HERITAGE IMPACT ASSESSMENT OF THE PROPOSED MANDALAKAZI SOUTH WATER RETICULATION SYSTEM, NONGOMA, KWAZULU-NATAL



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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	
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 heritage impact assessment and survey of the proposed Mandalakazi South Water Reticulation near Nongoma, KwaZulu-Natal identified no heritage sites. There is no known archaeological reason why the development may not proceed as planned. However, it should be noted that the general area is rich in archaeological and historical sites. Construction work may expose material 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 expose archaeological or historical 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 Enviroedge	
Type of development:	The project is being implemented to install distribution reservoirs, bulk water lines and a reticulation system to the Mandalakazi South area. Water supply problems in the neighbouring Hlabisa area has resulted in the construction of a bulk supply pipe line to service the eastern side of Mandlakazi (Fig 1). This service line will allow for the installation of distribution reservoirs, bulk water lines and a reticulation system which will provide the flows needed to supply the Mandlakazi South reticulation project. The scope of the project is as follows: • • Construction of 250kl and 400kl distribution reservoirs • Installation of secondary bulk water lines and associate appurtenances ranging in size between 75mm and 110mm in diameter • Installation of distribution piping and standpipes • Approximately 5 river or stream crossing will be required during installation (Fig 2).	
Rezoning or subdivision:	Not applicable	
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 project is located in the south east corner of the Nongoma Local Municipality (NLM). Nongoma is situated in the north of the KwaZulu-Natal Province (KZN) and forms 2,184 km2 of the total KZN area of 92,417km2. The project area is located between Nongoma and Hlabisa and can be accessed from the R618 (Fig 1). The GPS coordinates for the project area is given as: S 28° 1' 35.75" E 31° 51' 22.71"

2 BACKGROUND TO ARCHAEOLOGICAL HISTORY OF AREA

The greater Nongoma and Hlabisa areas have been sporadically surveyed for archaeological heritage sites by archaeologists previously employed by the Natal Museum, the Ondini Cultural Museum and Amafa. The most systematic surveys occurred in the Umfolozi-Hluluwe Nature Reserve. It is especially the extensive surveys conducted by Penner (1970), and Hall (1980) but also subsequent research by Feely (1980) and Anderson (1988) that has thrown light on the heritage resources of the nature reserve.

The available evidence, as captured in the KwaZulu-Natal Museum heritage site inventories, indicates that this area contains a wide spectrum of archaeological sites covering different time-periods and cultural traditions. Six Early Stone Age sites have been recorded. These sites date back to between 300 000 and 1.5 million years ago. Most of these are situated in dongas close to water with little in-situ material. An astonishing 59 Middle Stone Age sites have been recorded in the nature reserve. Middle Stone Age sites are associated with anatomically modern people and dates back to approximately 40 000 to 200 000 years ago. The vast majority of Middle Stone Age sites in the nature reserve are open-air sites. They therefore do not occur in archaeological context and have limited excavation value. Later Stone Age sites occur in various localities in the nature reserve. Thirty five Later Stone Age sites have been recorded. Although the majority of these sites are situated in open air context some are also associated with small shelters and caves. These shelters have archaeological excavation potential. The Later Stone Age is usually associated with San huntergatherers or their immediate predecessors and dates back to between 200 years and 30 000 years ago. Interestingly, the nature reserve also contains 11 rare examples of Zululand rock art sites. Although not as well known as the rock art of the Drakensberg the art of this region is nevertheless unique as it is probably older and executed in a different style from the Drakensberg art.

Archaeological sites have also been recorded outside of the Umfolozi-Hluluwe Nature Reserve although our knowledge of these is more limited. Early Stone Age tools have been recorded in the greater Ulundi district. One Middle Stone Age open air site has been recorded immediately adjacent to Nongoma in the 1970's. However, this site seems to have been destroyed by development in recent years. Later Stone Age tools, belonging to the San and their immediate ancestors, occur in various localities in Zululand but none has been recorded close to Nongoma as yet. An Iron Age engraving site also occurs in the area but not in the immediate vicinity of the footprint.

Around 1 700 years ago an initial wave of Early Iron Age People settled along the inland foot of the sand dunes on sandy but humus rich soils which would have ensured good crops for the first year or two after they had been cleared. These early agropastoralists produced a characteristic pottery style known as Matola. The Matola people also exploited the wild plant and animal resources of the forest and adjacent

sea-shore. The communities seems to been small groups of perhaps a few dozen slash-and burn cultivators, moving into a landscape sparsely inhabited by Later Stone Age San hunter-gatherers.

By 1500 years ago another wave of Iron Age migrants entered the area. Their distinct ceramic pottery is classified to styles known as "Msuluzi" (AD 500-700), Ndondondwane (AD 700-800) and Ntshekane (AD 800-900). The vast majority of recorded sites belonging to this period occur in the Tugela River Basin below the 1000m contour to the south of the project area. Some of these, such as the Ndondondwane and Mamba sites have been excavated by archaeologists (Maggs 1989:31; Huffman 2007:325-462).

The Nongoma and Ulundi areas are particularly well known for their central situation relative to the development of the Zulu state of King Shaka Zulu in the early 1800's. The emaKhosini valley (Valley of the Kings) is situated in the immediate environs of Ulundi. This area also contains the military capital of King Dingane – the half brother and successor of Shaka. Some of the graves in this valley predate Shaka Zulu and relates to the early Zulu lineage of the area (Derwent 2006). As such this valley can also be classified as a cultural landscape. Sites associated with Zwide, the leader of the Ndwandwe clan who initially opposed Shaka, occurs closer to the project area not far from Nongoma. Historical era sites relating to the period of the Anglo-Zulu War of 1879 also occurs in the general area. Most of these again are situated further south closer to Ulundi but King Cetswayo's Gqikazi settlement occurs closer to Nongoma. Apart from sites relating to Zulu history the area also contains an Iron Age rock engraving site. However, none of these sites occurs in the immediate vicinity of the study area.

The colonial history of the area starts around 1820 when early English ivory traders established themselves at Port Natal (Durban). Dutch descendants (i.e. Voortrekkers) moved into the area soon after 1834 and established a short lived Boer republic called Natalia to the south of the Tugela River. However, by 1845 Natal became a British colony. In 1879 Zulu-land was invaded by British forces and the area annexed soon thereafter.

3 BACKGROUND INFORMATION OF THE SURVEY

3.1 Methodology

A desktop study was conducted of the archaeological databases housed in the KwaZulu-Natal Museum. In addition, the available archaeological literature covering the greater Nongoma and Hlabisa areas was also consulted. The SAHRIS website was consulted to obtain background information on previous heritage surveys and

assessments in the area. A ground survey, following standard and accepted archaeological procedures, was conducted.

3.2 Restrictions encountered during the survey

3.2.1 Visibility

Thick mist that occurred on the day of the ground survey may have compromised site visibility.

3.2.2 Disturbance

No disturbance of any heritage sites or 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 Towns: Nongoma, Hlabisa

Municipality: Zululand District Municipality

4.2 Description of the general area surveyed

The project area is situated in a rural landscape dominated by grasslands on the higher altitudes and along the existing road network (Fig 3) and wooded valleys along the stream beads (Fig 4). Small rural settlements are dotted along the roads in the area. The proposed pipelines associated with the Mandalakazi South Water Reticulation System are situated on both the western and eastern side of the R 618. Proposed reservoir sites are situated to the east of the R618 adjacent to a rural road on a high elevation (Fig 1). Although the proposed pipeline routes are situated in rural areas close to human habitation there are no graves or other heritage features directly associated with them. Dongas along the stream beds in the near vicinity of the proposed pipeline routes also produced no artefacts or archaeological remains (Fig 5).

5 STATEMENT OF SIGNIFICANCE (HERITAGE VALUE)

As there are no heritage sites on the footprint the area is not significant in terms of heritage values. In addition, the footprint does not form part of any identified cultural landscape. Nevertheless there is a slight possibility that excavation and construction work may expose archaeological material. Should archaeological material been exposed during construction then all development work should stop immediately and the provincial heritage agency, Amafa, must be contacted for further evaluation.

5.1 Field Rating

The field rating criteria as formulated by SAHRA (Table1) does not apply to the footprint as no heritage sites or features have been identified on the footprint.

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

6 RECOMMENDATIONS

The proposed water reticulation development may proceed in terms of heritage values as no sites are in any danger of being destroyed or altered. However, it should also be pointed out that the KwaZulu-Natal Heritage Act requires that operations exposing archaeological and historical residues should cease immediately pending an evaluation by the heritage authorities.

7 RISK PREVENTATIVE MEASURES ASSOCIATED WITH CONSTRUCTION

Construction work and excavations may yield archaeological 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.

8 MAPS AND PHOTOGRAPHS

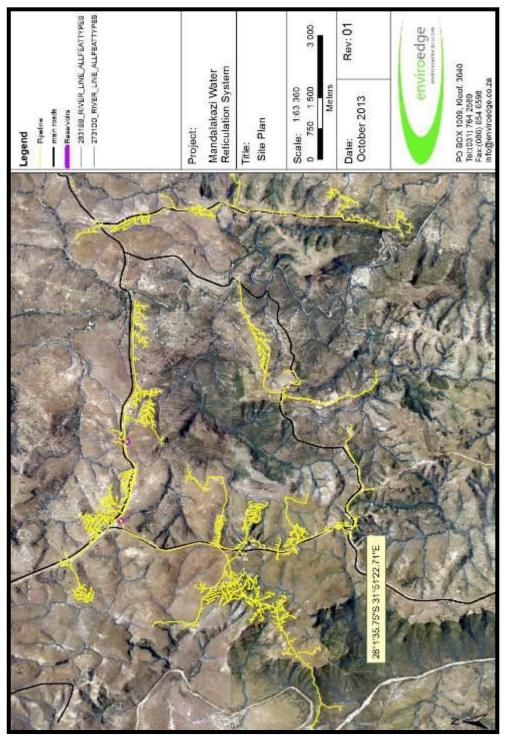


Figure 1. Map showing the location of the proposed Madalakazi South Water Reticulation system (Source: Enviroedge).

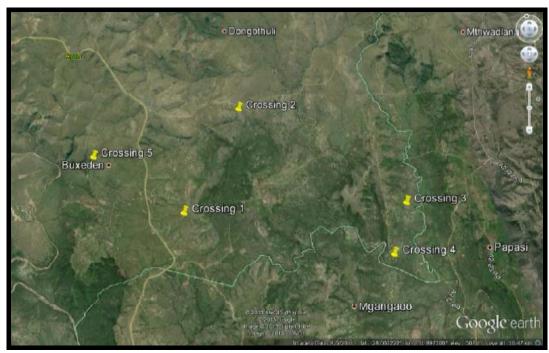


Figure 2. Google aerial photograph showing the location of the proposed crossings within the project area.



Figure 3. The project area in the environs of the R618. The area is dominated by grasslands on the higher altitudes.



Figure 4. Woody vegetation occurs in the valleys below the higher altitude grassland areas.



Figure 5. No archaeological artefacts or sites occur in the various dongas observed in the project area.

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