PHASE 2 CULTURAL HERITAGE IMPACT ASSESSMENTS OF THE PROPOSED MSINGA NEW TOWN CENTRE DEVELOPMENT AT CWAKA, MSINGA LOCAL AND MZINYATHI REGIONAL DISTRICT MUNICIPALITIES, KWAZULU-NATAL

ACTIVE HERITAGE CC

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Declaration of Consultants independence

Frans Prins is an independent consultant to Green Door Environmental and has no business, financial, personal or other interest in the activity, application or appeal in respect of which he was appointed other than fair remuneration for work performed in connection with the activity, application or appeal. There are no circumstances whatsoever that compromise the objectivity of this specialist performing such work.

Frans Prins

LIST OF ABBREVIATIONS AND ACRONYMS

EIA	Early Iron Age
ESA	Early Stone Age
HISTORIC PERIOD	Since the arrival of the white settlers - c. AD 1820 in this part of the country
IRON AGE	Early Iron Age AD 200 - AD 1000 Late Iron Age AD 1000 - AD 1830
LIA	Late Iron Age
LSA	Late Stone Age
MSA	Middle Stone Age
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998 and associated regulations (2006).
NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999) and associated regulations (2000)
SAHRA	South African Heritage Resources Agency
STONE AGE	Early Stone Age 2 000 000 - 250 000 BP Middle Stone Age 250 000 - 25 000 BP Late Stone Age 30 000 - until c. AD 200

EXECUTIVE SUMMARY

A Phase 1 cultural heritage survey of the proposed Msinga Town Centre Development identified the need for a more in-depth focus on the '*Living Heritage'*, '*Cultural Landscape'*, '*Built Heritage'*, and Paleontology of the project area before development may proceed. This second phase heritage assessment found no evidence for heritage worthy '*cultural landscapes'* on the actual footprint. All residents interviewed agreed that the social and spatial landscape is changing rapidly but they also felt that development is imperative.

The only '*Living Heritage'* site regarded as significant by the resident community is the local Shembe Church. Although church members support the envisioned town development of the area all members interviewed felt that the church should remain in its present locale. Residents had similar sentiments regarding the locality of existing family graves. It was felt that the graves should be left in their present locales rather than be translocated elsewhere, such as a town cemetery, as this will anger the ancestors.

Residents interviewed agreed that the envisioned town development may compromise the availability of firewood, thatching grass, muthi plants, and clay resources within the project area. However, they felt that these resources would still be available in the near environs of the proposed development.

Subsequent investigations into the heritage status of the three identified trading stations in the project area indicated that only one of them predates 1940 and therefore has heritage status. The Palaeontologist reported that development may proceed but that a Palaeontologist should inspect any trenches or large scale excavations in the extreme eastern zone of the project area, within the sandstone belt, and that a protocol of finds must be adhered to.

Attention is drawn to the South African Heritage Resources Act, 1999 (Act No. 25 of 1999) and the KwaZulu-Natal Heritage Act (Act no 4 of 2008) which, requires that operations that expose archaeological or historical remains as well as fossils should cease immediately, pending evaluation by the provincial heritage agency.

1 BACKGROUND INFORMATION ON THE PROJECT

Table 1: Background Information

Consultants:	Frans Prins (Active Heritage CC) conducted the general Heritage Impact Assessment study. Lindsay Napier conducted the Historical and Built Heritage Impact Assessment (Appendix 1). Gary Trower conducted the Paleontological Impact Assessment (Appendix 2). Active Heritage CC was sub-consulted by Green Door Environmental.
Type of development:	Town Centre Development.
Rezoning or subdivision:	Subdivision
Terms of reference	To carry out a Phase 2 Heritage Impact Assessment.
Legislative requirements:	The Heritage Impact Assessment was carried out in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and following the requirements of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA) and the KwaZulu-Natal Heritage Act, 1997 (Act No. 4 of 2008).

1.1 Details of the Area Surveyed:

The proposed housing development is situated at Msinga approximately 14km to the north of Tugela Ferry adjacent to the R33 (Fig 1). It is located within the Msinga Local Municipality and Umzinyathi District Municipality, KwaZulu-Natal. The project area is approximately 416 ha in extent (Fig 2). It is situated near the confluence of two watercourses and currently features primary and secondary roads, rural low density residential and small scale agricultural activity. Zulu (amaThembu) homesteads are scattered over the landscape and along existing roads (Figs 7 & 8). The project area also features wetlands, watercourses, natural vegetation. The GPS coordinated for the centre of the project area are: S 28° 39' 15.25" E 30° 28' 28.54".

2 BACKGROUND INFORMATION OF THE SURVEY

2.1 Methodology

A desktop study was conducted of the heritage databases housed in the KwaZulu-Natal Museum. In addition, the available archaeological and historical literature covering the greater Msinga area was also consulted. The SAHRIS website was consulted to obtain information on previous heritage surveys and site data near the study area.

A ground survey, following standard and accepted archaeological procedures, was conducted by Frans Prins on 5 September 2017 (Phase 1 HIA). The fieldwork for the Phase 2 HIA was conducted on 27 and 28 October 2018. This second Phase HIA concentrated on the '*living heritage'* and '*cultural landscape'* aspects of the project area. The methodology employed involved background literature research and oral interviews with local community members on the ground. Transcripts of the relevant interviews may be obtained on request.

The details regarding the methodologies employed by the '*built heritage'* specialist and the palaeontologist are detailed in Appendixes 1 and 2.

2.2 Restrictions Encountered during the Survey

2.2.1 Visibility

Visibility was good.

2.2.2 Disturbance

- The Middle Stone Age site is situated in an open air context. None of the stone artefacts observed were in original context. Many of them are exposed by severe sheet and donga erosion and it appears that the majority of them have been washed down from the mountain situated above the erosion dongas.
- Trading Post 2 has been damaged by fire.

2.3 Details of Equipment used in the Survey

GPS: Garmin Etrek.
Digital cameras: Canon Powershot A460.
All readings were taken using the GPS. Accuracy was to a level of 5 m.

3 DESCRIPTION OF SITES AND MATERIAL OBSERVED

3.1 Locational Data

Province: KwaZulu-Natal
Town: Msinga, Tugela Ferry
Municipality: Msinga Local Municipality, Umzinyathi District Municipality

4 HERITAGE SITES LOCATED DURING THE SURVEY

4.1 Background

A desktop survey of the greater Msinga area indicated that a wide range of heritage sites and features may occur in the area. These include Stone Age, Iron Age, rock art sites, historical period sites, and potential *'living heritage'* sites. None of the previously known heritage sites occur on the footprint (Fig 1). However, the Phase 1 Heritage Impact Assessment of the area located six heritage sites within the proposed development area (Prins 2017). These include a Middle Stone Age site, three graveyards, an old trading post, and a Shembe site of worship. The *'built heritage'* specialist located an additional heritage site, an old Bus Stop, during the site visit to the project area (Appendix 1). All these sites are protected by provincial heritage legislation and mitigation applies to them all. A more detailed discussion of the various categories of heritage sites located in the project area follows below.

5 ARCHAEOLOGICAL SITES AND BACKGROUND INFORMATION

The archaeological history of the Province of KwaZulu-Natal (KZN), including the project area, dates back to about 2 million years and possibly older, which marks the beginning of the Stone Age. The Stone Age in KZN was extensively researched by Professor Oliver Davies formerly of the Natal Museum. The Stone Age period has been divided in to three periods namely:

- Early Stone Age (ESA) dating between 2 million years ago to about 200 000 years ago;
- Middle Stone Age (MSA) dating between 200 000 years ago to about 30 000 years ago; and
- The Later Stone Age (LSA) which dates from 30 000 to about 2 000 year ago.

The Stone Age period ends around approximately 2 000 years ago when Bantu speaking farmers from the north arrived in Southern Africa.

The Iron Age is also divided into three periods, namely:

- Early Iron Age (EIA) dating between AD 200 and AD 900;
- Middle Iron Age (MIA) dating between AD 900 and AD 1300; and
- Late Iron Age (LIA) dating between AD 1 300 and 1 820.

5.1 Stone Age

5.1.1 Early Stone Age (ESA)

The ESA is considered as the beginning of the stone tool technology. It dates back to over 2 million years ago until 200 000 years ago. This period is characterised by Oldowan and Acheulean industries. The Oldowan Industry, dating to approximately between over 2 million years and 1.7 million years, predates the later Acheulean. The Oldowan Industry consists of very simple, crudely made core tools from which flakes are struck a couple of times. To date, there is no consensus amongst archaeologists as to which hominid species manufactured these artefacts.

The Acheulean Industry lasted from about 1.7 million years until 200 thousand years ago. Acheulean tools were more specialized tools than those of the earlier industry. They were shaped intentionally to carry out specific tasks such as hacking and bashing to remove limbs from animals and marrow from bone. These duties were performed using the large sharp pointed artefacts known as hand axes. Cleavers, with their sharp, flat cutting edges were used to carry out more heavy duty butchering activities (Esterhuysen, 2007).

The ESA technology lasted for a very long time, from early to middle Pleistocene and thus seems to have been sufficient to meet the needs of early hominids and their ancestors. ESA tool occurrence has been reported in open air context on seven sites in the greater Weenen area. None of these sites occur on the actual footprint. Apart from stone artefacts, the ESA sites have produced very little as regards other archaeological remains. This has made it difficult to make inferences pointing to economical dynamics of the ESA people in this part of the world. The diet of ESA peoples has therefore had to be reconstructed on the basis of evidence from elsewhere that it comprised primarily of animal and plant foods (Mazel 1989).

5.1.2 Middle Stone Age (MSA)

The MSA dates to between 200 000 and 30 000 years ago, coinciding with the emergence of modern humans. The MSA technology is therefore believed to have been manufactured by fully modern humans known as Homo sapiens who emerged around 250 000 years ago. While some of the sites belonging to this time period occur in similar contexts as those of ESA, most of the MSA sites are located in rock shelters. Palaeo-environmental data suggests that the distribution of MSA sites in the high-lying Drakensberg and surrounding areas was influenced by the climate conditions, specifically the amount and duration of snow (Carter, 1976).

In general, the MSA stone tools are smaller than those of the ESA. Although some MSA tools are made from prepared cores, the majority of MSA flakes are rather irregular and are probably waste material from knapping exercises. A variety of MSA tools include blades, flakes, scrapers and pointed tools that may have been hafted onto shafts or handles and used as spearheads. Between 70 000 and 60 000 years ago new tool types appear, known as segments and trapezoids. These tool types are referred to as backed tools from the method of preparation. Residue analyses on the backed tools from South African MSA sites including those in KZN indicate that these tools were certainly used as spear heads and perhaps even arrow points (Wadley, 2007).

A few sites with impressive MSA deposits have been excavated in KZN. Perhaps the best known ones are Sibudu Cave and Umhlatuzana Cave to the south east of the study area, and Border Cave to the north of the study area. All these sites provided impressive evidence for fine resolution data and detailed stratigraphy (Wadley & Jacobs, 2006). Fourteen Middle Stone Age sites have been recorded in the greater Muden area. These, like the Early Stone Age sites, are mostly restricted on open air sites with little archaeological context remaining. None of the known Middle Stone Age sites occur on the footprint; however, four sites occur within 1km from the start of the proposed road upgrade.

5.1.3 Late Stone Age (LSA)

Compared to the earlier MSA and ESA, more is known about the LSA which dates from around 30 000 to 2 000 (possibly later) years ago. This is because LSA sites are more recent than ESA and MSA sites and therefore achieve better preservation of a

greater variety of organic archaeological material. The Later Stone Age is usually associated with the San (Bushmen) or their direct ancestors. The tools during this period were even smaller and more diverse than those of the preceding Middle Stone Age period. LSA tool technology is observed to display rapid stylistic change compared to the slower pace in the MSA. The rapidity is more evident during the last 10 000 years.

The LSA tool sequence includes informal small blade tradition from about 22 000 – 12 000 years ago, a scraper and adze-rich industry between 12 000 – 8 000 years ago, a backed tool and small scraper industry between 8 000 – 4 000 years and ending with a variable set of other industries thereafter (Wadley, 2007). Adzes are thought to be wood working tools and may have also been used to make digging sticks and handles for tools. Scrapers are tools that are thought to have been used to prepare hides for clothing and manufacture of other leather items. Backed tools may have been used for cutting as well as tips for arrows.

It was also during Later Stone Age times that the bow and arrow was introduced into southern Africa – perhaps around 20 000 years ago. Because of the bow and arrow and the use of traps and snares, Later Stone Age people were far more efficient in exploiting their natural environment than Middle Stone Age people. Up until 2 000 years ago, Later Stone Age people dominated the southern African landscape. However, shortly after 2 000 years ago the first Khoi herders and Bantu-speaking agro pastoralists immigrated into southern Africa from the north. This led to major demographic changes in the population distribution of the subcontinent. San hunter-gatherers were either assimilated, or moved off to more marginal environments such as the Kalahari Desert or mountain ranges unsuitable for small-scale subsistence farming and herding.

The San in the coastal areas of KZN were the first to have been displaced by incoming African agro pastoralists. However, some independent groups continue to practice their hunter gatherer lifestyle in the foothills of the Drakensberg until the period of white colonialisation around the 1840's (Wright & Mazel, 2007). According to the KwaZulu-Natal Museum archaeological database, there are fourteen Later Stone Age sites in the greater Muden area. Although ten of these are surface scatters the remaining four are cave deposits in archaeological context. Also dating to the LSA period is the impressive Rock Art found on cave walls and rock faces.

Rock Art can be in the form of rock paintings or rock engravings. The province of KZN is renowned for the prolific San rock painting sites concentrated in the Drakensberg. Rock art sites do occur outside the Drakensberg including the Msinga area, however, these sites have not been afforded similar research attention as those sites occurring in the Drakensberg. Four rock art sites occur within 2km to the north of the proposed housing development. The GPS coordinates for these important archaeological sites are as follows:

- S 28° 31' 07.65" E 30° 21' 51.40",
- S 28° 29 19.95" E 30° 28' 21.88",
- S 28° 29' 15.42" E 30° 28' 15.20", and
- S 28° 29' 12.15" E 30° 28' 16.54".

5.2 Iron Age

5.2.1 Early Iron Age (EIA)

Unlike the Stone Age people whose life styles were arguably egalitarian, Iron Age people led quite complex life styles. Greater dependence on agriculture necessitated more sedentary settlements. They cultivated crops and kept domestic animals such as cattle, sheep, goats and dogs. Pottery production is also an important feature of Iron Age communities. Iron smelting was practised quite significantly by Iron Age society as they had to produce iron implements for agricultural use. However no smelting sites were discovered in the study area; northern KZN is rich in abandoned iron smelting sites (Maggs, 1989). Although Iron Age people occasionally hunted and gathered wild plants and shellfish, the bulk of their diet consisted of the crops they cultivated as well as the meat of the animals they kept.

EIA villages were relatively large settlements strategically located in valleys beside rivers to take advantage of the fertile alluvial soils for growing crops (Maggs, 1989). The EIA sites in KZN date to around AD 500 to AD 900. Extensive research in the province, in the greater Weenen and Muden areas, of this period led to it being divided in the following time lines according to ceramic styles (Maggs, 1989; Huffman 2007):

- Msuluzi (AD 500);
- Ndondondwane (AD 700 – 800);
- Ntshekane (AD 800 – 900).

The archaeological data base of the KwaZulu-Natal Museum indicates that ten Early Iron Age sites occur in the Tugela Valley catchment area. Here they are situated at altitudes below 1000m adjacent to the Mooi, Mhlopeni and Msuluzi Rivers. The well-known and researched sites of Mhlopeni and Magogo (Maggs & Ward 1984), occurs approximately 40km to the south west of the project area.

5.2.2 Late Iron Age (LIA)

The LIA is not only distinguished from the EIA by greater regional diversity of pottery styles but is also marked by extensive stone wall settlements. However, in this part of the world, stone walls were not common as the Nguni people used thatch and wood to build their houses. This explains the failure to obtain sites from the aerial photograph investigation of the study area. Trade played a major role in the economy of LIA societies. Goods were traded locally and over long distances. The main trade goods included metal, salt, grain, cattle and thatch. This led to the establishment of economically driven centres and the growth of trade wealth. Keeping of domestic animals, metal work and the cultivation of crops continued with a change in the organisation of economic activities. Evidence for this stems from the fact that iron smelting evidence was not found in almost every settlement (Maggs, 1989; Huffman 2007). Later Iron Age sites have been recorded in the greater Tugela Valley catchment area. The majority of these were most probably inhabited by early Nguni-speaking agropastoralists before the Shakan era in the beginning of the 19th century. However, despite the occurrence of numerous sites in this area they, in contrast with the Early Iron Age sites, have not been well researched. Two Later Iron Age sites occur within 1km from the project area.

5.3 Archaeological Sites Located During Survey

The Phase One Heritage Impact Assessment identified one archaeological site, a Middle Stone Age occurrence, in a large donga in the eastern section of the project area (Table 2). No additional sites were located during subsequent visits to the project area. There was also no need for further follow-up work in terms of the archaeological resources of the project area.

Table 2: Archaeological Sites Located During Survey

Site no	Site description	GPS Coordinates	Rating	Mitigation per individual site
MSA Site (Figs 9-11)	A series of dongas covering an area of approximately 200m x 350m occurs directly adjacent to the road leading to Cwaka Village. Various Middle Stone Age tools have been exposed by the dongas or have been washed down from the mountain directly above (Figs 9-11). The stone age tools include cores, blades and flakes. All the tools observed are made of indurated shale and they are heavily patinated. They are out of context and of little research value. No other cultural or faunal material has been observed on the site.	S 28° 45' 52.86" E 29° 41' 06.05"	Low to Medium. The site has little research value as it is out of context. In addition better Middle Stone Age sites occur in Zululand.	Maintain a buffer zone of 20m around the site. Alternatively motivate for a Heritage Specialist to conduct the required Heritage Processes / Permits. This will also include mapping and a surface collection of the cultural material, before destruction of the actual site.

6 HISTORIC PERIOD

Oral tradition is the basis of the evidence of historical events that took place before history could be recorded. This kind of evidence becomes even more reliable in cases where archaeology could be utilised to back up the oral records. Sources of evidence for socio political organization during the mid-eighteenth to early nineteenth century in the study area and the larger former Natal Province suggest that the people here existed in numerous small-scale political units of different sizes, population numbers and political structures (Wright & Hamilton, 1989). This period was largely characterised by rage and instability as political skirmishes broke due to the thirst for power and resources between chiefdoms. During the 2nd half of the eighteenth century, stronger chiefdoms and paramouncies emerged. However, these were not fully grown states as there was no proper formal central political body established.

This changed in the 1780's when a shift towards a more centralized political state occurred. This shift was mainly characterized by population growth and geographical expansion of states. The most important and largest and strongest states at the time were the Mabhudu, Ndwandwe and Mthethwa. However, other smaller states, also established themselves in the area. These included in the south the Qwabe, Bhaca, Mbo, Hlubi, Bhele, Ngwane and many others (Wright & Hamilton, 1989). The greater Msinga area was inhabited by the Thembu and Mchunu clans. The Zulu kingdom, established by King Shaka, however remained the most powerful in the region in the early years of the 19th century. Shaka fought ruthlessly and often defeated his rivals and conquered their cattle, wives and even burnt their villages. These wars

are often referred to as Difaqane and this period was characterised by rage and bloodshed. Shaka was assassinated in 1828 at which time he had transformed the nature of the society in the Natal and Zululand regions. He was succeeded by Dingaan (Wright & Hamilton, 1989). The location of the Tembu and Mchunu in the greater project area is a direct result of the expansionistic policies of the King Shaka. Colonial and Apartheid-era policies in more recent years contributed tremendously to the high incidence of faction fighting and interpersonal violence that his area has been experiencing (Clegg 1979).

Dutch farmers, unhappy with the British rule in Cape Town, decided to explore into the interior of the country, away from British rule. Some groups remained in the Eastern Cape, others kept going and a few settled in the Orange Free State and the Transvaal. A great number, led by Piet Retief and Gerrit Maritz, crossed the Drakensberg into Natal.
Here they encountered the Zulus who lured them into a trap and brutally massacred many of them. This was only one of the many failures of the white settler expeditions in the frontier areas and when the shocking news reached the Cape, more groups were sent to the interior to revenge. A series of battles were fought but the most notable was the Battle of Blood River in 1838 where the Boers defeated the Zulus. This ended the Zulu threat to the white settlers and a permanent and formal settlement in Natal was established. However the Zulu kingdom remained independent for a couple of decades.

The Republic of Natalia was annexed by the British in 1845 and in 1879 the Zulu kingdom was also invaded (Wright & Hamilton, 1989). The Anglo-Zulu War has been well recorded and an important occurrence took place at Keates Drift and Jamesons Drift, to the immediate south the project area, when a few British soldiers attempted to cross the Tugela River after their defeat at the battle of Isandlwana. Although no relicts or artefacts survive from this encounter the surrounding landscape is still imbued with the meaning of this important period in the colonial history of KwaZulu-Natal. The Bambata Rebellion of 1906 saw various incidents in the close vicinity of the project area. The most significant is perhaps the Bambata Rock Ambush that occurs approximately 30km to the south of the project area.

Napier, Built Heritage Specialist, (Appendix 1) also indicated that the history of the people of Msinga District includes the history of the Natal transport routes, established in the 1890's by the British in their quest to gain territory during the Anglo-Zulu and Anglo-Boer Wars. The main railway line from Pietermaritzburg reached Greytown where supplies had to be transported to outlying areas by wagon or cart. The wagon route through Msinga crossed the Tugela by pont or ferry (where the town Tugela Ferry is situated) and over the Msinga Mountain, on route to

the project area, to the towns of Pomeroy and Dundee. A few permanent structures were built along these routes to serve the troops and travellers, these structures were very different from the vernacular buildings in material and construction, as they were commissioned by the British and in some cases built by foreign prisoners of war. The stores were used by the local people and store-owners began to stock wares for the local market. They became known as Trading Stores and they played an important part in the lives of travellers and the local people alike. They were often the only connection to the nearest town and the only supplier of certain products (Appendix 1).

6.1 Historical Sites located during the Survey

The Phase One Heritage Impact Assessment (Prins 2017) identified four potential historical sites in the project. However, subsequent research by Napier (built heritage specialist) indicated that only one of these, a trading store (no 2) is older than 60 years old and is therefore protected by Heritage Legislation under General Protection (Appendix 1). No mitigation is needed for Trading Stores 1, 3 and 4 identified in the Phase 1 Report. The consultant also located another heritage structure, an old bus stop, purported to be older than 60 years (ibid). The context of these two historical sites is summarised in Table 3.

Table 3: Historical Site Description and Context

Site no	Site description	GPS Coordinates	Rating	Mitigation per individual site
Trading Store 2 (Fig 13)	A partially burnt-out trading store situated adjacent to the R33. The store is not in use. It covers an area of approximately 20m x30m. Rectangular stone building with narrow front veranda, symmetrical facadeand remains of plastered clay brick square gable and lean-to veranda. Remains of back (original stone) and side rooms (later addition). Main building constructed of local cut dark grey stone and dressed sandstone for window cills, quoining and lintols. The front facade has been previously white-washed. Timber window frames (burnt). Veranda pillars built of clay bricks	S 28° 45' 42.69" E 20° 40' 47.94"	Medium to high (Table 3). These trading posts dates back to the early decades of the 20th century. They are relatively abundant in rural areas of KwaZulu-Natal. However, they have never been systematically researched and our knowledge base regarding their historical and cultural context is limited (Whelan 2001).	This building may not be demolished or altered under any circumstances. Maintain a buffer zone of 20m around the site. Trading store 2 should be retained and incorporated into the development either as a public building or for retail. .

	(Dundee brick) and Mock Ashlar mud block (Keates Drift blockyard). Damaged by fire, back walls collapsed. The building is older than 60 years old as indicated by aerial photographs of the area (Appendix 1). .It appears to have been built between 1890 and 1900.			
Bus Stop (Appendix 1).	Small rectangular storehouse of Mock-ashlar mud block construction, monopitch sheet roof and steel windows and timber door. Context : Situated on the North-Eastern corner of the intersection of the Msinga Top road and the R33, close to the road. Older than 60 years old (Appendix 1)	S 28° 39' 14.6" E 30° 28' 04.0"	Medium to high (Table 3). It has oral history attached to it and is also socially significant.	This bus stop may not be demolished or altered. Maintain a buffer zone of 20m around the site. This structure should be retained and incorporated into the development either as a public building or for retail.

7 GRAVES

Three grave sites were located during the Phase One Heritage Assessment (Table 4). No additional graves have been located although it is possible that more 'invisible" graves may be encountered with the development of the area. The consultant interviewed local residents and family members of the deceased at the grave sites. All the residents agreed that the grave sites may not be removed to make way for the proposed town development. The possibility of translocating the graves to a well demarcated Town Cemetery was also mentioned but none of the residents were happy with this idea. In fact, it was mentioned that the ancestors would be unhappy should the graves be moved. There was also a feeling that the ancestors would object if the local traditional homestead spatial layout and vernacular architecture is changed in order to make way for the proposed town development. All the grave-yards located are situated adjacent to traditional Zulu homesteads and forms an integral spatial unit with the latter (see Fig 18).

It is important to take note of the fact that all graves, old and new, are protected by provincial heritage legislation in KwaZulu-Natal. A strict protocol must therefore be followed should the developer decide to exhume and translocate any graves (Appendix 3). A community liaison process has to be initiated before Amafa, the provincial heritage agency, may consider issuing any grave removal permit.

Table 4: Grave Description and Context

Site no	Site description	GPS Coordinates	Rating	Mitigation per individual site
Graveyard 1 (Fig 16)	A graveyard consisting of 20 individual graves occur approximately 20m from the side of the road. These graves are all unmarked and indicated by neatly packed stone heaps. The graves are clustered together in an area of approximately 20m x 30m. Each grave covers an area of approximately 2m x 1.8m. The majority of these graves appear to be older than 60 years old. However, it is important to note that all graves are protected by provincial heritage legislation in KwaZulu-Natal.	S 28° 39' 28.15" E 30° 29' 17.34"	Locally high (Table 3) as these graves are still visited by relatives of the deceased.	Maintain a buffer zone of 30m around the site. Alternatively motivate for a Heritage Specialist to conduct the required Heritage Processes / Permits. This will include the application of a permit from Amafa and a potential grave exhumation and reburial exercise (Appendix 3). It is important to note that the relatives of the deceased, at this stage, do not want to move these graves elsewhere. However, they may change their opinion should the developer identify suitable alternatives. An intensive community liaison process must be followed in order to identify alternative options.
Graveyard 2 (Fig 17)	A cluster of ten individual graves situated approximately 10m from the side of the road in the western section of the footprint. The cluster covers an area of approximately 20m x 20m. Each grave cover an area of approximately 1.6m x 2m. All the graves are unmarked and indicated by heaps of stones. The graves are clearly associated with the homesteads situated adjacent to them. It appears that all the graves are relatively young (younger than 60 years old). They are protected by provincial heritage legislation.	S 28° 39' 22.51" E 30° 27' 02.48"	Locally high (Table 3). The graves are still visited by family members of the deceased.	Maintain a buffer zone of 30m around the site. Alternatively motivate for a Heritage Specialist to conduct the required Heritage Processes / Permits. This will include the application of a permit from Amafa and a potential grave exhumation and reburial exercise (Appendix 3). It is important to note that the relatives of the deceased, at this stage, do not want to move these graves elsewhere. However, they may change their opinion should the developer identify suitable alternatives. An intensive community liaison process must be followed in order to identify alternative options.
Graveyard 3 (Fig 18).	Two individual graves situated adjacent to each other. These graves are both marked with a formal head stone. The head stones and the graves are made/marked with concrete.	S 28° 39' 19.20" E 30° 26" 58.43"	Locally high (Table 3). The graves are still visited by family	Maintain a buffer zone of 30m around the site. Alternatively motivate for a Heritage Specialist to conduct the required Heritage Processes / Permits. This will

	Each grave covers an area of approximately 2m x 2.2m. They are both younger than 60 years old. However, they are protected by provincial heritage legislation.		members of the deceased.	include the application of a permit from Amafa and a potential grave exhumation and reburial exercise (Appendix 3). It is important to note that the relatives of the deceased, at this stage, do not want to move these graves elsewhere. However, they may change their opinion should the developer identify suitable alternatives. An intensive community liaison process must be followed in order to identify alternative options.

8 CULTURAL LANDSCAPES AND SENSE OF PLACE

The cultural landscape is an aspect of heritage not defined in the NHRA but nevertheless listed as part of the National Estate. A cultural landscape is "*a set of ideas and practices embedded in a place*" (Julian Smith and Associates Contentworks Inc., 2004) and serves to "*map our relationship with the land over time*" (The Cultural Landscape Foundation, 2015). While the cultural landscape is itself a heritage resource, it also unites the physical cultural resources of an area (tangible heritage) and its associated memories, perceptions, stories, practices and experiences (living heritage) in order to give a particular place or region its meaning. Because heritage sites are embedded in, and interwoven with, their landscape settings, the cultural landscape also gives these resources their sense of place and belonging through the provision of physical and metaphysical context (Müller & Gibbs, 2011). The concept of cultural landscape is thus very broad. Like the warp threads of a tapestry, the cultural landscape is the setting which holds together all the other aspects of heritage discussed in this chapter (Orton et al 2016).

It can be argued that the greater Msinga area is a rapidly transforming cultural landscape. The area has experienced an unprecedented levels of faction fighting and interpersonal conflict since the colonial era – if not before. These conflicts relate to access to land and rural resources (Clegg 1979; Cousins et al 2011). The literature suggests that most of this conflict took place to the immediate south of the project area – especially in the borderlands of amaCunu and amaThembu settlement. However, interviews with residents in the area indicated that in the past these conflicts spilled over into the project area as well. Such socio-

political factors led to an intensification of tradition and the various expressions thereof on the ground.

Some of the very tangible outflows relate to the production of cultural crafts and material culture such Zulu pottery (Fowler 2006), beadwork, and traditional age grade clothing amongst some of the traditional women of the area (Jolles 1993). For many years the greater Msinga area, including the project area, has been frequented by collectors of African art as well as academics with an interest in Zulu material culture. Large portions of the Zulu material culture collections of the KwaZulu-Natal Museum and the Provincial Museum Services hail from this area. The area is widely recognised as a treasure trove of Zulu material culture and related indigenous knowledge.

In addition, some Zulu (amaThembu) homesteads in the project area still follows the traditional 'dispersed Nguni settlement pattern' (as was practised in precolonial times) with an emphasis on the centrality of the cattle byre to the homestead layout (Fig 9). However, a comparison of aerial photographs of the area taken during 1940 with contemporary Google aerial photographs clearly indicates the rapid transformation of the traditional Nguni dispersed settlement pattern into more modern versions during the last 70 years or so. Traditional vernacular architecture still occurs in the area (Whelan 2001). However, it is rapidly disappearing in more urban and peri-urban settings where it is replaced by western inspired buildings. The general area therefore forms part of a unique, though rapidly changing cultural landscape. This change is very evident in the project area (Fig 15).

The consultant conducted random interviews with residents on the ground, as well as with traditional leaders in the area. All of them thought that the proposed town development in the project area was desirable. Some older residents express sadness on the fact that the traditional settlement layout of the area is disappearing. Some even thought that this may anger the ancestors. However, everyone agreed that the proposed development is necessary as it will provide more job opportunities to local people.

Traditional healers agreed that the proposed development would have an impact on the availability of medicinal plants in the project area but also thought that there are enough plant resources available immediately adjacent to the project area not to merit a crisis. It was also thought that grazing and browsing areas would not be compromised as there was enough grazing areas available in the near environs of the proposed development. Wood cutters also thought that the woody resources of the area would not be severely compromised by the proposed development. Some residents said that they will simply go to Empangeni in order

to get indigenous wood for the making of traditional wooden crafts such as kieries, neck rests, and Zulu stools. Residents agreed that there was already a shortage of thatching grass in the area but indicated that some entrepreneurs are already selling thatching grass, obtained from elsewhere in Zulu-land, to local people. Firewood collectors thought that there is enough firewood available in the areas immediately adjacent to the proposed development. Again it was indicated that it will be possible to buy firewood should the local resources become depleted.

Some residents thought that the development may compromise the availability of clay resources in the near vicinity of water and that this may have an effect of the production of traditional clay fired pots in the area (Fig 14). However, it was also pointed out that the most important clay resources, used by traditional potters, occur south of the project area in the near vicinity of Keates Drift. It was felt that the proposed development will not have any effect on these. In fact, potters interviewed favoured the proposed town development as they felt that it would provide them with new markets in order to sell their wares.

In conclusion, here was an acknowledgement that the town development would alter the cultural landscape in the immediate environs of the proposed development. However, there was also a feeling that the larger cultural landscape of the greater Msinga area would still remain rather intact. The consultant also noticed that rapid change was already taking place in the project area and that development should most probably take preference to the protection of a marginal heritage in this specific area.

9 LIVING HERITAGE

Living (or intangible) heritage encompasses all those ideas, traditions, customs and memories that are passed from generation to generation. It includes things such as language, folklore, traditional medicine and healing, music, songs, dances and recipes. Skills and practices related to the local economy, such as sheepherding, animal husbandry and transhumance between summer and winter grazing areas, are also important because without them, early African and colonial settlers and even modern day small-scale subsistence farmers would never have survived. These are all things that contribute to the identity of a group (Orton et al

2016). The Department of Arts and Culture (2009:5) defines living heritage as "*cultural expressions and practices that form a body of knowledge and provide for continuity, dynamism, and meaning of social life to generations of people as individuals, social groups, and communities*." Part of the importance of living heritage is that it helps to create a new national identity and promotes heritage that was repressed by missionaries, colonists and the apartheid regime (Department of Arts and Culture, 2009).

The living heritage of the project area has not been researched and is not represented in any data base. However, it is was felt that systematic ethnographic surveys of the project area may produce natural and man-made features with living heritage values. The consultant did not find any natural sites with living heritage values in the project area. Traditionalists pointed out that water pools in the two watercourses on either side of the project area were frequented by Zulu diviners (izangoma) in former times. These were most probably used in the training of initiate diviners. However, these water courses have dried up in recent years and they have lost their living heritage values (Fig 21).

The only living heritage site in the project area is the Shembe place of worship (church) situated in the centre of the project area adjacent to the R 33 (Table 5) (Figs 19 & 20). Members of the Shembe Church, including its Executive Council, indicated that the Church should remain at its present abode. It was indicated that the Church was a holy place and that its present location was a result of divine guidance. The results of this study therefore indicate that it would not be advisable for the developers to move or demolish the Shembe Church. A lengthy community liaison process must be initiated should the developers wish to alter or move this heritage site.

Table 5: Living Heritage Site

Site no	Site description	GPS Coordinates	Rating	Mitigation per individual site
Shembe Site of Worship (Figs 19 & 20).	A Shembe site of worship consisting of a stone circle with white painted rocks. Two trees are strategically left in the middle of the circle. The stone circle covers an area of approximately 30m x20m. It is situated directly adjacent to the R33 near Trading Store 2. It is in use and is	S 28° 39' 17.69" E 30° 28' 2.28"	Locally significant (Table 3). The site is in use by members of the local community.	Maintain a buffer zone of 20m around this site. Community members indicated that this Church may not be moved or altered by the developers. Any potential alteration will need an involved

	classified as a 'living heritage site'.			community liaison process.

Table 6: Evaluation and Statement of Significance of Heritage Sites or Features on the Footprint

Significance criteria in terms of Section 3(3) of the NHRA		
	Significance	Rating
1.	Historic and political significance - The importance of the cultural heritage in the community or pattern of South Africa's history.	Low to medium (Middle Stone Age Site)
2.	Scientific significance – Possession of uncommon, rare or endangered aspects of South Africa's cultural heritage.	Low to medium (Trading Store)
3.	Research/scientific significance – Potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage.	Low to medium (Trading Store)
4.	Scientific significance – Importance in demonstrating the principal characteristics of a particular class of South Africa's cultural places/objects.	Low (all heritage sites identified in this study)
5.	Aesthetic significance – Importance in exhibiting particular aesthetic characteristics valued by a community or cultural group.	Low (vernacular architecture)
6.	Scientific significance – Importance in demonstrating a high degree of creative or technical achievement at a particular period.	None
7.	Social significance – Strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.	The grave sites are all of local significance to the local communities in the project area. The Shembe Church is of local significance to the local community.
8.	Historic significance – Strong or special association with the life and work of a person, group or organization of importance in the history of South Africa.	None
9.	The significance of the site relating to the history of slavery in South Africa.	None.

9.1 Site selection criteria to consider in the detailed impact assessment

The following areas may contain heritage sites and should be avoided where possible:

- Sandstone outcrops and ridges may contain shelters with archaeological material including rock art. These areas are also sensitive in terms of paleontological occurrences. Sandstone geological formations only occur in the extreme western section of the project area. However, the consultants could not find any heritage sites in the sandstone outcrops in this section of the project area.
- Bodies of natural and unpolluted water such as certain pools, waterfalls and rivers/streams may also have 'living heritage' values associated with the indigenous "symbolic water complex". However, all the pools and streams in the actual project area have dried-up and have lost any 'living heritage' values formerly attached to them.
- Later Iron Age and historical stone walled structures may be situated in the near vicinity of rocky outcrops and boulders. These would have provided the source material for building settlements (stone walling) in the past. No such structures, other than the Trading Stores, were found within the project area.
- Structures relating to the Anglo-Zulu War and the early colonial period may occur in the area. However, none were found in the actual project area.
- Graves belonging to the local community do occur in the project area. These are typically indicated by stone heaps or formal and informal grave stones. A buffer zone of at least 30m must be maintained around all graves. No development may occur within the buffer zone. Should it not be possible to respect a buffer zone then the developer may motivate for a Heritage Specialist to investigate / conduct the necessary processes and / or permits required for grave exhumation and reburial (Appendix 3).

10 STATEMENT OF SIGNIFICANCE (HERITAGE VALUE)

10.1 Field Rating

- The **Middle Stone Age Site** has been rated as **Generally Protected B**.
- **Trading Store 2** has been rated as **Generally Protected A**.
- The old **Bus Stop** has been rated as **Generally Protected A**.

- The **Shembe Site of Worship** (Church) has been rated as **Generally Protected A**.
- All the **graveyards** have been rated as **Generally Protected A**.

Table 7: Field Rating and Recommended Grading of Sites (SAHRA 2005)

Level	Details	Action
National (Grade I)	The site is considered to be of National Significance	Nominated to be declared by SAHRA
Provincial (Grade II)	This site is considered to be of Provincial significance	Nominated to be declared by Provincial Heritage Authority
Local Grade IIIA	This site is considered to be of HIGH significance locally	The site should be retained as a heritage site
Local Grade IIIB	This site is considered to be of HIGH significance locally	The site should be mitigated, and part retained as a heritage site
Generally Protected A	High to medium significance	Mitigation necessary before destruction
Generally Protected B	Medium significance	The site needs to be recorded before destruction
Generally Protected C	Low significance	No further recording is required before destruction

12 PALEONTOLOGY

The Palaeontologist reports that the proposed development can proceed to the next stage as no palaeontological material was observed within the underlying bedrock exposed along the very eastern edge route of the project area (Appendix 2). Whilst it is possible that fossils may be present, the site plan indicates that minimal development is taking place along this section. Furthermore, due to the fact that this zone is located on the lower slopes of a mountain the topography are not an ideal location for any significant development. If construction activities necessary for meeting the objectives of this project should include digging or significant earth moving in this area in order to provide bulk services along this strip (e.g. trenches for pipelines) site inspections by a qualified palaeontologist will be necessary in the future to monitor the exposed bedrock as this area is the one most likely to yield fossil material.

Infrastructure upgrades should therefore proceed with caution, and in a sensitive manner, as heavy machinery may expose fossils not visible during the ground survey. This is especially the case along the eastern boundary of the project area. If it is necessary to dig trenches for the construction of canals or the installation of pipelines along this section, a Palaeontologist would need to conduct a site inspection to evaluate the fossiliferous potential of the bedrock being exposed. Drainage lines and their associated floodplain deposits are also sensitive zones for possible archaeological and/or palaeontological material, where it is preferable to leave a buffer zone of at least 32m from a watercourse in order to preserve possible records of the past trapped within overbank deposits.

If the excavation activities of heavy earth moving equipment should reveal palaeontological material, construction should halt immediately. The relevant heritage resources agency would need to be informed and a field Palaeontologist would be required to visit the site to evaluate possible fossil discoveries (Appendix 2).

13 RECOMMENDATIONS

The project area contains a number of heritage sites that requires mitigation. In order to protect the integrity of these sites the following recommendations must be adhered to:

- Strictly maintain a buffer zone of 20m around the Middle Stone Age Site.

- Strictly maintain a buffer zone of 30m around each of the three identified grave yards. These sites may not be removed or altered without an Amafa permit.
- Strictly maintain a buffer zone of 20m around Trading Store 2. This site may not be removed or altered without additional processes / permits by a 'built heritage specialist'.
- Strictly maintain a buffer zone of 20m around the old Bus Stop. This site may not be removed or altered without additional processes / permits by a 'built heritage specialist'.
- Strictly maintain a buffer zone of 20m around the identified Shembe Church. This site may not be removed or altered without an intensive community liaison process being followed.
- No construction structures, equipment or vehicles may be stored within these buffer zones.
- No material or structures may be altered or removed from these buffer zones and the identified heritage sites.
- No access roads may be constructed on the identified heritage sites.
- Any deviations from these stipulations (above) will require a Heritage Specialist (suitable Amafa registered heritage practitioner) to conduct the required Heritage Processes / Permits. This also applies to the grave sites.
- The development may proceed from a paleontological perspective. However, if construction activities should include digging or significant earth moving in the extreme eastern section of the project area, within the sandstone zone, (see map in Appendix 2) site inspections by a qualified palaeontologist will be necessary in the future to monitor the exposed bedrock as this area is the one most likely to yield fossil material.
- It must be noted that the Provincial Heritage Act requires that operations exposing paleontological material, archaeological sites, historical residues, as well as graves, should cease immediately pending an evaluation by the heritage authorities.

14 MAPS AND FIGURES

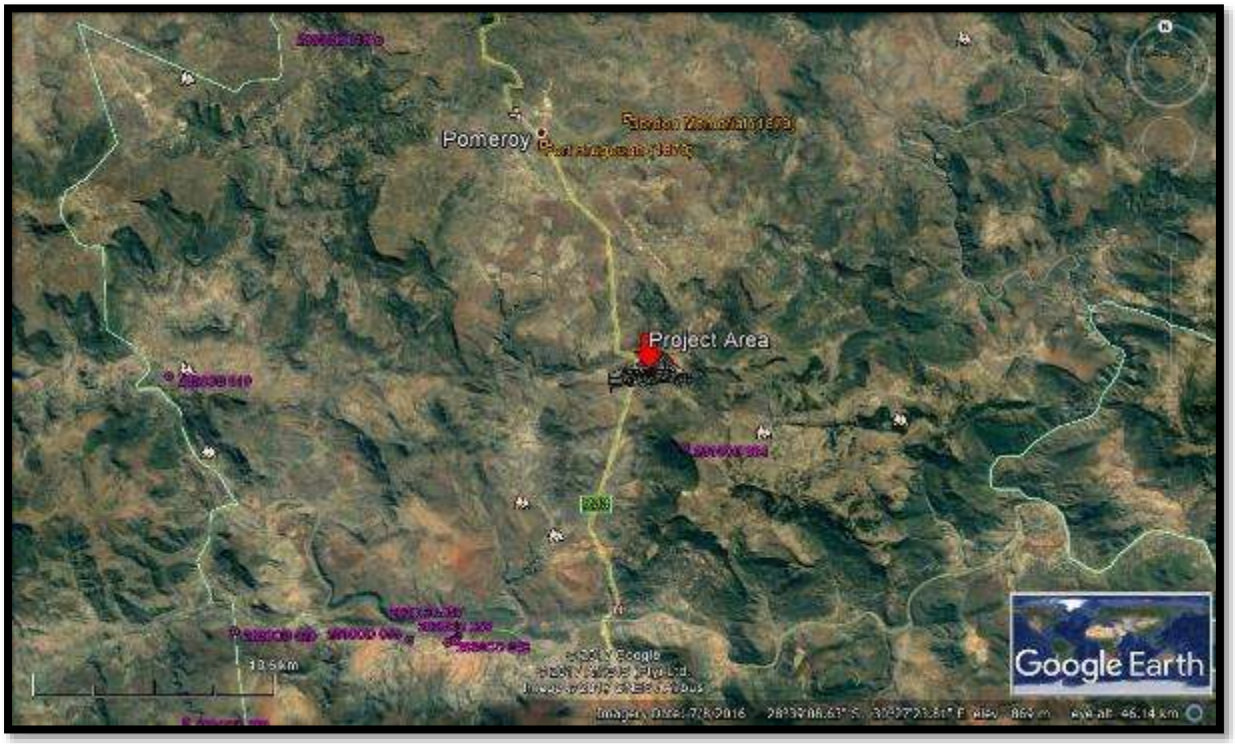

Figure 1. Google Earth Imagery showing the location of the project area. The yellow and purple polygons indicate the location of known heritage sites in the bigger area. None occur in the project area as such.

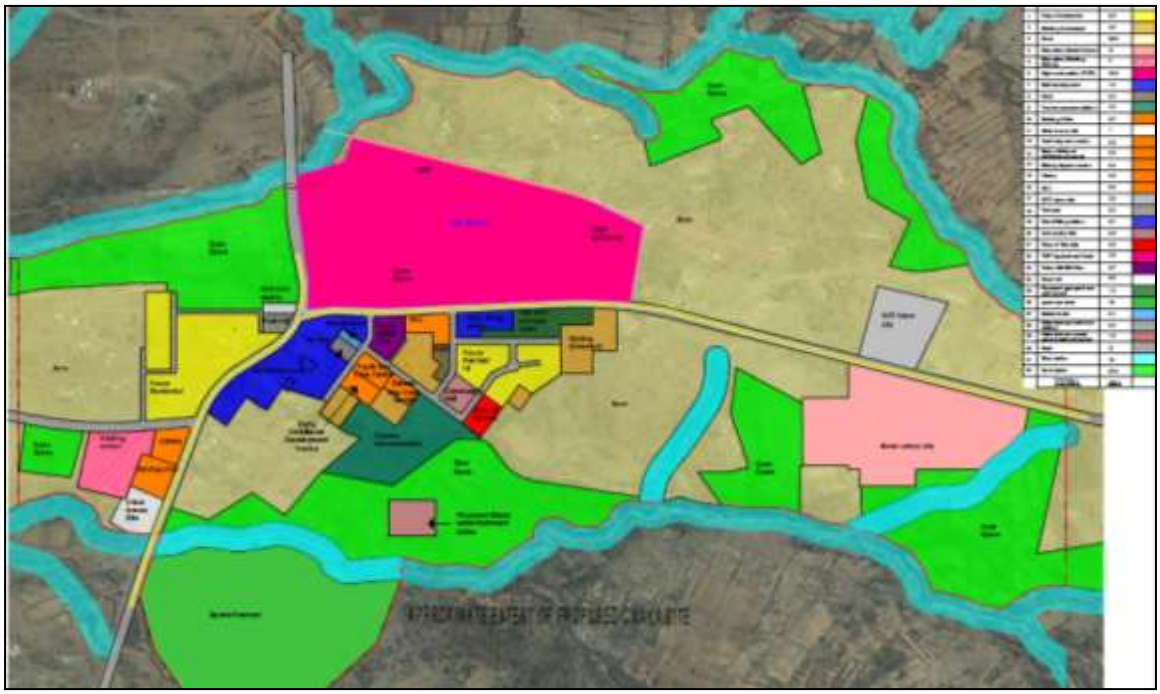

Figure 2. Map of the proposed Msinga Housing Development (Source: Green Door).

Figure 3. Google Earth Imagery showing the distribution of known heritage sites (red markers) in the project area.

Figure 4. Google Earth Imagery showing the location of heritage sites in the eastern section of the project area.

Figure 5. Google Earth Imagery showing the distribution of heritage sites in the central section of the project area.

Figure 6. Google Earth Imagery showing the distribution of heritage sites in the western section of the project area.

Figure 7. View over the north eastern section of the project area.

Figure 8. View of the south western section of the project area.

Figure 9. Traditional Zulu (Mthembu) homestead overlooking erosion dongas containing Middle Stone Age artefacts. The homestead still reflects the traditional Nguni dispersed settlement pattern that predates the colonial era.

Figure 10. Middle Stone Age flake made from indurated shale.

Figure 11. Middle Stone Age Core made from indurated shale.

Figure 12. Trading Store 2. This building is older than 60 years old and is protected by heritage legislation (Appendix 1).

Figure 13. Community members, including traditional leaders, interviewed at the Shembe Church (28 October 2018).

Figure 14. Traditional Zulu clay vessels observed in a homestead in the project area.

Figure 15. View over the central section of the project area. Modern western-style housing has replaced traditional Zulu homesteads over most of this area.

Figure 16. Graveyard 1

Figure 17. Graveyard 2

Figure 18. Graveyard 3.

Figure 19. Shembe place of worship.

Figure 20. White painted stones indicate the entrance to the Shembe place of worship.

Figure 21. All the watercourses in the project area have run dry. According to local residents these areas have lost all their cultural values in terms of the "indigenous symbolic water complex".

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APPENDIX 1: BUILD HERITAGE

PROPOSED NEW TOWN CENTRE DEVELOPMENT

at Cwaka, Msinga local and Mzinyathi regional district municipalities

KwaZulu Natal

PHASE 2 - HERITAGE IMPACT ASSESSMENT
Assessment of Structures

10 November 2018

PREPARED FOR:
Active Heritage CC

PREPARED BY:

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CONTENTS Page

1. BACKGROUND INFORMATION

Lindsay Napier Architect was appointed by Active Heritage CC to prepare the Phase 2 Heritage Impact Assessment of structures identified in the Phase 1 report of September 2017, as a guide for the planning of a new town centre at Cwaka, Msinga, Mzinyathi Region.

The Heritage Impact Assessment is carried out in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and following the requirements of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA) and the KwaZulu-Natal Heritage Act, 1997 (Act No. 4 of 2008)

Report details

Client Name :	Active Heritage CC
Consultants :	Frans Prins of Active Heritage CC Green Door Environmental
Document Title:	Heritage Impact Assessment of Development site at Cwaka, Msinga
Type of Development :	New town centre 416ha extent
Reference :	18-32
File Name :	18-32-Cwaka-HIA-2018-11-10
Address:	GPS coordinates : S 28° 39' 15.25" E 30° 28' 28.54"
Cadastral descriptions:	-----
Municipality:	Msinga local and Mzinyathi regional district municipalities

Reference Document :

Date	*Author*	*Title*
7 September 2017	Active Heritage CC. Frans Prins, MA-Archaeology	Cultural heritage impact assessment of the proposed Msinga new town centre development at Cwaka, Msinga local and Mzinyathi regional district municipalities, KwaZulu-Natal.

2. TERMS OF REFERENCE

In the Cultural Heritage Survey carried out in September 2017, four sites were identified as potential "Built Environment" Heritage sites. A Phase 2 Heritage Assessment was recommended if the development was to expand into these sites.

The report refers to the Provincial Heritage Resources (Amafa aKwaZulu Natali) Act, no 4 of 2008, which aims to protect heritage resources in Kwa Zulu Natal.

Chapter 8, Clause 33(1a): 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 prior written approval of the Council having been obtained on written application to the Council."*

A **Heritage Impact Assessment Report** of the development site generally covers the following:

1. *The identification and mapping of all heritage resources in the development site and in the surrounding area,*
2. *An assessment of the significance of the resources,*

3. *An assessment of the impact of the development on the resources,*
4. *An evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development,*
5. *Public consultation, and*
6. *Possible alternatives if the development adversely affects the heritage resources.*

As the time period allowed for the preparation of this Phase 2 report was limited, it is recommended that further research (1 above) and assessment should be done as part of a permit application process, if applicable, to the KZN Heritage Agency, Amafa. Public Participation (5 above) should also form part of this application process.

The report is an independent view and makes recommendations to the Heritage authority based on its findings. The Heritage authority will consider the recommendations and make a decision based on international conservation principles.

3. METHODS

Lindsay Napier is an architect experienced in assessment of protected buildings in KZN. She has previous experience in recording historic buildings, surveying townscapes and designing for protected buildings. The site was inspected by Lindsay Napier on 08 November 2018.

Satellite images from Google Maps and 1-MAP were used to establish the development of the area. Aerial photos were used to analyse the age of the structures. Research was conducted at the UKZN Architecture Library.

Publications, interviews and websites referenced:

1. “The Recent transmutation of the indigenous vernacular architecture of the people at KwaMthembu and KwaMchunu, Msinga District, KZN, SA” : University of Natal Masters of Architecture, Deborah Whelan 2001.
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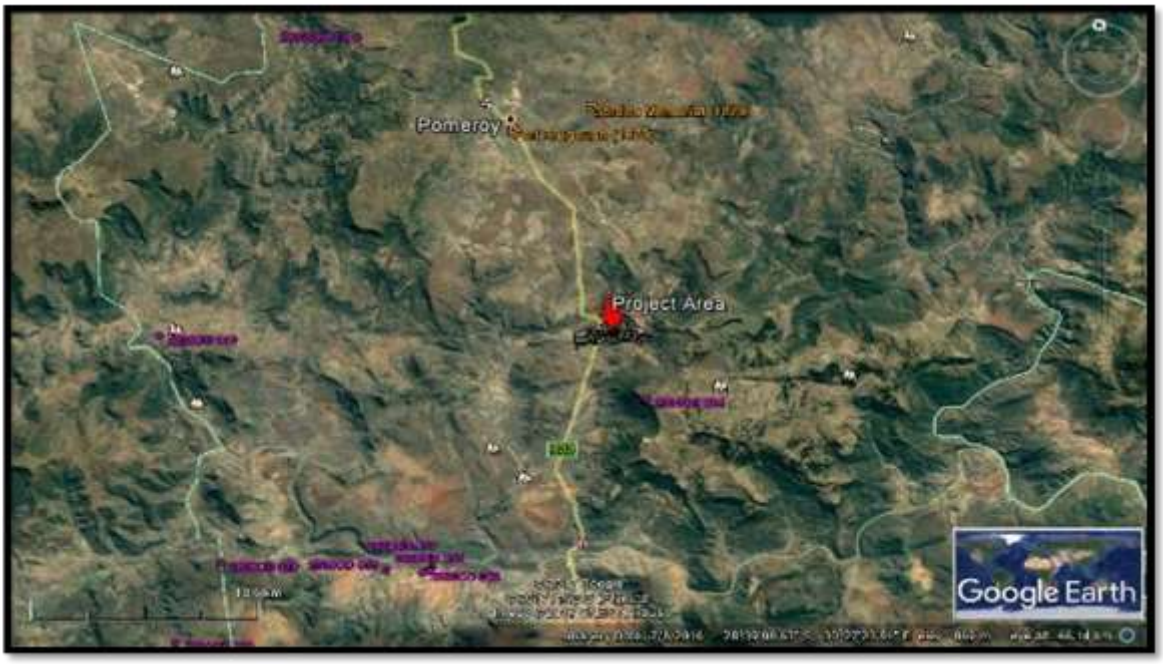
4. www.1map.co.za
5. www.googlemaps.com
6. www.kznpr.co.za Hugh Bland.
7. Musa Mntungwa, Cwaka, Msinga.
8. Dr. Deborah Whelan.

4. STUDY AREA AND LOCATION

The proposed development site is situated at Msinga approximately 14km to the north of Tugela Ferry adjacent to the R33. It is located within the Msinga Local Municipality and Umzinyathi District Municipality, KwaZulu-Natal. It is situated near the confluence of two watercourses and currently features primary and secondary roads, rural low density residential and small scale agricultural activity. The area is currently sparsely populated with scattered Zulu homesteads. The GPS coordinates for the centre of the project area are: S 28° 39' 15.25" E 30° 28' 28.54"



Built Heritage sites identified by Active Heritage CC: Trading Stores 1-4 and Shembe site.

Trading Stores 1-3 (TS-). Trading Store 4, South of the image.

Traditional homestead 2012 record photo: image courtesy of Hugh Bland.

5. HISTORICAL, CULTURAL AND SOCIAL SIGNIFICANCE

The Msinga area has been inhabited by Nguni-speaking people since the 16th century when the migratory clans moved Northwards and settled along the way. Traditional homesteads have evolved into a variety of traditional and modern forms.

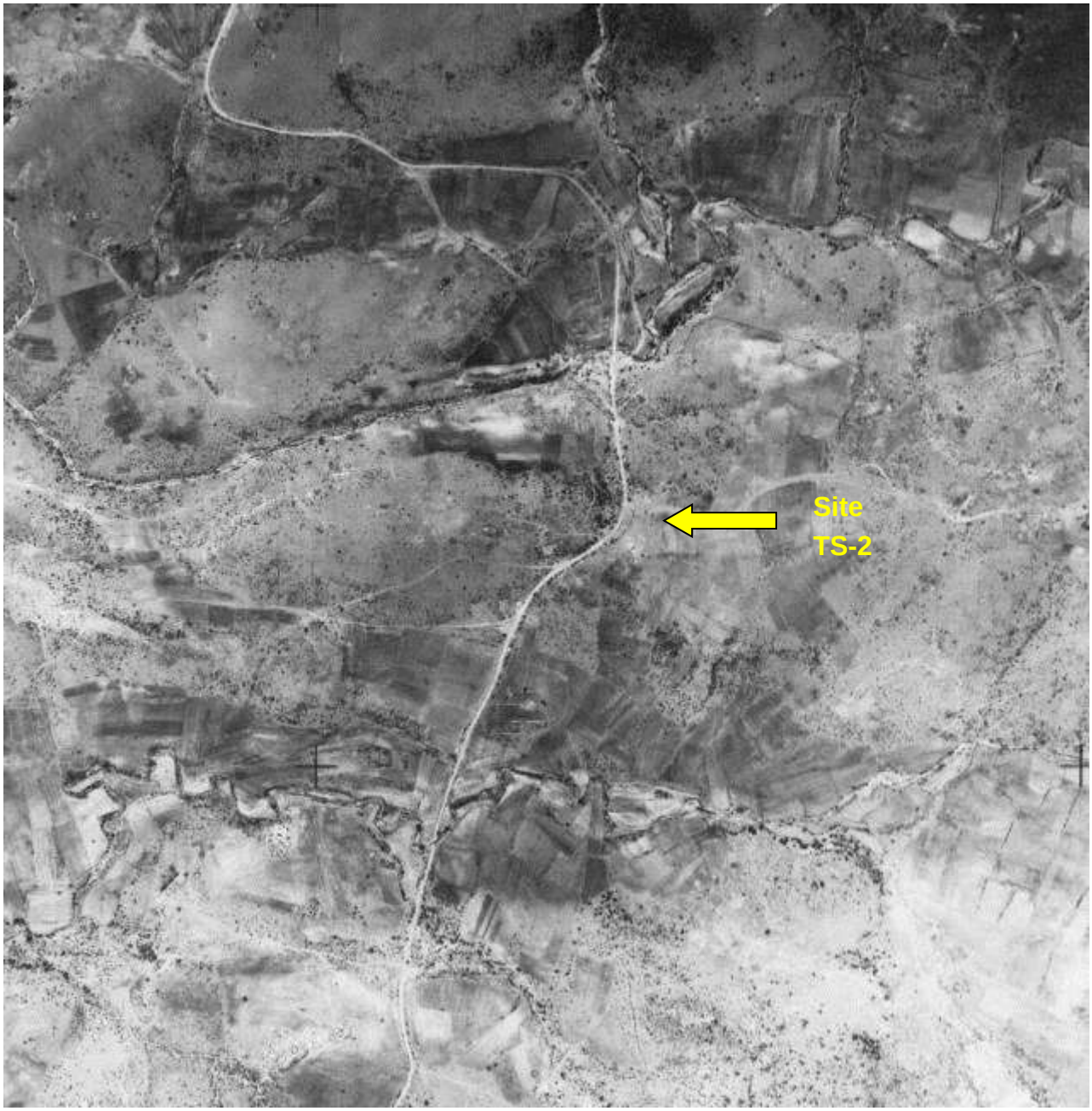
The Zulu people of the Msinga District have developed a vernacular architecture and form of decoration that has its origins in their culture, traditions and materials. Homesteads today still display these characteristics in amongst modern additions and interpretations of the vernacular. This transition of the built form is covered in the paper "*The Recent transmutation of the indigenous vernacular architecture of the people at KwaMthembu and KwaMchunu, Msinga District, KZN, SA*" by Deborah Whelan in 2001.

Unfortunately indigenous structures have a limited lifespan due to the nature of the building materials and their ability to withstand the climate, very few vernacular buildings have survived in their original form more than 60years. Added to this it is customary to continually maintain and replace materials and finishes in the homestead, therefore dating a structure in the Western sense has no meaning. Historical significance in the local culture is more commonly attributed to geographical features, graves and oral history.

Layered with the history of the people of Msinga District is the history of the Natal transport routes established in the 1890's by the British in their quest to gain territory during the Zulu and Boer wars. The main railway line from Pietermaritzburg reached Greytown where supplies had to be transported to outlying areas by wagon or cart. The wagon route through Msinga crossed the Tugela by pont or ferry (where the town Tugela Ferry is situated) and over the Msinga Mountain to the town of Pomeroy and Dundee.

A few permanent structures were built along these routes to serve the troops and travellers, these structures were very different from the vernacular buildings in material and construction, as they were commissioned by the British and in some cases built by foreign prisoners of war. The stores were used by the local people and store-owners began to stock wares for the local market. They became known as Trading Stores and they played an important part in the lives of travellers and the local people alike. They were often the only connection to the nearest town and the only supplier of certain products.

1911 South African railway map



Detail of AERIAL MAP of MSINGA circa 1940. Image courtesy of KZN Deeds Office archives.

TRADING STORE 1:

Eastern facade.

Mud-block construction.

Northern facade.

Looking North: view of the back of the building.

Built :	Post-1940 estimated date of construction 1980.
Last known name :	KwaMazibuko tuck shop.
Description :	Rectangular building, double pitch roof form with gables, single door and window, narrow veranda on street elevation. High level windows on sides. Constructed of mud block, cement plaster, steel frame windows. Rainwater tank plinth on rear corner. Structure damaged by fire.
Context :	Situated on the Msinga Top road, about 300m from the intersection with the R33. New trading stores (or "Tuck Shops") are located across and further up the Msinga top road.
Heritage status :	Not protected. Younger than 60years old. May be socially significant.
GPS ref :	S 28° 39' 15.9" E 30° 28' 06.2"

TRADING STORE 2:

Built :	Pre-1940 estimated 1890-1900.
Last known name :	KwaSithole tuck shop.
Description :	Rectangular stone building with narrow front veranda, symmetrical facade and remains of plastered clay brick square gable and lean-to veranda. Remains of back (original stone) and side rooms (later addition). Main building constructed of local cut dark grey stone and dressed sandstone for window cills, quoining and lintols. The front facade has been previously white-washed. Timber window frames (burnt). Veranda pillars built of clay bricks (Dundee brick) and Mock Ashlar mud block (Keates Drift blockyard). Damaged by fire, back walls collapsed.
Context :	The Eastern side of the property is occupied, including some remains of rondavels and other structures associated with the current homestead or previous family homes. The Shembe site identified in the reference document is situated to the South-West and in close proximity.
Heritage status :	Generally protected. Older than 60years. Socially significant. Stonework unique in the area.
GPS ref :	S 28° 39’ 17,55” E 30° 28’ 03.8”

TRADING STORE 2:

West facade (facing R33).

Nort-East corner.

Homestead and structures behind the store.

Interior wall.

Front wall and remains of veranda.

View from West side of R33 intersection.

2012 record photo: image courtesy of Hugh Bland.

TRADING STORE 3:

Built :	Post-1940 estimated date of construction 1990.
Last known name :	KwaMadondo tuck shop.
Description :	Rectangular building, mono-pitch roof form, narrow veranda on front elevation. High level windows on sides. Constructed of concrete block, cement plaster, steel frame windows.
Context :	Situated a distance from the road on the West side of the R33, accessed via a side road.
Heritage status :	Not protected. Younger than 60years old. Social significance only.
GPS ref :	S 28° 39’ 16.1” E 30° 27’ 58.4”

TRADING STORE 4:




Built :	Post-1940 estimated date of construction unknown.
Last known name :	"Canada" tuck shop no. 10266.
Description :	Rectangular building situated close to the R33 (East side), Mono-pitch roof form with square front gable, roofed narrow veranda on front elevation with square pillars. High level windows on sides. Constructed of concrete block or mud block, cement plaster, steel frame windows. Property fenced with the homestead behind the store.
Context :	Situated close to the road, about 450m South of the Msinga Top intersection (Shembe site). Children's creche adjacent (South) and Cwaka Health clinic opposite.
Heritage status :	Not protected. Current form younger than 60years old, but age of original footprint unknown. Socially significant and still in use as a trading store.
GPS ref :	S 28° 39' 26" E 30° 28' 53.5"

BUS-STOP/ DEPOT:

Built :	Pre-1940. Date of current structure unknown.
Description :	Small rectangular storehouse of Mock-ashlar mud block construction, monopitch sheet roof and steel windows and timber door.
Context :	Situated on the North-Eastern corner of the intersection of the Msinga Top road and the R33, close to the road.
Heritage status :	Might be protected. Socially significant.
Oral history :	Previously used for deliveries and temporary storage of goods.
GPS ref :	S 28° 39' 14.6" E 30° 28' 04.0"

6. ARCHITECTURAL / BUILT ENVIRONMENT SIGNIFICANCE

"*The Recent transmutation of the indigenous vernacular architecture of the people at KwaMthembu and KwaMchunu, Msinga District, KZN, SA*" by Dr.Deborah Whelan 2001 covers the history of the local vernacular of homesteads. Whelan records the traditional methods of construction and the influence of modern methods on the built form.

Local buildings are generally of "wattle-and-daub", river-stones and mud, mud block or cement plastered concrete block. Homesteads consist of a number of rondavels and outbuildings. Roofs were traditionally thatched and more recently constructed of sheet metal.
Trading stores and tuck-shop buildings were generally utilitarian buildings with a single room that served as the shop and storerooms or living quarters attached. The front facade typically displays the name and an advertisement on the wall or gable. The veranda was a common addition to provide a resting and meeting place. Trading Stores have become landmarks for the community and are often at taxi stops or an intersection.

The early trading stores are significant as lasting examples of materials and technology brought into the area, i.e. stone masonry, timber frames and dressed stone. In the case of Trading Store 2, local cut stone was used, bringing stone masonry skills to the local community. Later Trading stores followed the rectangular, gabled design that had become associated with a place of trade.

7. ASSESSMENT AND RECOMMENDATIONS

The following table is a summary of the significance statements in the report, measured on Local, regional, national and international importance (refer to Appendix A for explanations):

Significance	**Importance**			
	Local	Regional	National	International
Architectural	Low	Low	low	low
Historical	Low	medium	low	low
Technical	Low	medium	low	low
Scientific	Low	low	Low	low
Contextual	Low	low	low	low
Social	medium	medium	low	low

RECOMMENDATIONS:

- The above rating applies to the protected structures i.e. Trading Store 2.
- The Trading store 2 should be retained and incorporated into the development either as a public building or for retail.
- Should development extend into the immediate environs of Trading Store 2 then further survey of the immediate area around this store is necessary to identify remains of structures of the same age.
- Community consultation is necessary to measure the social significance of Trading store 2 and 4 and the Bus stop building.

SUMMARY:

Only one site (Trading Store 2 and potentially associated structures) is proven to be protected under the Heritage Act. The site is in close proximity to a religious site and should be considered for preservation in their current context i.e. along the transport route. Economic development is encouraged over the conservation of un-protected structures. The reuse of existing structures should be considered to retain the social significance of the sites.

There may be remains of other protected structures in the greater area. Attention is drawn to the South African Heritage Resources Act, 1999 (Act No. 25 of 1999) and the KwaZulu-Natal Heritage Act (Act no 4 of 2008) which, requires that operations that expose archaeological or historical remains should cease immediately, pending evaluation by the provincial heritage agency.

APPENDIX A: CONVENTIONS USED TO ASSESS THE IMPACT OF PROJECTS ON HERITAGE RESOURCES

Significance

According to the NHRA, Section 2(vi) the significance of heritage sites and artefacts is determined by it aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technical value in relation to the uniqueness, condition of preservation and research potential. It must be kept in mind that the various aspects are not mutually exclusive, and that the evaluation of any site is done with reference to any number of these.

Matrix used for assessing the significance of each identified site/feature:

1. **Historic value**
   - Is it important in the community, or pattern of history
   - Does it have strong or special association with the life or work of a person, group or organisation of importance in history
   - Does it have significance relating to the history of slavery
2. **Aesthetic value**
   - It is important in exhibiting particular aesthetic characteristics valued by a community or cultural group
3. **Scientific value**
   - Does it have potential to yield information that will contribute to an understanding of natural or cultural heritage
   - Is it important in demonstrating a high degree of creative or technical achievement at a particular period
4. **Social value**
   - Does it have strong or special association with a particular community or cultural group for social, cultural or spiritual reasons
5. **Rarity**
   - Does it possess uncommon, rare or endangered aspects of natural or cultural heritage
6. **Representivity**
   - Is it important in demonstrating the principal characteristics of a particular class of natural or cultural places or objects.
   - Importance in demonstrating the principal characteristics of a range of landscapes or environments, the attributes of which identify it as being characteristic of its class.
   - Importance in demonstrating the principal characteristics of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, province, region or locality.
7. **Sphere of Significance**

	International	National	Provincial	Regional	Local	Specific community
High						
Medium						
Low						

8. **Significance rating of feature**
   1. Low
   2. Medium
   3. High

Significance of impact:

- **low:** where the impact will not have an influence on or require to be significantly accommodated in the project design
- **medium:** where the impact could have an influence which will require modification of the project design or alternative mitigation
- **high:** where it would have a "no-go" implication on the project regardless of any mitigation

Certainty of prediction:

- Definite: More than 90% sure of a particular fact. Substantial supportive data to verify assessment
- Probable: More than 70% sure of a particular fact, or of the likelihood of that impact occurring
- Possible: Only more than 40% sure of a particular fact, or of the likelihood of an impact occurring
- Unsure: Less than 40% sure of a particular fact, or the likelihood of an impact occurring

Recommended management action:

For each impact, the recommended practically attainable mitigation actions which would result in a measurable reduction of the impact must be identified. This is expressed according to the following:

1 = no further investigation/action necessary
2 = controlled sampling and/or mapping of the site necessary
3 = preserve site if possible, otherwise extensive salvage excavation and/or mapping necessary
4 = preserve site at all costs
5 = retain graves

Legal requirements:

Identify and list the specific legislation and permit requirements which potentially could be infringed upon by the proposed project, if mitigation is necessary.

APPENDIX 2: PALEONTOLOGY

Paleontological Impact Assessment for the proposed development of the Msinga Cwaka New Town Centre, Msinga Local and uMzinyathi District Municipalities, KwaZulu-Natal

Conducted by Gary Trower (MSc in Environmental Management, UFS)

10 November 2018

Introduction

In terms of the National Environmental Management Act 107 of 1998, Section 38 (8) of the National Heritage Resources Act 25 of 1999 (sections 34-36), and the KwaZulu-Natal Heritage Act 4 of 2008 (sections 33 - 36), all aspects of heritage are protected. Proposed developments that are likely to impact on heritage resources (i.e. historical, archaeological, paleontological & cosmological) require a desktop and/or field assessment to gauge the importance of such resources (if present) in order to ensure that they are not damaged or destroyed during the construction process. If necessary, mitigation measures should be considered and if the observed heritage resources are ranked as highly significant and the proposed location cannot be shifted to a more suitable site, scientific researchers should be given the opportunity to excavate the site and recover as much of the material as possible.

The Msinga Cwaka New Town Centre is a regional project aimed at infrastructure development and the proposed improvements are intended to stimulate economic growth within Cwaka, which forms an important commercial and service centre for surrounding areas. The site falls under the Msinga Local Municipality, within the greater uMzinyathi District Municipality and is situated on the R33 just south of Gabela hill, half way between the towns of Pomeroy and Tugela Ferry (Figures 1-3). The proposed development comprises multiple facets, covering a total area of 416 ha. The development will take place in a region where the underlying bedrock is potentially fossiliferous, with a large portion of the site given a moderate sensitivity rating of green (in terms of paleontological material) and a very small portion on the periphery of the site given a high sensitivity rating of red. Therefore a ground survey of the landscape affected by the proposed development was required to ascertain the probability of encountering fossil specimens within geological units underlying the pathway of the proposed development, as well as to assess any other possible heritage resources which may be at risk.

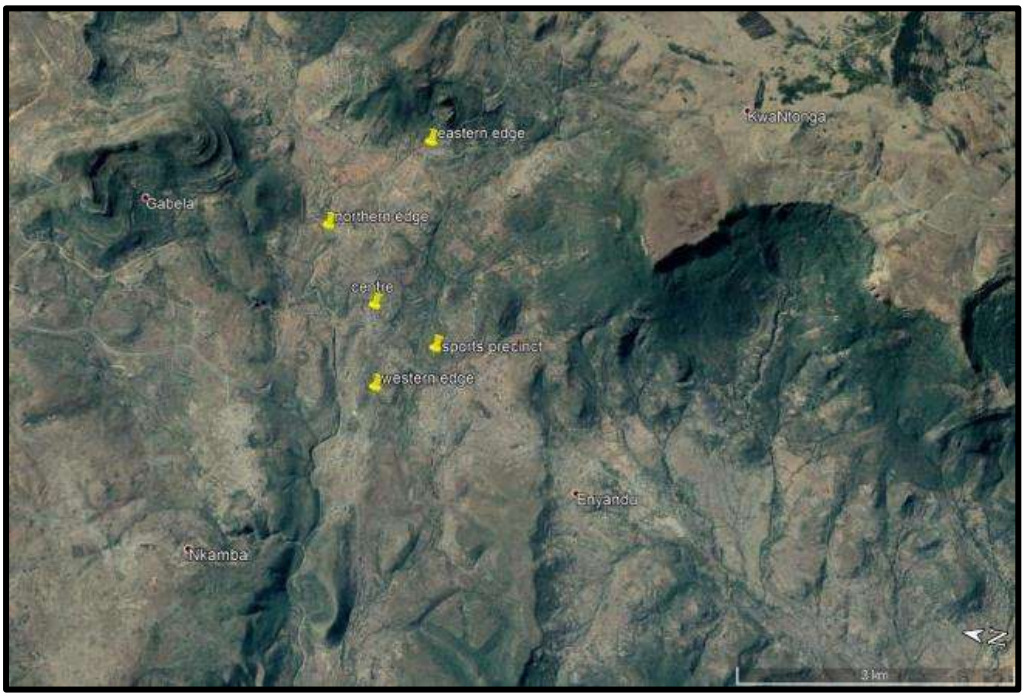


Figure 1: Looking east, satellite image showing an aerial view of the broader landscape where the proposed site of the Msinga Cwaka New Town Centre is located. The site sits on the gently undulating slopes of the valley floor where the underlying bedrock is dolerite and shales of the Pietermaritzburg Formation. North is to the left of the page. (Modified Google Earth image, DigitalGlobe 2018).

Figure 2: Looking north-east, satellite image showing the position of the site in the lower-lying areas. The proposed development will take place between the Cwaka and Nyandu Rivers at the base of Gabela hill. The elevation is set to 3 to exaggerate the topography of the landscape. North is approximately in the top left corner of the page. (Modified Google Earth image, DigitalGlobe 2018).

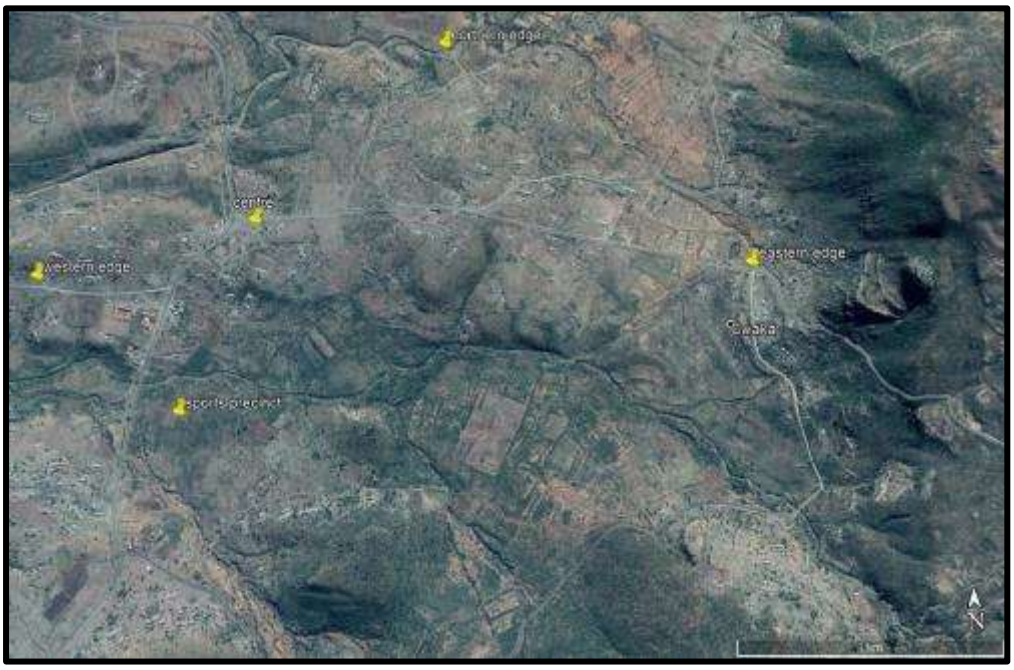


Figure 3: Looking north, satellite image showing an aerial view of the proposed site of the Msinga Cwaka New Town Centre. Shales of the Vryheid Formation are present on the very eastern edge of the proposed site and have a high sensitivity for fossils, but this section is located at the base of a steep hill where development will be minimal. North is at the top of the page. (Modified Google Earth image, DigitalGlobe 2018).

Geology

The geology in the landscape surrounding the site is dominated by Early Permian deposits of the Ecca Group (Figure 4). This geological unit accumulated as fine-grained siltstones and medium to coarse grained sandstones along the floor and edges of a giant inland sea. The sea was being fed by several rivers, representing a complex system of thriving palaeo-ecosystems. It forms an important component and subdivision of the stratigraphy of the Karoo Supergroup, an extensive inland basin which preserves a rich array of tetrapod fauna that existed through the Permian and Triassic of southern Gondwana (Rubidge 2005, Smith et al. 1993).

The lower Ecca shales are representative of the Pietermaritzburg Formation (Pp on map) and are dark-grey in colour, with thin stratigraphic units of siltstone and medium to coarse-grained subordinate sandstone in the upper part of the sediment package (Tavener-Smith 1981, Tankard et al. 1982, Visser 1992). This rock type is known to be fossil-bearing, containing marine fossils at its base. Fossils from the Pietermaritzburg Formation include the trace fossil Skolithos found at the Newlands Estate, Durban (Tavener-Smith 1980). Sitting above the Pietermaritzburg Formation is the Vryheid Formation (Pv), a geological unit which is present

on the very eastern edge of the proposed development. These sedimentary rocks comprise of medium to coarse-grained sandstones with thin grit beds, subordinate grey micaceous shale and siltstone, and lastly sporadic coal and oil-shale beds. There are also several outcrops of dolerite in the region, representing Jurassic lava intrusions which gave rise to the various dolerite dykes in the landscape (Jd on map). Considerably younger alluvial deposits (Quaternary in age) occur alongside many of the streams and rivers in the area and these may harbour archaeological and/or palaeontological material. Geological maps only indicate extensive and obvious Quaternary deposits whilst smaller patches may not reflect on these large scale maps, therefore developments should make every effort to remain outside of 32m buffer zone adjacent to streams and rivers.

When viewing the PalaeoSensitivity map on the SAHRA website (www.sahra.org.za/sahris/map/palaeo, Figure 5) the area where the proposed development will take place is given as grey, green and red. Grey is the lowest sensitivity rating and does not require a palaeontological assessment. In this case it represents outcrops of dolerite (**Jd**); Jurassic lava intrusions which gave rise to the various dolerite dykes in the landscape, a geological unit that by its nature is devoid of fossils. For the shales of the Pietermaritzburg Formation (**Pp**), the map gives a palaeontological sensitivity rating of moderate (green). Red is the highest sensitivity rating for palaeontological resources and in this geological setting represents the sandstones and shales of the Vryheid Formation (**Pv**, Figures 6-8). The possibility exists that plant and other fossils may be present within this geological unit, hence why it has a palaeo-sensitivity rating of very high.

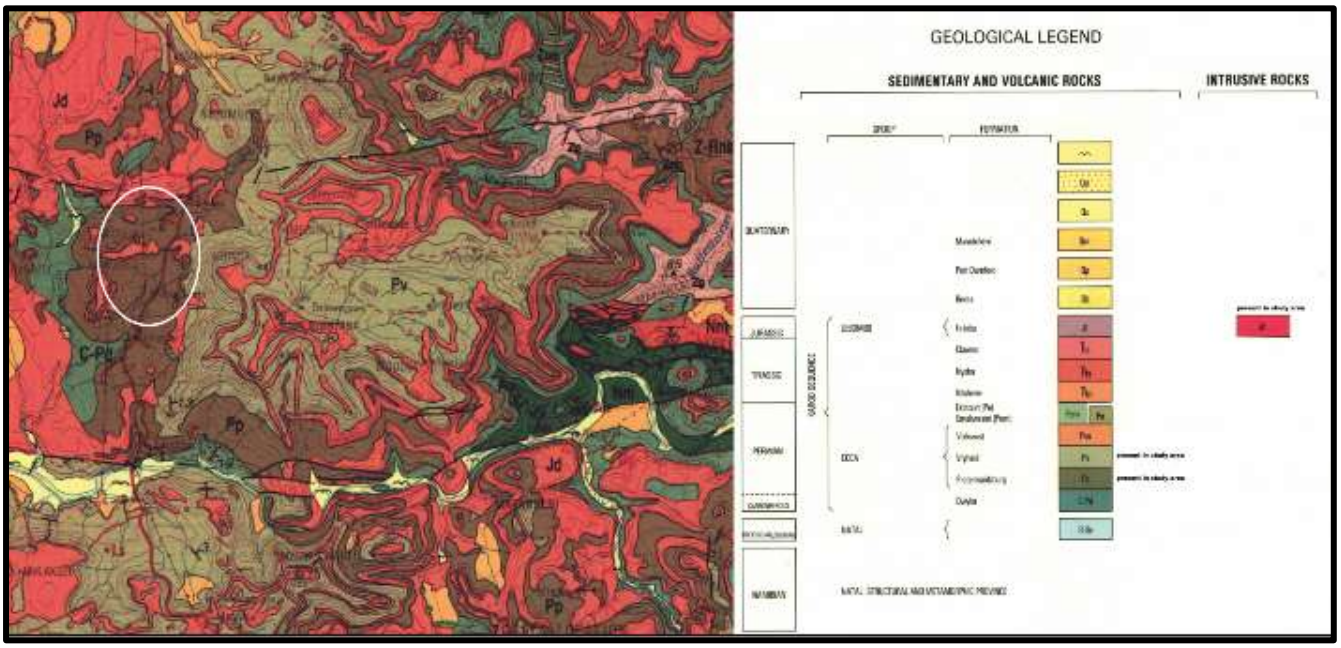


Figure 4: Geological map of the region where the proposed development will take place, with the site falling within the white circle. Lithology comprises Jd: Dolerite; Pp: Dark-grey shale; Pv: medium-coarse-grained sandstone, grey micaceous shale and coal. Geological units relative to this study comprise Ecca (**Pp** & **Pv**). Modified from 2830 Dundee, 1:250 000 Topo-Cadastral Series of South Africa, Chief Director of Surveys and Mapping.

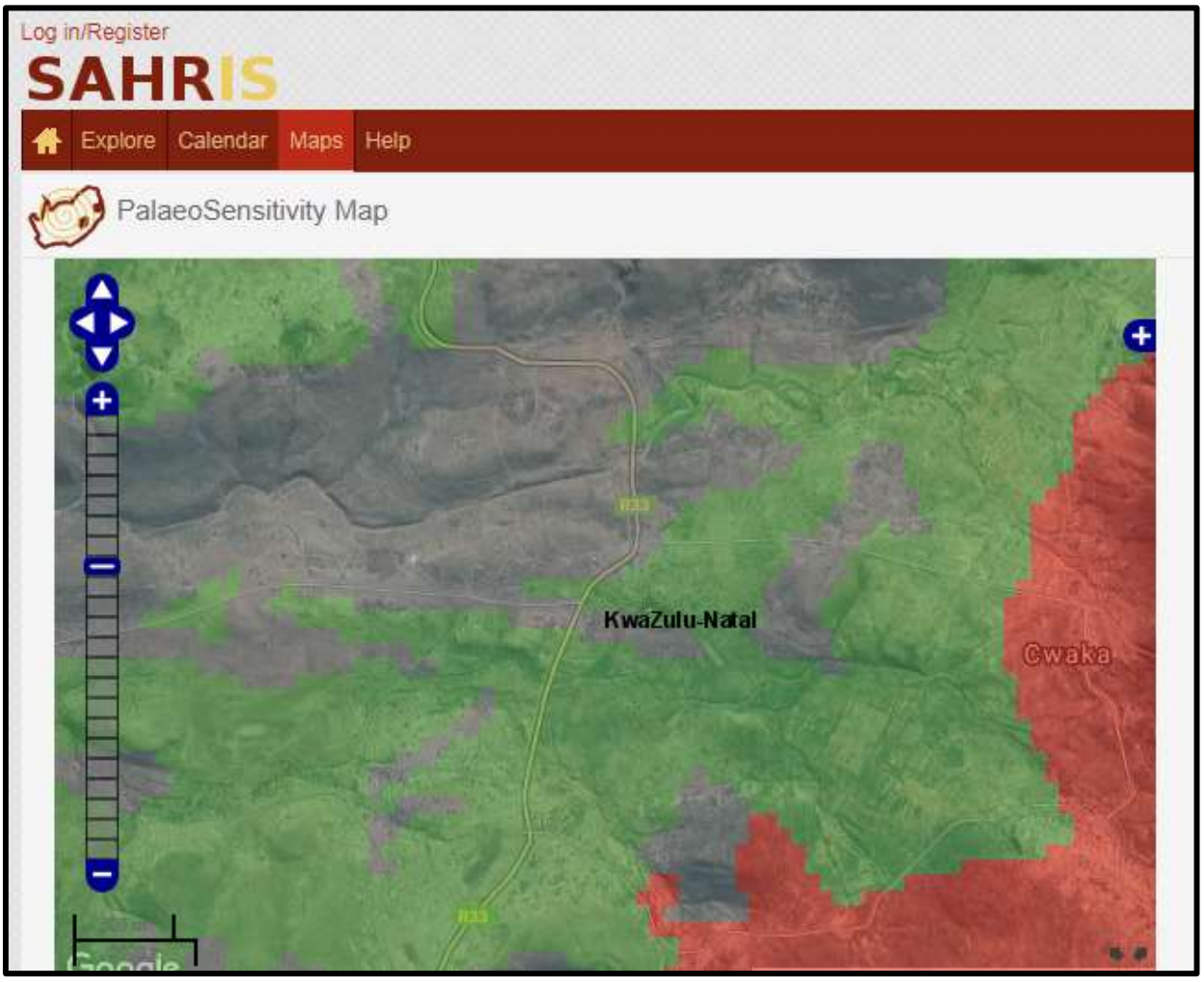


Figure 5: SAHRA PalaeoSensitivity map corresponding to the Google Earth images in Figure 1-3. The majority of the area of the proposed development falls within the grey and green zone, given a sensitivity ranking of insignificant and moderate respectively, whereas the very eastern edge of the site is given a ranking of red or very high. This area corresponds to the Vryheid Formation of the Ecca Group; sedimentary rocks comprising of medium to coarse-grained sandstones, grey micaceous shales and coal. Modified from www.sahra.org.za/sahris/map/palaeo.

Figure 6: The mountain slope that forms the eastern boundary of the proposed site is classified as red. If construction activities necessary for meeting the objectives of this project should include digging or significant earth moving in this area, site inspections will be necessary in the future to monitor the exposed bedrock. (Modified Google Earth image, DigitalGlobe 2018).

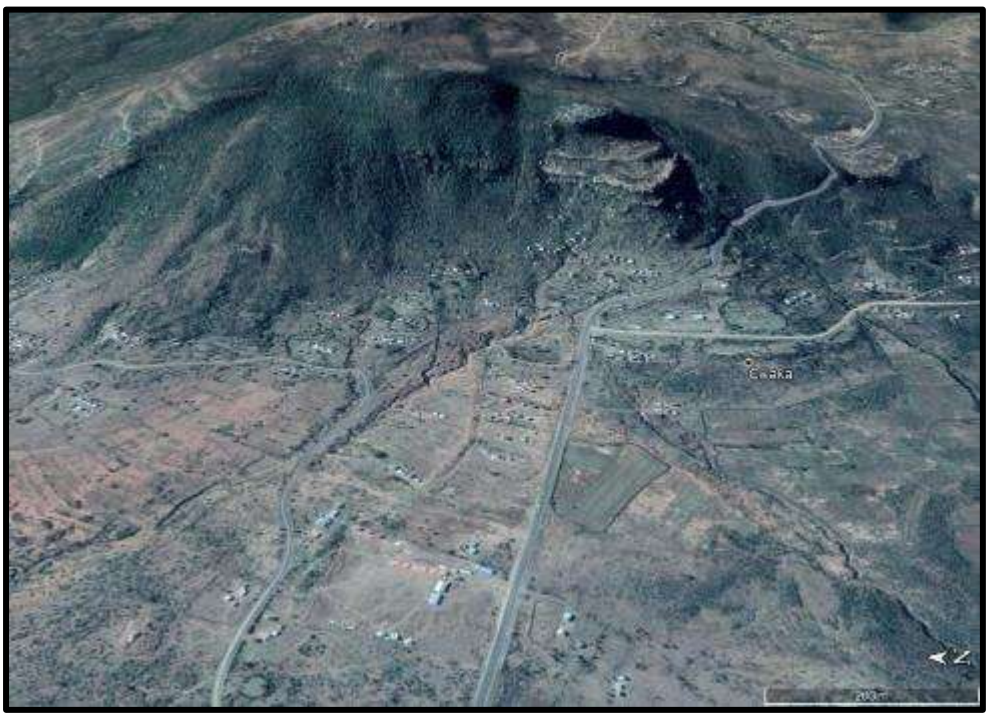


Figure 7: Looking east, this photograph depicts the section of the project area that is most likely to yield fossil material. Plans for the new town centre show minimal development in this area and any activities needed to provide bulk services along this strip (e.g. trenches for pipelines or any form of digging down) will require site monitoring by a qualified palaeontologist. Modified Google Earth image, DigitalGlobe 2018.

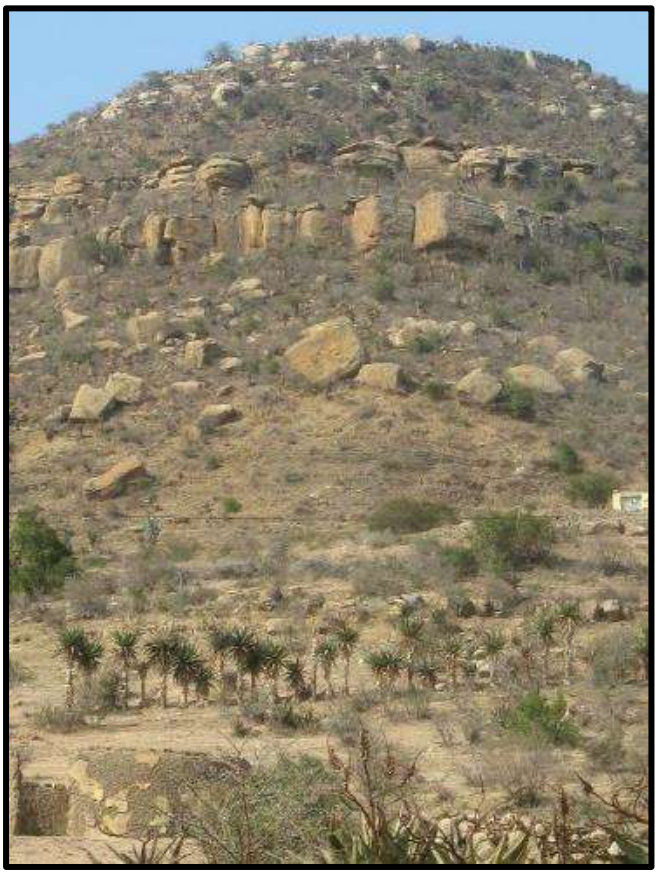


Figure 8: The geology along the eastern section of the proposed development comprises of the Vryheid Formation of the Ecca Group. The medium to coarse grained sandstone typical of this stratigraphic unit is visible in the nearby hill.

Figure 9: Within the dongas along the eastern section of the proposed site, shale bedrock is visible. This is on the contact between the Pietermaritzburg and Vryheid Formation.

When looking at Figure 10 several large rocks and boulders are visible. Over millions of years of slope erosion these have rolled down the mountain (red zone) and come to rest in the green zone of the valley below. Even though these rocks are out of context and no longer connected to the bedrock from which they originated, they are still considered highly sensitive as they may contain fossil material. Therefore developers should be aware of this and to the best of their ability, should not bulldoze or damage these rocks but instead view them as possible repositories of fossil material. In addition, large boulders located on the mountain slopes or valley floors often contain rock art, and may have oral tradition associated with them or serve as markers indicating significance of place. Therefore they should be viewed as aspects of heritage and not as obstacles in the path of development.

In section 4.4 of the environmental prefeasibility report of Wright & Evans (2015) they state: “During the planning stages of the development proposal it is important to protect the integrity of these systems (water resources) **by ensuring that development is maintained outside of the riparian areas, floodplains and associated wetland systems**”. It is recommended that developers should follow this same pattern when it comes to avoiding archaeological and/or palaeontological material. Certain drainage systems are ancient and archaeological and/or palaeontological material may be trapped within overbank deposits. A freshwater source will always attract humans and wildlife, and humans will discard their food waste and leave traces of their material culture alongside a stream or river making them hotspots for archaeological material. Skeletal elements from animals which die close to the water and get washed downstream can become buried fairly rapidly and thereby stand a chance of fossilizing. It is therefore possible that Quaternary fossils may be present within the alluvial deposits adjacent to the Cwaka and Nyandu Rivers and their tributaries, as well as other streams and rivers in the area.

The site of the proposed sports precinct is one such location (Figure 11), where ancient meanders of the Cwaka River may preserve archaeological and/or paleontological material. Another site occurs within the eastern section of the site footprint, where dongas are visible (top circle in Figure 12). These contain an MSA site (Prins 2017). Developers should make every effort to remain outside of the 32m buffer zone adjacent to streams, rivers and their associated drainage lines. This will help prevent damage to the MSA site, will prevent further erosion, and will prevent digging into potentially fossiliferous rocks within the red zone.

Figure 10: Large rocks and boulders have rolled down the mountain slopes along the eastern section of the site, extending beyond the red zone. These may still contain fossils and developers should take this into consideration should they wish to move any of them during the development process.

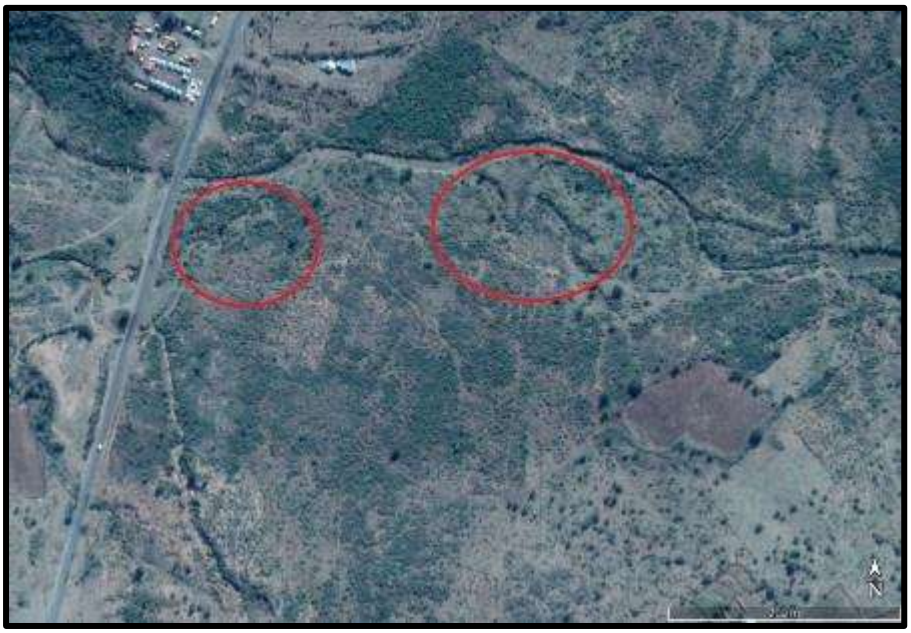


Figure 11: In the COGTA Overall Precinct Plan this area is labelled as "Sports Precinct". Although the plans for this area may have changed, developers need to take note of the paleo-meanders (extinct river channels) of the Cwaka River in this area, marked with red ovals. These represent the course the river would have moved along hundreds or thousands of years ago and these deposits may therefore contain archaeological and/or paleontological material. Modified Google Earth image, DigitalGlobe 2018.

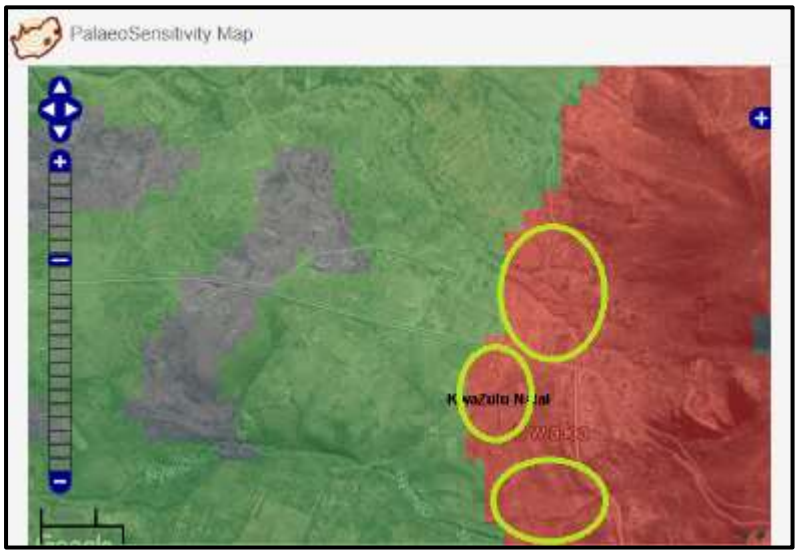


Figure 12: On this SAHRIS paleo-sensitivity map various drainages are visible within the red zone. This area is actively eroding, exposing potentially fossiliferous shale bedrock. These drainages and tributaries should be allocated a minimum of a 32m buffer zone from the watercourse, which will help to protect floodplain deposits, as well as Vryheid Formation bedrock, from possible damage. Modified from www.sahra.org.za/sahris/map/palaeo.

The proposed development can proceed to the next stage as no paleontological material was observed within the underlying bedrock exposed along the very eastern edge route of the proposed site. Whilst it is possible that fossils may be present and some of these may lay buried within the red zone, the site plan indicates that minimal development is taking place along this section. Furthermore, due to the fact that zone is located on the lower slopes of a mountain the topography is not an ideal location for any significant development. If construction activities necessary for meeting the objectives of this project should include digging or significant earth moving in this area in order to provide bulk services along this strip (e.g. trenches for pipelines) site inspections by a qualified palaeontologist will be necessary in the future to monitor the exposed bedrock as this area is the one most likely to yield fossil material.

Summary

Infrastructure upgrades should proceed with caution, and in a sensitive manner, as heavy machinery may expose fossils not visible during the ground survey. This is especially the case along the eastern boundary of the project area. If it is necessary to dig trenches for the construction of canals or the installation of pipelines along this section, a palaeontologist would need to conduct a site inspection to evaluate the fossiliferous potential of the bedrock being exposed. Drainage lines and their associated floodplain deposits are also sensitive zones for possible archaeological and/or paleontological material, where it is preferable to leave a buffer zone of at least 32m from a watercourse in order to preserve possible records of the past trapped within overbank deposits.

If the excavation activities of heavy earth moving equipment should reveal paleontological material, construction should halt immediately. The relevant heritage resources agency would need to be informed and a field palaeontologist would be required to visit the site to evaluate possible fossil discoveries.

References

1) KwaZulu-Natal Heritage Act 4 of 2008.

2) Prins, F. 2017. Cultural heritage impact assessment of the proposed Msinga New Town Centre Development at Cwaka, Msinga local and Mzinyathi district Regional District municipalities, KwaZulu-Natal.

2) National Environmental Management Act 107 of 1998.

3) National Heritage Resources Act 25 of 1999, section 38 (8).

4) Rubidge, B.S. 2005. Re-uniting lost continents - fossil reptiles from the ancient Karoo and their wanderlust. *South African Journal of Geology* 108 (1): 135-172.

5). Wright, M & Evans, M. 2015. Msinga Cwaka New Town Centre: Environmental Prefeasibility Investigation report, SiVEST Environmental Division.

5) Smith, R.M.H., Eriksson, P.G. and Botha, W.J. 1993. A review of the stratigraphy and sedimentary environments of the Karoo-aged basins of Southern Africa.*Journal of African Sciences 16*: 143-169.

APPENDIX 3: RELOCATION OF GRAVES

Burial grounds and graves are dealt with in Article 36 of the NHR Act, no 25 of 1999. Below follows a broad summary of how to deal with grave in the event of proposed development.

- If the graves are younger than 60 years, an undertaker can be contracted to deal with the exhumation and reburial. This will include public participation, organising cemeteries, coffins, etc. They need permits and have their own requirements that must be adhered to.

- If the graves are older than 60 years old or of undetermined age, an archaeologist must be in attendance to assist with the exhumation and documentation of the graves. This is a requirement by law.

Once it has been decided to relocate particular graves, the following steps should be taken:

- Notices of the intention to relocate the graves need to be put up at the burial site for a period of 60 days. This should contain information where communities and family members can contact the developer/archaeologist/public-relations officer/undertaker. All information pertaining to the identification of the graves needs to be documented for the application of a SAHRA permit. The notices need to be in at least 3 languages, English, and two other languages. This is a requirement by law.

- Notices of the intention needs to be placed in at least two local newspapers and have the same information as the above point. This is a requirement by law.

- Local radio stations can also be used to try contact family members. This is not required by law, but is helpful in trying to contact family members.

- During this time (60 days) a suitable cemetery need to be identified close to the development area or otherwise one specified by the family of the deceased.

- An open day for family members should be arranged after the period of 60 days so that they can gather to discuss the way forward, and to sort out any problems. The developer needs to take the families requirements into account. This is a requirement by law.

- Once the 60 days has passed and all the information from the family members have been received, a permit can be requested from SAHRA. This is a requirement by law.