

**HERITAGE BASELINE AND SENSITIVITY
ASSESSMENT, CATO RIDGE, ETHEKWINI
MUNICIPALITY, KWAZULU-NATAL**

March 2021

**FOR: Zutari (Pty) Ltd
 Jeanne-Louise Wiese**

**AUTHOR: JLB Consulting
 Jean Beater**

TABLE OF CONTENTS

TABLE OF CONTENTS	ii
1. INTRODUCTION	4
1.1 Scope of Study	4
1.2 Legislative requirements	4
2. PROJECT LOCATION	6
3. LIMITATIONS AND GAPS IN KNOWLEDGE	6
4. METHODOLOGY	10
4.1 Historical background	10
4.2 Topographic and aerial maps	10
4.3 Previous heritage impact assessments undertaken in Cato Ridge	10
5. HERITAGE BASELINE DESCRIPTION	11
5.1 Geological and palaeontological context	11
5.2 Archaeological context	13
5.3 Historical context	13
6. HERITAGE SITES IDENTIFIED DURING FIELD WORK	14
7. BASELINE FINDINGS AND DISCUSSION	21
8. POTENTIAL CUMULATIVE IMPACTS	23
9. MANAGEMENT MEASURES	24
10. REFERENCES	25

FIGURES

Figure 1: Aerial view of project area outlined in turquoise and Camperdown and the N3 highway	7
Figure 2: Project area north of the R103 road	8
Figure 3: Project area south of R103 road	9
Figure 4: Sites discovered during field work	17
Figure 5: Cattle dip	18
Figure 6: Farmhouse and associated buildings	18
Figure 7: Graves.....	19
Figure 8: Remains of homestead associated with above graves	19
Figure 9: Grave within homestead complex	20
Figure 10: Remains of structure/dwelling.....	20
Figure 11: DEFF screening tool report outcome - heritage.....	22
Figure 12: DEFF screening tool report outcome - palaeontology	23

TABLES

Table 1: Heritage and other sites found during site survey	14
Table 2: Additional sites	16

I, Jean Beater, act as an independent specialist for this project and I do not have any vested interest either business, financial, personal or other, in the proposed activity other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2014.

SPECIALIST DETAILS

Name	Qualification	Professional Registration
Jean Beater	MA (Heritage Studies) MSc (Environmental Management)	Member of Association of South African Professional Archaeologists (No. 349) Member of IAIAsa (No. 1538)

1. INTRODUCTION

JLB Consulting was appointed by Zutari (Pty) Ltd on behalf of the Cato Ridge Development Company Ltd (CRDC) to undertake a heritage baseline and sensitivity assessment for the Cato Ridge asset transformation project in KwaZulu-Natal.

Desktop research and a field survey and a desktop palaeontological (fossil) studies were undertaken. General site conditions and features on site were recorded by means of photos, coordinate locations, and descriptions. Where applicable, management measures to be implemented have been included in this report.

1.1 Scope of Study

The scope of service for the heritage baseline and sensitivity assessment includes:

- Undertaking a desktop review of relevant available information pertaining to the receiving environment in relation to the heritage field;
- Verifying and supplementing desktop information with field work to provide a reliable baseline assessment;
- Identifying heritage issues or sensitive elements of the receiving environment that may potentially be affected by or interact with the proposal;
- Identifying heritage and other legislation and policies to be complied with;
- Compiling a sensitivity map for the site;
- Identifying assumptions and limitations that have informed the study or gaps in knowledge that have become apparent; and
- Submit the report to the provincial heritage resources authority, the KwaZulu-Natal Amafa and Research Institute (hereafter referred to as the Institute), for their review and comment.

1.2 Legal requirements

- The specialist is required to meet the conditions of section 13, GN R.982 (as amended) of NEMA (General requirements for EAPs and Specialists).
- The report is required to meet the conditions of Appendix 6 (Specialist Reports), which forms part of GN R 982 of 2014 (as amended).
- The report must meet the requirements as set out in GN 320 of 2014 (Part A): General requirements for undertaking an initial site sensitivity verification where no specific assessment protocol has been identified.
- The project may trigger several sections under the KwaZulu-Natal Amafa and Research Institute Act, 2018 (Act No 5 of 2018) including:

- Section 37, which refers to the protection of structures that are or that may reasonably be expected to be older than 60 years;
- Section 38, which refers to the protection of graves of victims of conflict;
- Section 39, which refers to the protection of informal and private burial grounds;
- Section 40, which refers to the protection of battlefield sites, archaeological sites, rock art sites, palaeontological sites, historic fortifications, meteorite or meteorite impact sites.
- Section 41, which lists developments that may require a Heritage Impact Assessment (HIA).

The KwaZulu-Natal Heritage Regulations, 2012 (Provincial Notice No. 40 - 2 April 2012) regarding the permit application process in terms of the demolition, destruction, alteration, etc., to structures, graves and other heritage resources referred to above must be adhered to.

Section 3 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) describes heritage resources as follows:

- (a) places, buildings, structures and equipment of cultural significance;
- (b) places to 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 paleontological 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) of significance relating to the history of slavery 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 interest; 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 1(xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).

2. PROJECT LOCATION

The land development area is located near the western boundary of the eThekweni Metropolitan Municipality. It is characterised by central plateaus and bordered by steep valleys and sensitive environmental areas that may affect potential development. The land development area is situated to the north and south of the N3 highway and the R103 (**Figure 1**). A central railway line, the Natal Corridor (Natcor), also divides the area with general accessibility to the informal and agricultural areas in the north and south being limited by these features. The total area of the property, including portions north and south of the N3, is approximately 1865 ha. This includes developed and undeveloped areas (Zutari 2020:1).

Closer images of the northern and southern sections of the project area are provided in **Figures 2 and 3** below.

3. LIMITATIONS AND GAPS IN KNOWLEDGE

The site inspection of sections of the project area was undertaken on 11 February 2021. The high rainfall that had taken place in the area at the time resulted in very dense vegetation in many parts of the project area, which made access and visibility difficult. Dense stands of invasive bush in previously disturbed areas also hindered visibility to some degree.

Heritage resources found during fieldwork do not represent all the possible heritage resources present within the area. Various factors account for this, including the scoping aspect of this project, the subterranean nature of some archaeological sites and the current dense vegetation cover in most of the site.



Figure 1: Aerial view of project area outlined in turquoise, showing Camperdown and the N3 highway

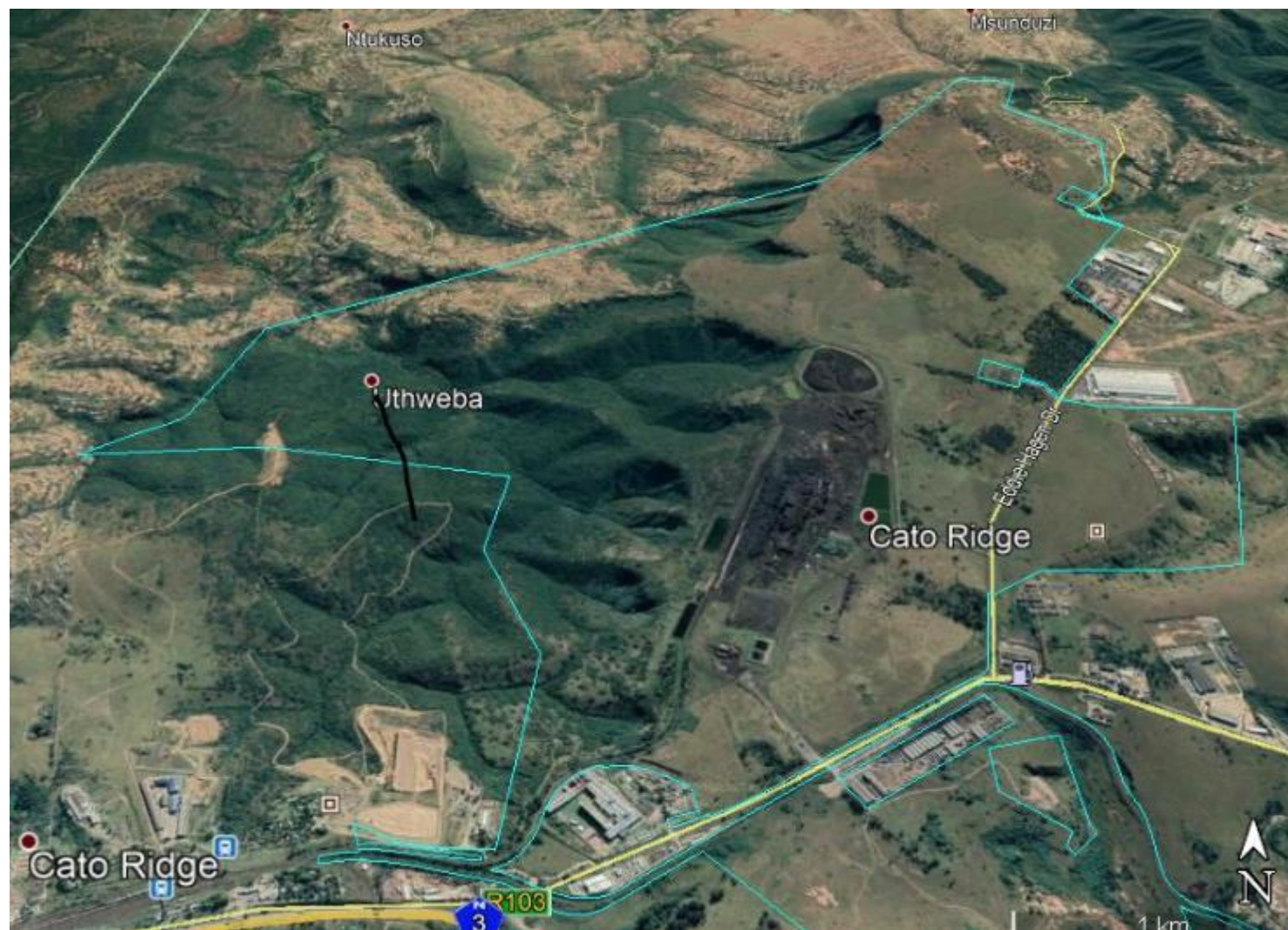


Figure 2: Project area north of the R103 road

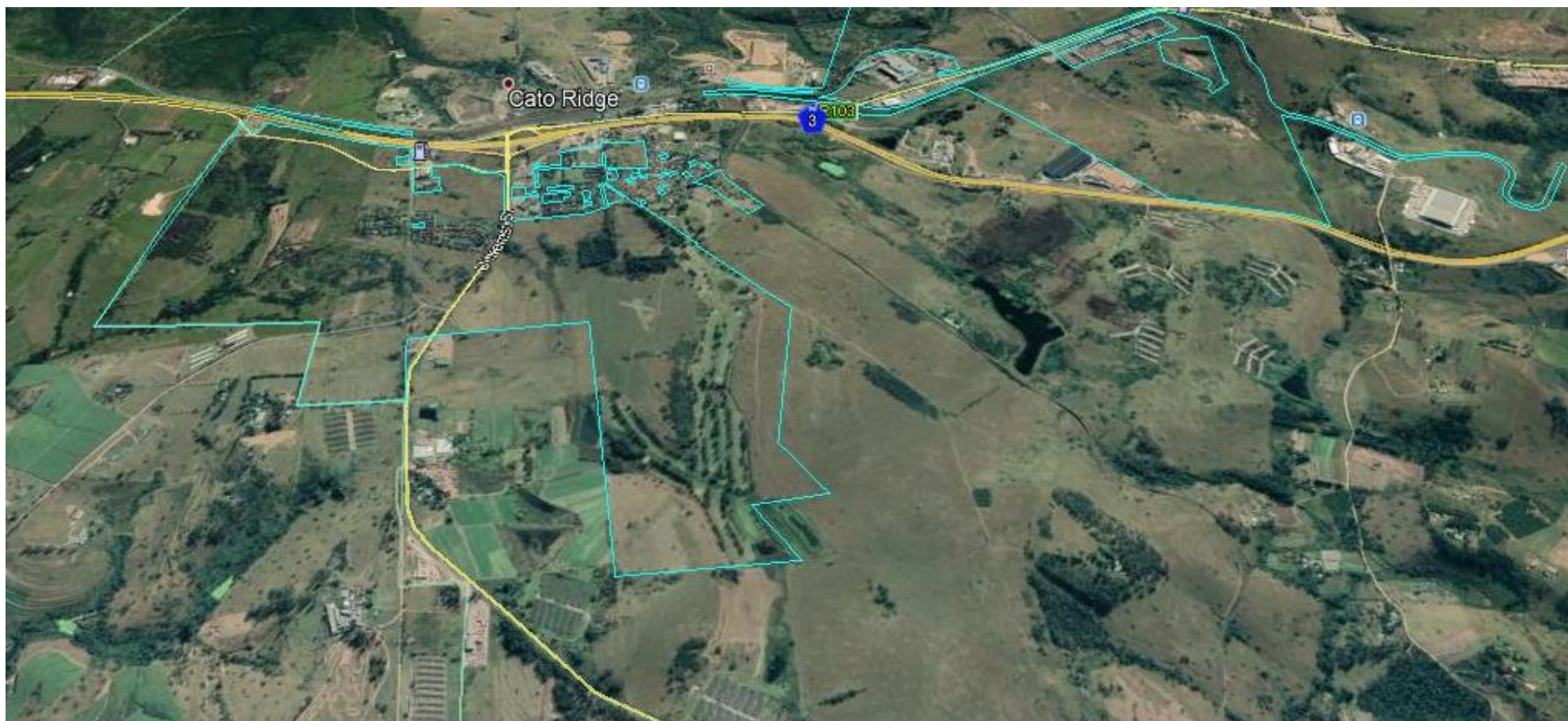


Figure 3: Project area south of R103 road

4. METHODOLOGY

4.1 Historical background

The examination of historical data and cartographic resources represents an additional tool for locating and identifying heritage resources and in determining the historical and cultural context of the study area. Relevant topographic maps and satellite imagery were studied to identify structures, possible burial grounds or archaeological sites present in the project area.

4.2 Topographic and aerial maps

Topographic maps (2930DA and 2930DC) for 1968 and 1978 and aerial photography from as early as 1937 were downloaded and assessed in order to observe the development of the area, and the location or potential location of heritage sites. These maps and images were downloaded from the Department of Rural Development and Land Reform's CDNGI Geospatial Portal (www.cdngiportal.co.za).

4.3 Previous heritage impact assessments undertaken in Cato Ridge

The South African Heritage Resources Agency Information System (SAHRIS) lists several previous heritage studies from the Cato Ridge area with at least one study that assessed parts of the present study area and several studies undertaken in the near vicinity. These studies provided information regarding the types of heritage resources that have been found in the project and surrounding area. A selection of these studies is listed below in ascending chronological order:

eThembeni Cultural Heritage, 2007. Heritage Impact Assessment of the Assmang regional general landfill, Cato Ridge, KwaZulu-Natal, South Africa.

The heritage impact assessment of a proposed landfill site near Cato Ridge found a number of heritage resources within the proposed development area. The development area investigated falls within much of the northern section of this project and the heritage resources found are relevant to this study.

eThembeni Cultural Heritage, 2014. Phase 1 Heritage Impact Assessment Report: Proposed Subdivision for Engen Distribution Centre over Portion of Portion 26 of the Farm Uitkomst and Doornrug No. 852, Cato Ridge, eThekweni Metropolitan Municipality, KwaZulu-Natal

During the investigation, various structures were found to be present within the study's proposed development area. Most are modern buildings in various states of disrepair with no heritage

significance. However, the main dwelling and some associated outbuildings, as well as a single small dwelling are very likely older than 60 years and therefore protected in terms of heritage legislation. These buildings are situated 200m west of one of the areas that fall within the Cato Ridge project area.

eThembeni Cultural Heritage 2014. Phase 1 Heritage Impact Assessment Report: Proposed Subdivision for Lougot Logistics Industrial Park on Portion of the Remainder of a Portion of Portion 30 of The Farm Uitkomst and Doornrug No. 852, Cato Ridge, eThekweni Metropolitan Municipality, KwaZulu-Natal

eThembeni undertook the assessment for a proposed subdivision for a light industrial development. No heritage sites were found during the assessment. The site is situated 700m east of a section of the project area located south of the R103.

Active Heritage, 2015. Cultural Heritage Impact Assessment of Portion P55 of Uitkomst and Doornrug (Thornridge), Cato Ridge, eThekweni Municipality.

The study area for this assessment is situated a few hundred metres west of the northern section of the project area under discussion. The survey identified one heritage site which was an old farmhouse that contains features that is older than 60 years old and therefore protected by heritage legislation.

Anderson, G. 2017. Heritage survey of the proposed Cato Ridge/Inanda filling station and shopping centre

A heritage survey was undertaken for the proposed mall and filling station in KwaXimba, Cato Ridge. The study area is situated above the Msunduze River. The survey noted two old mango trees that were remnants from a previous homestead, and thus could be indicative of graves. No grave features were however noted due to the disturbed nature of the area. Five pottery sherds were noted that date to the Early Iron Age. The site of the survey is situated about 2.5km north of the project area under discussion.

5. HERITAGE BASELINE DESCRIPTION

5.1 Geological and palaeontological context

The rocks in the project area are the Natal-Namaqua Metamorphic Province intrusive rocks, Natal Group sedimentary rocks and basal Dwyka Group (Karoo Supergroup) sedimentary rocks. South of the Tugela Thrust Belt the Natal Group sediments rest non-conformably on Namaquan-age rocks of the Namaqua-Natal Metamorphic Province. In contrast, to the north of the Tugela Thrust

Belt the Natal Group lies on the much older Archaean rocks of the Kaapvaal Craton. Overlying both of these rock types is the much younger Dwyka Group of sediments. A complex history of erosion of sediments from the Mozambique mountains into the graben that formed parallel to the present-day Natal coast, with talus cones, fluvial and braided-stream action, provided the material for the Natal Group. With the breakup of Gondwana the eastern margin of the graben has been lost. Since these sediments have been transported and reworked, they do not preserve fossils.

The Dwyka Group is made up of seven facies that were deposited in a marine basin under differing environmental settings of glacial formation and retreat. In the north and east these are called the Mbizane Formation, and the Elandsvlei Formation in the south and west. Described below are the seven facies:

- The massive diamictite facies comprises highly compacted diamictite that is clast-poor in the north. It was deposited in subaqueous or subglacial positions.
- The stratified diamictite comprises alternating diamictite, mudrock, sandstone and conglomerate beds. They are interpreted as being rapidly deposited, sediment gravity flows but with some possible reworking of the subglacial diamictites.
- The massive carbonate-rich diamictite facies is clast-poor and was formed by the rainout of debris, with the carbonate probably originating by crystallisation from interstitial waters.
- The conglomerate facies range from single layer boulder beds to poorly sorted pebble and granule conglomerates.
- The sandstone facies were formed as turbidite deposits.
- The mudrock with stones facies represents rainout deposits in the distal iceberg zone.
- The mudrock facies consists of dark-coloured, commonly carbonaceous mudstone, shale or silty rhythmite that was formed when the mud or silt in suspension settled. This is the only fossiliferous facies of the Dwyka Group.

Although the palaeontological sensitivity of the area under consideration is moderately sensitive, the Dwyka *Glossopteris* flora outcrops are very sporadic and rare. Of the seven facies that have been recognised in the Dwyka Group, fossil plant fragments have only been recognised from the mudrock facies. Fragments of invertebrates and primitive fish also occur. They have been recorded from around Douglas in the Northern Cape only, although the Dwyka Group exposures are very extensive. Jurassic Dolerites do not contain fossils as they are igneous intrusives. Terrestrial vertebrates had not evolved at this time. The late Carboniferous flora comprised *Glossopteris* leaves and seeds, wood, and other plants such as lycopods, sphenophytes and ferns. The geological structures suggest that the rocks are either much too old or of the incorrect type to contain fossils (Bamford 2021:8-11).

5.2 Archaeological context

The greater Cato Ridge is relatively well covered by archaeological surveys conducted in the 1960's and 1970's. The available evidence indicates that the area contains mostly Early Stone Age material. Most of these sites are situated close to water in open air context. Seven sites contain material indicative of the transition between Early Stone Age and Middle Stone Age period. One Later Stone Age site and one Later Iron Age site are known from the area (Active Heritage 2015:7).

Stone Age sites of all the main periods and cultural traditions occur in the greater Cato Ridge/Mpumalanga areas. Most of these occur in open air contexts as exposed by donga and sheet erosion. The occurrence of Early Stone Age tools in the near vicinity of permanent water resources, such as the Umngeni River, is typical of this tradition. These tools were most probably made by early hominins such as *Homo erectus* or *Homo ergaster*. Based on typological criteria they most probably date back to between 300 000 and 1.7 million years ago. The presence of the first anatomically modern people (*Homo sapiens sapiens*) in the area is indicated by the presence of a few Middle Stone Age blades and flakes. These most probably date back to between 40 000 and 200 000 years ago. The later Stone Age flakes identified in the area are associated with the San (Bushmen) and their direct ancestors. These most probably date back to between 200 and 20 000 years ago (Active Heritage 2015:8).

By 1500 years ago early Bantu-speaking farmers settled adjacent to the Umngeni River in the greater Camperdown area. Due to the fact that these first farmers introduced metal technology to southern Africa, they are designated as the Early Iron Age in archaeological literature. Their distinct ceramic pottery is classified to styles known as "Msuluzi" (AD 500-700), Ndondondwane (AD 700-800) and Ntshekane (AD 800-900). These sites characteristically occur on alluvial or colluvial soil adjacent to large rivers below the 1000m contour. The Early Iron Age farmers originally came from western Africa. Later Iron Age sites also occur in this area. These were Bantu-speaking agro-pastoralists who arrived in southern Africa after 1000 years ago via East Africa. Later Iron Age communities in KwaZulu-Natal were the direct ancestors of the Zulu people (Huffman 2007). The larger Umngeni Valley area was inhabited by various Nguni-speaking groups in the beginning of the 19th century, with most of these communities being incorporated into the Zulu Kingdom of Shaka in the 1820s (Active Heritage:8-9).

5.3 Historical context

According to Bulpin (undated:170), Cato Ridge consisted at first of small, rented farms on the estate of GC Cato, the first mayor of Durban. Towards the end of 1912, these farms were offered for sale, with the original tenants having the first option. Cato Ridge thereby came into existence.

Various buildings and farmsteads, including trading stores belonging to the Victorian and Edwardian periods, occur in the area.

Mpumalanga, which is situated directly adjacent to Cato Ridge, was established as a dormitory township in the 1970s to serve local African labour. The area has seen political violence during the turbulent years of the 1980s. However, the Liberation Struggle associated with this particular area is still under-researched (Active Heritage 2016:9).

The aerial photography images that date as far back as 1937 show homesteads, farmsteads, cultivated lands and other developments in the project area. For example, the maps of the portion of the project area north of the R102 and west of Eddie Hagan Drive show the trading store, the farmhouse and associated buildings and graves that are recorded in **Table 1** below.

6. HERITAGE SITES IDENTIFIED DURING FIELD WORK

Heritage sites found were plotted in the field using a Garmin Etrex GPS device and photographed where possible, although dense vegetation made this difficult at some sites. The remains of several structures were found where there is the possibility of finding associated graves in the vicinity of these remains. **Figure 4** shows the study area with heritage sites depicted thereon.

Table 1: Heritage and other sites found during site survey

Description	Coordinates	Significance	Mitigation
Foundation of structure	29°41'22.5" S 30°38'01.1" E	Low heritage significance	No mitigation needed. Can be altered or demolished
Water tower	29°41'20.2" S 30°37'53.6" E	Low heritage significance	No mitigation needed. Can be altered or demolished
Cattle dip (Figure 4)	29°41'11.5" S 30°37'47.3" E	Over 60 years, low heritage significance	Can be altered or demolished once permit received from Amafa
Remains of stone walling	Midpoint: 29°41'31.7" S 30°37'50.9" E	Potentially over 60 years; low heritage significance	Can be altered or demolished once permit received from Amafa
Remains of stone structure	29°41'37.3" S 30°37'53.1" E	Potentially >60 years; low heritage significance	Can be demolished once permit received from Amafa
Remains of associated stone structure	29°41'37.3" S 30°37'53.2" E	Potentially >60 years; low heritage significance	Can be altered or demolished once permit received from Amafa
Remains of trading store and associated buildings	29°41'39.8" S 30°37'56.6" E	>60 years; medium heritage significance due to its association with the area	Can be demolished once permit received from Amafa
Remains of structure – could be associated with farmstead	29°42'08.0" S 30°37'44.4" E	Low heritage significance	No mitigation needed. Can be demolished
Remains of circular structure that could be a silo/reservoir associated with farmstead	29°42'05.6" S 30°37'45.3" E	>60 years; low heritage significance	Can be demolished once permit received from Amafa once it is established that there are no graves in immediate surroundings

Description	Coordinates	Significance	Mitigation
Farmhouse and other structures (Figure 5)	29°42'06.3" S 30°37'46.6" E	>60 years, high heritage significance, the structures are occupied & there is high potential of graves associated with the structures	Leave structures & graves <i>in situ</i>
Remains of structure, could be associated with farmhouse	29°42'05.4" S 30°37'45.5" E	>60 years; low heritage significance unless graves found in area	Can be demolished once permit received from Amafa once it is established that there are no graves in the surroundings
Remains of structure, could be associated with farmhouse	29°42'05.0" S 30°37'45.3" E	>60 years; low heritage significance unless graves found in immediate area	Can be demolished once permit received from Amafa once it is established that there are no graves in immediate surrounds
Remains of floor of structure	29°42'19.4" S 30°37'31.3" E	>60 years as 1953 aerial map shows buildings that appear to be a farmstead; low heritage significance but if there are associated graves then high heritage significance.	Can be demolished once permit received from Amafa once it is established that there are no graves in the surrounding area
Remains of portion of wall of above structure / associated structure	29°42'20.7" S 30°37'30.6" E		
Concrete circular floor associated with above structure/s	29°42'20.9" S 30°37'31.3" E		
Remains of ±40m rectangular structure	29°42'21.1" S 30°37'32.4" E		
Two graves (Figure 6)	29°42'53.9" S 30°37'44.6" E	High heritage significance	Leave graves <i>in situ</i> ; ensure that they are protected from any development
Remains of demolished structure/s (Figure 7)	29°42'52.9" S 30°37'44.7" E	Low heritage significance	No mitigation needed. Can be demolished
Three graves	29°42'50.8" S 30°37'46.9" E	High heritage significance	Leave graves <i>in situ</i> ; ensure that they are protected from impacts of any development
Single grave within homestead complex (Figure 8)	29°42'49.6" S 30°37'47.6" E	High heritage significance	Leave grave <i>in situ</i> ; ensure that they are protected from impacts of any development
Highly disturbed & vegetated area with rubble	29°42'50.8" S 30°37'24.8" E	1968 aerial map indicates site, low heritage significance unless associated graves are found	Will need to be cleared prior to development to see if any heritage resources present; if no graves found then can be demolished
Remains of foundation	29°42'51.6" S 30°37'23.6" E	1968 aerial map indicates site, low heritage significance unless associated graves are found	Will need to be cleared prior to development to see if any heritage resources present; if no graves found then can be demolished
Remains of structure (Figure 8)	29°44'06.8" S 30°34'07.4" E	>60 years; 1953 aerial map shows structures low heritage significance unless graves found in vicinity	Can be demolished once permit received from Amafa once it is established that there are no graves in the surroundings
Remains of structure	29°44'05.1" S 30°34'07.5" E	>60 years; as above	Can be demolished once permit received from Amafa once it is established that there are no graves in the surroundings

Description	Coordinates	Significance	Mitigation
Fence post / boundary marker?	29°44'22.0" S 30°34'36.4" E	Low heritage significance	No mitigation needed. Can be altered or demolished
Remains of floor	29°44'37.4" S 30°34'51.9" E	Potentially >60 years, 1967 aerial map shows a cluster of buildings; low heritage significance unless other graves found in surrounding area	Can be demolished once permit received from Amafa once it is established that there are no other graves in the surroundings
Remains of structure heavily overgrown	29°44'37.1" S 30°34'51.8" E		
Potential grave associated with above structure/s	29°44'36.9" S 30°34'52.3" E	High heritage significance if a grave	To be left <i>in-situ</i> ; to be protected from impacts of any development
Mound of rocks / remains of structure / rubble	29°44'36.2" S 30°34'54.0" E 29°44'36.0" S 30°34'55.2" E	Potentially >60 years, 1967 aerial map shows a cluster of buildings; low heritage significance unless other graves found in surrounding area	Can be demolished once permit received from Amafa once it is established that there are no other graves in the surroundings

Sites found in a previous HIAs undertaken that fall within the project area are listed below (eThembeni Cultural Heritage 2007).

Table 2: Additional sites

Description	Coordinates	Significance	Mitigation
Bilobial circular cattle byre, 8m diameter. Down slope western entrance. Possible internal ancestral graves	29°41'22.0" S 30°37'30.5" E	Low	No further mitigation needed if no graves are present. May then alter or demolish with an Amafa permit
Rectangular sunken cattle byre, 12 x 8m. Down slope western entrance. Homestead platforms located immediately adjacent to north and south	29°41'22.9" S 30°37'27.3" E	Low	No further mitigation needed. May alter or demolish with an Amafa permit
Circular stock byre, 3 - 4m diameter. Overgrown with vegetation	29°41'22.7" S 30°37'31.3" E	Low	No further mitigation needed. May alter or demolish with an Amafa permit
Homestead platform with foundation imprints of 2 rectangular & 2 circular dwellings. Former home of Gumede family with possible unmarked ancestral graves present according to Mr. Mgwengwe	29°41'26.1" S 30°37'18.0" E	High if graves are present	Graves may not be altered in any way without Amafa and family permission

It should be noted that the images found below were taken during the field work undertaken in February 2021.

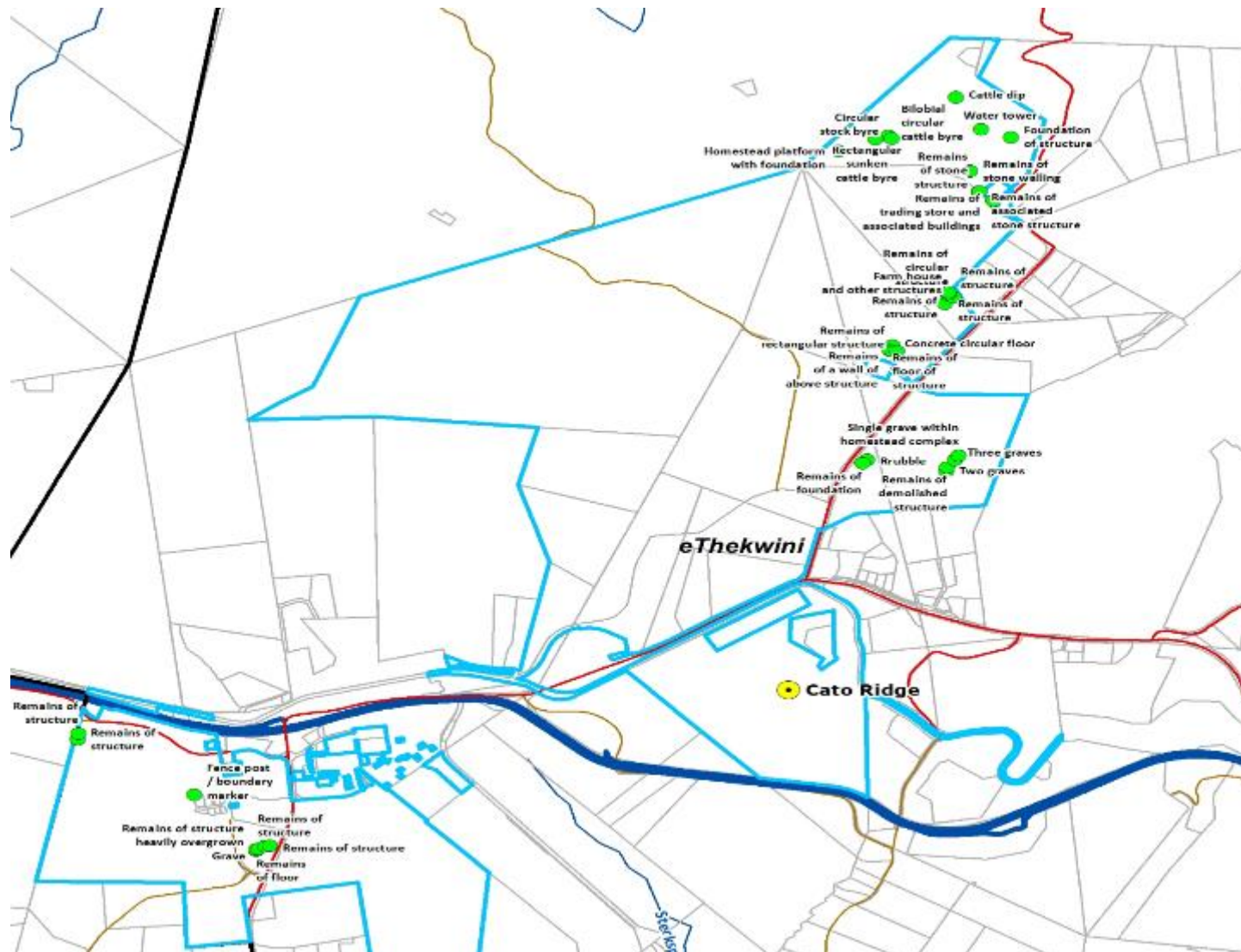


Figure 4: Sites discovered during field work



Figure 5: Cattle dip



Figure 6: Farmhouse and associated buildings



Figure 7: Graves



Figure 8: Remains of homestead associated with above graves



Figure 9: Grave within homestead complex



Figure 10: Remains of structure/dwelling

7. BASELINE FINDINGS AND DISCUSSION

The desktop assessment and field work show that within the boundary of the study area, there are areas of high heritage sensitivity due to the presence of graves, protected structures and other sites. This work established that the heritage sensitive areas as reflected in the DEFF screening tool map (**Figure 11**) (Zutari 2020:22) is disputed with regard to a number of areas or portions of the study area. These areas are as follows:

1. The area north of the R102 and west and east of Eddie Hagan Drive was given a medium heritage sensitivity. The desktop research and site inspection found a number of heritage resources including graves and protected structures in this area. Therefore, this area be given a high heritage sensitivity rating.
2. The heritage sensitivity of the area immediately south of the R102 and south of Cato Ridge Motors has a high heritage sensitivity. Apart from a small area where a farmstead used to be located, no other heritage sites were observed and part of the area is disturbed by a large quarry, hence the heritage sensitivity rating of this area should be a moderate heritage.
3. An area in the north-western corner of the project area below the N3 highway has been given a moderate ranking. It should be given a high heritage sensitivity as the historical aerial maps show that there were dwellings in the area, the remains of which were found during field work. There is a possibility that associated graves could be found close to the remains or in the surrounding environment.
4. An area within the portion of study area located east of Eddie Hagan Drive opposite the Assmang works is designated a 'no-go' area. It is the section situated east of the old railway line / old road close to the edge of the escarpment. There are many dwellings located in this strip of land where a number of graves were found close to the dwellings. The houses are also occupied; hence any development should avoid the remains of the railway line or road.

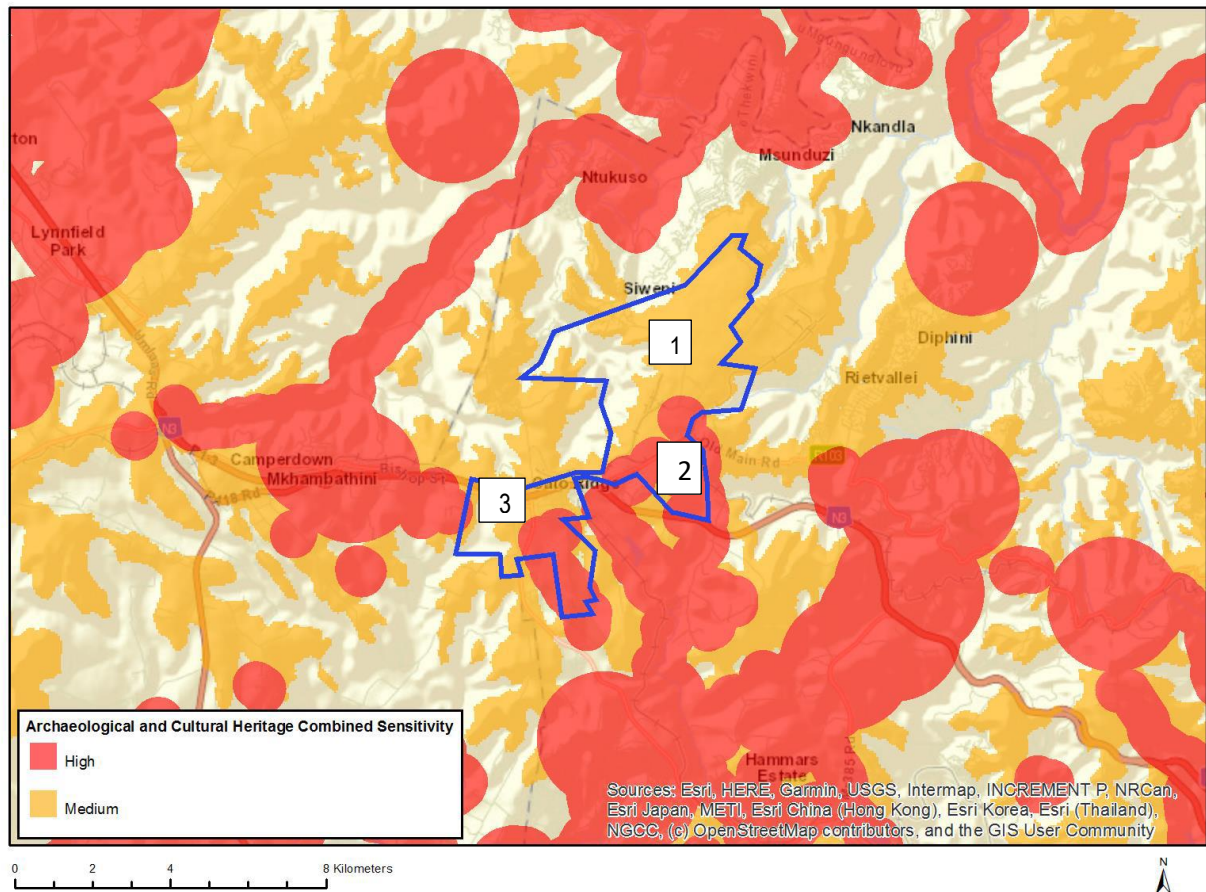


Figure 11: DEFF screening tool report outcome - heritage

The palaeontological sensitivity provided by the same DEFF screening tool (Zutari:24) indicates that the geological structures are either much too old or of the incorrect type to contain fossils and that the potential impact to fossil heritage resources of proposed developments would be extremely low. Therefore, the project area below the N3 highway, which is given a high fossil sensitivity as reflected in **Figure 12**, should be corrected to show an area of low fossil sensitivity.

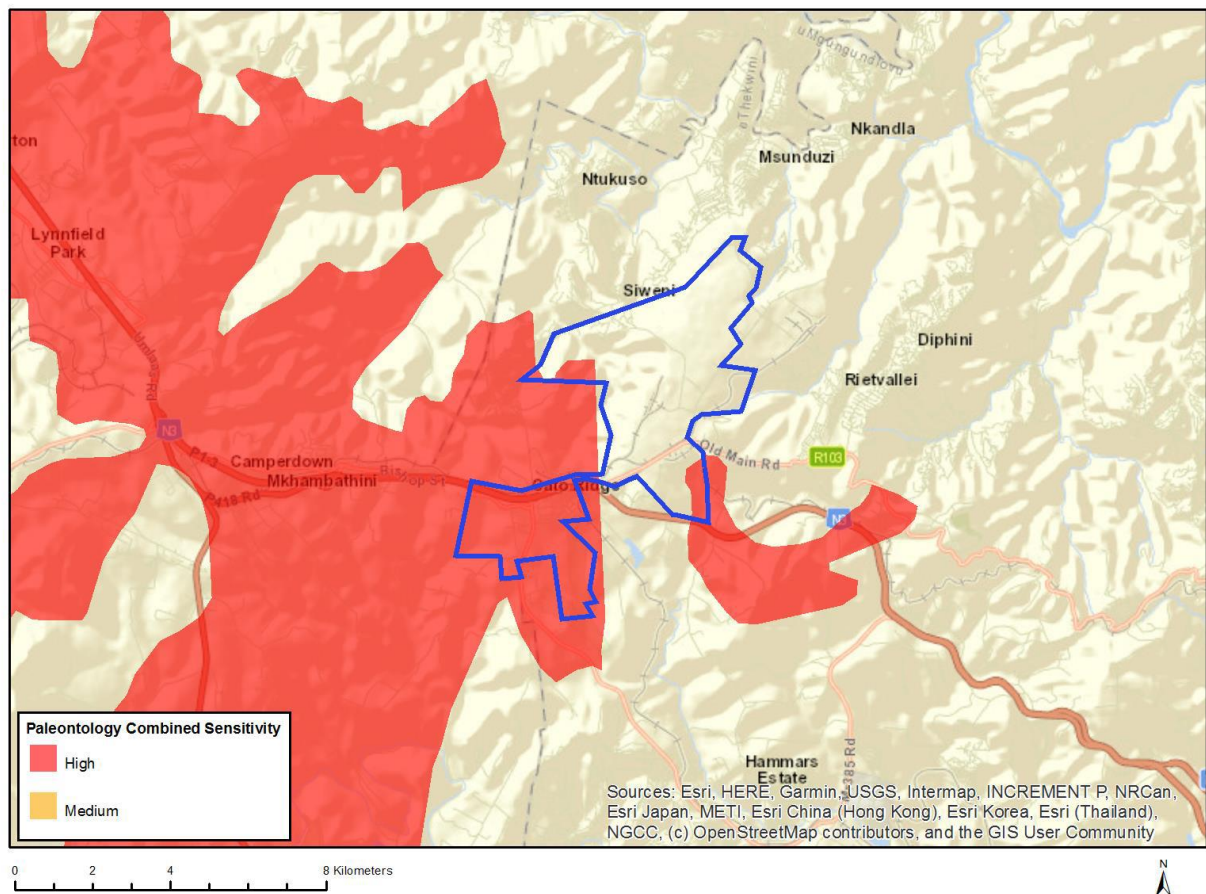


Figure 12: DEFF screening tool report outcome – palaeontology

8. POTENTIAL CUMULATIVE IMPACTS

Potential cumulative impacts from a heritage perspective in terms of future developments of project area include:

- the loss of existing farmhouses, associated buildings and graves. This has already occurred quite extensively in terms of the large number of remains of structures found during the field work. This can be mitigated by the undertaking of Phase 1 HIAs when the parcels of land are developed individually.
- The landscape of the larger area historically was one of farms, farmsteads and homesteads that has changed over the years to an industrial and manufacturing landscape. Depending on the developments proposed for the area, this process will most likely be exacerbated.

9. MANAGEMENT MEASURES

- Any developments or activities that take place within the project area under discussion that trigger section 41 (1) of the KwaZulu-Natal Amafa and Research Institute Act, 2018, will need a Phase 1 HIA. These developments are described accordingly:
 - (a) the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length.
 - (b) the construction of a bridge or similar structure exceeding 50m in length.
 - (c) any development or other activity which will change the character of a site-
 - (i) exceeding 5000 m²
 - (ii) involving three or more existing erven or subdivisions thereof
 - (iii) involving three or more erven or divisions thereof which have been consolidated within the last 5 years; or
 - (iv) the costs of which will exceed a sum set in terms of the regulations.
 - (d) the rezoning of a site exceeding 10 000 m in extent, or
 - (e) any other category of development provided for in the regulations.
- All recommendations and mitigation measures made by the heritage specialist, undertaking the Phase 1 HIA, must be adhered to and implemented.
- All Phase 1 HIA reports must be submitted to the Institute (Amafa) for their consideration and comment. All recommendations made by the Institute must be adhered to and implemented.
- As recommended by the palaeontologist, a Fossil Chance Find Protocol (as provided in the desktop report – see **Appendix 1**) should be included in Environmental Management Programmes (EMPr) for all EIAs undertaken for any developments that take place in the project area.
- It is recommended that a buffer of at least 10m be placed around heritage sites of high heritage sensitivity such as graves, structures, etc., to ensure that during construction and maintenance activities these sites are not disturbed.
- The buffer should be of a sturdy material that is highly visible to construction and maintenance workers including those driving vehicles.
- Under no circumstances may any heritage material be destroyed or removed from the study area unless under direction of a heritage specialist.

10. REFERENCES

Active Heritage, 2015. *Cultural Heritage Impact Assessment of Portion P55 of Uitkomst and Doornrug (Thornridge), Cato Ridge, eThekweni Municipality.*

Anderson, G. 2017. *Heritage survey of the proposed Cato Ridge/Inanda filling station and shopping centre*

eThembeni Cultural Heritage, 2007. *Heritage Impact Assessment of the Assmang regional general landfill, Cato Ridge, KwaZulu-Natal, South Africa.*

eThembeni Cultural Heritage, 2014. *Phase 1 Heritage Impact Assessment Report: Proposed Subdivision for Engen Distribution Centre over Portion of Portion 26 of the Farm Uitkomst and Doornrug No. 852, Cato Ridge, eThekweni Metropolitan Municipality, KwaZulu-Natal*

eThembeni Cultural Heritage 2014. *Phase 1 Heritage Impact Assessment Report: Proposed Subdivision for Lougot Logistics Industrial Park on Portion of the Remainder of a Portion of Portion 30 of The Farm Uitkomst and Doornrug No. 852, Cato Ridge, eThekweni Metropolitan Municipality, KwaZulu-Natal*

eThembeni Cultural Heritage 2014. *Phase 1 Heritage Impact Assessment Report: Proposed Subdivision for Lougot Logistics Industrial Park on Portion of the Remainder of a Portion of Portion 30 of The Farm Uitkomst and Doornrug No. 852, Cato Ridge, eThekweni Metropolitan Municipality, KwaZulu-Natal*

APPENDIX 1

DESKTOP PALAEOLOGICAL ASSESSMENT