

**FIRST PHASE CULTURAL HERITAGE IMPACT  
ASSESSMENT OF THE PROPOSED MANDLAKAZI  
BULK WATER PIPELINE, PHASE 5, NORTHERN  
KWAZULU-NATAL.**



**ACTIVE HERITAGE cc.**

For: EnviroEdge

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Frans received his MA (Archaeology) from the University of Stellenbosch and is presently a PhD candidate on social anthropology at UNISA.. His PhD research topic deals with indigenous San perceptions and interactions with the rock art heritage of the Drakensberg.

Frans was employed as a junior research associate at the then University of Transkei, Botany Department in 1988-1990. Although attached to a Botany Department he conducted a palaeoecological study on the Iron Age of northern Transkei - this study formed the basis for his MA thesis in Archaeology. Frans left the University of Transkei to accept a junior lecturing position at the University of Stellenbosch in 1990. He taught mostly undergraduate courses on World Archaeology and research methodology during this period.

From 1991 – 2001 Frans was appointed as the head of the department of Historical Anthropology at the Natal Museum, Pietermaritzburg. His tasks included academic research and publication, display conceptualization, and curating the African ethnology collections of the Museum. He developed various displays at the Natal Museum on

topics ranging from Zulu material culture, traditional healing, and indigenous classificatory systems. During this period Frans also developed a close association with the Departments of Fine Art, Psychology, and Cultural and Media Studies at the then University of Natal. He assisted many post-graduate students with projects relating to the cultural heritage of South Africa. He also taught post-graduate courses on qualitative research methodology to honours students at the Psychology Department, University of Natal. During this period he served on the editorial boards of the *South African Journal of Field Archaeology* and *Natalia*.

Frans left the Natal Museum in 2001 when approached by a Swiss funding agency to assist an international NGO (Working Group for Indigenous Minorities) with the conceptualization of a San or Bushman museum near Cape Town. During this period he consulted extensively with various San groupings in South Africa, Namibia and Botswana. He also made major research and conceptual contributions to the Kamberg and Didima Rock Art Centres in the Ukhahlamba Drakensberg World Heritage Site.

Between 2003 and 2007 Frans was employed as the Cultural Resource Specialist for the Maloti Drakensberg Transfrontier Project – a bilateral conservation project funded through the World Bank. This project involved the facilitation with various stakeholders in order to produce a cultural heritage conservation and development strategy for the adjacent parts of Lesotho and South Africa. Frans was the facilitator for numerous heritage surveys and assessments during this project. This vast area included more than 2000 heritage sites. Many of these sites had to be assessed and heritage management plans designed for them. He had a major input in the drafting of the new Cultural Resource Management Plan for the Ukhahlamba Drakensberg World Heritage site in 2007/2008. A highpoint of his career was the inclusion of Drakensberg San indigenous knowledge systems, with San collaboration, into the management plans of various rock art sites in this world heritage site. He also liaised with the tourism specialist with the drafting of a tourism business plan for the area.

During April 2008 Frans accepted employment at the environmental agency called Strategic Environmental Focus (SEF). His main task was to set-up and run the cultural heritage unit of this national company. During this period he also became an accredited heritage impact assessor and he is rated by both Amafa and the South African Heritage Resources Agency (SAHRA). He completed almost 50 heritage impact assessment reports nation-wide during an 18<sup>th</sup> month period.

Frans left SEF and started his own heritage consultancy called “Active Heritage cc” in July 2009. Although mostly active along the eastern seaboard his clients also include international companies such as Royal Dutch Shell through Golder Associates, and UNESCO. He has now completed almost 600 heritage conservation and management reports for various clients since the inception of “Active Heritage cc”. Amongst these was a heritage study of the controversial fracking gas exploration of the Karoo Basin and various proposed mining developments in South Africa and proposed developments adjacent to various World Heritage sites. Apart from heritage impact assessments

(HIA's) Frans also assist the National Heritage Council (NHC) through Haley Sharpe Southern Africa', with heritage site data capturing and analysis for the proposed National Liberation Route World Heritage Site and the national intangible heritage audit. In addition, he is has done background research and conceptualization of the proposed Dinosaur Interpretative Centre at Golden Gate National Park and the proposed Khoi and San Interpretive Centre at Camdeboo, Eastern Cape Province. During 2009 he also produced the first draft dossier for the nomination of the Sehlabathebe National Park, Lesotho as a UNESCO inscribed world heritage site.

Frans was appointed as temporary lecturer in the department of Heritage and Tourism, UKZN in 2011. He is also a research affiliate at the School of Cultural and Media Studies in the same institution.

Frans's research interests include African Iron Age, paleoecology, rock art research, San ethnography, traditional healers in South Africa, and heritage conservation. Frans has produced more than fourty publications on these topics in both popular and academic publications. He is frequently approached by local and international video and film productions in order to assist with research and conceptualization for programmes on African heritage and culture. He has also acted as presenter and specialist for local and international film productions on the rock art of southern Africa. Frans has a wide experience in the fields of museum and interpretive centre display and made a significant contribution to the conceptual planning of displays at the Natal Museum, Golden Horse Casino, Didima Rock Art Centre and !Khwa tu San Heritage Centre. Frans is also the co-founder and active member of "African Antiqua" a small tour company who conducts archaeological and cultural tours world-wide. He is a Thetha accredited cultural tour guide and he has conducted more than 50 tours to heritage sites since 1992.

#### **Declaration of Consultants independence**

Frans Prins is an independent consultant to Enviroedge 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
IIA	Intermediate Iron Age
ISA	Intermediate Stone Age
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 cultural heritage survey of the proposed Mandlakazi Bulk Water Phase 5 Project near Nongoma in northern KwaZulu-Natal located no sites of heritage significance on the actual footprint. The greatest section of the proposed pipeline trajectory follows existing road reserves and no heritage features occur within 25m on either side of the proposed pipeline. However, six areas that are sensitive in terms of “invisible graves” have been identified along the proposed pipeline trajectory. It is suggested that these areas are either avoided altogether or that a heritage consultant inspect these areas, together with a land surveyor, just prior to and immediately after the construction of the proposed pipeline. In addition, a paleontological survey will be required for the extreme western section of the footprint as this area is sensitive in terms of fossil finds. The developers should take extra care when conducting excavations and 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 threatens to expose and damage graves as well other heritage features should cease immediately, pending evaluation by the provincial heritage agency or the heritage consultant.

## 1 BACKGROUND INFORMATION ON THE PROJECT

**Table 1. Background information**

Consultant:	Frans Prins (Active Heritage cc) for Enviroedge
Type of development:	<p>Details of proposed Construction Works include :</p> <ul style="list-style-type: none"> <li>• The upgrade of the existing Mandlakazi Water Treatment Works from 2Ml/day to 20Ml/day</li> <li>• Approximately 144Km bulk pipelines ranging from DN 350 to DN 100 mm in diameter and associated chambers</li> <li>• Approximately 28 Reservoirs ranging in size from 4ML down to 50Kl.</li> <li>• Two Pumpstations</li> <li>• The proposed Mandlakazi Water Purification Works (Fig 1).</li> </ul>
Rezoning or subdivision:	Not applicable
Terms of reference	Conduct a Phase One 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:**

Zululand District Municipality (ZDM) is currently implementing the Mandlakazi Phase 5: Water Treatment Works located approximately 20 km east of Nongoma in the KwaZulu Natal Province. The project involves the construction of bulk and secondary bulk pipelines, reservoirs and pump stations as well as the proposed Mandlakazi Water Purification Works (Fig 1) The proposed development is located in an area under the leadership of the Mandlakazi Tribal Authority. The area is predominantly rural with small-scale subsistence farming being the dominant economic activity. Small villages and individual Zulu homesteads are scattered throughout the project area. The proposed pipeline development follows the existing road reserves for most of the area. The GPS coordinates for the center of the footprint are: S 27° 48' 57.43" E 31° 52' 20.42". The GPS coordinates for the proposed Mandlakazi Purification Works are: S 27° 40' 49.70" E 31° 54' 56.70".

### **BACKGROUND TO THE HERITAGE OF THE GREATER ISIMANGALISO WETLAND PARK**

The project area is situated within Maputaland in the north eastern section of KwaZulu-Natal. This area is endowed with heritage sites of various traditions and periods spanning the Stone Ages, Iron Ages and the historical period. However, the majority of these occur to the west of the Phongola, in the foothills of the Lebombo Mountains. A second large concentration occurs adjacent to and on the dune gordon along the coastline. The coastal plain, by contrast to the rest of Maputaland, appears to have a smaller percentage of archaeological sites. Oliver Davies, an archaeologist who conducted pioneered research and surveys in northern KwaZulu Natal in the 1960's and 1970's, commented that the coastal plain was unpromising for archaeological research due to its being covered by superficial sands and bush coverage which affect preservation and visibility (Avery 1980). By contrast, the foothills of the Lebombo to the immediate east of the project area, is well endowed with archaeological sites. The provincial heritage data base of the KwaZulu-Natal Museum lists twenty nine sites in the greater Ubombo area. These include Early Stone Age, Middle Stone Age, Later Stone Age and Later Iron Age sites. Nevertheless, more recent surveys on the coastal plain by members of the then Natal Museum as well as by independent heritage contractors, such as Umlando and eThembeni, located numerous sites.

Based on typological criteria it can be speculated that the known Early Stone Age sites in the greater Maputaland area most probably dates back to between 300 000 and 1.7 million years ago. Some of the stone tools have been identified as belonging to the Acheulian tradition and it is therefore possible that these sites were occupied by an early hominin such as *Homo erectus* or *Homo ergaster*. Middle Stone Age Sites dates back to ca. 40 000 - 200 000 BP. These sites relate to the first anatomically modern people in the world namely *Homo sapiens sapiens*. Most of the Middle Stone Age sites in the greater Maputaland are open air stone tool scatters with little archaeological context. However, some notable cave deposits do occur. The world renowned Border Cave Site, situated approximately 150km to the north-west of the project area, is a good example. Humans lived at Border Cave over a period of 200 000 years. The human skeletal remains found in the cave are believed to be some of the oldest evidence of anatomically modern human beings. Various radiometric-dating techniques suggest that Middle Stone Age people were living at Border Cave more than 110 000 years ago. More than a million stone artefacts have been excavated in the cave and an enormous amount of animal material has been recovered from the site as well (Derwent 2006).

Only a handful of Later Stone Age sites have been recorded in the greater Maputaland. These relate to San hunter-gatherers or their immediate ancestors. The stone tool technology are smaller and more diverse and specialised than those made during the Middle Stone Age. Archaeological excavations at Border Cave recently produced the oldest known assemblage of typical San (Bushmen) bone arrow points and associated later Stone Age material in southern Africa. These were dated to approximately 40 000 years ago. Later Stone Age occurrences closer to the coastal zone, and by implication the study area, consists mostly of stone tool surface scatters. It is often difficult to date such occurrences and to obtain contextual information. A coastal shell midden with associated Later Stone Age material occurs approximately 10 km to the north east of the project area.

The Early Iron Age of the coastal zone in Maputaland contains ceramic fragments identified as belonging to the Matola phase. The Matola phase sites can be identified with the very first Bantu-speaking agriculturists that entered KwaZulu-Natal approximately 1 600 years ago from Eastern Africa (Maggs 1989). Although oral history indicate that the area was occupied in more recent centuries times by the Thembe-Thonga or their immediate ancestors only a few archaeological sites belonging to this period have so far been identified. Nevertheless the present African inhabitants of the

area, the Thembe-Thonga and the some Nguni peoples, have a rich oral history and culture relating to their intimate relationship with the environment spanning many centuries. Aspects of their cultural heritage identified by community representatives as being important include the following:

- Relationship of the local community with the physical environment
- Traditional fishing practises (fonya basket fishing)
- The indawo spirit possession cult
- Wild fruit utilisation
- The significance of the mothers brother in Thembe-Thonga social organisation
- Settlement rules and history
- Thonga language
- Issues relating to cross border identities
- Trade across the border
- History of various traditional authorities in the area
- Occupation of some areas by refugees of the Zulu wars
- The grave site of King Dingane
- Influence on local customs by refugees of the Mozambican War of 1975-1990

The conventional view is that that the historical occupants of Maputaland, the Tembe-Thonga, migrated from Karanga in the present day Zimbabwe in the middle of the seventeenth century Junod (1962:23). However, the theory that the African societies of south-east Africa migrated there in fixed ethnic units, as in the case of the Tembe-Thonga, has been questioned by archaeological research and recent research on oral traditions of Zululand and Natal (Maggs 1989). Instead of migrating there in fixed ethnic groups, it is now argued that the African societies of south-east Africa emerged locally from long established communities of diverse origins and diverse cultures and languages. Nevertheless, whether the Tembe came from Karanga to establish their authority over the people of south-east Africa, or whether they emerged locally, reports from Portuguese sailors indicate that a chief Tembe was in control of the ruling chiefdom in the Delagoa Bay hinterland in the mid-1600s (Wright & C. Hamilton 1989:46-64 and Kuper 1997:74). Tembe and his followers gradually established their authority over the people who lived in this hinterland including the project area. Due to the abilities of their strong and charismatic leaders, the Tembe-Thonga remained a unified chiefdom and gradually extended their influence. This unity was upset in the middle of the eighteenth century when a split in the ruling lineage led to the fragmentation of the chiefdom. The division came after the death of Silamboya in 1746. The descendants of Silamboya's

oldest son, Muhali, settled west of the Maputo River and north of the Usuthu River. This group, the senior branch of the Tembe-Thonga, became known as the Mututwen-Tembe. The other part of the Tembe-Thonga followed a junior son of Silamboya, Mangobe, and settled east of the Maputo River. This branch would later become known as the Mabudu or Maputo (Bryant 1965:290). Maputaland is named after this influential chief Mabudu. The imposed international border of 1875 bisected the area where the Mabudu branch settled. Being unable to control the vast area under his control, the chief of the junior branch, Mangobe, placed his sons in strategic positions so as to ensure his control. When Mangobe died, his first son, Nkupo, was named chief. However, his younger son, Mabudu, soon established himself as the stronger leader and took the chieftainship from his older brother (Hedges 1978:137). With the army now at his disposal Mabudu was able to dominate all trade between Europeans who landed at Delagoa Bay and local people living in the hinterland. Through this domination the Mabudu became, by the middle of the eighteenth century, the strongest political and economic unit in south-east Africa (Smith 1972:178-184). The people under his authority, which gradually increased, became known as the *abakwaMabudu* or the people of Mabudu's land (Webb and Wright 1979:157). By the early 1800s the Mabudu chiefdom stretched from the Maputo River in the west to the Indian Ocean in the east, and from Delagoa (Maputo) Bay in the north to as far south as Lake St. Lucia (Felgate 1982:1).

During the early 1800s similar processes of political centralisation were taking place amongst the Mthetwa, Ndwandwe and later the Zulu chiefdoms within and to the south of the project area. The Zulu eventually defeated the other groups and established themselves as the dominant power in south-east Africa (Wright & Hamilton 1989:67 and Laband 1995). The Mabudu were never attacked by, nor directly involved in any war with the Zulu. They were, however indirectly affected by wars of conquest the Zulu waged in the northern part of Zululand in the first half of the nineteenth century (Omer-Cooper 1975:57). Various groups of refugees passed through the Mabudu chiefdom during the reign of Shaka. Many of them settled among the Mabudu. The people who crossed the southern boundary of the Mabudu chiefdom brought with them languages and customs foreign to the Mabudu. Over time, Mabudu identity became less distinctive as people adopted many customs of those living south of them (Bryant 1964:292). As more and more people from the southern chiefdoms crossed into the Mabudu chiefdom, an increasing amount of prestige was attached to being Zulu and speaking isiZulu, since the Zulu were the dominant political force. The Zulu cultural influence in the greater

Maputaland area was however not complete. People who fled the onslaught of the Zulu only stayed in the area for a short period before they moved on (Felgate 1982:11). Furthermore, in exchange for tribute paid, the Zulu recognised the Mabudu as leaders of a vast territory. This, to an extent, secured their sovereignty (Bradley 1974). The relationship between the Mabudu and the Zulu differed markedly from that which the Zulu instituted with other chiefdoms. Ballard (1978) states that although the Mabudu 'paid tribute to the Zulu kings and cooperated on a military and economic level, they enjoyed much greater independence than the chiefdoms south of St. Lucia. Despite the Zulu influence, Maputaland, remained politically and culturally distinct from areas to the north, south and west. The people of the area originally spoke a unified language – xiRonga (Thonga). With some exceptions, they accepted the rule of Mabudu chiefs (Felgate 1982:11).

At the end of the eighteenth century then the Mabudu had established their control over the area stretching from Delagoa Bay to Lake St. Lucia, including the project area, and from the Pongola River to the Indian Ocean. At the same time as Mabudu centralised his power to forge the Mabudu kingdom, similar processes were taking place amongst the Ndwandwe and Mthethwa. State formation in south-east Africa would eventually lead to conflict between the newly formed states over trade routes and grazing areas for cattle. The Zulu, under Shaka, would eventually prove to be the strongest state in south-east Africa, thereby usurping the dominant role once played by the Mabudu (ibid). When Shaka was in the process of establishing his empire, the Mabudu saw fit to start to pay tribute to the Zulu. This introduced nearly half a century of Zulu rule over what used to be Mabudu suzerainty. Although the Mabudu saw fit to pay tribute to the Zulu, they were 'not raided or conquered by the Zulu forces and, after the defeat of the Zulu at the hands of the British, they retained their autonomy. Paying Tribute was a well-organised annual political and economic activity, with special collectors appointed by Shaka and the Zulu kings who followed him. Despite the fact that the Mabudu paid tribute to the Zulu they were at the same time able to extract tribute from several of the small chiefdoms living as far south as the Mkhuzi River including the project area.

The tributary system that existed between the Zulu and the Mabudu was starting to disintegrate from the 1860s onwards. After the death of the Mabudu chief Noziyingile in 1876, his brother Muhena became regent with the aid of the Zulu. However, after the defeat of the Zulu at the hand of the British in 1879, Noziyingile's Swazi wife, Zambili secured the throne for her son, Ngwanase by declaring herself queen regent and by

exiling Muhena and his supporters. The Mabudu then ceased to pay tribute to the Zulu. During the same period Maputaland was divided between a Portuguese dominated northern part and a British dominated southern part including the project area. The southern part, known as British AmaThongaland was annexed by Britain in 1897 and in that same year incorporated, with Zululand, into Natal. The northern part became part of the Portuguese colony of Mozambique. Thus ended a period of domination of the Mabudu by the Zulu. From this period colonial powers and their policies dictated the fate of the Mabudu. In northern Maputaland the Portuguese followed a policy of assimilation and centralisation, forcing the people to adopt Portuguese culture. In the southern part of Maputaland the British followed a policy of indirect rule, leaving the Mabudu chiefs largely to rule as they traditionally did. From 1910 onwards the southern area was divided into 'crown land' and 'trust lands'. In reality, the Mabudu enjoyed a large amount of freedom, especially from the Zulu. This was to change drastically in 1976 when the then South African government decided to change the identity of the local people from Tsonga to Zulu and to place the Mabudu under the direct authority of the Zulu with the incorporation of southern Maputaland into KwaZulu. Webster calls the period that followed 1976 the 'apogee of Zulu influence' in the area (ibid). Today local communities in the project area, regards themselves as Zulu rather than Thembe-Thonga.

Apart from human history the greater Maputaland also has extensive fossil deposits and geomorphology dating back to the Cretaceous, Tertiary and Quaternary periods. The Cretaceous fauna yielded by sequences includes ammonites, bivalves, gastropods, and nautiloids in abundance. Vertebrates are uncommon, only fish and reptiles being noted so far. Plant remains are relatively abundant in the form of logs and lignite chips. The Tertiary limestone deposits contain marine macro-fossils, calcareous nanno-fossils and planktic foraminifers (Avery 1980). Shell imprints have been found imprinted in concretions to the immediate south of Thembe Elephant Park and may therefore palaeontological significance (Anderson 2008).

## **2 BACKGROUND INFORMATION OF THE SURVEY**

### **2.1 Methodology**

A desktop study was conducted of the archaeological databases housed in the KwaZulu-Natal Museum. Aerial photographs of the project area was scrutinized in order to locate potential Iron Age and Historical-era sites and structures. The SAHRIS website was consulted to obtain information on past heritage surveys in the area and on heritage site particulars. In addition, the available archaeological literature covering northern KwaZulu-Natal was also consulted. A ground survey following standard and accepted archaeological procedures was conducted.

### **2.2 Restrictions encountered during the survey**

#### **2.2.1 Visibility**

Visibility was good.

#### **2.2.2 Disturbance**

No obvious disturbance of any potential heritage features was noted.

### **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

Municipality: Zululand District Municipality

Towns: Nongoma and Mkhuze

### **3.2 Description of heritage resources located during the survey.**

No heritage or archaeological sites were located during the survey. This could be related to the fact that the greatest portion of the proposed pipeline and associated developments follows the existing road reserves (Figs 5 - 8). However, it must be noted that the extreme western section of the project area falls within a highly sensitive paleontological area. According to the SAHRIS fossil sensitivity map the area is demarcated as red and should therefore be properly surveyed by a qualified and Amafa accredited palaeontologist.

Graves do occur throughout the project area, however, none of these are located closer than 25m from the proposed pipeline trajectory. However, six potentially grave sensitive areas have been identified as existing in the immediate environs of the proposed pipeline trajectory. Given the density of rural homesteads in these areas it is entirely possible that "invisible" graves may occur in close association with the relevant homesteads. The GPS coordinates for the six identified grave sensitivity areas are given below:

#### **3.2.1 Grave Sensitivity Area 1**

Situated directly adjacent to the existing road reserve it covers an area of approximately 850m x 200m. The GPS coordinates for this area are: S 27° 44' 26.55" E 31° 44' 59.55" (Fig 2).

#### **3.2.2 Grave Sensitivity Area 2**

Situated directly adjacent to the existing road reserve it covers an area of approximately 460m x 190m. The GPS coordinates for this area are: S 27° 44' 06.31" E 31° 50' 38.22" (Fig 3).

#### **3.2.3 Grave Sensitivity Area 3**

Situated directly adjacent to the existing road reserve it covers an area of approximately 1900m x 470m. The GPS coordinates for this area are: S 27° 56' 20.25" E 31° 50' 05.96" (Fig 4).



### **3.2.4 Grave Sensitivity Area 4**

Situated directly adjacent to the existing road reserve it covers an area of approximately 900m x 100m. The GPS coordinates for this area are: S 27° 44' 24.59" E 31° 51' 49.83" (Fig 3).

### **3.2.5 Grave Sensitivity Area 5.**

Situated directly adjacent to the existing road reserve it covers an area of approximately 2200m x 325m. The GPS coordinates for this area are: S 27 54' 36.94" E 31 46' 24.20" (Fig 4).

### **3.2.6 Grave Sensitivity Area 6.**

Situated directly adjacent to the existing road reserve it covers an area of approximately 1900m x 491m. The GPS coordinates for this area are: S 27° 44' 31.86" E 31° 49' 9.32 (Fig 3).

## **4 STATEMENT OF SIGNIFICANCE (HERITAGE VALUE)**

### **4.1 Field Rating**

Not applicable, as no heritage sites were observed on the footprint (Table 2). However, it is important to note that all graves, even those younger than 60 years old, are protected by provincial heritage legislation. Should any graves be unearthed then they would most probably be rated as locally significant (Table 3). They are therefore protected by heritage legislation and may not be altered or destroyed under any circumstances.

**Table 2. Evaluation and statement of significance of heritage sites or features on the footprint.**

Significance criteria in terms of Section 3(3) of the NHRA		
	<b>Significance</b>	<b>Rating</b>
1.	<b>Historic and political significance</b> - The importance of the cultural heritage in the community or pattern of South Africa's history.	None.
2.	<b>Scientific significance</b> – Possession of uncommon, rare or endangered aspects of South Africa's cultural heritage.	None.
3.	<b>Research/scientific significance</b> – Potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage.	None
4.	<b>Scientific significance</b> – Importance in demonstrating the principal characteristics of a particular class of South Africa's cultural places/objects.	None
5.	<b>Aesthetic significance</b> – Importance in exhibiting particular aesthetic characteristics valued by a community or cultural group.	None.
6.	<b>Scientific significance</b> – Importance in demonstrating a high degree of creative or technical achievement at a particular period.	None.
7.	<b>Social significance</b> – Strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.	None.
8.	<b>Historic significance</b> – 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.

**Table 3. 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

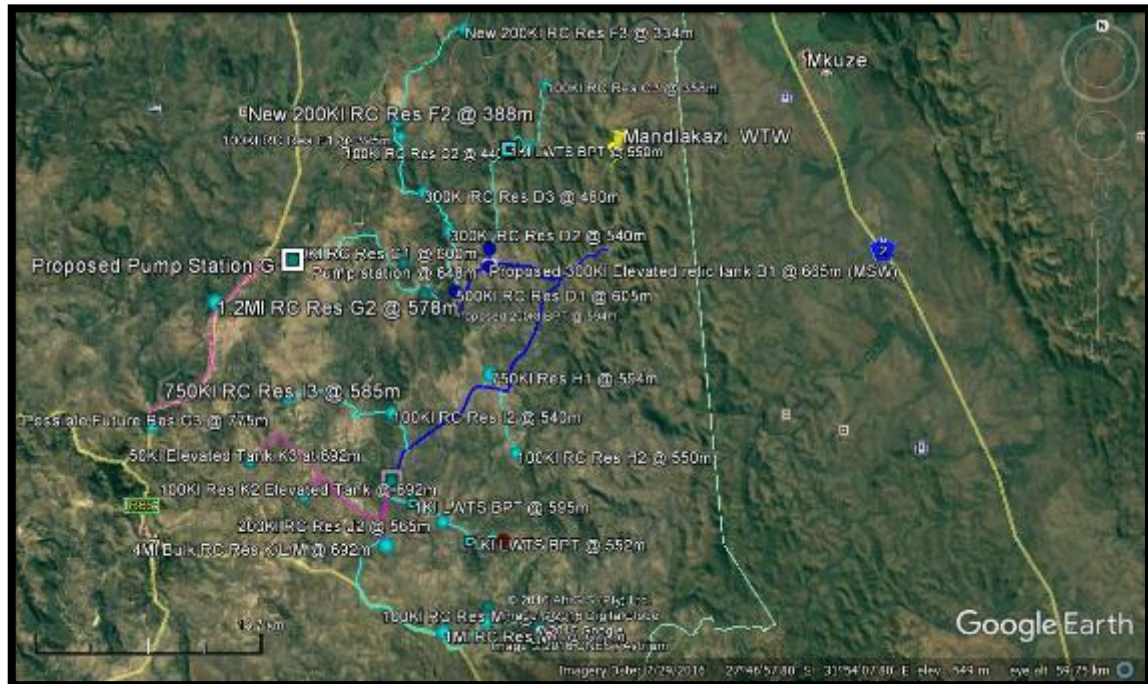
## 5 RECOMMENDATIONS

The proposed Mandlakazi Bulk Water Project Phase 5 and associated Mandlakazi Water Purification Works may proceed from a general heritage perspective but under the following strict conditions:

- A paleontological impact assessment will be required for the extreme western section of the project area as this section has a high fossil sensitivity. The survey will have to be conducted by an Amafa accredited palaeontologist.
- Six grave sensitive areas have been identified during this survey. It is important that these areas are inspected by a heritage specialist immediately before and after the laying of the proposed pipeline to ensure that no ‘invisible’ graves have been disturbed. There may be a need to exhume and translocate graves should any be encountered. A second phase heritage impact assessment will be required for such (Appendix 1).
- Northern KwaZulu-Natal has a rich archaeological history. Construction work and excavations may yield archaeological and/or cultural material. If any

heritage features are exposed by construction work then all work should stop immediately and the provincial heritage agency, Amafa, should be contacted for further evaluation. 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 agent.

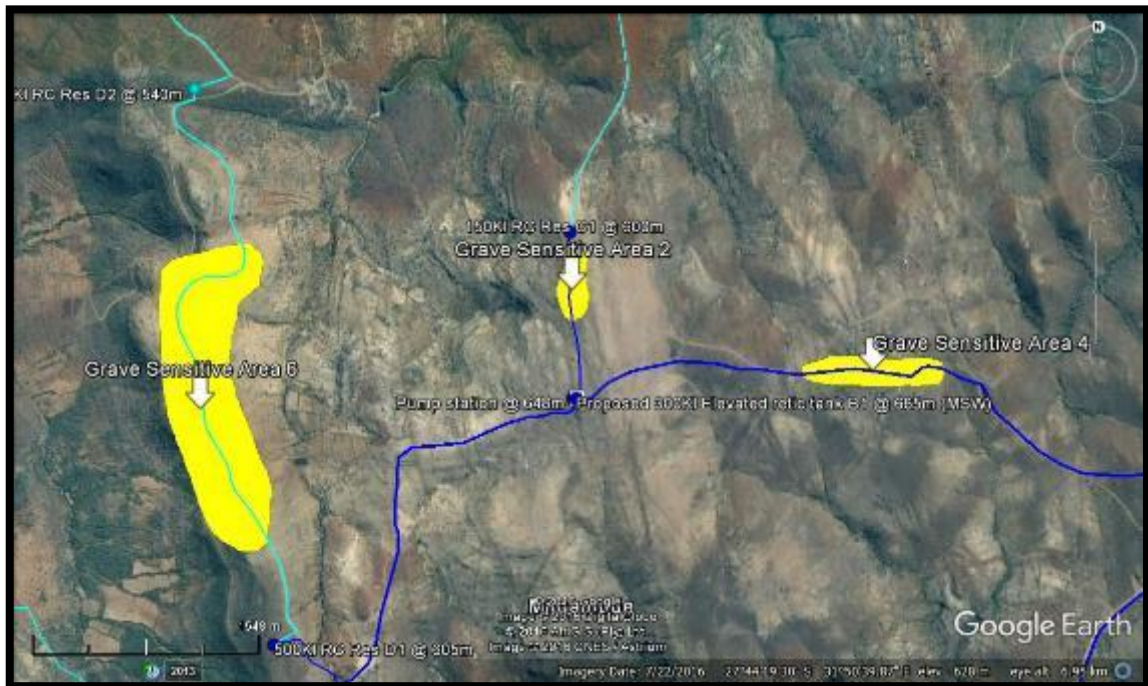
## 6 MAPS AND PHOTOGRAPHS



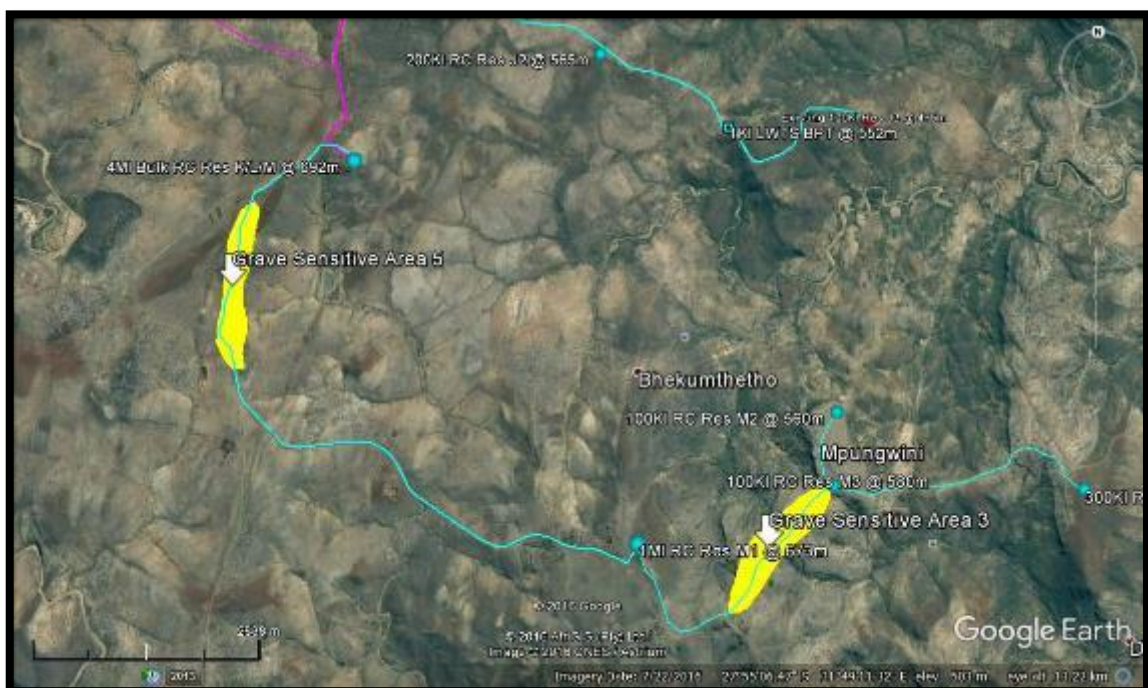
**Figure 1. Google aerial photograph showing the location of the proposed Mandlakazi Bulk Water Project Phase 5 and the associated Mandlakazi Water Purification Works.**



**Figure 2. Google aerial photograph showing the location of Grave Sensitive Area 1.**



**Figure 3. Google aerial photograph showing the location of grave sensitive areas 2, 4 and 6.**



**Figure 4. Google aerial photograph showing the location of grave sensitive areas 3 & 5.**



**Figure 5.** *The proposed pipeline trajectory follows the existing road reserve for most of the way. No heritage sites occur in the immediate vicinity of the road.*



**Figure 6.** Although rural homesteads are situated adjacent to the existing road, and proposed pipeline trajectory, no graves were observed within 25m from the road.



**Figure 7. The Mandlakazi Water Purification Works.**



**Figure 8. Although there is evidence for disturbance no heritage sites are affected at the proposed Mandlakazi Water Purification Works.**



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## APPENDIX 1 RELOCATION OF GRAVES

Burial grounds and graves older than 60 years are dealt with in Article 36 of the NHR Act, no 25 of 1999. The Human Tissues Act (65 of 1983) protects graves younger than 60 years. These fall under the jurisdiction of the National Department of Health and the Provincial Health Departments. Approval for the exhumation and reburial must be obtained from the relevant Provincial MEC as well as the relevant Local Authorities.

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.
- Once the permit has been received, the graves may be exhumed and relocated.
- All headstones must be relocated with the graves as well as any items found in the grave