

**A LETTER OF RECOMMENDATION FOR
EXEMPTION FOR THE PROPOSED NZALABANTU
NORTH AND NDLABEYINDULA HOUSING PROJECT**

FOR K2M ENVIRONMENTAL

DATE: 28 NOVEMBER 2011

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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 Mfolozi Local Municipality has initiated a process for the establishment of a subsidised housing development within a portion of Wards 3 and 5. This process was initiated as a means to address the municipality's housing need and in doing so improve the living conditions and quality of life of its communities. The Mfolozi Municipality has appointed two Implementing Agents, namely, Bigen Africa for the southern part referred to as the Nzalabantu section and Fezeka Business Services for the northern part referred to as Ndlabeyindula section. The two portions are adjacent to each other and as such will be applied for as one EIA application.

The project area can be accessed via Anglers road. Travel on the N2 from Durban towards Richards Bay. Take exit 327 towards R34 towards Richards Bay/Empangeni. Turn right onto John Ross Highway/R34 and travel for 17km. Keep left and continue onto Anglers Rod for 12km. Figures 1 – 3 show the locality of the development.

K2M Environmental is undertaking the Basic Assessment Report for this project.

TERMS OF REFERENCE

The Terms of Reference for this project is:

- Assess the area in terms of heritage sensitivity
- Provide motivation for further heritage assessments, and/or
- Provide a letter of exemption for the project

PROJECT DESCRIPTION

The project area is approximately 648.87Ha in extent and entails the formalisation of approximately 2 000 existing houses. The development will also entail the formalisation and construction of road networks and installation of water networks.

The applicant, Mfolozi Local Municipality believes that the development proposal is a viable one for the site as a result of:

- A large number of existing informal dwellings within the area;
- The proposal is in line with the Integrated Development Plan (2016/2017);
- The project area has been totally transformed as a result of informal residential activities.

Erf	Portion 29 of Reserve No.4, No. 15823 and Remainder of Reserve No.4, No. 15823.
Magisterial District	Mfolozi
1: 50 000 map sheet number	2832CA KwaMbonambi
Central co-ordinate of the development	S -28.70178 E 32.186124
Size of development footprint	648.87Ha
Zoning (and Change if applicable)	Residential

FIG. 1 GENERAL LOCATION OF THE STUDY AREA

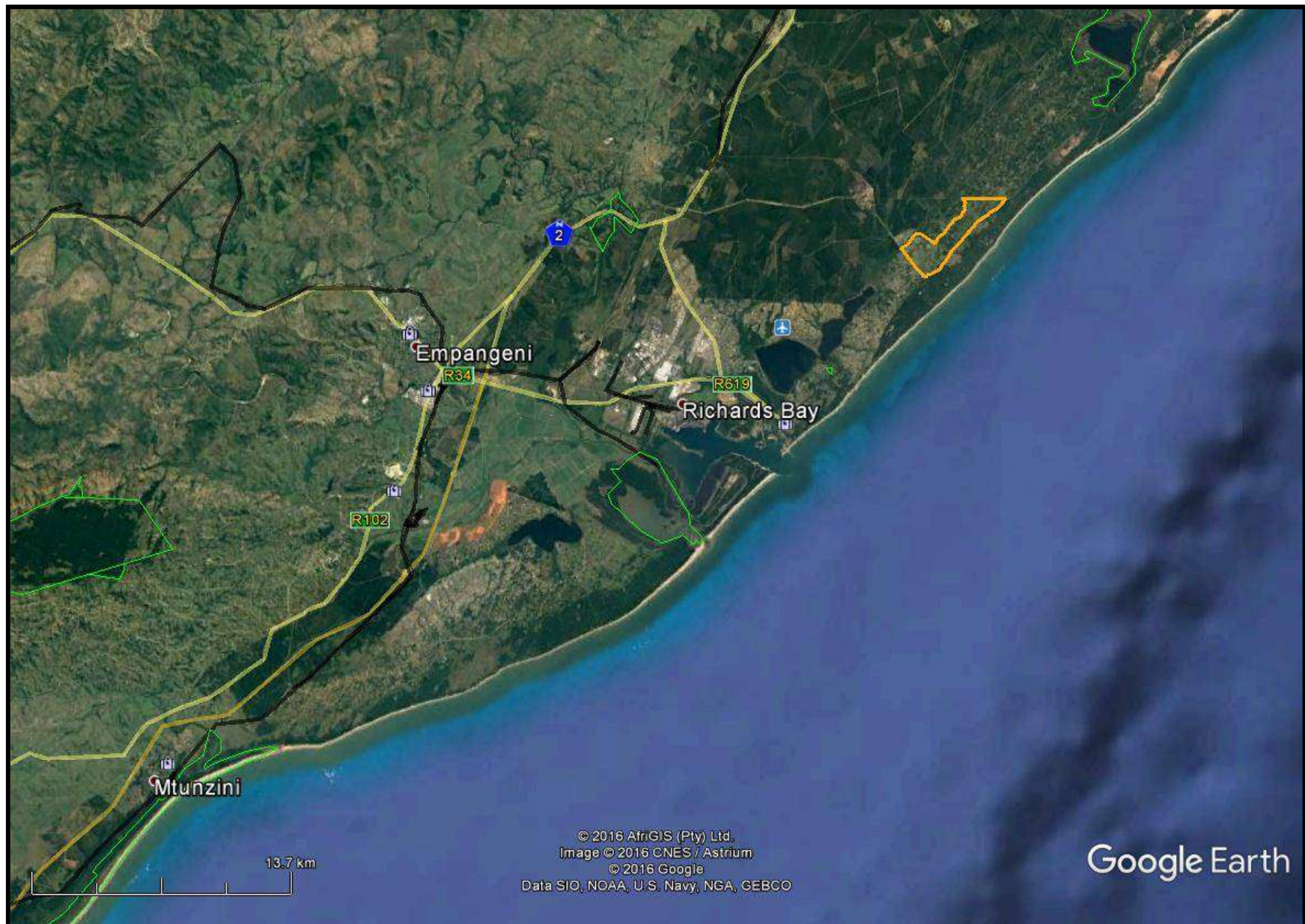
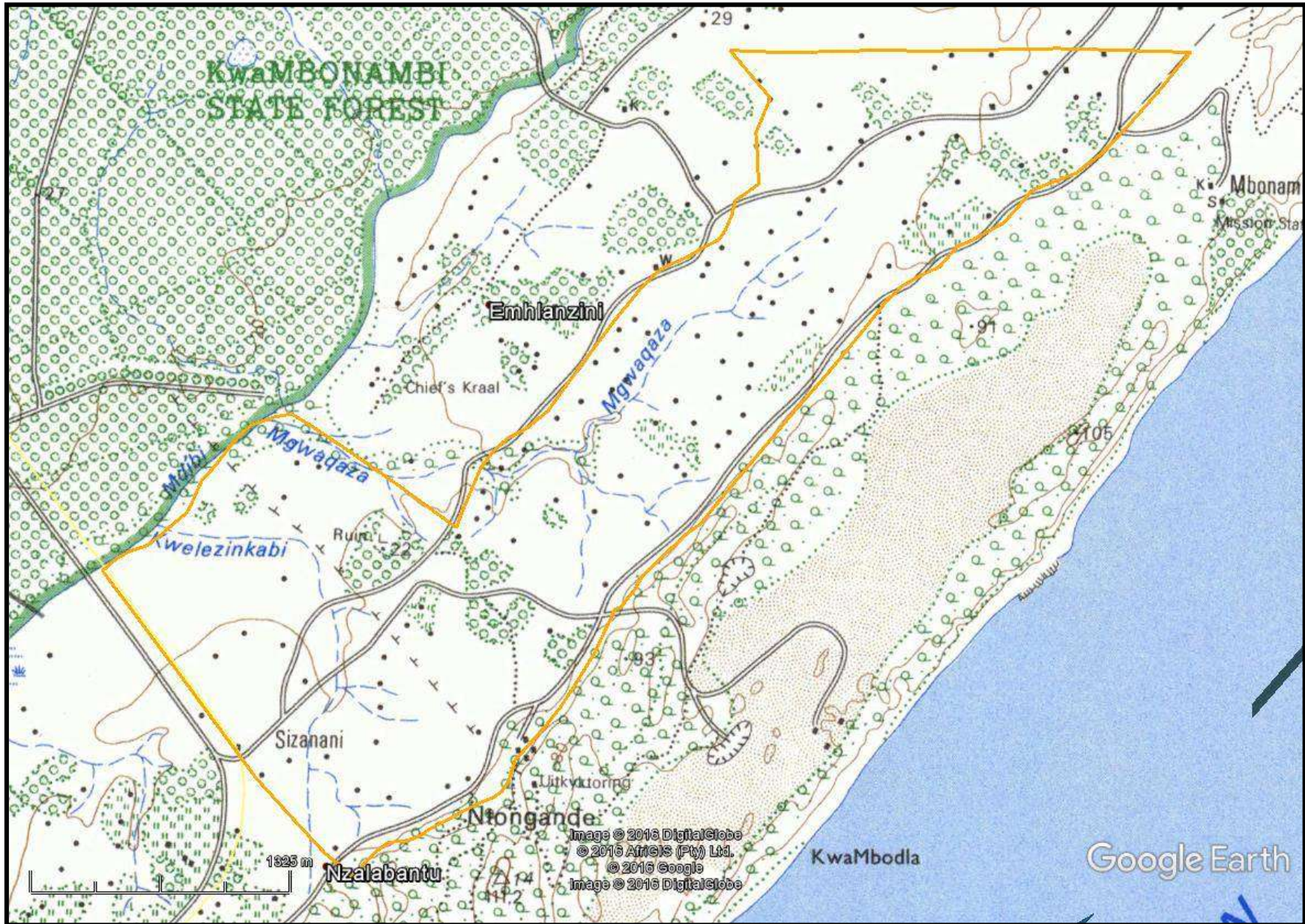


FIG. 2: AERIAL OVERVIEW OF THE STUDY AREA



FIG. 3: TOPOGRAPHICAL OVERVIEW OF THE EASTERN STUDY AREA



KWAZULU-NATAL HERITAGE ACT NO. 4 OF 2008

“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.” (KZN Heritage Act of 2008)

ADDITIONAL LEGISLATIVE REQUIREMENTS

National Water Act (No. 36 of 1998)	Authorisation from the Department of Water and Sanitation will be required as the formalisation of existing roads will entail crossing of watercourses.
National Environmental Management Act (No. 107 of 1998)	This development requires a Basic Assessment to be conducted in terms of the EIA Regulations of 2014. A Wetland Assessment has been conducted for the proposed development to ensure that the development does not impact on the wetland systems.
Mfolozi Local Municipal SDF (2011)	The municipality has developed and adopted an Urban Development Framework for the Nzalabantu area to ensure these areas are planned and developed in a sustainable manner.
Mfolozi Local Municipal IDP (2016/2017)	The proposed project has been included into the IDP as an area that is in need of housing.
Occupational Health and Safety Act (No. 85 of 1993)	The contractor needs to manage his staff and crew in strict accordance with the Occupational Health and Safety Act in order to prevent injuries to the staff.
Provincial Growth and Development Plan	The proposed development is aligned with the PGDP as it addresses the first goal of the PGDP which is that of job creation during the construction phase.
Agricultural Land Act (Act 70 of 1970)	The land for the proposed development is owned by the Department of Land Affairs. Act 70 of 1970 does not apply due to the fact that it is state owned land. An Agricultural Assessment will not be required due to it been an informal existing settlement.

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. These databases 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.

The above significance ratings allow one to grade the site according to SAHRA's grading scale. This is summarised in Table 1.

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

DESCRIPTION OF THE PHYSICAL ENVIRONMENT

The area is currently used for informal and semiformal housing. Over the last 100 years the area has been used mainly for subsistence based agriculture and afforestation that has progressively been overtaken by human settlements.

“The site is located within Quaternary Catchment W12J; falling under the uSutu to Mhlatuze Water Management Area (WMA) and the Mhlatuze water board. The proposed area sits on a flat coastal plain with numerous depression areas, common for this area.

The Mgwaqaza non-perennial system flows through the northern part of the project area. The Kwelezinkabi non-perennial system flows through the southern part of the system. Both of these feed the Mdibi perennial system. This system is a Class B (largely natural) system which forms the majority of the Mzingazi river system“ (BAR 2016: 34).

“Flat floodplain terrain with non-varying topographical characteristics typifies the land form through the whole of the project area. Drainage in the western sector of the development area is dictated by nonperennial rivers and streams feeding the larger river/stream found within Ward 5 – namely Mdibi River along the western boundary which meander through floodplains (BAR 2016: 34).

Review of the relevant geological maps and previous work done in the area indicates that the regional geology consists of recently deposited, unconsolidated Quaternary cover sands, underlain by argillaceous silty sands of the Kwambonambi Formation. No shallow bedrock conditions were encountered” (BAR 2016: 187).

In general, the derived subsoil cover consists of poorly consolidated sands and silts of the Quaternary era. Along the eastern margins of the area red sand of the Berea Formation occurs. The sands contain greater clay fractions with increasing depth and are characteristically compressible and potentially collapsible and thus prone to movements in response to moisture content variations under load (BAR 2016: 187).

FIG. 4: SCENIC VIEWS OF THE STUDY AREA



FIG. 4B: SCENIC VIEWS OF THE STUDY AREA



DESKTOP STUDY

PALAEONTOLOGICAL IMPACT ASSESSMENT

The SAHRIS palaeontological sensitivity map indicates that the area is of low sensitivity (fig. 6.). The proposed housing and related infrastructures are unlikely effect palaeontological bearing layers several meters below the existing surface.

FIG. 6: PALAEONTOLOGICAL SENSITIVITY OF THE STUDY AREA



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.

ARCHAEOLOGY

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 archaeological database indicates that there are archaeological sites in the general area (fig. 7). These sites include all types of Stone Age and Iron Age sites. Most of these sites were recorded by Anderson (1995 – 2003) and Anderson and Anderson (2004 – 2016) as part of the Richards Bay Minerals Zulti North mining lease. No sites known sites occur in the study area.

No national monuments, battlefields, or historical cemeteries are known to occur in the study area.

HISTORY OF THE REGION

According to the oral history of the Mthiyane people, they arrived in the area c. 1870s (unofficial *amasiko* recordings undertaken by the then KwaZulu Monuments Council in 1994 – 1995). The Thembi Tsonga people were living in this area prior to their arrival (Anderson 1995 – 2003). By 1942, the community had been removed from the coastal dune forest and resettled in the adjacent land. The removal was part of the government's afforestation program. The area was referred to as Reserve No. 4.

By 1937 the study area consisted of ~25 settlements and the area was extensively cultivated up to the base of the dune system (fig. 9). By 1948 the topographical map suggests that most of the people have moved away with only three settlements in the study area and no agricultural fields (fig. 10). However, this is highly unlikely as the people were only removed from the dune system. The topographical map could be incorrect in its human demographics. By 1975 the dune system was changed for mining activity.

FIG. 7: LOCATION OF KNOWN HERITAGE SITES NEAR THE STUDY AREA

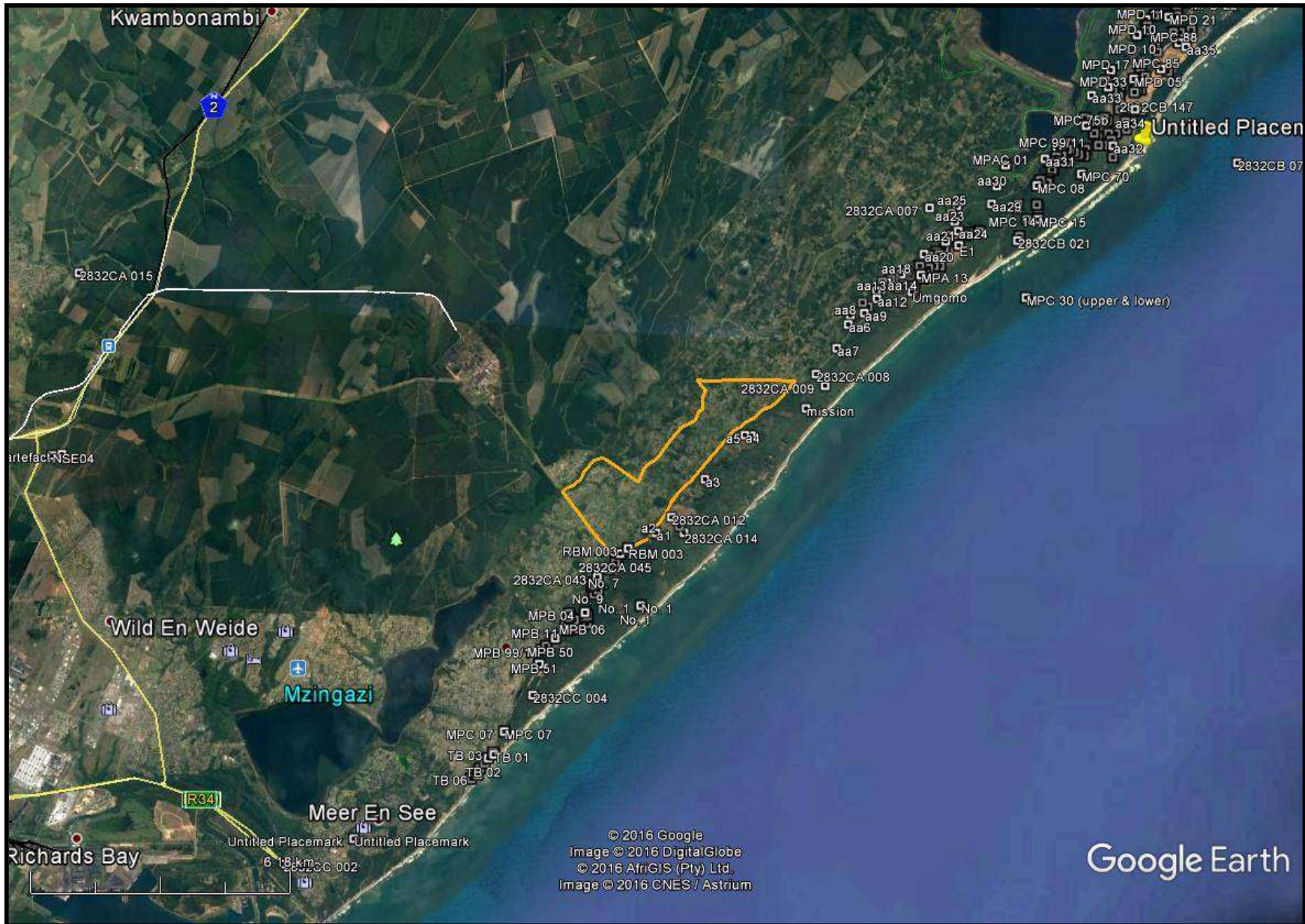


FIG. 8: STUDY AREA IN 1937

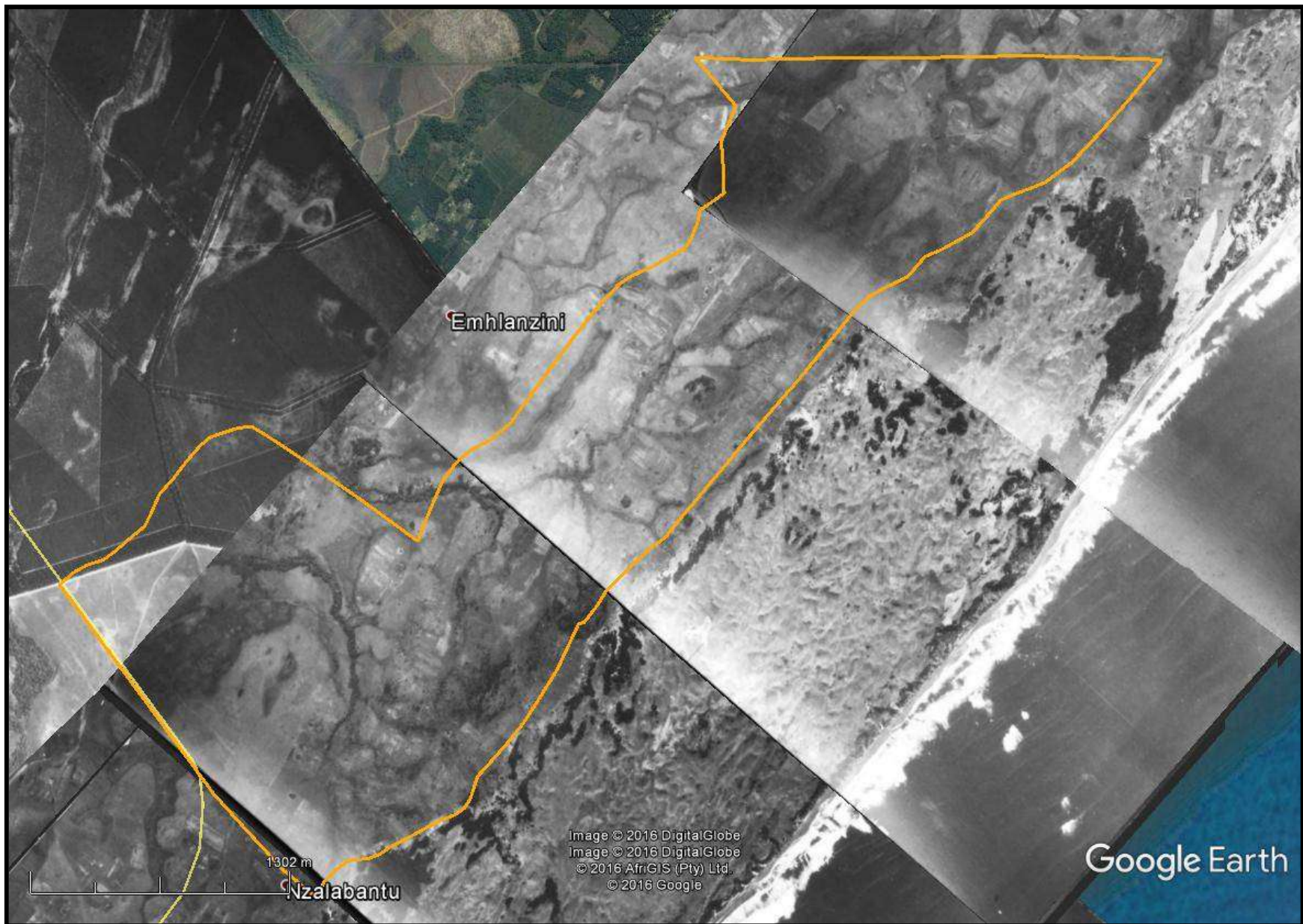
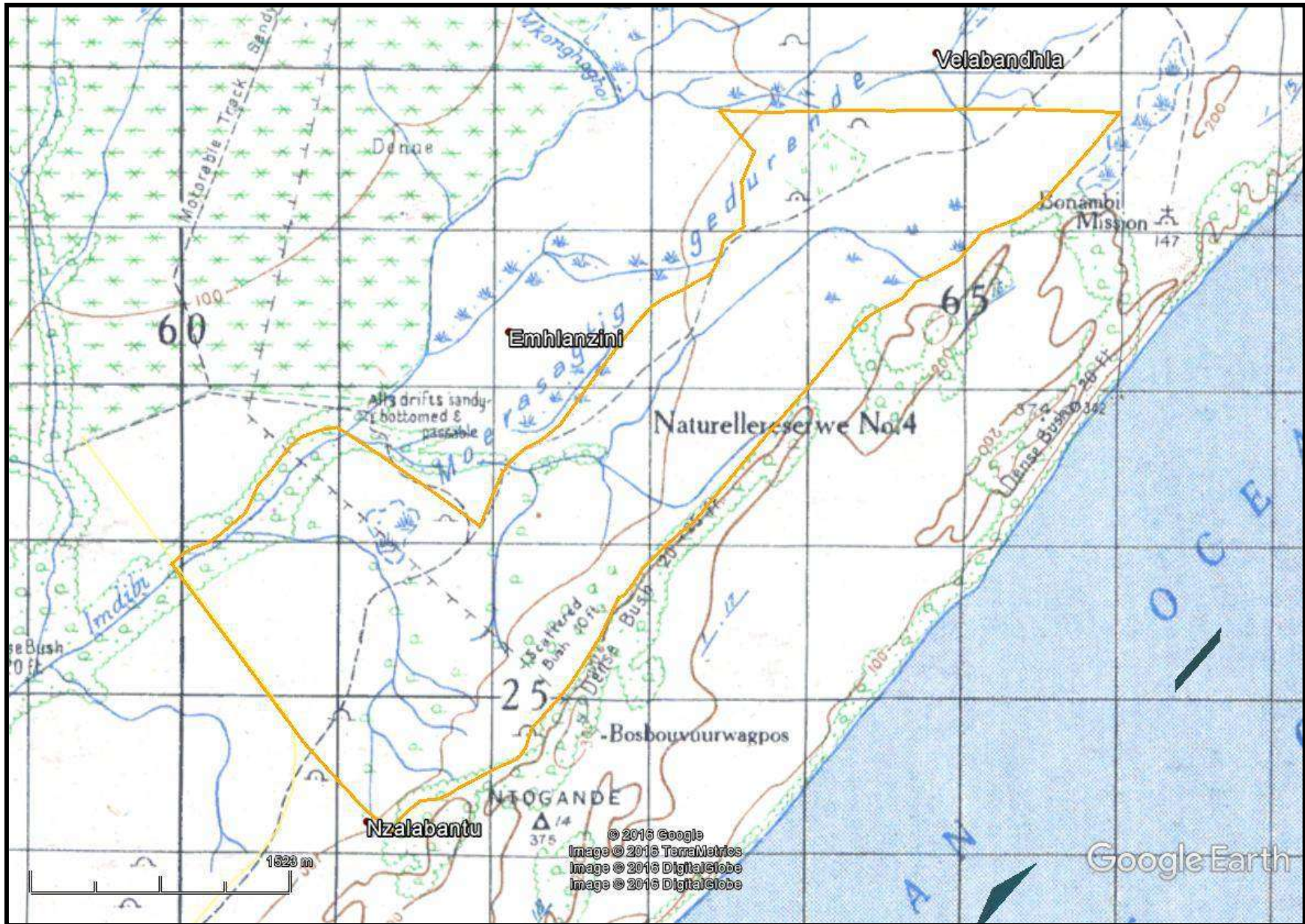


FIG. 9: STUDY AREA IN 1948



By 2016 the area is highly populated with much of the older (i.e. 1937) agricultural areas having been removed.

The desktop shows that there is a possibility of human remains and/or archaeological sites in the study area. However, given the amount of informal development that has occurred over the decades, it is highly unlikely that any sites or burials will remain intact. Furthermore, the proposed development will occur on existing housing footprints.

CONCLUSION

The Mfolozi Local Municipality has initiated a process for the establishment of a subsidised housing development within a portion of Wards 3 and 5. This process was initiated as a means to address the municipality's housing need and in doing so improve the living conditions and quality of life of its communities. This will be undertaken by upgrading existing housing footprints.

The desktop study showed that while there is a possibility of archaeological sites occurring in the area, they are most likely damaged and/or removed. The occurrence of agricultural fields, afforestation, informal settlements and roads over the last 70 years would have placed any potential archaeological site out of context. The soil tends to be acidic in this area and would not preserve human remains over a period.

I recommend that the development be excluded from further heritage assessments. However, a protocol for archaeological sites, artefacts and/or human remains must be made part of the BAR and final Environmental Authorisation.

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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.



Gavin Anderson
Archaeologist/Heritage Impact Assessor