

**HERITAGE SURVEY OF THE INHLANGANO ROAD  
UPGRADE, WARD 4, NDWEDWE LOCAL  
MUNICIPALITY, ILEMBE DISTRICT MUNICIPALITY,  
KWAZULU-NATAL**

**FOR ENVIROEDGE CC**

**DATE: 14 APRIL 2014**

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## **INTRODUCTION**

“The Ndwedwe Municipality has proposed the upgrade of Inhlangano Access Road, located in Ward 4 of the Ndwedwe Local Municipality, Ilembe District Municipality...

The project involves the upgrade and construction of Inhlangano Access Road in Ward 4. The project involves the construction of an improved and upgraded road with culverts over existing drainage lines and bridge crossing over a watercourse and it has been designed to align with the existing road tracks. The proposed road upgrade, culverts and bridge will provide an improved and more reliable link road for the local residents and surrounding areas. The road upgrade aims to allow local residents to have improved, formalised access to their homes, and the extended road network. The proposed road upgrade will include 4 non perennial watercourse crossings of the Umvoti River and 1 perennial crossing of the Nsuze River system...

The proposed road upgrade and extension is 4.5km in length and at a width of 5m...

The southern half of the study area is located along the north-easterly ridge of two hills, with a valley and KwaQwabe located to the south-east and small tributaries flowing to the Nsuze River to the north. There is a high point of Misi 501m in the northern section of this ridgeline, the central study area and the Dabango River is situated to the south-east/east and feeds into the Mvoti River to the north. Misi high point is the major hill feature of the study area, around which the proposed road upgrade wraps, along with two rivers, the Nsuze and Mvoti in the northern half of the study area. The Nsuze feeds into the main Mvoti River which forms large meanders through the northern portion of the study area from west to north-east, creating the northern boundary of the study area. The Mvoti continues east to feed into the Indian Ocean...

The central section of the study area, at the approximate half way point (2km) of the road, where it forms a tight bend to the north-west, lies below the Misi hill ridge line and down the hill slope, and from this point, the proposed second road

portion follows a narrow track, as it gradually drops down toward the Nsuze River which it crosses to the north-west. The Nsuze River lies to the west of the study area and flows east/north-east into the Umvoti River. The proposed Nsuze crossing point is slightly upstream of the Nsuze/Umvoti confluence point. In this north-eastern section and end point of the study area, there is a high point of 356m and there are also numerous small drainage line crossings in this section. To the north-east of the study area, there is a high point of 350m...

The proposed Inhlangano Road Upgrade includes the upgrade of the existing gravel road and dirt tracks with culverts over existing drainage lines and bridge crossing over a watercourse and it has been designed to align with the existing road tracks. The proposed road upgrade will include 4 non-perennial watercourse crossings and 1 perennial crossing which form part of the Nsuze River system” (Enviroedge BID 2014).

The location of the road upgrade is shown in figures 1 – 3. Much of the road occurs on a slope in a valley and in the flood plain of the stream. The existing road is a dirt track that is not well maintained. There is a water pipeline servitude running adjacent to the road and this has affected the road reserve.

Umlando was contracted to undertake the HIA for the road upgrade. The road upgrade will result in a 5m wide road. The current road is ~2m – 3m wide, and thus there will be areas of earth moving activity.



FIG. 1 GENERAL LOCATION OF THE INHLANGANO ACCESS ROAD

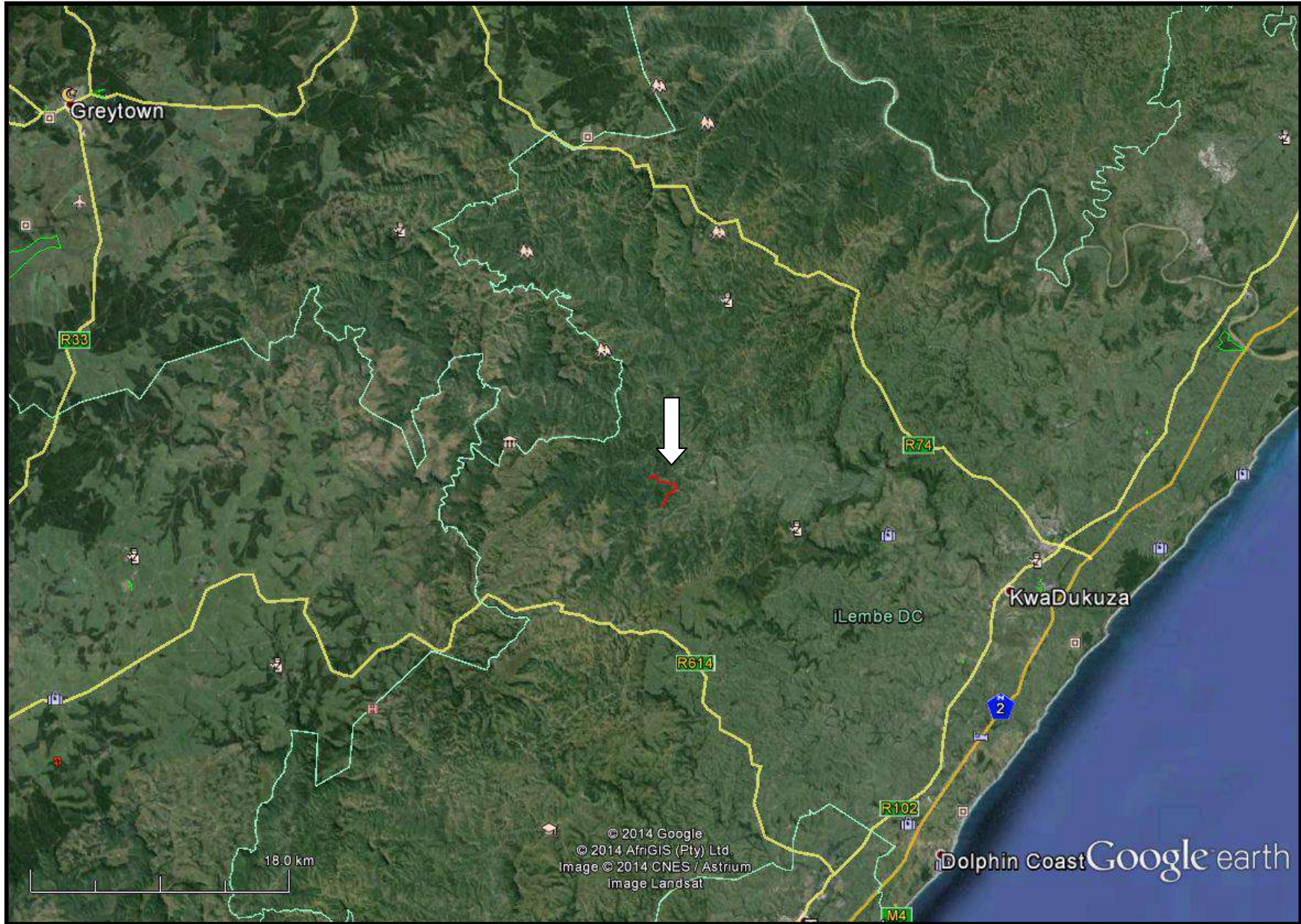




FIG. 2: AERIAL OVERVIEW OF THE INHLANGANO ACCESS ROAD

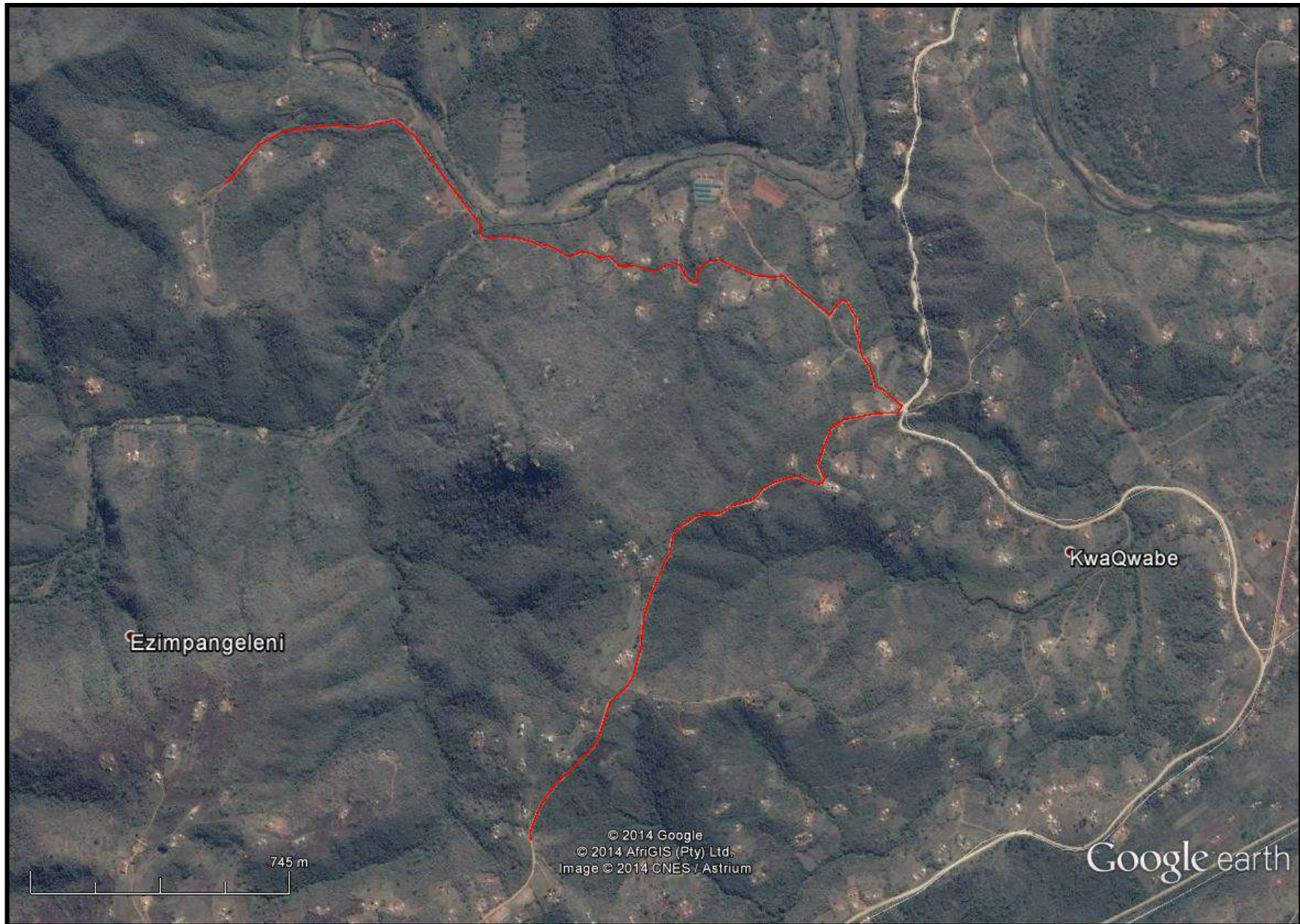
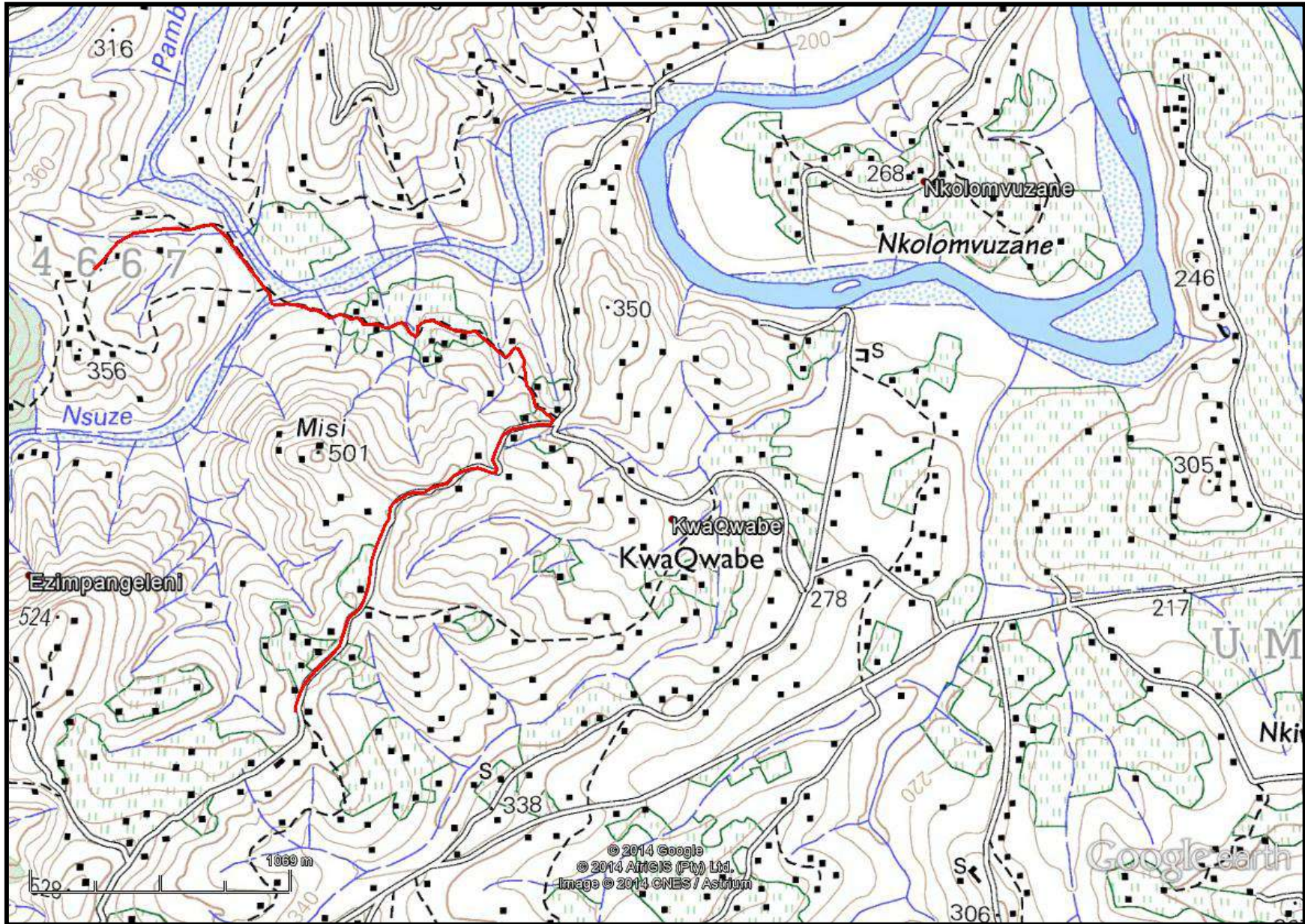




FIG. 3: TOPOGRAPHICAL MAP OF THE INHLANGANO ACCESS ROAD



## 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)

## 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 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 1<sup>st</sup> and 2<sup>nd</sup> 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. The archaeological database indicates that there are archaeological sites in the general area (fig. 4). These sites include all types of Stone Age and Iron Age sites. Two sites relating to the Bambata Rebellion occur nearby. These are the grave of Trooper Knight and the Battle of Nsuze (see Gillings 1989 for a summary). No known heritage sites occur in the study area.

The 1937 aerial photographs indicate that there area had several settlements in this valley. The locations of these settlements are given in Table 1. This area was not extensively cultivated in 1937. The aerial photographs also indicate that

there are small tracks to some of these settlements. The existing road and water pipeline has gone through four of the 1937 settlements.

It appears that all, with the exception of 'a2' and a8', have been continuously occupied or rebuilt. The older parts of these settlements would have human burials around the settlement and these remains would still exist today, yet be underneath the surface and thus not visible. The more recent aspects of the sites would have visible burials in terms of stone cairns. It is for this reason that these sites are identified as potentially highly significant. A 50m radius should be placed around the centre point given in Table 1 and the area marked as being sensitive.

**TABLE 1: LOCATION OF SETTLEMENTS IN 1937**

NAME	LATITUDE	LONGITUDE
a1	-29.309225290	31.016437629
a2	-29.305252868	31.020087608
a3	-29.303917836	31.022852441
a4	-29.299512549	31.021313698
a5	-29.299568896	31.020411640
a6	-29.298589336	31.016448090
a7	-29.296197024	31.006536509
a8	-29.296339534	31.010993231

The 1968 topographical map (fig. 5) indicates that four of the sites identified in 1937 do not exist in 1968, three have replaced the earlier sites, and two new settlements occur. The sites identified as 'b1', 'b2' and 'b3' no longer exist, while the rest of the 1968 sites are still occupied.

The map does show that there is a small track on the southern part of the existing road, while the rest of the area has no roads or tracks where the existing road occurs. This implies that any structures and causeways along the existing road postdate the 1970s and are thus not protected by the KZNHA.



FIG. 4: LOCATION OF KNOWN HERITAGE SITES NEAR THE STUDY AREA

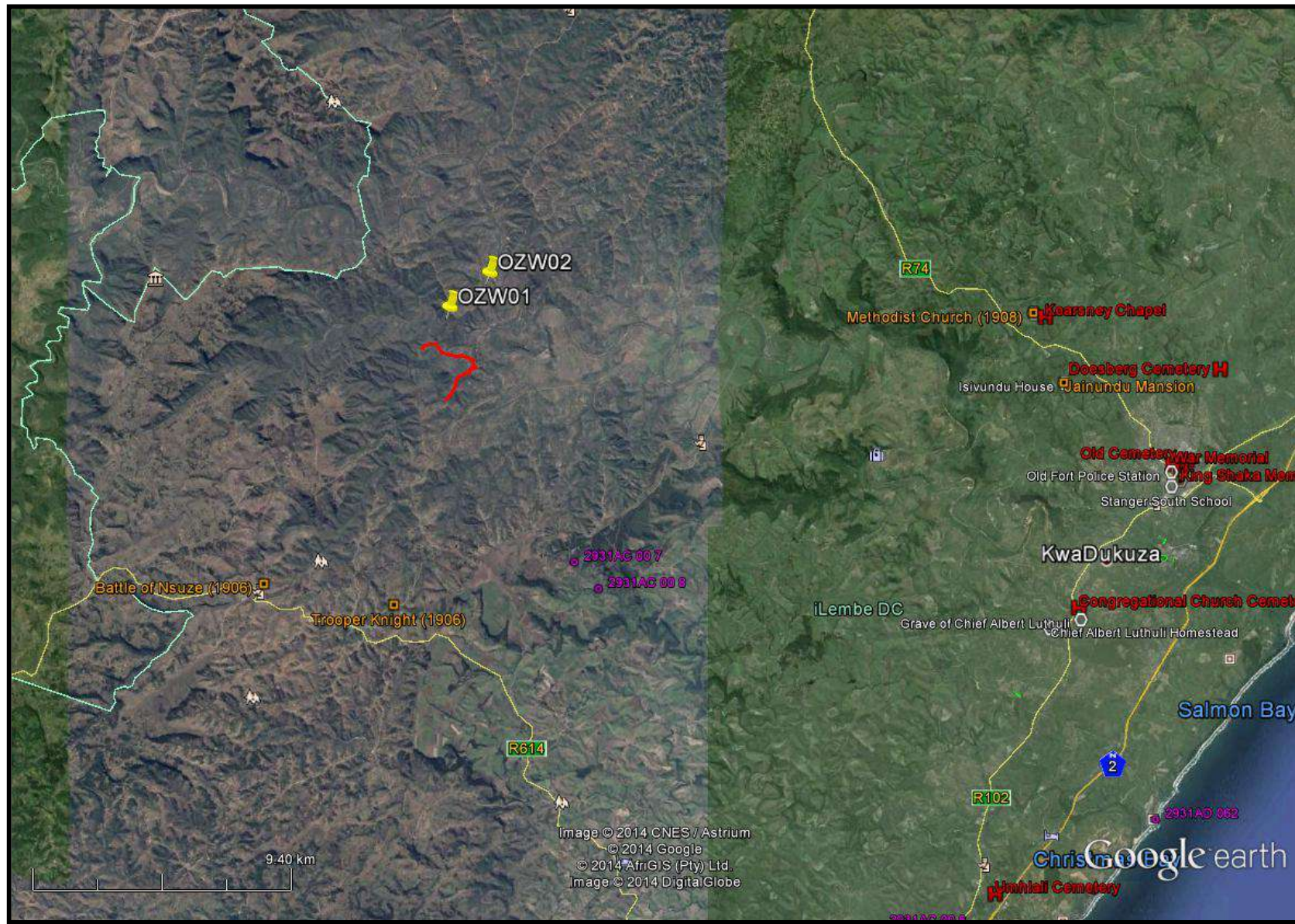




FIG. 5: STUDY AREA IN 1937

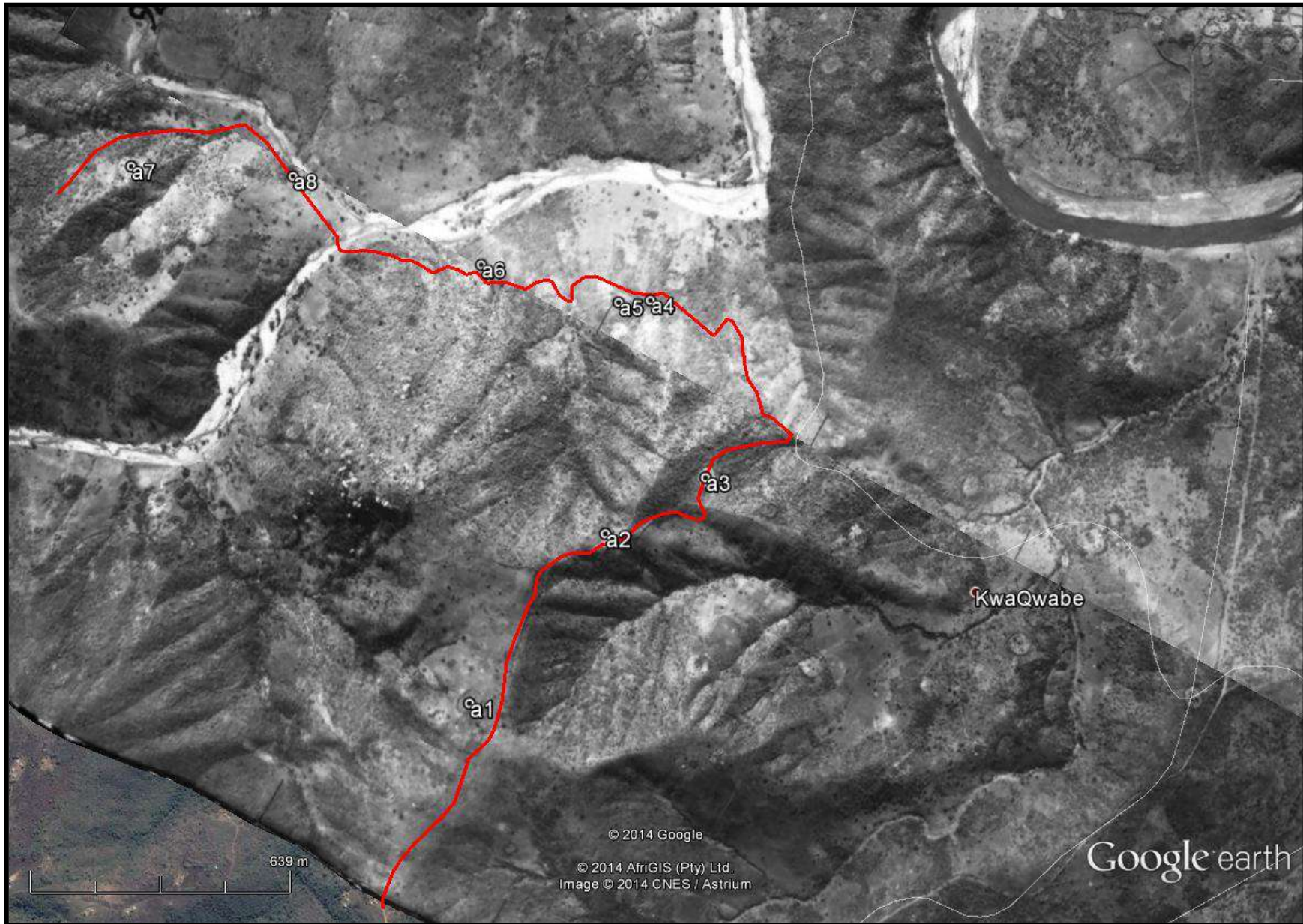
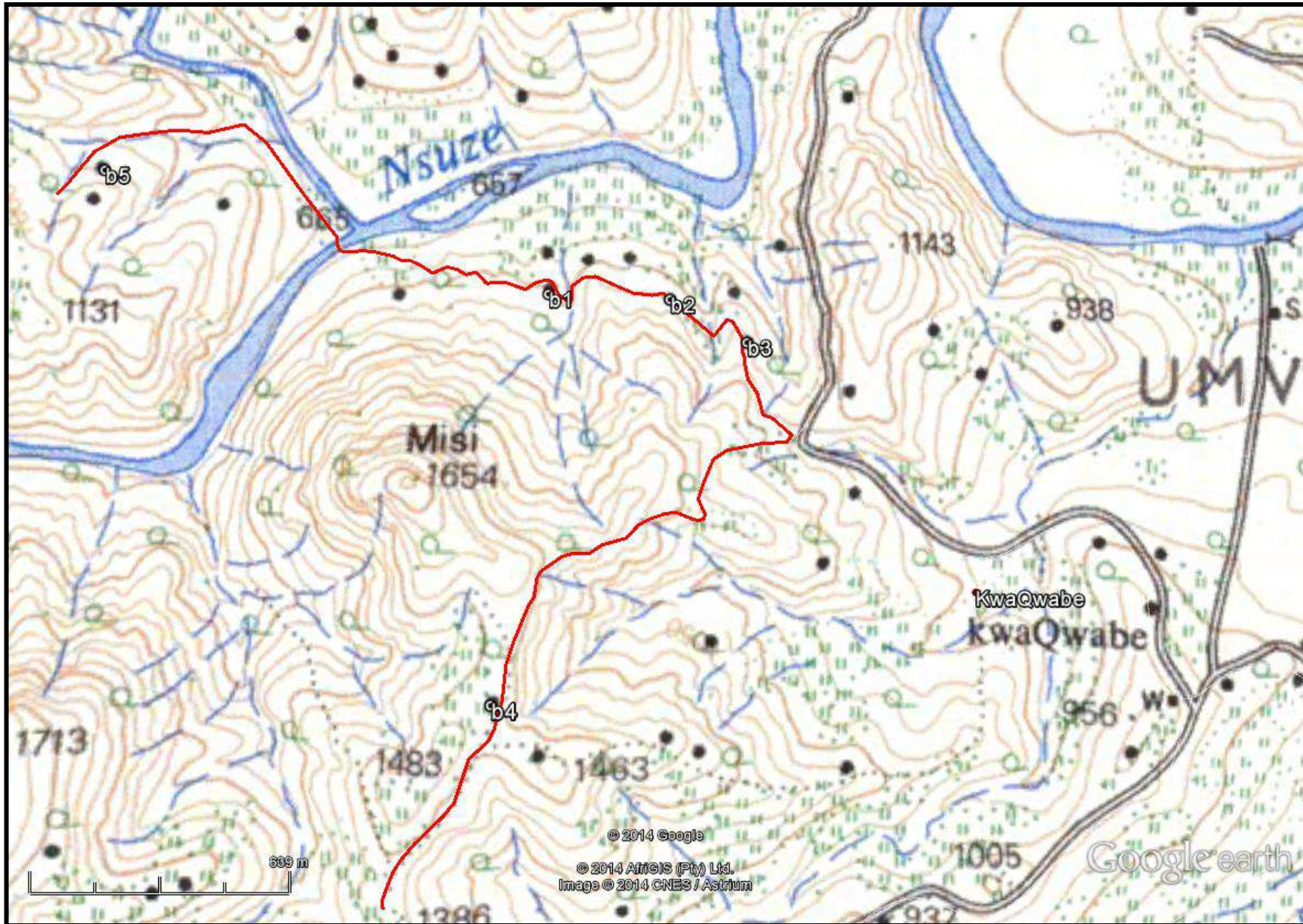




FIG. 6: STUDY AREA IN 1968





**TABLE 2: LOCATION OF SETTLEMENTS IN 1968**

<b>NAME</b>	<b>LATITUDE</b>	<b>LONGITUDE</b>
<b>b1</b>	-29.299339344	31.018399472
<b>b2</b>	-29.299481394	31.021877414
<b>b3</b>	-29.300565551	31.024063368
<b>b4</b>	-29.309264759	31.017013934
<b>b5</b>	-29.296304989	31.005849172

The area is not palaeontologically sensitive according to the SHARIS sensitivity map.

### **FIELD SURVEY**

The areas bordering the road are mostly overgrown and there is a water pipeline running adjacent to the road (fig.7). The pipeline appears to be recent and has affected at least 3m – 5m of the existing road reserve.

None of the sites noted in the desktop study were observed during the survey. No heritage sites were observed along the route. Two recently abandoned houses were noted and are shown on fig.8 and Table 2. There are several occupied settlements near the road, however no graves were observed in the road footprint.

**TABLE 3: LOCATION OF SETTLEMENTS IN 1968**

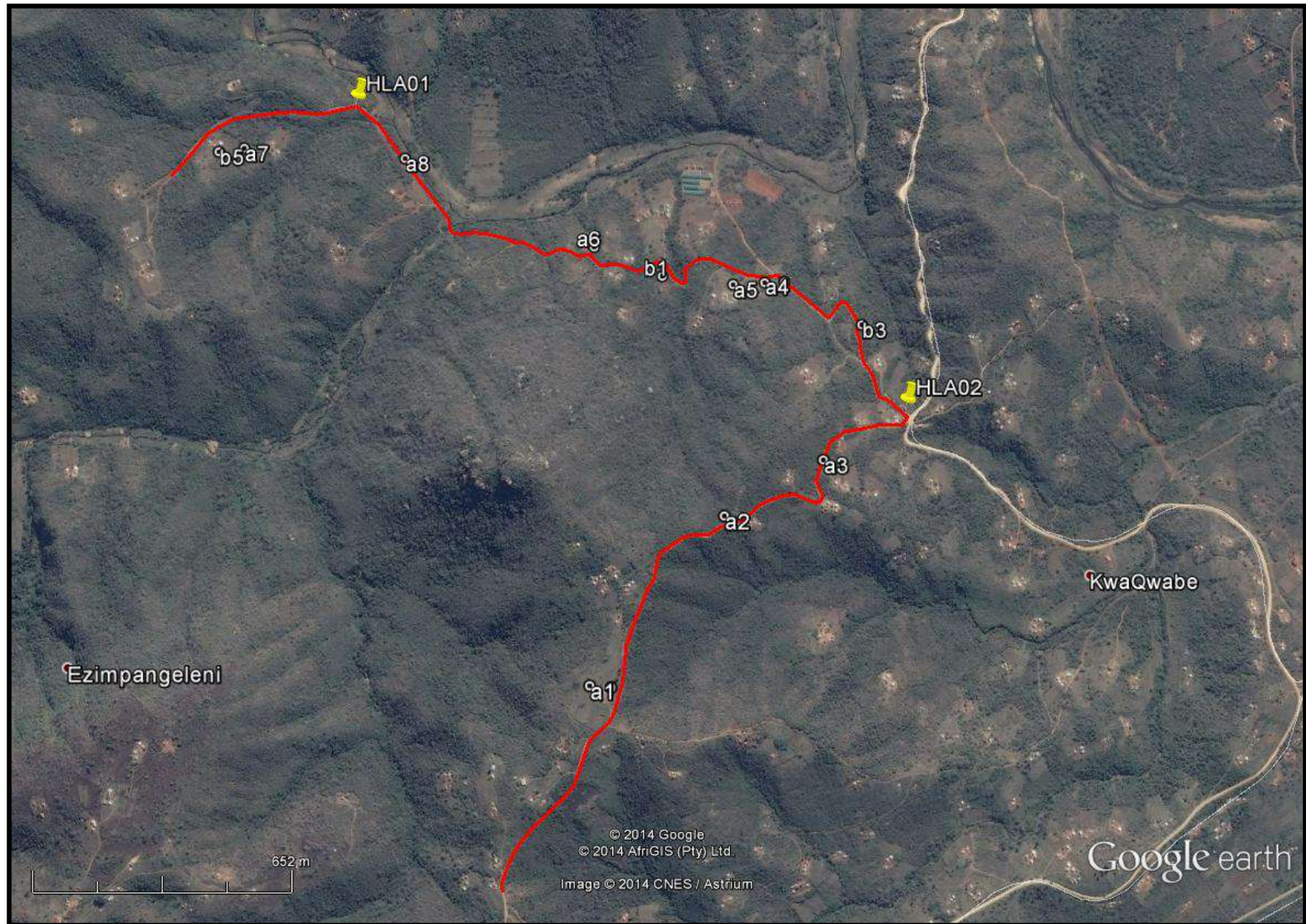
<b>NAME</b>	<b>LATITUDE</b>	<b>LONGITUDE</b>
<b>HLA01</b>	-29.295056	31.009528
<b>HLA02</b>	-29.302722	31.025194

FIG. 7: SCENIC VIEWS OF THE ROAD





FIG. 8: LOCATION OF SETTEMENTS NEAR THE ROAD UPGRADE.



## MANAGEMENT PLAN

No heritage sites were observed along the route; however, there is a possibility of human remains occurring in the general area, and/or the road. A general management plan is thus required if human remains are accidentally uncovered.

If graves are uncovered during the course of the construction then certain processes need to be followed. In terms of the National Heritage Resources Act (No. 25 of 1999), and KZN Heritage Act of 1997 and 2008, state those graves older than 60 years (not in a municipal graveyard) are protected, as well as all unclaimed recent graves. Only a registered undertaker should handle human remains younger than 60 years or an institution declared under the Human Tissues Act. Anyone who wishes to develop an area where there are graves older than 60 years is required to follow the process described in the legislation (section 36 and associated regulations). The specialist will require a permit from the heritage resources authority:

- Determine/ confirm the presence of the graves on the property. Normally the quickest way to proceed is to obtain the service of a professional archaeologist accredited to undertake burial relocations. The archaeologist will provide an estimate of the age of the graves. There may be a need for archival research and possibly test excavations (permit required).
- The preferred decision is to move the development so that the graves may remain undisturbed. If this is done, the developer must satisfy SAHRA/KZN Heritage that adequate arrangements have been made to protect the graves on site from the impact of the development. This usually involves fencing the grave (yard) and setting up a small site management plan indicating who will be responsible for maintaining the graves and how this is legally tied into the development. It is



recommended that a distance of 10-20 m is left undisturbed between the grave and the fence around the graves.

- If the developer wishes to relocate or disturb the graves:
  - A 60-day public participation (social consultation) process as required by section 36 (and regulations - see attachment), must be undertaken to identify any direct descendants of those buried on the property. This allows for a period of consultation with any family members or community to ascertain what their wishes are for the burials. It involves notices to the public on site and through representative media. The archaeologist, who can explain the process, may do this but for large or sensitive sites, a social consultant should be employed. Archaeologists often work with undertakers, who rebury the human remains.
  - If because of the public participation, the family (where descendants are identified) or the community agree to the relocation process then the graves may be relocated.
  - The archaeologist must submit a permit application to SAHRA/KZN Heritage for the disinterment of the burials. This must include written approval of the descendants or, if there has not been success in identifying direct descendants, written documentation of the social consultation process, which must indicate to SAHRA's satisfaction, the efforts that have been made to locate them. It must also include details of the exhumation process and the place to which the burials are to be relocated. (There are regulations regarding creating new cemeteries and so this usually means that relocation must be to an established communal rural or formal municipal cemetery.)
  - Permission must be obtained before exhumation takes place from the landowner where the graves are located, and from the owners/managers of the graveyard to which the remains will be relocated.

- Other relevant legislation must be complied with, including the Human Tissues Act (National Department of Health) and any ordinances of the Provincial Department of Health). The archaeologist can usually advise about this.

## CONCLUSION

A heritage survey was undertaken for the road and causeway upgrades for the Inhlangano Road. The road appears to post-date 1970s but the area has had more recent settlements from the beginning of the 20<sup>th</sup> century. No archaeological sites were noted during the survey; however, Iron Age and Stone Age sites do occur in the general area.

The occurrence of 20<sup>th</sup> century settlements in the study area is important. These settlements are likely to have human remains as traditional burial practices were still undertaken at this time. These graves are now subsurface features and would only be observed if they were exposed. I placed a 50m radius around six sites so that the area should be noted as being sensitive for potential human remains.

## REFERENCES

Gillings K. 1989. The Bambata Rebellion Of 1906: Nkandla Operations And The Battle Of Mome Gorge, 10 June 1906. *Military History Journal* **8(1)**.

Enviroedge. 2014 Background Information Document As Part Of The Basic Assessment Process For The Proposed Inhlangano Access Road And Causeway, Ward 4, Ndwedwe Local Municipality, Ilembe District Municipality.