

**PHASE ONE HERITAGE IMPACT ASSESSMENT  
OF THE PROPOSED MTWALUME SAND WINING  
MINING, UGU MUNICIPALITY, KZN.**



**ACTIVE HERITAGE cc.**

**For: ENVIROEDGE**

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**29 May 2018**

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Frans received his MA (Archaeology) from the University of Stellenbosch and is presently a PhD candidate on social anthropology at Rhodes University. 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. During this period 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 1000 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 forty 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**

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**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 heritage survey of the proposed Mtwalume Sand Winning Mining area identified no archaeological or heritage sites on the project area. In addition, no heritage sites occur within 50m from the footprint. Community graves occur in the near environs of the footprint but none of these occur closer than 100m to the proposed mining area. The greater area is also not part of any known cultural landscape.. 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 graves and fossil material should cease immediately, pending evaluation by the provincial heritage agency. It is important to note that all graves in KwaZulu-Natal, including those younger than 60 years, are protected by provincial heritage legislation.

## 1 BACKGROUND INFORMATION ON THE PROJECT

**Table 1. Background information**

Consultant:	Frans Prins (Active Heritage cc) for Enviroedge cc.
Type of development:	<p>Enviroedge cc is submitting an application for a mining right and a water use licence application, on behalf of the applicant SHE Sand for the proposed sand winning on the Mtwalume River. The proposed activity will be subject to Scoping and Environmental Impact Assessment in terms of the National Environmental Management Act 1998, (Act No. 107 of 1998), as amended, and associated Environmental Impact Assessment Regulations 2014, and, the Mineral and Petroleum Resources Development Act (No.28 of 2002). A water use licence will be submitted to the Department of Water and Sanitation in terms of the National Water Act (No.36 of 1998), Section 21(c) Impeding or diverting the flow of water in a watercourse, and, (i) Altering the bed, banks course or characteristics of a watercourse. These regulations identify various activities which may have a substantial detrimental effect on the environment. In addition, the Regulations list procedures for assessing potential associated environmental impacts. Scoping forms part of the initial phase of these procedures.</p> <p>The proposed sand mining activities will entail a combination of the following methods:</p> <p>Mechanical Excavation by Excavator</p> <ul style="list-style-type: none"> <li>▣ Temporary diversion of the Mtwalume River within the proposed mining area.</li> <li>▣ Mechanical excavation of river sand by excavator and stockpiling in a designated area.</li> <li>▣ On site screening of stockpiled river sand to desired diameter.</li> <li>▣ Remaining larger sand particles/stone will be returned to the river.</li> <li>▣ Loading of haulage truck by tractor-loaded backhoe or excavator.</li> <li>▣ Transportation of screened material to required end point (point of sale/distribution).</li> </ul> <p>Where temporary stream diversion is not possible, a floating barge, pump and pipe system will be utilised.</p> <p>Floating Barge Extraction</p> <ul style="list-style-type: none"> <li>▣ River sand together with river water will be extracted via suction pipe from the river and stockpiled at the designated stockpile area along the river bank.</li> </ul>



	<ul style="list-style-type: none"> <li>▫ Extracted water will be channelled to flow back to the river from the stockpile area, thereby retaining the extracted river sand at stockpile.</li> <li>▫ Stockpiled river sand will be screened to desired size.</li> <li>▫ Remaining larger sand particles/stone will be returned to the river.</li> <li>▫ Loading of haulage truck by tractor-loaded backhoe or excavator.</li> <li>▫ Transportation of screened material to required end point point (point of sale/distribution).</li> </ul>
Rezoning or subdivision:	Rezoning
Terms of reference	To carry out a 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 Mtwalume River is the divide between the Umdoni and Umzumbe Local Municipalities, and, as such, the study site falls across the boundary between the Umdoni and Umzumbe Local Municipalities, within the Ugu District Municipality. The project area is located north west of Mtwalume, within the Mtwalume River, approximately 3,9km upstream from the Mtwalume River mouth. The proposed mining area covers an area of 5.17 hectares (Figs 1 & 2). The GPS coordinates for the central section of the footprint are: S 30° 28' 24.42" E 30° 36' 06.71". An existing campsite/laydown area located at S 30°28'23.28" E 30°36'2.90" will be utilised as a floating barge extraction area.

## 2 BACKGROUND TO ARCHAEOLOGICAL HISTORY OF AREA

The project area has never been systematically surveyed for archaeological sites in the past. However, the coastal areas of the greater Hibberdene and Port Shepstone areas to the south east of the project area has been surveyed by archaeologists of the then Natal Museum in the 1970's and 1980's. Further south and inland the greater Oribi Gorge has also been intensively surveyed in the past. These surveys were originally conducted by staff associated with the then Natal Parks board in the 1970's. However, more professional surveys were conducted by archaeologists such as J. H. Cable in the early 1980's (Cable 1984) and later by various archaeologists attached to the Natal Museum (Mazel 1989; Mitchell 2005).

The available evidence, as captured in the KwaZulu-Natal Museum heritage site inventories, indicates that the greater Hibberdene and Port Shepstone areas contains a wide spectrum of archaeological sites covering different time-periods and cultural traditions. These include Early, Middle and later Stone Age sites, Early Iron Age sites, Later Iron Age sites, and some historical sites. Various buildings and farmsteads belonging to the Victorian and Edwardian periods occur in the area. These would also be protected by heritage legislation.

Stone Age sites of all the main periods and cultural traditions occur along the coastal cordon in the immediate vicinity of Hibberdene and Port Shepstone. Most of these occur in open air contexts as exposed by donga and sheet erosion. The occurrence of Early Stone Age tools in the near vicinity of permanent water resources is typical of this tradition. These tools were most probably made by early hominins such as *Homo erectus* or *Homo ergaster*. Based on typological criteria they most probably date back to between 300 000 and 1.7 million years ago. The presence of the first anatomically modern people (i.e. *Homo sapiens sapiens*) in the area is indicated by the presence of a few Middle Stone Age blades and flakes. These most probably dates back to between 40 000 and 200 000 years ago. The later Stone Age flakes and various rock painting sites identified in the area are associated with the San (Bushmen) and their direct ancestors. These most probably dates back to between 200 and 20 000 years ago.

The San were the owners of the land for almost 30 000 years but the local demography started to change soon after 2000 years ago when the first Bantu-speaking farmers

crossed the Limpopo River and arrived in South Africa. By 1500 years ago these early Bantu-speaking farmers also arrived in the project area. Due to the fact that these first farmers introduced metal technology to southern Africa they are designated as the Early Iron Age in archaeological literature. Their distinct ceramic pottery is classified to styles known as “Msuluzi” (AD 500-700), Ndongondwane (AD 700-800) and Ntshekane (AD 800-900). Most of the Early Iron Age sites in the greater Ugu District Municipality belong to these traditions (Maggs 1989:31; Huffman 2007:325-462). These sites characteristically occur on alluvial or colluvial soil adjacent to large rivers below the 1000m contour. The Early Iron Age farmers originally came from western Africa and brought with them an elaborate initiation complex and a value system centred on the central significance of cattle.

Later Iron Age sites also occur in the greater Hibberdene and Port Shepstone areas. These were Bantu-speaking agropastoralists who arrived in southern Africa after 1000 year ago via East Africa. Later Iron Age communities in KwaZulu-Natal were the direct ancestors of the Zulu-speaking people (Huffman 2007). Many African groups moved through the study area due to the period of tribal turmoil as caused by the expansionistic policies of king Shaka Zulu in the 1820’s and subsequent civil wars in Zululand to the north. It is known from oral history that the greater project area was inhabited by Zulu refugees in the 19th century (Bryant 1965) especially by members of the abakwaCele clan. The abakwaCele arrived in the project area around 1828 soon after the murder of King Shaka when they were being pursued by supporters of King Dingane (ibid). However, it appears that the lower densely wooded valley areas were only occupied later. According to oral history most of the historical settlement of the area took place on the higher altitude grassland areas.

Archaeological sites in the near vicinity of the project area include 2 Middle Stone Age sites and 11 Later Stone Age rock art sites situated within the greater Oribi Gorge and adjacent areas. The rock art sites form part of the eastern seaboard coastal rock art zone. Most of these occur in sandstone shelters and depict red monochrome paintings. None, however, have been recorded in the project area. No Iron Age sites were identified in the project area although there is a high probability that Early Iron Age sites may occur adjacent to the Mtwalume River.

### **3 BACKGROUND INFORMATION OF THE SURVEY**

#### **3.1 Methodology**

A desktop study was conducted of the archaeological databases housed in the KwaZulu-Natal Museum. The SAHRIS website was consulted for previous heritage surveys and heritage site data covering the project area. In addition, the available archaeological and heritage literature covering the Ugu District Municipality was consulted. Aerial photographs covering the area were scrutinised for potential Iron Age and historical period structures and grave sites. A ground survey, following standard and accepted archaeological procedures, was conducted on 25 May 2018. Particular attention was focused on the occurrence of potential grave sites and other heritage resources on the footprint.

##### **3.1.1 Guidance from Desktop Study**

- The desktop study indicates that Stone Age Sites of all periods and traditions may occur in the greater project area.
- Middle Stone Age tools have been found in dongas and erosion gullies at various locales along the south coast of KwaZulu-Natal. These sites are usually out of context and of little research value. Middle Stone Age deposits often occur in deep cave deposits throughout KwaZulu-Natal. Again no erosion gullies or suitable rocky outcrops that may harbour shelters with deep cave deposits occur in the project area.
- Later Stone Age sites are more prolific in the coastal areas of KwaZulu-Natal and also in the foothills of the Drakensberg to the west. There are no suitable rocky outcrops in the project area that may harbour shelters with Later Stone Age deposits. Although rock art occurs at Port Shepstone and Oribi Gorge to the south of the project area there are no shelters or suitable rocky surfaces in the project area that may harbour such.
- Early Iron Age Sites typically occur along major river valleys below the 700 m contour in KwaZulu-Natal. There is indeed a real possibility that Early Iron Age sites may occur in the immediate vicinity of the project area.
- Later Iron Age sites may occur in the project area. These sites were occupied by the ancestors of the first Nguni-speaking agriculturists as well as their descendants who settled in KwaZulu-Natal. In some areas in KwaZulu-Natal,

such as at Estcourt, Ladysmith and Nqutu, these early agriculturists built with stone and as a result such sites have a high archaeological visibility. However, in other areas such as those regions around Umbumbulo and the South Coast these agriculturists built with wattle and daub and the archaeological site visibility is far more compromised. Often sites are only located with reference to historical or oral data. We know, for instance that the amaXolo settled in the greater Port Shepstone area in the early decades of the 19<sup>th</sup> century and it can be expected that some associated Later Iron Age sites that extended into the historical era may be found in the area.

- Historical buildings, structures and farmsteads do occur scattered throughout southern KwaZulu-Natal. Missionaries were very active in the former Colony of Natal from 1830 onwards. Historical era buildings and structures could occur at or near the project area.

### **3.2 Restrictions encountered during the survey**

#### **3.2.1 Visibility**

Visibility was good.

#### **3.2.2 Disturbance**

No disturbance of any potential heritage features was noted.

### **3.3 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.

## **4 DESCRIPTION OF SITES AND MATERIAL OBSERVED**

### **4.1 Locational data**

Province: KwaZulu-Natal

Closest Towns: Mtwalume

Municipality: Ugu District Municipality

## 4.2 Description of the general area surveyed

### 4.2.1 Background

Land use for the proposed site and in the general surrounding areas consists of predominantly commercial agriculture, unspecified land uses are indicated to the north-west of the site. The project area is semi-rural with small commercial businesses located 500m to the north east of the site. Rural dwellings are situated some 60m from the southern boundary of the proposed sand mining area, however, these structures are all younger than 60 years old and they have no heritage value (Fig 11). Some evidence for informal and small scale sand mining activities already exist in the project area (Figs 9 & 10). The nearest town is Mtwalume located 2.5km to the east. The actual project area is situated directly adjacent to the Mtwalume River and covers the sandy areas (Figs 5 – 8). The proposed development plot covers an area of 1115m x 70m (Fig 2).

Being situated within the immediate vicinity of the Mtwalume River it is highly unlikely that any archaeological sites would occur so close to the waters edge. However, rural community graves are sometimes situated in similar settings and the consultant took special precautions to locate any graves on the proposed development plot. Community members were interviewed as to the potential location of any graves in the area (Fig 13). However, they indicated that all the known graves as situated more than 100m from the proposed mining area. The Mtwalume River Bridge situated approximately 60m to the east of the project area (Fig 12) may be older than 60 years old. However, this structure is not threatened by the proposed development.

The ground survey conducted in the present study also did not locate any heritage sites on the proposed mining area. It is also interesting to note that ongoing surveys in the Mtwalume River Valley some 8km further inland from the project area has not located any archaeological sites adjacent to the river (Beater pers comm). Some graves occur in the communal area adjacent to the study area but all of these are situated more than 100m from the proposed mining area. Being situated adjacent to the Mtwalume River the consultant expected to encounter some indigenous perceptions (i.e. living heritage) relating to the 'symbolic underwater complex' as outlined by Bernard (2003) and others. However, local residents interviewed had no knowledge of such. The area is also not part of any known cultural landscape. (Table 3).

#### **4.2.2 Stakeholder Consultation**

The consultant spoke to various community members encountered during the ground survey (Fig 13). These community members are residents of the nearby Nomakhanzana Village. None of them were aware of any heritage sites and/or graves within the project area.

#### **4.2.3 Desktop Paleontology Assessment**

The updated fossil sensitivity map, as provided by the SAHRIS website, shows that the project area is of low paleontological sensitivity (Fig 4). This is indicated by the blue colouring on the fossil sensitivity map. There is no need for any paleontological assessment in the blue colour coded areas. However, a protocol of finds will be required.

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

#### **5.1 Field Rating**

Not applicable as no heritage sites occur on the project area or within 50m from the proposed sand mining area (Table 2).

**Table 2. 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



No heritage sites occur on the proposed sand mining area. The footprint has no heritage value (Table 3).

**Table 3. Evaluation and statement of significance.**

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.

## **6 RECOMMENDATIONS**

A heritage survey of the proposed Mtwalume Sand Winning Mining area identified no archaeological or heritage sites on the project area. In addition, no heritage sites occur within 50m from the footprint. The greater area is also not part of any known cultural landscape. There is no need to do a paleontological assessment of the project area. However, a protocol of finds will be required. 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 graves and fossil material should cease immediately, pending evaluation by the provincial heritage agency.

7 MAPS AND FIGURES

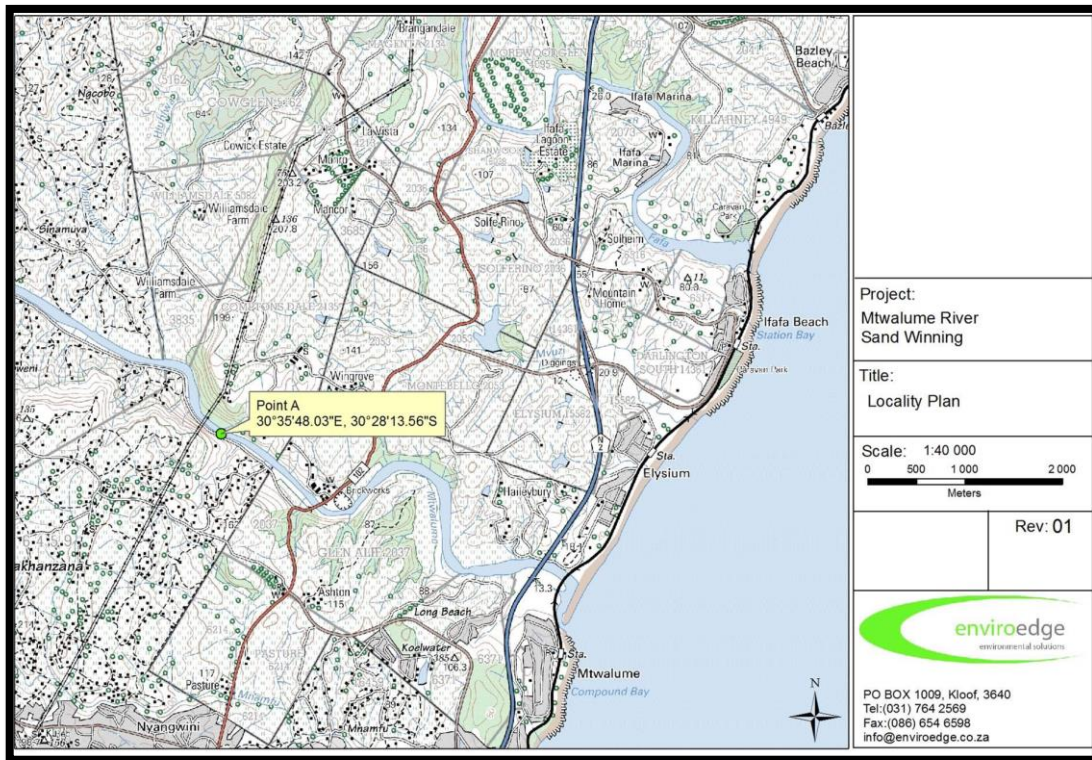


Figure 1. Google Earth Imagery showing the location of the proposed Mtwalume Sand Winning Mining Site adjacent to the Mtwalume River (Source: Enviroedge)

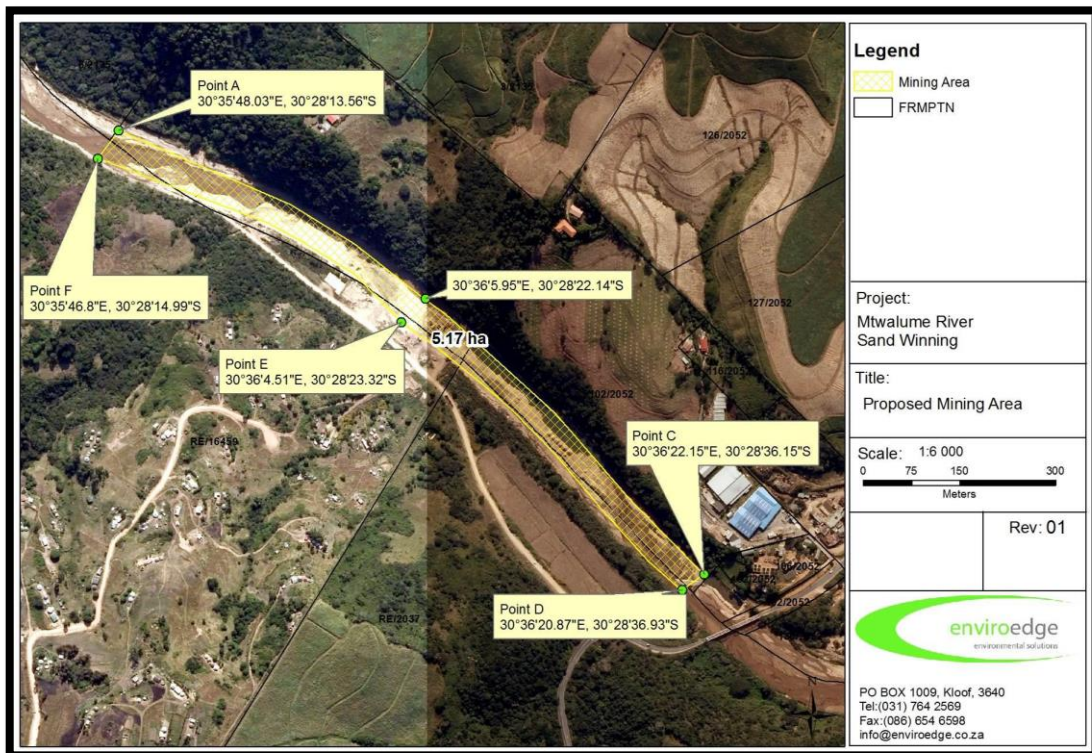
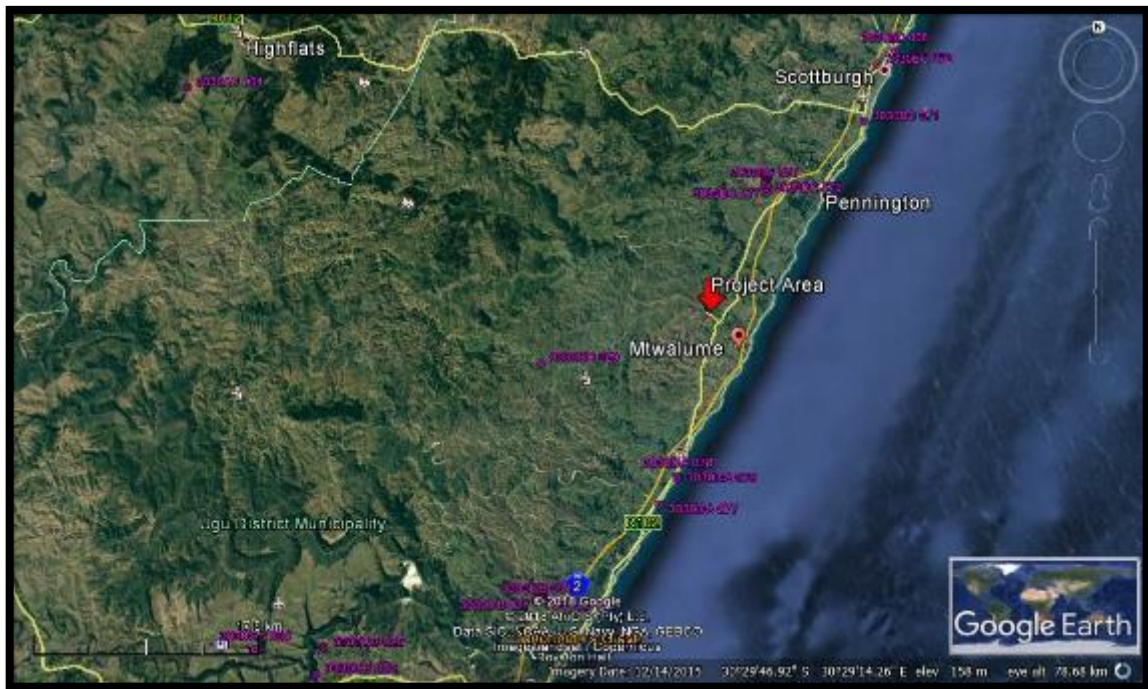
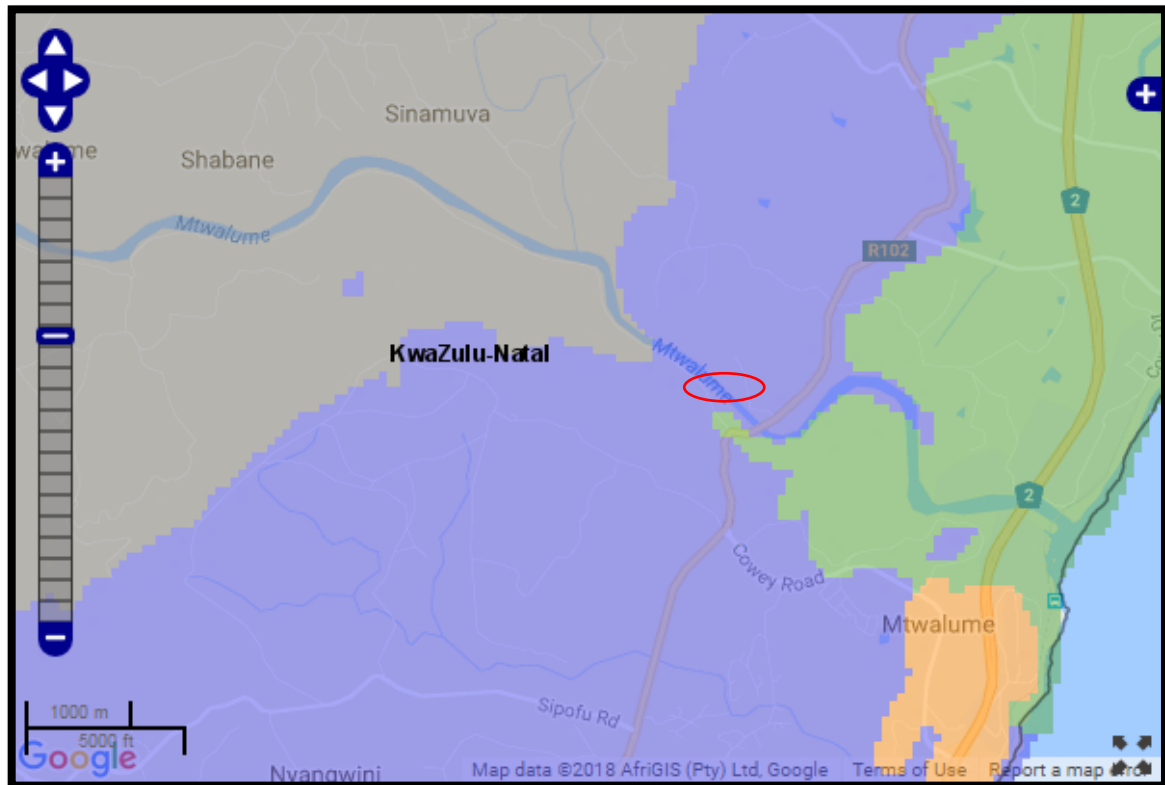


Figure 2. Map of the proposed Mtwalume Sand Winning Mining Site (Source: Enviroedge)



**Figure 3. Google Earth Imagery showing the location of the Project Area. The purple polygons indicate known archaeological sites in the Ugu Municipality area. None of the known heritage sites occur within 2km from the project area.**





**Figure 4. Fossil Sensitivity Map of the project area: The proposed development sites are indicated by the red polygon. The blue background colour indicates a low paleontological sensitivity and no studies will be necessary, however, a protocol of finds is required (Source: SAHRIS website).**



**Figure 5. View over the project area. Photograph taken from the Mtwalume Bridge.**



**Figure 6. Dirt road passing through the project area and situated adjacent to the Mtwalume River (south bank).**



**Figure 7. The central section of the area earmarked for sandmining adjacent to the Mtwalume River (south bank).**





**Figure 8. Pristine forest vegetation along the north bank of the Mtwalume River. No heritage sites occur in this section.**



**Figure 9. Small scale sand mining and associated small-business activities in the project area.**





***Figure 10. Evidence for informal sand mining activities already taking place in the project area***



***Figure 11. Rural residences adjacent to the project area are all younger than 60 years old and have no heritage value.***





**Figure 12. The steel bridge across the Mtwalume River may be older than 60 years old. However it is situated more than 100m from the project area at S 30 28' 39.07" E 30 36' 23.82" and is not threatened by the proposed development.**



**Figure 13. Local residents from the nearby Nomakhanzana Village have no knowledge of any graves or other potential heritage sites in the project area.**

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