

# HERITAGE IMPACT ASSESSMENT OF THE PROPOSED NQABENI/EROS/ORIBI 132KV LOOP-IN-LOOP-OUT POWERLINE, UGU DISTRICT MUNICIPALITY.



## ACTIVE HERITAGE cc.

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**LIST OF ABBREVIATIONS AND ACRONYMS**

EIA	Early Iron Age
ESA	Early Stone Age
HISTORIC PERIOD	Since the arrival of the white settlers - c. AD 1820 in this part of the country
IRON AGE	Early Iron Age AD 200 - AD 1000 Late Iron Age AD 1000 - AD 1830
LIA	Late Iron Age
LSA	Late Stone Age
MSA	Middle Stone Age
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998 and associated regulations (2010).
NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999) and associated regulations (2000)
SAHRA	South African Heritage Resources Agency
STONE AGE	Early Stone Age 2 000 000 - 250 000 BP Middle Stone Age 250 000 - 25 000 BP Late Stone Age 30 000 - until c. AD 200

## EXECUTIVE SUMMARY

A cultural heritage survey of the proposed Nqabeni/Eros/Oribi 132kV loop-in-loop-out powerline near Harding, Ugu District Municipality, identified no heritage sites on the footprint. There is no known archaeological reason why the proposed development may not proceed as planned. However, attention is drawn to the South African Heritage Resources Act, 1999 (Act No. 25 of 1999) and the KwaZulu-Natal Heritage Act (Act no 4 of 2008) which, requires that operations that expose archaeological or historical remains should cease immediately, pending evaluation by the provincial heritage agency.

## 1 BACKGROUND INFORMATION ON THE PROJECT

**Table 1. Background information**

Consultant:	Frans Prins (Active Heritage cc) for Ludloko Developments
Type of development:	Nqabeni 132/22kV substation is currently experiencing very high loading due to a relatively high customer base and consequently there is limited capacity in the existing transformer for a number of planned electrification connections. To improve supply and provide better capacity on the network it is recommended that Nqabeni substation be upgraded to accommodate two 132/22kV 20MVA transformers and associated structures including a loop-in and loop-out connections that will link Nqabeni substation to Eros/Oribi 132kV powerline. The loop-in and loop-out connections are to provide reliable supply in case of one connection becoming faulty. The two transformers will be able to supply the voltage that will meet current and future load demands. The recommended upgrades will thus help allow further growth on the substation and be able to address low voltage problems experienced on some associated networks. The wolf conductor currently linking Nqabeni substation to Eros/Oribi 132kV Chikandee powerline will not be able to carry the stronger electricity that will be supplied by the two transformers at Nqabeni substation. Therefore a conductor that will be able to carry the stronger voltage is recommended. In this case the Chikandee conductor is recommended and will also be similar to the Eros/Oribi powerline conductor it will be connected to. Two alternative corridors have been investigated.
Rezoning or subdivision:	na
Terms of reference	To carry out a Heritage Impact Assessment
Legislative requirements:	The Heritage Impact Assessment was carried out in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and following the requirements of the National Heritage Resources Act, 1999 (Act No. 25 of 1999)

### 1.1. Details of the area surveyed:

The study is in the Umziwabantu and Ezingolweni Local Municipality near Harding. The two municipalities are part of the six local municipalities within Ugu District Municipality situated in southern KwaZulu-Natal (Fig 1). The study area starts from Nqabeni substation, that is situated directly adjacent to the N2, and runs along the existing Nqabeni/Eros/Oribi 132kV powerline ending at the Eros/Oribi 132kV powerline (Fig 2). Both the Nqabeni substation, Nqabeni/Eros/Oribi 132kV powerline and alternative corridors for the proposed loop-in-out powerline can be accessed from the highway N2 and local roads. The GPS coordinates for the study area is given as: S 30° 42' 24.30" E 30° 03' 33.5". The area is characterised by sugarcane plantations, grazing lands, disturbed veld and a drainage line (Figs 3 & 4). The Mzimkhulwana River lies outside the study area. Part of the drainage line is lined by riverine bush and it falls within the study area. The study area is undulating and is steep along the drainage line.

### 1.2. Cultural Heritage legislation

According to Section 3 (2) of the NHRA, the heritage resources of South Africa include:

- a. places, buildings, structures and equipment of cultural significance;
- b. places to which oral traditions are attached or which are associated with living heritage;
- c. historical settlements and townscapes;
- d. landscapes and natural features of cultural significance;
- e. geological sites of scientific or cultural importance;
- f. archaeological and palaeontological sites;
- g. graves and burial grounds, including:
  - ancestral graves;
  - ii. royal graves and graves of traditional leaders;
  - iii. graves of victims of conflict;
  - iv. graves of individuals designated by the Minister by notice in the Gazette;
  - v. historical graves and cemeteries; and
  - vi. other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
- h. sites of significance relating to the history of slavery in South Africa;

- i. movable objects, including objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects and material, meteorites and rare geological specimens;
- ii. objects to which oral traditions are attached or which are associated with living heritage;
- iii. ethnographic art and objects;
- iv. military objects;
- v. objects of decorative or fine art;
- vi. objects of scientific or technological interest; and
- vii. books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).”

In terms of section 3 (3) of the NHRA, a place or object is to be considered part of the national estate if it has cultural significance or other special value because of:

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

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## 2 BACKGROUND TO ARCHAEOLOGICAL HISTORY OF AREA

The study area has never been systematically surveyed for archaeological sites in the past. However, the greater Port Shepstone area to the east of the study area has been surveyed by archaeologists of the then Natal Museum in the 1970's and 1980's. Further inland the Paddock and greater Oribi Gorge areas, situated to the immediate east of the study area, have been more systematically surveyed in the past. These surveys were originally conducted by staff associated with the then Natal Parks board in the 1970's. However, more professional surveys were conducted by archaeologists such as J. H. Cable in the early 1980's (Cable 1984) and later by various archaeologists attached to the Natal Museum (Mazel 1989; Mitchell 2005).

The available evidence, as captured in the KwaZulu-Natal Museum heritage site inventories, indicates that the greater Paddock and Port Shepstone areas contains a wide spectrum of archaeological sites covering different time-periods and cultural traditions. These include Early, Middle and later Stone Age sites, Early Iron Age sites, Later Iron Age sites, and some historical sites. Various buildings and farmsteads belonging to the Victorian and Edwardian periods occur in the area especially in the close environs of Paddock. These are also protected by heritage legislation.

Stone Age sites of all the main periods and cultural traditions occur along the coastal cordon in the immediate vicinity of Port Shepstone closer towards the coast. Most of these occur in open air contexts as exposed by donga and sheet erosion. The occurrence of Early Stone Age tools in the near vicinity of permanent water resources is typical of this tradition. These tools were most probably made by early hominins such as *Homo erectus* or *Homo ergaster*. Based on typological criteria they most probably date back to between 300 000 and 1.7 million years ago. The presence of the first anatomically modern people (i.e. *Homo sapiens sapiens*) in the area is indicated by the presence of a few Middle Stone Age blades and flakes. These most probably dates back to between 40 000 and 200 000 years ago. The later Stone Age flakes and various rock painting sites identified in the area are associated with the San (Bushmen) and their direct ancestors. These most probably dates back to between 200 and 20 000 years ago.

The San were the owners of the land for almost 30 000 years but the local demography started to change soon after 2000 years ago when the first Bantu-

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speaking farmers crossed the Limpopo River and arrived in South Africa. By 1500 years ago these early Bantu-speaking farmers also arrived in the project area. Due to the fact that these first farmers introduced metal technology to southern Africa they are designated as the Early Iron Age in archaeological literature. Their distinct ceramic pottery is classified to styles known as “Msuluzi” (AD 500-700), Ndongondwane (AD 700-800) and Ntshokane (AD 800-900). Most of the Early Iron Age sites in the greater Ugu District Municipality belong to these traditions (Maggs 1989:31; Huffman 2007:325-462). These sites characteristically occur on alluvial or colluvial soil adjacent to large rivers below the 1000m contour. The Early Iron Age farmers originally came from western Africa and brought with them an elaborate initiation complex and a value system centred on the central significance of cattle.

Later Iron Age sites also occur in the greater Port Shepstone area. These were Bantu-speaking agropastoralists who arrived in southern Africa after 1000 year ago via East Africa. Later Iron Age communities in KwaZulu-Natal were the direct ancestors of the Zulu-speaking people (Huffman 2007). Many African groups moved through the study area due to the period of tribal turmoil as caused by the expansionistic policies of King Shaka Zulu in the 1820's and subsequent civil wars in Zululand to the north. It is known from oral history that the greater project area was inhabited by Zulu refugees in the 19<sup>th</sup> century (Bryant 1965) especially by members of the abakwaCele and Lushaba clans. These clans arrived in the project area around 1828 soon after the murder of King Shaka when they were being pursued by supporters of King Dingane (ibid). However, it appears that the lower densely wooded valley areas were only occupied later. According to oral history most of the historical settlement of the area took place on the higher altitude grassland areas.

Archaeological sites in the near vicinity of the project area include 2 Middle Stone Age sites and 11 Later Stone Age rock art sites situated within the greater Oribi Gorge and adjacent areas to the immediate east of the study area. The rock art sites form part of the eastern seaboard coastal rock art zone. Most of these occur in sandstone shelters and depict red monochrome paintings. None, however, have been recorded in the study area. No Iron Age sites were identified in the project area although there is a high probability that Early Iron Age sites could occur adjacent to the Mzimkhulwana River.



### **3 BACKGROUND INFORMATION OF THE SURVEY**

#### **3.1 Methodology**

A desktop study was conducted of the archaeological databases housed in the KwaZulu-Natal Museum and the SAHRA inventory of heritage sites. The SAHRIS website of heritage resources and previous Cultural Resource Management (CRM) surveys was also consulted. Aerial photographs of the area were surveyed. In addition, the available archaeological and historical literature covering KwaZulu-Natal was also consulted.

A site visit was made to the project area on 9 June 2013. A ground survey, following standard and accepted archaeological procedures, was conducted. The consultant walked the area on foot and surveyed potential hotspot areas for heritage sites. Particular care was taken to locate graves.

#### **3.2 Restrictions encountered during the survey**

##### **3.2.1 Visibility**

Visibility was good.

##### **3.2.2 Disturbance**

No disturbance of any potential heritage sites was noted.

#### **3.3 Details of equipment used in the survey**

GPS: Garmin Etrek

Digital cameras: Canon Powershot A460

All readings were taken using the GPS. Accuracy was to a level of 5 m.

## **4 DESCRIPTION OF SITES AND MATERIAL OBSERVED**

### **4.1 Locational data**

*Province:* KwaZulu-Natal

*Towns:* Port Shepstone

*Municipality:* Umziwabantu and Ezingolweni Local Municipality and the Ugu District Municipality.

### **4.2 Description of the general area surveyed**

The Nqabeni substation is situated directly adjacent to the N2. The proposed powerline corridors run from the substation in a north eastern direction for approximately 3km. The area transected by the existing as well the proposed powerline route is characterised by commercial farm lands covered mostly in sugarcane and grazing lands (Figs 3 & 4). These areas have all been disturbed by commercial farming activities.

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## **5 HERITAGE SITES AND THEIR SIGNIFICANCE (HERITAGE VALUE)**

No heritage sites occur on the footprint. All the proposed corridors as well as the immediate environs of the Nqabeni substation were surveyed by foot yet no heritage sites or artefacts were observed.

### **5.1 Field Rating**

Not applicable, as no heritage sites were discovered during the survey.

**Table 2. Field rating and recommended grading of sites (SAHRA 2005)**

Level	Details	Action
National (Grade I)	The site is considered to be of National Significance	Nominated to be declared by SAHRA
Provincial (Grade II)	This site is considered to be of Provincial significance	Nominated to be declared by Provincial Heritage Authority
Local Grade IIIA	This site is considered to be of HIGH significance locally	The site should be retained as a heritage site
Local Grade IIIB	This site is considered to be of HIGH significance locally	The site should be mitigated, and part retained as a heritage site
Generally Protected A	High to medium significance	Mitigation necessary before destruction
Generally Protected B	Medium significance	The site needs to be recorded before destruction
Generally Protected C	Low significance	No further recording is required before destruction

## 6 RECOMMENDATIONS

No heritage sites were located along the proposed powerline corridors during the survey. The study area also does not form part of any known cultural landscape. It is therefore suggested that the proposed development may proceed as no heritage sites are in any immediate danger of being destroyed or altered. However, it must be pointed out that the South African National Heritage Act requires that operations exposing archaeological and historical residues, including graves, should cease immediately pending an evaluation by the heritage authorities.

7 MAPS AND FIGURES

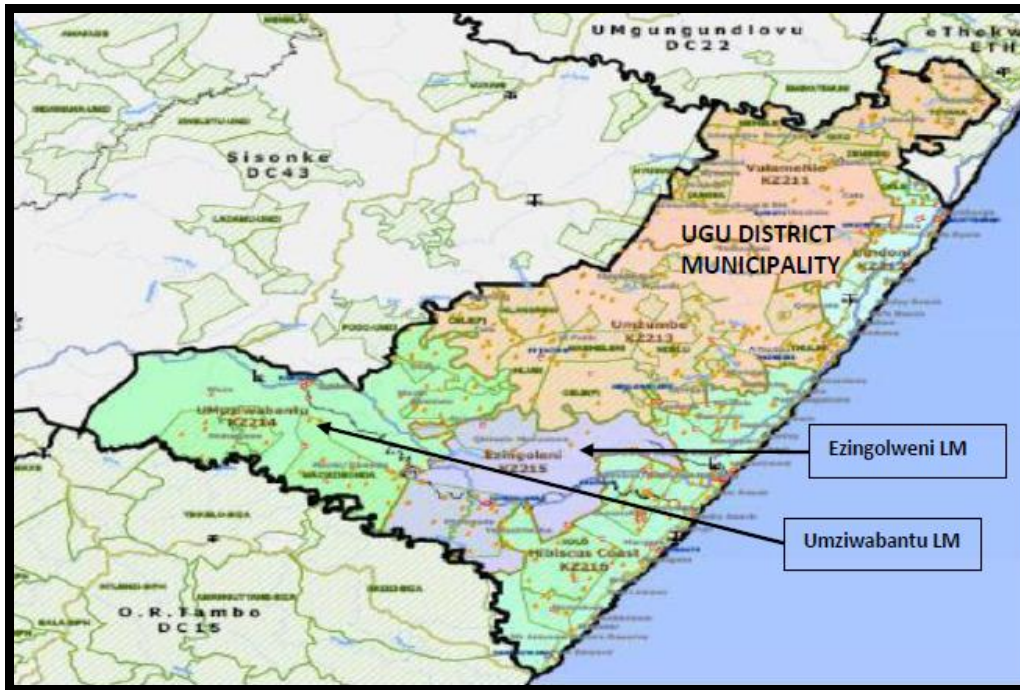


Figure 1. Map showing the locality of the Ezingolweni and Umziwabantu local municipalities in southern KwaZulu-Natal.

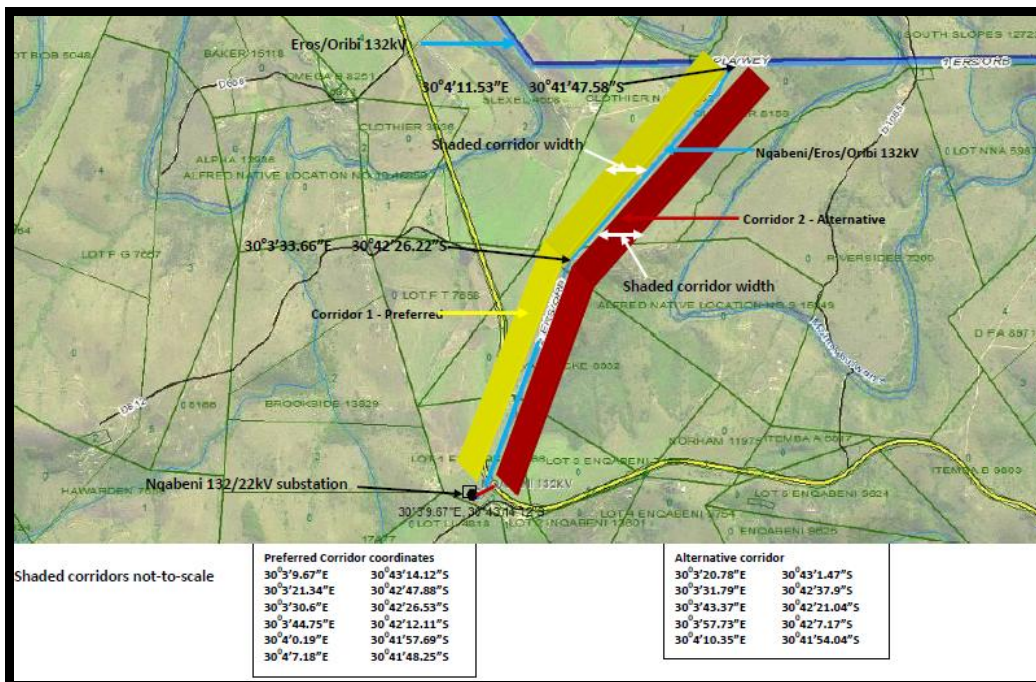


Figure 2. Eros/Oribi/Nqabeni 132kV cadastral map with alternative powerline corridors.



***Figure 3. View over the study area dominated by farm lands and sugarcane plantations.***



***Figure 4. Farmlands, disturbed veld, and riverine bush run parallel to the proposed powerline corridors in some areas***

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