

Prepared for:

ESKOM NORTHERN REGION

**A PHASE I HERITAGE IMPACT ASSESSMENT STUDY FOR
ESKOM'S PROPOSED NOKENG-FLUORSPAR PROJECT:
THE CONSTRUCTION OF A PROPOSED NEW 132kV
POWER LINE BETWEEN THE RUST DE WINTER
SUBSTATION AND THE PROPOSED NEW NOKENG
SUBSTATION WITH ASSOCIATED INFRASTRUCTURE NEAR
RUST DE WINTER IN THE LIMPOPO PROVINCE OF SOUTH
AFRICA**

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EXECUTIVE SUMMARY

A Phase I Heritage Impact Assessment (HIA) study as required in terms of Section 38 of the National Heritage Resources Act (No 25 of 1999) was done for Eskom's proposed Nokeng-Fluorspar Project near Rust De Winter in the Limpopo Province. The construction of the proposed 132kV Rust De Winter/Nokeng power line and the proposed new Nokeng Substation with associated infrastructure is hereafter referred to as the Eskom Project whilst the area to be affected by the proposed power line, substation and associated infrastructure is referred to as the Eskom Project Area.

The aims with the Phase I HIA study were the following:

- To establish whether any of the types and ranges of heritage resources ('national estate') as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999) do occur in the Eskom Project Area and, if so to determine the significance of these heritage resources, and
- To make recommendations regarding the mitigation and management of significant heritage resources that may be affected by the Eskom Project.

The Phase I HIA study for the proposed Eskom Project revealed the presence of the following types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999) in and near the Eskom Project Area, namely:

- Two graveyards dating from the historical period and from the recent past.
- Three Historical Houses which are older than sixty years.

These heritage resources were geo-referenced and mapped (Figure 2, Tables 1 & 2). The significance of the Graveyard 01 (GY01) is indicated (Table 1) as well as mitigation measures should this graveyard be affected by Alternative 01 for the proposed new power line.

The significance of the heritage resources

Graveyard (GY01) in the Project Area may be affected by the Eskom Project. The significance of this graveyard therefore is indicated by means of stipulations derived

from the National Heritage Resources Act (No 25 of 1999) and from other legislation.

Mitigation measures for the graveyard are also proposed.

The graveyard

All graveyards and graves can be considered to be of high significance and are protected by various laws. Legislation with regard to graves includes Section 36 of the National Heritage Resources Act (No 25 of 1999) whenever graves are older than sixty years. The act also distinguishes various categories of graves and burial grounds.

Other legislation with regard to graves includes those which apply when graves are exhumed and relocated, namely the Ordinance on Exhumations (No 12 of 1980) and the Human Tissues Act (No 65 of 1983 as amended).

Mitigating the graveyard

Graveyards can be mitigated in two ways depending whether they are to be affected, directly or indirectly, namely:

- GY01 can be conserved *in situ* beneath the power line. Pylons should be erected on opposite ends of GY01. The power lines therefore can be strung across and above GY01. Conserving graves and graveyards in power line corridors create the risk that they may be damaged, accidentally, and that Eskom may be held responsible for such damages. Controlled access must exist for any relatives or friends who wish to visit graves or graveyards in power line corridors.
- GY01 can be exhumed and relocation. The exhumation of human remains and the relocation of graveyards are regulated by various laws, regulations and administrative procedures. This task is undertaken by forensic archaeologists or by reputed undertakers who are acquainted with all the administrative procedures and relevant legislation that have to be adhered to whenever human remains are exhumed and relocated. This process also includes social consultation with a 60 days statutory notice period for graves older than sixty years. Permission for the exhumation and relocation of human remains have to be obtained from the descendants of the deceased (if known), the National

Department of Health, the Provincial Department of Health, the Premier of the Province and the local police.

General

It is possible that this Phase I HIA study may have missed heritage resources in the Eskom Project Area as heritage sites may occur in thick clumps of vegetation while others may lie below the surface of the earth and may only be exposed once development commences.

If any heritage resources of significance is exposed during the Eskom Project the South African Heritage Resources Authority (SAHRA) should be notified immediately, all development activities must be stopped and an archaeologist accredited with the Association for Southern African Professional Archaeologist (ASAPA) should be notify in order to determine appropriate mitigation measures for the discovered finds. This may include obtaining the necessary authorisation (permits) from SAHRA to conduct the mitigation measures.

CONTENTS

	EXECUTIVE SUMMARY	2
1	INTRODUCTION	7
2	TERMS OF REFERENCE	9
3	THE ESKOM PROJECT AREA	10
3.1	Location	10
3.2	Development components of the Eskom Project	11
4	METHODOLOGY	12
4.1	Fieldwork	12
4.2	Databases, literature survey and maps	12
4.3	Assumptions and limitations	13
4.4	Some remarks on terminology	13
5	CONTEXTUALISING THE ESKOM PROJECT AREA	17
5.1	Stone Age sites	17
5.2	Early Iron Age	18
5.3	Late Iron Age and historical remains	19
6	THE PHASE I HERITAGE IMPACT ASSESSMENT STUDY	21
6.1	Types and ranges of heritage resources	21
6.1.1	Graveyards	23
6.1.1.1	Graveyard 01	23
6.1.1.2	Graveyard 02	24
6.1.2	Historical Houses	24
6.1.2.1	Historical house 01	25
6.1.2.2	Historical House 02	25
6.1.2.3	Historical House 03	27

6.1.3	Tables	27
7	THE SIGNIFICANCE, POSSIBLE IMPACT ON AND MITIGATION OF THE HERITAGE RESOURCES	28
7.1	The significance of the heritage resources	28
7.1.1	The graveyard	28
7.2	Mitigating the graveyard	29
8	CONCLUSION AND RECOMMENDATIONS	30
9	SELECT BIBLIOGRAPHY	33
10	SPOKESPERSONS CONSULTED	35

1 INTRODUCTION

This document contains the report on the results of the Phase I Heritage Impact Assessment (HIA) study that was done for Eskom's proposed Nokeng-Fluorspar Project near Rust De Winter in the Limpopo Province.

Focused archaeological research has been conducted in the Limpopo Province for several decades. This research consists of surveys and of excavations of Stone Age and Iron Age sites as well as of the recording of rock art and historical sites in this area. The Limpopo Province has a rich heritage comprised of remains dating from the pre-historical and from the historical (or colonial) periods of South Africa. Pre-historical and historical remains in the Limpopo Province form a record of the heritage of most groups living in South Africa today.

Heritage resources in the Limpopo Province therefore constitute a rich and wide diversified range (comprising the 'national estate') as outlined in Section 3 of the National Heritage Resources Act (Act 25 of 1999) (see Box 1, next page).

Box 1: Types and ranges of heritage resources (the 'national estate') as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999)

The National Heritage Resources Act (No 25 of 1999) outlines the following types and ranges of heritage resources that qualify as part of the national estate, namely:

- (a) places, buildings structures and equipment of cultural significance;
- (b) places to which oral traditions are attached or which are associated with living heritage;
- (c) historical settlements and townscapes;
- (d) landscapes and natural features of cultural significance;
- (e) geological sites of scientific or cultural importance;
- (f) archaeological and paleontological sites;
- (g) graves and burial grounds including-
 - (i) ancestral graves;
 - (ii) royal graves and graves of traditional leaders
 - (iii) graves of victims of conflict
 - (iv) graves of individuals designated by the Minister by notice in the Gazette;
 - (v) historical graves and cemeteries; and
 - (vi) other human remains which are not covered by in terms of the Human Tissue Act, 1983 (Act No 65 of 1983)
- (h) sites of significance relating to the history of slavery in South Africa;
- (i) moveable objects, including -
 - (i) objects recovered from the soil or waters of South Africa, including archaeological and paleontological objects and material, meteorites and rare geological specimens;
 - (ii) objects to which oral traditions are attached or which are associated with living heritage;
 - (iii) ethnographic art and objects;
 - (iv) military objects;
 - (v) objects of decorative or fine art;
 - (vi) objects of scientific or technological interest; and
 - (vii) books, records, documents, photographs, positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act, 1996 (Act No 43 of 1996).

The National Heritage Resources Act (Act No 25 of 1999, Sec 3) also distinguishes nine criteria for places and objects to qualify as 'part of the national estate if they have cultural significance or other special value ...'. These criteria are the following:

- (a) its importance in the community, or pattern of South Africa's history;
- (b) its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;
- (c) its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- (d) its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects
- (e) ;its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
- (f) its importance in demonstrating a high degree of creative or technical achievement at a particular period;
- (g) its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;
- (h) its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa;
- (i) sites of significance relating to the history of slavery in South Africa

2 TERMS OF REFERENCE

Eskom intends to construct a new 132kV Kingbird power line between the existing Rust De Winter Substation and the proposed new Nokeng Substation, the proposed Nokeng Substation and associated infrastructure in the Limpopo Province. This Eskom Project may have an influence on any of the types and ranges of heritage resources which are listed in Section 3 of the National Heritage Resources Act (No 25 of 1999).

In order to comply with heritage legislation, Eskom requires knowledge of the presence, relevance and the significance of any heritage resources that may be affected by the Eskom Project. Eskom needs this knowledge in order to take proactive measures with regard to any heritage resources that may be affected, damaged or destroyed when the Eskom Project is implemented. Eskom Northern Region therefore commissioned the author to undertake a Phase I HIA study for the Eskom Project Area.

The aims with the Phase I HIA were the following:

- To establish whether any of the types and ranges of heritage resources ('national estate') as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999) do occur in the Eskom Project Area and, if so to determine the significance of these heritage resources, and
- To make recommendations regarding the mitigation and management of significant heritage resources that may be affected by the Eskom Project.

3 THE ESKOM PROJECT AREA

3.1 Location

Eskom's proposed Nokeng-Fluorspar Project involves the construction of a 132kV Kingbird power line between the existing Rust De Winter Substation and the proposed Nokeng Substation, the proposed new Nokeng Substation and associated infrastructure near Rust De Winter on the Springbok Flats in the Limpopo Province. The Eskom Project is located approximately thirty km to the east of the village called Pienaarsrivier on the R101 and is situated near the Rust De Winter Dam. The Eskom Project Area stretches across some of the last hills on the southern border of the Springbok Flats (2326 Lephale; 1:250 000 map & 2327 Ellisras 1:50 000 topographical map).



Figure 1- The Eskom Project Area seen from the Elandsrivier in the east. The two alternatives for the proposed new 132kV power line run close to the mountain range in the background (above)

3.2 Development components of the Eskom Project

The key development components of Eskom's proposed Nokeng Project involve the following, namely:

- The construction of a proposed 18km long 132kV Kingbird power line running between the existing Rust De Winter Substation in the north and the proposed new Nokeng Substation in the south. Two alternatives are proposed for the power line, namely:
 - Alternative 01:
 - Alternative 02:
- The construction of the proposed new 2x40MVA Nokeng Substation on a piece of land measuring 200mx200m (Figure 2).
- Erecting a 36m communication tower inside the new substation.
- The construction of an access/construction road which is 8m wide for the power line and substation (to be confirmed).
- Obtain a servitude which is 31m wide for the power line to be construct within.

The construction of the proposed 132V Kingbird power line between the Rust De Winter Substation and the Nokeng Substation and the construction of the proposed Nokeng Substation with associated infrastructure is hereafter referred to as the Eskom Project whilst the area to be affected by the power line, proposed Nokeng Substation and associated infrastructure is referred to as the Eskom Project Area.

4 METHODOLOGY

This Phase I HIA study was conducted by means of the following:

- Surveying the proposed Eskom Project Area with a vehicle and selected spots on foot.
- Briefly surveying literature relating to the pre-historical and historical context of the Eskom Project Area.
- Consulting maps of the proposed Eskom Project Area.
- Consulting archaeological (heritage) data bases.
- Consulting spokespersons regarding the possible presence of graves and graveyards in the Eskom Project Area.
- Synthesising all information obtained from the data bases, fieldwork, maps and literature survey.

4.1 Fieldwork

The proposed Eskom Project Area was surveyed with a vehicle where accessible roads existed while selected, sensitive spots in the Eskom Project Area were surveyed on foot.

4.2 Databases, literature survey and maps

Databases kept and maintained at institutions such as the Provincial Heritage Resources Agency (PHRA) and the Archaeological Data Recording Centre at the National Flagship Institute (Museum Africa) in Pretoria were consulted to determine whether any heritage resources of significance has been identified during earlier heritage surveys in or near the Eskom Project Area.

The author is not unacquainted with the Eskom Project Area at large as he had done several heritage impact assessment studies near the Eskom Project Area (see Part 8, 'Select Bibliography').

Literature relating to the pre-historical and the historical unfolding of the Eskom Project Area was reviewed (see Part 5, 'Contextualising the Eskom Project Area').

It is important to contextualise the pre-historical and historical background of the Eskom Project Area in order to comprehend the identity and meaning of heritage sites in and near the Eskom Project Area.

Maps outlining the Eskom Project Area were studied (2326 Lephale; 1:250 000 map & 2327 Lephale 1:50 000 topographical map).

4.3 Assumptions and limitations

It is possible that this Phase I HIA study may have missed heritage resources in the Eskom Project Area as heritage sites may occur in thick clumps of vegetation while others may lie below the surface of the earth and may only be exposed once development commences.

If any heritage resources of significance is exposed during the Eskom Project the South African Heritage Resources Authority (SAHRA) should be notified immediately, all development activities must be stopped and an archaeologist accredited with the Association for Southern African Professional Archaeologist (ASAPA) should be notify in order to determine appropriate mitigation measures for the discovered finds. This may include obtaining the necessary authorization (permits) from SAHRA to conduct the mitigation measures.

4.4 Some remarks on terminology

Terms that may be used in this report are briefly outlined below:

- Conservation: The act of maintaining all or part of a resource (whether renewable or non-renewable) in its present condition in order to provide

for its continued or future use. Conservation includes sustainable use, protection, maintenance, rehabilitation, restoration and enhancement of the natural and cultural environment.

- Cultural resource management: A process that consists of a range of interventions and provides a framework for informed and value-based decision-making. It integrates professional, technical and administrative functions and interventions that impact on cultural resources. Activities include planning, policy development, monitoring and assessment, auditing, implementation, maintenance, communication, and many others. All these activities are (or will be) based on sound research.
- Cultural resources: A broad, generic term covering any physical, natural and spiritual properties and features adapted, used and created by humans in the past and present. Cultural resources are the result of continuing human cultural activity and embody a range of community values and meanings. These resources are non-renewable and finite. Cultural resources include traditional systems of cultural practice, belief or social interaction. They can be, but are not necessarily identified with defined locations.
- Heritage resources: The various natural and cultural assets that collectively form the heritage. These assets are also known as cultural and natural resources. Heritage resources (cultural resources) include all human-made phenomena and intangible products that are the result of the human mind. Natural, technological or industrial features may also be part of heritage resources, as places that have made an outstanding contribution to the cultures, traditions and lifestyles of the people or groups of people of South Africa.
- In-Situ Conservation: The conservation and maintenance of ecosystems, natural habitats and cultural resources in their natural and original surroundings.

- Iron Age: Refers to the last two millennia and 'Early Iron Age' to the first thousand years AD. 'Late Iron Age' refers to the period between the 16th century and the 19th century and can therefore include the Historical Period.
- Maintenance: Keeping something in good health or repair.
- Pre-historical: Refers to the time before any historical documents were written or any written language developed in a particular area or region of the world. The historical period_and historical remains refer, for the Project Area, to the first appearance or use of 'modern' Western writing brought to the Eastern Highveld by the first Colonists who settled here from the 1840's onwards.
- Preservation: Conservation activities that consolidate and maintain the existing form, material and integrity of a cultural resource.
- Recent past: Refers to the 20th century. Remains from this period are not necessarily older than sixty years and therefore may not qualify as archaeological or historical remains. Some of these remains, however, may be close to sixty years of age and may, in the near future, qualify as heritage resources.
- Protected area: A geographically defined area designated and managed to achieve specific conservation objectives. Protected areas are dedicated primarily to the protection and enjoyment of natural or cultural heritage, to the maintenance of biodiversity, and to the maintenance of life-support systems. Various types of protected areas occur in South Africa.
- Reconstruction: Re-erecting a structure on its original site using original components.
- Replication: The act or process of reproducing by new construction the exact form and detail of a vanished building, structure, object, or a part thereof, as it appeared at a specific period.
- Restoration: Returning the existing fabric of a place to a known earlier state by removing additions or by reassembling existing components.
- Stone Age: Refers to the prehistoric past, although Late Stone Age peoples lived in South Africa well into the Historical Period. The Stone Age is divided

into an Earlier Stone Age (3 million years to 150 000 thousand years ago) the Middle Stone Age (150 000 years to 40 000 years ago) and the Late Stone Age (40 000 years to 200 years ago).

- Sustainability: The ability of an activity to continue indefinitely, at current and projected levels, without depleting social, financial, physical and other resources required to produce the expected benefits.
- Translocation: Dismantling a structure and re-erecting it on a new site using original components.
- Project Area: refers to the area (footprint) where the developer wants to focus its development activities (refer to plan).
- Phase I studies refer to surveys using various sources of data in order to establish the presence of all possible types and ranges of heritage resources in any given Project Area (excluding paleontological remains as these studies are done by registered and accredited palaeontologists).
- Phase II studies include in-depth cultural heritage studies such as archaeological mapping, excavating and sometimes laboratory work. Phase II work may include the documenting of rock art, engraving or historical sites and dwellings; the sampling of archaeological sites or shipwrecks; extended excavations of archaeological sites; the exhumation of human remains and the relocation of graveyards, etc. Phase II work involve permitting processes, require the input of different specialists and the co-operation and approval of SAHRA.

5 CONTEXTUALISING THE ESKOM PROJECT AREA

No fully-flexed archaeological survey has as yet been undertaken in the Eskom Project Area. From the limited knowledge gained from a few heritage impact assessment studies it is known that this area, as South Africa elsewhere, was occupied by humans from the earliest times. However, no evidence exists which indicate that the area was occupied by particular groups of people (cultures) over a considerable long period of time. It can therefore be expected that heritage remains which may occur will be fragmentary and scattered across the Eskom Project Area. It can also be expected that only a narrow range of all the types and ranges of heritage resources that are outlined in the National Heritage Resources Act (No 25 of 1999), will actually occur in the Eskom Project Area but not necessarily in the Eskom Project Area itself.

The following brief overview of archaeological (pre-historical), cultural and ethnographic information, as well as historical evidence, will help to contextualise the Eskom Project Area within the wider area.

5.1 Stone Age sites

Stone Age sites are marked by stone artefacts that are found scattered on the surface of the earth or that are parts of the deposits in caves and rock shelters. The Stone Age is divided into the Early Stone Age (ESA) (dating from 2.5 million years ago to 250 000 years ago), Middle Stone Age (MSA) (dating from 250 000 years ago to 22 000 years ago) and the Late Stone Age (LSA) (dating from 22 000 years ago to about 2 000 years ago).

The ESA is divided into the Olduvian and the Acheulian Industrial Complexes. The Acheulian dates from 500 000 years ago and is widely distributed across the world. Tools dating from the Acheulian also occur throughout South Africa. It is highly likely that Acheulian sites may exist in woody areas that occur on Buffelsdrift

179JR and Rust De Winter 180JR where the Elands River flows along the southern base line of a mountain range in the Eskom Project Area.

MSA sites are probably the most common types of Stone Age sites which occur throughout South Africa. These sites are either associated with caves or with 'open' sites, i.e. with sites which occur on the surface of the earth. It can be expected that MSA sites may occur in eroded areas, dry dongas or ploughed agricultural fields that occur across the Eskom Project Area.

The LSA is associated with small microlithic tools, rock paintings and engravings which were done by the San, Khoi Khoi and, in more recent times, by Negroid (Iron Age) farmers. LSA sites, like MSA artefacts, occur in cave sites or as scatters of tools on the surface of the earth. These types of artefacts may also be found in areas which have experienced erosion or where rock types, suitable for the manufacture of small LSA artefacts, abound.

5.2 Early Iron Age

The Iron Age is associated with the first Bantu-Negroid agro-pastoralists who lived in semi-permanent villages and who practised metal working during the last two millennia. The Iron Age is divided into the Early Iron Age (EIA) (covers the 1st millennium AD) and the Later Iron Age (LIA) (covers the first 880 years of the 2nd millennium AD).

EIA communities lived near Groblersdal, to the east of the Eskom Project Area. These communities were culturally similar to the EIA communities who lived elsewhere in the Mpumalanga, Limpopo, KwaZulu/Natal and the North-West Province during the AD600-900. Early Iron Age sites have been recorded near Marble Hall, in the Loskop Dam Nature Reserve and to the north of the Loskop Dam.

The presence of an EIA site was also recorded on the farm Derdepoort 326, north of the Magaliesberg but far to the south of the Eskom Project Area.

5.3 Late Iron Age and historical remains

The Late Iron Age (LIA) is associated with ethnic groups such as the Tswana, Pedi, Ndebele, Zulu, Venda and other groups. Settlements that date from the LIA are mostly associated with stone walls and date from the last four hundred years. Large parts of the MRC Project Area are devoid of conspicuous mountain ranges, 'randjes' or kopjes where stone walled sites could have been established. However, the Ditlhabane mountain range which incorporates the Simon Skosana and the Mabusa Nature Reserves, occur to the south of the Eskom Project Area. The mountainous terrain in these nature reserves may hold LIA sites.

According to oral tradition LIA clans occupied the Eskom Project Area prior to the arrival of the first Colonists in the middle of the 19th century. These people include the Kgatla of Motša who lived at Marapjane (Schilpadfontein) (to the north of the Eskom Project Area) from as early as the 17th century and possibly Koni clans related to Matlala and Dikgale (to the east and south of the Eskom Project Area) who established villages with similar names in the larger project area, probably more than two centuries ago, AD1790-1800. None of the early settlements that were occupied by these people have been documented. There are a few low, inconspicuous kopjes between Masobe (Pankop) and Mmametlhake as well as near Seabe and Marapjane, to the north of the Eskom Project Area, where settlements constructed with stone walls may be found.

Larger tribal groupings such as the Bantwane, Bakôpa and Bakgatla lived towards the Loskop Dam and Groblersdal in the east, outside the Eskom Project Area, whilst the Hwaduba and Kgatla Môsêtle and Kgatla Motša/Mmakau lived towards the north and west, also outside the Eskom Project Area. Consequently, no large tribal groupings occupied the Eskom Project Area during the LIA. People who lived

here during the last four hundred years must have been limited to small groups or clans who did not establish large permanent settlements with formidable proportions.

These small scattered groups in the Eskom Project Area were joined by the (Southern) Ndebele who arrived in this area from the 1920's onwards. The sojourn of the Southern Ndebele peoples, who initially left Kwa Zulu/Natal during the 16th century, ended in the Eskom Project Area when the Manala and the Ndzundza-Ndebele left their respective homes near the Bronberg in Pretoria and KoNomtjarhelo (Erholweni) near Roossenekal during the early 20th century. KwaNdebele officially became the homeland of the Southern Ndebele in the 1980's. The Eskom Project Area therefore is today primarily occupied by descendants of the following sections of the Ndebele, namely the Manala, Ndzundza-Ndebele and the Hwaduba. Historically, the Eskom Project Area has not been occupied for much longer than a century by substantial numbers of Ndebele people. Small groups and clans of the Kgatla, Koni and other minor Sotho communities also lived in the area but for a longer period of time.

Some individually known Ndebele sites outside the Eskom Project Area include Komjekejeke on Downbern 594 near Wallmansthal, north of Pretoria, and KwaMkina on Derdepoot 326, also north of Pretoria. KwaMkina has disappeared as this area has been developed in the more recent past. Kwamhlanga is located on Welgelegen 158 JR in the former KwaNdebele homeland.

6 THE PHASE I HERITAGE IMPACT ASSESSMENT STUDY

6.1 Types and ranges of heritage resources

The Phase I HIA study for the proposed Eskom Project revealed the presence of the following types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999) in and near the Eskom Project Area, namely:

- Two graveyards dating from the historical period and from the recent past.
- Several historical houses which are older than sixty years.

These heritage resources were geo-referenced and mapped (Figure 2, Tables 1 & 2). The significance of the Graveyard 01 (GY01) is indicated (Table 1) as well as mitigation measures should this graveyard be affected by Alternative 01 for the proposed new power line.

The Phase I HIA study is now briefly discussed and illustrated with photographs.

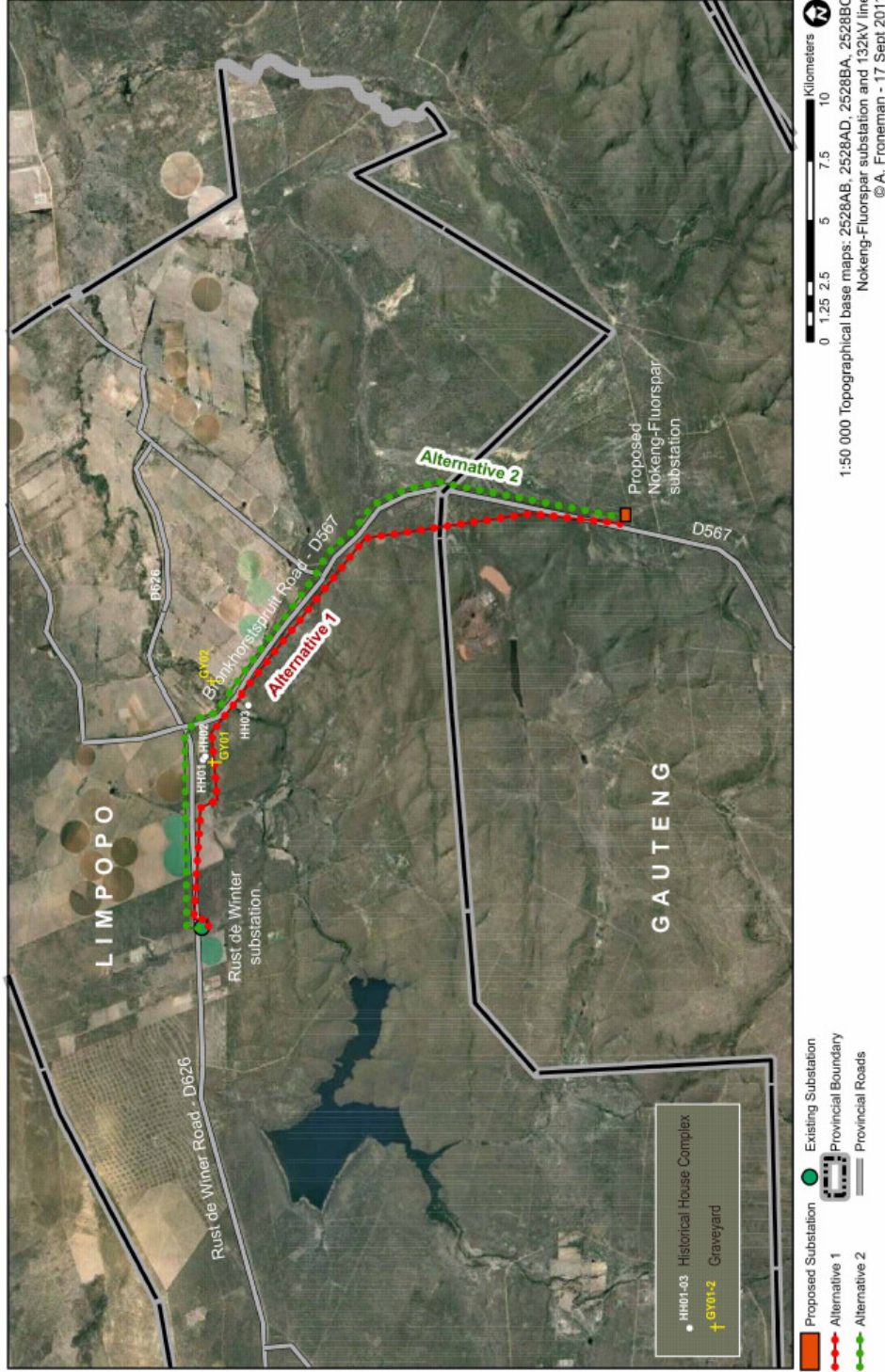


Figure 2 - The Eskom Project involving the construction of a 132kV power line between the Rust De Winter Substation and the proposed new Nokeng Substation in the Limpopo Province. Note the graveyards and Historical Houses which occur in and near the Eskom Project Area (above).

6.1.1 Graveyards

Two graveyards respectively occur in (GY01) and near (GY02) the Eskom Project Area, namely:

6.1.1.1 Graveyard 01

This graveyard (GY01) is located on Rust De Winter 180JR near the northern base of a low mountain range. It seems as if Alternative 01 will cross this graveyard.

GY01 holds approximately thirty graves of which the majority is covered with piles of stones. At least one of the graves is edged with cement. No headstones with inscriptions occur on any of the graves.



Figure 3- GY01 holds approximately thirty graves mostly covered with heaps of stone (above).

6.1.1.2 Graveyard 02

GY02 is also located on Rust De Winter 180JR and is situated near the southern banks of the Elandsrivier and some distance from GY02.

GY02 holds approximately thirteen graves, some of them dating from the recent past.



Figure 4- GY02 holds approximately thirteen graves mostly dating from the recent past (above).

6.1.2 Historical Houses

At least three Historical Houses were recorded on Rust De Winter 180JR near the Eskom Project Area, namely:

6.1.2.1 Historical House 01

HH01 and HH02 are located directly next to each other. HH01 is square in ground plan with a lean to on its western side. It is fitted with a pitched corrugated iron roof. It probably dates from the time period 1940's to 1950's.



Figure 5- HH01 on Rust De Winter 180JR is a square structure with a pitched corrugated iron roof (above).

Alternative 01 will run to the south at a safe distance from HH01 and HH02.

6.1.2.2 Historical House 02

HH02 is located directly next to HH01. HH02 is a rectangular structure with a lean-to on the southern side of the house. It is much smaller in size than HH01. It is also fitted with a pitched corrugated iron roof and dates from the same time period.



Figures 6 & 7- HH02 is located next to HH01 and is smaller than the latter dwelling (above). HH03 is similar in architectural style than HH01 and dates from the same time period (below).



6.1.2.3 Historical House 03

HH03 is a square structure which was constructed with cement and bricks and which was plastered. It is fitted with a pitched corrugated iron roof and dates from the 1930's to the 1940's.

This house will not be affected by either Alternative 01 or Alternative 02.

6.1.3 Tables

Historical Houses	Coordinates	Location	Significance
HH01	25° 12.413'; 28° 33.439'	Rust De Winter 180JR	Low-Med
HH02	25° 12.429'; 28° 33.442'	Rust De Winter 180JR	Low-Med
HH03	25° 12.917'; 28° 34.010'	Rust De Winter 180JR	Low-Med

Table 1- Coordinates for Historical House in and near the Eskom Project Area (above).

Graveyards	Coordinates	Location	Significance
<i>Inside the Project Area</i>			
Graveyard 01	25° 12.476'; 28° 33.590'	Rust De Winter 180JR	HIGH
<i>Outside the Project Area</i>			
Graveyard 02	25° 12.604'; 28° 34.182'	Rust De Winter 180JR	HIGH

Table 2- Coordinates for graveyards in and near the Eskom Project Area (above).

7 THE SIGNIFICANCE, POSSIBLE IMPACT ON AND MITIGATION OF THE HERITAGE RESOURCES

7.1 The significance of the heritage resources

Graveyard (GY01) in the Project Area may be affected by the Eskom Project. The significance of this graveyard therefore is indicated by means of stipulations derived from the National Heritage Resources Act (No 25 of 1999) and from other legislation.

Mitigation measures for the graveyard are also proposed.

7.1.1 The graveyard

All graveyards and graves can be considered to be of high significance and are protected by various laws. Legislation with regard to graves includes Section 36 of the National Heritage Resources Act (No 25 of 1999) whenever graves are older than sixty years. The act also distinguishes various categories of graves and burial grounds.

Other legislation with regard to graves includes those which apply when graves are exhumed and relocated, namely the Ordinance on Exhumations (No 12 of 1980) and the Human Tissues Act (No 65 of 1983 as amended).

7.2 Mitigating the graveyard

Graveyards can be mitigated in two ways depending whether they are to be affected, directly or indirectly, namely:

- GY01 can be conserved *in situ* beneath the power line. Pylons should be erected on opposite ends of GY01. The power lines therefore can be strung across and above GY01. Conserving graves and graveyards in

power line corridors create the risk that they may be damaged, accidentally, and that Eskom may be held responsible for such damages. Controlled access must exist for any relatives or friends who wish to visit graves or graveyards in power line corridors.

- GY01 can be exhumed and relocation. The exhumation of human remains and the relocation of graveyards are regulated by various laws, regulations and administrative procedures. This task is undertaken by forensic archaeologists or by reputed undertakers who are acquainted with all the administrative procedures and relevant legislation that have to be adhered to whenever human remains are exhumed and relocated. This process also includes social consultation with a 60 days statutory notice period for graves older than sixty years. Permission for the exhumation and relocation of human remains have to be obtained from the descendants of the deceased (if known), the National Department of Health, the Provincial Department of Health, the Premier of the Province and the local police.

8 CONCLUSION AND RECOMMENDATIONS

The Phase I HIA study for the proposed Eskom Project revealed the presence of the following types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999) in and near the Eskom Project Area, namely:

- Two graveyards dating from the historical period and from the recent past.
- Three Historical Houses which are older than sixty years.

These heritage resources were geo-referenced and mapped (Figure 2, Tables 1 & 2). The significance of the Graveyard 01 (GY01) is indicated (Table 1) as well as mitigation measures should this graveyard be affected by Alternative 01 for the proposed new power line.

The significance of the heritage resources

Graveyard (GY01) in the Project Area may be affected by the Eskom Project. The significance of this graveyard therefore is indicated by means of stipulations derived from the National Heritage Resources Act (No 25 of 1999) and from other legislation.

Mitigation measures for the graveyard are also proposed.

The graveyard

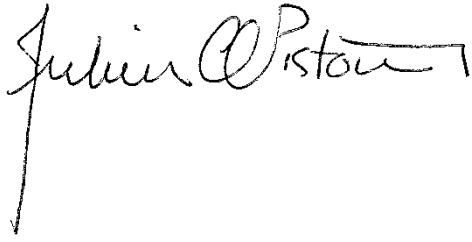
All graveyards and graves can be considered to be of high significance and are protected by various laws. Legislation with regard to graves includes Section 36 of the National Heritage Resources Act (No 25 of 1999) whenever graves are older than sixty years. The act also distinguishes various categories of graves and burial grounds.

Other legislation with regard to graves includes those which apply when graves are exhumed and relocated, namely the Ordinance on Exhumations (No 12 of 1980) and the Human Tissues Act (No 65 of 1983 as amended).

Mitigating the graveyard

Graveyards can be mitigated in two ways depending whether they are to be affected, directly or indirectly, namely:

- GY01 can be conserved *in situ* beneath the power line. Pylons should be erected on opposite ends of GY01. The power lines therefore can be strung across and above GY01. Conserving graves and graveyards in power line corridors create the risk that they may be damaged, accidentally, and that Eskom may be held responsible for such damages. Controlled access must exist for any relatives or friends who wish to visit graves or graveyards in power line corridors.
- GY01 can be exhumed and relocation. The exhumation of human remains and the relocation of graveyards are regulated by various laws, regulations and administrative procedures. This task is undertaken by forensic archaeologists or by reputed undertakers who are acquainted with all the administrative procedures and relevant legislation that have to be adhered to whenever human remains are exhumed and relocated. This process also includes social consultation with a 60 days statutory notice period for graves older than sixty years. Permission for the exhumation and relocation of human remains have to be obtained from the descendants of the deceased (if known), the National Department of Health, the Provincial Department of Health, the Premier of the Province and the local police.

A handwritten signature in black ink, reading "Julius CC Pistorius". The signature is written in a cursive style with a long vertical line extending downwards from the start of the name.

DR JULIUS CC PISTORIUS
Archaeologist & Heritage Consultant
Member ASAPA

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10 SPOKESPERSONS CONSULTED

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