SATIVA TRAVEL AND ENVIRONMENTAL CONSULTANTS(PTY)LTD

HERITAGE IMPACT ASSESSMENT

Phase 1 Heritage Impact Assessment for Eskom's proposed 11.065km 22kV Phase 3 Ngqeleni Electrification in Nyandeni Local Municipality of Eastern Cape Province

Compiled for:
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January 2016

EXECUTIVE SUMMARY

Item	Description
Proposed development and location	Phase 1 Heritage Impact Assessment for Eskom's Proposed 11.065km 22kv Phase 3 Ngqeleni Electrification Project in Nyandeni Local Municipality of Eastern Cape Province.
Purpose of the study	To carry out heritage sensitivity assessment to determine the presence of cultural heritage sites and the impact of the proposed project on heritage resources.
1:50 000 Topographic Map	3129CC and 3129CD Coffee Bay.
Length and description of line	11.065km 22kv MV and LV power lines for Ngqeleni Phase 3 Electrification project.
Eskom Project no	Ngqeleni Phase 3 Electrification.
Property	Hluleka.
Coordinates	31°45'25.65"- 31°48'43.10" south and 29°10'03.17"- 29°18'41.51"east
Municipalities	Nyandeni Local Municipality.
Predominant land use of surrounding area	Agriculture, residential, grazing land, and associated infrastructure such as roads.
Developer	Eskom Holdings SOC (Eskom) Eskom Distribution Eastern Cape Operating Unit. Land Development Department and Environmental Management Section.
Contact Person	Natasha Lalie Email: nlalie@gibb.co.za
Contact Details	GIBB (Pty) Ltd 2nd Floor, Norfolk House,54 Norfolk Terrace, Westville, Durban 3630 PO Box 1365, Westville, Durban 3630 Tel: 031 267 6174 Fax: 031 266 3310 www.gibb.co.za
Heritage Consultant	Sativa Travel and Environmental Consultants (Pty) Ltd (Heritage Division).
Date of Report	Draft Report January 2016.
Contact person	Mr. Moses Kgopana

Eskom intends to electrify the Egoli, Ngqeleni, Mdzweni and Ntshintshani Villages in the Hluleka area by constructing 11,065km Medium Voltage (MV) and Low Voltage (LV) power lines (see Figure 1, 2 and 3). This Phase 1: Heritage Impact Assessment (HIA) is in compliance with the Heritage and Environmental Legislations. The present document is a Phase 1 HIA that serves to inform and guide the applicant (Eskom) and its contractors about the possible impacts that proposed electrification project may have on heritage resources (if any) located in the study area. The document must also inform South African Heritage Authorities [such as the Burial Ground and Graves Unit and South African Heritage Resources Agency - SAHRA] about the presence, absence and significance of heritage resources that may be located in the study area. The identification, recording, reporting and salvaging (if necessary) of significant heritage resources that may occur on the development footprint should be undertaken by a competent heritage practitioner as required by the South African heritage legislation. In compliance with the heritage legislation, GIBB (Pty) Ltd appointed Sativa Travel and Environmental Consultants (Pty) Ltd (STEC) (Heritage Division), on behalf of Eskom Distribution (Eastern Cape Operation Unit) to conduct a Phase 1 Heritage Impact Assessment (HIA) of the proposed power line route, located at four villages in the Hluleka area of the Eastern Cape Province. The project also involves the use of existing access roads to link with the existing power line route. A stepped approach involving desktop studies, drive-throughs and detailed field walking was employed in order to identity any heritage landmarks on, and around the development footprint. However, it should be noted that the power line route is not on pristine grounds, having been previously disturbed by agricultural activities, housing developments, and road construction. However, should heritage resources (including graves) be encountered during construction, work must be stopped forth-with, and the finds must be reported to the Eastern Cape Provincial Heritage Resources Agency (ECPHRA). However, in terms of the archaeology of the area under study, no mitigation will be required prior to construction. This report must also be submitted to the ECPHRA for review.

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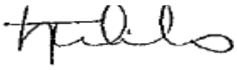
for the purposes of the Archaeological and Heritage Management purposes in accordance with the National Heritage Resources Act, Act 25 of 1999.

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

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

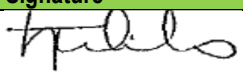
Disclaimer: The Author is not responsible for omissions and inconsistencies that may result from information not available at the time this report was prepared. The Archaeological and Heritage Impact Assessment Study was carried out within the context of tangible and intangible cultural heritage resources as defined by the SAHRA Regulations and Guidelines as to the authorisation proposed development being proposed by Eskom.

Signed by



January 2016

REVIEW AND APPROVAL

Name	Title	Signature	Date
Trust Mlilo	Heritage Specialist (Author STEC)		**03/01/2017**
Moses Kgopana	Director (STEC)		**03/01/2017**

ACKNOWLEDGEMENTS

The authors acknowledge GIBB (Pty) Ltd (GIBB), and Eskom Holdings SOC (Eskom) for their assistance with project information, and the associated project spanning sheet as well as responding to technical queries related to the project.

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ABBREVIATIONS

AIA	Archaeological Impact Assessment
ASAPA	Association of South African Professional Archaeologists
ECPHRA	Eastern Cape Provincial Heritage Resources Agency
EIA	Environmental Impact Assessment
EIA	Early Iron Age *(EIA refers to both Environmental Impact Assessment and the Early Iron Age but in both cases the acronym is internationally accepted. This means that it must be read and interpreted within the context in which it is used.)*
EIAR	Environmental Impact Assessment Report
ESA	Early Stone Age
GPS	Global Positioning System
HIA	Heritage Impact Assessment
ICOMOS	International Council of Monuments and Sites
LIA	Late Iron Age
LSA	Late Stone Age
MSA	Middle Stone Age
NEMA	National Environmental Management Act 107 of 1998
NHRA	National Heritage Resources Act 25 of 1999
NID	Notice of Intention to Develop
PHRA	Provincial Heritage Resource Agency
SAHRA	South African Heritage Resources Agency

ToR	Terms of Reference

DEFINTIONS

Definitions Just like periodization, it is also critical to define key terms employed in this study. Most of these terms derive from South African heritage legislation and its ancillary laws, as well as international regulations and norms of best-practice. The following aspects have a direct bearing on the investigation and the resulting report:

Cultural (heritage) resources are all non-physical and physical human-made occurrences, and natural features that are associated with human activity. These can be singular or in groups and include significant sites, structures, features, ecofacts and artefacts of importance associated with the history, architecture or archaeology of human development.

Cultural significance is determined by means of aesthetic, historic, scientific, social or spiritual values for past, present or future generations.

Value is related to concepts such as worth, merit, attraction or appeal, concepts that are associated with the (current) usefulness and condition of a place or an object. Although significance and value are not mutually exclusive, in some cases the place may have a high level of significance but a lower level of value. Often, the evaluation of any feature is based on a combination or balance between the two.

Isolated finds are occurrences of artefacts or other remains that are not in-situ or are located apart from archaeological sites. Although these are noted and recorded, but do not usually constitute the core of an impact assessment, unless if they have intrinsic cultural significance and value.

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

Archaeological site/materials are remains or traces of human activity that 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. According to the National Heritage Resources Act (NHRA) (Act No. 25 of 1999), no archaeological artefact, assemblage or settlement (site) and no historical building or structure older than 60 years may be altered, moved or destroyed without the necessary authorisation from the South African Heritage Resources Agency (SAHRA) or a provincial heritage resources authority.

Historic material are 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.

Chance finds means archaeological artefacts, features, structures or historical remains accidentally found during development.

A grave is a place of interment (variably referred to as burial) and includes 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 (contemporary) or burial ground (historic).

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

Heritage Impact Assessment (HIA) refers to the process of identifying, predicting, and assessing the potential positive and negative cultural, social, economic and biophysical impacts of any proposed project which requires authorisation of permission by law and which may significantly affect the cultural and natural heritage resources. Accordingly, an HIA must include recommendations for appropriate mitigation measures for minimising or circumventing negative impacts, measures enhancing the positive aspects of the proposal and heritage management and monitoring measures.

Impact is the positive or negative effects on human well-being and / or on the environment.

Mitigation is the implementation of practical measures to reduce and circumvent adverse impacts or enhance beneficial impacts of an action.

Mining heritage sites refer to old, abandoned mining activities, underground or on the surface, which may date from the prehistorical, historical or the relatively recent past.

Study area or '**project area'** refers to the area where the developer wants to focus its development activities (refer to plan).

Phase I studies refer to surveys using various sources of data and limited field walking in order to establish the presence of all possible types of heritage resources in any given area.

PERIODISATION

Archaeologists divide the different cultural epochs according to the dominant material finds for the different time periods. This periodization is usually region-specific, such that the same label can have different dates for different areas. This makes it important to clarify and declare the periodization of the area one is studying. These periods are nothing a little more than convenient time brackets because their terminal and commencement are not absolute and there are several instances of overlap. In the present study, relevant archaeological periods are given below;

Early Stone Age (~ 2.6 million to 250 000 years ago,)

Middle Stone Age (~ 250 000 to 40-25 000 years ago,)

Later Stone Age (~ 40-25 000, to recently, 100 years ago,)

Early Iron Age (~ AD 200 to 1000)

Late Iron Age (~ AD1100-1840)

Historic (~ AD 1840 to 1950, but a Historic building is classified as over 60 years old)

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ASSUMPTIONS AND DISCLAIMER

The investigation has been influenced by the unpredictability of buried archaeological remains (absence of evidence does not mean evidence of absence) and the difficulty in establishing intangible heritage values. It should be remembered that archaeological deposits (including graves and traces of mining heritage) usually occur below the ground level. Should artefacts or skeletal material be revealed at the site during construction, such activities should be halted immediately, and a competent heritage practitioner, SAHRA or ECPHRA must be notified in order for an investigation and evaluation of the find(s) to take place (cf. NHRA (Act No. 25 of 1999), Section 36 (6). Recommendations contained in this document do not exempt the developer from complying with any national, provincial, and municipal legislation or other regulatory requirements, including any protection or management or general provision in terms of the NHRA. STEC assumes no responsibility for compliance with conditions that may be required by SAHRA in terms of this report.

TERMS OF REFERNCE (TOR)

GIBB (Pty) Ltd commissioned STEC (Pty) Ltd on behalf of Eskom to carry out a heritage sensitivity assessment of the proposed Ngqeleni Phase 3 Electrification power line development in the Hluleka Area.

- Conducting a detailed desk-top study to identify all archaeological, cultural, and historic sites along the proposed power line routes;
- Conduct appropriate physical cultural properties field work and survey to verify results of desktop investigation;
- Document *(GPS coordinates and map)* all archaeological and heritage sites, objects and structures and physical cultural properties identified within the project's receiving environment;
- Compile a Heritage Impact Assessment report which would include the following:
    - Identification of archaeological, cultural, and historic sites within the affected development areas;
    - Assess the sensitivity and significance of archaeological remains within the affected development areas;
    - Estimate and evaluate the potential impacts of the proposed construction, operation, and maintenance of the proposed development on archaeological, cultural and historic sites in the proposed project receiving areas;

- Measure the impacts in terms of the scale of impact;
- Provide appropriate recommendation of mitigation measures that may add positive impacts, while reducing the identified negative impacts on archaeological, cultural and historic sites in the proposed project receiving areas;
- The recommendations should be applicable enough to effectively guide the compliance authorities in issuing a decision regarding the authorisation of the proposed development;
- Consideration of ECPHRA and SAHRA, as well and international best practices guidelines; and
- Development Heritage Management Planning guideline: "Guideline for involving heritage stakeholders in the processes".

Both the national heritage and environmental legislations provide protection for the following categories of heritage resources:

- Landscapes, cultural or natural;
- Buildings or structures older than 60 years;
- Archaeological Sites, palaeontological material, and meteorites;
- Burial grounds and graves;
- Public monuments and memorials; and
- Living heritage (defined as including cultural tradition, oral history, performance, ritual, popular memory, skills and techniques, indigenous knowledge systems and the holistic approach to nature, society and social relationships).

1. INTRODUCTION

GIBB (Pty) Ltd commissioned Sativa Travel and Environmental Consultants (Pty) Ltd (STEC) on behalf of Eskom to carry out a Heritage Sensitivity Assessment of the proposed 11.065km 22kv Phase 3 Ngqeleni Electrification, in the Hluleka area of the Eastern Cape Province. The proposed power line routes are located in the Hluleka area approximately 50km east of Muthatha and 37km from Port St Johns. As prescribed by South African Heritage legislations, a heritage study is a pre-requisite for this kind of development. The overall purpose of this heritage report is to identify and assess any heritage resources that may be located along the power line routes, and evaluate the positive and negative impacts of the proposed development on these resources, in order to make recommendations for their appropriate management. This can be achieved through a combination of background research on published literature, maps and databases (desktop studies) and ground-truthing, by means of field walking. The main types of geological formations are shale, mudstone, sandstone and dolerite. According to Anderson (2009) the occurrence of shale and mudstone deposits, in the Beaufort and Ecca Formations, may be paleontologically sensitive. Other heritage resources may still be located in the study area, but these can only be identifiable as chance finds during construction. If the recommendations of this report are adopted, there is no archaeological reason work cannot proceed, taking full cognizance of clear procedures to follow in the event of chance findings.

2. PROJECT DESCRIPTION AND LOCATION

Eskom is proposing to construct an 11.065km 22kV line for the Ngqeleni Phase 3 Electrification project in the Hluleka area of Eastern Cape Province. The project will entail the construction of medium and low voltage power lines in the villages of Egoli, Mdzweni, Ngqeleni and Ntshintshani in the Eastern Cape. The project is called Phase 3 of the Ngqeleni Electrification project in the Hluleka area, south of Port St Johns (See Figures 1, 2 and 3) in the Eastern Cape Province. The project comprises the electrification of the villages above and comprises 11,051km of medium voltage line and 11,065km of low voltage line, to be supplied from the Wilo / Mafini 122kV feeder line. The villages are located between 30km and 37km southwest of Port St Johns and approximately 50km southeast of Mthatha in the Nyandeni Local Municipality, Eastern Cape Province (see Figures 1, 2 and 3). The study area falls within Quarter Degree Grid Cells (QDGC) 3129CC and 3129CD and lies between 31°45'25.65"- 31°48'43.10" south and 29°10'03.17"- 29°18'41.51"east.

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Figure 1: Location of the study area within the Egoli Village

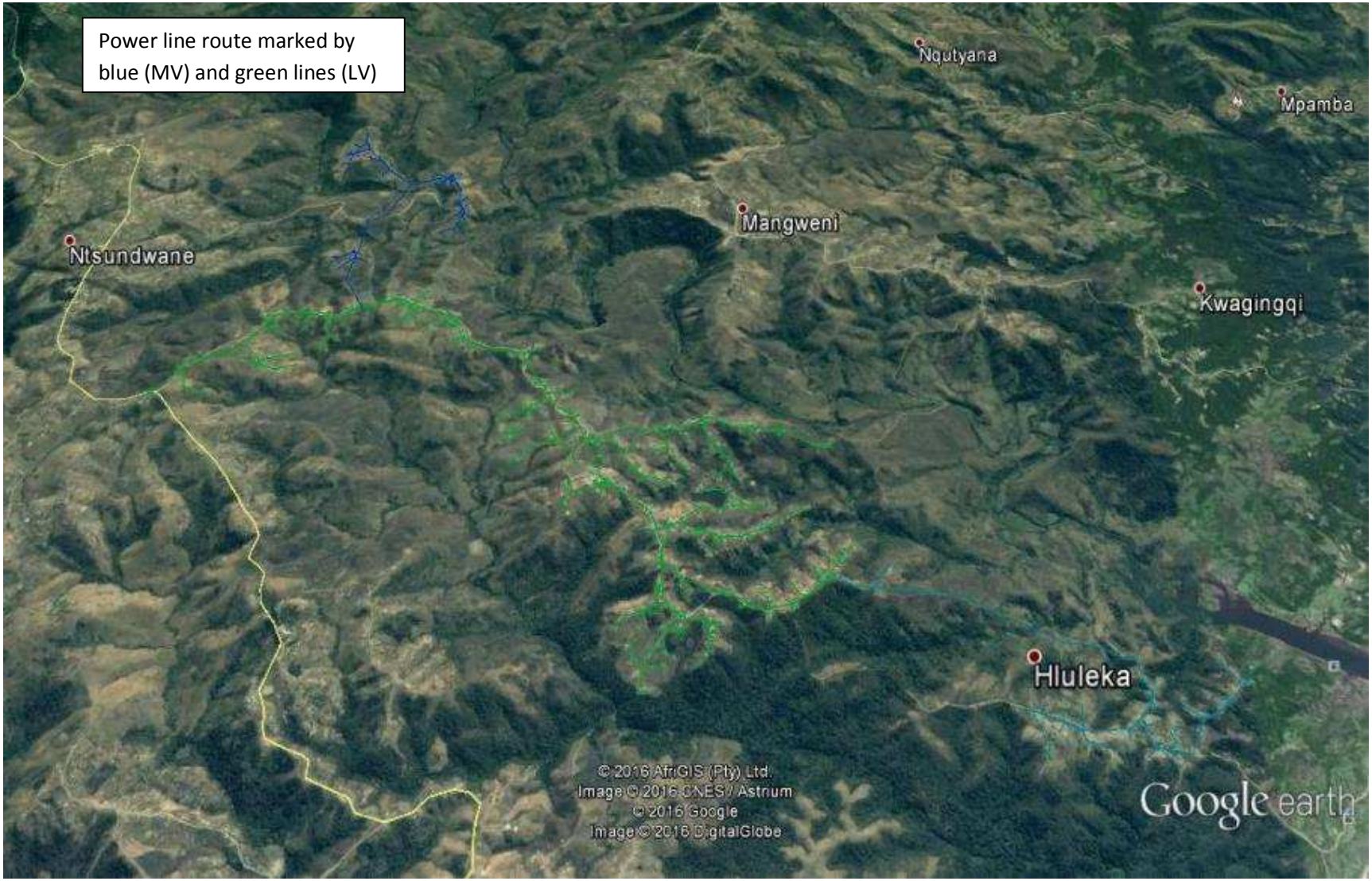

Figure 2: Location of the study area. The blue lines are the study area for the Ntshintshani Village and the green lines are the study area for the Ngqeleni Village - Project site marked by brown rectangle in Figure 5

Figure 3: Location of the study area. The blue lines are the study area for the Ntshintshani Village - Project site marked by brown rectangle in Figure 5

Figure 4: Location of the study area. The blue lines are the study area for the Mdzweni village - Project site marked by brown rectangle in Figure 5

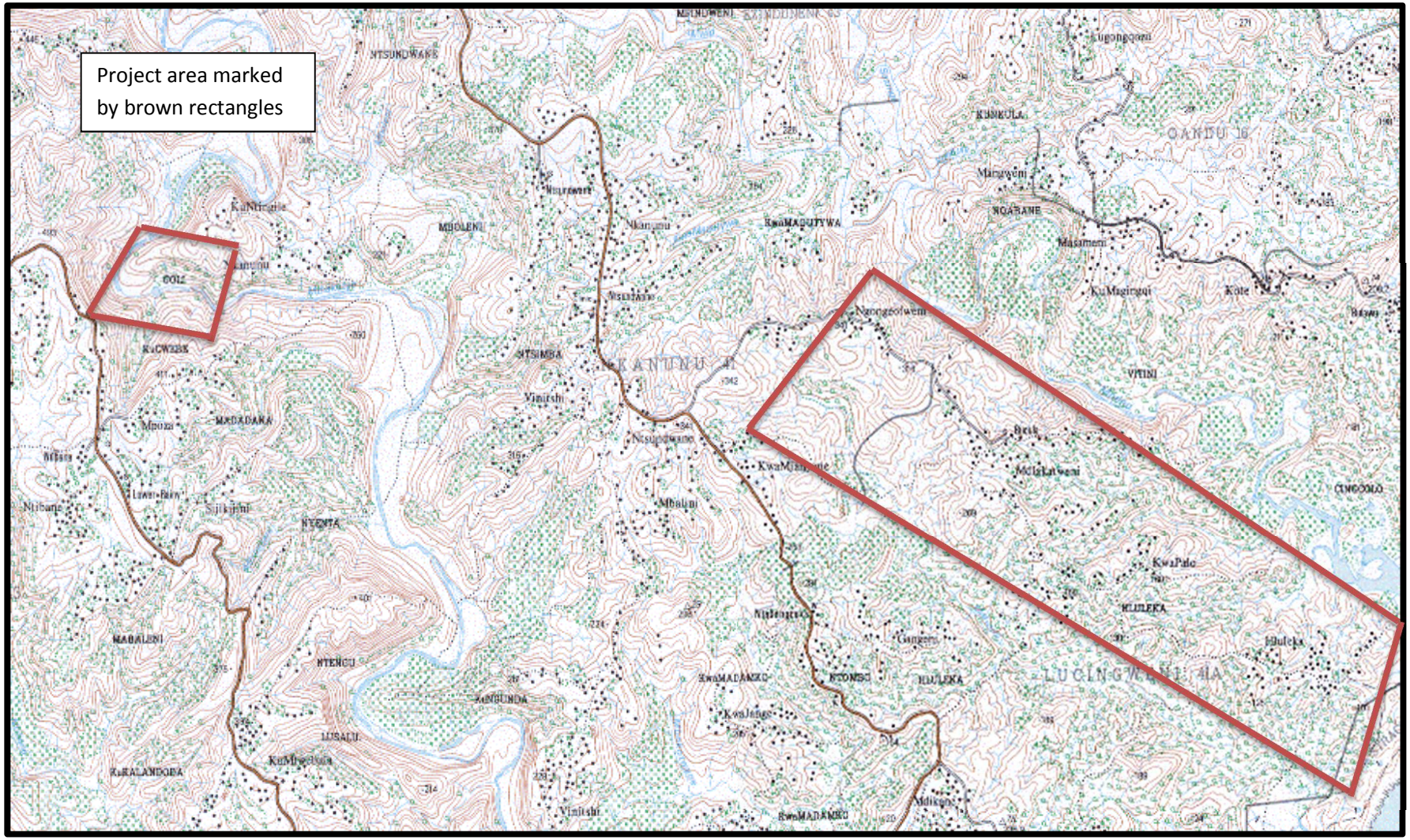

Figure 5: Location of the study area (Map Reference 3129 CC). Project site marked by brown rectangle

3. LEGISLATION CONTEXT

Relevant pieces of legislations to the present study are presented here. Under the National Heritage Resources Act (Act 25 of 1999) (NHRA), Mineral and Petroleum Resources Development Act 28 of 2002, and the National Environmental Management Act (NEMA), an Archaeological Impact Assessment or Heritage Impact Assessment is required as a specialist sub-section of the EIA.

Heritage management and conservation in South Africa is governed by the NHRA and falls under the overall jurisdiction of the SAHRA and its Provincial Heritage Resources Agency (PHRAs). There are different sections of the NHRA that are relevant to this study. The proposed development is a listed activity in terms of Section 38 of the NHRA which stipulates that the following development categories require an HIA to be conducted by an independent heritage management consultant:

- Construction of a road, wall, power line, pipeline, canal or other linear form of development or barrier exceeding 300m in length;
- Construction of bridge or similar structure exceeding 50m in length;
- Development or other activity that will change the character of a site -
    - Exceeding 5000m^2
    - Involving three or more existing erven or subdivisions
    - Involving three or more erven or divisions that have been consolidated within past five years
    - Rezoning of site exceeding 10 000 m^2
    - The costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority
- Any other development category, public open space, squares, parks, recreation grounds.

Thus, any person undertaking any development in the above categories, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development. Section 38 (2) (a) of the NHRA also

requires the submission of a heritage impact assessment report for authorization purposes to the responsible heritage resources agencies (SAHRA/PHRAs).

Related to Section 38 of the NHRA are Sections 34, 35, 36 and 37. Section 34 stipulates that no person may alter, damage, destroy, relocate etc any building or structure older than 60 years, without a permit issued by SAHRA or a provincial heritage resources authority. This section may not apply to present study since none were identified. Section 35 (4) of the NHRA stipulates that no person may, without a permit issued by SAHRA, destroy, damage, excavate, alter or remove from its original position, or collect, any archaeological material or object. This section may apply to any significant archaeological sites that may be discovered before or during construction. This means that any chance find must be reported to SAHRA (the relevant PHRA), who will assist in investigating the extent and significance of the finds and inform about further actions. Such actions may entail the removal of material after documenting the find site or mapping of larger sections before destruction. Key to the proposed project is Section 36 (3) of the NHRA which stipulates that no person may, without a permit issued by the SAHRA, destroy, damage, alter, exhume or remove from its original position or otherwise disturb any grave or burial ground older than 60 years, which is situated outside a formal cemetery administered by a local authority. The procedure for reporting chance finds also applies to the potential discovery of burials or graves by the developer or his contractors. Section 37 of the NHRA deals with public monuments and memorials but this does not apply to this study because none exist.

In addition, the new EIA Regulations (04 December 2014) promulgated in terms of NEMA (Act 107 of 1998) determine that any environmental reports will include cultural (heritage) issues. The new regulations in terms of Chapter 5 of the NEMA provide for an assessment of development impacts on the cultural (heritage) and social environment and for Specialist Studies in this regard. The end purpose of such a report is to alert the developer (Eskom in this case), the environmental consultant, SAHRA and interested and affected parties about existing heritage resources that may be affected by the proposed development, and to recommend mitigatory measures aimed at reducing the risks of any adverse impacts on these heritage resources.

Graves 60 years or older are heritage resources and fall under the jurisdiction of both the National Heritage Resources Act and the Human Tissues Act of 1983. However, graves younger than 60 years are specifically protected by the Human Tissues Act (Act 65 of 1983) and the Ordinance on the Removal of Graves and Dead Bodies (Ordinance 7 of 1925) as well as any local and regional provisions, laws and by-laws. Such burial places also fall under the jurisdiction of the National Department of Health and the Provincial Health

Departments. Approval for the exhumation and re-burial must be obtained from the relevant Provincial MEC as well as the relevant Local Authorities.

Table 1: Evaluation of the proposed development as guided by the criteria in NHRA, MPRDA and NEMA

ACT	Stipulation for developments	Requirement details
NHRA Section 38	Construction of road, wall, power line, pipeline, canal or other linear form of development or barrier exceeding 300m in length	Yes
	Construction of bridge or similar structure exceeding 50m in length	No
	Development exceeding 5000m^2	Yes
	Development involving three or more existing erven or subdivisions	No
	Development involving three or more erven or divisions that have been consolidated within past five years	No
	Rezoning of site exceeding 10 000m^2	Not available
	Any other development category, public open space, squares, parks, recreation grounds	No
NHRA Section 34	Impacts on buildings and structures older than 60 years	No
NHRA Section 35	Impacts on archaeological and paleontological heritage resources	Subject to identification during Phase 1
NHRA Section 36	Impacts on graves	Subject to identification during Phase 1
NHRA Section 37	Impacts on public monuments	No
Chapter 5 (21/04/2006) NEMA	HIA is required as part of an EIA	Yes
Section 39(3)(b) (iii) of the MPRDA	AIA/HIA is required as part of an EIA	No

4. METHODOLOGY

This study falls under the screening and Basic Assessment phase of the HIA and therefore aims at providing an informed heritage-related opinion about the proposed power line development. This is usually achieved through a combination of a review of any existing literature and a basic site inspection. Considering the moderately sparse vegetation and shallow soil profiles, it was assumed that some sense of the archaeological traces to be found in the area of proposed development would be readily identifiable from surface observations. Accordingly, it was not considered necessary to conduct excavations.

As part of the desktop study, published literature, and cartographic data, as well as archival data on heritage laws, the history and archaeology of the area were studied. The desktop study was followed by field surveys. The field assessment was conducted on the 15thth of December 2016, following generally accepted HIA practices. This field component aimed at locating all possible objects, sites, and features of cultural significance on the development footprint. Initially a drive-through was undertaken around the proposed development as a way of acquiring the archaeological impression of the general area. Detailed photographic recording was also undertaken where relevant (Figure 3A and B).

This was then followed by a walk down survey on the development footprint itself, with a hand held Global Positioning System (GPS) for recording the location/position of each possible site and artefacts. More photographs were also taken (Figure 4). The findings were then analysed in view of the proposed power line development, in order to suggest further action. The result of this investigation is a report indicating the presence/absence of heritage resources and how to manage them in the context of the proposed development.

Consultation

The survey team consulted headman in the project area for any cultural and heritage issues in the project areas (see Figure 27). The headmen confirmed that the proposed power line was designed to avoid burial sites in the project area. In addition, the EIA Public Participation Process will invite comments from affected municipality and other interested parties, on any matter related to the proposed power line development, including heritage concerns that may arise as a result of the proposed power line development.

Photographic Presentation of Project area

A

Figure 6 A: View of power line route at Egoli Village

B

Figure 7 B: View of some homesteads at Egoli Village, LV lines will be connected to homesteads such as this one. The impact of LV lines is very limited

Figure 8 C: View of power line route at Egoli Village

Figure 9 D: View of abandoned homestead where the survey inspected for graves

Figure 10 E: View of power line route along village road servitude

Figure 11 F: View of power line route towards Egoli Village

G

Figure 12 G: View of some homesteads to be electrified. Note that most of the homesteads are located within cultivated stands

H

Figure 13 H: View of power line route along roads servitude

I

Figure 14 I: View of power line route along road servitude and some of the homesteads to be electrified

J

Figure 15 J: View of homesteads to be electrified. Note that homesteads were inspected for potential burial sites that are likely to be affected by the proposed electrification project

K

Figure 16 K: View of homesteads located along road servitude. Note that the power line route will run along the road reserve and LV lines will the branch to individual homesteads.

L

Figure 17 L: View of homesteads along road servitude where the proposed power line routes will be located.

Figure 18 M: View of homesteads located away from village road.LV lines will cut through ploughed fields to individual homesteads.

Figure 19 N: View of homesteads along road servitude. Most homesteads in the project area are located along road servitude. The proposed power lines will not introduce new impacts to the proposed project

O

Figure 20 O: View of a solitary grave located near the Mdzweni power line route (MV Line)

P

Figure 21 P: View of a solitary grave located near the Mdzweni power line route (MV Line) (S31°48'1.93" E029°16'7.21)

Q

Figure 22 Q: View of located along road servitude at Mdzweni village. The MV line will run along road servitude while LV lines will branch to homesteads.

R

Figure 23 R: View of homesteads earmarked for electrification at Mdzweni village

Figure 24 S: View of some homesteads located away from existing access roads

Figure 25 T: View of difficult terrain along power line route. Note that such terrain made it difficult to survey the entire line

U

Figure 26 U: View of homesteads located away from road servitude LV line will connect to individual homesteads while the MV Lines run along road servitude.

V

Figure 27 V: View of some cut sections along the proposed power line routes which were inspected for possible archaeological signatures

W

Figure 28 W: View of homesteads earmarked for electrification which are located on mountain slopes

X

Figure 29 X: View of power line route cutting through playing ground

Y

Figure 30 Y: View of village head showing the power line route during the survey.

5. RESULTS: THE ARCHAEOLOGY OF THE PROPOSED DEVELOPMENT AREA

The project area is located in the Hluleka area in the O R Tambo District Municipality of Eastern Cape Province of South Africa that boosts a rich traditional history of prehistoric hunter gatherer communities, the late proto-historic and contemporary Xhosa communities as well as the colonial and settler communities and the recent peopling of the region.

The earliest residents of the Eastern Cape region were the hunter-gatherers associated with Early, Middle and Late Stone Age Traditions. Stone Age sites are generally identifiable by stone artefacts found scattered on the ground surface, as deposits in caves and rock shelters as well as in eroded gully or river sections. Archaeological sites such as the Klasies River Mouth main site recorded in the project region confirms the existence of Stone Age sites that conform to the generic South African periodization split into the Early Stone Age (ESA) (2.5 million years ago, to 250 000 years ago,), the Middle Stone Age (MSA) (250 000 years ago, to 22 000 years ago,) and the Late Stone Age (LSA) (22 000 years ago, to 300 years ago,). Stone Age sites in the region are also associated with rock painting sites. Cave sites also exist on the landscape south west of the project area. About 2000 years ago, the Khoekhoe herders moved into the region introducing first animal husbandry in the area.

From an archaeological perspective, the Hluleka area, like most of Eastern Cape region has potential to yield Stone Age period sites (also see Deacon and Deacon, 1997; 1999). Little specific is known about the archaeology of the specific power line routes, mainly because no systematic research has been conducted on the area. However, the specific affected project-receiving environment has low potential for Stone Age sites since the affected areas consists of previously open velds which does not usually yield such sites. Stone Age sites are usually associated with caves and rock shelters some of which contain rock art paintings. Another class of common archaeological heritage associated with Stone Age periods are coastal shell middens that were campsites and cooking platforms (Binneman 2001, 2005).

The Hluleka area of Eastern Cape also saw the immigration of the Bantu-speaking farmers associated with Late Iron Age. These came to be known as the southern Nguni Xhosa speaking communities (also see Hammond-Tooke, 1992 and Huffman, 2007). From the 1700s, the Eastern Cape coastlands and hinterlands also witnessed the spread of colonial and settler communities. This marked more than a century of colonial wars, contestations and establishment of new settler settlements and towns. The territory known as Mpondoland, combined the divisions of Bizana, Libode, Ngqeleni, Port St John's, Tabankulu, and Umsikaba.

In 1899 provisions of Proclamation 314 allowed for Umsikaba to be partitioned into the divisions of Lusikisiki and Flagstaff. In 1845 Faku, Paramount Chief of the amaMpondo, signed the Maitland Treaty whereby he agreed that trade goods would not be landed on the Pondoland coast without the express permission of the British Colonial Government. In March 1861, the northern reaches of Pondoland, also known as "no-mans-land", were ceded by Faku to the Cape, and the following year were used by the Cape for Griqua resettlement. This was followed by the annexation of a tract of land between the Umzimkulu and Mtamvuna Rivers, later known as Alfred County, to the Colony of Natal in September 1865. Following breaches of the Maitland Treaty, Sir Henry Barkly proposed that the British be allowed to locate a customs-house at the mouth of the St John's River, in return for an annual royalty of 250 pounds in 1874. The new Paramount Chief, Mqikela, refused this offer and in September 1878 the British unilaterally issued a proclamation absolving minor Mpondo chiefs from their allegiance to Mqikela, while asserting British sovereignty over the tidal estuary of St John's River. At the same time, they extended their protection over the amaXesibe, a group inhabiting the northern corner of Pondoland, and incorporated their territory into Griqualand East. This was followed by the establishment of a port at the river mouth, including a customs house and a magistrate's court. On 15 September 1884, the sliver of land known as the Territory of Port St John's was annexed to the Cape. Such interference in the internal affairs of the amaMpondo nation caused considerable friction within the territory. The Territory of Pondoland was formally annexed to the Cape in September 1894. It was also divided into two parts, and its eastern portion, comprising of the divisions of Maclear, Mount Fletcher, Qumbu, and Tsolo, was ceded to Griqualand East. Presumably, the divisions of Bizana, Libode, Ngqeleni, Port St John's, Tabankulu, and Umsikaba were also proclaimed at the same time"

The town of Mthatha itself has its origins in the colonial villages dating to mid-1800s. Eventually, this effectively ushered in new era of colonial occupation by succeeding Afrikaans and British colonial administration authorities through the last half of the 1800s and into the late 1900s. By 1850s the region witnessed the influx of more settler communities, which triggered settler wars between the African chiefdoms and the incoming settlers. Some of these colonial wars and battles lasted into Anglo-Boer wars of 1899-1902. The later effectively led to complete subjugation of African communities to settler administration starting as part of the British Cape colony. There after the region was subsequently annexed by the British and effectively placed the majority of African communities under the Union of South Africa in 1910, which eventually ended with the establishment of the new South Africa in 1994. (http://www.sahistory.org.za/places/pondoland). Port St Johns Town was founded about 1884. It translated from Portuguese Sâo Joâo, either after a ship which

foundered or anchored there, or after the outline of a face, resembling that of the apostle, against the mountain.

Intangible Heritage

As defined in terms of the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage (2003) intangible heritage includes oral traditions, knowledge and practices concerning nature, traditional craftsmanship and rituals and festive events, as well as the instruments, objects, artefacts and cultural spaces associated with group(s) of people. Thus, intangible heritage is better defined and understood by the particular group of people that uphold it. In the present study area, very little intangible heritage remains because no historically known groups occupied the study area and most of the original settler descendants moved away from the area.

SAHRIS Data Base and Impact Assessment Reports in the project area

There is very little information on previous heritage surveys undertaken in the Port St Johns and Hluleka area on SAHRIS and the internet (Anderson 2013). The Port St Johns area has been rated as green on SAHRIS Palaeontological sensitivity map (Anderson 2013). The HIA conducted in the area provide some predictive evidence regarding the types and ranges of heritage resources to be expected in the proposed project area: (see reference list for HIA reports). The studies include mining, Waste Water, borrow pits and road upgrades (Almond 2009, 2011, 2013, Anderson 1996, 2009, 2011. 2012, 2013, Almond, J.E., De Klerk, W.J. & Gess, R. 2008, Binneman, J. and Booth 2009, De Jong, Robert. 2011, Kruger. 2014). The studies did not record sites of archaeological significance. Anderson (2009) recorded MSA sites of low archaeological significance. From a palaeontological perspective, the study area is generally sparsely fossiliferous with no vertebrate, invertebrate or plant body fossils (Almond 2013). Small scale invertebrate burrows are common in the study area but these traces of fossils are of low heritage significance (Almond 2013). In general, the project area was concluded to be of low heritage significance (Almond 2013).

6. FINDINGS

1.1 Egoli Electrification.

During the course of the survey, there was heavy rain (and mud) and the grass was very thick in some areas and this made it difficult to identify archaeological traces on the surface. The proposed Egoli Electrification power line route did not yield any confirmable archaeological sites or material. Some sections of the affected landscape are heavily degraded from previous and current land use such as agriculture, road construction and from residential developments. This limited the chances of encountering significant in *situ* archaeological sites to be preserved in *situ*. As such the proposed power line and associated activities will be an additional development on the project area (Figure 2, also see Plates 1 to 26). It is the considered opinion of the author that the chances of recovering significant archaeological materials were seriously compromised and limited due to infrastructural developments and other destructive land use patterns such as deep ploughing, road works and residential areas that already exist on the project area.

Based on the field study results and field observations, the author concluded that the receiving environment for the proposed development is low to medium potential to yield previously unidentified archaeological sites during subsurface excavations and construction work associated with the proposed power line development. This observation is supported by the fact that no Iron Age sites are indicated in a historical atlas around the Hluleka area; however, this may be an indication of a lack of research. Literature review also revealed that no Stone Age sites are shown on a map contained in a historical atlas of this area. The closest known Stone Age occurrence to the surveyed area is that of MSA site in the Port St Johns area (Anderson 2013). This however should rather be seen as a lack of research in the area and not as an indication that such features do not occur. The installation of power line poles has limited ground footprint, which in turn reduces the probability to encounter chance finds during proposed development. This opinion is supported by the fact that power line towers are installed on limited spatial area and the affected landscape has long history of physical disturbances.

Burial grounds and graves

The field survey did not record any burial site near the proposed power line route. Communities in the Hluleka area burry their deceased relatives within homesteads. As such the proposed power lines were designed to avoid burial sites. It should be noted that burial grounds and gravesites are accorded the highest social significance threshold (see Appendix 3). They have both historical and social significance and are considered

sacred. Wherever they exist or not, they may not be tempered with or interfered with during any proposed development. It is important to note that the possibility of encountering human remains during subsurface earth moving works anywhere on the landscape is ever present. Although the possibility of encountering previously unidentified burial sites is low along the power line route, should such sites be identified during subsurface construction work, they are still protected by applicable legislations and they should be protected.

Historical Monuments

There are several homesteads within the project area. However, none of them will be affected by the proposed development (see Plate 10).

Cultural landscapes

The project area has established rural settlements associated with the Hluleka rural area. However, none of these built-up areas are affected by the proposed development. The power line infrastructure will merely add to several modern built-up areas within the general cultural landscape around Hluleka and the landscape in general.

1.2 Mdzweni Electrification

The proposed Mdzweni Electrification power line routes did not yield any confirmable archaeological sites or material. Similarly, the proposed power line route is degraded from previous and current agricultural land use. Given the situation, the chances of encountering significant in situ archaeological sites are limited. As such the proposed power line construction, will be an additional development on the project area (Figure 1 and Plate 12- 16). It is assumed that the chances of recovering significant archaeological materials were seriously compromised and limited due to infrastructural developments and other destructive land use patterns such as deep ploughing, road works and residential areas that already exist on the project area. The study concluded that the proposed power line development would cause minimum damage to archaeological remains.

Burial Sites

A solitary grave was recorded approximately 40m from the road reserve (see Figure 17 and 18). The grave is marked by cement plaster and headstone facing west. The burial site is fenced and is known by the local community. Although the burial site is not likely to be affected by the proposed development, construction teams must exercise extreme caution when working near the burial site.

Historical Monuments

The study did not record any historical monuments along the proposed power line route.

Cultural landscapes

None will be affected by the proposed development

1.3 Ntshintshane Electrification

The proposed Ntshintshane Electrification power line routes did not yield any confirmable archaeological sites or remains. Similarly, some sections of the affected landscaped is heavily degraded from previous and current agricultural land use, road works and residential developments. Given the situation, the chances of encountering significant *in situ* archaeological sites are limited. As such the proposed power line construction, will be an additional development on the project area (Figure 1 and Plate 1- 12). It is assumed that the chances of recovering significant archaeological materials were seriously compromised and limited due to infrastructural developments and other destructive land use patterns such as deep ploughing, road works and residential areas that already exist on the project area. The study concluded that the proposed power line development would cause minimum damage to archaeological remains.

Burial Sites

No burial sites were recorded along the proposed power line routes.

Historical Monuments

The study did not record any historical monuments along the proposed power line route.

Cultural landscapes

The proposed development will affect none of significant cultural landscapes in the project area.

1.4 Ngqeleni Electrification

The proposed Ngqeleni Electrification power line routes did not yield any verifiable archaeological sites or material. The affected landscape is heavily degraded from previous and current agricultural land use, roads works and residential developments. Given the situation, the chances of encountering significant in situ archaeological sites are limited. As such the proposed power line construction, will also be an additional development on the project area (Figure 1 and Plate 1- 12). It is assumed that the chances of recovering

significant archaeological materials were seriously compromised and limited due to infrastructural developments and other destructive land use patterns such as deep ploughing, road works and residential areas that already exist on the project area. The study concluded that the proposed power line development would cause minimum damage to archaeological remains.

Burial Sites

No burial sites were recorded along proposed power line routes.

Historical Monuments

The study concluded that the proposed power line development would cause minimum damage to archaeological remains.

Cultural landscapes

None of these built-up areas will be affected by the proposed development. The power line infrastructure will merely add to several modern built-up areas within the general cultural landscape around Hluleka and the landscape in general.

Table 2: A tabulated summary of the findings

Heritage resource	**Status/Findings**
Buildings, structures, places and equipment of cultural significance	None exists within the development footprint
Areas to which oral traditions are attached or which are associated with intangible heritage	None exists on the study area
Historical settlements and townscapes	None survives in the proposed area, except for a possible historical stone walled cattle Kraal that is outside the proposed area
Landscapes and natural features of cultural significance	None
Archaeological and paleontological sites	None
Graves and burial grounds	None exists or are identifiable on the basis of a surface survey
Movable objects	None
Significance	No significant sites were identified and measured.
Overall comment	The surveyed area has no identifiable heritage resources on the surface but sub-surface chance finds are still possible.
Potential Impacts	There is potential of unearthing hidden archaeological remains during digging of pole foundations.
Heritage Monitoring	Monitoring is not necessary for this power line development.

7. CHANCE FINDINGS PROCEDURES

It has already been highlighted that sub-surface materials may still be lying hidden from surface surveys. Therefore, absence (during surface survey) is not evidence of absence all together. The following monitoring and reporting procedures must be followed in the event of a chance find, in order to ensure compliance with heritage laws and policies for best-practice. This procedure applies to the developer's permanent employees, its subsidiaries, contractors and subcontractors, and service providers. Accordingly, all construction crews must be properly inducted to ensure they are fully aware of the procedures regarding chance finds. Although the possibility of encountering previously unidentified burial sites is low to medium along the proposed power line route, should such sites be identified during subsurface construction work, they are still protected by applicable legislations and they should be protected.

8. Recomendations

Based on the findings of this study, the proposed power line route is feasible from an archaeological perspective. The project may be approved subject to the following recommendations:

- The project area has considerable existing built-up areas and as such no impacts are anticipated on the cultural built environment given the existence of contemporary built-infrastructure or structures already in the project area.
- High visibility emanating from the proposed power line development is anticipated. However, the project area has existing linear and structural developments in place, which will absorb the proposed developments in situ. Therefore, the visual impact of the power line is considered to be low across the receiving cultural landscape. No mitigation is proposed because the receiving environment is currently cultivated or built up area.
- Overall, impacts to heritage resources are not considered to be significant for the project receiving environment. It is thus concluded that the project may be cleared to proceed as planned subject to the Heritage Authority ensuring that a detailed heritage monitoring procedures are included in the project Environmental Management Programme (EMPr) for the construction phase, include chance archaeological finds mitigation procedure in the project EMPr.
- The chance finds process will be implemented when necessary especially when archaeological materials and burials are encountered during subsurface construction activities.

- If archaeological materials are uncovered, work should cease immediately and the SAHRA be notified and activity should not resume until appropriate management provisions are in place.
- If during the construction or operations phases of this project, any person employed by the developer (Eskom), one of its subsidiaries, contractors and subcontractors, or service provider, finds any artifacts of cultural significance, work must cease at the site of the find and this person must report this find to their immediate supervisor, and through their supervisor to the senior on-site manager.
- The senior-site Manager must then make an initial assessment of the extent of the find, and confirm the extent of the work stoppage in that area before informing SAHRA/ECPHRA.
- If a human grave/burial is encountered, the remains must be left as undisturbed as possible before the local police and SAHRA or ECPHRA are informed. If the burial is deemed to be over 60 years old and no foul play is suspected, an emergency rescue permit may be issued by SAHRA for an archaeologist to exhume the remains.
- The findings of this report, with approval of the ECPHRA/SAHRA, may be classified as accessible to any interested and affected parties within the limits of the laws.

9. CONCLUSIONS

For compliance with South African heritage law and other environmental legislation, Sativa (Pty) Ltd was appointed by GIBB (Pty) Ltd on behalf Eskom to carry out an HIA of the proposed power line development. The proposed development does not lie on pristine ground. Desktop research suggested that the general area is archaeologically rich but no known sites were reported on the development footprint. The current field work (drive-through and field walking) around the proposed area did not yield any heritage material. The potential for chance finds, still remains and the developer and contractors are advised to be diligent and observant during construction. The procedure for reporting chance finds has clearly been laid out and if this report is adopted by ECPHRA, then there are no archaeological reasons why construction cannot proceed along the proposed power line route.

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