

**PHASE 1 HERITAGE IMPACT ASSESSMENT FOR THE PROPOSED NEW LANDFILL SITE
AT UMZIMKHULU, KWAZULU-NATAL PROVINCE**

	
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For:



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DISCLAIMER:

Although all possible care is taken to identify/find all sites of cultural importance during the initial survey of the study area, the nature of archaeological and historical sites are as such that it is always possible that hidden or sub-surface sites could be overlooked during the study. Leonie Marais-Botes Heritage Practitioner/ Archaetnos Archaeologists and Heritage Consultants will not be held liable will not be held liable for such oversights or for the costs incurred as a result thereof.

ACKNOWLEDGEMENTS

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Contents page

<u>Contents</u>	<u>Page</u>
ABOUT THIS REPORT	5
DEFINITION OF TERMS	6
EXECUTIVE SUMMARY	9
1. INTRODUCTION	10
1.1 PROJECT DESCRIPTION	10
1.2 WHY A PHASE 1 HIA IS REQUIRED	10
1.2.1 METHOD	11
1.3 TOPOGRAPHY OF DEVELOPMENT STUDY AREA	12
1.4 LOCATION, TRACK & PHOTOGRAPHICAL RECORD OF STUDY AREA	
1.5 BRIEF HISTORICAL BACKGROUND OF GREATER STUDY AREA	16
2. FINDINGS	17
2.1 Pre-Colonial Heritage Sites	17
2.2 Historical Period Heritage sites	17
2.3 Original Landscape	18
2.4 Intangible Heritage	18
3. CATEGORIES OF HERITAGE VALUE	18
3.1 HERITAGE VALUE WEIGHED AGAINST CULTURAL SIGNIFICANCE CATEGORIES	19
3.2 SPECIFIC CATEGORIES INVESTIGATED AS PER SECTION 3 (1) AND (2) OF THE NATIONAL HERITAGE LEGISLATION (ACT 25 OF 1999)	20
4. IMPACT AND MITIGATION	23
5. THE WAY FORWARD	23

ABOUT THIS REPORT

The heritage report must reflect that consideration has been given to the history and heritage significance of the study area and that the proposed activities is sensitive towards the heritage resources and does not significantly alter or destroy the heritage significance of the study area.

The heritage report must refer to the heritage resources currently in the study area.

The opinion of an independent heritage consultant is required to evaluate if the proposed work generally follows a good approach that will ensure the conservation of the heritage resources.

The National Heritage Resources Act (Act 25 of 1999), the National Environmental Management Act (Act 107 of 1998), Ordinance on Exhumations (no 12 of 1980) and the Human Tissues Act (Act 65 of 1983 as amended) are the guideline documents for a report of this nature.

Leonie Marais-Botes/Archaeon Archaeologists and Heritage Consultants was appointed by NZINGWE CONSULTANCY ENVIRONMENTAL AND SAFETY PLANNERS to carry out a Phase 1 Heritage Impact Assessment (HIA) for the proposed new Umzimkhulu landfill site. The site visit took place on 22 September 2014.

DEFINITION OF TERMS:

“alter” means any action affecting the structure, appearance or physical properties of a place or object, whether by way of structural or other works, by painting, plastering or other decoration or any other means.

“archaeological” means—

(a) material remains resulting from human activity which are in a state of disuse and are in or on land and which are older than 100 years, including artefacts, human and hominid remains and artificial features and structures;

(b) rock art, being any form of painting, engraving or other graphic representation on a fixed rock surface or loose rock or stone, which was executed by human agency and which is older than 100 years, including any area within 10m of such representation;

(c) wrecks, being any vessel or aircraft, or any part thereof, which was wrecked in South Africa, whether on land, in the internal waters, the territorial waters or in the maritime culture zone of the Republic, as defined respectively in sections 3, 4 and 6 of the Maritime Zones Act, 1994 (Act No. 15 of 1994), and any cargo, debris or artefacts found or associated therewith, which is older than 60 years or which SAHRA considers to be worthy of conservation; and

(d) features, structures and artefacts associated with military history which are older than 75 years and the sites on which they are found.

“conservation”, in relation to heritage resources, includes protection, maintenance, preservation and sustainable use of places or objects so as to safeguard their cultural significance.

“cultural significance” means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance.

“development” means any physical intervention, excavation, or action, other than those caused by natural forces, which may in the opinion of a heritage authority in any way result in a change to the nature, appearance or physical nature of a place, or influence its stability and future well-being, including—

(a) construction, alteration, demolition, removal or change of use of a place or a structure at a place;

(b) carrying out any works on or over or under a place;

(c) subdivision or consolidation of land comprising, a place, including the structures or airspace of a place;

(d) constructing or putting up for display signs or hoardings;

(e) any change to the natural or existing condition or topography of land; and

(f) any removal or destruction of trees, or removal of vegetation or topsoil; object that is specifically designated by that state as being of importance.

“grave” means a place of interment and includes the contents, headstone or other marker of such a place, and any other structure on or associated with such place.

“heritage resource” means any place or object of cultural significance.

“heritage resources authority” means the South African Heritage Resources Agency, or in respect of a province, a provincial heritage resources authority.

“heritage site” means a place declared to be a national heritage site by SAHRA or a place declared to be a provincial heritage site by a provincial heritage resources authority.

“improvement”, in relation to heritage resources, includes the repair, restoration and rehabilitation of a place protected in terms of Act 25 of 1999.

“living heritage” means the intangible aspects of inherited culture, and may include—

- (a) cultural tradition;
- (b) oral history;
- (c) performance;
- (d) ritual;
- (e) popular memory;
- (f) skills and techniques;
- (g) indigenous knowledge systems; and
- (h) the holistic approach to nature, society and social relationships.

“local authority” means a municipality as defined in section 10B of the Local Government Transition Act, 1993 (Act No. 209 of 1993).

“management”, in relation to heritage resources, includes the conservation, presentation and improvement of a place protected in terms of Act 25 of 1999.

“meteorite” means any naturally-occurring object of extraterrestrial origin.

“object” means any movable property of cultural significance which may be protected in terms of any provisions of Act 25 of 1999, including—

- (a) any archaeological artefact;
- (b) palaeontological and rare geological specimens;
- (c) meteorites; and
- (d) other objects.

“palaeontological” means any fossilised remains or fossil trace of animals or plants which lived in the geological past, other than fossil fuels or fossiliferous rock intended for industrial use, and any site which contains such fossilised remains or trace.

“place” includes—

- (a) a site, area or region;
- (b) a building or other structure which may include equipment, furniture, fittings and articles associated with or connected with such building or other structure;
- (c) a group of buildings or other structures which may include equipment, furniture, fittings and articles associated with or connected with such group of buildings or other structures;
- (d) an open space, including a public square, street or park; and
- (e) in relation to the management of a place, includes the immediate surroundings of a place.

“presentation” includes—

- (a) the exhibition or display of;
- (b) the provision of access and guidance to;
- (c) the provision, publication or display of information in relation to; and
- (d) performances or oral presentations related to, heritage resources protected in terms of Act 25 of 1999.

“public monuments and memorials” means all monuments and memorials—

- (a) erected on land belonging to any branch of central, provincial or local government, or on land belonging to any organisation funded by or established in terms of the legislation of such a branch of government; or
- (b) which were paid for by public subscription, government funds, or a public-spirited or military organisation, and are on land belonging to any private individual.

“site” means any area of land, including land covered by water, and including any structures or objects thereon.

“structure” means any building, works, device or other facility made by people and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith.

“victims of conflict” means—

- (a) certain persons who died in any area now included in the Republic as a direct result of any war or conflict as specified in the regulations, but excluding victims of conflict covered by the Commonwealth War Graves Act, 1992 (Act No. 8 of 1992);
- (b) members of the forces of Great Britain and the former British Empire who died in active service in any area now included in the Republic prior to 4 August 1914;
- (c) persons who, during the Anglo-Boer War (1899-1902) were removed as prisoners of war from any place now included in the Republic to any place outside South Africa and who died there; and
- (d) certain categories of persons who died in the “liberation struggle” as defined in the regulations, and in areas included in the Republic as well as outside the Republic.

EXECUTIVE SUMMARY

Leonie Marais-Botes Heritage Practitioner/Archaeologists and Heritage Consultants was requested by NZINGWE CONSULTANCY ENVIRONMENTAL AND SAFETY PLANNERS to conduct a Phase 1 Heritage Impact Assessment (HIA) for the proposed new Umzimkhulu landfill site.

A field survey was conducted after which a survey of literature was undertaken.

It should be noted that the sub-surface archaeological and/or historical deposits and graves are always a possibility. Care should be taken during any work in the entire area and if any of the above is discovered, an archaeologist/heritage practitioner should be commissioned to investigate.

1. INTRODUCTION

The uMzimkhulu Local Municipality has initiated the process of constructing, and licensing a landfill site that falls within its jurisdiction to ensure that the Municipality meets the national requirements for waste management. The uMzimkhulu Municipality has an existing landfill site that is not licensed and does not meet the requirements to be classified as a landfill site as it does not have the infrastructures such as gate control, sanitation and dust suppression methods.

1.1 PROJECT DESCRIPTION

The Contract covers the work required to construct the New Landfill Site at Umzimkhulu.

Construction Phase

- Earthworks including the excavating and placing of cover soil in stockpile, excavating of a cut-of drain around the site and excavations for the leachate and contaminated storm water ponds.
- Construction of Toe berms for Cell 1.
- Construction of a 6m wide gravel road with associated storm water. Cut of drains and storm water drains.
- Construction of leachate detection and collection pipes connected to the lined leachate dam.
- Construction of Cell 1 including all layer works and a protection layer on top of the GCL.
- Construction of a 1.8m high flat razor fence using concrete poles at 3m intervals and entrance gates.
- Construction of a guard hut and weigh bridge.

This involves the following:

- Excavation and stockpiling of approximately 47 000m³ of in-situ material,
- Construction of 1.5 km of internal gravel roads and associated storm water
- Installation of concrete fencing of 1.1 km
- Construction of Cell no.1 lined with a GCL of 7500 m²
- Lined leachate pond of 1000 m² and associated manholes and pipe work.

The proposed landfill will include recycling facilities where recyclable waste can be dropped of which can either be used for craft work or be recycled.

1.2 WHY A PHASE 1 HERITAGE IMPACT ASSESSMENT IS REQUIRED?

This project may potentially impact on any types and ranges of heritage resources that are outlined in Section 3 of the National Heritage Resources Act (Act 25 of 1999). Subsequently a Phase 1 Heritage Impact Assessment (HIA) was commissioned by NZINGWE CONSULTANCY ENVIRONMENTAL AND SAFETY PLANNERS and conducted by Leonie Marais-Botes/. Archaetnos Archaeologists and Heritage Consultants,

1.2.1 METHOD

The objective of this Phase 1 Heritage Impact Assessment (HIA) was to gain an overall understanding of the heritage sensitivities of the area and indicate how they may be impacted on through development activities. The site survey took place on 22 September 2014.

In order to establish heritage significance the following method was followed:

- Investigation of primary resources (archival information)
- Investigation of secondary resources (literature and maps)
- Physical evidence (site investigation)
- Determining Heritage Significance.

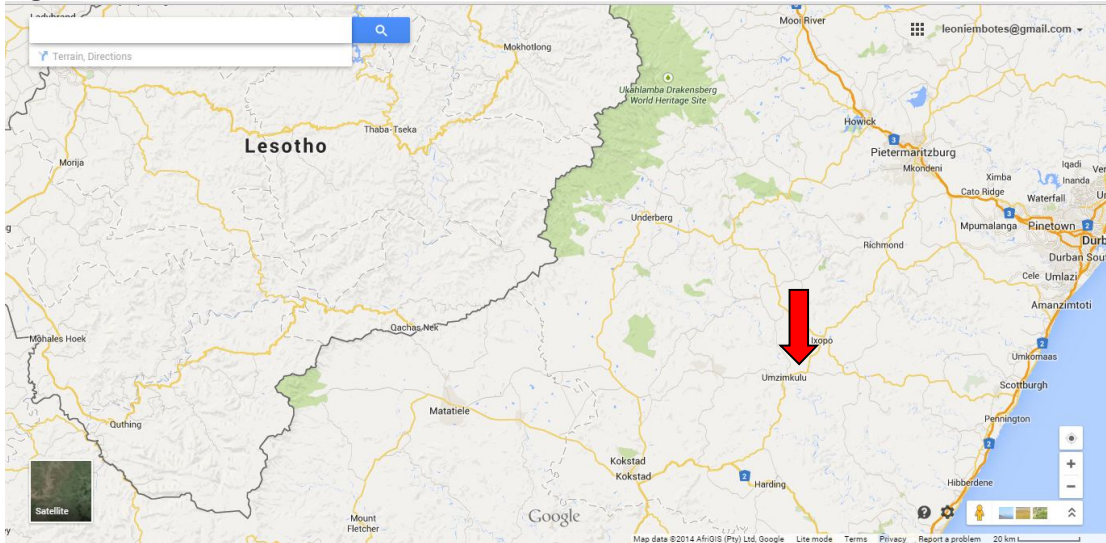
1.3 TOPOGRAPHY OF THE DEVELOPMENT STUDY AREA

The topography of the study area can be described as undulating plain with low hills.



1.4 LOCATION, TRACK AND PHOTOGRAPHIC RECORD OF STUDY AREA

Figure 1: Location



Site Locations

Currently there are three sites that are being considered as alternative sites for the proposed development. These sites are:

Site No. 8: S 30° 16' 39.95" E 29° 56' 40.13"

Site No. 9: S 30° 17' 14.44" E 29° 57' 07.33" (Preferred site)

Site No. 11: S 30° 18' 35.24" E 29° 55' 44.55"

Figure 2: Site locations



Photographic record

Site 9:

Figure 3: Photograph taken to the north



Figure 4: Photograph taken to the east



Figure 5: Photograph taken to the south



Figure 6: Photograph taken to the west



Site 8:

Figure 7: Photograph taken to the north



Figure 8: Photograph taken to the east



Figure 9: Photograph taken to the south



Figure 10: Photograph taken to the west



Site 11:

Figure 11: Photograph taken to the north



Figure 12: Photograph taken to the east



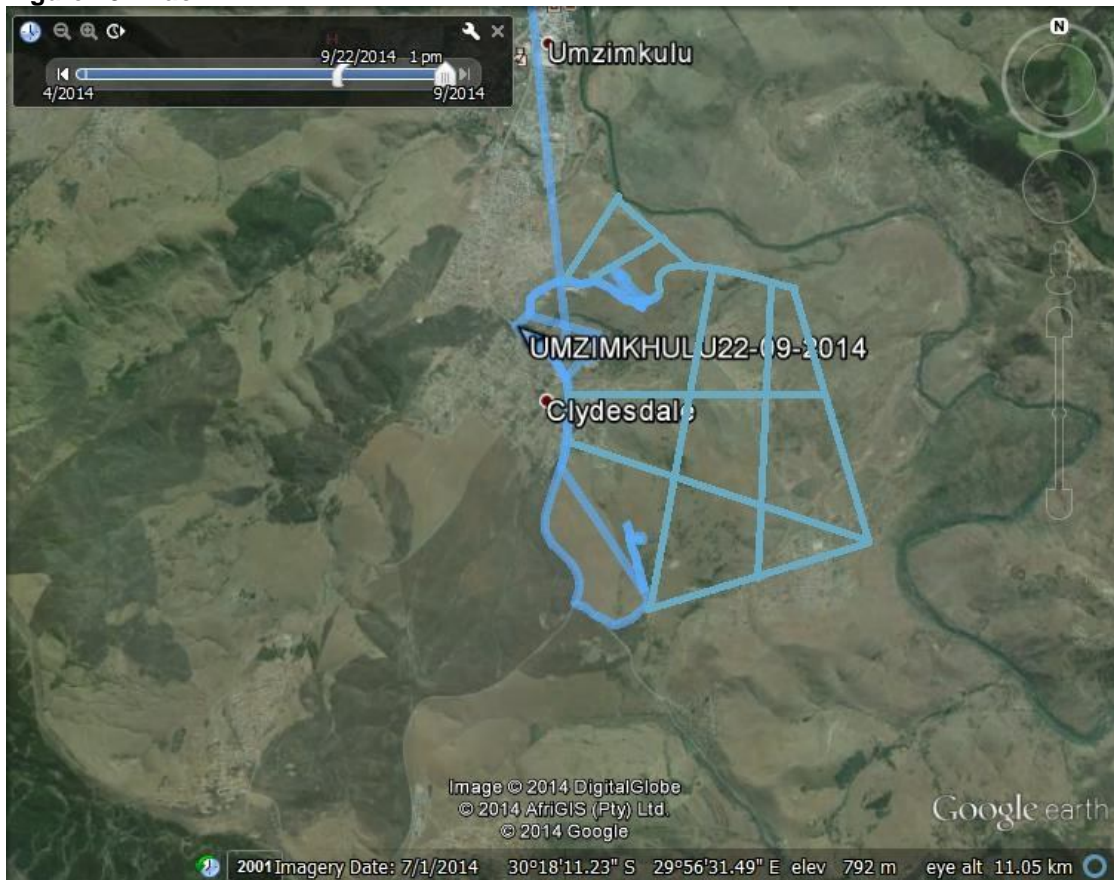
Figure 13: Photograph taken to the south



Figure 14: Photograph taken to the west



Figure 15: Track



1.5 BACKGROUND HISTORY OF THE GREATER STUDY AREA

The Umzimkhulu Municipality is rich in both historical and cultural heritage which shaped the present-day diverse culture of the Municipality. The present-day Umzimkhulu with its multi-cultural facets was shaped by deep cultural upheavals and battles amongst ethnic or tribal groupings residing within the Municipal boundaries.

It is however unfortunate that this significant political, cultural and historical heritage of the Municipality is not properly documented and afforded the appropriate status it deserves within the South African historical archives. Most of the history is oral lying in various elders of the tribes and run a risk of being lost should the narrators pass on.

The history of the area is closely associated with the following:

- Bhaca tribe
- Nhlangwini tribe
- Chunu tribe
- Imithwane tribe
- Donald Strachan Legacy¹

¹ Umzimkhulu Municipality, Tourism Development Strategy, November 2008

2. FINDINGS

2.1 PRE-COLONIAL HERITAGE SITES

Possibilities: Greater study area taken into account.

Stone Age

The Stone Age is the period in human history when stone material was mainly used to produce tools². In South Africa the Stone Age can be divided in three periods³;

- Early Stone Age 2 000 000 – 150 000 years ago
- Middle Stone Age 150 000 – 30 000 years ago
- Late Stone Age 40 000 years ago - +/- 1850 AD
-

Iron Age

The Iron Age is the period in human history when metal was mainly used to produce artefacts⁴. In South Africa the Iron Age can be divided in three periods;

- Early Iron Age 250-900 AD
- Middle Iron Age 900-1300 AD
- Late Iron Age 1300-1840 AD⁵

There are no pre-colonial heritage sites evident in the study area. This can be attributed to previous farming and other development activities in the greater study area.

2.2 HISTORICAL PERIOD HERITAGE SITES

Possibilities: Greater study area taken into account.

- Pioneer sites;
- Sites associated with early mining;
- Structures older than 60 years;
- Graves (Graves younger than 60 years, graves older than 60 years, but younger than 100 years, graves older than 100 years, graves of victims of conflict or of individuals of royal descent).

There are no structures older than 60 years in the study area.

There is a possible grave (single) (S30° 18' 52.0" E29° 57' 00.1") and a cemetery (S30° 18' 13.8" E29° 56' 31.3") near site 11.

² P. J. Coertze & R.D. Coertze, Verklarende vakwoordeboek vir Antropologie en Argeologie.

³ S.A. Korsman & A. Meyer, Die Steentydperk en rotskuns in J.S. Bergh (red) Geskiedenisatlas van Suid-Afrika. Die vier noordelike provinsies.

⁴ P.J. Coertze & R.D. Coertze, Verklarende vakwoordeboek vir Antropologie en Argeologie.

⁵ M.M. van der Ryst & A Meyer. Die Ystertydperk in J.S. Bergh (red) Geskiedenisatlas van Suid-Afrika. Die vier noordelike provinsies and T.N Huffman, A Handbook to the Iron Age: The Archaeology of Pre-Colonial Farming Societies in Southern Africa.

2.3 ORIGINAL LANDSCAPE

In most of the greater study area infra-structure development and farming activities have altered the original landscape.

2.4 INTANGIBLE HERITAGE

The intangible heritage of the greater study area can be found in the stories of past and present inhabitants.

3 CATEGORIES OF HERITAGE VALUE (ACT 25 OF 1999)

The National Heritage Resources Act (Act 25 of 1999) identifies the following categories of value under section 3(1) and (2) of the Act under the heading "National Estate":

- "3 (1) For the purpose 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 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 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 interests; 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 I (xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).
- (3) Without limiting the generality of the 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 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 and 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."

3.1 HERITAGE VALUE OF WEIGHED AGAINST CULTURAL SIGNIFICANCE CATEGORIES

3.1.1 Spiritual value

During the site visit/field work no indication of any spiritual activity was observed on/near the proposed site. Thus no sites of spiritual value will be impacted on by the proposed project.

3.1.2 Scientific value

No sites of scientific value was observed on or near the site earmarked for development.

3.1.3 Historical value

No historical value associated with the proposed site could be found in primary and secondary sources.⁶

3.1.4 Aesthetic value

No heritage item with aesthetic (architectural) value was identified in the study area.

3.1.5 Social value

Social value is attributed to sites that are used by the community for recreation and formal and informal meetings regarding matters that are important to the community. These sites include parks, community halls, sport fields etc. None of the said evident in the immediate study area.

⁶ Standard Encyclopaedia of Southern Africa and the TAB database of the National Archives of South Africa;

J.S. Bergh (red), Geskiedenisatlas van Suid-Afrika: Die Vier Noordelike Provinsies.

3.2 SPECIFIC CATEGORIES INVESTIGATED AS PER SECTION 3 (1) AND (2) OF THE NATIONAL HERITAGE LEGISLATION (ACT 25 OF 1999)

3.2.1 Does the site/s provide the context for a wider number of places, buildings, structures and equipment of cultural significance?

The study area does not provide context for a wider number of places, buildings, structures and equipment of cultural significance. The reason is the low density of heritage structures/sites in the study area, near or on the proposed site.

3.2.2 Does the site/s contain places to which oral traditions are attached or which are associated with living heritage?

Places to which oral traditions are attached or associated with living heritage are usually found in conjunction with traditional settlements and villages which still practise age old traditions. None of these are evident near or on the proposed site.

3.2.3 Does the site/s contain historical settlements?

No historical settlements are located on or near the proposed site.

3.2.4 Does the site/s contain landscapes and natural features of cultural significance?

Due to infra-structure development and farming activities the original character of the landscape have been altered significantly in the greater study area. The site does not contain natural features of cultural significance.

3.2.5 Does the site/s contain geological sites of cultural importance?

Geological sites of cultural importance include meteorite sites (Tswaing Crater and Vredefort Dome), fossil sites (Karoo and Krugersdorp area), important mountain ranges or ridges (Magaliesburg, Drakensberg etc.). The proposed site is not located in an area known for sites of this importance.

3.2.6 Does the site/s contain a wide range of archaeological sites?

The proposed site does not contain any surface archaeological deposits, a possible reason is previous infra-structure development and farming activities in the greater study area.

The possibility of sub-surface findings always exists and should be taken into consideration in the Environmental Management Plan.

If sub-surface archaeological material is discovered work must stop and a heritage practitioner preferably an archaeologist contacted to assess the find and make recommendations.

3.2.7 Does the site/s contain any marked graves and burial grounds?

Near the proposed site 11 a possible grave was identified. A cemetery (municipal) is situated near the said site 11.

Figure 16: Possible grave



The possibility of graves not visible to the human eye always exists and this should be taken into consideration in the Environmental Management Plan.

It is important to note that all graves and cemeteries are of high significance and are protected by various laws. Legislation with regard to graves includes the National Heritage Resources Act (Act 25 of 1999) whenever graves are 60 years and older. Other legislation with regard to graves includes those when graves are exhumed and relocated, namely the Ordinance on Exhumations (no 12 of 1980) and the Human Tissues Act (Act 65 of 1983 as amended).

If sub-surface graves are discovered work should stop and a professional preferably an archaeologist contacted to assess the age of the grave/graves and to advice on the way forward.

3.2.8 Does the site/s contain aspects that relate to the history of slavery?

This is not an area associated with the history of slavery like the Western Cape Province.

3.2.9 Can the place be considered as a place that is important to the community or in the pattern of South African history?

In primary and secondary sources the proposed site is not described as important to the community or in the pattern of South African history.⁷

⁷ Standard Encyclopaedia of Southern Africa and the TAB database at the National Archives of South Africa;

J.S. Bergh (red), Geskiedenisatlas van Suid-Afrika. Die Vier Noordelike Provinsies.

3.2.10 Does the site/s embody the quality of a place possessing uncommon or rare endangered aspects of South Africa's natural and cultural heritage?

The proposed site does not possess uncommon, rare or endangered aspects of South Africa's natural and cultural heritage. These sites are usually regarded as Grade 1 or World Heritage Sites.

3.2.11 Does the site/s demonstrate the principal characteristics of South Africa's natural or cultural places?

The proposed site does not demonstrate the principal characteristics of South Africa's natural or cultural places. These characteristics are usually associated with aesthetic significance.

3.2.12 Does the site/s exhibit particular aesthetic characteristics valued by the community or cultural groups?

This part of the greater study area does not exhibit particular aesthetic characteristics valued by the community or cultural groups. The reason being the low density of heritage buildings and structures located in the greater study area.

3.2.13 Does the site/s contain elements, which are important in demonstrating a high degree of creative technical achievement?

The site does not contain elements which are important in demonstrating a high degree of creative technical achievement. Reason being none of the above are evident on site.

3.2.14 Does the site/s have strong and special associations with particular communities and cultural groups for social, cultural and spiritual reasons?

The proposed site does not have a strong or special association with particular communities and cultural groups for social, cultural and spiritual reasons. No group expressed interest during the public participation period.

3.2.15 Does the site/s have a strong and special association with the life or work of a person, group or organisation?

No indication of the above could be found in primary and secondary research sources.⁸

⁸ Dictionary of South African Biography (vol I-V) and the TAB database at the National Archives of South Africa

4. IMPACTS AND MITIGATION

- Site 8 and Site 9 are suitable for development. This report can be regarded as ample mitigation.
- The possible grave and cemetery near site 11 make this site less favourable for development. Buffer zones of at least 50m as well as the fencing of sites will be applicable,
- The discovery of subsurface archaeological and/or historical material as well as graves must be taken into account in the Environmental Management Plan. See 3.2.6 and 3.2.7.

5. THE WAY FORWARD

- Submit this report as a Section 38 application to Amafa aKwaZulu-Natali/Heritage KwaZulu Natal for comment/approval.