

**DESKTOP HERITAGE SURVEY FOR THE UMZINTO
NORTH MAST, KZN**

FOR ENVIROAFRICA

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Abbreviations

EIA	Early Iron Age
ESA	Early Stone Age
HIA	Heritage Impact Assessment
HP	Historical Period
IIA	Indeterminate Iron Age
ISA	Indeterminate Stone Age
KZNARI	KwaZulu-Natal Amafa & Research Institute
LIA	Late Iron Age
LSA	Late Stone Age
MSA	Middle Stone Age
PIA	Palaeontological Impact Assessment
SAHRA	South African Heritage Resources Agency

INTRODUCTION

EnviroAfrica cc has been appointed by SBA Towers to manage the process of applying for an environmental authorisation. The Umzinto telecommunications mast of approximately 45m in height and associated structures and infrastructure is proposed on Erf 33, Umzinto North, Umdoni Local Municipality, Ugu District DC 21. The telecommunications mast and associated base station structures and infrastructure will have a development footprint of approximately 100m².

Umlando was requested to undertake a desktop HIA of the proposed Umzinto North mast. The area is less than a hectare in size and thus does not trigger an HIA. However, since it is near a nature reserve it triggered a basic assessment. Umlando suggested a desktop HIA study will suffice.

Figures 1 – 4 show the location of the development.

FIG. 1 GENERAL LOCATION OF THE PROPOSED DEVELOPMENT

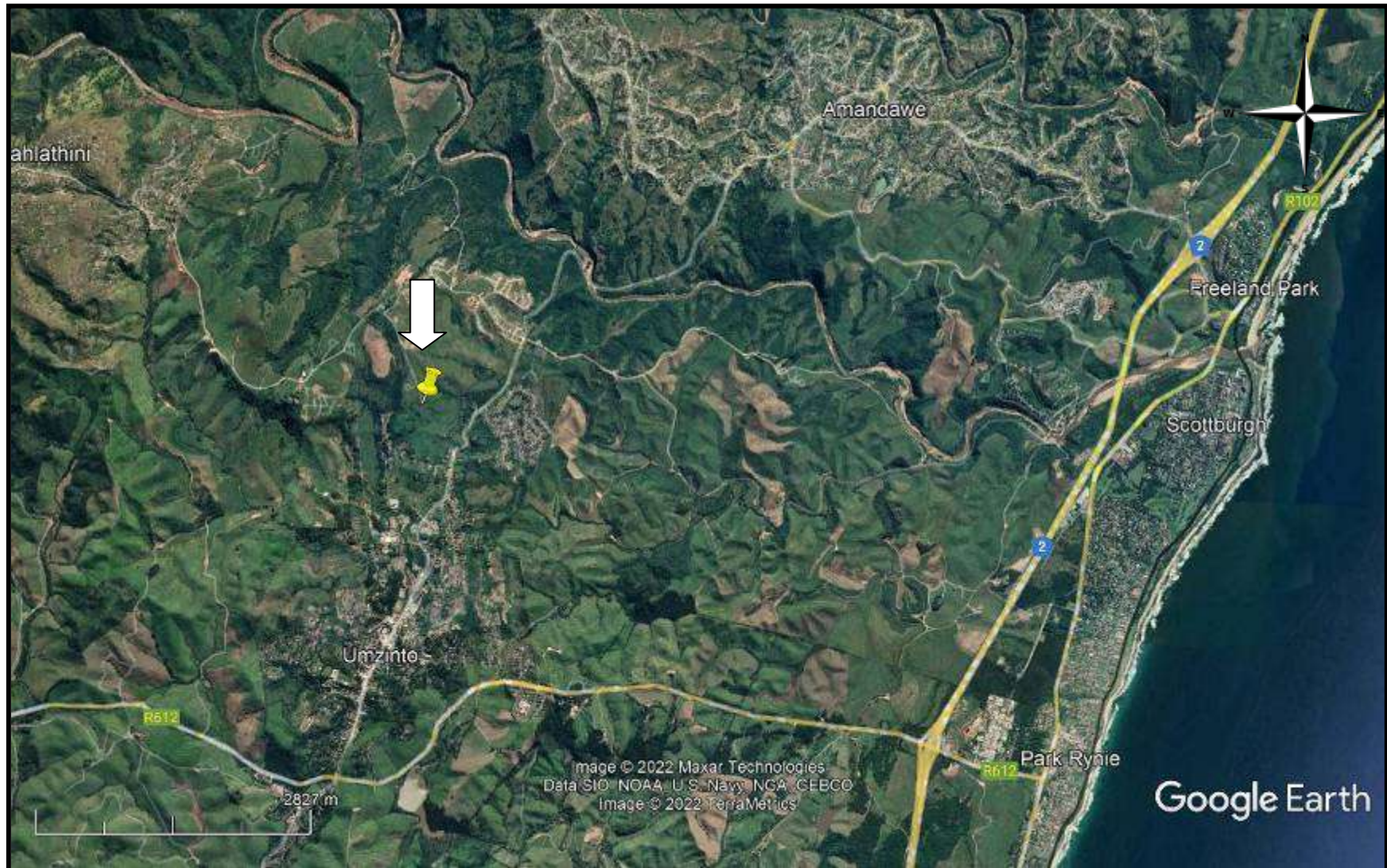


FIG. 2: AERIAL OVERVIEW OF THE PROPOSED DEVELOPMENT



FIG. 3: TOPOGRAPHICAL MAP OF THE PROPOSED DEVELOPMENT (2000)

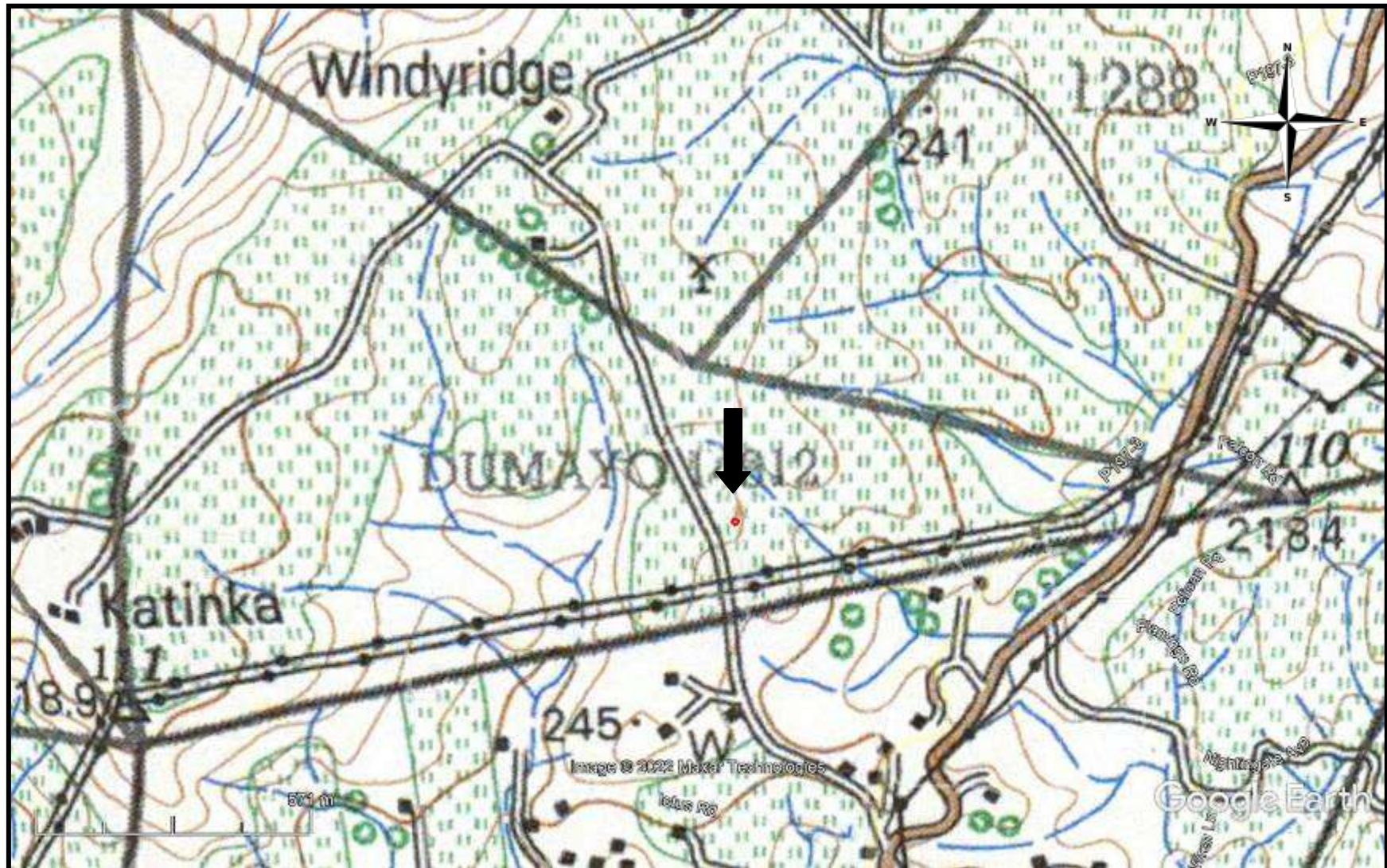


FIG. 4: SCENIC VIEWS OF THE STUDY AREA



KWAZULU NATAL AMAFA AND RESEARCH INSTITUTE, ACT 05, 2018,

The Kwazulu Natal Amafa And Research Institute, Act 05, 2018, Chapter 8 (pp 29 – 32) define heritage resources.

“General protection: Structures.

37.(1)(a) 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 Institute having been obtained on written application to the Council.

(b) Where the Institute does not grant approval, the Institute must consider special protection in terms of sections 38, 39, 40, 41 and 43 of Chapter 9.

The Institute may, by notice in the *Gazette*, exempt—

- (a) A defined geographical area; or
 - (b) defined categories of sites within a defined geographical area, from the provisions of subsection where the Institute 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.
- (3) 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.

38. No person may damage, alter, exhume, or remove from its original position

- (a) the grave of a victim of conflict;
- (b) a cemetery made up of such graves; or
- (c) any part of a cemetery containing such graves, without the prior written approval of the Institute having been obtained on written application to the Council.

General protection: Informal and private burial grounds

39.(1) or burial ground older than 60 years, or deemed to be of heritage significance by a heritage authority -

- (a) not otherwise protected by this Act; and
- (b) 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 Institute having been obtained on written application to the Council.

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

- (a) the applicant has made a concerted effort to consult with communities and individuals who by tradition may have an interest in the grave; and
- (b) 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.—

40 (1) 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 Institute having been obtained on written application to the Council.

(2) 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 Institute without delay.

(3) The Institute 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 Institute to be inappropriate within 50 metres of a rock art site.

(4) 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 Institute having been obtained on written application to the Council.

(5) 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 Institute having been obtained on written application to the Council.

(6)(a) 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, vests in the Provincial Government and the Institute is regarded as the custodian on behalf of the Provincial Government.

(b) The Institute may establish and maintain a provincial repository or repositories for the safekeeping or display of —

- (i) archaeological objects;
- (ii) palaeontological material;
- (iii) ecofacts;
- (iv) objects related to battlefield sites;
- (v) material cultural artefacts; or
- (vi) meteorites,

(7) The Institute may, subject to such conditions as the Institute may determine, loan any object or material referred to in subsection (6) to a national or provincial museum or institution.

(8) No person may, without the prior written approval of the Institute having been obtained on written application to the Institute, trade in, export or attempt to export from the Province ~

- (a) any category of archaeological object;
- (b) any palaeontological material;
- (c) any ecofact;
- (d) any object which may reasonably be regarded as having been recovered from a battlefield site;
- (e) any material cultural artefact; or
- (f) any meteorite.

(9)(a) A person or institution in possession of an object or material, referred to in paragraphs (a) ~ (f) of subsection (8), must submit full particulars of such object or material, including such information as may be prescribed, to the Institute.

(b) An object or material referred to in paragraph (a) must, subject to paragraph (c) and the directives of the Institute, remain under the control of the person or institution submitting the particulars thereof.

(c) The ownership of any object or material referred to in paragraph (a) vests in the Provincial Government and the Institute 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. Table 1 lists the grading system.

TABLE 1: SAHRA GRADINGS FOR HERITAGE SITES

SITE SIGNIFICANCE	FIELD RATING	GRADE	RECOMMENDED MITIGATION
High Significance	National Significance	Grade 1	Site conservation / Site development
High Significance	Provincial Significance	Grade 2	Site conservation / Site development
High Significance	Local Significance	Grade 3A / 3B	
High / Medium Significance	Generally Protected A		Site conservation or mitigation prior to development / destruction
Medium Significance	Generally Protected B		Site conservation or mitigation / test excavation / systematic sampling / monitoring prior to or during development / destruction
Low Significance	Generally Protected C		On-site sampling monitoring or no archaeological mitigation required prior to or during development / destruction

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. The general area has not been surveyed (fig. 5). No heritage surveys occur near the study area.

The 1937 aerial photograph indicates that there are no houses or settlements near the proposed towers under sugar cultivation and there are no built structures (fig. 6).

The 1968 topographical map indicates that there are no built structures within the study area (fig. 7).

The area is currently used for sugar cane farming and no buildings occur near the proposed tower location.

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

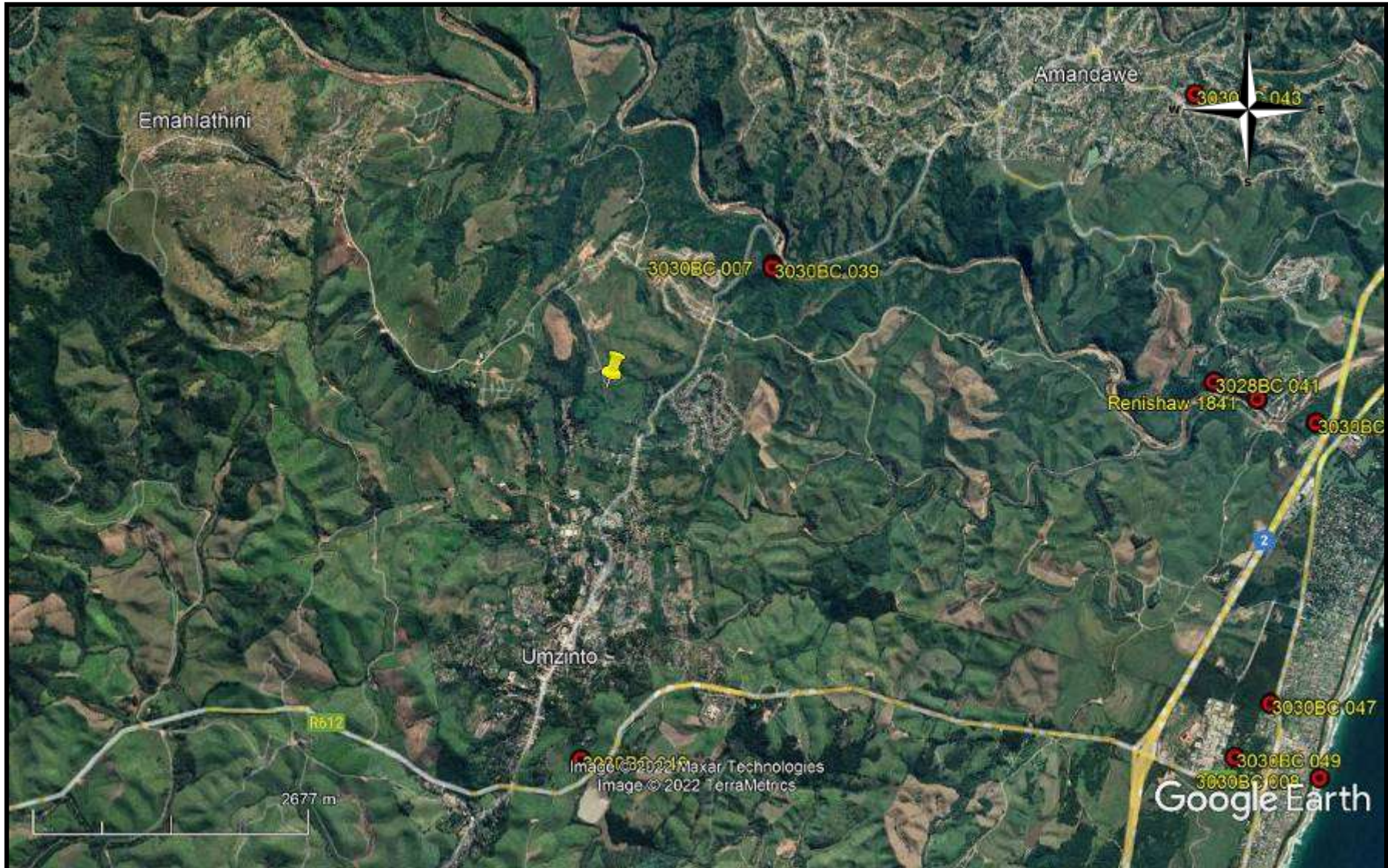


FIG. 6: LOCATION OF THE STUDY AREA IN 1937¹



¹ 117B_052_35316

FIG. 7: LOCATION OF THE STUDY AREA IN 1942

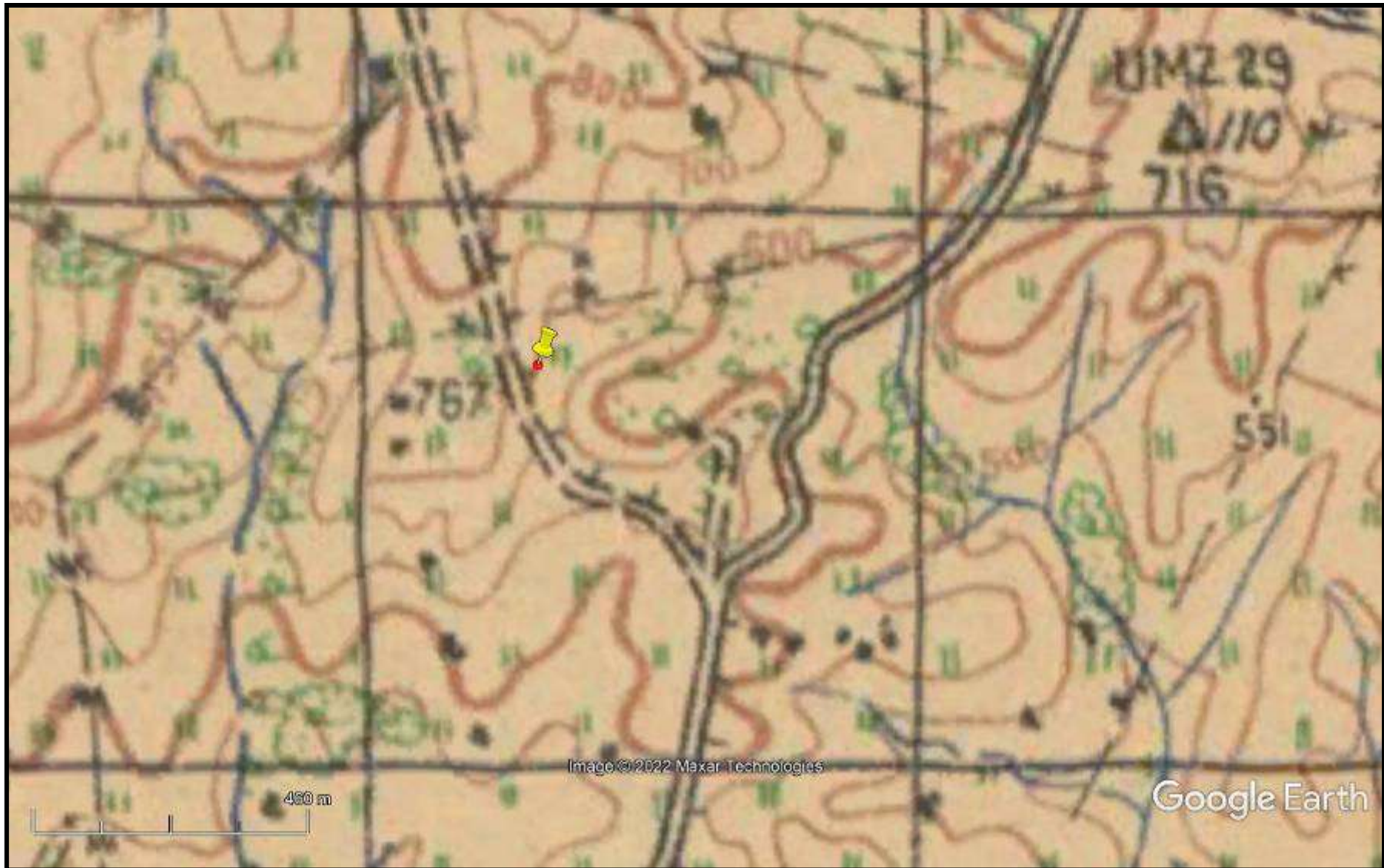
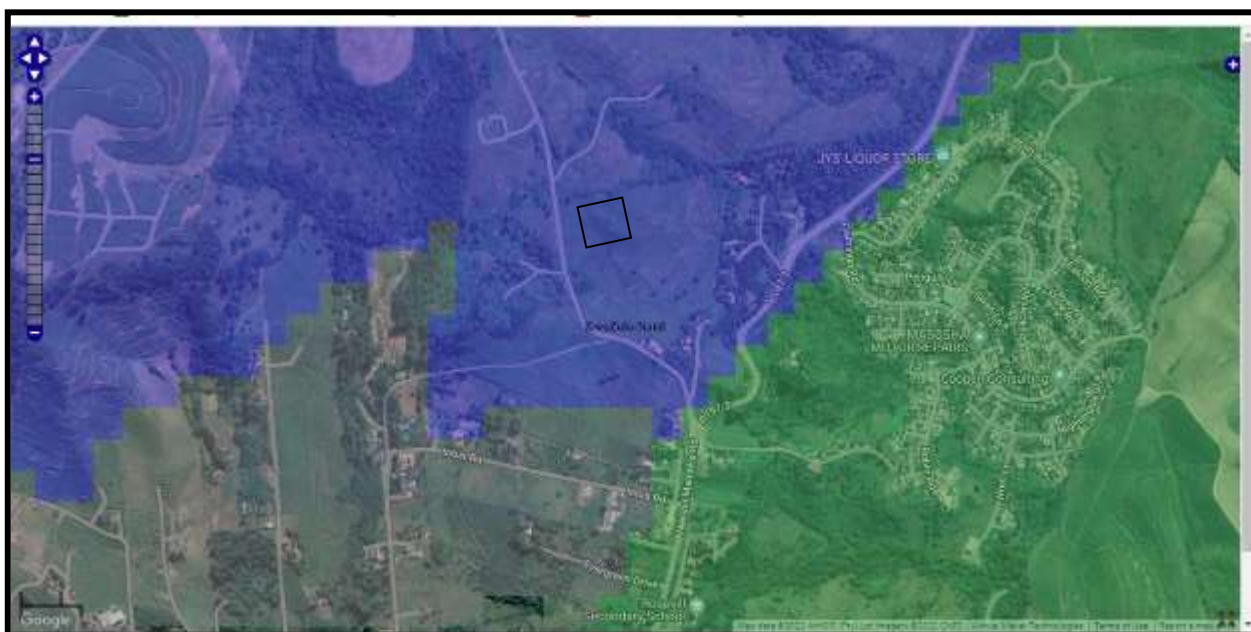


FIG. 8: PALAEOONTOLOGICAL SENSITIVITY MAP



COLOUR	SENSITIVITY	REQUIRED ACTION
RED	VERY HIGH	field assessment and protocol for finds is required
ORANGE/YELLOW	HIGH	desktop study is required and based on the outcome of the desktop study, a field assessment is likely
GREEN	MODERATE	desktop study is required
BLUE	LOW	no palaeontological studies are required however a protocol for finds is required
GREY	INSIGNIFICANT/ZERO	no palaeontological studies are required
WHITE/CLEAR	UNKNOWN	these areas will require a minimum of a desktop study. As more information comes to light, SAHRA will continue to populate the map.

CONCLUSION

A desktop heritage survey was undertaken for the proposed Umzinto North tower. The area to be affected is 10m x 10m in size and will have about four electrical poles

No heritage sites are known to occur in the study area. No heritage sites were noted in the desktop study.

The study area has low palaeontological sensitivity.

The project should be exempt from further heritage mitigation.

REFERENCES

1:50 000 Topographical Maps

3030BC_BD 1942, 2000 Scottburgh

Aerial Photographs

117B_052_35316

Database

KZN Museum

SHARIS

Umlando

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 large, stylized initial 'A'.

Gavin Anderson
Archaeologist/Heritage Impact Assessor