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

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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 Bronkhorstspruit and Witbank, and north of the N12, linking Johannesburg and Witbank (Fig. 1).

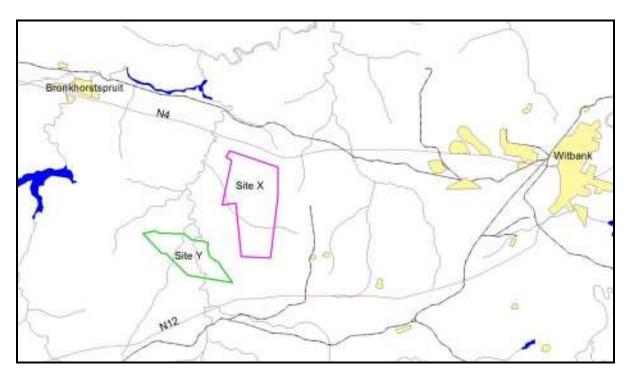


Fig. 1. Location of the two study areas in regional context.

4.2 Site Description

The geology of the area is quite complex, being made up of irregular intrusions of tillte, 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 trough the area, with the Wilge river as the most significant. A number of pans occur sporadically.

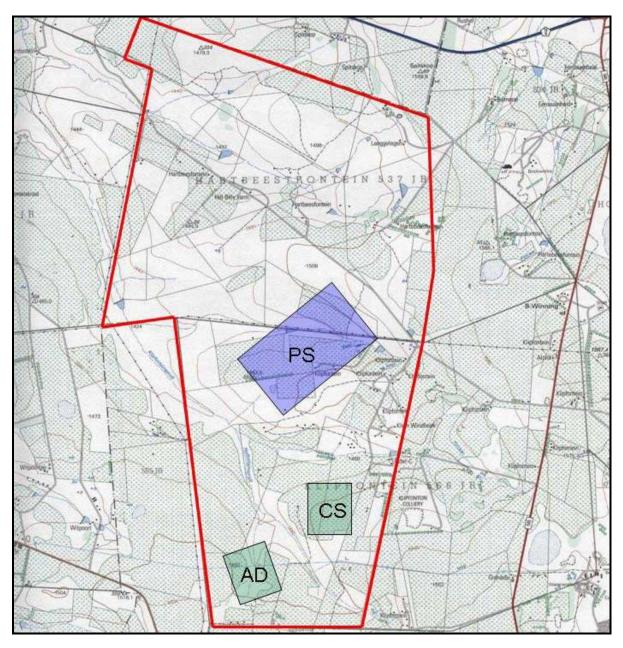


Fig. 2. Proposed layout of the power station for site X.

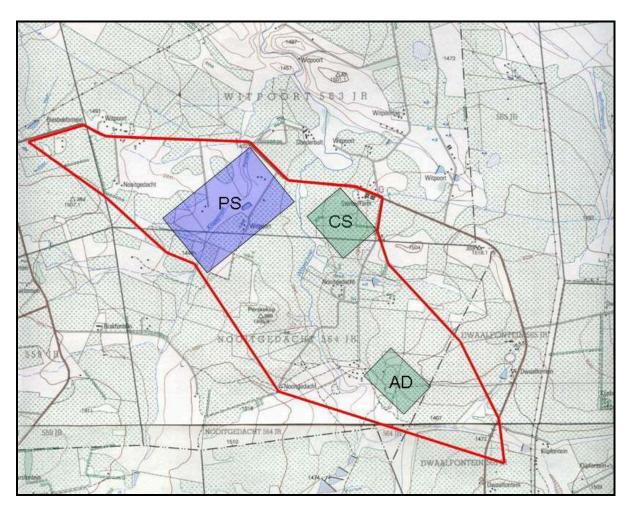


Fig. 3. Proposed layout of the power station for site Y.

4.3 Overview of the region

Stone Age

Very little habitation of the highveld area took take 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. Pelser, et al 2006) and in the Bornkhorstspruit 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.

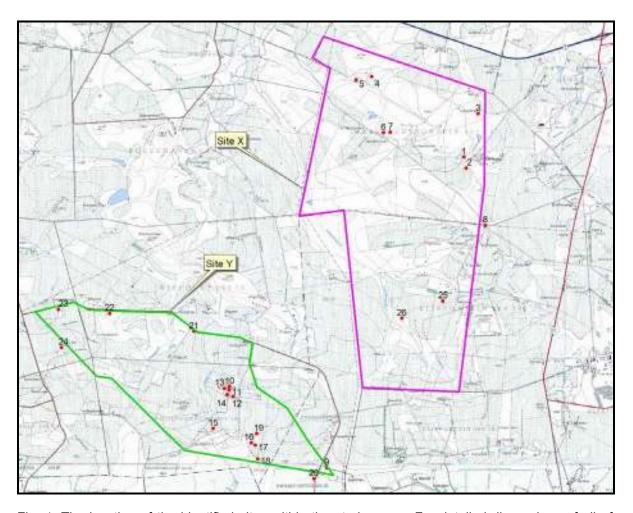


Fig. 4. The location of the identified sites within the study areas. For detailed discussions of all of them, see Appendix 2.

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:

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

Operation phase:

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

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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	t is important in exhibiting particular aesthetic characteristics valued by a community or				
ultural group					
3. Scientific value					
Does it have potential to yield information that will contribute to an underst	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 achie	evement at a	ì			
particular period					
4. Social value					
Does it have strong or special association with a particular community or of	cultural group	for			
social, cultural or spiritual reasons					
5. Rarity					
Does it possess uncommon, rare or endangered aspects of natural or cult	ural heritage	:			
6. Representivity	6. Representivity				
Is it important in demonstrating the principal characteristics of a particular	class of natu	ıral or			
	cultural places or objects				
Importance in demonstrating the principal characteristics of a range of lan-					
	environments, the attributes of which identify it as being characteristic of its class				
Importance in demonstrating the principal characteristics of human activiti		way			
of life, philosophy, custom, process, land-use, function, design or technique	ie) in the				
environment of the nation, province, region or locality.	1				
7. Sphere of Significance	High	Mediu	ım	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)

<u>Description</u>: 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.

<u>Discussion</u>: 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.

<u>Significance of impact</u>: High <u>Certainty of prediction</u>: 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. <u>Location</u>: Hartbeestfontein 537JR (S 25.91104; E 28.93030) <u>Description</u>: Three graves, dating to between 1903 and 1971 (Fig. 6)

Evaluation of significance: High, for specific community

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

<u>Significance of impact</u>: High <u>Certainty of prediction</u>: 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)

<u>Description</u>: Informal cemetery with c. 30 graves, mostly Sibanyoni and Skhosana families. Not all

have headstones with inscriptions.

<u>Evaluation of significance</u>: High, for specific community <u>Discussion</u>: The graves seems to be younger than 60 years

<u>Significance of impact</u>: High Certainty of prediction: Probable

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

and documentation

Legal requirements: Consultation, permits

5. <u>Location</u>: Hartbeestfontein 537JR (S 25.88437; E 28.89693)

<u>Description</u>: Single grave, of S Ntuli, 1934 (Fig. 7). Evaluation of significance: High, for specific community

Discussion: This grave is older than 60 years.

<u>Significance of impact</u>: High <u>Certainty of prediction</u>: 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. <u>Location</u>: Hartbeestfontein 537JR (S 25.90029; E 28.90524)

<u>Description</u>: 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.

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

<u>Significance of impact</u>: High <u>Certainty of prediction</u>: 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. <u>Location</u>: Hartbeestfontein 537JR (S 25.90015; E 28.90735) <u>Description</u>: Three graves, dating to between 1911 and 1987 <u>Evaluation of significance</u>: High, for specific community

<u>Discussion</u>: 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. <u>Location</u>: Klipfontein 566JR (S 25.92836; E 28.93611)

Description: Six graves in an informal cemetery

Evaluation of significance: High, for specific community

<u>Discussion</u>: 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. <u>Location</u>: Dwaalfontein 565JR (S 26.00186; E 28.88811)

<u>Description</u>: Large informal cemetery, few graves with names, mostly Skhosana.

Evaluation of significance: High, for specific community

<u>Discussion</u>: 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

<u>Evaluation of significance</u>: High, for specific community Discussion: These graves are older than 60 years

<u>Significance of impact</u>: High <u>Certainty of prediction</u>: 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

<u>Discussion</u>: This house does not exhibit any interesting attributes

<u>Significance of impact</u>: High <u>Certainty of prediction</u>: Probable

Recommended management action: 3 = preserve site if possible, otherwise extensive salvage

excavation and/or mapping necessary Legal requirements: SAHRA permit

12. <u>Location</u>: 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

<u>Significance of impact</u>: High <u>Certainty of prediction</u>: 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. <u>Location</u>: Nooitgedacht 564JR (S 25.97968; E 28.85798) <u>Description</u>: Two graves, only one visible, AM Joubert, 1934. <u>Evaluation of significance</u>: High, for specific community <u>Discussion</u>: 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. <u>Location</u>: 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.

<u>Evaluation of significance</u>: High, for specific community <u>Discussion</u>: Most of these graves are less than 60 years old

<u>Significance of impact</u>: High <u>Certainty of prediction</u>: Probable

<u>Recommended management action</u>: 3 = preserve site if possible, otherwise relocate after excavation

and documentation

Legal requirements: Consultation, permits

16. <u>Location</u>: 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

<u>Significance of impact</u>: High Certainty of prediction: Probable

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

and documentation

Legal requirements: Consultation, permits

17. <u>Location</u>: Nooitgedacht 564JR (S 25.99497; E 28.86641)

<u>Description</u>: 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

<u>Significance of impact</u>: High Certainty of prediction: Probable

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

and documentation

Legal requirements: Consultation, permits

18. <u>Location</u>: Nooitgedacht 564JR (S 25.99910; E 28.86718)

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

<u>Evaluation of significance</u>: 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. <u>Location</u>: 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

<u>Significance of impact</u>: 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.

<u>Significance of impact</u>: Low <u>Certainty of prediction</u>: Probable

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

Legal requirements: None

21. <u>Location</u>: 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.

<u>Significance of impact</u>: High <u>Certainty of prediction</u>: 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)

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

Evaluation of significance: Low, on a regional basis

<u>Discussion</u>: 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.

<u>Significance of impact</u>: High <u>Certainty of prediction</u>: 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. <u>Location</u>: Blesbokfontein 558JR (S 25.95382; E 80692)

Description: Two graves

Evaluation of significance: High, for specific community

<u>Discussion</u>: These two graves are located within a community of farm workers

<u>Significance of impact</u>: High <u>Certainty of prediction</u>: 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

<u>Evaluation of significance</u>: High, for specific community <u>Discussion</u>: It seems as if this cemetery is still expanding

<u>Significance of impact</u>: High Certainty of prediction: Probable

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

and documentation

Legal requirements: Consultation, permits

25. <u>Location</u>: 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

<u>Significance of impact</u>: 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. <u>Location</u>: 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

<u>Significance of impact</u>: High <u>Certainty of prediction</u>: 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