

**HERITAGE SURVEY OF THE PROPOSED
SHENGEZA VODACOM TOWER, MANGUZI, KZN

FOR THE INDEPENDENT ENVIRONMENTAL
ADVISOR**

DATE: 10 October 2019

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EXECUTIVE SUMMARY

Vodacom intends to construct a telecommunications tower and base station at Shengeza, Umhlabuyalingana Local Municipality, Umkhanyakude District Municipality. This will include:

- *650m power line*
- *100m² base that will require the top of the hill to be leveled.*

The HIA was undertaken in October 2019 and no heritage features were noted in the immediate footprint. A single grave was noted 35m to the west of the powerline/tower, but it will not be affected. While there was some terracing on the hill, no evidence for human occupation was observed.

The area is of low palaeontological sensitivity.

No further HIA mitigation is required.

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Abbreviations

HP	Historical Period
IIA	Indeterminate Iron Age
LIA	Late Iron Age
EIA	Early Iron Age
ISA	Indeterminate Stone Age
ESA	Early Stone Age
MSA	Middle Stone Age
LSA	Late Stone Age
HIA	Heritage Impact Assessment
PIA	Palaeontological Impact Assessment

INTRODUCTION

“The Independent Environmental Advisor has been appointed to conduct the Basic Assessment required to secure environmental authorisation for the proposed establishment of a 25m Vodacom telecommunications tower and base station, Shengeza, Umhlabuyalingana Local Municipality, Umkhanyakude District Municipality.

The construction of the Vodacom Base Station and Tower on Shengeza will consist of the following components:

- Levelling of the Base Station footprint (100 m²).
- Construction of a concrete plinth to house the control container.
- Construction of a concrete foundation to accommodate the mast.
- Provide power to the base transceiver station as well as the antennae and lights on the mast.
- Erection of the tower (lattice structure) which will be 25m in height.
- Erection of a boundary fence to enclose the base station (approx. 100m²).
- Provision of an access gate.
- Placement of geofabric and stone chips within the boundary fence.
- Laying 650m overhead power line

The preferred Vodacom Shengeza site is located approximately 2,5km south of KwaNgwanase and west of Isimangaliso Wetland Park. The preferred site for the tower and base station is on a hillock or small hill in a rural settlement area” (BID 2019).

The Independent Environmental Advisor contracted Umlando to undertake the heritage survey.

FIG. 1 GENERAL LOCATION OF THE PROPOSED POWERLINE

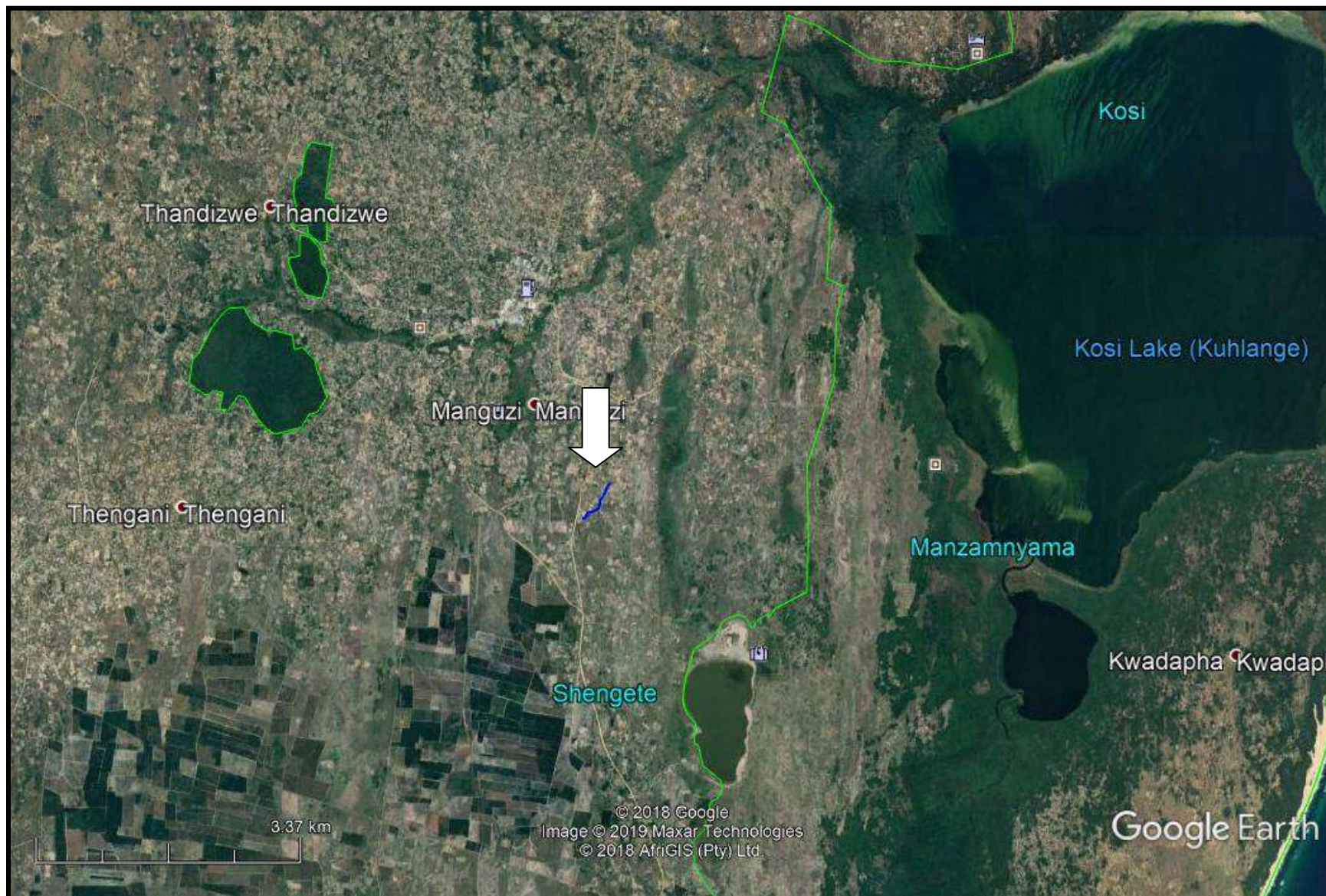


FIG. 2: AERIAL OVERVIEW OF THE PROPOSED POWERLINE

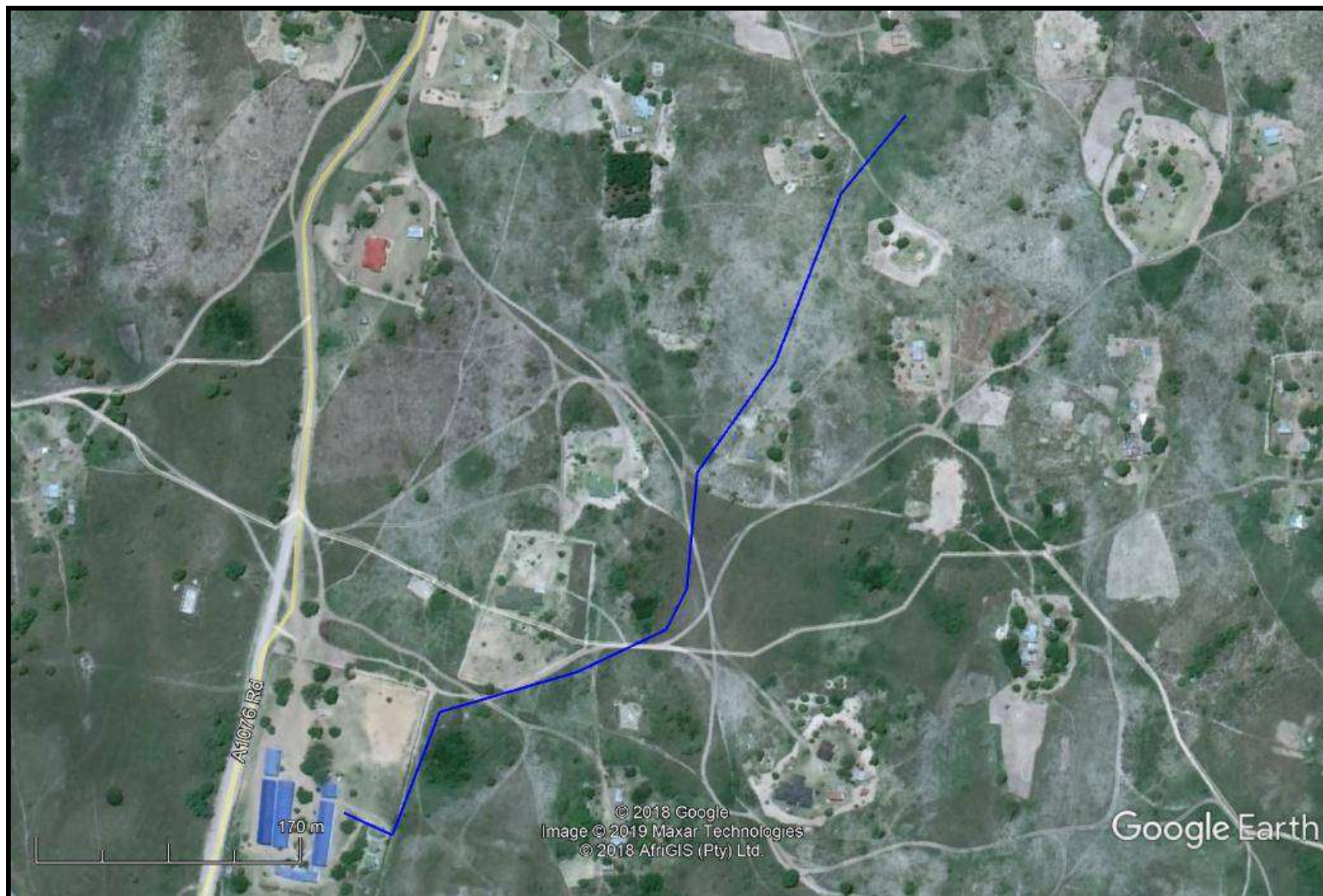


FIG. 3: TOPOGRAPHICAL MAP OF THE SHENGEZA – KWAGEORGE AREA

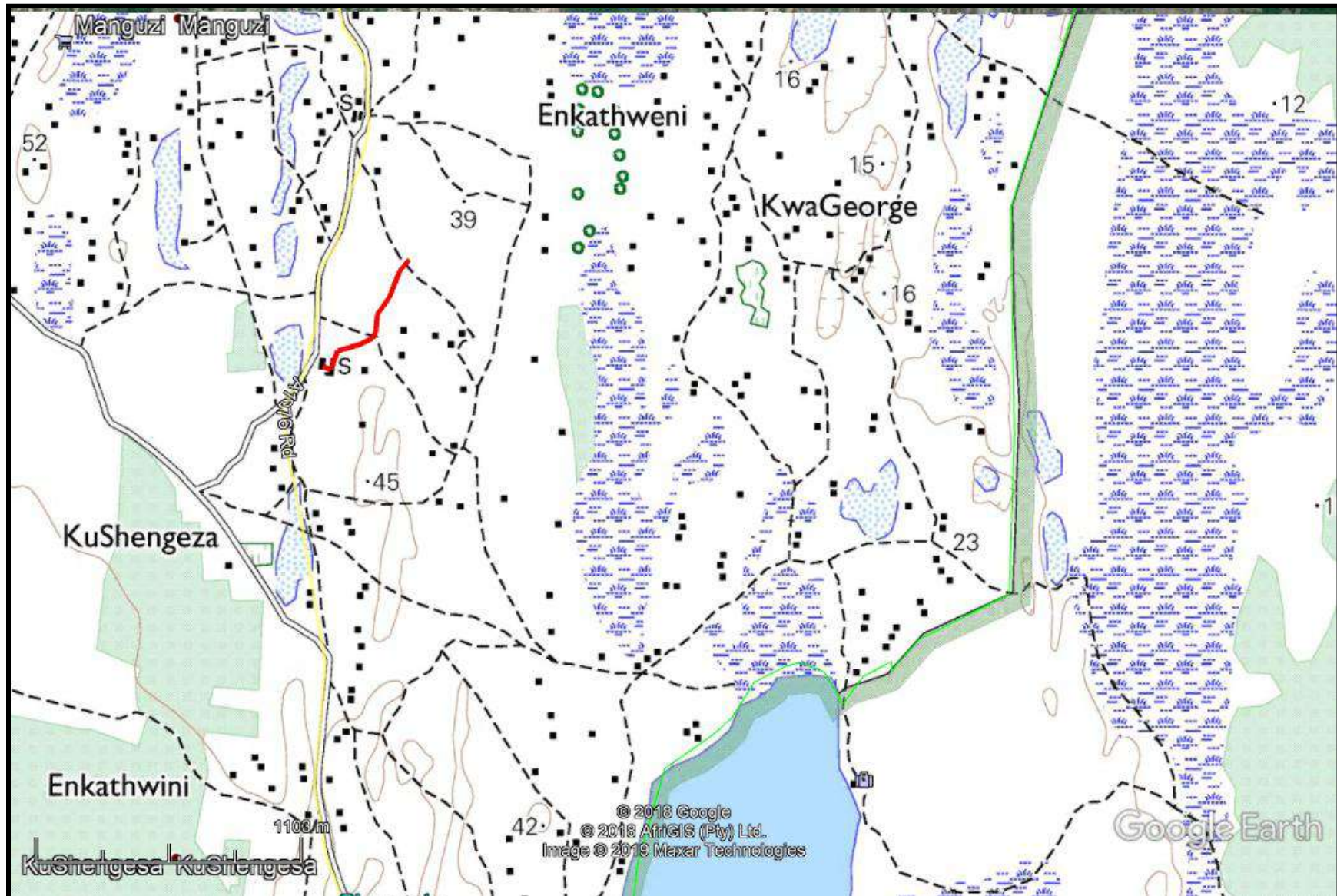


FIG. 4: SCENIC VIEWS OF THE STUDY AREA



KWAZULU NATAL AMAFA AND RESEARCH INSTITUTE, ACT 05, 2018

“General protection: Structures.—

- No structure which is, or which may reasonably be expected to be older than 60 years, may be demolished, altered or added to without the prior written approval of the Council having been obtained on written application to the Council.
- Where the Council does not grant approval, the Council must consider special protection in terms of sections 38, 39, 40, 41 and 43 of Chapter 9.
- The Council may, by notice in the *Gazette*, exempt—
- A defined geographical area; or
- defined categories of sites within a defined geographical area, from the provisions of subsection where the Council is satisfied that heritage resources falling in the defined geographical area or category have been identified and are adequately protected in terms of sections 38, 39, 40, 41 and 43 of Chapter 9.
- A notice referred to in subsection (2) may, by notice in the *Gazette*, be amended or withdrawn by the Council.

General protection: Graves of victims of conflict.—No person may damage, alter, exhume, or remove from its original position—

- the grave of a victim of conflict;
- a cemetery made up of such graves; or
- any part of a cemetery containing such graves, without the prior written approval of the Council having been obtained on written application to the Council.
- General protection: Traditional burial places.—
- No grave—
- not otherwise protected by this Act; and
- not located in a formal cemetery managed or administered by a local authority, may be damaged, altered, exhumed, removed from its original

position, or otherwise disturbed without the prior written approval of the Council having been obtained on written application to the Council.

The Council may only issue written approval once the Council is satisfied that—

- the applicant has made a concerted effort to consult with communities and individuals who by tradition may have an interest in the grave; and
- the applicant and the relevant communities or individuals have reached agreement regarding the grave.

General protection: Battlefield sites, archaeological sites, rock art sites, palaeontological sites, historic fortifications, meteorite or meteorite impact sites.—

- No person may destroy, damage, excavate, alter, write or draw upon, or otherwise disturb any battlefield site, archaeological site, rock art site, palaeontological site, historic fortification, meteorite or meteorite impact site without the prior written approval of the Council having been obtained on written application to the Council.
- Upon discovery of archaeological or palaeontological material or a meteorite by any person, all activity or operations in the general vicinity of such material or meteorite must cease forthwith and a person who made the discovery must submit a written report to the Council without delay.
- The Council may, after consultation with an owner or controlling authority, by way of written notice served on the owner or controlling authority, prohibit any activity considered by the Council to be inappropriate within 50 metres of a rock art site.
- No person may exhume, remove from its original position or otherwise disturb, damage, destroy, own or collect any object or material associated with any battlefield site, archaeological site, rock art site, palaeontological site, historic fortification, meteorite or meteorite impact site without the prior written approval of the Council having been obtained on written application to the Council.
- No person may bring any equipment which assists in the detection of metals and archaeological and palaeontological objects and material, or

- excavation equipment onto any battlefield site, archaeological site, rock art site, palaeontological site, historic fortification, or meteorite impact site, or use similar detection or excavation equipment for the recovery of meteorites, without the prior written approval of the Council having been obtained on written application to the Council.
- The ownership of any object or material associated with any battlefield site, archaeological site, rock art site, palaeontological site, historic fortification, meteorite or meteorite impact site, on discovery, vest in the Provincial Government and the Council is regarded as the custodian on behalf of the Provincial Government.”

METHOD

The method for Heritage assessment consists of several steps.

The first step forms part of the desktop assessment. Here we would consult the database that has been collated by Umlando. This database contains archaeological site locations and basic information from several provinces (information from Umlando surveys and some colleagues), most of the national and provincial monuments and battlefields in Southern Africa (<http://www.vuvuzela.com/googleearth/monuments.html>) and cemeteries in southern Africa (information supplied by the Genealogical Society of Southern Africa). We use 1st and 2nd edition 1:50 000 topographical and 1937 aerial photographs where available, to assist in general location and dating of buildings and/or graves. The database is in Google Earth format and thus used as a quick reference when undertaking desktop studies. Where required we would consult with a local data recording centre, however these tend to be fragmented between different institutions and areas and thus difficult to access at times. 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.

RESULTS

DESKTOP STUDY

The desktop study consisted of analysing various maps for evidence of prior habitation in the study area, as well as for previous archaeological surveys. Fig. 5 indicates that there are many settlements from the 20th century in the general area, while the archaeological sites tend to be few. The lack of archaeological sites is due to few systematic surveys and the very loose sand that results in artefacts sinking to a common horizon 1m+ below the surface. Fig. 6 and 7 shows that there are no settlements within 50m of the line in 1937 and 1980, respectively.

FIG. 5: LOCATION OF KNOWN HERITAGE SITES IN THE GENERAL AREA

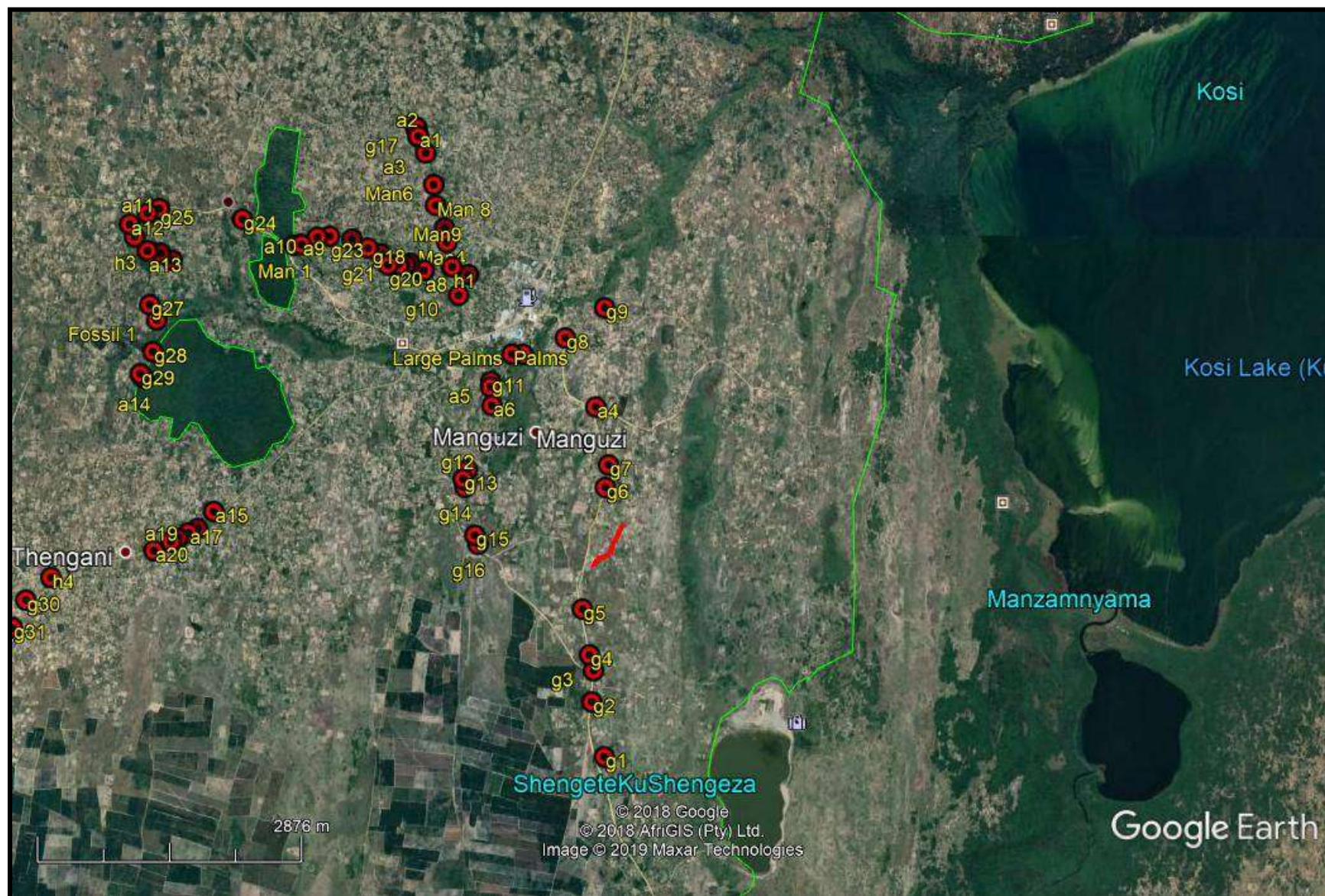
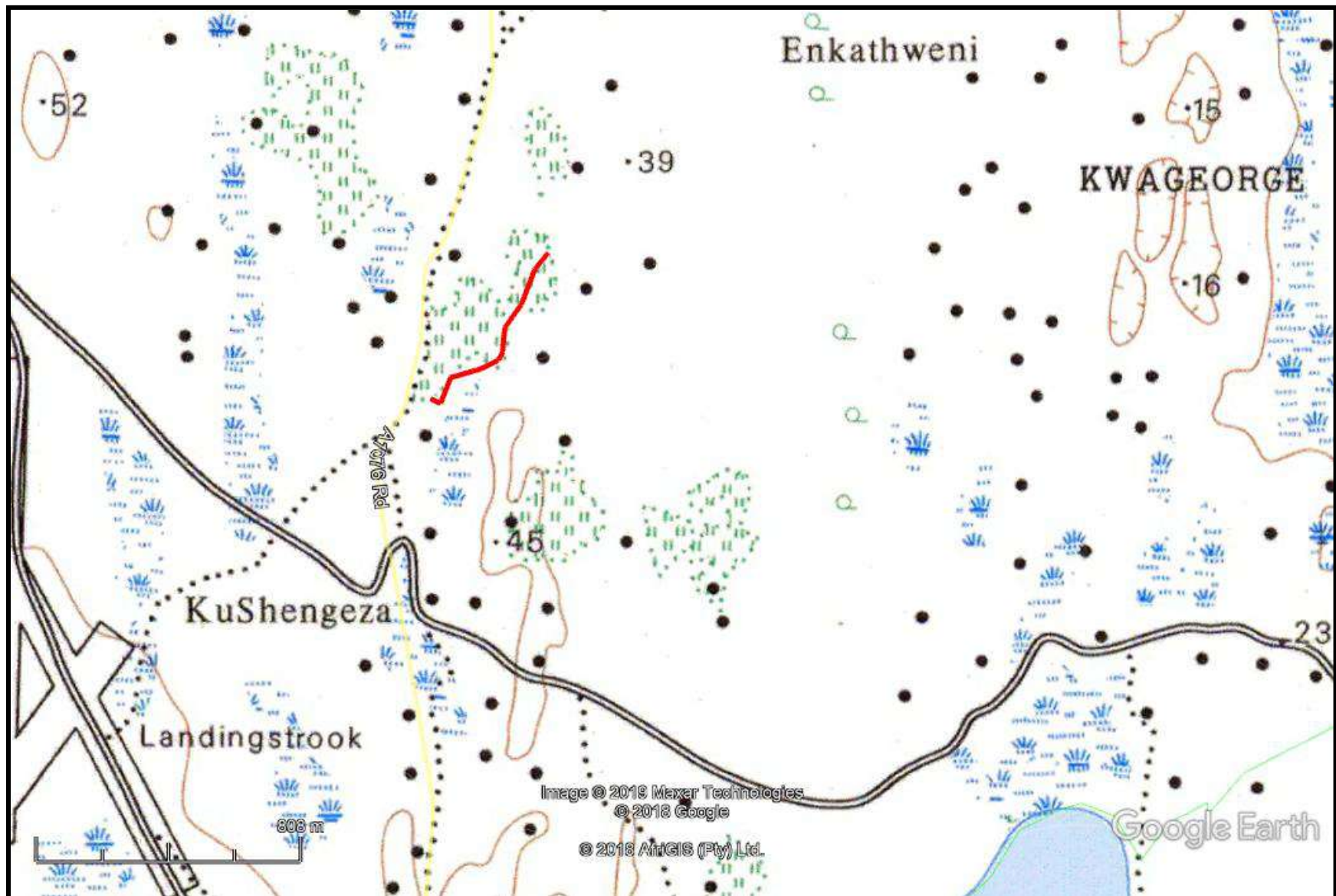


FIG. 6: LOCATION OF SETTLEMENTS ALONG THE POWERLINE IN 1937



FIG. 7: LOCATION OF SETTLEMENTS ALONG THE POWERLINE IN 1980



FIELD SURVEY

The field survey was undertaken on 7 October 2019. A single human grave was recorded 30m from the proposed powerline. The grave will not be affected by construction. Table 2 and Figures 8 - 9 shows the locations of the finds.

TABLE 2: LOCATION OF RECORDED SITE

Name	Description	South	East	Requires Mitigation
Grave 1	Human Grave	27° 0'34.81"	32°45'59.96"	Demarcate if closer than 30m

FIG. 8: LOCATIONS OF GRAVE 1



FIG. 9: LOCATIONS OF GRAVE 1

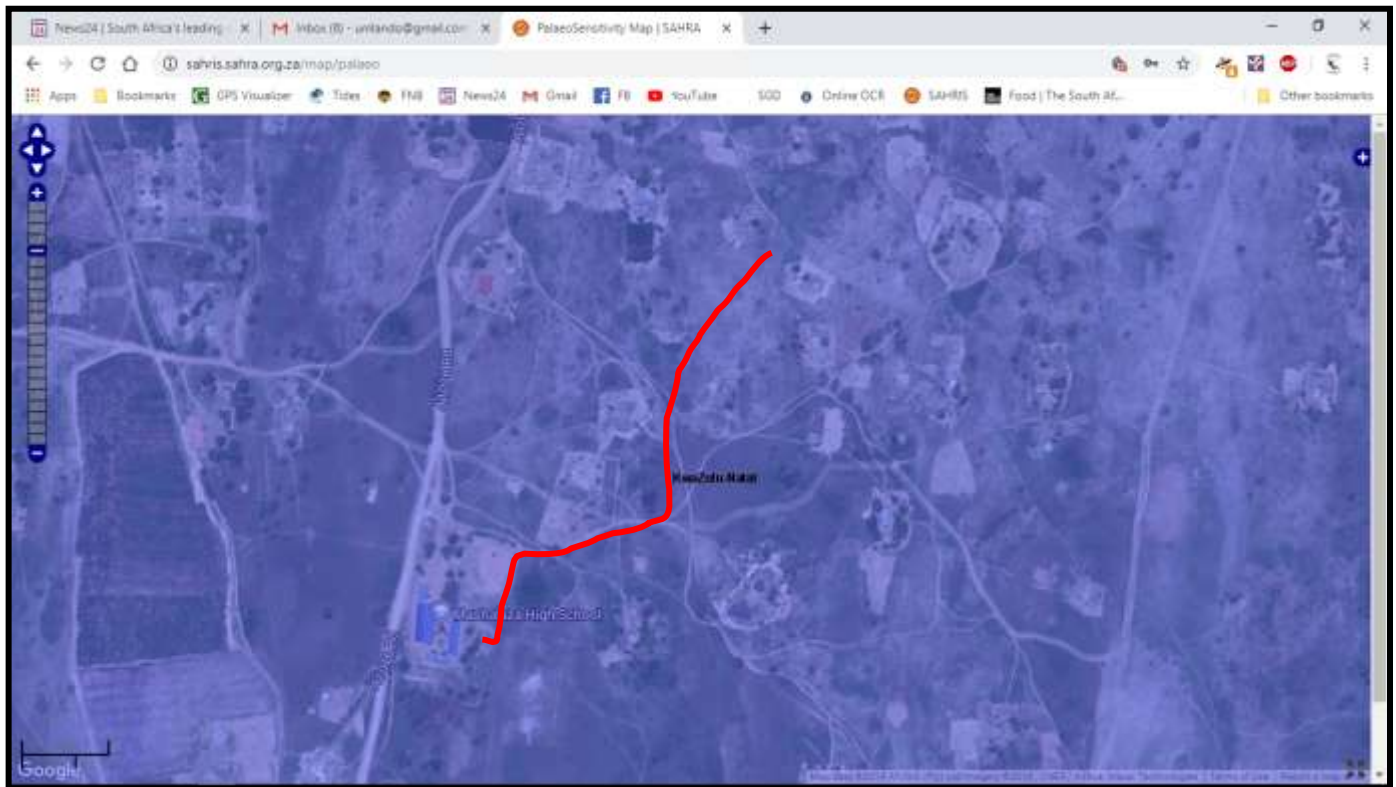
The hill where the tower will be placed has two old terraces on the eastern side. These are indicative of possible settlements. The top of the hill itself would have been a favoured location for a settlement; however, no evidence for this could be found, apart from a single modern teacup shard.

My experience in this area is that human graves tend to be demarcated with gravestones only from the later 1950s onwards. Previously, and often to this day, graves would be initially demarcated with trees and/or logs, and occasionally rocks that occur 1m – 2m below the surface. These rocks tend to be fossils. This means that those graves demarcated with organic materials tend to disappear within 10 years, leaving no indication of their existence, apart from through oral history. While no evidence for any human occupation occurs on the hill for the

tower, the construction phase must be wary of possible subsurface human remains.

PALAEONTOLOGICAL IMPACT ASSESSMENT

The PIA desktop assessment indicates that the area is in a very low palaeontological sensitive area (fig. 10). No further mitigation is required.



MANAGEMENT PLAN

No further mitigation is required. If any human remains, or archaeological artefacts, are noted during construction, then the SAPS and Amafa KZN need to be contacted immediately.

CONCLUSION

A heritage survey was undertaken for the proposed Shengeza Vodacom Tower, Manguzi, KZN. The route follows a well used track for most of the way, and then heads towards a small hill where the mast will be placed. No heritage sites were noted on this hill; however, there is a single human grave to the west of the powerline. No mitigation is required for this grave.

No further HIA mitigation is required for the proposed project

REFERENCES

Maps

167_006_00798

2732BB Blackrock, 1980, 2002

EXPERIENCE OF THE HERITAGE CONSULTANT

Gavin Anderson has a M. Phil (in archaeology and social psychology) degree from the University of Cape Town. Gavin has been working as a professional archaeologist and heritage impact assessor since 1995. He joined the Association of Professional Archaeologists of Southern Africa in 1998 when it was formed. Gavin is rated as a Principle Investigator with expertise status in Rock Art, Stone Age and Iron Age studies. In addition to this, he was worked on both West and East Coast shell middens, Anglo-Boer War sites, and Historical Period sites.

DECLARATION OF INDEPENDENCE

I, Gavin Anderson, declare that I am an independent specialist consultant and have no financial, personal or other interest in the proposed development, nor the developers or any of their subsidiaries, apart from fair remuneration for work performed in the delivery of heritage assessment services. There are no circumstances that compromise the objectivity of my performing such work.

A handwritten signature in black ink, appearing to read 'G. Anderson', with a stylized flourish above the name.

Gavin Anderson
Archaeologist/Heritage Impact Assessor