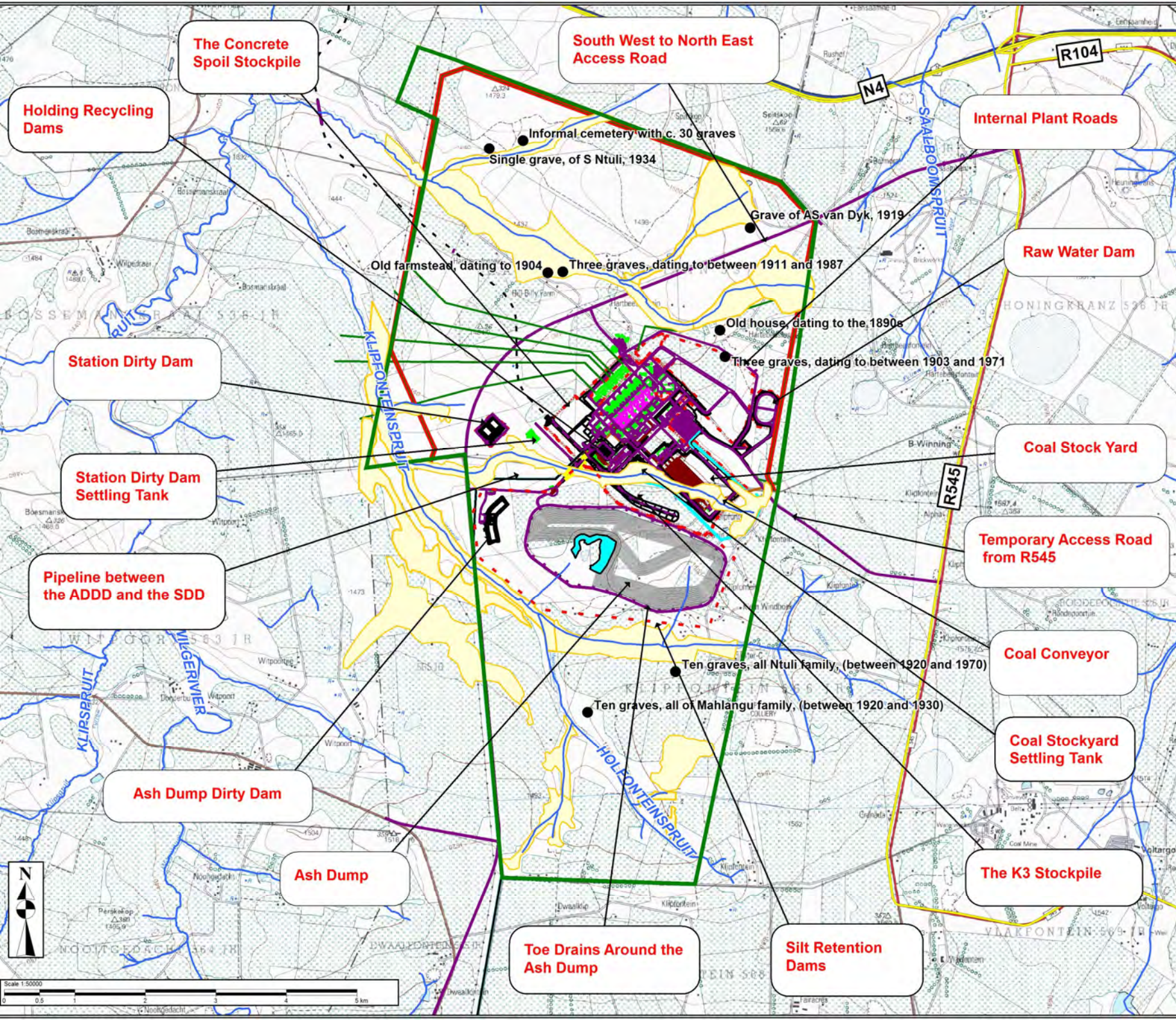
26. Location: Klipfontein 566JR (S 25.95652; E 28.91084)
Description: Ten graves, all of Mahlangu family, dating to between 1920 and 1930 (Fig. 11).
Evaluation of significance: High, for specific community
Discussion: This is a very isolated area and seems to be abandoned
Significance of impact: High
Certainty of prediction: Probable
Recommended management action: 3 = preserve site if possible, otherwise relocate after excavation and documentation
Legal requirements: Consultation, permits, SAHRA permit



Fig. 11. The Mahlangu family cemetery

APPENDIX B

**MAP OF THE LAYOUT OF THE PROPOSED ASH DUMP
IN RELATION TO THE HERITAGE RESOURCES
IDENTIFIED IN THE 2006 HIA**



Legend

- Fencelines
- Roads
- 400kV Export Lines
- 400kV Line Diversion
- Stream Diversion
- Proposed Railroad
- Main Roads
- Dams and Lakes
- Rivers
- Raw Water Pipeline
- Ash Dump Wetland Buffer
- Site Boundary
- Ash Dump Embankment Culvert
- Heritage Sites



Date: 10 June 2013

System: Hartebeeshoek94



APPENDIX C

**2008 PERMIT FOR EXHUMATION AND RELOCATION OF
GRAVES**



**SOUTH AFRICAN HERITAGE
RESOURCES AGENCY**

111 HARRINGTON STREET, CAPE TOWN, 8000
PO BOX 4637, CAPE TOWN, 8000
TEL: (021) 462 4502 FAX: (021) 462 4509

DATE: 22 August 2008
ENQUIRIES: Mrs Colette Scheermeyer
OUR REF: 9/2/248/0003

Mr Frank Teichert
National Cultural History Museum
149 Visagie Street
Sunnyside
Pretoria
0132

FAX: 012 328 5173

Dear Mr Teichert

PERMIT: No.80/08/07/005/51

I attach as requested a permit for the exhumation of graves older than 60 years to be affected by the development of a new power station by Eskom and the reinterment of the graves at Phola cemetery and Witbank cemetery, near Balmoral, Mpumalanag Province.

The SAHRA APM Unit wishes you success with the project.

Yours Sincerely

Mrs Mary Leslie
SAHRA: Manager of the Archaeology, Palaeontology and Meteorite Unit
For CHIEF EXECUTIVE OFFICER



SOUTH AFRICAN HERITAGE RESOURCES AGENCY

111 HARRINGTON STREET, CAPE TOWN, 8000
PO BOX 4637, CAPE TOWN, 8000
TEL: (021) 462 4502 FAX: (021) 462 4509

9/2/248/0003

PERMIT

No. 80/08/07/005/51

Issued under Section 36(3) of the National Heritage Resources Act, Act No. 25 of 1999. Permission is hereby given:

to: Mr FE Teichert (ID: 6912055200083),
of: the National Cultural History Museum, 149 Visagie Street, Sunnyside, Pretoria, 0132,
for: the exhumation of graves older than 60 years to be affected by the development of a new power station by Eskom and the reinterment of the graves at Phola cemetery and to the Witbank cemetery,
at: Hartebeesfontein 579JR and Klipfontein 566JR, at approximately 25 55 17.4E, 28 56 29.2S, near Balmoral,
in: the Witbank District, Mpumalanga Province.

The following conditions apply:

1. If the permit holder is not to be present on the site at all times then SAHRA must be provided with the names and qualifications of the authorised representatives.
2. Adequate recording methods as specified in the Regulations and Guidelines pertaining to the National Heritage Resources Act must be used. Note that the position of the grave must be marked on a plan of the site, and the site marked on a 1:50 000 map.
3. A standard site record form must be lodged with the National Cultural History Museum.
4. Human remains must at all times be handled with respect and graves should not be disturbed except where unavoidable. The consultation procedures as indicated in the gazetted regulations of the National Heritage Resources Act (Act No. 25 of 1999) must be observed as appropriate. The recommendations for removal of graves and exhumations and for re-burial made in SAHRA's Policy 'What to do when graves are uncovered', section 3, must be observed as far as possible.
5. Copies of field notes and records must be kept at the National Cultural History Museum.
6. A report on the excavation must be submitted to SAHRA on or before 1 September 2009.
7. Reprints of all published papers, or copies of theses or reports resulting from this work must be lodged with the relevant Provincial Heritage Resources Authority and SAHRA.
8. If a published report has not appeared within three years of the lapsing of this permit, the report required in terms of the permit will be made available to researchers on request.
9. It is the responsibility of the permit holder to obtain permission from the landowner for each visit, and conditions of access imposed by the landowner must be observed.
10. It is the responsibility of the permit holder to fill in excavations and protect sites during and after excavation to the satisfaction of the SAHRA and the landowner.
11. SAHRA shall not be liable for any losses, damages or injuries to persons or properties as a result of any activities in connection with this permit.
12. SAHRA reserves the right to cancel this permit by notice to the permit holder.
13. This permit is subject to a general appeal and may be suspended should an appeal against the decisions be received by SAHRA within 14 days from the date of the permit. SAHRA may not be held responsible for any costs or losses incurred in the event of the suspension or retraction of this permit.

This permit is valid until 1 September 2009.

for CHIEF EXECUTIVE OFFICER

Date: 22 August 2008



Place: Cape Town



**SOUTH AFRICAN HERITAGE
RESOURCES AGENCY**

41 DE KORTE, SABLE CENTRE, 11TH FLOOR, BRAAMFONTEIN, 2001
P.O. BOX 67552, HOUGHTON, 2041
TEL: 011 403 0683, FAX: 011 403 3609

DATE: 26 June 2008
ENQUIRIES: Mrs Portia Ramalamula

OUR REF: 9/2/284/0003
YOUR REF

Attention: Ms Lindiwe Gaika
Ninham Shand
P.O. Box 1347
Cape Town
8000

By Fax: 021 424 5588

Dear Madam

**RE: HERITAGE IMPACT ASSESSMENT FOR THE PROPOSED NEW
POWER STATION, WITBANK AREA**

Thank you for your indication that a new proposed power station is to take place in this area.

Kindly be informed that we have noted in your report, that some historical farmsteads/homesteads were identified. We also noted that these structures were of low cultural significance. SAHRA Gauteng Provincial Office supports the recommendations made by the author that if Hartbeesfontein 537's old Prinsloo's house, old van Dyk family house and an old barn located adjacent to it, and old house built by Joubert brothers identified cannot be rehabilitated or reused, they can be demolished after they have been recorded in full. In that condition SAHRA has no objections to the proposed development.

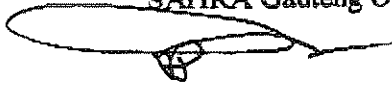
Decisions on the graves must be made by our SAHRA Burial Grounds and Graves Unit (Mr Ndukuyakhe Ndlovu: nnndlovu@sat.sahra.org.za, Ms Jennifer Kitto: jkitto@sat.sahra.org.za and Mr Amos Mulaudzi: amulaudzi@sat.sahra.org.za to whom we will send the above report and our comments before sending to you.

However, should any heritage resources of any nature be found during the development process, we recommend that SAHRA and professional Heritage Specialists be contacted for further investigations and recommendations.

Should you have any queries, please do not hesitate to contact the undersigned at the above telephone and / or facsimile numbers.

Yours sincerely

Vhonani Portia Ramalamula
Cultural Heritage Officer
For the Manager
SAHRA Gauteng Office





SOUTH AFRICAN HERITAGE RESOURCES AGENCY

111 HARRINGTON STREET, CAPE TOWN, 8000
PO BOX 4637, CAPE TOWN, 8000
TEL: (021) 462 4502 FAX: (021) 462 4509

9/2/248/0003

PERMIT

No. 80/08/07/005/51

Issued under Section 36(3) of the National Heritage Resources Act, Act No. 25 of 1999. Permission is hereby given:

to: Mr FE Teichert (ID: 6912055200083),
of: the National Cultural History Museum, 149 Visagie Street, Sunnyside, Pretoria, 0132,
for: the exhumation of graves older than 60 years to be affected by the development of a new power station by Eskom and the reinterment of the graves at Phola cemetery and to the Witbank cemetery,
at: Hartebeesfontein 579JR and Klipfontein 566JR, at approximately 25 55 17.4E, 28 56 29.2S, near Balmoral,
in: the Witbank District, Mpumalanga Province.

The following conditions apply:

1. If the permit holder is not to be present on the site at all times then SAHRA must be provided with the names and qualifications of the authorised representatives.
2. Adequate recording methods as specified in the Regulations and Guidelines pertaining to the National Heritage Resources Act must be used. Note that the position of the grave must be marked on a plan of the site, and the site marked on a 1:50 000 map.
3. A standard site record form must be lodged with the National Cultural History Museum.
4. Human remains must at all times be handled with respect and graves should not be disturbed except where unavoidable. The consultation procedures as indicated in the gazetted regulations of the National Heritage Resources Act (Act No. 25 of 1999) must be observed as appropriate. The recommendations for removal of graves and exhumations and for re-burial made in SAHRA's Policy 'What to do when graves are uncovered', section 3, must be observed as far as possible.
5. Copies of field notes and records must be kept at the National Cultural History Museum.
6. A report on the excavation must be submitted to SAHRA on or before 1 September 2009.
7. Reprints of all published papers, or copies of theses or reports resulting from this work must be lodged with the relevant Provincial Heritage Resources Authority and SAHRA.
8. If a published report has not appeared within three years of the lapsing of this permit, the report required in terms of the permit will be made available to researchers on request.
9. It is the responsibility of the permit holder to obtain permission from the landowner for each visit, and conditions of access imposed by the landowner must be observed.
10. It is the responsibility of the permit holder to fill in excavations and protect sites during and after excavation to the satisfaction of the SAHRA and the landowner.
11. SAHRA shall not be liable for any losses, damages or injuries to persons or properties as a result of any activities in connection with this permit.
12. SAHRA reserves the right to cancel this permit by notice to the permit holder.
13. This permit is subject to a general appeal and may be suspended should an appeal against the decisions be received by SAHRA within 14 days from the date of the permit. SAHRA may not be held responsible for any costs or losses incurred in the event of the suspension or retraction of this permit.

This permit is valid until 1 September 2009.

for CHIEF EXECUTIVE OFFICER

Date: 22 August 2008



Place: Cape Town

APPENDIX D

2009 PERMIT FOR EXTENSION OF THE 2008 PERMIT

SOUTH AFRICAN HERITAGE RESOURCE AGENCY
PO Box 87552
HOUGHTON
2041

File No.:
Enquiries : Kgabo Tlhako
Tel: +27 13 699 7037

Date: 22 June 2009

Dear Jennifer,

**RE: PERMIT APPLICATION – GRAVES RELOCATION AT KUSILE POWER STATION PROJECT
FORMALY CALLED BRAVO PROJECT**

We hereby apply for a permission to exhume graves at the Grave Site which was accidentally tempered with during construction activities. Below are points to be considered when decision is to be made.

1. As a project we have currently tempered with a grave site which we initially thought would not be within our project works.
2. The grave site was not fenced off because at the time when looking/studying the Power Station's foot print, the graves site was understood to be outside the impact area and when works progresses the need to utilise arose, and by then the Grave Site was covered with grass which made it very difficult to be visible. Attached to this application is an incident report, which clearly outlines all activities prior to tempering with the grave site.
3. All other Grave sites around the purchased land which are within the vicinity of the works will be fenced to avoid similar incidents when continuing with construction.
4. Graves to be exhumed under this application will be those on the grave site which is been accidentally tempered with totalling to ±16 and the ones that are going to be discovered during the construction process falling within the construction parameters, and SAHRA will be notified should there be any additional graves exhumed.
5. All necessary community outreach required processes will be met to avoid unnecessary claims once exhumations are done.
6. The Archaeologist was previously granted permit to exhume graves on this project and it is our humble request that his current permit be extended to cover this current exercise of exhuming and reburying graves at the grave site under consideration.

Hoping our application will be considered and permit to exhume be granted at your earliest convenience.

Kind Regards,


Mr. A. Masango
PROJECT MANAGER: KUSILE POWER STATION PROJECT
ESKOM

2009/06/26

Eskom Enterprises
Governance & Compliance
Megawatt Park, Maxwell Drive, Sunninghill, PO Box 1091, Johannesburg, 2000 SA
Tel +27 11 800 5600 Fax +27 11 800 2280 www.eskom.co.za

Directors: RM Godsell (Chairman) PJ Maroga (Chief Executive) LCZ Cele SD Dube LG Josefsson (Swedish)
HB Lee (Korean) WE Lucas-Bull PM Makwana J Mirenge (Rwandan) JRD Modise AJ Morgan
U Nene Company Secretary: TN Msomi
Eskom Holdings Limited Reg No 2002/015627/06





NATIONAL CULTURAL HISTORY MUSEUM
NASIONALE KULTURHISTORIESE MUSEUM

Building / Gebou: AFRICAN WINDOW
149 Visagie Street/straat,
(between/tussen Bosman & Schubart), Pretoria
28008, Sunnyside, 0132, RSA
(012) 324 6082
(012) 328 5173
nchm@mfi.org.za

Fax message

TO: LAWRENCE

FAX NUMBER: 086-668-9100

FROM: FRANK TEICHERT

DATE: 13/10/2009 PAGES: 1+3

MESSAGE: PERMIT EXTENSION

REGARDS

FRANK

Tel: 012 - 324 6082 Fax: 012 - 328 5173

If pages are missing or illegible, please contact the sender

12-OCT-2009 16:18 FROM SAHRA

TO 0123285173

P.001

**SOUTH AFRICAN HERITAGE RESOURCES AGENCY**

BRAAMFONTEIN CENTRE, 11TH FLOOR, 23 JORRISON STREET, BRAAMFONTEIN, 2001
PO BOX 32272, BRAAMFONTEIN, 2017
TEL: (011) 403-2460 • FAX: (011) 339-3347

ENQUIRIES: J Kitto

E-mail: jkitto@sat.sahra.org.zaWeb site: www.sahra.org.za

YOUR REF:

OUR REF: 9/2/248/0003

DATE: 12 October 2009

Mr F Teichert
National Cultural History Museum
PO Box 28088
SUNNYSIDE
0132

BY FAX: (012) 328-5173

Dear Mr Teichert

REQUEST FOR EXTENSION: PERMIT NO. 80/08/07/005/51: ADDITIONAL GRAVES RELOCATION AT KUSILE POWER STATION PROJECT (FORMERLY CALLED BRAVO PROJECT), NEAR BALMORAL, MPUMALANGA

1. The letter from SAHRA to Mr Masango of Eskom Enterprises dated 10 July 2009, and the response recently received from Mr Masango, dated 23 September 2009, regarding the above request for extension of the previously issued Permit No. 80/08/07/005/51, refers.
2. It is confirmed that the permit extension is required to exhume a cemetery containing graves older than 60 years, or of unknown age, located on the property of Kusile/Bravo Power Station Project, Balmoral, Mpumalanga. It is understood that the exhumation and relocation of these graves is requested due to the accidental damage caused to the cemetery in the process of construction activities.
3. It is noted that the information required for this request to be considered, has been received from Eskom and from yourself; viz:
 - a written statement from the archaeologist supporting the proposed relocation of the ± 16 graves affected;
 - evidence and the results of a further 30 day public consultation process;
 - a written undertaking from Eskom to comply with the heritage legislation and protect all additional identified graves of 60 years or older that are intended to remain *in situ*.

12-OCT-2009 16:18 FROM SAHRA

TO 0123285173

P.002

4. After consideration of the information provided, the request for extension of the original Permit No. 80/08/07/005/51 has been Approved.

Please note:

- The permit has been extended for a period of 12 months from the original expiry date of 1 September 2009, until 1 September 2010;
- The graves to be relocated are limited to the ± 16 graves comprising the informal cemetery located at GPS co-ordinates S25.55.17.4, E28.56.29.2 on the Kusile Power Station Project property, Klipfontein 566 JR, Witbank district, Mpumalanga. The graves will be relocated to the Witbank Cemetery;
- All of the original permit conditions apply;
- Any graves older than 60 years that require to be relocated after the expiry date of this extension will require a new permit application to be submitted to the SAHRA Burial Grounds and Graves Unit.

5. See the attached annotated and signed copy of the original permit.

Yours sincerely



Jennifer Kitto
Cultural Heritage Officer
For MANAGER:
BURIAL GROUNDS AND GRAVES UNIT

Copy: Mr A Masango, Eskom Enterprises; By Fax: (011) 800-2280

Manager: Burial grounds and Graves Unit
South African Heritage Resource Agency
P.O.Box 32272
Braamfontein
2017

Date: 23 September 2009

Enquiries : Mushayatshawe
Mudzielwana
☎(013) 699 7092

Ref 9/2/248/0003

Attention: Jennifer Kitto

RE: ESKOM COMMITMENT TO COMPLY WITH HERITAGE LEGISLATION

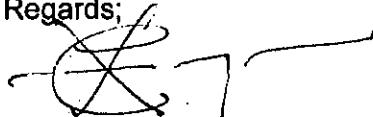
Your letter dated 10 July 2009 has reference:

Eskom commit itself to fully manage and protect all the graves on site through the following measures:

1. All graves within the vicinity of the works are fenced off to prevent any possible incidents or damage.
2. All graves that will be discovered during the construction process falling within the construction parameters will be fenced off and engage the archaeologist.

In light of the above Eskom Kusile Power Station would like to ensure South Africa Heritage Resource Agency that every efforts will be made on this project to comply with the heritage legislation and protect all identified graves of 60 years and older that are intended to remain *In situ*.

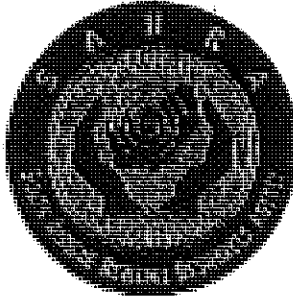
Regards;



Abram Masango

Project Manager: Kusile Power Station

1/1



SOUTH AFRICAN HERITAGE RESOURCES AGENCY
BRAAMFONTEIN CENTRE, 11TH FLOOR, 23 JORRISON STREET, BRAAMFONTEIN, 2001
PO BOX 32272, BRAAMFONTEIN, 2017
TEL: (011) 403-2460 • FAX: (011) 338-3347

ENQUIRIES: J Kfito

E-mail: jkfito@sahra.org.za

Web site: www.sahra.org.za

YOUR REF:

OUR REF: 9/2/248/0003

DATE: 10 July 2009-07-09

Mr A Masango
Eskom Enterprises
Governance and Compliance
PO Box 1091
JOHANNESBURG
2000

BY FAX: (011) 800-2280

Dear Mr Masango

RE: PERMIT APPLICATION – ADDITIONAL GRAVES RELOCATION AT KUSILE POWER STATION PROJECT (FORMERLY CALLED BRAVO PROJECT), NEAR BALMORAL, MPUMALANGA

1. Your letter regarding the above project, dated 22 June 2009 and received by e-mail on 30 June 2009, refers.
2. It is noted that the letter requests permission to exhume graves at a grave site “which was accidentally tampered with during construction activities” at the above project site.
3. The letter and an attached incident report both state that the grave site had not been fenced off although it had been identified previous to the construction activities taking place and was not expected to be affected by the project works.
4. The following points are also noted:
 - 4.1 It is stated that, “all other graves sites ... which are in the vicinity of the works will be fenced to avoid similar incidents when continuing with construction.”
 - 4.2 However, the letter also refers to “the ones that are going to be discovered during the construction process falling within the construction parameters,” and not just the graves that were tampered with (±16).

- 4.3 It is requested that the permit previously issued to the archaeologist to exhume graves on this project (Permit no. 80/08/07/005/51), be extended to cover the exhuming and reburial of graves at the grave site under consideration.
5. Please note that SAHRA's response (below) is based on a site visit to the cemetery with Eskom staff as well as the information provided in your letter and the additional documents that were attached to the letter:

The original permit can be extended provided the following conditions are met:

- i) A written statement from the archaeologist is required which supports the proposed relocation of the ± 16 graves affected (based on the information gathered at the site visit).
 - ii) A further 30 day public consultation process must be undertaken to trace the descendants of the people buried in the cemetery (who are likely to be white and Afrikaans). This would include the usual notices in relevant newspapers as well as possible radio advertisements, research into the previous owners of the farm and oral interviews with the relevant local community. Consent forms of any family identified would have to be submitted to SAHRA.
 - iii) The permit extension will cover only the ± 16 known graves, plus possible additional unknown graves located within the perimeters of the cemetery. However, if a substantial number (10-15+) of unknown graves are identified/uncovered during the relocation of the ± 16 graves (or in the immediate area), it will be necessary for the archaeologist to consult with SAHRA's Burial Ground and Graves Unit (BGG) on whether those graves may be included in the permit extension or not.
6. Therefore, as soon as the statement from the archaeologist and evidence of the public consultation process has been provided to the BGG Unit, together with the consent of any family members identified, we will be able to officially extend the permit.
7. However, please note that SAHRA takes the issue of non-compliance with the protected status of graves that are 60 years or older extremely seriously. We are particularly concerned that, although this grave site was identified in advance of construction activities no attempt was made to mark or fence it off, thus resulting in its subsequent damage. We therefore require that Eskom/Kusile Power Station provide us with a written undertaking that every effort will be made on this project to comply with the heritage legislation and protect all identified graves of 60 years or older that are intended to remain *in situ*.

Yours sincerely

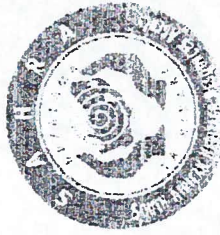


Jennifer Kitto
Cultural Heritage Officer
For MANAGER:
BURIAL GROUNDS AND GRAVES UNIT

Copy: Frank Teichert, National Flagship Institution; by fax: (021) 328-5173

APPENDIX E

**2012 PERMIT FOR EXHUMATION AND RELOCATION OF
GRAVES**



237 LYNNWOOD ROAD, BROOKLYN, 0181
SUITE NO.12, PRIVATE BAG XI MENLO PARK 0102
TEL: (012) 362 2535/1327 • FAX: (012) 362 1049

Date: 08 August 2012

Enquiries: Troy Phili
Email: tphili@sahra.org.za

Dr. M. Murimbika
Nzumbululo Holdings Pty Ltd
Vorna Valley
Midrand
1685

Dear Dr Murimbika

Attention: **Dr M. Murimbika**

RESCUE PERMIT NO: 12/07/001/86

By Fax: 086 544 2177

The permit for the rescue excavation of eight graves located on four sites accidentally discovered during the site clearance for the construction work, hereby applies. This permit also covers any additional less than ten graves that may be possibly discovered within the development area of Kusile Power Station, eMalahleni Municipality, Mpumalanga Province.

The permit is issued with an understanding that the applicant would be present during the rescue excavation and relocation process.

SAHRA wishes you all the success during the proposed exhumation and relocation process.

Yours Sincerely

Troy Phili

Manager: Burial Grounds and Graves Unit



SOUTH AFRICAN HERITAGE RESOURCES AGENCY
237 LYNNWOOD ROAD, BROOKLYN, 0181
SUITE NO.12, PRIVATE BAG XI MENLO PARK 0102
TEL: (012) 362 2535/1327 • FAX: (012) 362 1049

Issued under Section 36(3) of the National Heritage Resources Act, No.25 of 1999. Permission is hereby given to: Dr M. Murimbika (ID: 711127 5797 18 9) (Archaeologist) of: Nzumbululo Holdings Pty Ltd, Vorna Valley Midrand 1685 for the rescue exhumation and relocation of eight graves accidentally discovered during the course of development area at Kusile Power Station, eMalahleni Local Municipality, Mpumalanga Province. The following conditions apply:

1. If the permit holder is not present on the site at all times then SAHRA must be provided with the names and qualifications of the authorised representatives.
2. Adequate recording methods as specified in the Regulations and Guidelines pertaining to the National Heritage Resources Act must be used. Note that the position of the grave must be marked on a plan of the site, and the marked on a 1:50 000 maps.
3. Human remains must at all times be handled with respect and graves should not be disturbed except where unavoidable. The consultation procedures as indicated in the gazetted regulations of the National Heritage Resources Act (25 of 1999) must be observed as appropriate. The Policy 'what to do when graves are uncovered' section 3, must be observed as far as possible.
4. The exhumed human remains must be relocated for reburial at an identified municipal cemetery within the district municipality as indicated in the permit application.
5. A report on excavation must be submitted to SAHRA on or before 01 October 2013.
6. Reprints of all published papers, or copies of these or reports resulting from this work must be lodged with the relevant Provincial Heritage Resources Authority and SAHRA.
7. If a published report has not appeared within three years of lapsing of this permit, the report required in terms of the permit will be made available to researchers on request.
8. It is the responsibility of the permit holder to obtain permission from the landlord for each visit, and conditions of access imposed by the landlord must be observed.
9. It is the responsibility of the permit holder to fill in excavations and protect the sites during and after excavation to the satisfaction of the SAHRA and the landowner.
10. SAHRA shall not be liable for any losses, damages or injuries to persons or properties as results of any activities in connection with this permit.
11. SAHRA reserves the right to cancel this permit by notice to the permit holder.
12. This permit is subject to a general appeal and may be suspended should any appeal against the decisions be received by SAHRA within 14 days from the date of the permit. SAHRA reserves the right to hold this permit responsible for any costs or losses incurred in the event of a general appeal.

This permit is valid until 01 October 2013.
for CHIEF EXECUTIVE OFFICER
Date: 08 August 2012

Place: Pretoria.



B.G.G

**HERITAGE MITIGATION REPORT FOR EXCAVATION OF SUSPECTED
HUMAN BURIALS IDENTIFIED ACCIDENTALLY DURING
CONSTRUCTION WORK AT KUSILE POWER STATION IN EMALAHLENI
LOCAL MUNICIPALITY IN MPUMALANGA PROVINCE.**



Report Prepared for Eskom SOC Ltd. Kusile Power Station

Prepared by Nzumbululo HS

Ver. 1.0 July 2012

Ver. 1.1 Oct. 2012

DOCUMENT INFORMATION

TITLE:	HERITAGE MITIGATION REPORT FOR EXCAVATION OF SUSPECTED HUMAN BURIALS IDENTIFIED ACCIDENTALLY DURING CONSTRUCTION WORK AT KUSILE POWER STATION IN EMALAHLENI LOCAL MUNICIPALITY IN MPUMALANGA PROVINCE.		
PURPOSE OF SCOPE:	The purpose of this document is to document the document the mitigation process. The development is located in Mpumalanga Province.		
DOCUMENT VERIFICATION			
Signature:			Position:
Name:			Date: 17 September 2012
Consulted:	MushayiMudzielwana of Eskom Holdings SOC Limited to review the document. The document also went through Mafu Funeral Home (Nzumbululo Heritage Solutions) Quality Assurance Department for internal review.		
ENDORSED Client Project Responsible Officer to sign off.			
Signature	Position Project Officer		
Name: MushayiMudzielwana	Date: Ver. 1.1 July 2012-10-12 Ver.1.2 Oct. 2012		

NZUMBULULO RACIE TERMS

R	Responsible: the person actually produces the document
A	Accountable: the person who has to answer for quality assurances
C	Consulted: those who are consulted before the document is finalised
I	Informed: those who must be informed when the document is published
E	Endorsed: those who must approve the final document before it is published by the client

Issue	Date	Reason For Issue	Responsible	Accountable
1		Eskom Consideration and on-ward Approval of Heritage Agency	Mliilo T.	Dr. M. Murimbika

Citation:	DRAFT HERITAGE MITIGATION REPORT FOR THE EXCAVATION OF SUSPECTED HUMAN BURIALS IDENTIFIED ACCIDENTALLY DURING CONSTRUCTION WORK AT KUSILE POWER STATION IN EMALAHLENI LOCAL MUNICIPALITY; IN MPUMALANGA PROVINCE
Recipients:	Kusile Power Station Attention of: M. Mudzielwana Email: Mushayi.Mudzielwana@eskom.co.za
Mafu/Nzumbululo Reference	NEC3Term Service Contract (TSC3) No. 4600045687
Eskom's Reference	NEC3Term Service Contract (TSC3) No. 4600045687

CAVEAT

DRAFT HERITAGE MITIGATION REPORT FOR THE EXCAVATION OF SUSPECTED HUMAN BURIALS IDENTIFIED ACCIDENTALLY DURING CONSTRUCTION WORK AT KUSILE POWER STATION IN EMALAHLENI LOCAL MUNICIPALITY; IN MPUMALANGA PROVINCE.

Authorship: This Report has been prepared by Dr. M. Murimbika (Principal Investigator & Professional Archaeologist) assisted by Mr. T. Mlilo for Eskom (Kusile Power Station). The report is for the review of the South African Heritage Resources Agency (SAHRA).

Copyright: This report and the information it contains is subject to copyright and may not be copied in whole or part without written consent of Eskom, and Mafu's Funeral Home/Nzumbululo Heritage Solutions except that the Report may be reproduced by the Eskom and the and South African Heritage Resources Agencies to the extent that this is required for the purposes of the Archaeological and Heritage Management purposes in accordance with the National Heritage Resources Act, Act 25 of 1999

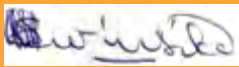
Geographic Co-ordinate Information: Geographic co-ordinates in this report were obtained using a hand-held Garmin Global Positioning System device. The manufacturer states that these devices are accurate to within +/- 5 m.

Maps: Maps included in this report use data extracted from the NTS Map and Google Earth Pro.

Disclaimer: The Author is not responsible for omissions and inconsistencies that may result from information not available at the time this report was prepared.

The survey was carried out within the context of tangible and intangible cultural heritage resources as defined by the SAHRA Regulations and Guidelines as to the authorisation proposed exhumation and reburial of graves affected by the power station development (Kusile Power Station).

Signed by Principle Investigator:



McEdward Murimbika (Ph.D.),
September 2012

ACKNOWLEDGEMENTS

The author acknowledges the assistance of Eskom (Kusile Power Station) for the provision of maps of affected areas and potential custodians.

1. MANAGEMENT SUMMARY

Mafu's Funeral Home is contracted by Eskom SOC Limited Kusile Power Station to render rescue and grave relocation services for the Kusile Power Station Development. During current construction activities, suspected human graves and burial features were accidentally discovered during site clearance work on construction site for the development of an ash dump at the Kusile Power Station in eMalahleni Local Municipality in Mpumalanga Province. Mafu's Funeral Home, in collaboration with Nzumbululo Heritage Solutions, we called in to assess the site and to conduct heritage mitigation and rescue exercise for the affected sites. A preliminary Status Quo study by Nzumbululo at the affected site confirmed eight (8) oval-shaped stone cairns, characteristic of traditional graves. By their form, orientation and distribution, the stone cairns resembled traditional graves and as such in line with heritage legislation and regulation, the construction project managers suspended work on affected site pending the outcome of a full heritage assessment of the status of the site. Nzumbululo carried out social consultations with the Affected and Interested Parties (A&IPs) for the project. Some community members who were relocated from the area prior to the Kusile Power Station development were traced and consulted on the proposed graves mitigation exercise. However, none of the known community members confirmed knowledge of existence of the suspected graves nor laid any custodianship claim.

Consultations and engagements with the developer (Eskom Kusile Power Station management), local authorities and other A&IPs, it was resolved that the suspected graves should be investigated, rescued and be relocated to Phola Cemetery. A graves screening exercise was conducted and the project archaeologist concluded that the oval stone cairns were in form and nature most probably older than 60 years and of unknown origin. This meant that these graves fell under the jurisdiction of the National Heritage Act 25 of 1999. In line with the said legislation, Nzumbululo applied for and obtained an urgent SAHRA Rescue Permit [Permit Number 12/07/001/86] for eight (8) suspected graves.

The test excavations and the full excavation of the entire stone cairns did not yield any biological human remains. The excavations did not recover any possible grave goods. Each stone cairn site was excavated in layers in order to determine any previous ground surface disturbance. It was concluded that the sites were either symbolic traditional ritual burials or

if there were human remains previously, they were destroyed over time due to soil^v chemical degradation in which case no bio-remains were preserved. Given the undisturbed nature of the ground surface below the stone cairns, it was unlikely that there human remains were ever physically buried on these sites. The archaeologist concluded that the former scenario was most like the case. The following sections of the report provide the results of the social consultancy and excavation exercise that were carried out in line with the relevant permits and applicable regulations.

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3. ABBREVIATIONS

AIA	Archaeological Impact Assessment
HIA	Heritage Impact Assessment
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
Nzumbululo	Nzumbululo Heritage Solutions (South Africa)
EMP	Environmental Management Plan
NHRA	National Heritage Resources Act, Act 25 of 1999.
EO / ECO	(Environmental Officer/ Environmental Control Officer)
SAHRA	South African Heritage Resources Agency

4. DEFINITIONS

Archaeological Material remains resulting from human activities, which are in a state of disuse and are in, or on, land and which are older than 100 years, including artefacts, human and hominid remains, and artificial features and structures.

Burial site the location of any human grave or remains that have been interred, cremated or otherwise placed, and include ossuaries, single burials, multiple burials; rock cairns; cave or cache burials etc. not situated within a cemetery.

Burial Site which is defined as: a place outside a recognized cemetery where the remains of a cultural ancestor of indigenous people have been interred, or otherwise placed."

Chance Finds Archaeological artefacts, features, structures or historical cultural remains such as human burials that are found accidentally in context previously not identified during cultural

heritage scoping, screening and assessment studies. Such finds are usually found during earth moving activities such as water pipeline trench excavations.

Cultural Heritage Resources Same as Heritage Resources as defined and used in the South African Heritage Resources Act (Act No. 25 of 1999). Refer to physical cultural properties such as archaeological and palaeontological sites; historic and prehistoric places, buildings, structures and material remains; cultural sites such as places of ritual or religious importance and their associated materials; burial sites or graves and their associated materials; geological or natural features of cultural importance or scientific significance. Cultural Heritage Resources also include intangible resources such as religion

practices, ritual ceremonies, oral histories, memories and indigenous knowledge.

Cultural Significance The complexities of what makes a place, materials or intangible resources of value to society or part of, customarily assessed in terms of aesthetic, historical, scientific/research and social values.

EO or ECO (Environmental Officer/ Environmental Control Officer) is Eskom official or Agency responsible for the administration of the land on which the site is located.

Grave A place of interment (variably referred to as burial), including the contents, headstone or other marker of such a place, and any other structure on or associated with such place. A grave may occur in isolation or in association with others where upon it is referred to as being situated in a cemetery or burial ground.

Grave offering any object or objects associated with the human remains which may reflect the religious practices, customs or belief system of the interred.

Historic Material remains resulting from human activities, which are younger than 100 years, but no longer in use, including artefacts, human remains and artificial features and structures.

Historic under the NH Resources Act this generally means something older than 60 years.

Human remains mean the remains of a dead human body and include partial skeletons, bones, cremated remains and complete human bodies that are found outside a recognized cemetery" (adapted from NHR Act)

In Situ material Material culture and surrounding deposits in their original location and context, for example an archaeological site that has not been disturbed by farming.

Material culture Buildings, structure, features, tools and other artefacts that constitute the remains from past societies.

Recognized cemetery a defined area of land that is set aside for the burial of human bodies.

Representative means a descendant of the interred or of the person whose remains are found, or where no descendant survives or is identified, an official representative of the appropriate custodians of the burial site or the closest culturally affiliated group, religious denomination, military or authority as evidenced by the location or mode of burial. Where no representative can be determined the Archaeologist shall act as the representative on unclaimed or unknown burials and the EO at Kusile at the discretion and with the consent of the SAHRA, the custodian representative group.

Site A distinct spatial cluster of artefacts, structures, organic and environmental remains, as residues of past human activity.

Site disposition agreement means a written agreement to be reached between the EO and the representative of the interred regarding the disposition of the remains, including any disinterment and reinterment, and management plan management plan means a plan to identify the roles of the representative, Archaeologist and land owner or manager respecting the care and protection of the site, including a consideration of site records, site access, and ways to protect a site from disturbance until the proper exhumation, relocation and reburial is completed

1. INTRODUCTION

There are construction activities currently underway at the Kusile Power Station in Nkangala District Municipality in Mpumalanga Province. During construction work on portion of the development site earmarked for ash dump installation, four suspected burial sites were accidentally discovered. In line with the project EMP and applicable heritage legislation, the Eskom site management authority at Kusile Power Station suspended work on affected sites and called in the professional archaeologists from the contracted service provider, Mafu Funerals. The contractor works in association with Nzumbululo Heritage Solutions, specialist's heritage manager, who initiated the process to verify the suspected burials.

The site survey was undertaken on the 2nd of July and 2nd August 2012 and confirmed the high probability of the identified stone cairns being traditional graves and burials sites. A total of eight potential graves were identified on the direct path of the development. The heritage specialists concluded by recommending that all suspected graves be considered for protection or relocation to allow the project to proceed. Mafu Funeral Home in collaboration with Nzumbululo Heritage Solutions (South Africa) initiated the relevant procedures for Phase 2 heritage mitigation process (also see Appendixes 1 -3).

The Affected and Interested Parties (A&IPs) were consulted. As such a rescue and relocation plan was mooted and implemented. The heritage mitigation exercise involved, survey, investigation and exhumation with the objective to relocate the graves in compliance with relevant legislations including the Section 36 of the National Heritage Resources Act (Act No 25 of 1999) and the Human Tissue Act (1983). This report provides the details about this mitigation exercise.

2. HERITAGE LEGISLATION

All burial grounds and individual graves are protected by law irrespective of their age. Furthermore, there are regulations, which control handling and management of human remains and grave goods. In terms of the Section 36 (3) of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) 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 equipment, or any equipment, which assists in the detection or recovery of metals.

Therefore, in addition to the formal protection of culturally significance graves, all graves which are older than 60 years and which are not already located in a cemetery (such as ancestral graves in rural areas), are protected. Communities, which have an interest in the graves, must be consulted before any disturbance can take place. The graves of victims of conflict and those associated with the liberation struggle will have to be included, cared for, protected and memorials erected in their honour where practical. Regarding graves and burial grounds, the NHRA distinguishes between the following:

- Ancestral graves
- Royal graves and graves of traditional leaders
- Graves of victims of conflict
- Graves of individuals designated by the Minister by notice in the Gazette
- Historical graves and cemeteries
- Other human remains, which are not covered in terms of the Human Tissue Act, 1983 (Act No.65 of 1983).

All human remains are also protected under the Human Tissue Act, 1983 (Act No.65 of 1983). In addition, Municipal Ordinances provide for both burial grounds/cemetery and gravesites within certain localities.

2.1. PREVIOUSLY UNIDENTIFIED BURIAL SITES/GRAVES

Phase 1 HIA study at Kusile was conducted during Environmental Impact Assess process in 2006 for the proposed development of the Kusile Power Station. The study indicated that the affected project area has several listed burial sites (see Plate 1). The developer also conducted a community relocation program that saw all known graves relocated along the relocation of communities that resided on site and immediate vicinity. However, given the long prehistory and contemporary of human occupation of the affected area, there was a possibility that previously unknown burials may be discovered. There

were standing recommendations that during the power station development, should burial sites outside the NHRA be accidentally found, they must be reported to the nearest police station to ascertain whether or not a crime has been committed. If there is no evidence for a crime having been committed, and if the person cannot be identified so that their relatives can be contacted, the remains must be kept in an institution where certain conditions are fulfilled. These conditions are laid down in the Human Tissue Act (Act No. 65 of 1983). In contexts where the local traditional authorities give their consent to the unknown remains to be re-buried in their area, such re-interment may be conducted under the same regulations as would apply for known human remains.



Plate 1: View of Burial Ground Site KSA 3 with one grave before the exhumation.

3. SOCIAL CONSULTANCY

The heritage management team conducted on the ground consultations with the Eskom project management team and known community members who were relocated from the affected site. In line with applicable regulated procedures, social consultations were conducted to identify the legal custodians of the suspected graves. The research team has been liaising with Eskom's Lands and Development Department contact person (G.Ntuli) to trace families that were relocated from the affected project area. The team also consulted KobusMasilela a former resident of Kusile area. The consultations did not confirm any link between the relocated communities and the suspected graves.



Plate 2: View of On-site legal notices posted at Phola Cemetery.

4. RECOMMENDED MITIGATION MEASURES

The suspected burial sites were marked by oval-shaped stone cairns, consistent with traditional African burial sites or graves. All these sites were within and on the direct path of the ash dump construction activities. None of them showed any sign of recent or regular maintenance. Once all consultations were done, the Nzumbululo team proceeded to make other legal preparations for the relocation programme. Nzumbululo archaeologists applied for and obtained a Graves and Burial ground Rescue permit from SAHRA ([Permit Number 12/07/001/86] issued for the period 08-08 2012-01-10 2013) to exhume and relocate the affected graves. The project management authorities were to follow any indicated wishes of local community with regards to the procedure and protocols during the reburial ceremony as enshrined in section 36 of the National Heritage Resources Act No 25 of 1999. The eight identified possible gravesites were documented. The survey exercise confirmed that the graves met the general location, form, shape and orientation of traditional graves.

5. THE EXCAVATION AND EXHUMATION

Once Nzumbululo received the rescue permit from SAHRA, appropriate logistical arrangements were made with Mafu Funeral Home who had the responsibility of conducting the exhumation, relocation and reburial of all the graves under the guidance of the Nzumbululo Principal Investigator permit holder to ensure compliance with the permit conditions. On the 13th of August Mafu Funeral Home team began the exhumation of the graves. Nzumbululo archaeologists and Eskom project managers and supervisors monitored the exercise. Mafu Funeral Home set up standard equipment and procedures for the exhumation and reburial exercise. The process was open to stakeholders to inspect the proceedings. Two exhumation teams were assigned one grave at a time. The excavation exercise took two days, the first excavation was conducted on the 13th of August and the second on the 20th of August instant. The exhumation started by carefully removing stones and searching for grave goods before the actual exhumation. The excavation was done layer by layer to ensure that no grave goods or associated materials were damaged or disturbed during the process. On the 13th of August 2012 KSA 1 graves located within Kobus Masilela's abandoned homestead were excavated. All the three suspected graves KSA 1, 2 and 3 were excavated and did not yield any skeletal remains or grave goods.

Further five suspected graves were excavated on the 20th of August at the three sites of KSA 2, 3 and 4. The suspected gravesites were excavated up to a depth of about 1m. However, none of these sites yielded any human remains or burial goods. In all the cases the soils were compact signifying a natural soil profile which was an indication that there was no previous underground disturbance as would be expected in historic or prehistoric burial sites.

As such it was concluded that the suspected stone cairns were not physical human burials. Nzumbululo archaeologists, Eskom environmentalists and project supervisors continuously monitored the exercise when all the eight suspected burial sites were excavated. For compliance and confirmation purposes, Eskom representatives were requested to verify the findings before any of the excavated sites were backfilled. The exhumation process test-excavated all eight stone cairns and confirmed beyond doubt that there were no physical human remains associated with any of the cairns. The excavation was crucial to ensure that possible human remains were not going to be accidentally destroyed during the project construction



Figure 1: Aerial view of locations of suspected burials sites situated on path of ash dump development at Kusile Station.

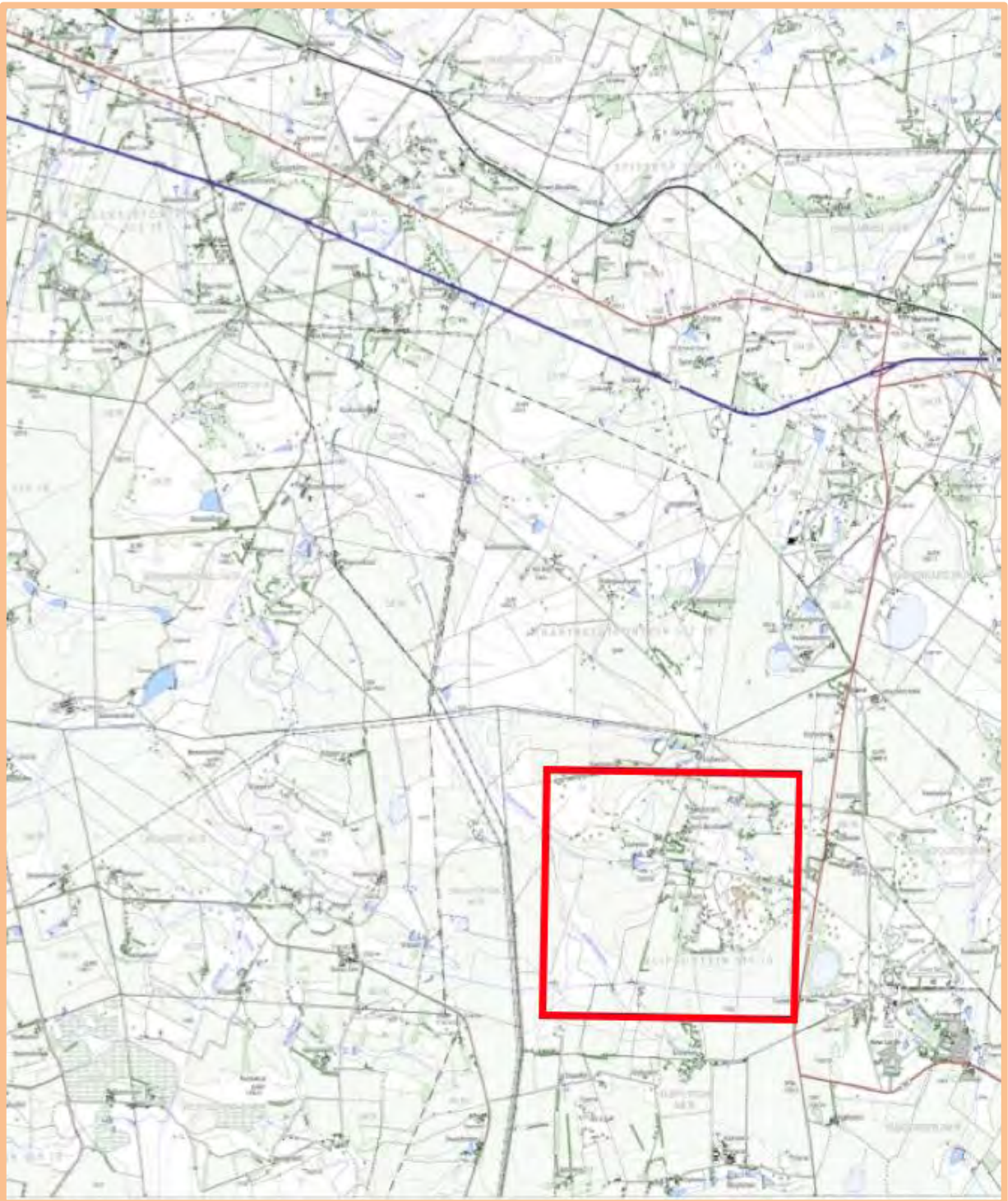


Figure 2: Affected burials at Kusile Power Station. (Topographic Map Ref. 2528DD).

5.1. REBURIAL EXERCISE

No reburial was conducted since it was proven through the test excavations that the suspected stone cairns were not physical human burials or none of them yielded physical cultural materials or biological human remains.

Table 1: Summary of skeletal remains and grave goods recovered from each grave

Grave name and number	Skeletal remains	Grave goods	Coordinates
KSA1	0	0	S25° 55' 55.3" E28° 53' 51.3".
KSA2	0	0	S25° 56' 04.9" E28° 53' 51.6"
KSA 3	0	0	S25° 56' 04.9" E28° 53' 53.4"
KSA4	0	0	S25° 56' 04.9" E28° 54' 32.6".
KSA5	0	0	S25° 56' 04.9" E28° 54' 38.4".
KSA 6	0	0	S25° 56' 04.9" E28° 54' 42.1".
KSA 7	0	0	S25° 56' 04.9" E28° 54' 51.0".
KSA8	0	0	S25° 56' 04.9" E28° 54' 33.3".



Plate 3& 3: View of Mafu Funeral Home team A excavating grave number 8 (L) and Team B working on grave number 4.



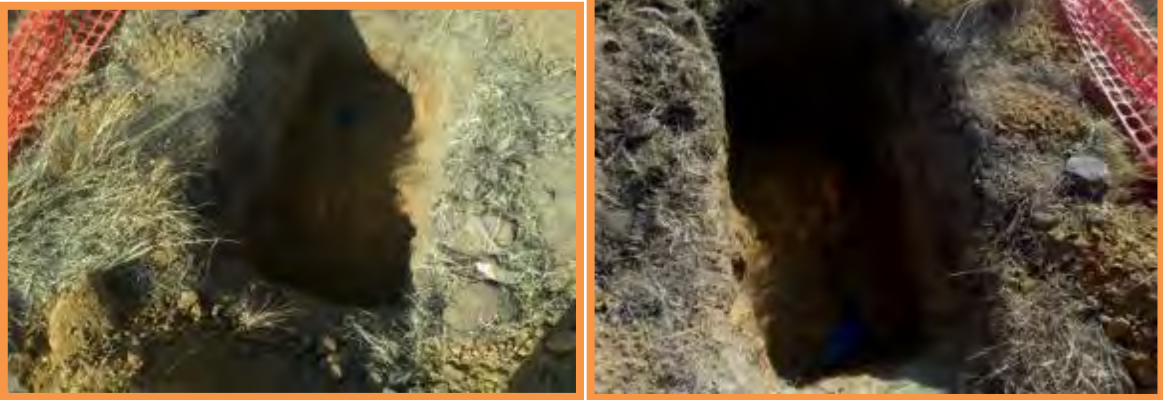
Plates 4 & 5: View of empty pits for burial site 8.



Plates 6 & 7: View of empty pits dug on suspected burial site 7.



Plates 8 and 9: View of empty pit excavated on suspected grave number 4 and excavated site on suspected grave number 5



Plates 10 and 11: View of pit dug on suspected grave number 6.



Plates 12 and 13: View of Eskom supervisor inspecting excavated pits.



Plates 14: View of site KSA 4 after backfilling and rehabilitation.

6. DISCUSSION

The project archaeologist concluded that there were no biological human remains that were associated with all eight identified stone cairns. Although the sites physically resembled traditional African, burial and gravesites, none of them yield any material culture usually associated with human burials. The absence of any biological human remains could be explained in three possible ways. First, the sites were stone piles created by previous occupants during some activities that required stones to be cleared off the surface. Second the stone piles were burial site markers where human remains may have been destroyed by natural soil chemical degradation process. Third, the stone cairns were traditional symbolic burials where no biological human remains were available for burial and the affected community conducted ritual burials by creating symbolic graves where rituals could be conducted in honour of the dead. In such cases, the deceased's remains may have been destroyed in a fire or may have died by being washed away by a river, or any other circumstances where the human remains could not be recovered for burial. All the three scenarios are a possibility in this case. Nonetheless, test excavations confirmed beyond doubt that there were no biological or cultural burial materials remains that were associated with any of the eight sites. As such, no reburial exercise was conducted. The current development may be recommended to proceed as planned on the affected site.

7. SUMMARY RECOMMENDATIONS AND CONCLUDING REMARKS

Human remains and graves are sensitive and are usually a difficult matter to deal with, especially if it involves exhumation and reburial to open space for development work like mining, road and railway construction as in the case of the Kusile graves. Such a challenge calls for a participatory approach where all stakeholders are involved from the conceptualization of the project to the implementation of the project. Everything possible and necessary was done in preparation of this project. The successful test excavation of the suspected graves was a result of a detailed, tedious and long exercise involving different interested parties. At the end, the project was successfully completed.

Nzumbululo team would like to acknowledge and thank all members of the Kusile Execution Team, local authorities and members who participated and facilitated this exercise without whose assistance the program would not have succeeded.

The Nzumbululo team would like to single out the Kusile Execution Team for facilitating the entire processes. We would like to single out Kobus Masilela and family for their active involvement in the

exercise; they sometimes left their duties to accompany us to the site. We would like to thank Mr Peter De Klerk [Eskom project supervisor] for tirelessly working with all parties throughout the project. Special thanks go to MushayiMudzielwana for coordinating the entire process.

8. BIBLIOGRAPHY

- BICKFORD, A AND SULLIVAN, S. 1977. "Assessing the research significance of historic sites" in S Sullivan and s. Bowdler (eds), Site Surveys and Significance assessment in Australian Archaeology. Canberra: ANU.
- BURKE, H. And SMITH, C. 2004. The archaeologist's field handbook. Allen and Unwin. Australia.
- Hammond-Tooke, D. 1993. The roots of Black South Africa. Johannesburg: Jonathan Ball Publishers.
- HUMAN TISSUE ACT, 1983 (Act No. 65 of 1983)
- HUFFMAN, TN. 2007. Handbook to the Iron Age: The archaeology of pre-colonial farming societies of Southern Africa. Pietermaritzburg: Univ. of KwaZulu-Natal Press.
- NATIONAL HERITAGE RESOURCES ACT (No. 25 of 1999).
- NATIONAL HERITAGE RESOURCES ACT (No 25 of 1999). 2002. Regulations.
- SAHRA. 2002. General Introduction to surveys, impact assessments and management plans.
- SAHRA. 2002. General guidelines to Archaeological Permitting Policy.
- SAHRA. What to do when Graves are uncovered accidentally

APPENDIX 1: BURIAL RELOCATION PROJECT METHOD STATEMENT

1. Discovery and Notification

If human burial remains are accidentally discovered during development at Kusile Power Station site the following guidelines apply:

- a) The finder will immediately cease any further activity at the site and report the site to the Eskom ECO. The ECO will notify the heritage expert (Archaeologist) and authorities.

2. Site Protection and Identification

- a) The ECO and the Archaeologist and the permitting authority shall take reasonable measures to protect the site from environmental factors and any form of unauthorized interference or disturbance.
- b) Based on the evidence reported at the scene, the Archaeologist will investigate the site and make a preliminary determination as to the nature of the remains.
- c) Existing site inventories, land use records, and community, and authorities, should be consulted as soon as possible about possible identification of the remains. Some examination of the site/remains may be required to determine its cultural affiliation and age, and whether or not the site is modern or historic.
- d) The Archaeologist shall apply and acquire the relevant exhumation and rescue Permit from SAHRA Graves and Burial Unit.

3. Investigation and Reporting

- a) The ECO will direct the Archaeologist to carry out an investigation under any required permits, in consultation with the affected custodians (if available) and other affected parties, to make an initial report citing, if possible, the cultural affiliation of the human remains.
- b) Within a reasonable time to be specified by the EO, and the affected parties, the Archaeologist shall deliver a written report and any notification not yet made, to:
 - the EO, and the affected custodians if appropriate;
 - the SAHRA;
 - the permitting authority of SAHRA Graves and Burials Unit
 - any other representative of the interred, if known.
- c) The written report shall attempt to identify:
 - the representative group of the interred;

- the geographic boundaries of the site;
- the grave offerings or other heritage resources that may be associated with the remains or the site.

d) The Archaeologist may, with the agreement of the proper authority and the representative of the interred, if known, remove all or part of the human remains for temporary custody where the remains may otherwise be at risk prior to their re-burial at a safe site.

3.1 Reporting

a) If the site is determined to be a contemporary burial site, the appropriate representative will be contacted in writing to provide further direction on the disposition of the remains.

b) Eskom contractors carrying out authorised activity where a historic or archaeological burial site is discovered can continue that activity with the consent of the EO, where appropriate. The activity must stay 150 meters away from the grave while further arrangements are made by the Archaeologist to rescue and relocate the remains to a safe cemetery.

d) The Archaeologist may publish notice of the discovery in a newspaper or other public notice seeking information on the remains and alerting members of the public about the impending relocation of the remains to a predetermined formal cemetery or burial ground.

4. Site Disposition Agreement (Management Plan)

4.1 When the site or remains are identified

Site disposition agreements shall determine such things as:

1. the interim care of the human remains;
2. the scope and extent of analysis to be performed on the human remains, if any;
3. the exact location of the place where the human remains are to remain or to be interred;
4. the style and manner of disinterment, if applicable;
5. the style and manner of reinterment, if applicable;
6. the time period in which disinterment and reinterment is to take place;
7. the procedures relating to, and the final disposition of any grave offerings discovered with the human remains and any additional analysis of them;
8. the provision for future maintenance of the cemetery or site where the human remains are to be located;
9. access to the site and ways to prevent disturbance;
10. any other issue agreed upon.

4.2 When no representative is identified or no disposition is specified:

If disposition is not specified by a representative, or the remains are not claimed or no affiliation is established within a reasonable time, the Archaeologist shall with the necessary SAHRA permits and approvals provide for the following disposition:

- a) cover and leave the remains where they were found and have the site recorded as a burial site/heritage site, if on land suitable for a burial site; or
- b) have the remains disinterred and reinterred in the nearest appropriate cemetery; or
- c) remove the remains from the site for analysis and may have them reinterred in a recognized cemetery or;
- d) may act as the temporary repository of the remains until they are re-located for reburial at designated cemetery.

(Where the remains were found on Kusile Site but are not historic or archaeological remains, the Archaeologist may remove the remains in consultation with the Eskom EO and the affected parties.)

5. Arbitration

- a) If no disposition or reburial agreement or management plan is reached within a reasonable time the matter may be referred to arbitration for settlement.

6. Records

- a) A record of the site and a report of the discovery and disposition plan shall be kept by the Archaeologist, for future reference to protect the site or identify the re-burial site.
- b) Access to information about discovered sites will be addressed in any site management plan developed under these guidelines, and will be protected under the Access to Information and Protection of Privacy legislations, and the NHRA.

7. Burial Relocation & Reburial

- Burial Relocation involves the identification of each grave and the manual excavation of the interred remains. Human remains, coffin features, and grave goods are exposed, their positions in the grave are carefully recorded, and maps and photographs of each grave are made following standard archaeological recovery techniques.
- Once excavation and examination are completed, the interred along with their grave goods are inventoried and carefully wrapped in acid-free tissue. Human remains are arranged anatomically and all materials are placed in specially designed containers, specified by the laws and regulations governed by the state where the re-interment location has been determined. The goal of re-interment is to restore as much of the original mortuary meaning as possible.
- Burial relocation is extremely culturally sensitive and Eskom and contractors/service provider staff

understands that the utmost respect must be shown to the interred, as well as the descendant communities. We advocate respectful involvement of descendent communities in the relocation process, whenever possible, and have an excellent reputation for communicating with descendant groups.

- Mafu and Nzumbululo Heritage Solutions has extensive experience conducting cemetery relocations for government agencies, other cultural resource firms, developers and private citizens in South Africa. We assure our clients as well as the descendent communities that the greatest amount of respect and care is taken when excavating and relocating these cemeteries.

8. Risks

1. Legal Risks

Eskom is exposed to a myriad of legal requirements on the local and national level when having to relocate burials. Burial relocation can infringe a number of human rights enshrined in the Constitution and legislations such the NHRA. If not carried out properly, grave relocation can impact the right to burial and dignity. Community opposition may result in protests and delays on development.

Mitigation

When human remains are identified during the development, all measures must be taken to ensure the law an applicable regulations are enforced including mandatory public notifications.

2. Reputational risk

Relocation of human burials in particular also brings with it high risks for the Eskom's reputation which is exacerbated by the instantaneous spread of news across the world via the internet. Lack of proper planning and management may lead to negative consequences which in turn may affect the Eskom's reputation.

Mitigation

Human remains identified in development contexts should be handled with utter most care to ensure the exhumation and relocation takes place in accordance with the law.

3. Operational risks

Legal action arising from the inadequate planning and implementation of burial relocation may see the Eskom have its permission to construct revoked via preliminary injunctions.

Operational risks may also arise from community protests directly. Cases of community opposition and protests have disrupted work for days and weeks, involving, for example, the blockage of

construction sites and vital roads and infrastructure. Construction may be delayed or disrupted.

Protests may be violent and impact on the health and safety of Eskom staff perpetuating work delays in construction and operations. Eskom facilities, machinery, housing and other assets may be damaged and rendered unusable.

Mitigation

Kusile Station site should have adequate security. All burial related matters should be held by the professional heritage team and reburial specialists. Human remains discovered during development should be reported to the ECO urgently and the Archaeologist notified in time to avoid any delays with the remains exposed on site. All exhumations and reburial exercises should be handled or scheduled in a manner that does not require the remains to be held elsewhere temporarily.

4. Financial risks

Legal, reputational and operational risks may also lead other financial costs to the project. Moreover, costs may arise from legal action or disruptions in operations and work delays. Additional costs may be incurred when public protests require work to stop on site as a result of human remains discovery on site.

5. Human Remains Handling Risks

Exhumation, handling, transportation and reburial of human remains also poses a threat to public health if not handled to strict protocols. This risk is particularly highest in contemporary burials.

6. General Precautions

The following precautionary measures can help employers and employees remain safe and healthy while handling human remains. The transportation, handling and storage of human remains must also be carried out in a manner that preserves public safety and maintains the dignity of the deceased person.

Personal Protective Equipment

Hand Protection. When handling potentially infectious materials, use appropriate barrier protection including latex and nitrile gloves (powder-free latex gloves with reduced latex protein content can help avoid reaction to latex allergies). These gloves can be worn under heavy-duty gloves which will, in turn, protect the wearer from cuts, puncture wounds, or other injuries that break the skin (caused by sharp environmental debris or bone fragments). A combination of a cut-proof inner layer glove and a latex or similar outer layer is preferable.

Foot Protection. Footwear should similarly protect against sharp debris.

Hygiene

- Wash your hands with soap and water or with an alcohol-based hand cleaner immediately after you remove your gloves.
- Give prompt care to any wounds sustained during work with human remains, including immediate cleansing with soap and clean water. Workers should also be vaccinated against hepatitis B, and get a tetanus booster if indicated.
- Ensure disinfection of vehicles and equipment.

7. Summary

- In general, personnel involved in the recovery and handling of human remains from a burial site can limit risk from potential exposure by following the guidelines below.
- Vinyl or Latex gloves should be worn.
- Masks and protective eyewear or face shields should be worn during procedures that are likely to generate fluids to prevent exposure of mucous membranes of the mouth, nose, and eyes.
- Gowns or aprons should be worn during procedures that are likely to generate splashes of blood or other body fluids.
- Hands and other skin surfaces should be washed immediately and thoroughly if contaminated with blood or other body fluids. Hands should be washed immediately after gloves are removed.
- Ensure universal precautions for blood and body fluids.
- Ensure use of body bags.
- Ensure disinfection of vehicles and equipment.
- Bodies do not need to be disinfected before disposal (except in case of cholera).
- Vaccinate workers against hepatitis B.

APPENDIX 2: HUMAN REMAINS AND BURIALS IN DEVELOPMENT CONTEXT

Developers, land use planners and professional specialist service providers often encounter difficult situations with regards to burial grounds, cemeteries and graves that may be encountered in development contexts. This may be before or during a development project. There are different procedures that need to be followed when a development is considered on an area that will impact upon or destroy existing burial grounds, cemeteries or individual graves. In contexts where human remains are accidentally found during development work such as road construction or building construction, there are different sets of intervention regulations that should be instigated. This brief is an attempt to highlight the relevant regulations with emphasis on procedures to be followed when burial grounds, cemeteries and graves are found in development planning and development work contexts. The applicable regulations operate within the national heritage and local government legislations and ordinances passed in this regard. These guidelines assist you to follow the legal pathway.

1. First, establish the context of the burial:

A. Are the remains less than 60 years old? If so, they may be subject to provisions of the Human Tissue Act, Cemeteries Ordinance(s) and to local, regional, or municipal regulations, which vary from place to place. The finding of such remains must be reported to the police but are not automatically protected by the National Heritage Resources Act (Act 25 of 1999).

B. Is this the grave of a victim of conflict? If so, it is protected by the National Heritage Resources Act (Section 36(3a)). (Relevant extracts from the Act and Regulations are included below).

C. Is it a grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a

local authority? If so, it is protected by the National Heritage Resources Act (Section 36(3b)).

D. Are the human or hominid remains older than 100 years? If so, they are protected by the National Heritage Resources Act (Section 35(4), see also definition of "archaeological" in Section 2).

2. Second, refer to the terms of the National Heritage Resources Act most appropriate to the situation, or to other Acts and Ordinances:

A. Human remains that are NOT protected in terms of the National Heritage Resources Act (i.e. less than 60 years old and not a grave of a victim of conflict or of cultural significance) are subject to provisions of the Human Tissue Act and to local and regional regulations, for example Cemeteries Ordinances applicable in different Provincial and local Authorities.

B). All finds of human remains must be reported to the nearest police station to ascertain whether or not a crime has been committed.

C). If there is no evidence for a crime having been committed, and if the person cannot be identified so that their relatives can be contacted, the remains may be kept in an institution where certain conditions are fulfilled. These conditions are laid down in the Human Tissue Act (Act No. 65 of 1983). In contexts where the local traditional authorities given their consent to the unknown remains to be re-buried in their area, such re-interment may be conducted under the same regulations as would apply for known human remains.

3. In the event that a graveyard is to be moved or developed for another purpose, it is incumbent on the local authority to publish a list of the names of all the persons buried in the graveyard if there are gravestones or simply a notification that graves in the relevant graveyard are to be disturbed. Such a list would have to be compiled from the names on the gravestones or from parish or other records. The published list would call on the relatives of the deceased to react within a certain period to claim the remains for re-interment. If the relatives do not react to the advertisement, the remains

may be re-interred at the discretion of the local authority.

A. However, it is the responsibility of the developer to ensure that none of the affected graves within the cemetery are burials of victims of conflict. The applicant is also required in line with the heritage legislation to verify that the graves have no social significance to the local communities.

B. It is illegal in terms of the Human Tissue Act for individuals to keep human remains, even if they have a permit, and even if the material was found on their own land.

4. The Exhumations Ordinance (Ordinance No. 12 of 1980 and as amended) is also relevant. Its purpose is "To prohibit the desecration, destruction and damaging of graves in cemeteries and receptacles containing bodies; to regulate the exhumation, disturbance, removal and re-interment of bodies, and to provide for matters incidental thereto". This ordinance is supplemented and support by local authorities regulations, municipality by-laws and ordinances.

DEFINITIONS AND APPLICABLE REGULATIONS

1). A "Cemetery" is defined as any land, whether public or private, containing one or more graves.

2). A "grave" includes "(a) any place, whether wholly or partly above or below the level of ground and whether public or private, in which a body is permanently interred or intended to be permanently interred, whether in a coffin or other receptacle or not, and (b) any monument, tombstone, cross, inscription, rail, fence, chain, erection or other structure of whatsoever nature forming part of or appurtenant to a grave.

3). No person shall desecrate, destroy or damage any grave in a cemetery, or any coffin or urn without written approval of the Administrator.

4). No person shall exhume, disturb, remove or re-inter anybody in a cemetery, or any coffin or urn without written approval of the Administrator.

5). Application must be made for such approval in writing, together with:

a). A statement of where the body is to be re-interred.

b). Why it is to be exhumed.

c). The methods proposed for exhumation.

d). Written permission from local authorities, nearest available relatives and their religious body owning or managing the cemetery, and where all such permission cannot be obtained, the application must give reasons why not.

6). The Administrator has the power to vary any conditions and to impose additional conditions.

7). Anyone found guilty and convicted is liable for a maximum fine of R200 and maximum prison sentence of six months.

5. Human remains from the graves of victims of conflict, or any burial ground or part thereof which contains such graves and any other graves that are deemed to be of cultural significance may not be destroyed, damaged, altered, exhumed or removed from their original positions without a permit from the National Heritage Resources Agency. They are administered by the Graves of Conflict Division at the SAHRA offices in Johannesburg.

"Victims of Conflict" are:

a). Those who died in this country as a result of any war or conflict but excluding those covered by the Commonwealth War Graves Act, 1992 (Act No. 8 of 1992).

b). Members of the forces of Great Britain and the former British Empire who died in active service before 4 August 1914.

c). Those who, during the Anglo Boer War (1899-1902) were removed from South Africa as prisoners and died outside South Africa, and,

d). Those people, as defined in the regulations, who died in the "liberation struggle" both within and outside South Africa.

6. Any burial that is older than 60 years, which is outside a formal cemetery administered by a local authority, is

protected in terms of Section 36(3b) of the National Heritage Resources Act. No person shall destroy damage, alter, exhume or remove from its original position, remove from its original site or export from the Republic any such grave without a permit from the SAHRA.

There are some important new considerations applicable to B & C (above).

SAHRA may, for various reasons, issue a permit to disturb a burial that is known to be a grave of conflict or older than 65 years, or to use, at a burial ground, equipment for excavation or the detection or the recovery of metals.

(Permit applications must be made on the official form Application for Permit: Burial Grounds and Graves available from SAHRA or provincial heritage resources authorities.) Before doing so, however, SAHRA must be satisfied that the applicant:

- a). Has made satisfactory arrangements for the exhumation and re- interment of the contents of such a grave at the cost of the applicant.
- b). Has made a concerted effort to contact and consult communities and individuals who by tradition have an interest in such a grave and,
- c). Has reached an agreement with these communities and individuals regarding the future of such a grave or burial ground.

PROCEDURE FOR CONSULTATION

The regulations in the schedule describe the procedure of consultation regarding the burial grounds and graves. These apply to anyone who intends to apply for a permit to destroy damage, alter, remove from its original position or otherwise disturb any grave or burial ground older than 60 years that is situated outside a formal cemetery administered by a local authority. The applicant must make a concerted effort to identify the descendants and family members of the persons buried in and/or any other person or community by tradition concerned with such grave or burial ground by:

- 1). Archival and documentary research regarding the origin of the grave or burial ground;

- 2). Direct consultation with local community— organizations and/or members;
- 3). The erection for at least 60 days of a notice at the grave or burial ground, displaying in all the official languages of the province concerned, information about the proposals affecting the site, the telephone number and address at which the applicant can be contacted by any interested person and the date by which contact must be made, which must be at least 7 days after the end of the period of erection of the notice; and
- 4). Advertising in the local press.

The applicant must keep records of the actions undertaken, including the names and contact details of all persons and organizations contacted and their response, and a copy of such records must be submitted to the provincial heritage resources authority with the application.

Unless otherwise agreed by the interested parties, the applicant is responsible for the cost of any remedial action required.

If the consultation fails to reach an agreement, the applicant must submit records of the consultation and the comments of all interested parties as part of the application to the provincial heritage resources authority.

In the case of a burial discovered by accident, the regulations state that when a grave is discovered accidentally in the course of development or other activity:

- a). SAHRA or the provincial heritage resources authority (or delegated representative) must, in co-operation with the Police, inspect the grave and decide whether it is likely to be older than 60 years or otherwise protected in terms of the Act; and whether any further graves exist in the vicinity.
- b). If the grave is likely to be so protected, no activity may be resumed in the immediate vicinity of the grave, without due investigation approved by SAHRA or the provincial heritage resources authority; and

c). SAHRA or the provincial heritage resources authority may at its discretion modify these provisions in order to expedite the satisfactory resolution of the matter.

d. Archaeological material, which includes human and hominid remains that are older than 100 years (see definition in section 2 of the Act), is protected by the National Heritage Resources Act (Section 35(4)), which states that no person may, without a permit issued by the responsible heritage resources authority - destroy, damage, excavate, alter or remove from its original site any archaeological or palaeontological material.

The implications are that anyone who has removed human remains of this description from the original site must have a permit to do so. If they do not have a permit, and if they are convicted of an offence in terms of the National Heritage Resources Act as a result, they must be liable to a maximum fine of R100 000 or five years imprisonment, or both.

TREAT HUMAN REMAINS WITH RESPECT

a). Every attempt should be made to conserve graves in situ. Graves should not be moved unless this is the only means of ensuring their conservation.

b). The removal of any grave or graveyard or the exhumation of any remains should be preceded by an historical and archaeological report and a complete recording of original location, layout, appearance and inscriptions by means of measured drawings and photographs. The report and recording should be placed in a permanent archive.

c). Where the site is to be re-used, it is essential that all human and other remains be properly exhumed and the site left completely clear.

d). Exhumations should be done under the supervision of an archaeologist, who would assist with the identification, classification, recording and preservation of the remains.

e). No buried artifacts should be removed from any protected grave or graveyard without the prior approval of SAHRA. All artifacts should be re-buried with the

remains with which they are associated. If this is not possible, proper arrangements should be made for the storage of such relics with the approval of SAHRA.

f). The remains from each grave should be placed in individual caskets or other suitable containers, permanently marked for identification.

g). The site, layout and design of the area for re-interment should take into account the history and culture associated with, and the design of, the original grave or graveyard.

h). Re-burials in mass graves and the use of common vaults are not recommended.

i). Remains from each grave should be re-buried individually and marked with the original grave markers and surrounds.

j). Grouping of graves, e.g. in families, should be retained in the new layout.

k). Material from the original grave or graveyard such as chains, kerbstones, railing and should be re-used at the new site wherever possible.

l). A plaque recording the origin of the graves should be erected at the site of re-burial.

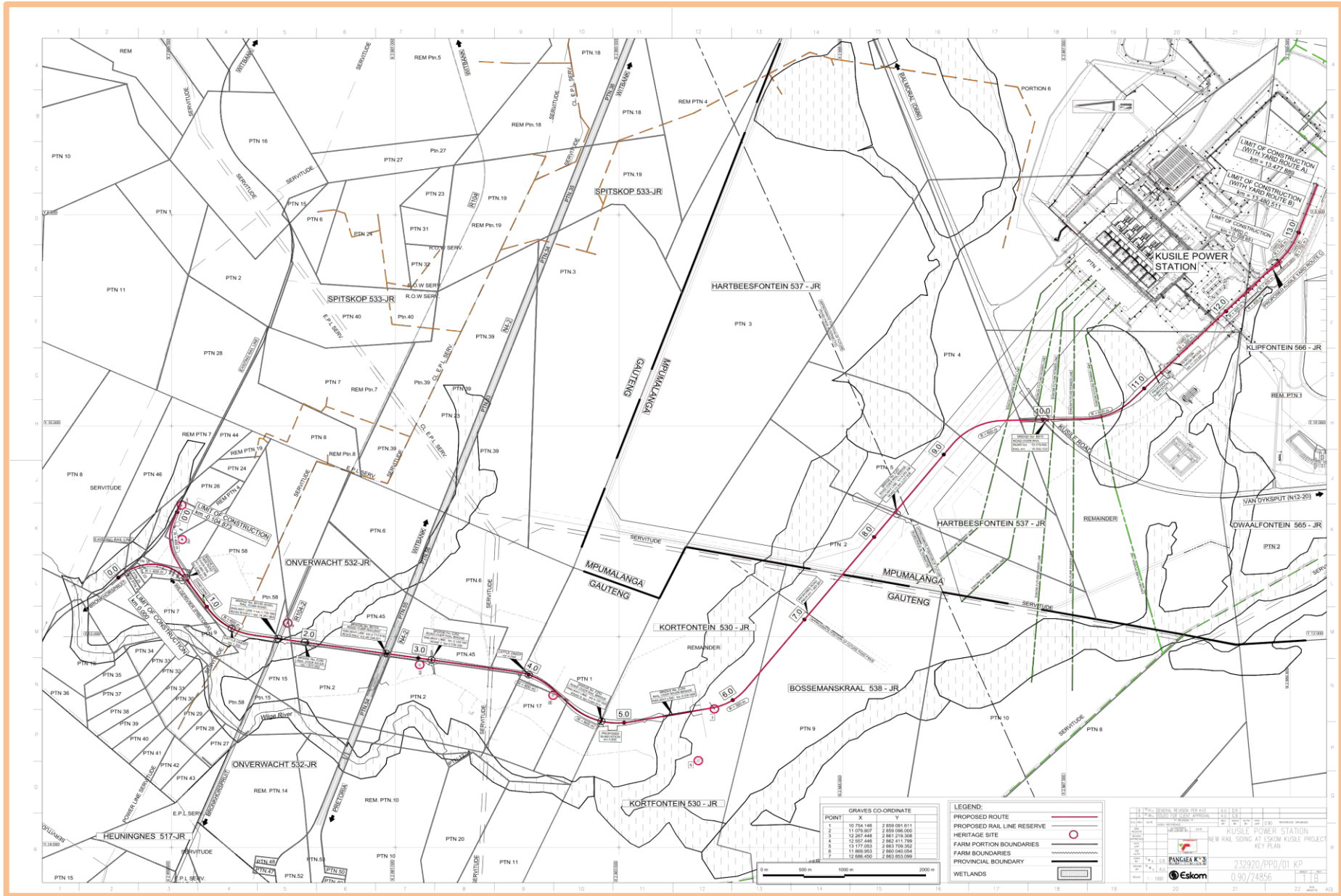
m). Individuals or groups related to the deceased who claim the return of human remains in museums and other institutions should be assisted to obtain documentary proof of their ancestry.

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APPENDIX 3: DEVELOPMENT LAYOUT MAP FOR KUSILE POWER STATION SITE AND ASSOCIATED INFRASTRUCTURE.



APPENDIX 4: COPY OF SAHRA BGG EXCAVATION PERMIT



237 LYNNWOOD ROAD, BROOKLYN, 0181
SUITE NO.12, PRIVATE BAG X1 MENLO PARK 0102
TEL: (012) 362 2535/1327 • FAX: (012) 362 1049



SOUTH AFRICAN HERITAGE RESOURCES AGENCY
237 LYNNWOOD ROAD, BROOKLYN, 0181
SUITE NO.12, PRIVATE BAG X1 MENLO PARK 0102
TEL: (012) 362 2535/1327 • FAX: (012) 362 1049
PERMIT No. 12/07/001/86

Date: 08 August 2012

Enquiries: Troy Phili
Email: tphili@sat.sahra.org.za

Dr. M. Murimbika
Nzumbululo Holdings Pty Ltd
Vorna Valley
Midrand
1685

Dear Dr Murimbika

Attention: Dr M. Murimbika

By Fax: 086 544 2177

RESCUE PERMIT NO: 12/07/001/86

The permit for the rescue excavation of eight graves located on four sites accidentally discovered during the site clearance for the construction work, hereby applies. This permit also covers any additional less than ten graves that may be possibly discovered within the development area of Kusile Power Station, eMalahleni Municipality, Mpumalanga Province.

The permit is issued with an understanding that the applicant would be present during the rescue excavation and relocation process.

SAHRA wishes you all the success during the proposed exhumation and relocation process.

Yours Sincerely

Troy Phili
Manager: Burial Grounds and Graves Unit

Issued under Section 36(3) of the National Heritage Resources Act, No.25 of 1999. Permission is hereby given to: Dr M. Murimbika (ID: 711127 5797 18 9) (Archaeologist) of: Nzumbululo Holdings Pty Ltd, Vorna Valley Midrand 1685
for: the rescue exhumation and relocation of eight graves accidentally discovered during the course of site clearance for the construction work and any additional less than ten graves located within the project development area at Kusile Power Station, eMalahleni Local Municipality, Mpumalanga Province.
The following conditions apply:

1. If the permit holder is not present on the site at all times then SAHRA must be provided with the names and qualifications of the authorised representatives.
2. Adequate recording methods as specified in the Regulations and Guidelines pertaining to the National Heritage Resources Act must be used. Note that the position of the grave must be marked on a plan of the site, and the marked on a 1:50 000 maps.
3. Human remains must at all times be handled with respect and graves should not be disturbed except where unavoidable. The consultation procedures as indicated in the gazetted regulations of the National Heritage Resources Act (25 of 1999) must be observed as appropriate. The recommendations for removal of graves and exhumations and for reburial made in SAHRAs Policy "what to do when graves are uncovered" section 3, must be observed as far as possible.
4. The exhumed human remains must be relocated for reburial at an identified municipal cemetery within the district municipality as indicated in the permit application.
5. A report on excavation must be submitted to SAHRA on or before 01 October 2013.
6. Reprints of all published papers, or copies of these or reports resulting from this work must be lodged with the relevant Provincial Heritage Resources Authority and SAHRA
7. If a published report has not appeared within three years of lapsing of this permit, the report required in terms of the permit will be made available to researchers on request.
8. It is the responsibility of the permit holder to obtain permission from the landlord for each visit, and conditions of access imposed by the landlord must be observed.
9. It is the responsibility of the permit holder to fill in excavations and protect the sites during and after excavation to the satisfaction of the SAHRA and the landowner.
10. SAHRA shall not be liable for any losses, damages or injuries to persons or properties as results of any activities in connection with this permit.
11. SAHRA reserves the right to cancel this permit by notice to the permit holder.
12. This permit is subject to a general appeal and may be suspended should any appeal against the decisions be received by SAHRA within 14 days from the date of the permit. SAHRA may not be held responsible for any losses or injuries incurred in the event of a suspension or retraction of this permit.

This permit is valid until 01 October 2013.
for CHIEF EXECUTIVE OFFICER _____
Date: 08 August 2012

Place: Pretoria.



B.G.G