PHASE ONE HERITAGE IMPACT ASSESSMENT OF THE PROPOSED UMLAZI WP 84 V5/6/7 SANITATION PROJECT, ETHEKWENI METRO MUNICIPALITY.

ACTIVE HERITAGE cc.

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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 WP 84 V5/6/7 Sanitation Project at Umlazi, eThekwini Metro-Municipality identified no heritage sites in the study area. The area is also not part of any known cultural landscape. There is no archaeological reason why the proposed development may not proceed as planned. However 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 cc) for KSEMS
Type of development:	This site is relatively steep and involves the construction of a pump station, bulk sewerage pipeline and associated CABs at WP 84 V5-6-7 in Umlazi. Infrastructure falls within 32m of the uMlazi River and/or drainage lines (Fig 2).
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 study area is located in the south west of the Ethekwini Metropolitan Area. The central feature of the study area is the Umlazi River and its gorge (Figs 1 & 2). The GPS coordinates of the study area is:

Pump Station: 29º 57' 12.57"S and 30º 55' 49.02" E.

Rising main East:
Start: 29º 57' 12.57" S and 30º 55' 49.02" E
End: 29º 57' 10.06" E 50º 55' 28.91"

BACKGROUND TO ARCHAEOLOGICAL HISTORY OF AREA

The greater Ethekwini Metropolitan area has been relatively well surveyed for archaeological heritage sites by the KwaZulu-Natal Museum and subsequently by private heritage consultants in the last few years. Prior to 1950, the archaeological site distribution of the area was poorly known.

The available evidence, as captured in the Amafa and KwaZulu-Natal Museum heritage site inventories, indicates that the greater Durban area contains a wide spectrum of archaeological sites covering different time-periods and cultural traditions. These range from Early Stone Age, Middle Stone Age, and Later Stone Age to Early Iron Age, Middle Iron Age, and Later Iron Age sites. Two notable Middle Stone Age sites, i.e. Umlatuzana near Marianhill and Segubudu near Stanger have been excavated in the last two decades and yielded impressive archaeological stratigraphies relating to the period associated with the origins of anatomically modern people. The Umhlatuzana shelter is situated approximately 18km to the north of the study area. Apart from an impressive stone tool assemblage covering both Later and Middle Stone Age periods it has also yielded faunal remains of large mammals that became extinct during the early Holocene such as the giant buffalo (Pelarovis sp). Also notable is the Shongweni Later Stone Age shelter which was excavated in the 1970's by Dr Oliver Davies. Shongweni is situated approximately 12km upstream from the study area in the Umlazi River Valley. This shelter yielded some of the earliest remains of domesticated cereals in South Africa. The same site also yielded some of the only San rock art in the greater Durban area (Mazel 1989; Mitchell 2002).

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 agro-pastoralists 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 majority of these sites occur inland along the major river valleys of KwaZulu-Natal below the 1000m contour (Maggs 1989:31; Huffman 2007:325-462). Various sites of this period have been recorded along the Umgeni River in the near vicinity of the study area, especially in the area close to Inanda Dam.

Some of the shell middens recorded along the coastline of KwaZulu-Natal belongs to the very first Nguni-speaking agropastoralists who settled in the province. These sites have been dated to approximately 1200 years ago. In addition, sites belonging to the immediate ancestors of the present Zulu-speaking communities in the area have been located in various locations in the greater Durban area. A large percentage of more recently recorded sites occur along the dune cordon and slightly inland in the form of shell middens which were mostly created by Iron Age shellfish gatherers although some of the stratigraphic layers may extend back to Later Stone Age periods (Anderson pers.com). Shell middens with both later Stone Age and Iron Age cultural material occur near the mouth of the Umlazi River approximately 2km downstream from the study area.

Various colonial era and historical period sites occur in the greater Durban area. These date from about 1840 and are usually associated with the first European settlers in the area. Various historical buildings occur at Clermont, Pinetown and New Germany, in the near vicinity of the study area. These include church buildings, and structures associated with the first German settlers in Kwa-Zulu Natal. These are older than 60 years and are therefore also protected by heritage legislation (Derwent 2006).

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2 BACKGROUND INFORMATION OF THE SURVEY

2.1 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 greater Umlazi River valley area was also consulted.

A ground survey, following standard and accepted archaeological procedures, was conducted. Particular attention was focused on the occurrence of potential grave sites and other heritage resources along the alternative sewerage pipeline routes as outlined in the project brief.

2.2 Restrictions encountered during the survey

2.2.1 Visibility

Visibility was reasonable although dense vegetation compromised site visibility in some areas.

2.2.2 Disturbance

No 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: eThekweni Metro-Municipality
Towns: Durban

3.2 Description of the general area surveyed

The topography of the study area is principally defined by the Umlazi River valley (Fig 3). The terrain is steeply undulating with the steep slopes of valleys and ridges dropping down into the Umlazi River valley. The Umlazi River meanders through the study area and this has resulted in alternating steep scarps with flat floodplain areas adjacent to the river. The River drains through the study area in North West to south easterly direction. A number of small perennial and non-perennial streams discharge down steeply incised valleys into the Umlazi River.

The Umlazi River valley in the study area is defined by the resistant Natal Group Sandstone cliffs. The soils the along the banks of the Umlazi River in zones of deposition can be defined as sandy, structure less and poorly drained and are generally deep extending to depths greater than 3 m. The ridges and tops of the hills are generally comprised of Lithosol soils which shallow soils are overlying weathering rock. These soils are highly susceptible to erosions and rely heavily on vegetation to keep the soils in place. The areas in the river valley defined by the presence of the resistant sandstone features are generally covered with very thin layer of soil and rock can be expected to lie very close to the surface.

The study area is located in the Indian Ocean Coastal Belt (KwaZulu-Natal Coastal Belt) biomes of South Africa (Mucina & Rutherford, 2006). This Biome in the region of the study area includes the following vegetation KZN types (per SANBI, BGIS):

- KwaZulu Natal Coastal Belt Thornveld
- KwaZulu Natal Coastal Forests: Southern Mesic Coastal Lowlands Forest
- KZN Eastern Scarp Forests: Southern Coastal Scarp Forest

Land use and land cover consists of urban residential development in the north western portion of the study area interspersed with dense vegetation in the steep

valley inverts where it is not physically possible to construct homes. Some informal dwellings are beginning to encroach into these densely vegetated areas (Fig 4). The south eastern bank of the Umlazi River is characterised by more rural homesteads with a lower home density.

A particular concern was to find graves on the footprint. Some were noticed in the greater Umlazi Valley but none occur I direct association or within 50m of any of the proposed sanitation pipeline alignments.

4 STATEMENT OF SIGNIFICANCE (HERITAGE VALUE)

4.1 Field Rating

Not applicable as no heritage sites occur 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

5 RECOMMENDATIONS

There is no archaeological reason why the proposed development expansion may not take place as planned. The area is also not part of any known cultural landscape and no modern graves occur on the footprint. It should, however, be pointed out that the KwaZulu-Natal Heritage Act requires that operations exposing archaeological and historical residues, including grave sites, should cease immediately pending an evaluation by the heritage authorities.

6 MAPS AND FIGURES

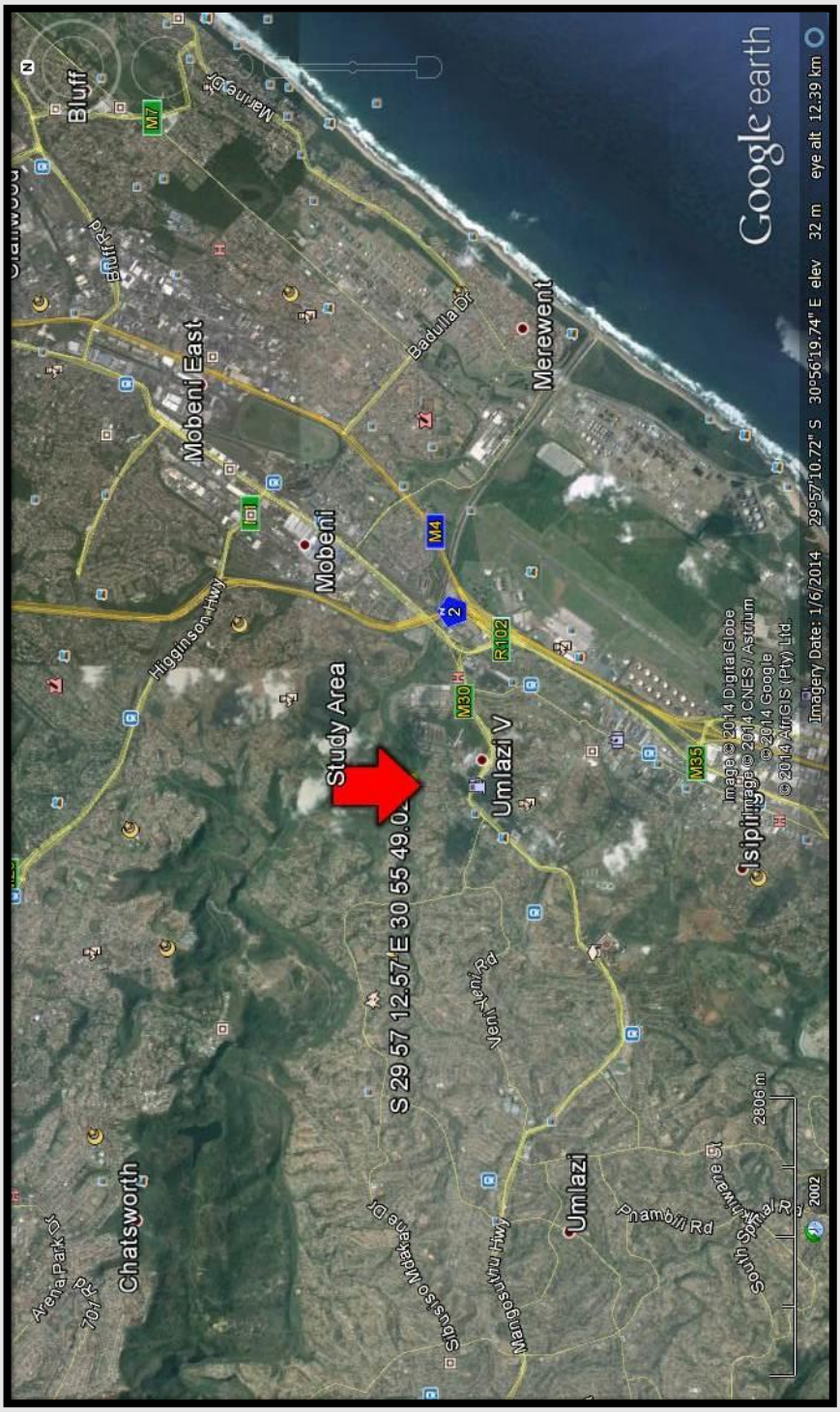

Figure 1. Google aerial photograph showing the location of the study area.

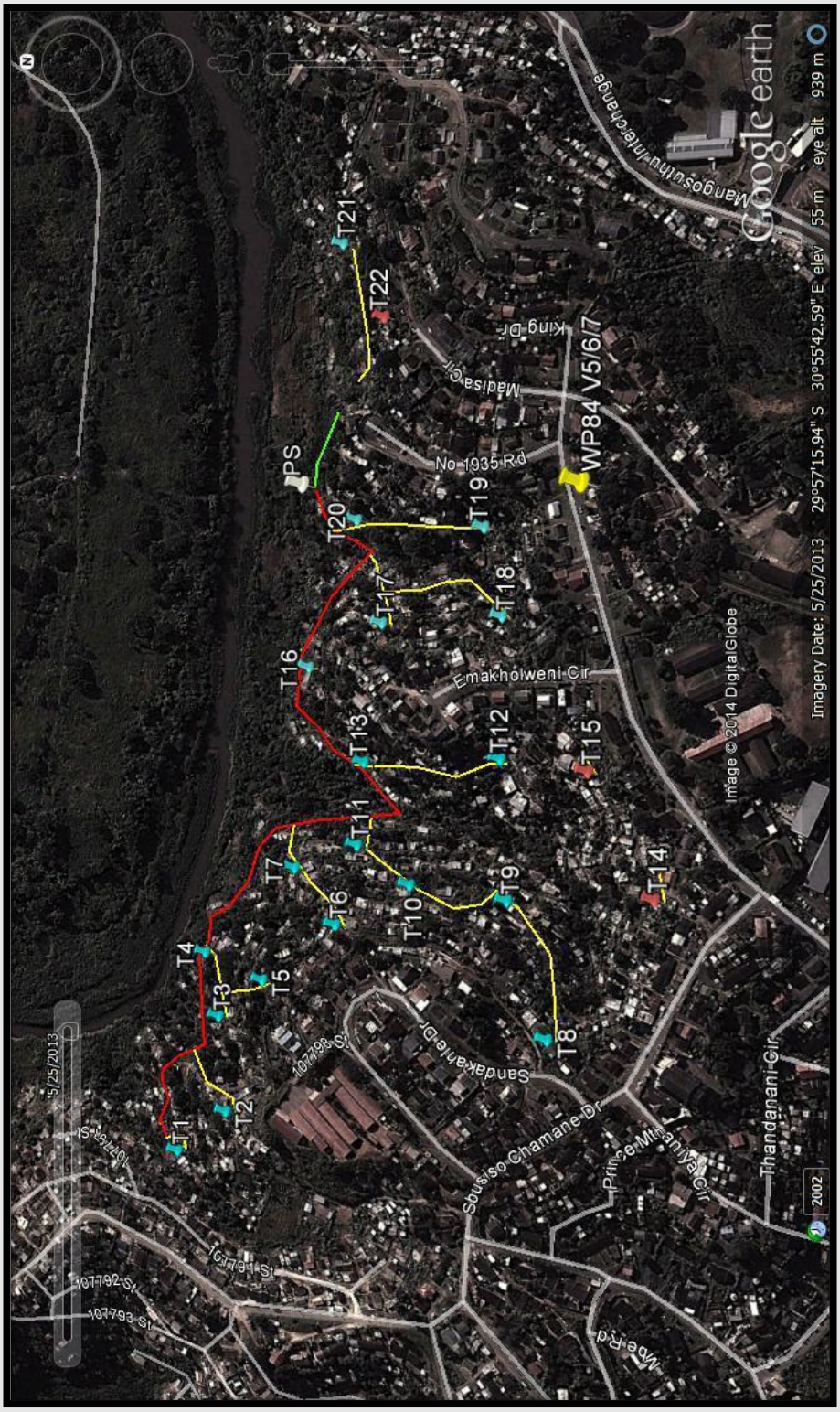

Figure 2. Google Earth image of the proposed pipelines with the bulk sewer (gravity) drawn in green and the yellow pins indicated the location of the proposed toilets. All toilets will be linked to the bulk sewer by CAB connectors. The proposed pump station site is illustrated by a yellow square. The yellow line indicates an existing pipeline. (Source: KSEMS).

Figure 3. View over the study area with the Umlazi River in the distance.

Figure 4. Informal settlements occur in the dense vegetation, however, no graves were visible.

7 REFERENCES

Bryant, A. T. 1965. *Olden times in Zululand and Natal*. Cape Town: C. Struik.

Derwent, S. 2006. *KwaZulu-Natal Heritage Sites: A Guide to Some Great Places*. David Phillips: Cape Town

eThembeni. 2006. *Heritage Impact Assessment of the Western Aqueduct Greater Durban metro, KZN.* Unpublished report presented to Knight Piesold.

Huffman, T. N. 2007. *Handbook to the Iron Age: The Archaeology of Pre-colonial Farming Societies in Southern Africa*. University of KwaZulu-Natal Press. Pietermaritzburg.

Maggs, T. The Iron Age farming communities. In Duminy, A. and Guest, B. 1989. *Natal and Zululand: from Earliest Times to 1910. A New History*. Pg. 28-46. University of Natal Press. Pietermaritzburg.

Mitchell, P. 2002. *The Archaeology of Southern Africa*. Cambridge University Press: Cambridge

SAHRA, 2005. *Minimum Standards for the Archaeological and the Palaeontological Components of Impact Assessment Reports, Draft version 1.4.*