

**CULTURAL HERITAGE IMPACT ASSESSMENT
OF THE PROPOSED THOKOZANI MPOLWENI
WATER SUPPLY SCHEME, WITHIN THE
UMSHWATHI LOCAL AND UMGUNGUNDLOVU
DISTRICT MUNICIPALITIES, KWAZULU-NATAL.**



ACTIVE HERITAGE cc.

FOR: ENVIROPRO

**Frans Prins
MA (Archaeology)**

**P.O. Box 947
Howick
3290**

activeheritage@gmail.com

Fax: 0867636380

www.activeheritage.webs.com

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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 first phase cultural heritage survey of the proposed Thokozani Mpolweni Bulk Water Supply near Albert Falls produced one heritage site of significance. This site, a cemetery, is centrally situated within Mpolweni and is not threatened by the proposed pipeline trajectories and associated developments for this project. However, mitigation does apply and the developers must respect a buffer zone of 30m around this site. The first phase paleontological desktop assessment indicate that the project area has a moderate fossil sensitivity. A desktop assessment by a qualified palaeontologist will be required before development may proceed. 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, historical, and fossil remains should cease immediately, pending evaluation by the provincial heritage agency.

1 BACKGROUND INFORMATION ON THE PROJECT

Table 1. Background information

Consultant:	Frans Prins (Active Heritage) for EnviroPro
Type of development:	Establishment of the Thokozani Mpolweni Bulk Water Project. These include primary and secondary pipelines and five reservoirs in the Mpolweni Village. The study area covers an area of approximately 5km x 4km (Mpolweni) and 3.5km x 1.5km (Thokozani).
Rezoning or subdivision:	Rezoning
Terms of reference	To carry out a First Phase Heritage Impact Assessment (including a Phase One Desktop Paleontological 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 study area is wedged between Albert Falls and Cramond in the west and Wartburg in the east. It covers the Mpolweni Village in the east and Thokozani Village to the west (Figs 1 & 2). This is a rural and peri-urban area bordered onto by farmlands and the village of Albert Falls in the south. The project area is bordered by the R614 in the south

and the R33 in the north-west. The water supply scheme will draw water from the Umgeni River that also borders the project area in the west (Figs 1 & 2). The indigenous vegetation pattern is bushed grassland that transforms into Valley Bushveld in the immediate vicinity of the Umgeni River. The GPS coordinates for the proposed development are:

Thokozani Village: S 29° 25' 50.69" E 30° 26' 27.92"

Mpolweni Village: S 29° 25' 23.53" E 30° 28' 53.36"

2 BACKGROUND TO ARCHAEOLOGICAL HISTORY OF AREA

The Albert Falls area has been relatively well surveyed for heritage sites by archaeologists of the then Natal Museum and by various cultural resource consultants who have worked in the area during the last two decades. Most intensive surveys have been conducted in the nearby Umgeni Valley Nature Reserve (Maggs et al 1995), but the KwaZulu-Natal Museum data base also indicate the presence various sites outside of the Umgeni Valley Nature Reserve. These sites occur near Albert Falls Nature Reserve and at Ottos Bluff to the east and south of the project area.

The available evidence, as captured in the KwaZulu-Natal Museum heritage site inventories, indicates that the greater Albert Falls area contains a wide spectrum of archaeological sites covering different time-periods and cultural traditions. These include five Early Stone Age sites, three middle Stone Age sites, four Later Stone Age sites, one rock engraving site, fourteen Early Iron Age sites, twenty Later Iron Age sites, and four historical sites.

Stone Age sites of all the main periods and cultural traditions occur within the greater Albert Falls area. 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 dates 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, blades, cores and bone points 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. Two small rock shelters also contained some Later Stone Age remains. They are also important as they may contain the only Later Stone Age material in archaeological context in this area.

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 Cramond area. Due to the fact that they 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 Cramond area 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. These early farmers originally came from western Africa and brought with them an elaborate initiation complex and a value system centred around the central significance of cattle.

Later Iron Age sites also occur in this area. 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 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. It is known from oral history that the Albert Falls area was inhabited by the Wushe and the Zondo tribes at the beginning of the 19th century. However, they were attacked and routed by the Thembu around who were fleeing from the Zulu (Bryant 1965). After the Anglo-Zulu war of 1879 and the Bambatha Rebellion of 1911 most of the African groups in the study area adopted a Zulu ethnic identity.

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. One study covered a portion of the project area (Prins 2015). In addition, the available archaeological and heritage literature covering the greater Albert Falls area 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 24 April 2020. Particular attention was focused on the occurrence of potential grave sites and other heritage resources on the footprint.

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 BACKGROUND INFORMATION OF THE SURVEY

4.1 Guidance from Desktop Study (Assumptions and Limitations)

- The desktop study indicates that Stone Age Sites of all periods and traditions may occur in the Midlands of KwaZulu-Natal including the greater project area. However, Early Stone Age sites typically occurs close to permanent and prominent sources of water, none of which occur in the immediate environs of the project area.
- Middle Stone Age tools have been found in dongas and erosion gullies at various locales in the KwaZulu-Natal Midlands. 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 (including the Midlands). 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. Although Later Stone Age sites have are known from the KZN Midlands they are rather scarce. In addition, there are no suitable rocky outcrops in the project area that may harbour shelters with Later Stone Age deposits. Although rock art occur at Wartburg to the east of the project area there are no shelters or suitable rocky surfaces on the actual footprint that may harbour such.
- Early Iron Age Sites typically occur along major river valleys below the 700 m contour in KwaZulu-Natal. The alluvial and colluvial areas adjacent to the Umgeni River in the southern parts of the project area (Fig 11) may harbour Early Iron Age sites. These areas will have to be thoroughly surveyed in order to locate potential Early Iron Age sites.
- Later Iron Age sites do occur at Ottos Bluff in the close environs of 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. Ottos Bluff particularly was inhabited by the Zondo and Wushe tribal identities (Bryant 1965). The remains of their stone walled settlements are visible some 2km to the south west of the project area.
- Historical buildings, structures and farmsteads do occur scattered throughout the midlands of KwaZulu-Natal. Historical era buildings and structures could occur

at or near the project area. The Mpolweni Village, in particular, is associated with missionary activity and associated buildings or structures may occur in the project area.

5 DESCRIPTION OF SITES AND MATERIAL OBSERVED

5.1 Locational data

Province: KwaZulu-Natal

Towns: Albert Falls, Cramond

Municipality: Umshwathi Local and Umgungundlovu District Municipalities Municipalities

5.2 Description of the general area surveyed

Large portions of the project area, including both Thokozani and Mpolweni, has been disturbed by recent building activities associated with peri-urban expansion as well as small-scale farming. However, large portions of the footprint are still covered in indigenous grass and bushveld trees (Figs 9 & 10). Although the greater Albert Falls area is rich in archaeological sites no heritage sites or other relevant features have been observed on the actual footprint during the survey. Some buildings older than 60 years do occur at Mpolweni and these are most probably associated with the early mission activities in the area. However, none of these buildings occur closer than 200m from the proposed pipelines (Fig 3) and they are not threatened by the development. Archaeological sites do occur on the adjacent properties. These, however, are situated more than 500m from the proposed development (Fig 4) and again there is no need for mitigation. The area is also not part of any known cultural landscape (Table 2).

Special care was taken to locate modern graves but none were observed on the immediate vicinity of the proposed waterworks. However, a large cemetery is roughly situated in the centre of the northern part of Mpolweni (Figs 5 - 7). Although not threatened by the proposed waterworks it is nevertheless important to maintain a buffer of 30 m around this site as some of the proposed pipelines are situated within 100m from this locally important heritage site (see below).

5.2.1 Mpolweni Cemetery

The Mpolweni Cemetery is situated in the northern section of the Mpolweni Village (Figs 5 - 7). The GPS coordinates for the centre of the cemetery are: ZS 29° 24' 31.47" E 30° 28' 49.23". This cemetery covers an area of approximately 140m x 75m and is demarcated by a fence. It contains more than 100 graves (both modern and old). Some of these are older than 60 years. Both formal and informal graves occur in the cemetery (Figs 12 – 14).

5.2.1.1 Mitigation

All graves and cemeteries are protected by provincial heritage legislation. The Mpolweni cemetery is graded as a level 3 heritage site (Table 3). It may therefore not be destroyed or altered. The cemetery is already fenced-in and there is a demarcated entrance road. In addition, the cemetery is situated more than 80m from any proposed infrastructure associated with the envisioned waterworks. It is nevertheless suggested that the developers strictly maintain a buffer zone of at least 30m around the cemetery.

5.2.2 Stakeholder Consultation

The consultant spoke to local residents whilst conducting the field survey. None had knowledge of any graves, other than those associated with the cemetery, or other heritage features within the greater project area.

5.2.3 Desktop Palaeontology Assessment

The updated fossil sensitivity map, as provided by the SAHRIS website, shows that the project area (including both the Thokozani and Mpolweni villages) is of moderate paleontological sensitivity (Fig 8). According to Amafa policy the implication is that a comprehensive paleontological desktop study will be required before the proposed development may proceed. This study will have to be conducted by an Amafa accredited palaeontologist.

Table 2. Evaluation and statement of significance.

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.	None.
2.	Scientific significance – Possession of uncommon, rare or endangered aspects of South Africa's cultural heritage.	None.
3.	Research/scientific significance – Potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage.	None.
4.	Scientific significance – Importance in demonstrating the principal characteristics of a particular class of South Africa's cultural places/objects.	None.
5.	Aesthetic significance – Importance in exhibiting particular aesthetic characteristics valued by a community or cultural group.	None.
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 Mpolweni cemetery is of social 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.

6 STATEMENT OF SIGNIFICANCE (HERITAGE VALUE)

6.1 Field Rating

The Mpolweni Cemetery is graded as Local Grade IIIA. The Site is considered to be of high significance locally and should be retained as a heritage site (Table 3).

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

7 RECOMMENDATIONS

The proposed Thokozani Mpolweni Bulk Water Project may proceed from a general heritage perspective (excluding palaeontology). However, the developers must ensure that the Mpolweni cemetery is not altered or damaged in any way. A buffer zone of 30m must be maintained around this site at all times. There is no need for the developers to erect a fence around the cemetery as one already exists.

According to the SAHRIS fossil sensitivity map the project area falls within a zone of moderate paleontological sensitivity. A comprehensive desktop assessment by an Amafa accredited palaeontologist must be conducted before any development may proceed.

It should also be pointed out that the KwaZulu-Natal Heritage Act requires that operations exposing archaeological and historical residues, as well as fossils, should cease immediately pending an evaluation by the heritage authorities.

8 RISK PREVENTATIVE MEASURES ASSOCIATED WITH CONSTRUCTION

Maintain a buffer of at least 30m around the Mpolweni cemetery at all times. Use existing road infrastructure.

9 MAPS AND FIGURES

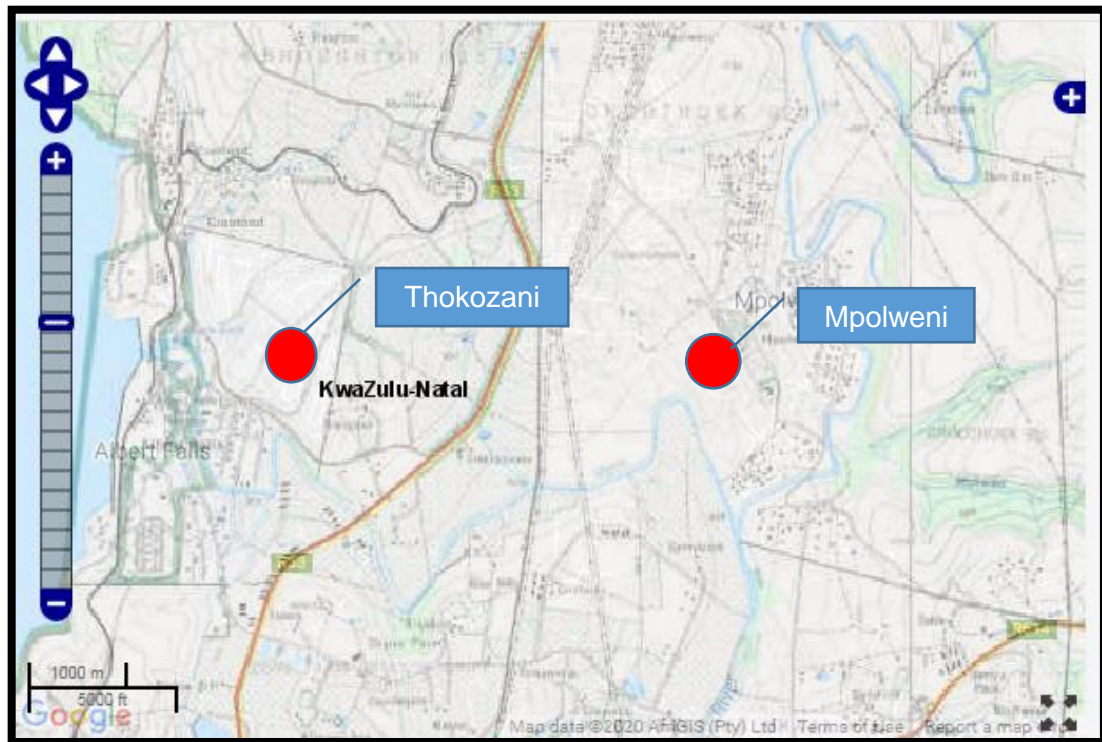


Figure 1. Topographical map showing the location of the Thokozani and Mpolweni villages near Albert Falls.



Figure 2. Google Earth Imagery showing the location and demarcation of the project area at Thokozani and Mpolweni near Albert Falls (source: EnviroPro).

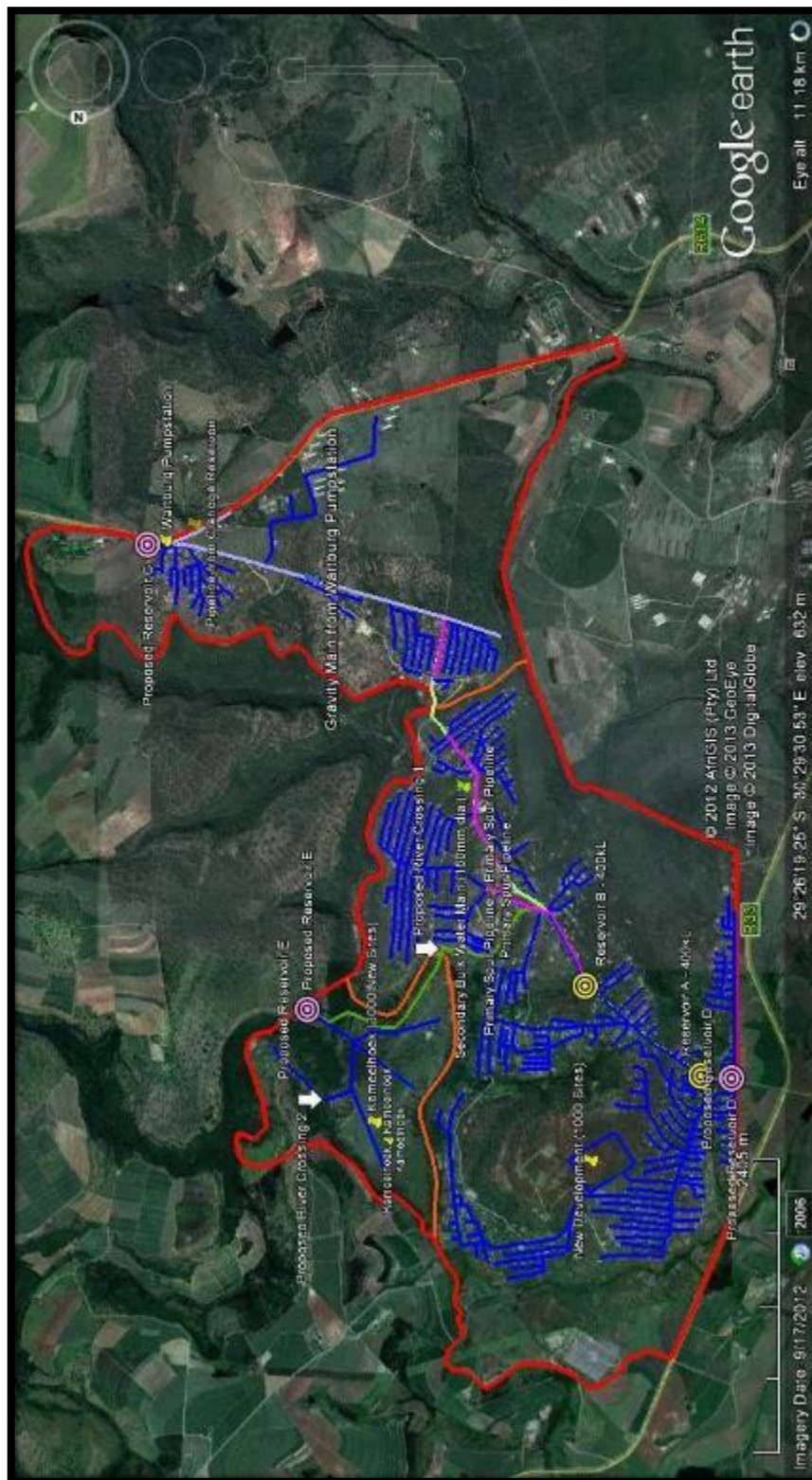


Figure 3. Map showing the planned infrastructure of the proposed Bulk Water Scheme at Mpolweni. No heritage sites of significance occur within 100m of the pipeline trajectory.

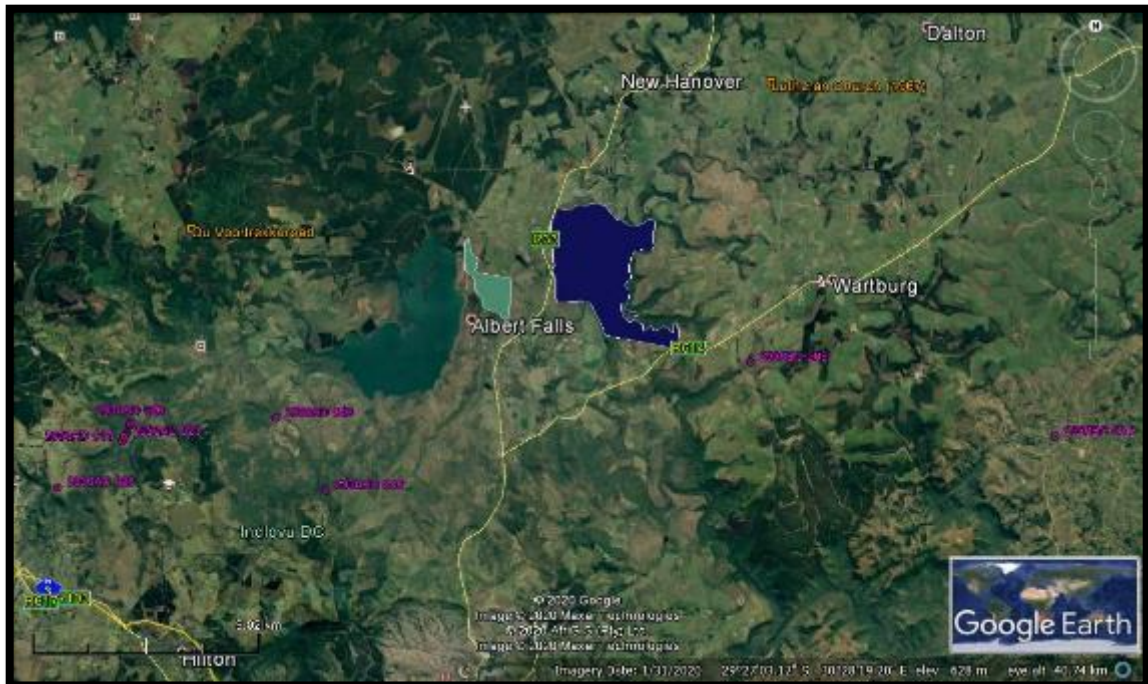


Figure 4. The distribution of known heritage sites within the greater Albert Falls area. The orange markers indicate historical period sites. The purple markers indicate archaeological sites. No sites occur in the project area.



Figure 5. Google Earth imagery showing the location of the Mpolweni Cemetery in the northern section of the project area.

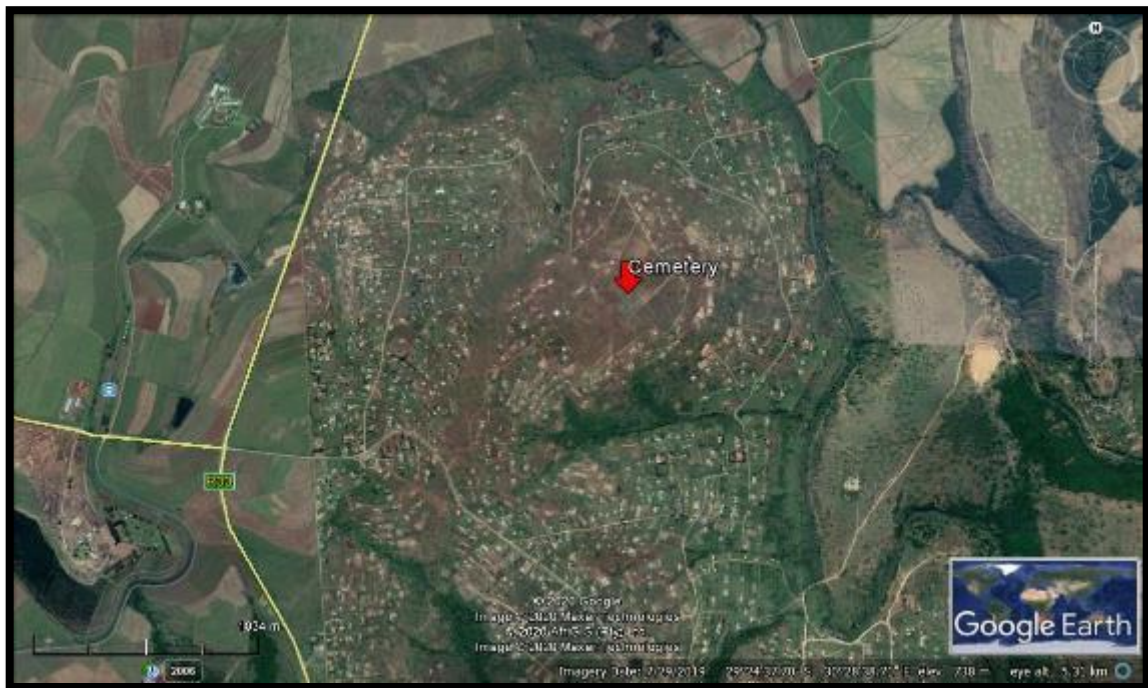
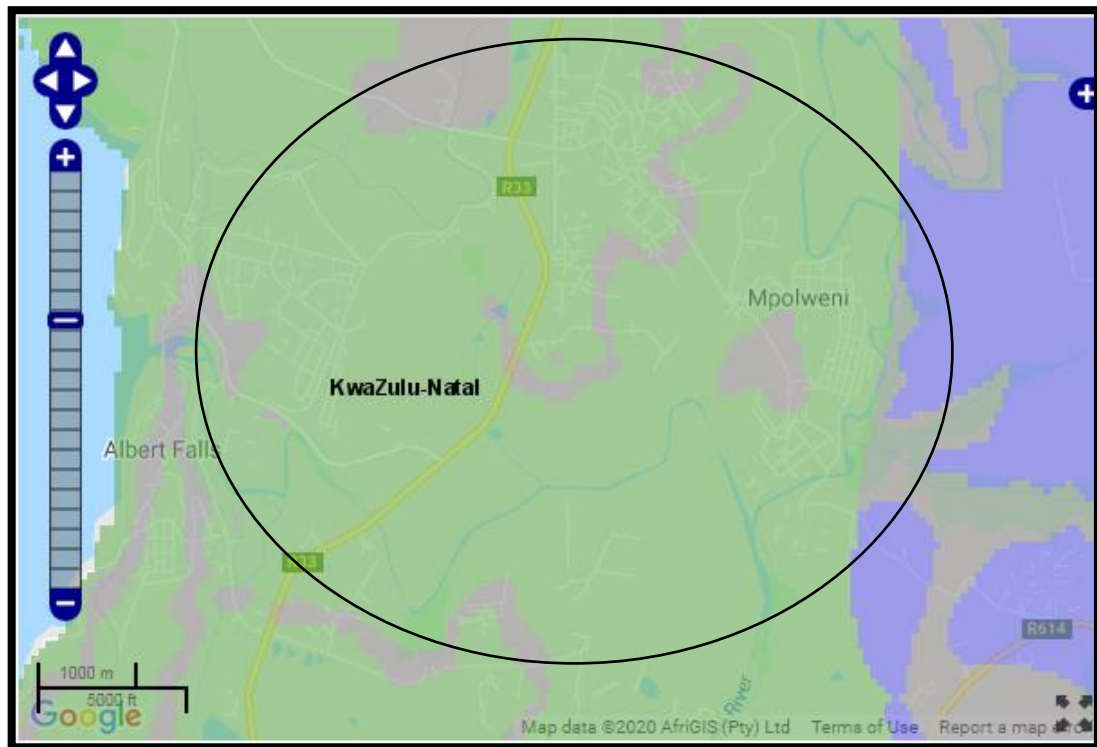


Figure 6. Google Earth imagery showing the location of the Mpolweni cemetery.



Figure 7. Google Earth Imagery showing the location and context of the Mpolweni cemetery. The cemetery is well demarcated and not threatened by the proposed development.



1 in 250 000 geological formation layers are courtesy of the Council for GeoScience
 For more information, go to [How to Use the Palaeontological \(fossil\) Sensitivity Map](#)

Colour	Sensitivity	Required Action
RED	VERY HIGH	field assessment and protocol for finds is required
ORANGE/YELLOW	HIGH	desktop study is required and based on the outcome of the desktop study, a field assessment is likely
GREEN	MODERATE	desktop study is required
BLUE	LOW	no palaeontological studies are required however a protocol for finds is required
GREY	INSIGNIFICANT/ZERO	no palaeontological studies are required
WHITE/CLEAR	UNKNOWN	these areas will require a minimum of a desktop study. As more information comes to light, SAHRA will continue to populate the map.

Figure 8. SAHRIS Fossil Sensitivity Map of the project area (demarcated by the black polygon). The green background colour indicates that the area has a moderate paleontological sensitivity. A desktop study by a qualified palaeontologist will be required before development may proceed.



Figure 9. View over the Mpolweni Village. Some older buildings are associated with the past mission activity in the area. However, none of these occur in the near vicinity of the proposed water scheme development. Indigenous bush is still prevalent in the area.

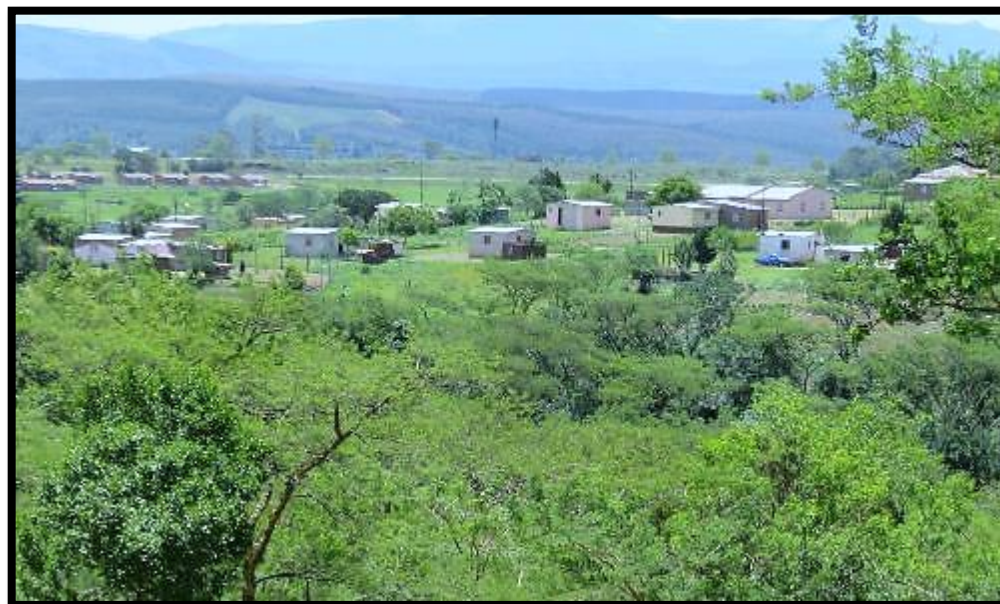


Figure 10. View over the Thokozani Village adjacent to Albert Falls. The buildings are relatively new (all younger than 60 years old) and no graves are associated with existing homesteads. Indigenous woody vegetation is still prevalent in the area.



Figure 11. The Umgeni River forms the southern boundary of the project area. Although Early Iron Age sites typically occurs in these type of settings none were observed in the project area.



Figure 12. The Mpolweni cemetery. It is demarcated by a fence and situated more than 100m from the proposed waterworks developments.



Figure 13. Unmarked and informal grave situated within the Mpolweni cemetery.



Figure 14. Marked and formal grave situated within the Mpolweni cemetery.

9 REFERENCES

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