

**HERITAGE SURVEY OF THE PROPOSED TAWENI
TRANSMISSION LINE**

FOR COASTAL ENVIRONMENTAL SERVICES

DATE: 1 MAY 2010

EIA REFERENCE: 12/12/20/1872

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INTRODUCTION

Umlando cc was contracted by Coastal & Environmental services (CES) to undertake a heritage assessment of the proposed Taweni Transmission Line (fig. 1 - 2). The transmission line was commissioned by Eskom Holdings (Pty), and is situated in the general area of Lusikisiki, Eastern Cape. The transmission line will be a 132kV line that will start at the proposed Taweni substation, and then link to an existing 132kV line near Buhlanyanga. The proposed line, and the alternative, is ~13km long.

The impacts on the area will be:

- Electricity pylons
- Access roads

The terrain covered by the transmission line is mostly grasslands, flood plains and river valleys. The transmission line passes over several hills, but mostly follows below the skyline. The areas along the transmission are used for pasturage and mealie fields, and have been extensively ploughed.

Seven recent heritage sites were observed along the transmission line. The transmission line may directly affect only one recent heritage site. The line will need to be rerouted around this site. .

FIG. 1: GENERAL LOCATION OF THE PROPOSED THE TAWENI TRANSMISSION LINE

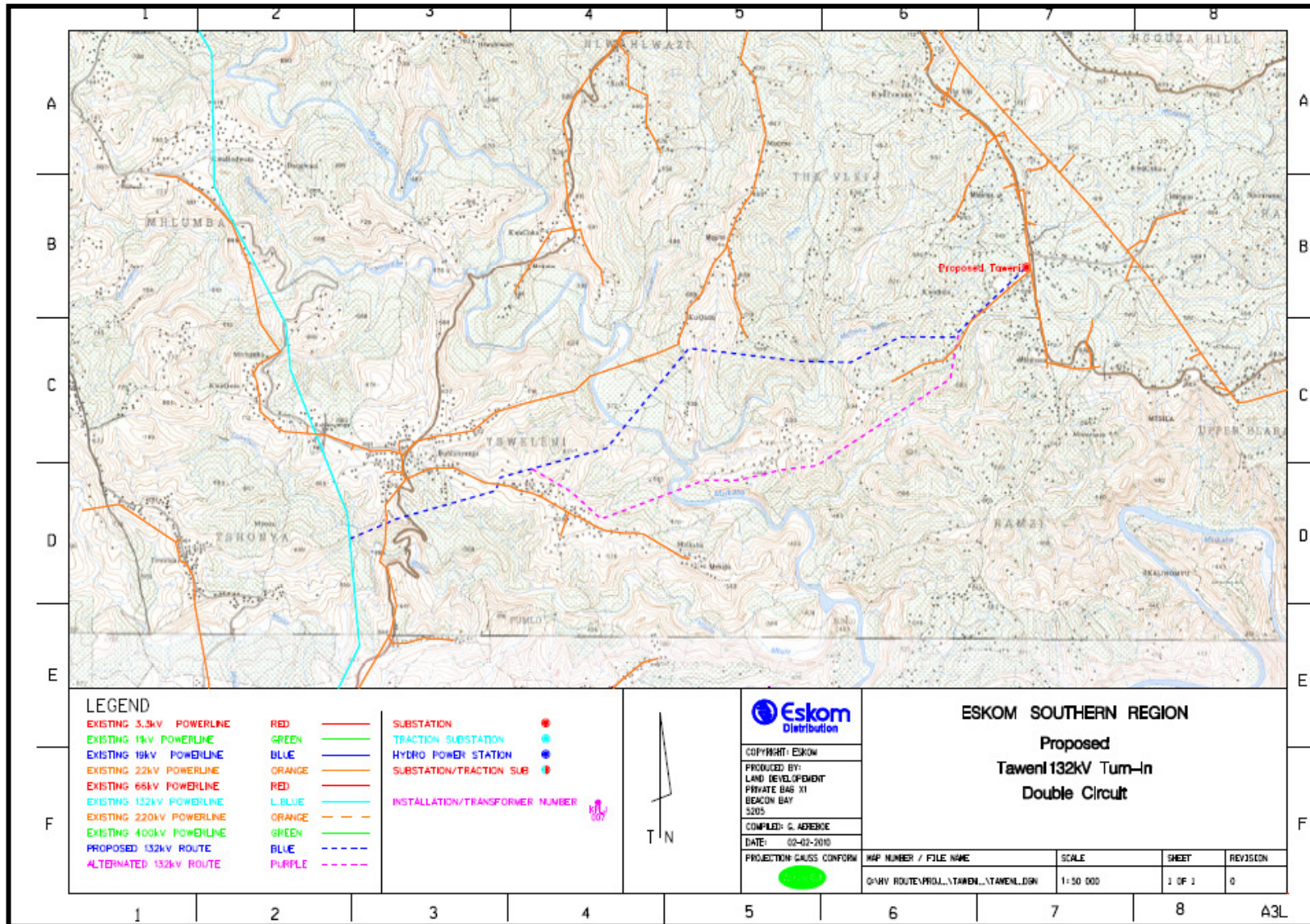
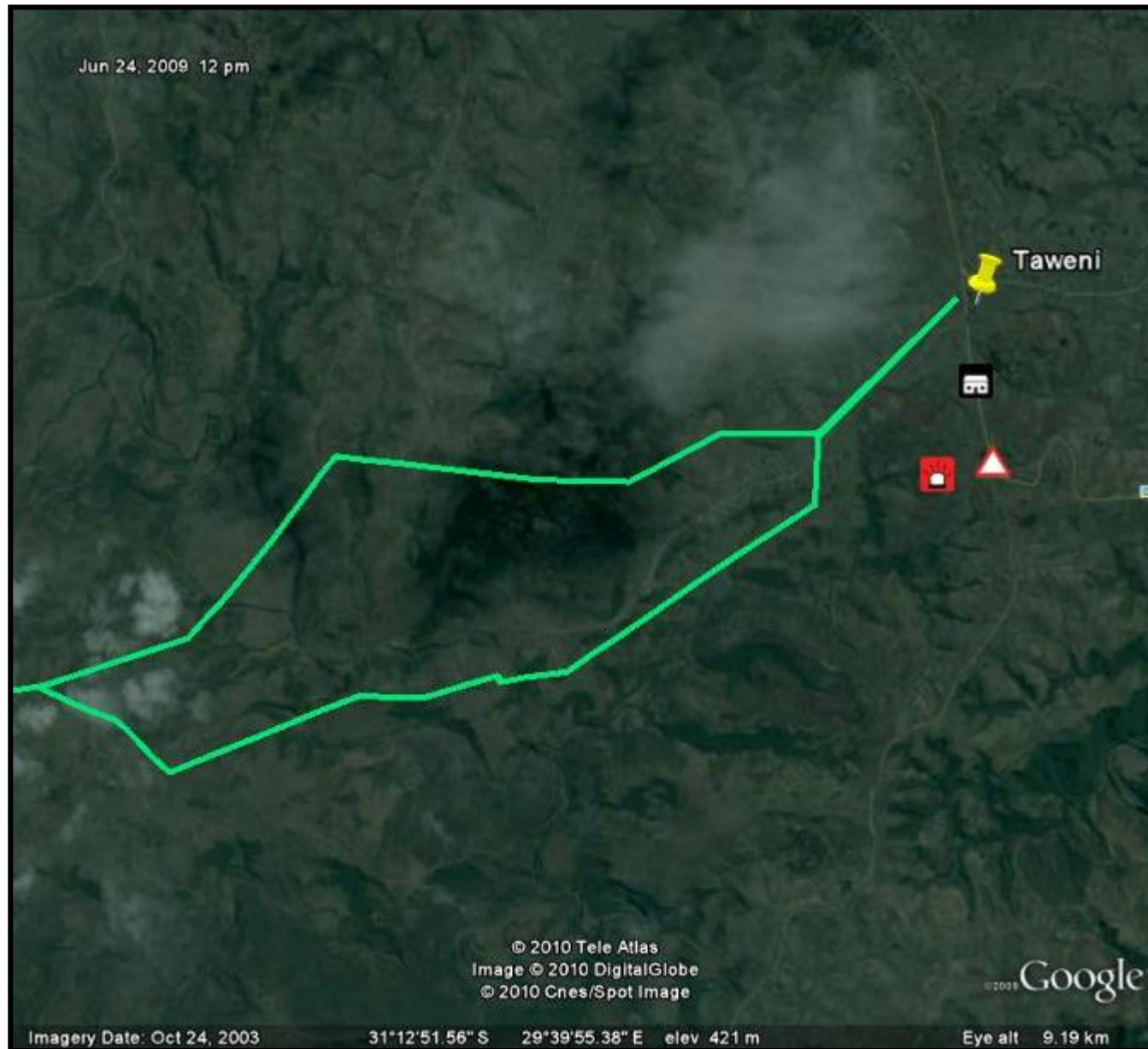


FIG. 2: AERIAL PHOTOGRAPH PROPOSED LOCATION OF THE TAWENI TRANSMISSION LINE



LEGISLATION PERTAINING TO HERITAGE SITES

The National Heritage Resources Act of 1999 (pp 12-14) protects a variety of heritage resources. These resources are defined as follows:

“3. (1) For the purposes of this Act, those heritage resources of South Africa which are of cultural significance or other special value for the present community and for future generations must be considered part of the national estate and fall within the sphere of operations of heritage resources authorities.

(2) Without limiting the generality of subsection (1), the national estate may 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—
 - (i) Ancestral graves;
 - (ii) Royal graves and graves of traditional leaders;
 - (iii) Graves of victims of conflict;
 - (iv) Graves of individuals designated by the Minister by notice in the Gazette;
 - (v) Historical graves and cemeteries; and
 - (vi) Other human remains which are not covered 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—

- (i) 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).

(3) Without limiting the generality of subsections (1) and (2), 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”

METHOD

The method for Heritage assessment consists of several steps. The first step forms part of the desktop assessment. Here we would consult the databases. These databases contain most of the known memorials and other protected sites, battlefields and cemeteries in southern Africa. We also consult with an historical architect, palaeontologist, and an historian where necessary.

The survey results will define the significance of each recorded site, as well as a management plan.

All sites are grouped according to low, medium and high significance for the purpose of this report. Sites of low significance have no diagnostic artefacts or features. Sites of medium significance have diagnostic artefacts or features and these sites tend to be sampled. Sampling includes the collection of artefacts for future analysis. All diagnostic pottery, such as rims, lips and decorated sherds are sampled, while bone, stone and shell are mostly noted. Sampling usually occurs on most sites. Sites of high significance are excavated and/or extensively sampled. Those sites that are extensively sampled have high research potential, yet poor preservation of features.

Defining significance

Heritage sites vary according to significance and several different criteria relate to each type of site. However, there are several criteria that allow for a general significance rating of archaeological sites.

These criteria are:

1. State of preservation of:

1.1. Organic remains:

- 1.1.1. Faunal
- 1.1.2. Botanical
- 1.2. Rock art
- 1.3. Walling
- 1.4. Presence of a cultural deposit
- 1.5. Features:
 - 1.5.1. Ash Features
 - 1.5.2. Graves
 - 1.5.3. Middens
 - 1.5.4. Cattle byres
 - 1.5.5. Bedding and ash complexes

2. Spatial arrangements:

- 2.1. Internal housing arrangements
- 2.2. Intra-site settlement patterns
- 2.3. Inter-site settlement patterns

3. Features of the site:

- 3.1. Are there any unusual, unique or rare artefacts or images at the site?
- 3.2. Is it a type site?
- 3.3. Does the site have a very good example of a specific time period, feature, or artefact?

4. Research:

- 4.1. Providing information on current research projects
- 4.2. Salvaging information for potential future research projects

5. Inter- and intra-site variability

- 5.1. Can this particular site yield information regarding intra-site variability, i.e. spatial relationships between various features and artefacts?
- 5.2. Can this particular site yield information about a community's social relationships within itself, or between other communities?

6. Archaeological Experience:

6.1. The personal experience and expertise of the CRM practitioner should not be ignored. Experience can indicate sites that have potentially significant aspects, but need to be tested prior to any conclusions.

7. Educational:

7.1. Does the site have the potential to be used as an educational instrument?

7.2. Does the site have the potential to become a tourist attraction?

7.3. The educational value of a site can only be fully determined after initial test-pit excavations and/or full excavations.

8. Other Heritage Significance:

8.1. Palaeontological sites

8.2. Historical buildings

8.3. Battlefields and general Anglo-Zulu and Anglo-Boer sites

8.4. Graves and/or community cemeteries

8.5. Living Heritage Sites

8.6. Cultural Landscapes, that includes old trees, hills, mountains, rivers, etc related to cultural or historical experiences.

The more a site can fulfill the above criteria, the more significant it becomes. Test-pit excavations are used to test the full potential of an archaeological deposit. This occurs in Phase 2. These test-pit excavations may require further excavations if the site is of significance (Phase 3). Sites may also be mapped and/or have artefacts sampled as a form of mitigation. Sampling normally occurs when the artefacts may be good examples of their type, but are not in a primary archaeological context. Mapping records the spatial relationship between features and artefacts.

FIG. 3: LOCATION OF HERITAGE SITES ALONG THE TAWENI TRANSMISSION LINE

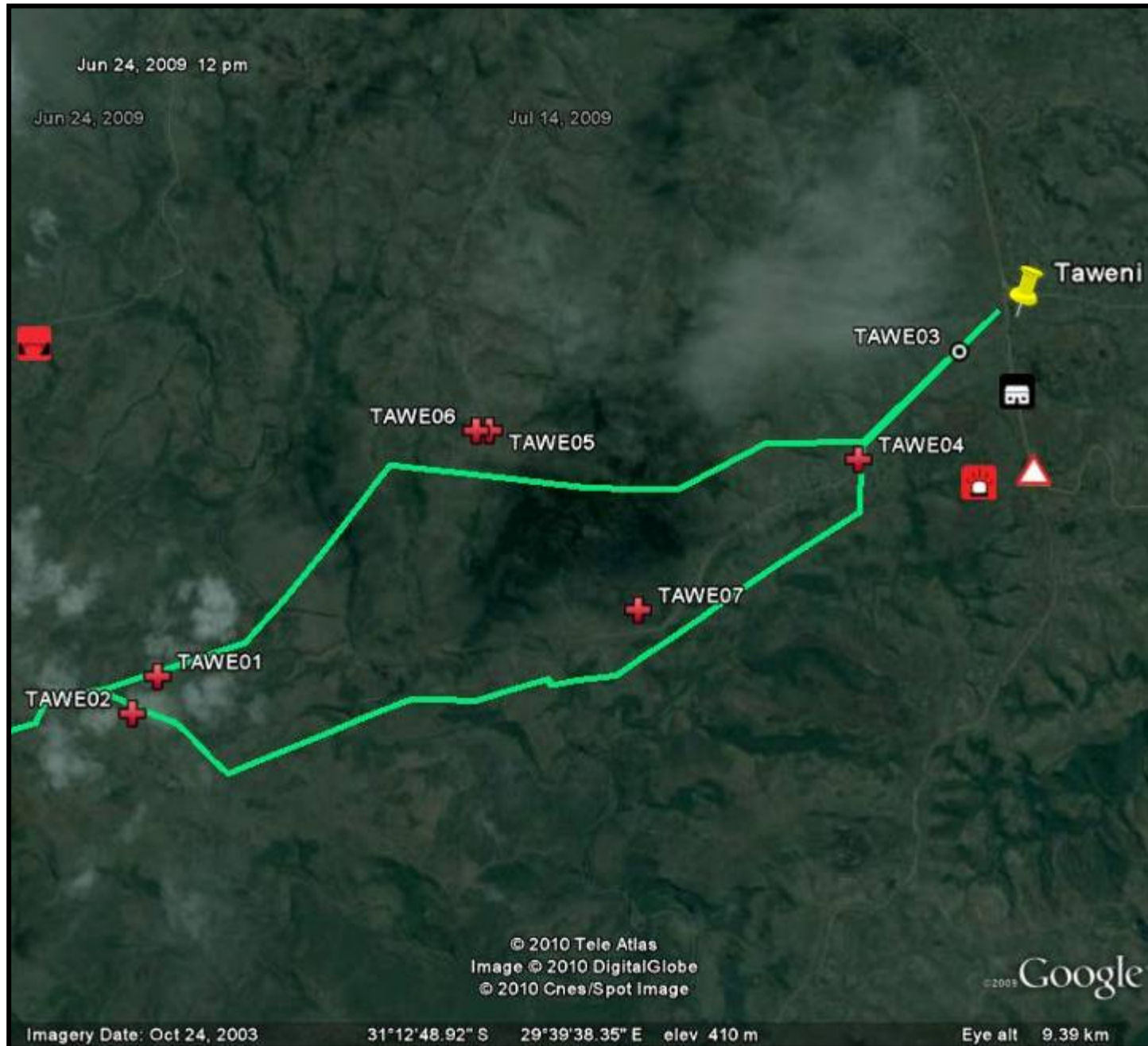


FIG. 4: GENERAL ENVIRONMENT ALONG THE TAWENI TRANSMISSION LINE



RESULTS

No heritage sites that would be protected by the NHRA were observed along the transmission line route. Several recent heritage sites were observed and these included graves and buildings (fig. 3). The landscape where the transmission line occurs consists of river valleys and hilltops. The transmission line tends to occur below the skyline and in areas that would probably be too steep for human occupation (fig. 4).

In general, there were isolated Middle Stone Age artefacts along the transmission line route. These were either on the surface or above the gravel riverine deposits. Several individual upper grinding stones were also observed. This is to be expected in terrains such as these. These isolated artefacts have little significance.

TAWE01

TAWE01 consists of several human graves along the ridge of the hill. These graves are of various ages, and some appear to be older than 60 years. The transmission line occurs from either route option, between 140m and 200m, from the graves. The access road to the hill, and thus for pylons, will however pass next to the graves. One grave is ~1m from the existing track.

Significance: Human graves are always of high significance.

Mitigation: The cemetery should be clearly demarcated, with the assistance of the community, before construction phase. This will ensure that construction vehicles do not accidentally drive over the older and less visible graves.

TAWE02

TAWE02 occurs ~350m south of the one route option; however, it is near an access road. The site consists of a single grave within a homestead.

Significance: Human graves are always of high significance.

Mitigation: The grave is already clearly demarcated and no further mitigation is required.

TAWE03

TAWE03 is located ~500m southwest of the proposed Taweni substation. The site consists of several ruined buildings and possible graves. The buildings do not appear to be older than 60 years (see architect's comments), and occur in the servitude.

There is a patch of sisal directly on the line route. Traditionally sisal was used to demarcate graves. Due to the dense nature of the sisal, I could not determine if these were human graves; however, they should be treated as possible graves.

Significance: The possible graves are of high significance until proven otherwise. While the buildings are of low significance, there is no reason to damage them.

Mitigation: Any pylon should be placed at least 50m to the northeast or northwest of the edge of the site. In this way, it would not damage any features.

TAWE04

TAWE04 is a group of graves in a homestead near the route or its servitude. This is typical of recent graves in the area (see TAWE07 for photograph).

Significance: Human graves are of high significance

Mitigation: The route will not affect the grave

TAWE05

TAWE05 is a grave near an abandoned homestead near the route or its servitude. This is typical of recent graves in the area (see TAWE07 for photograph).

Significance: Human graves are of high significance.

Mitigation: The route will not affect the grave

TAWE06

TAWE06 is a single grave near the main access road for this route.

Significance: Human graves are of high significance.

Mitigation: The route will not affect the grave.

TAWE07

TAWE07 is a group of graves in a homestead near the route or its servitude. They were recorded during the survey as a standard example of recent graves of the area.

Significance: Human graves are of high significance

Mitigation: The route will not affect the grave.

MANAGEMENT PLAN

No management plan is required regarding the heritage. The social impact study will ensure that the community identifies recent graves and that they are not disturbed.

The stones tools and grinding stones that were observed are of low significance and no further mitigation is required. They are isolated artefacts and are thus not considered sites.

Either route option is viable in terms of the heritage impact assessment.

A permit from SAHRA will not be required.

FIG. 5: VARIOUS STRUCTURES AT TAWE03¹



¹ Clockwise: general site, pump house or out house, round feature with oven, main building, possible graves (center).

FIG. 6: GRAVES NEAR A HOMESTEAD²



CONCLUSION

The Heritage survey of Taweni substation and transmission line, near Lusikisiki, was undertaken in April 2010. Both the preferred and alternative lines are ~13km long and follow mostly disturbed areas. No heritage sites were observed along the route. Several recent graves were observed and these should fall under the social impact study.

²Yellow arrow = homestead, red arrow = graves

SITE RECORD FORMS

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM

SITE CATEGORY: (X where applicable)

Stone Age:
Early Iron Age:
Late Iron Age
Historical Period: X



Recorder's Site No.: TAW01
Official Name: Buhlanyanga
Local Name: Buhlanyanga
Map Sheet:
GPS reading: 31°13'37.30"S 29°37'15.00"E

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

Roads have no names, so I GPS will be needed.

SITE DESCRIPTION:

Type of Site: Grave
Merits conservation: Yes
Threats: No
What threats:

RECORDING:

Graphic record: No
Digital pictures: Tracings : Re-drawings:

Recorder/Informant: Name: Gavin Anderson
Address: PO Box 102532, Meerensee, 3901
Date: April 2010

Description of site and artefactual content.

TAW01 consists of several human graves along the ridge of the hill. These graves are of various ages, and some appear to be older than 60 years. The transmission line occurs from either route option, between 140m and 200m, from the graves. The access road to the hill, and thus for pylons, will however pass next to the graves. One grave is ~1m from the existing track.

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM



SITE CATEGORY: (X where applicable)

Stone Age:
Early Iron Age:
Late Iron Age
Historical Period:

Recorder's Site No.: TAWE03
Official Name: TAWENI
Local Name: TAWENI
Map Sheet:
GPS reading: 31°11'58.07"S 29°41'43.86"E

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From Lusikisiki drive towards Holy Cross., pass holy cross and take the Edolophini turn off. Thereafter use GPS

SITE DESCRIPTION:

Type of Site: Possible Grave & homestead
Merits conservation: Yes
Threats: No
What threats:

RECORDING:

Graphic record: Yes
Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin Anderson
Address: PO Box 102532, Meerensee, 3901
Date: April 2010

Description of site and artefactual content.

TAWE03 is located ~500m southwest of the proposed Taweni substation. The site consists of several ruined buildings and possible graves. The buildings do not appear to be older than 60 years (see architect's comments), and occur in the servitude. There is a patch of sisal directly on the line route. Traditionally sisal was used to demarcate graves. Due to the dense nature of the sisal, I could not determine if these were human graves; however, they should be treated as possible graves.

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM



SITE CATEGORY: (X where applicable)

Stone Age:
Early Iron Age:
Late Iron Age
Historical Period: x

Recorder's Site No.: TAWE04
Official Name: N/A
Local Name: N/A
Map Sheet:
GPS reading: 31°12'34.79"S 29°41'10.19"E

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From Lusikisiki drive towards Holy Cross., pass holy cross and take the Edolophini turn off. Thereafter use GPS

SITE DESCRIPTION:

Type of Site: Grave
Merits conservation: Yes
Threats: No
What threats:

RECORDING:

Graphic record: Yes
Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin Anderson
Address: PO Box 102532, Meerensee, 3901
Date: April 2010

Description of site and artefactual content.

TAWE04 is a group of graves in a homestead near the route or its servitude. This is typical of recent graves in the area

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM



SITE CATEGORY: (X where applicable)

Stone Age:
Early Iron Age:
Late Iron Age
Historical Period:

Recorder's Site No.: TAWE05
Official Name:
Local Name:
Map Sheet:
GPS reading: 31°12'26.53"S 29°39'6.31"E

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From Lusikisiki drive towards Holy Cross., Take first dirt road just before Holy Cross and follow it all the way, keeping to the left of all forks. Site is near alst cluster of homesteads before the valley.

SITE DESCRIPTION:

Type of Site: Grave
Merits conservation: Yes
Threats: No
What threats:

RECORDING:

Graphic record: Yes
Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin Anderson
Address: PO Box 102532, Meerensee, 3901
Date: April 2010

Description of site and artefactual content.

TAWE05 is a grave near an abandoned homestead near the route or its servitude. This is typical of recent graves in the area

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM

SITE CATEGORY: (X where applicable)

Stone Age:
Early Iron Age:
Late Iron Age
Historical Period: X

Recorder's Site No.: TAWEO6
Official Name: n/a
Local Name: n/a
Map Sheet:
GPS reading: 31°12'26.58"S 29°39'1.92"E



DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From Lusikisiki drive towards Holy Cross., Take first dirt road just before Holy Cross and follow it all the way, keeping to the left of all forks. Site is near alst cluster of homesteads before the valley.

SITE DESCRIPTION:

Type of Site: Grave
Merits conservation: Yes
Threats: No
What threats:

RECORDING:

Graphic record: Yes
Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin Anderson
Address: PO Box 102532, Meerensee, 3901
Date: April 2010

Description of site and artefactual content.

TAWEO6 is a single grave near the main access road for this route.

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM



SITE CATEGORY: (X where applicable)

Stone Age:
Early Iron Age:
Late Iron Age
Historical Period: x

Recorder's Site No.: TAWE07
Official Name: n/a
Local Name: n/a
Map Sheet:
GPS reading: 31°13'18.15"S 29°39'56.40"E

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From Lusikisiki drive towards Holy Cross., pass holy cross and take the Edolophini turn off. Thereafter use GPS

SITE DESCRIPTION:

Type of Site: Grave
Merits conservation: Yes
Threats: No
What threats:

RECORDING:

Graphic record: Yes
Digital pictures: x Tracings : Re-drawings:

Recorder/Informant: Name: Gavin Anderson
Address: PO Box 102532, Meerensee, 3901
Date: April 2010

Description of site and artefactual content.

TAWE07 is a group of graves in a homestead near the route or its servitude. They were recorded during the survey as a standard example of recent graves of the area.