



**HERITAGE REPORT FOR THE PROPOSED
BORUTHO-NZHELELE 400KV POWER
LINES, LIMPOPO PROVINCE, SOUTH
AFRICA**

HERITAGE Report

September 2012

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NZUMBULULO

Heritage Report

Heritage Report for the proposed construction of ±250km 400kV powerline from Borutho s/s in Mokopane to Bokmakierie s/s in Nzhelele and associated substation works to accommodate the powerline in Limpopo Province.

September 2012

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*For and on behalf of
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HERITAGE ASSESSMENT FOR THE PROPOSED CONSTRUCTION OF THE 250km 400kV-POWERLINE FROM BORUTHO S/S IN MOKOPANE TO BOKMAKIERIE S/S IN NZHELELE AND ASSOCIATED SUBSTATION WORKS TO ACCOMODATE THE POWERLINE IN LIMPOPO PROVINCE.

Authorship: This Report has been prepared by Nkosinathi Tomose (professional archaeologist) and Dr. M. Murimbika (Principal Investigator & Professional Archaeologist) for Lephalale Eskom Transmission. The report is for the review of the Heritage Resources Agency (PHRA).

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September 2012

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ACKNOWLEDGEMENTS

The authors acknowledges Eskom Transmission for their assistance with GIS maps and other associated project site survey data during the site survey of the 3 Options.

ABSTRACT

This report present results of heritage study for the three proposed 400kV lines covering the area between Borutho and Nzhelele, Limpopo Province, South Africa. The corridors include the following options: options 1 (red), option 2 (gray) and option 3 (green). This report therefore presents an outline of spatial distribution of heritage sites located in area that is covered by the above-mentioned options. The bulk of sensitive archaeological sites included in this report were obtained from various archaeological and heritage Impact assessment reports for the different developments that have taken place within the proposed areas of development such as

EXECUTIVE SUMMARY

Nzumbululo Holdings (Pty) Ltd–HMD was appointed by Nzumbululo Holdings- EMD acting on behalf of Eskom Transmission to conduct heritage study for the proposed 400kV lines between Borutho and Nzhelele. The aim of the study is to identify and document significant heritage sites located within the proposed development corridors. Desktop studies commenced in March 2012 and were subsequently followed by site survey of the proposed corridors (options): Borutho–Nzhelele 1, Borutho-Nzhelele 2 and Borutho–Nzhelele 3. The heritage study forms part of the EIA process for the proposed 400kV lines and focuses on the identification, documentation, mapping and evaluation of heritage significance of archaeological sites, rock art sites, historical sites, battle grounds, built environment, landscape sites, burial grounds and graves and any sites of cultural significance including the cultural landscape located within the proposed area of development. The study also seeks to assess the conservation status of significant heritage sites within the 3 proposed corridors (Figure 21-23).

The report makes the following observations:

- The area under consideration has received more academic research mostly concentrated in mountainous area such as the Blouberg Mountains, Makgabeng Plateau and Soutpansberg Mountains (e.g. Hall & Smith, 2000). In terms of CRM the area has received less attention than academic. As such some archaeological sites and heritage sites are not yet identified and documented especially those that may be located in farm areas.
- Although the most of the study area is generally accessible some private game farms, mines and institutions with high security considerations were difficult to access during site surveys.
- The entire study will require more time and resources than anticipated because of the vast nature of game farms and agricultural fields.

The Report makes the following recommendations:

- It is recommended that Option 2 is the preferred Option in terms of heritage resources management and that a detailed HIA study should be conducted along this corridor once the project EIA studies have been finalized and approved. The HIA should pay special attention to substations at the start and end point of the

powerline as well as detailed assessment of the pylons ones the surveyors have marked them in the landscape. This Heritage study is in no way a final study of the selected Option in terms of heritage and does not and can not be used as such.

Policy Recommendation:

To achieve the above recommendations, it's advised that the Eskom conduct induction of its staff on heritage and grave resources management during the construction phase of the project

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ABBREVIATIONS

Abbreviations	Description
AIA	Archaeological Impact Assessment
ASAPA	Association of South African Professional Archaeologists
BGG	Burial Grounds & Graves
CRM	Cultural Resource Management
DEA	Department of Environmental Affairs
DWA	Department of Water Affairs
EA	Environmental Authorisation
EMD	Environmental Management Division
EIA practitioner	Environmental Impact Assessment Practitioner
EIA	Environmental Impact Assessment
EIAA	Early Iron Age Archaeology
ESA	Early Stone Age
GIS	Geographic Information System
GPS	Global Positioning System
HIA	Heritage Impact Assessment
HMD	Heritage Management Division
I&AP	Interested & Affected Party
IDP	Integrated Development Plan
LSA	Late Stone Age
LIA	Late Iron Age
MSA	Middle Stone Age
MIA	Middle Iron Age
NEMA	National Environmental Management Act
NHRA	National Heritage Resources Act
PHRA	Provincial Heritage Resources Agency
PSSA	Palaeontological Society of South Africa
PPP	Public Private Partnership
SADC	Southern African Development Community
Sodic soil layer	A layer of soil that is rich in sodium and preferred area of grazing by animals. The layers are distinct and only occur on small grounds. They are usually devoid of any grass species often depleted by grasses

SAHRA	South African Heritage Resources Agency
CCP	Central Cattle Pattern
JSTOR	Journal Storage
ZAR	Zuid Afrikanasche Republiek

TERMS AND DEFINITIONS

The following terms used in this HIA are defined in the NHRA, SAHRA Policies as well as the Australia ICOMOS Charter (Burra Charter):

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.

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 National Heritage Resources Act (Act No. 25 of 1999). Refer to physical cultural properties such as archaeological and paleontological 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.

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.

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.

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.

Late Iron Age this period is associated with the development of complex societies and state systems in southern Africa.

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

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

Place means site, area, land, landscape, building or other work, group of buildings or other works, and may include components, contents, spaces and views.

Cultural significance means aesthetic, historic, scientific, social or spiritual value for past, present or future generations.

Fabric means all the physical material of the place including components, fixtures, contents and objects.

Conservation means all the processes of looking after a place so as to retain its cultural significance.

Use means the functions of a place, as well as the activities and practices that may occur at the place.

Compatible use means a use which respects the cultural significance of a place. Such a use involves no, or minimal, impact on cultural significance.

Setting means the area around a place, which may include the visual catchment.

Interpretation means all the ways of presenting the cultural significance of a place.

1 INTRODUCTION

Nzumbululo Holdings (Pty) Ltd–HMD was appointed by Nzumbululo Holdings (Pty) Ltd- EMD acting on behalf of Eskom Transmission to conduct a heritage study for 3 proposed 400kV Line corridors (Options) between Borutho and Nzhelele, Limpopo Province as part of EIA for the proposed development. The scope of work and the size of the proposed development triggered Section 38 of the NHRA, No 25 of 1999. This necessitated a full heritage study for the areas earmarked for development. The nature of heritage resources found within the proposed development areas necessitated a consideration of the following sections of the NHRA: Section 34 (Built Environment & Landscape), 35 Archaeological Resources, Section 36 Burial Ground & Graves (formalized municipal cemeteries and non-formalized cemeteries and/or tribal authority).

The study focused on identifying and assessing physical cultural heritage resources (e.g. archaeological, historical, industrial resources and sites as well as burial grounds and graves) located in the 3 proposed areas of development referred to as Borutho-Nzhelele 1 to 3 in the study (Figure 2). The assessment process of these resources is (a process aimed at unpacking the intangible aspect about them) is informed by existing ethno-archaeological and historical records documented over time and space. These records are used in the study to inform the significance evaluation process using SAHRA and ASAPA standards. Resources are assessed and evaluated in terms of their significance from low, medium to high significance and using a three tier grading system as stipulated in the NHRA – local, provincial to national significance.

1.1 Objectives and Scope of status quo survey

The objectives of this Heritage Study (Heritage Status quo search and survey) is to assist in assessing the potential heritage status of the proposed areas of development – heritage status of the region in and around the 3, Eskom Transmission, proposed 400kV Lines from Borutho to Nzhelele covering at least 7 municipalities. The covered municipalities include: Vhembe District Municipality, Mogalakwena Local Municipality, Makhado Local Municipality, Capricon District Municipality, Molemole Local Municipality, Aganang Local Municipality and Lephalale Local Municipality. The focus of this Heritage is therefore, to assess and evaluate the heritage value of the affected landscape and associated archaeological and other heritage sites that may be on the affected area. Assessment will provide recommendations for the proposed development and will also address the

conservation requirements of the areas that may have any heritage significance within and along the proposed development area- from Borutho to Nzhelele

Therefore, the objectives of the study are to document any archaeological and historic sites located in the within and along the 3 proposed 400kV Lines corridors (Options), and assess the potential for occurrence of additional currently unidentified heritage resource sites in the area. Specifically, the study was designed to provide information on existing, disturbed and /or intact sites; determine site types, site nature and association; site context, and potential site values. The study primarily seeks to address the applicable regulations in order to facilitate the approval process – the NHRA, No.25 of 1999 is of primary importance to this process.

1.2 Legislative framework

The identification, evaluation and assessment of any cultural heritage site, artefact or find in the South African context is required and governed by the following legislation:

- i. National Environmental Management Act (NEMA) Act 107 of 1998
- ii. National Heritage Resources Act (NHRA) Act 25 of 1999
- iii. Minerals and Petroleum Resources Development Act (MPRDA) Act 28 of 2002
- iv. Development Facilitation Act (DFA) Act 67 of 1995

The following sections in each Act refer directly to the identification, evaluation and assessment of cultural heritage resources.

- i. National Environmental Management Act (NEMA) Act 107 of 1998 as promulgated in the Regulations.
 - a. Basic Environmental Assessment (BEA) – Section (23)(2)(d)
 - b. Environmental Scoping Report (ESR) – Section (29)(1)(d)
 - c. Environmental Impacts Assessment (EIA) – Section (32)(2)(d)
 - d. Environmental Management Plan (EMP) – Section (34)(b)
- ii. National Heritage Resources Act (NHRA) Act 25 of 1999
 - a. Protection of Heritage resources – Sections 34 to 36; and
 - b. Heritage Resources Management – Section 38
- iii. Minerals and Petroleum Resources Development Act (MPRDA) Act 28 of 2002
 - a. Section 39(3)
- iv. Development Facilitation Act (DFA) Act 67 of 1995
 - a. The GNR.1 of 7 January 2000: Regulations and rules in terms of the Development Facilitation Act, 1995. Section 31.

The NHRA, No. 25 of 1999 stipulates that cultural heritage resources may not be disturbed without authorization from the relevant heritage authority. Section 34 (1) of the NHRA states that “no person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant

provincial heritage resources authority...". The NEMA (No 107 of 1998) states that an integrated environmental management plan should (23:2 (b)) identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage". In accordance with legislative requirements and EIA rating criteria, the regulations of SAHRA and Association of Southern African Professional Archaeologists (ASAPA) have also been incorporated to ensure that a comprehensive legally compatible AIA report is compiled. The heritage impact assessment criteria are described in more detail in **Annexure A**.

1.3 Assumptions and Limitations

The aim of this document is to identify the possible types of heritage resources that might be present in the study area, in and around the 3 proposed 400kV Lines from Borutho to Nzhelele, as well as possible hotspots for the locality of such resources. Because of the nature, size or extent of the proposed development area, it is expected that there will be archaeological and other heritage resources sites located within and along the each of the 3 proposed Eskom Transmission Options - at least in some parts of the corridors. Some of the sites will be known sites, which have been documented in the region in previous HIA studies, and others through systematic research conducted in the region.

Potential archaeological (and other heritage) sites are expected to be yield in areas cleared of vegetation through grazing, development and other human anthropogenic process in the landscape with potential to expose previously unknown archaeological sites.

Because of the different land use types in the proposed development area it is expected that not all archaeological sites will be in their primary context and not all will be worthy of conservation for present and future generations due to levels of potential disturbances. Also because of some of the land use practices in the proposed development area, such as private game farms, agricultural field and ranching farms – not all sections of the 3 proposed corridors will be covered in detail – this therefore, has a potential limit to yielding more archaeological (and other heritage resources') sites. The other limit to identifying archaeological and other heritage resources sites, other than issues of access as highlighted above, is the fact that some of these sites may be currently located in area that have thick vegetation cover or are covered beneath the soil – especially archaeological, burial grounds and graves with no markers.

Base on the above limitations, it is therefore argued that this report can in no way be seen as the final word on heritage resources for the EIA and it assumes that a full HIA, which will involve a full ground thruthing and survey of the selected option out of the

3, will be conducted before the construction of the transmission line and associated bulk infrastructure.

1.4 DESCRIPTION OF AFFECTED ENVIRONMENT

Table 1- Borutho - Nzhelele, Limpopo Province, South Africa

<i>Location</i>	The project area is located in the Limpopo Province of South Africa and covers at least 7 municipalities, both district and local municipalities. Municipalities covered include: Vhembe District Municipality, Mogalakwena Local Municipality, Makhado Local Municipality, Capricon District Municipality, Molemole Local Municipality, Aganang Local Municipality and Lephalele Local Municipality
<i>Land</i>	Communal: Residential & Subsistence Farming Government: Municipal offices and parastatals (Eskom substation) Private Land: Game farming, cattle ranching and commercial farming, salt panning/mining and technological and industrial hubs
<i>Land Owner(s)</i>	Government, Community/Tribal Authorities, Game Farmers, Salt Panning/Mining Firms, Private Commercial Industries
<i>Applicant</i>	Eskom Transmission assisted by Nzumbululo Holdings (Pty) Ltd – EMD
<i>Proposed Development</i>	Development of 3 proposed 400kV Lines (Options still assessed), covering a total area of +/- 250 KM in extent, between Borutho and Nzhelele, Limpopo Province, South Africa
<i>Access</i>	Existing roads, routes and human foot paths

2 DESCRIPTION OF PROPOSED ACTIVITIES

2.1 Infrastructure Proposed

Table 2- List of Activities

Activity 1	Borutho–Nzhelele 1 - Construction of a 400kV Line from Borutho to Nzhelele. A line located east of the Makgabeng Plateau, south and south east of the Blouberg Mountains and northwest and north of the Soutpansberg Mountains (Figure 6). Including bulk infrastructure to support the construction process.
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Activity 2	Borutho–Nzhelele 2 – Construction of a 400kV Line from Borutho joining Borutho-Nzhelele 1 northwest of the Soutpansberg Mountains and north of Soutpan Eskom Substation – continuing as Borutho-Nzhelele 1 thereof to Nzhelele north of Paradise T Station Substation (Figure 6). Including bulk infrastructure to support to support the construction process.
Activity 3	Borutho-Nzhelele 3 - Construction of a 400kV Line deviating from Borutho-Nzhelele 1 west of Eskom Chloe Substation (Figure 6). Including bulk infrastructure to support to support the construction process.

2.2 Needs & Desirability

Table 3–List of activities inline with the project scope

Activity 1	Scoping of heritage resources within the proposed area of development – the area located between Borutho and Nzhelele, Limpopo Province, covering the following corridors (options): Borutho-Nzhelele 1, Borutho-Nzhelele 2, and Borutho-Nzhelele 3 as part of the EIA process for the proposed development of 400kV Lines for Eskom Transmission
Activity 2	The evaluation of the heritage value and potential of each corridor against another e.g. the heritage potential and the value/significance of heritage resources and sites in Borutho-Nzhelele 1 vs. the heritage potential and the value/significance of heritage resources in Borutho-Nzhelele 2 and 3 in order to inform the decision making process on which of the above 3 proposed options will be list impacted in terms of its heritage value and significance (less sensitive vs. high sensitive corridor) i.e. during the option section process and construction phase of the project .

2.3 No-Go Options

In terms of heritage resources value of the proposed area of development between Borutho to Nzhelele, the study prefers Option 2 (Borutho-Nzhelele 2) to Borutho-Nzhelele 1 and Borutho-Nzhelele 3 based on the following reasons:

- Borutho-Nzhelele 2 is proposed within an area that there has an already existing high voltage powerline connecting to Soutpan Substation, some few kilometres south of where in merges with Borutho-Nzhelele 1 to Nzhelele (Figure 19). The survey for this powerline mostly yielded significant heritage resources sites, in form of burial sites and graves (cemeteries) in the south and central regions of proposed development area.

- Although also located within the rich archaeological and cultural landscape of Limpopo – Borutho-Nzhelele 2 is located relatively far/or some distant away from some of the well-known and rich archaeological areas such as the Makgabeng Plateau and the Blouberg Mountains with exception to the Soutpansberg Mountains. It is located west of these mountains and away from known archaeological sites (Figure 8 – known sites in the Soutpansberg Mountains).
- Borutho-Nzhelele 1 yielded more burial sites and graves because of the high number of villages found along this corridor. These are located in both formalised tribal authority/Moshate cemeteries while some are found in areas that were previously occupied by early villagers. It is also closely located to the Makgabeng and Blouberg biosphere and rock art area. Along this corridor/option the villagers raised a number of issues during the survey and they include issues around exposed and disturbed graves through road construction and previous powerlines. Because, Borutho-Nzhelele 3 is a deviation of this option for few kilometres the same issues will undoubtedly influence its choice of selection.

The study did not yield any no go areas, but areas deemed to be highly sensitive in terms of their heritage potential and value. Option 1 and 3 are not preferred because of issues arising from previous project that are not linked or connected to the current project such as disturbed and exposed grave remains. Because of the many types of heritage resources that would potentially be impacted in these two options and the sensitivity of the issue of exposed grave remains, Borutho-Nzhelele (Option 2) was deemed a better alternative out of the 3 options until it merges with Borutho-Nzhelele 1 north of Soutpan Substation – continuing as Nzhelele Borutho-Nzhelele 1. Therefore, the existence of certain types of heritage resources and socio-political issues surrounding previous projects in the area partially influenced the selection of Borutho-Nzhelele 2 over the other 2 options.

2.4 Methodology

The methodology of the study is influenced by the objectives of archaeology (as well CRM). One of the primary objectives of archaeology, and that of CRM practitioners, is the quest to understand man's interrelationship with his/her surrounding – how man through history (based on prehistoric records as presented by archaeological resources sites, objects and artefacts and other forms of material culture, and cultural remains (e.g. different forms and types of burial)) interacted, adapted and used his/her environment (Joukowsky, 1980). This provides archaeologists and CRM practitioners alike with a window into the past, present and

'potential future' of the cultural and natural environment that man has lived in and its evolution over time and space.

This scoping study followed the following research methods:

Heritage screening of the 3 proposed development corridors (Options) from Borutho to Nzhelele, Limpopo Province. The process entailed a review of research work done in the region – both academic/scholarly and CRM based research (e.g. Huffman 2007; Smith & Hall 2000; van Schalkwyk, 2007). The use of Google search engine for recent and contemporary history of the study region i.e. Limpopo Province, focusing on areas covering the 3 corridors in order establish what is known of the region outside scholarly and CRM research and publications. The Google search engine tool was expanded to using Google Earth to determine potential archaeological areas based on the following criteria:

- The presence and concentration of vegetation
- Highly disturbed areas (potential to yield archaeological resources)
- Areas cleared of vegetations
- High raised areas or koppies/small hills for they have potential to yield archaeological resources.
- The location and the distribution of potential burial grounds and graves in the landscape. This was aided by cadastral search of archaeological and heritage resources sites.

Archaeologists (and CRM practitioners) generally refer to this process as desktop study.

The screening process was followed by a survey of areas identified as potential archaeological and heritage areas to ascertain or prove their validity in the landscape. Archaeologically speaking, the objective of the survey can be summarised as follows: to locate the sites in the landscape, to establish site boundaries, to plot or mark such sites, to subdivide the area into grids for further research, to describe the topographic nature of each site, to locate find spot, exposure or scatters within or outside the or relation to identified sites, to prepare a map that include site and the surrounding area, including finds in the area (ibid).

The third method used is the 'site significance assessment and evaluation method' as prescribed in SAHRA and ASAPA minimum standards for the evaluation of archaeological sites significance.

Processes and standards for conservation of culturally significant resources such as the SAHRA Policies and the Burra Charter also inform the report. Assessment and evaluations of the identified heritage resources sites to gauge their significance

- o This process also informs the discussion and recommendations made in this report - recommendations on the processes and/or guidelines to be followed by Eskom Transmission for the management of heritage resources after selection of preferred option

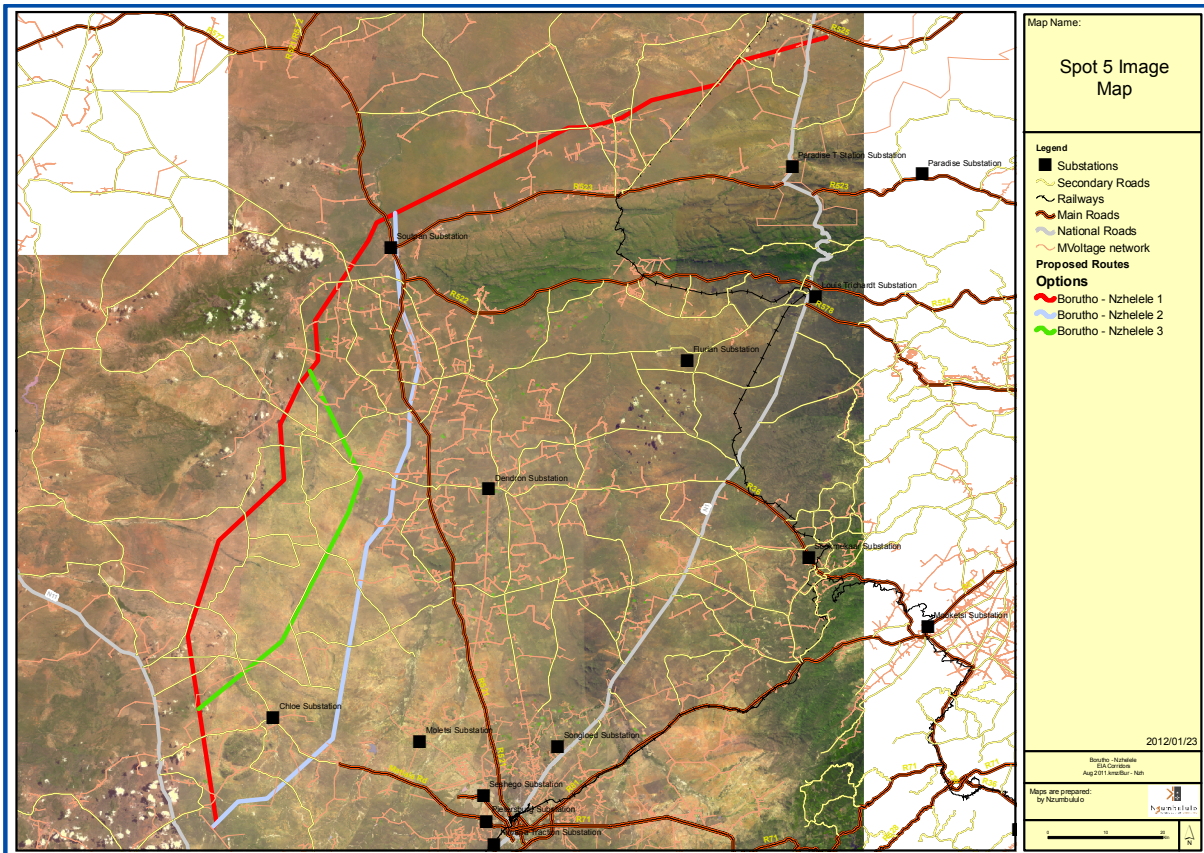


Figure 1- Spot Image for the proposed 400kV Lines development corridors/Options. Note some of the mountainous areas in and around the proposed development corridors.

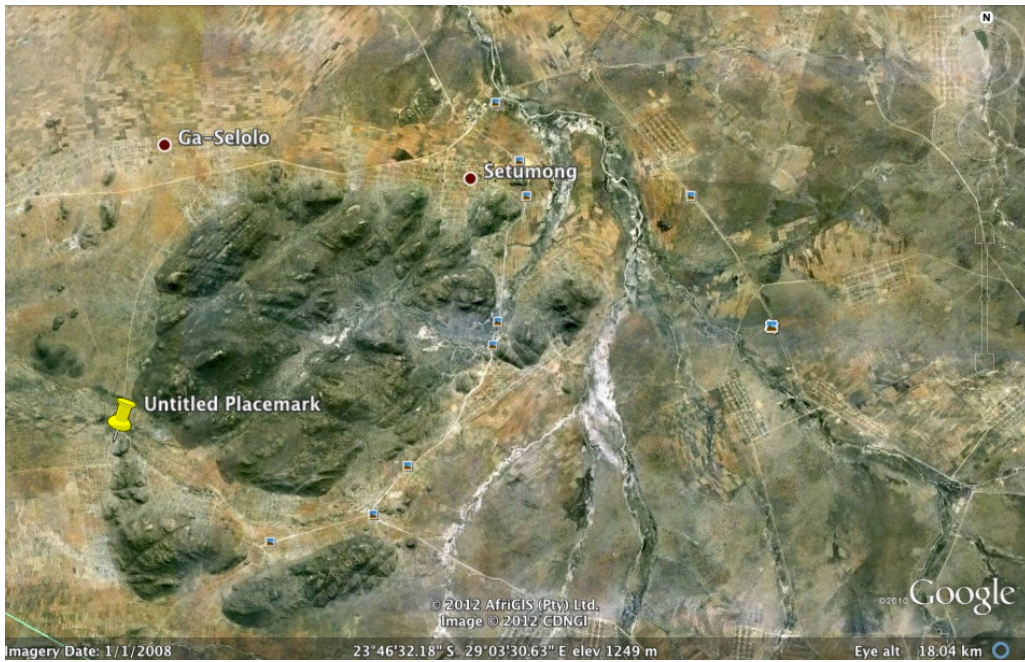


Figure 2- Spot image of potential archaeological area- area that might potentially contain archaeological and rock art sites, ridges/hills/koppies in Borutho between Option 1 and Option 3. @ Google Earth, 2012.



Figure 3- Spot image of what archaeological sites look like in the landscape from space @ Google Earth, 2012



Figure 4 - Spot image of a typical burial sites/cemeteries from space. @ Google Earth 2012.

2.5 Heritage Sites Evaluation Methods

2.5.1 Site Significance

Site significance classification standards prescribed by the South African Heritage Resources Agency (2006) and approved by the Association for Southern African Professional Archaeologists (ASAPA) for the Southern African Development Community (SADC) region, were used for the purpose of this report.

Table 4-Site significance classification standards as prescribed by SAHRA

FIELD RATING	GRADE	SIGNIFICANCE	RECOMMENDED MITIGATION
National Significance (NS)	Grade 1	-	Conservation; National Site nomination
Provincial Significance (PS)	Grade 2	-	Conservation; Provincial Site nomination
Local Significance (LS)	Grade 3A	High Significance	Conservation; Mitigation not advised
Local Significance (LS)	Grade 3B	High Significance	Mitigation (Part of site should be retained)
Generally Protected A (GP.A)	-	High / Medium Significance	Mitigation before destruction
Generally Protected B (GP.B)	-	Medium Significance	Recording before destruction
Generally Protected C (GP.A)	-	Low Significance	Destruction

3 BACKGROUND SUMMARY

3.1 Nature of Development

Nzumbululo Holdings (Pty) Ltd –EMD is currently conducting an Environmental Impact Assessment study on behalf of Eskom Transmission for 3 proposed 400kV Lines between Borutho and Nzhelele, Limpopo Province, South Africa in line with the principles of the NEMA, No.107 OF 1998. This heritage scoping study form part of the cultural environment mmanagement process as stipulated in the NEMA (No.107 of 1998) and in line with the principles of the NHRA, No. 25 of 1999.

3.2 Project Area

The Limpopo Province provides a unique canvas into the prehistory and history of the different South African and southern Africa culture groups and their activities in the landscape over time and space. The material culture and the landscape features they left behind in this unique cultural geography attest this to. For example, stone tool, rock art (pictographs and engravings); pottery, iron implements, spear sharpening groves; cupules; stonewall sites; remains of huts and grain bin foundations; beads and beadworks; clay and often gold foiled figurines; metal and gold gongs and leather works all act as evidence to human activities and their interaction with this landscape. Other features that act as evidence for human activities in the area include: cattle kraals and exposed layers of dung (some vitrified), ash dumps/heaps/middens, graves and burial grounds. The 18th century settler farming and industrial heritage sites are other features that define the Limpopo cultural landscape; for example, historical houses, windmills etc.

Limpopo is one of the few South Africa provinces with a multi-layered archaeological record – documenting the existence of the Stone Age people (Early and Middle), San Hunter-gathers (Late Stone), the Khoekhoe Herders, the Iron Age Bantu Speaker farmers (Early to Late Iron Age) and the Colonial settlers in that province. This archaeological record does not only mark the existence of human activities but also act as testimony to the different processes of interaction thereof between these different culture groups and the different processes that resulted to the peopling of this Limpopo Province. For example, the interaction between San hunter-gathers, Khoekhoe herders, Iron Age farmers and the colonial settlers are represented in modern historic records and in prehistoric records such as rock art found throughout that province.

Archaeologists use different forms of material culture to define each of the above cultural groups in the landscape – within a specific archaeological site or region. Reason for this is that, "groups of people around the world have used their material

culture to express their identity" (Huffman, 2007). As such the different forms of material cultures found at archaeological sites in that province and throughout the SADC are used as indicators for defining various culture groups. For example, the region is known to be associated with three groups within Bantu Speakers - Sotho-Tswana, Venda and Zimbabwe cultures.

The project area is ensconced between four well known and highly researched rock art areas – the Blouberg Mountains and Makgabeng Plateau in the west, the Soutpansberg Mountains east of Borutho-Nzhelele 2 and south of Borutho-Nzhelele 1, the Limpopo Shashe-Confluence Area in the north and north of Borutho-Nzhelele 1 to Nzhelele and north of the Soutpansberg Mountains and the north eastern Venda (e.g. Hall & Smith 2000). This makes it a unique landscape in terms of rock art and other forms of archaeology often associated with rock art in one site or along one another; for example, Stone Age archaeology and some of the Late Iron Age archaeology. In year 2009 the Blouberg Mountains, Makgabeng Plateau, the Soutpansberg Mountain range, Mapungubwe Cultural Landscape (further north) and the Kruger National Park (further east) were proclaimed as part of Vhembe Biosphere by UNESCO giving this landscape world recognition in terms of natural and cultural environment. This status has the potential to influence any development activities in this landscape and as such the current project will be partly influenced by laws that govern such proclamations or declarations.

3.3 Location Details

Province: Limpopo

Local Municipalities: Vhembe District Municipality, Mogalakwena Local Municipality, Makhado Local Municipality, Capricon District Municipality, Molemole Local Municipality, Aganang Local Municipality and Lephalale Local Municipality (this one not included in the BID).

Current land use: Residential, partly residential, hospitality and/or game farming, industrial, ranching, and commercial agriculture.

1:50 000 maps name:

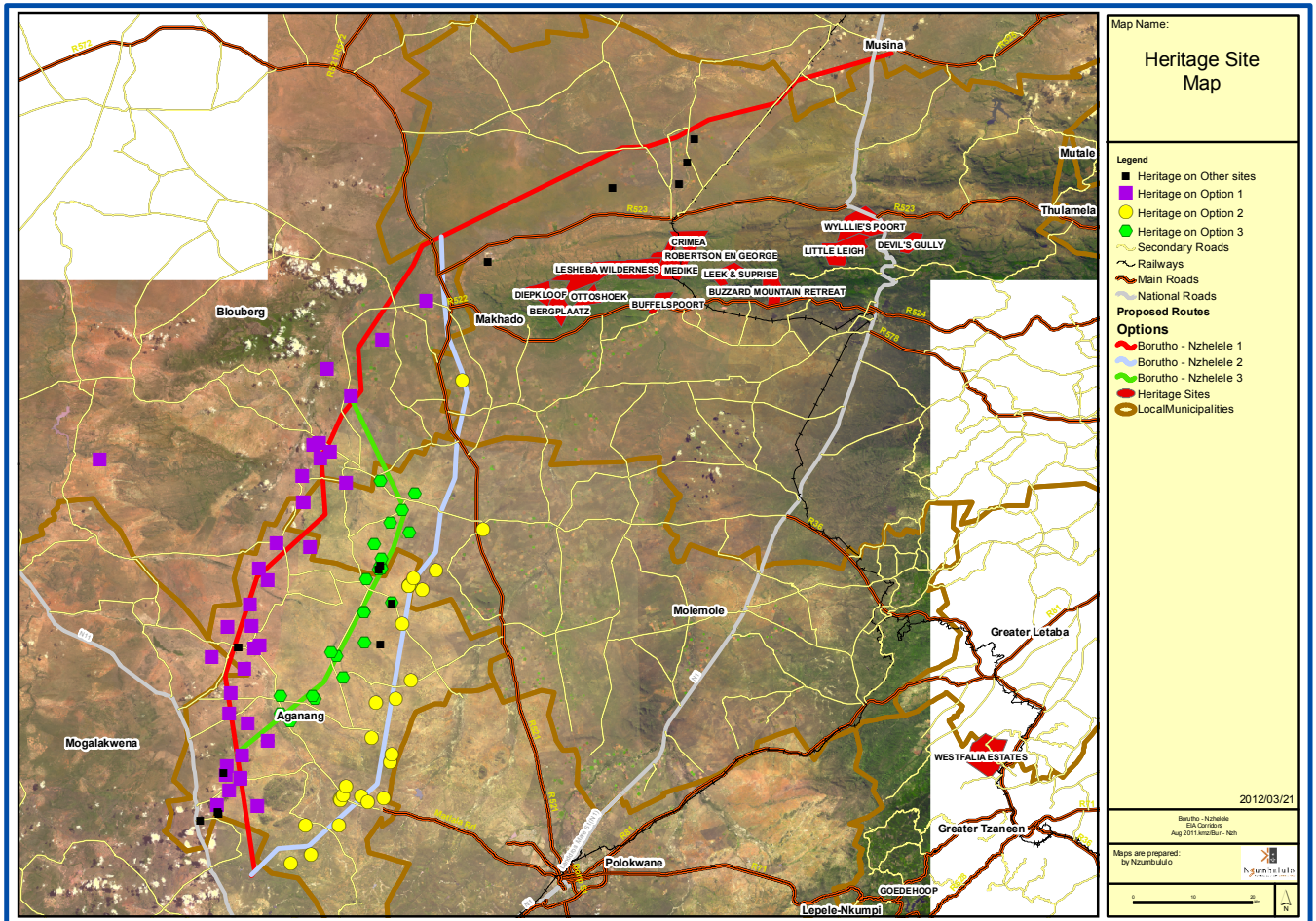


Figure 5- Location of the study in the area between Polokwane in the south-east, Mogalakwena in the south-west, Blouberg Mountain in the western central and Makhado in eastern-central as well as Musina in the north.

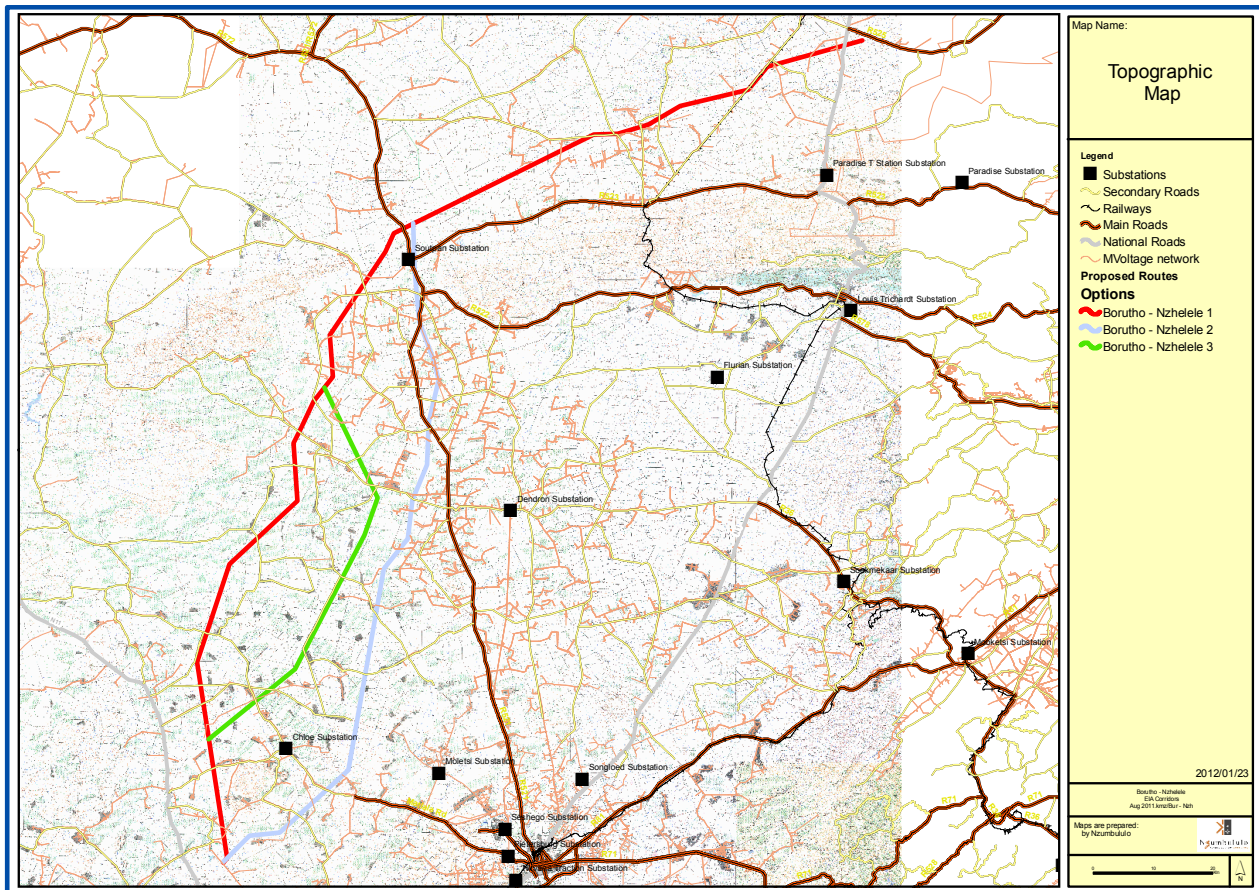


Figure 6 - Location of the 3 proposed 400kV Lines corridors – Option 1, 2 and 3, Limpopo Province, South Africa

4 BRIEF CULTURE HISTORY

4.1 Archaeological Background

4.1.1 Stone Age Archaeology

The study area has long history of occupation – its Stone Age archaeology covers all three periods of southern Africa Stone Age: the ESA, MSA and the LSA. The following dates are given for the known Stone Age sites in the region – north, west, east and south of the Soutpansberg Mountains: ESA (1000 000 - 200 000 years ago), MSA (200 000- 20 000 years ago) and the LSA (20 000 -1000 years ago) (Huffman 2007; Hannisch, 2003; Hall & Smith, 2000). Also see Van Schalkwyk (2007) for broader South Africa Stone Age archaeology dates. The Stone Age sites include both stone artefacts and rock art, which continues to the Iron Age and colonial period (e.g. Hall & Smith, 2000; Hannisch, 2003). Evidence of this continuity in Stone Age culture (archaeology and rock art) is well documented in sites such the Salt Pan Shelter in the Soutpansberg Mountains, Little Muck in the Limpopo Shashe Confluence Area, the Makgabeng Plateau and the Blouberg Mountains (e.g. Hall & Smith, 2000; Blundell & Eastwood, 2001; Eastwood, 2003) (Figure 8). The most recent Stone Age periods – the MSA and the LSA are associated with the San hunter gather who

among other material culture they left behind include beads (predominantly ostrich shell beads), bone and stone arrow heads etc. Most of their material culture such as stone and bone tools, beads etc occur in form of scatters and occurrences distributed through that region. Rock shelter sites also contain this material culture, but are mostly known for rock art in form of pictographs, with few engravings occurrences (Deacon & Deacon 1999, Hall & Smith 2000). Hunting camps and ash middens contain Stone Age material remains have also been referred to (e.g. Murimbika and Tomose, 2012 referencing Deacon 1999).

4.1.2 Iron Age Archaeology

The Limpopo province is one of the richest Iron Age archaeology research regions in southern Africa containing diverse Iron Age sites. It is most probably the most extensively researched region in terms of Iron Age archaeology owing to the diverse Iron Age cultures and traditions found in this region. Like the Stone Age period, the Iron Age period of Limpopo Province can be subdivided into three chronological categories: the EIA (Early Iron Age), MIA (Middle Iron Age) and LIA (Late Iron Age) (e.g. Huffman, 2007; van Schalkwyk, 2007; Hannisch, 2003; Hall & Smith, 2000). Many of the Iron Age sites occur near the flood plains, along and near some of the major rivers; however, some are known to occur in defensive slopes along some of the Limpopo hill slopes and/or mountainous areas (e.g. van Schalkwyk, 2007; Huffman 2007 also see Hall & Smith 2000) (e.g. Figure 6). Refer to Figure 8 for the distribution of some of the well-known archaeological sites in the region (map after - Hall & Smith, 2000).



Fig. 2. Typical fortified hill (stone walling in the background of the picture).

Figure 7- Example of defensive stonewall above contemporary village. After van Schalkwyk, 2007.

Hannisch (2003) puts the date for Iron Age archaeology of the area north and south of the Soutpansberg Mountains, as well its western and eastern section, to:

- EIA (300 – 700 AD) and the known sites include among others - Happy Rest, Silver Leaves, Eiland – refer to Figure 8 for some of these sites like Happy Rest South of the Soutpansberg Mountains
- MIA (900 – 1300 AD) and the known sites include among others - K2/Mutamba and Mapungubwe – refer to Figure 8 for sites such as Mapungubwe north of the study area
- LIA (1300 -1833 AD) and the known sites include among others – Moloko (early Sotho), Zimbabwe, Khami, early Venda, early Tsonga and Vha-Ngona site - refer Figure 8 for some of the Moloko sites north of the Soutpansberg Mountain.

Contrary to Hannisch (2003), Huffman (2007) and van Schalkwyk (2007) date these sites much earlier - when the Early Iron Age (EIA) proto-Bantu-speaking farming communities began arriving in this region, which was then occupied by hunter-gatherers (Hall & Smith, 2000). For example, van Schalkwyk (ibid) date early known Iron Age site to 200 AD. These EIA communities are archaeologically referred to as the Kwale branch of the Urewe EIA Tradition (Huffman, 2007: 127-9). The Iron Age communities occupied the foot-hills and valley lands introducing settled life, domesticated livestock, crop production and the use of iron (also see Maggs 1984a;

1984b; Huffman 2007, van Schalkwyk, 2007). Alongside the Urewe Tradition was the Kalundu Tradition whose EIA archaeological sites have been recorded along the Limpopo region. Limpopo region is known for the famous golden rhino that was recovered from Iron Age settlement site of Mapungubwe in the Limpopo Shashe Confluence Area Valley (Murimbika & Tomose, 2012). The Limpopo region is also known for the Late Iron Age Great Zimbabwe Culture sites such as Lephhalale and Dzata (ibid). The Kalundu Tradition, one of the LIA traditions occurs in the region (Huffman, 2007).

Because the region was the centre of immigration and migration by the different African groups some of which are ancestors of the contemporary Northern Sotho such as the Tlokwa (west and southwest of the Soutpansberg), Lovedu (east and southeast of the Soutpansberg), the Matala in the Borutho (Mokopane area), Bapedi and the Ba-Hananwa (e.g. Ga- Malebogo according to the locals) in the Makgabeng, Blouberg and Bochum area. The Vha-Venda who are dominant the north-eastern, eastern and the south-eastern section of the Soutpansberg Mountains, co-existing along the Lovedu – best known for their rain queen, Queen Modjadji. There are archaeological sites that are intermediate between each of these later Iron Age period cultures in the region (e.g. Hannisch, 2003).

4.2 Contemporary History and the Peopling of the Region

Throughout the middle of the 1800 Century AD the region witnessed an array of occupation and reoccupation by the different culture groups that contributed to the peopling of the present day Limpopo. This was partly influence by the *mfecane* processes, contributing to migrations and displacements of people in the region and throughout many parts of South Africa and southern Africa. For example, in the region the *mfecane* processes can be linked to the Ndebele of Mzilikazi who later settled in Zimbabwe. The Displaced 'northern Zululand' Ngoni (known in the area east of the study as Vha-Ngona) in the Letaba area – the former Gazankulu area also influenced the peopling of this region. The other influence to peopling of this area can with the early colonial settlers in the 1840s. This like the *mfecane* also triggered wars in the region – wars between the African chiefdoms and the incoming settlers. One such example is the battle of Blouberg, also known as the Malebogo wars, between Chief Malebogo and Kruger in the Blouberg Mountains and the Makgabeng Plateau (Smith pers.com 2006). Some of these colonial wars and battles lasted into the First (mid 1860s) and Second (1899 -1902) South African War (formerly known as the Anglo-Boer Wars). The later effectively led to complete subjugation of African communities to settler administration starting as part of the ZAR of Transvaal, the Union of South Africa in 1910 following the annexing of the region by the British, the Nationalist South Africa (1982), the Apartheid South Africa as

proclaimed in 1962 up to late 1980s until the Democratic South Africa resulting from first democratic elections in 1994.

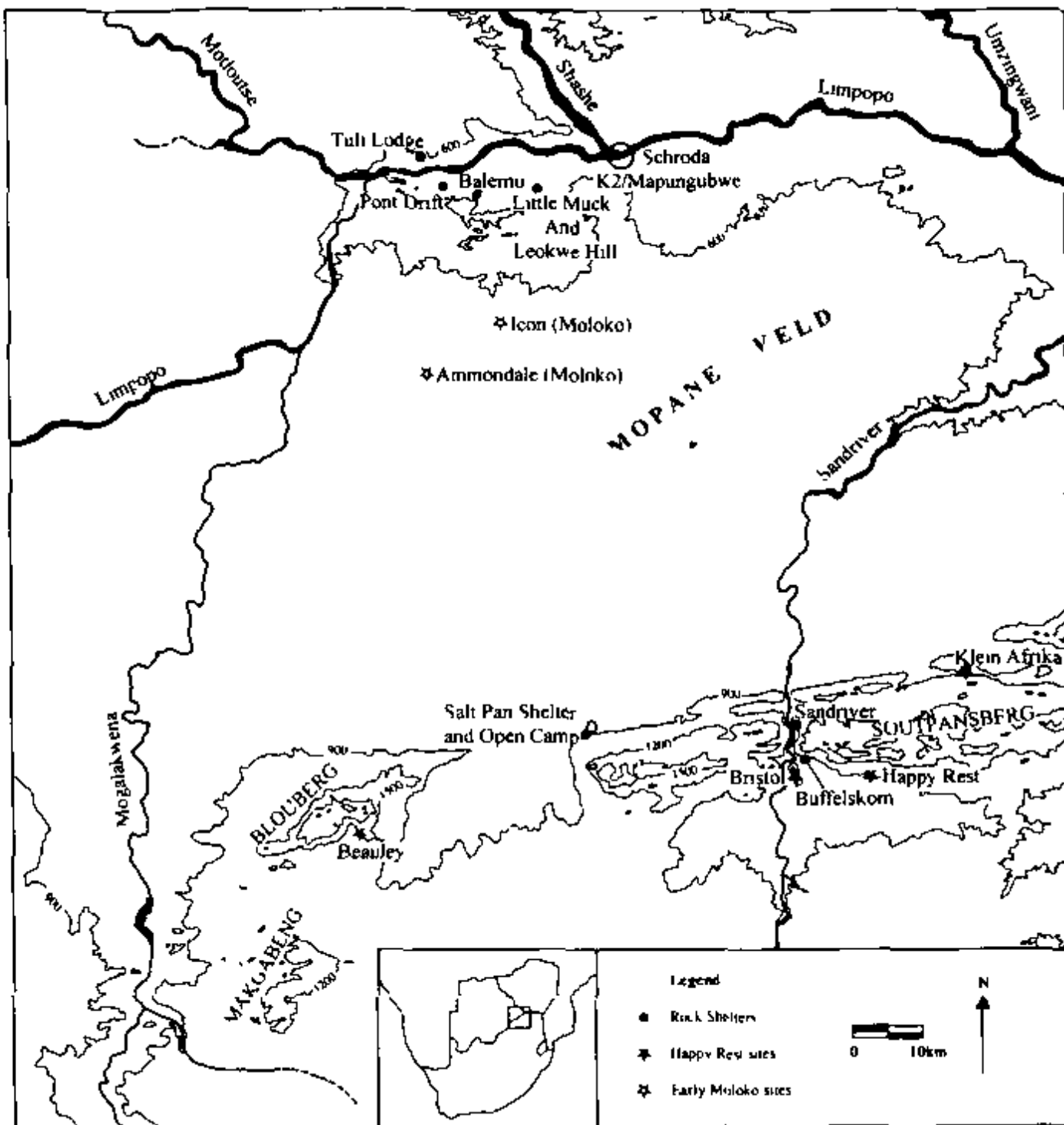


Figure 8- Map showing the location of known archaeological and rock art sites @ Hall & Smith, 2000.

5 RESULTS OF THE STUDY

The 3 corridors (Options) were assessed in terms of their heritage potential and in terms of the value and significance of the identified heritage resources and sites – these resources and sites included among others: archaeological and rock art sites, burial grounds and graves, cultural landscape, built environment and landscape. This chapter presents results of the work done on each corridor out of the 3 Options proposed by Eskom Transmission. It has to be noted, however, that not all resources referred to in this chapter were yielded by the physical survey of the study. Some of these resources were yielded through review process of previous HIA studies and systematic research studies done within the broader area of the proposed development (e.g. Table 7). Approximately 98% of heritage resources yielded in the study were burial grounds and graves in form of tribal cemeteries (depara tsa Moshate). The rest, which make up 2% of the study are archaeological ruins and rock art sites like the saltpan cave.

Table 5- List of HIA done within the broader geography of the proposed development area

Year of Study & Author	Project Name	Archaeological & Rock Art Sites	Built Environment & Landscape	Grave Site
2012, Murimbika & Tomose	Heritage Scoping Report for Lephhalale Local Municipality, Waterberg District Municipality, Limpopo Province	Rock art and Iron Age site	Historic villages	Over 40 gravesites and/or cemeteries
2010, Gaigher & Associates	Heritage Impact Assessment for the Proposed Extension of Existing Tabor Substation as well as the Proposed Re-Alignment of the Tabor Louis Trichardt 132 kV Line	Iron Age sites	No built environmental sites were identified	No gravesites
2007, van Schalkwyk	Heritage Impact Assessment for the Planned Spencer Tabor Powerline, Limpopo	Iron Age sites	Defensive stonewalls, historic and modern village structures	No gravesites
2003, Hannisch	Heritage study of the Soutpansberg	Stone Age and Iron Age sites, reference to rock art sites	-	-
2000, Hall & Smith	Empowering Places: Rock Shelters and Ritual control in the Farmer- Forager Interactions in the Limpopo	Iron Age sites and rock art sites. Reference Stone Age sites	-	-

	Province [A Case of Saltpan Rock Shelter]			
2009, van Schalkwyk	Heritage Scoping Assessment for the Proposed Development of Coal Mine Activities West of Lephalale, Limpopo Province	No archaeological sites were identified	No built environmental sites were identified except reference to Steenbokpan village	No gravesites were identified
2009, Marias-Botes	HIA for Phase 1 of the Proposed Mokolo and Crocodile River (West): Water Augmentation Project (WCWP)		3 sites including Steenbokpan Village	1 gravesite
2007, Prestorius	A Phase 1 HIA Study for the Eskom Mmabule Delta Project Near Lephalale in the Limpopo Province, SA	Rock engravings site – Nelsonskop	Various sites including the Steenbokpan Village	Approximately 12 grave
2006, van Schalkwyk	Environmental Scoping Report for the Proposed Establishment of a New Coal-Fired Power Station in Lephalale	1 Iron Age Site – pottery		2 gravesites

5.1 Option 1 – Borutho-Nzhelele 1 (red line):

A number of known heritage resources sites occur in and around this proposed development corridor from its inception point (around Mokopane area), in its mid-central sections (around Makgabeng and Blouberg) to the end point (north of the Soutpansberg Mountains) (Figure 4). For example, archaeological (including rock art) resources sites search for this corridor yielded a number of sites in the Makgabeng Plateau and the Blouberg Mountain both located central and the north-western section of the corridor – refer to *Figure 1* for the location of both Makgabeng Plateau and the Blouberg Mountain. Other known archaeological resources and sites occur in the Soutpansberg Mountains located south of this corridor toward Nzhelele (Figure 1 – Soutpansberg in relation to the corridor). Most of the known sites of Makgabeng Plateau, the Blouberg and Soutpansberg Mountains predominantly consist of rock art although Iron Age sites and Stone Age sites are also found throughout and in between these three dominant landscape or geographic features. For example, systematic research in Makgabeng and the Blouberg and the Soutpansberg Mountain has yielded 3 rock art traditions – the rock art of San Hunter Gathers (LSA), Bantu finger paintings and what is known as protest art in the Makgabeng (associated with the Maleboho Wars (Smith)), and the Khoekhoe herder art. North of the Soutpansberg and within corridor 1 – Moloko Iron Age site are known (Figure 8).

The survey of this corridor (Option) yielded approximately 46 heritage resources sites. A large concentration of these sites is burial grounds and graves - village cemeteries (these sites are included in the GIS Map) - refer to Figure 14 for a typical cemetery found along this corridor. The physical survey of this corridor confirmed these sites and others were found within and in between villages – some in form of a single grave located near a road in between houses (Figure 9), while others were two or more graves in between houses and near the roads (Figure 10) and others in unformalized cemeteries - identified through search of Mexican sloe plants (Figure 11).

In one of the villages located along this corridor (Option), the survey for archaeological sites based on the Google Map spot images yielded a burial site with exposed burial remains (Figure 12). Refer to Figure 14 for the location of this burial site in the landscape. Associated with these human remains exposed to the surface during road construction activities (D19 from Polokwane to Harris) are potsherds scattered across the grey soils characterizing the site (Figure 13 - potsherds).

Also located along this corridor, mainly in the south and central regions before it merges with Option 2 are contemporaneous historic-archaeological sites (Figure 15). These sites are marked by large concentration of Mexican sloe trees – their large concentration is indicative of some sort of soil disturbances through settlement processes or other human activities such as the development of dumpsites through continuous dumping of unwanted material including ash from the close by settlement.

North of the Soutpansberg Mountain and just south of the current Option on its way to Nzhelele – approximately 5 archaeological sites were located. These sites include the Saltpan Cave with known rock art and Stone Age material (e.g. Hall & Smith, 2000). The predominance of these sites are Iron Age sites and possible Moloko or Venda site owing to the fact that known sites in this area belong to Moloko tradition (e.g. Hall & Smith, 2000). Also found north of the Soutpansberg Mountain are historic built environment and landscape features such as old railway bridges and farms houses (Figure 16).

In terms of contemporary cultural landscape and associated beliefs (cultural and spiritual beliefs associated with the physical geography) – there area between this corridor (Option 1) and Option 3 yielded a mountain associated with Cultural and Spiritual Beliefs the Mogoshi Mountain in the village of Madiyetana. This mountain is ensconced between the current corridor (Option 1) and Option 3 and is in close proximity to both corridors.

According to Mr K, Mohlake (pers.com 2012):

- The mountain is “taba yaba Dimo” – the mountain of the ancestors/gods
- Before one can summit it he/she needs to first ask for permission from Ga-Moshate – the herdsmen authority
- Once granted permission by Moshate, one needs to say his family praise names in full before attempting summit/climb
- One should not go to the mountains with weapons and any other tools or in a bad emotional state
- When you climb the mountain in a group of two or more you should not speak to each other at all while in the mountain
- Failure to do so will result in the people who stay in the mountain abducting you and making you stay in the mountains for weeks with a possibility of not returning.
- According to Mr Mohlake villagers have heard of such stories of people not returning from the mountain. Mr Monyamane, who also said that he has heard such stories even though he did not personally believe in them since the tales about Mogoshi Mountain have not been scientifically researched and proven, also confirmed this. (Mr Mohlake – 082 582 1055 & Mr Monyamane - 076 534 7222)



Figure 9- A single grave located near a road in Phofu Village.



Figure 10 - Approximately 3 graves located near a road.



Figure 11- Grave not in a formalized cemetery found in between Mexican sloes plants



Figure 12- Human bone and teeth exposed through road construction activities - this site is located within Option 1.



Figure 13- Pottery found in association with the exposed graves.



Figure 14- Example of typical Moshate cemetery found in this Option



Figure 15- Example of contemporary archaeological sites - note the concentration of Mexican aloe plants. This is indicative of soil disturbance in the area. This concentration is indicative that there was some form of settlement of this area some tens or hundreds of year ago.



Figure 16- Historic bridge north of the Soutpansberg Mountain and some KMs south of Option 1 to Nzhelele.

5.2 Option 2 – Borutho-Nzhelele 2 (grey line):

The Google Earth spot search and physical survey of this Option mostly yielded burial grounds and gravesites (cemeteries) in the southern and central regions of this corridor (Figure 17). Most of these burial grounds and graves are enclosed/fenced or formalized cemeteries contrary to Option 1 where one finds a mix of enclosed/fenced and unfenced cemeteries. This could be as a result of the village settings between the villages in Option 1 and 3 vs. those found in this corridor, which are more modern while in Option 1 and 3 one finds a mix of modern and traditional villages. In total, approximately 26 heritage sites were located in this Option. The central sections of this corridor to where it merges Option 1 north of the Soutpan Eskom Substation is dominated by modern villages, small village towns such as Vivo and Alldays, and farms (cattle ranching and game farms). From the central regions to where it merges with Option 1 it is also characterized by high volume of high-voltage power lines – from south to north into Saltpan Eskom Substation (e.g. Figure 19). Archaeological resources sites were yielded east of this corridor, and south of the first corridor (Option 1), in the Soutpansberg Mountains (Figure 16) – this include the Soutpan Cave Site (Figure 16) known for its rock art and archaeological deposit (Hall & Smith, 2000). Iron Age stonewall sites are known to occur above this cave site (Crystal Salt – owner pers.com 2012). At the Crystal Salt main industrial site and offices a historical buildings was located (Figure 18). Such historic built environment and landscape features may be found in the farms along this corridor –the current study survey did not yield many such sites as a result of limited access in the farms.



Figure 17- Saltpan Cave



Figure 18- Historic building at the Saltpan Cave industrial site



Figure 19 - High-voltage Lines leading to Saltpan Substation - Option 2

5.3 Option 3 – Borutho-Nzhelele 3 (green line):

Like Options 1 and 2, this corridor yielded a number of burial grounds and gravesites. In total, approximately 27 heritage resources sites were located along this corridor. These include burial grounds and graves and historic-archaeological sites characterised by concentration of Mexican aloes trees similar to those found in Option 1 (Figure 15). These sites are marked by large concentration of trees and a close examination of them confirms human activities – for example, in one site animal borrow pit revealed ash dump like soils (Figure 20). No other significant archaeological sites such as rock art, Stone Age and/or Iron Age were identified during the site survey of this corridor. The cultural landscape of Madiyetana (Mogoshi Mountain) located west of this corridor and east of Option 1 is acknowledged as one of the significant heritage resources sites in the area adding to the identified burial ground and graves. Unlike Options 1 and 2, this corridor does not cover large extents of land – it is a deviation from Option 1, which it joins again north of Bochum and south of the Blouberg Mountain.



Figure 20- Exposed ash dump like soil through animal borrowing.

GIS Maps Showing the Distribution Patterns of Identified Heritage Resources Sites for Options 1, 2 and 3: Borutho –Nzhelele 400 kV Lines.

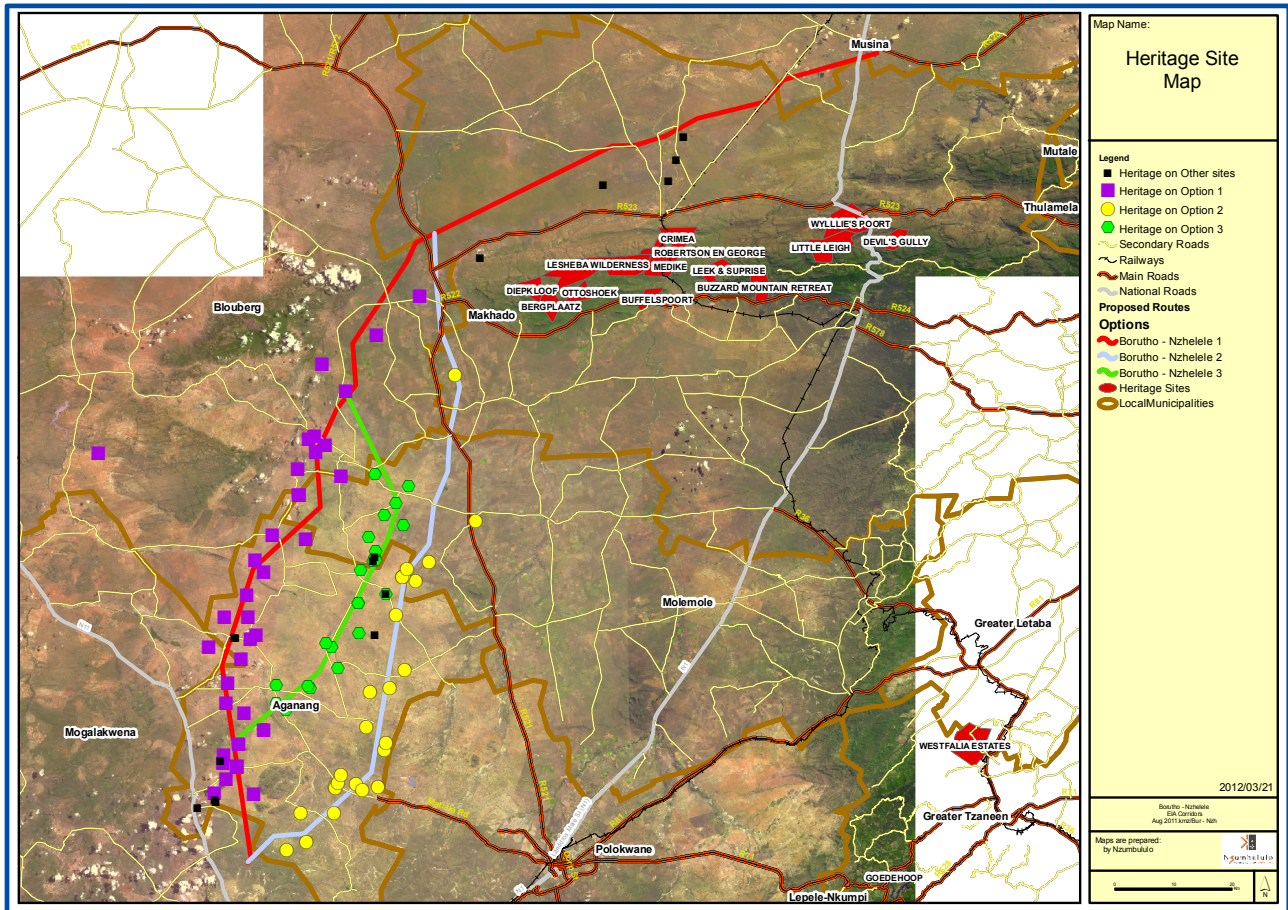


Figure 21- Distribution of heritage resources sites along the 3 proposed corridors (Options) - overlay on a Spot Image

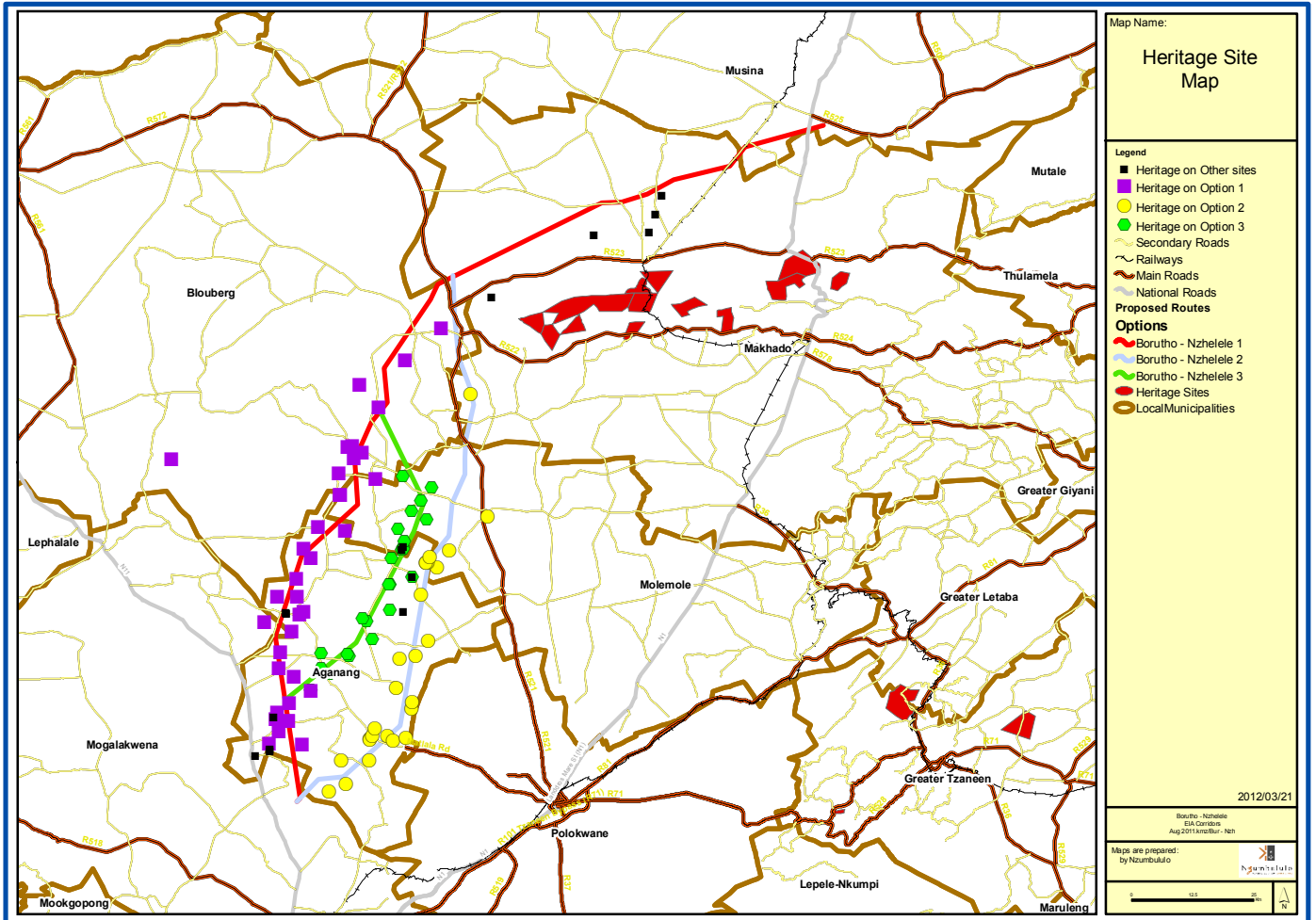


Figure 22–Distribution of heritage resources sites – Borutho-Nzhelele, Limpopo Province, South Africa. Topographic Map Overlay

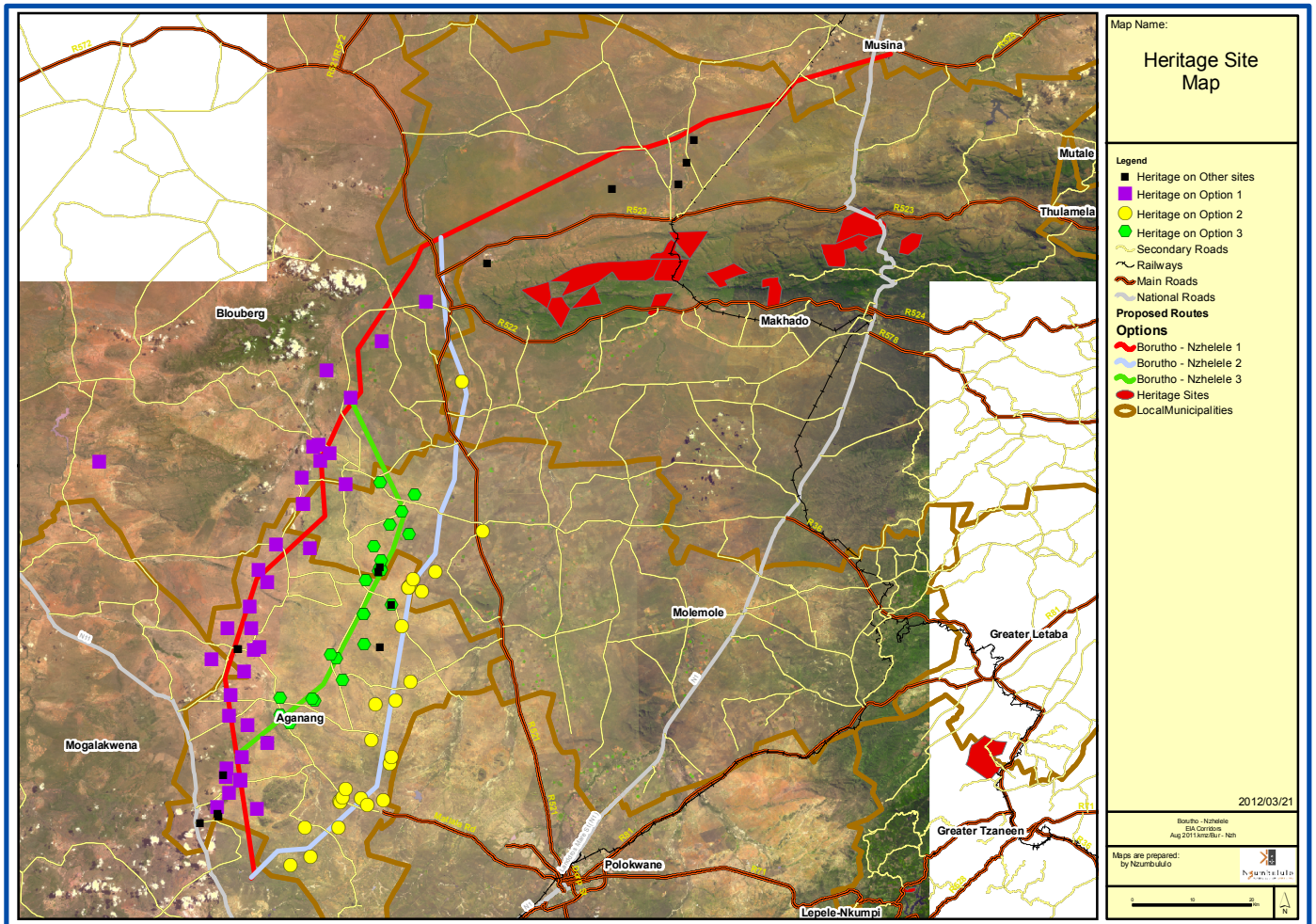


Figure 23- Distribution of heritage resources sites – Borutho-Nzhelele, Limpopo Province, South Africa. Spot Image Overlay – note, village names south of the Soutpansberg Mountains not included in this map.

Total Number of Identified & Mapped Heritage Resources Sites

In total, the survey of all 3 proposed Eskom Transmission Options i.e. Options 1, 2 and 3, yielded approximately 99 heritage resources sites. A large number of these sites are yielded along Option 1 followed by Option 3. Option 2 has least heritage sites when compared to Option 1 and 3.

- Option 3
- Option 1
- Option 2

Figure 24 - Graphic representation of the number of Identified and mapped heritage resources sites.

6 DISCUSSION

The study yielded a number of heritage resources varying from archaeological, rock art, burial grounds and graves some in form of formalized cemeteries (e.g. Figure 14) and others single (e.g. Figure 9), two or more graves not in cemeteries (e.g. Figures: 10-11). Other burial grounds and graves located in Option 1 were even exposed through road construction activities – leaving the communities around this project area fused with anger against proposed and current development in the area since they disturb their burial sites and graves (e.g. Figure 12, refer to Figure 13 for associated material culture) No rock art sites were identified within the 3 corridors, but archaeological sites, burial grounds and graves. Rock art sites were identified in the surrounding landscape of the Blouberg and the Soutpansberg Mountains as well as the Makgabeng Plateau through research and CRM publication search.

The Saltpan Cave site is the nearest rock art site to the proposed corridors – close proximity to Option 1 north of the Soutpansberg Mountains (e.g. Figure 17). Historic built environment and landscape features such as old buildings and a bridge were also yielded through physical survey of the study area (e.g. Figures: 16 & 18). The ones referred to in the presentation of the study results above fall outside the 3 proposed corridors, but are in close proximity to Option 1 – like the rock art sites north of the Soutpansberg Mountains. The identified heritage resources sites also include places associated with spiritual and cultural beliefs such as the socio-cultural geographic feature in Madiyetana Village i.e. the Mogoshi Mountain.

The significance of most of the identified and mapped heritage resources is predominantly high because of their type and nature – for example, burial grounds and graves located throughout most of the southern and central regions of the

study area in all 3 proposed corridors (Options). Archaeological resources are also of significant important as prehistoric records of the area. However, few such sites were yielded during the physical survey of the 3 proposed corridors (Options). Those identified are most likely to be historic in nature such as sites characterized by the large concentration of Mexican aloe plants (e.g. Figures: 15 & 20).

During the physical survey of the study area, archaeological sites were yielded in Options 1 and 3. No such sites were yielded in Option 2. Other such sites were yielded through projects search of the study area and its surroundings landscapes and other potential sites through map search and Google Earth spotting of the area under consideration – particularly archaeological sites north of the Soutpansberg Mountain range and south of Option 2 (refer to Figure 20-22 for sites south of Option 1 to Musina). These sites (possible Iron Age) locate south of Option 1 and north of the Soutpansberg Mountain range are deemed to be of special significance because they may be secondary sites to Mapungubwe or Venda cultures. However, we know through Hall and Smith that the area is known for Moloko sites (2000) – refer to figure 8 for example of Moloko sites in the Mopane Veld.

The totality of the diverse heritage resources located and mapped in and along the 3 proposed corridors gives the study area a unique and an interesting pattern in terms of heritage resources management. First is the large concentration of burial grounds and gravesites in all 3 Options, largely in the southern and central regions of the study area. Secondly is the distribution of archaeological sites. In the southern and central regions of the study there were few archaeological sites identified as compared to the northern regions of the study, such as the area north of the Soutpansberg Mountains. The low number of archaeological sites in the southern and central regions of the study could be as a result of high levels of human settlement density in these area while the north is largely game farms.

The historic built environment constitutes few industrial sites such as the old bridge north of the Soutpansberg range and a saltpan industrial building (Figures 16 & 18). Few historic architectural structures existing in the village concentrated area of the study – however, most of these have been added on some to a level where one can only see the remnants of roofs or one façade. The village settings also do not present extension of African vernacular architecture, as most villages are modern with exception to some villages located along Option 1 and 3.

It has to be noted that the heritage resources mapped in Figures 21 to 23 and also graphically presented in Figure 24 of the current study do not present the totality heritage resources located within the study area or along the 3 proposed corridors (Options), but resources only identified in this study. They do, however, assist us in

making informed decisions as to which of the 3 proposed corridors have potential of yielding more heritage sites and which have high heritage impact potentials. For example, Figure 24 shows the density of each of the 3 Options with Option 1 and 3 having high heritage sites density than Option 2. The heritage density of Option 3 is high than that of Option 1 and 2 if we are to consider the length that this Option covers – it is shorter than both Option 1 and 2 and has more sites than Option 2 with heritage resources making ½ of Option 1.

The 3 proposed corridors/Options cover a vast area of land varying from private (farms, game farms, industries), government owned and tribal land some which proved difficult to access during the physical survey of the 3 Options. It is, therefore, anticipated that more fine-tuned and detail studies of the selected Option in form of HIA could potential yield double the resources found in each of the 3 Options. The nature of the current study does not allow or warrant such fine-tuned research but rather seeks to give an outline of what is found in and around each of the 3 corridors from a multi-disciplinary site visit conducted in March 2012, a single headed survey of all 3 Options in April 2012 and from desktop research of heritage resources found in and around the 3 corridors and the 3 landmark features that characterizes the study area – the Blouberg Mountain, Makgabeng Plateau and the Soutpansberg Mountain range based on existing academic, previous CRM projects and heritage authorities databases.

The other reason for potential doubling of heritage resources numbers in is the study area is that, the current study does not include resources that could potentially be located in private land such as farms and game farms. For example, farm owners and farm labourer's family graves as well undocumented archaeological sites located in these farms or private land. Thirdly, some archaeological resources and burial grounds and graves are not always visible to the surface and are subterranean in nature- for example, buried pots/potshards, stone tools and Iron Age material culture such as iron implements and beads. The identification of such sites requires more scientific rigor research methods of STPs (shovel test pits) and systematic excavations of suspected sites, which the current study did not conduct.

Owing to the fact that the study has long history of occupation dating as far back as Stone Age (evidence Stone Age artefacts and rock Art in area such as the Blouberg Mountains, Makgabeng, the Soutpansberg, the Waterberg Mountains in the far west, and Mapungubwe Cultural Landscape further north), Early Iron Age (e.g. Moloko sites – Hall & Smith), Colonial to much recent settlement of the area dating from the 1800s, to the Union 1910, the Nationalist period (1948), the Apartheid as proclaimed in the 1960s and the 1994 to date period (post- apartheid political dispensation) and the nature of its landscape geography (e.g. fenced off private lands and

undisturbed) – it is argued that the area has more potential of yielding more heritage resources in more fine-tuned studies such HIAs. HIAs are conducted for site-specific developments- where the size and extent of the proposed area of development is known. For example, one could potential do an HIAs for Option 2 once the corridor selection process has been finalized – this would included an assessment of the exact area of substation in Borutho and in Nzhelele and the positions of pylons once they have been marked. The investigation of, and their assessment thereof, to mitigate them impact of heritage sites and burial grounds and graves since the area is infested in graves some not clearly marked.

7 CONCLUSION

The study has yielded a variety of heritage resources sites located in and around the 3 proposed corridors. Many of these sites occur in the south and central regions of the study are – the area where the Transmission Lines will start in Mokopane to the around the Blouberg, Soutpansberg and Makhado area (Figures: 21-23). The dominance of these resources is largely burial grounds and graves - making approximately 98% of the total number of sites identified, recorded and mapped. In terms of the site density Option 3 is considered to have more heritage sites than Option 1 and 2 – with Option 2 having a least number of sites. Option 3 is shorter than Options 1 and 2 in length but contains ½ the number of heritage resources identified in Option 1 and has more sites than Option 2.

This Option (3) is therefore not a preferred Option in terms of heritage resources management. The same applies to Option 1, which has second highest density of heritage resources when compared to Option 3. From where it starts to where it merges with Option 2 this Option is not a preferred Option in terms of heritage resources management. The large numbers of heritage resources located along this Option (2) mainly in form burial grounds and graves have a potential to negatively impact on the project scope. The same is true for the potential impact of the project on the identified and mapped heritage resources on this corridor. The other potential threat on the project on this corridor is the exposed human remains through road construction activities in one of the villages located along the Option – this has sparked public outcry amongst the public in the affected village and surrounding ones.

As such this Option is deemed unfavourable when compared to Option 2. This is not to argue or suggest that Option 2 heritage resources will not be impacted by the proposed development, but that it is the one with less potential impact in terms of heritage resources. It has less site density when compared to Options 1 and 3 – it also has an existing high-voltage powerline towards the area where it merges with

Option 1 northwest of the Soutpansberg Mountains. Also concentrated in burial grounds and gravesites this Option is a preferred Option from the 3 proposed Options – it avoids the socio-political issues that will come up in Option 1 as the result of the exposed grave. Option 3 is not preferred because of its heritage resources sites density but also because it is a minor deviation from Option 1, which it merges with again in the area before the exposed gravesite.

In terms of SAHRA all burial ground and graves (e.g. cemeteries) are considered to be of national significance and their management resides with SAHRA – for example, SAHRA has a designated offices called SAHRA BGG Unit specifically established to deal with issues of burial grounds and graves at the national level.

Based on the above it is the author's recommendation to Eskom Transmission that it should conduct a full HIA for the selected Option, Option 1 once the Scoping Phase of the project has been completed and approved. The HIA should do a thorough heritage assessment of the different substation where the transmission line will start and end. Once the surveyors have mapped the pylons the investigation should include assessment of each pylon in the landscape – this is to mitigate the disturbance of potential heritage resources sites such as unmarked graves. The HIA should be supplemented with a brief induction of Eskom staff on heritage and grave management.

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9 APPENDIX 1: HUMAN REMAINS AND BURIALS IN DEVELOPMENT CONTEXT

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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 ancestral linkages.