

***TSIMBA ARCHAEOLOGICAL  
FOOTPRINTS (PTY) LTD***



***CULTURAL DIVERSITY, SUSTAINABILITY &  
COMMUNITY ENGAGEMENT***



**PHASE 1 HERITAGE IMPACT ASSESSMENT FOR THE PROPOSED  
CONSTRUCTION OF A WATER RETICULATION NETWORK TO RESERVOIR  
SUPPLY ZONE 3 AND 4 WITHIN MTHONJANENI LOCAL MUNICIPALITY,  
KZN.**

**DECEMBER 2018**

**Prepared for iSambulo Environmental Consulting on behalf of the developer:  
King Cetshwayo District Municipality**

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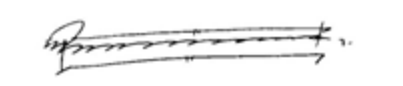
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**ABBREVIATIONS**

Acronyms	Description
AIA	Archaeological Impact Assessment
ASAPA	Association of South African Professional Archaeologists
CRM	Cultural Resource Management
DEA	Department of Environmental Affairs
EIA Practitioner	Environmental Impact Assessment Practitioner
EIA	Environmental Impact Assessment
ESA	Early Stone Age
GIS	Geographic Information System
GPS	Global Positioning System
HIA	Heritage Impact Assessment
LSA	Late Stone Age
LIA	Late Iron Age
MIA	Middle Iron Age
MSA	Middle Stone Age
SAHRA	South African Heritage Resources Agency
KZN-H	KwaZulu-Natal Heritage

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## ***EXECUTIVE SUMMARY***

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Tsimba Archaeological Footprints was requested by iSambulo Environmental Consulting to conduct a heritage impact assessment (HIA) of the proposed Greater Mthonjaneni Water Reticulation Project within Ward 6 (Sub-Supply Area 5: Zone 3 and 4) within Mthonjaneni area. The project developer or applicant is the King Cetshwayo District Municipality. The proposed project is a linear activity whereby the pipelines will traverse a lot of area or sub-wards within Mthonjaneni area, Ward 6, located under the Cambini Traditional Authority, under the Mthonjaneni Local Municipality. The water reticulation network pipelines will cover a distance of approximately 152 km.

The aim of the survey was to identify and document archaeological sites, cultural resources, sites associated with oral histories (intangible heritage), graves, cultural landscapes, and any structures of historical significance (tangible heritage) that may be affected within the footprint of the proposed water reticulation network pipelines.

The appointment of Tsimba Archaeological Footprints is in terms of the National Heritage Resources Act (NHRA), No. 25 of 1999 and the KwaZulu-Natal Heritage Act (Act No 4 of 2008). The HIA is completed in accordance to requirements of Section 38 (1) (a, b, c) of the NHRA, No. 25 of 1999. This is due to the nature of the proposed development, linear development which involves:

- The construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length.
- The construction of a bridge or similar structure exceeding 50 m in length.
- Any development or other activity which will change the character of a site exceeding 5 000 m<sup>2</sup> in extent.

The field survey noted the existence of a few old buildings within the project servitude as well as the white stone demarcations for the Shembe Church on a few homesteads along



the proposed pipeline route. The filed assessment followed a systematic survey of the pipeline route, its environs as well as the proposed reservoirs.

### **Conclusions:**

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Thorough background study and survey of the site were conducted and findings were recorded in line with SAHRA guidelines. It is recommended that the proposed project proceed on condition that the recommended measures as laid in this report are followed. In the case of chance finds during the excavation phase operations that expose archaeological or historical remains should construction work must cease immediately, pending evaluation by the provincial heritage agency.

### **Recommendations:**

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- i. The developer should exercise caution during the construction phase and avoid disturbing the Shembe Church white stones around people's homesteads along the pipe line route.
- ii. The built environment in close proximity to the proposed route of the pipeline should not be destroyed or altered a separate permit would have to be sought from Kwa Zulu Natali Heritage should the developer wish to destroy of alter or destroy old buildings.
- iii. An archaeological awareness program should be carried out prior to construction so that construction workers will know what to watch out for during the construction phase.
- iv. Archaeological watching briefs at regular intervals should also be carried out to insure that no possible archaeological resources are lost during the construction phase.

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## ***INTRODUCTION***

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### **Project Background**

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iSambulo Environmental Consulting has been appointed by iLifa Africa Engineers as an independent Environmental Assessment Practitioner (EAP) to undertake environmental studies to identify and assess all potential environmental impacts associated with the proposed Greater Mthonjaneni Water Reticulation Project within Ward 6 (Sub-Supply Area 5: Zone 3 and 4) within Mthonjaneni area.

The project developer or applicant is the King Cetshwayo District Municipality. The proposed project is a linear activity whereby the pipelines will traverse several area or sub-wards within Mthonjaneni area, Ward 6, located under the Cambini Traditional Authority, under the Mthonjaneni Local Municipality.

The Heritage Impact Assessment was conducted as part of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) requirements and it also follows 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). The terminology used and the methodology followed with regards to the compilation of the HIA are explained and the legal framework stated (*see Appendix A*). International conventions regarding the protection of cultural resources have also been followed. The ICOMOS Burra Charter (1979) was also consulted in producing this report as part of the international conventions for the protection of cultural heritage places.

### **Scope of works**

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The works comprise of the construction of water reticulation network pipelines with the total length of 152 kilometres for both Zone 3 and 4. The design flow for this project is 86,97 l/capita/day and there are two (2) existing reservoirs and four (4) reservoirs still to be

constructed for this project. The Greater Mthonjaneni SSA 5 (Zone 3 and 4) Water Reticulation Project will comprise of the following:

- a) Water reticulation network pipelines of approximately 152 km;
- b) Isolation, scour, air valves installation;
- c) Domestic water metered taps; and
- d) Construction of reservoirs.

### **Motivation/Need for the Project**

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The project is implemented by the King Cetshwayo District Municipality in a response to the water crises experienced by residents within the Mthonjaneni area and surroundings. The proposed water supply areas are within remote areas with many of the households identified to receive water, having no or very poor infrastructure. The proposed water reticulation project will also benefit the residents of the area by allowing people within the Mthonjaneni area and surroundings the opportunity for skills development. The project aims to meet the following objectives:

- To provide a stable and assured supply of bulk potable water to various sub-wards or areas within Ward 6 in Mthonjaneni;
- To address a growing need and urgency to provide adequate potable water to many communities that do not have access to the life sustaining resource particularly in rural areas and also to address the challenges of limited supply;
- To supply water to the areas in Mthonjaneni; and
- To provide a reliable source of safe, potable water to communities within the Mthonjaneni Local Municipality, reduce the use of water from unsafe water sources or experience water cuts from unreliable water sources and to provide short term employment opportunities during project implementation (i.e. construction phase).

## DESCRIPTION OF THE RECEIVING ENVIRONMENT

### Location

The site is in the Eastern part of the Cambini Traditional Authority area within ward 6. It is generally in the vicinity of KwaBiyela Area and Ndundulu approximately 40km North of the provincial R 66 road.

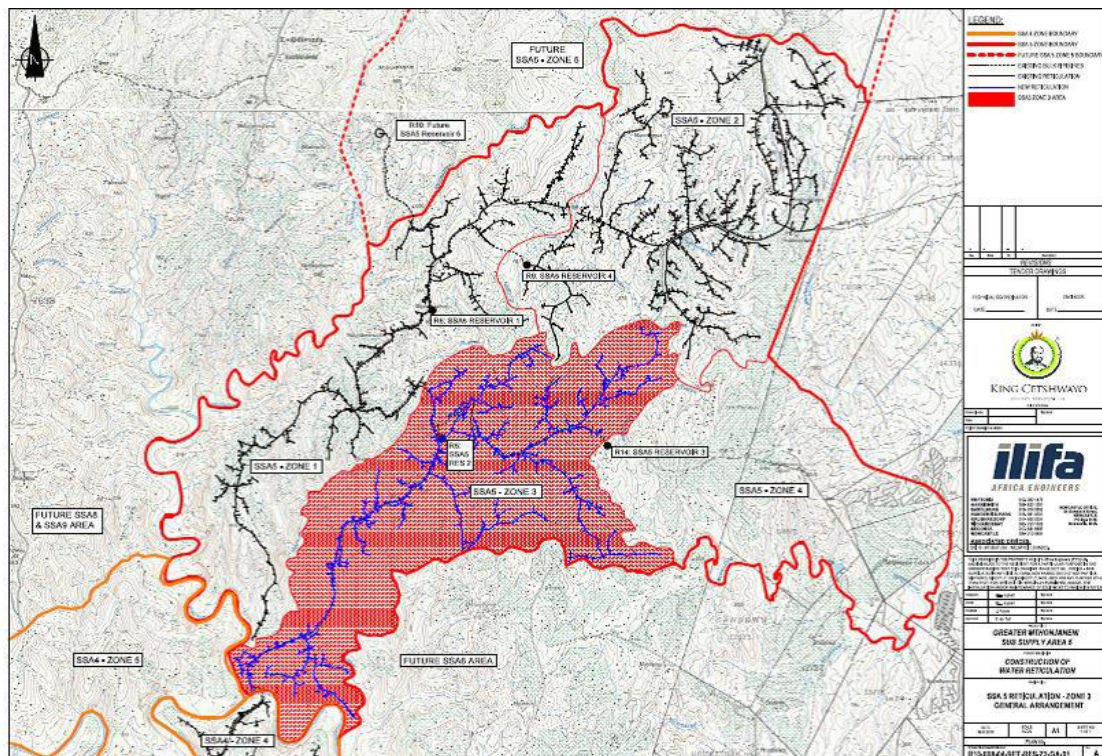


Figure 1: Locality Map showing the approximate location of the project area ( Zone 3 & 4)

### Physical environment

When carrying out this study, the broad geo-technical information, flood lines and other relevant sensitive environmental features physical environmental conditions were considered. The area is largely rural with farming as the main driver of the economy. The main activities related thereto being, timber and sugar cane production.

The area is characterised by a mountainous landscape as well as some beautiful scenery. Although no remains of Stone/ Iron Age sites were noted during site visit, the area could still

contain camps and some areas with suitable substrates that could have been used as quarries for material to produce tools. The use of excavations was noted on some parts of the project footprint and this could be a sign of previous mining activities and permanent historical human settlement.



Figure 2: View of the mountainous landscape within the proposed development footprint





Figure 3: Overview of the general area the pipeline will traverse

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## ***TERMS AND REFERENCE FOR APPOINTMENT OF AN ARCHAEOLOGICAL/HERITAGE SPECIALIST***

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Tsimba Archaeological Footprints has been appointed by iSambulo Environmental Consulting to conduct the HIA for the proposed construction of the Mthonjaneni reticulation network pipelines which requires a full HIA, in terms of Section 38 (1) of the NHRA, No. 25 of 1999. The development involves the construction of a linear development exceeding 300m in length; involving three or more existing erven or subdivisions as required for a HIA in terms of Section 38 (1) of the NHRA, No. 25 of 1999. The study forms part of a EIA conducted by iSambulo Environmental Consulting.

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## ***LIMITATIONS AND ASSUMPTIONS***

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The following limitations and assumptions have a direct bearing on the HIA and the resulting report:

- i. The main limitation to this study was access. Accessing all the homesteads would take the Heritage team a long time as sometimes access is denied and at times owners of the homesteads are not available. This made it difficult to get information regarding the locations of graves and other heritage resources that may be situated within the homesteads along the proposed pipeline route. To curb this limitation, local community members are requested to report any heritage resource or graves located or falling within the proposed pipeline route and its reservoirs (***see Appendix C***).
- ii. The proposed pipeline will follow the existing surfaced and un-surfaced roads. The pipeline work will be limited to the road reserve without any major deviation.
- iii. Since the pipeline will be aligned most of the time on the road which is already in use, it is anticipated that no significant archaeological materials are likely to be

situated in situ along the route given the current extensive nature of the disturbance to the vegetation and upper soil layers in the construction of the road.

- iv. The chances of encountering settlement sites (both Stone and Iron Age) within the road route directly affected by the proposed project are limited given the lack of rock shelters in the immediate vicinity of the road.
- v. Available data suggests that the Stone Age communities in this region favoured rock shelters and caves as settlement and camp sites whereas Iron Age farming communities preferred areas suitable for settled homesteads with access to agricultural fields, water and grazing (references). The survey did not expect to find any evidence of Stone or Iron Age settlements within the project footprint however this does not mean that the project area was not used for non-settlement activities by prehistoric communities.
- vi. Sites, structures and artefacts significance is determined by their historical, social, aesthetic, technological and scientific value in relation to their uniqueness, condition of preservation and research potential. The various aspects are not mutually exclusive, and the evaluation of any site is done with reference to any number of these aspects (*see Appendix B*).
- vii. Cultural significance is site-specific and relates to the content and context of the site. It is also determined by the field ratings (Field-Rating  $\approx$  Cultural Significance x Integrity).

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## ***METHODOLOGY***

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### **Literature review**

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The background information search of the proposed development area was conducted following the site maps from the client. Sources used in this study included:

- Published academic papers and HIA studies conducted in and around the region where the proposed infrastructure development will take place;



- Available archaeological literature covering the greater Ulundi and Melmoth areas was also consulted;
- The SAHRIS website was consulted to obtain background information on previous heritage surveys and assessments in the area; and
- Map Archives - Historical maps of the proposed area of development and its surrounds were assessed to aid information gathering of the proposed area of development and its surrounds.

## **Field survey**

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Tsimba Archaeological Footprints heritage specialists accompanied by the Environmental team from iSambulo Environmental attended to the site on the 18<sup>th</sup> of December as agreed to by the client. A ground survey, following standard and accepted archaeological procedures, was conducted.

The survey also paid special attention to disturbed and exposed layers of soils such as eroded surfaces. These areas are likely to be exposed or yield archaeological and other heritage resources that may be buried underneath the soil and be brought to the surface by animal and human activities including animal burrow pits and human excavated grounds. The surface was also inspected for possible Stone Age scatters as well as exposed Iron Age implements and other archaeological resources.

The survey followed investigated the cultural resources onsite using the best possible technologies for archaeological field surveys, a Samsung GPS Logger (2018) was used to pick co-ordinates and a Nikon Camera (with built in GPS) was used to document the resources as well as the receiving environment.

## **Oral histories**

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The local community is critical in giving an oral account as well as detailed intangible values of a site. Article 12 of the Burra Charter states the conservation, interpretation and management of a heritage resource should provide for the participation of people for whom

the place has significant associations and meanings, or who have social, spiritual or other cultural responsibilities for the place.

Peoples from local community were interviewed in order to obtain information relating to the heritage resources. The local community was useful in regards to getting information on the location of graves within the project servitude. Assessing the identified old buildings also needed the input of the local community.

### **Data Consolidation and Report Writing**

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Data captured on the development area (during the field survey) by means of a desktop study and physical survey is used as a basis for this HIA. This data is also used to establish assessment for any possible current and future impacts within the development footprint. This includes the following:

- Assessment of the significance of the cultural resources in terms of their archaeological, built environment and landscape, historical, scientific, social, religious, aesthetic and tourism value (*see Appendix B*);
- A description of possible impacts of the proposed development, especially during the construction phase, in accordance with the standards and conventions for the management of cultural environments;
- Proposal of suitable mitigation measures to minimize possible negative impacts on the cultural environment and resources that may result during construction;
- Review of applicable legislative requirements that is the NEMA (together with the 2014 EIA Regulations) and the NHRA of 1999, the KwaZulu Natal heritage Act of 2008;
- The consolidation of the data collected using the various sources as described above;
- Acknowledgement of impacts on heritage resources (such as unearthed graves) predicted to occur during construction; and
- Geological Information Systems mapping of known archaeological sites and maps in the region
- A discussion of the results of this study with conclusions and recommendations based on the available data and study findings.

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## **LEGISLATIVE FRAMEWORK**

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This HIA study is informed and conducted to fulfil the requirements of KZN Heritage Act 4 of 2008 as well as the National Heritage Resources Act (No 25 of 1999). The development also triggered the regulations applicable under the National Environmental Management Act 107 of 1998 and other environmental management acts of South Africa.

As such, the EIA study includes a Heritage Impact Assessment specialist study., Recommendations from the AIA/HIA report require Amafa- KZN review and comments to be incorporated into the final EIA Record of Decision. This particular Development triggered the following Sections of the Heritage Legislation;

*Section 38 (1) of the National Heritage Resources Act requires that where relevant, an Impact Assessment is undertaken in case where a listed activity is triggered. Such activities include:*

*(a) the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;*

*(b) the construction of a bridge or similar structure exceeding 50 m in length; and*

*(c) any development or other activity which will change the character of an area of land, or water*

*- (i) exceeding 5 000 m<sup>2</sup> in extent;*

*(ii) involving three or more existing erven or subdivisions thereof; or*

*(iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or*

*(iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a Provincial Heritage Resources Authority;*

*(d) the re-zoning of a site exceeding 10 000 m<sup>2</sup> in extent; or*

*(e) any other category of development provided for in regulations by SAHRA or a Provincial Heritage Resources Authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.*

*Section 3 of the National Heritage Resources Act (25 of 1999) lists a wide range of national resources protected under the act as they are deemed to be national estate. When conducting a Heritage Impact Assessment (HIA) the following heritage resources have to be identified:*

*(a) Places, buildings structures and equipment of cultural significance;*

*(b) Places to which oral traditions are attached or which are associated with living heritage;*

*(c) Historical settlements and townscapes;*

*(d) Landscapes and natural features of cultural significance*

*(e) Geological sites of scientific or cultural importance’;*

*(f) Archaeological and paleontological sites;*

- (g) *Graves and burial grounds including-*
- (i) *Ancestral graves;*
  - (ii) *Royal graves and graves of traditional leaders;*
  - (iii) *Graves of victims of conflict;*
  - (iv) *Graves of individuals designated by the Minister by notice in the Gazette*
  - (v) *Historical graves and cemeteries;*
  - (vi) *Other human remains which are not covered by in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);*
  - (h) *Sites of significance relating to the history of slavery in South Africa;*
  - (i) *Moveable objects, including - objects recovered from the soil or waters of South Africa, including archaeological and paleontological objects and material, meteorites and rare geological specimens;*
  - (ii) *Objects to which oral traditions are attached or which are associated with living heritage*
  - (iii) *Ethnographic art and objects;*
  - (iv) *Military objects;*
  - (v) *Objects of decorative or fine art; and*
  - (vi) *Objects of scientific or technological interest; and (vii) books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1 of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).*

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## **ARCHAEOLOGICAL BACKGROUND**

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Archaeological literature review relied largely on the data presented by archaeologists who have carried out some work in the Greater Melmoth area including Mthonjaneni.

### ***Early Stone Age***

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This area contains a wide spectrum of archaeological sites covering different time-periods and cultural traditions. Six Early Stone Age (ESA) sites have been recorded in the greater Ulundi district. These sites date between 300 000 and 1.5 million years (see Huffman 2007).

According to Mazel (1989) ESA stone scatters occur in raised palaeo-beach gravels, eroded areas and ancient coastal dunes. In the Natal, no information is available on food consumed by the ESA people, but it can be assumed on the basis of evidence on ESA people elsewhere that their diet consisted primarily of animals and plant foods. It was during this period that people learnt to control fire (Mazel 1989). Many of the ESA sites are situated in dongas close to water with little in-situ materials.

### ***Middle Stone Age***

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Technological differences separate the Middle Stone Age (MSA) from the ESA. Whereas ESA tools were generally core tools (choppers, hand axes, cleavers), MSA tools were made of flakes and blades detached from the core [trapezoids, segments, scrapers, points, flakes, blades]. Hand axes and cleavers were absent (see Huffman 2007). A number of MSA sites have been recorded in the Mthonjaneni (Prins 2014). The majority MSA sites in the close to the Mthonjaneni area are open-air sites. They therefore do not occur in any archaeological context and have limited excavation value. At least one MSA open air site has been recorded immediately adjacent to Nongoma in the 1970's. MSA sites are associated with anatomically modern people and dates back to approximately 40 000 to 200 000 years ago (see Huffman 2007).

### ***Later Stone Age***

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The vast majority of Late Stone Age (LSA) sites occur in various localities in and around the Mthonjaneni area. Although the majority of these sites are situated in open air context just like most MSA sites, some are also associated with small shelters and caves. These shelters have archaeological excavation potential. The LSA is usually associated with San hunter-gatherers or their immediate predecessors and date between 200 and 30 000 years ago (see Huffman 2007). Zululand rock art sites were also identified by Prins (2014) within the Mthonjaneni area. Although not as well-known as the rock art of the Drakensberg, the art of this region is nevertheless unique and probably older and executed in a different style from the Drakensberg art (see Penner 1970).

LSA sites occur throughout the province, with high concentrations in places including the UKhahlamba Mountains, the Biggarsberg and the Ngome / Etendeka escarpment, where rock shelters suitable for occupation are plentiful. Later Stone Age tools, belonging to the San and their immediate ancestors, occur in various localities in Zulu-land some open air sites have been recorded close to Ulundi.

### ***The Iron Age***

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The earliest Iron Age sites in South Africa, including Natal, relate to an eastern coastal and lowland cultural tradition with links as far north as the Kwale sites of eastern Kenya. This tradition has been named 'Matola', after a site in southern Mozambique which provided close typological links between the Natal and eastern Transvaal sites (In KwaZulu-Natal). Almost all of them are on the belt of ancient dunes which would have been covered by coastal forest at the time.

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 would have ensured good crops for the first year or two after they had been cleared (see Maggs 1989). 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 seem to be small groups of perhaps a few dozen slash-and burn cultivators, moving into a landscape sparsely inhabited by LSA 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), Ndongondwane (AD 700-800) and Ntshekane (AD 800-900). The 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 Ndongondwane and Mamba sites have been excavated by archaeologists (Maggs 1989:31).

Numerous Late Iron Age (LIA) sites have been recorded within the study area. The beginning of the LIA marked a period of significant change in pottery styles, attributable to both socio-political and demographic factors (see Maggs 1989). Settlements were no longer located in river valleys, but were built on higher ground where homesteads would benefit from cooling breezes and good views for strategic purposes.

Steep slopes, wetlands and marshy areas were used for grazing domestic animals and gathering wild food and medicinal plants. Settlements appear to have been much smaller, implying that 'society underwent a change away from the large Early Iron Age (EIA) villages

and towards the individual family homesteads of the historic Nguni-speaking peoples (Maggs 1989: 35).

### **Historical Period of the greater Melmoth and Mthonjaneni areas**

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Koopman (2002) states various Zulu place names in the vicinity of the study area have interesting origins. He mentions that among others, the popular theory that the name Eshowe is an onomatopoeic for the sound of the wind in the trees while recent theories have it as a misspelling for eKhowe, or 'mushroom

The great Zulu King Shaka is famous in the greater uLundi area. The town of Ulundi derives its name from its geographical location on a high, exposed plateau. ulundi means 'high place' or 'heights' (Koopman 2002: 124). The area is particularly well known for its 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 between Melmoth and uLundi. Surrounding the valley are several stone-walled structures associated with the once powerful Buthelezi and Khumalo clans (see Derwent, 2006).

These clans later played a significant role in the formation of the Zulu kingdom. The king of wars Shaka Zulu, was born in the valley around 1785. It is on the same valley that his forebears, King Nkosinkulu Zulu, King Phunga, King Mageba, King Ndaba, King Jama and King Senzangakhona, were buried. The area around eMakhosini today lives as the burial ground of the Zulu kings, King Shaka, King Dingane, King Mpande and King Cetshwayo, who ruled in succession from 1816 to 1884. Their royal residences are also situated around this area. The valley is therefore regarded as the ancestral homeland of the Zulu nation as such this valley can also be classified as a cultural landscape (see Derwent 2006).

According to Derwent (year), the eMakhosini Valley KwaNobamba specifically is the area where both King Jama (King Shaka's grandfather) and King Dinuzulu had homesteads and were buried. There are also a number of important sites within the greater eMakhosini Valley including the kwaGqokli Hill where King Shaka achieved his first military success against the powerful Ndwandwe under King Zwide and kwaMatiwane, the Hill of Execution.

Stone walled settlements such as sites of Gqokli (1821), Opathe (1838) and Mhlathuze (1822) dating and military *ikhanda* dating respectively to the LIA and Colonial Period and the battlefields and skirmish have been recorded ( see Maggs 1989)

This is where both the Voortrekker leader Piet Retief and the legendary leader of the amaNdwane people inkosiMatiwane were executed by King Dingane at this locality. The Mthonjaneni Springs, close to the study area, is a declared provincial heritage site. This is the spring that was used by King Dingane for water collection.

The colonial history of the area starts around 1820 when early English ivory traders established themselves at Port Natal (Durban). Dutch descendants (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.

The gold in 1888 rush, saw the town of Melmoth being founded when the British annexed Zululand In 1887 and established several magisterial districts. They decided to administer Mthonjaneni from a town named after the resident commissioner Sir Melmoth Osborn.

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## ***DESCRIPTION AND DOCUMENTATION OF THE CULTURAL HERITAGE RESOURCES***

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Historical sites, ancestral graves and contemporary graves were expected within the homesteads in proximity or along the proposed pipe line routes. None were noted during the field survey. As part of community engagement, community members are advised to report all graves that may be falling within the proposed pipeline route and its reservoirs. Local community members interviewed could not indicate the location of any heritage sites or modern grave sites on the footprint.

There are a few heritage resources that were however identified within the greater project footprint. These carry different cultural heritage significance and date from different time periods.



### ***Shembe Chircle Markings***

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*Section 3 (3) of the National Heritage Resources Act, No. 25 of 1999 makes provisions of such places of spiritual significance to individuals*

Throughout the project servitude, a number of homesteads were found to have Shembe Church white stone marking their boundaries. These circles are associated with living heritage (sacred landscape features). These abound throughout the study area. These resources almost invariably have medium to high heritage significance due to their social value for local and regional communities. Many such heritage resources are also valuable tourism sites. Developments of this magnitude and nature are known to manoeuvre along religious insignia, and this proposed development functions as an example. Conversely, if construction of a pipeline is to traverse over such sacred landscapes it might create social instability.



Figure 4: Roadside view of one of the homesteads with the Shembe white stone markings

### ***Built Environment***

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*Section 3 and 34(1) of National Heritage Resources Act of 1999 protects these structures against any altering.*

Old Upper Nselenipost office buildings

GPS co-ordinates Block A  $28^{\circ} 33' 12.94745''$  S  
 $31^{\circ} 38' 35.2702''$  E

Block B  $28^{\circ} 33' 13.7031''$  S  
 $31^{\circ} 38' 35.339''$  E

The two buildings were built as post office buildings (Upper Nseleni Post Office). The buildings are single story brick and motor buildings. The exact date of the post office buildings could not be found. What is however known is that the buildings were never used as a post office though built to be a post office. Reasons for it not being used after the construction phase are unknown. The building was probably built during the early 1900s. The expansion of post offices (mail services) in South Africa coincided with the construction of railway lines during the late 1880s to early 1900s the post office services during this period also expanded. The architectural style of the building represents part of the colonial heritage in the form of post offices built during the apartheid era.

The buildings have changed their uses over time after the construction phase. Currently, the two buildings have been used for some time one as a grocery shop, a bottle store as well as a human residence. The buildings are in a fairly good preservation state and are still structurally sound.



Figure 5 : Front end façade of the post office building block A.



Figure 6: Detail of the windows





Figure 7: Detail of the doors



Figure 8: Western view of the second post office block (Block B)

**Upper Nseleni Grocery Store Block C**

GPS Co-ordinates 28° 33' 13.9087" S

31° 33' 35.5251" E

The grocery store was built using the typical old rural shops (with a large veranda in front) architectural style. The building is in a dilapidated state, windows area broken, doors are no longer mounted to the building and the ceilings have fallen inside the building. It is currently not used and shows lack of maintenance for a very long period of time. The detail of the windows and overall structure of the building suggest the building was built at the same time as Block A and B. The building might have been a South African Post office building as well. An old letter box was inserted on the building suggesting that the building could have been be part of the posting office set up (see Figure 7).



Figure 9: Front and Eastern view of the store showing the posting box





Figure 10: View of the fallen ceiling from the outside



Figure 11: Detail of the window

***Sidakeni –Empangeni Posting Box***

GPS Co-ordinates 28° 33' 56.1286" S

31° 41' 10.2615" E

Located towards the road to Empangeni is a small posting box, isolated amongst the rural homesteads. The Sidakeni- Empangeni posting box is built of brick and motor just like the Upper Nseleni Post office buildings. The building is in a much more preserved state than the Upper Nseleni Post office, probably because this building has never been used for any other use.

The architectural design of the building however suggests it was built at the same time as the other Upper Nseleng post office buildings.



Figure 12: Front façade of the Sidakeni- Empangeni small posting box

## ***ASSESSMENT OF SIGNIFICANCE***

Article 26(2) of the Burra Charter emphasises that written statements of cultural significance for heritage resources should be prepared, justified and accompanied by supporting evidence. Site significance classification standards prescribed by SAHRA (2006), and acknowledged by ASAPA for the SADC region, were used for the purposes of this report.

**Table 1: Site Significance classification**

SAHRA's Site significance minimum standards			
Filed Rating	Grade	Classification	Recommendation
<b>National Significance (NS)</b>	Grade 1		Conservation; National Site nomination
<b>Provincial Significance (PS)</b>	Grade 2		Conservation; Provincial Site nomination
<b>Local Significance (LS)</b>	Grade 3A	High Significance	Conservation; Mitigation not advised
<b>Local Significance (LS)</b>	Grade 3B	High Significance	Mitigation (Part of site should be retained)
<b>Generally Protected A (GP.A)</b>		High/ Medium Significance	Mitigation before destruction
<b>Generally Protected B (GP.B)</b>		Medium Significance	Recording before destruction
<b>Generally Protected C (GP.A)</b>		Low Significance	Destruction



### Site Significance calculation formula

Site significance is calculated by combining the following concepts in the given formula.

$$S = (E+D+M) P$$

S = Significance weighting

E = Extent

D = Duration

M = Magnitude

P = Probability

The significance weightings for each potential impact are as follows:

Table 2: The significance weightings for each potential impact are as follows:		
Aspect	Description	Weight
<b>Probability</b>	Improbable	1
	Probable	2
	Highly Probable	4
	Definite	5
<b>Duration</b>	Short term	1
	Medium term	3
	Long term	4
	Permanent	5
<b>Scale</b>	Local	1
	Site	2
	Regional	3
<b>Magnitude/Severity</b>	Low	2
	Medium	6
	High	8

**Table 3: Impact Significance**

Significance		
<p>It provides an indication of the importance of the impact in terms of both tangible and intangible characteristics. (S) is formulated by adding the sum of numbers assigned to Extent (E), Duration (D), and Intensity (I) and multiplying the sum by the Probability.</p> $S = (E + D + I) P$		
<30	Low	Mitigation of impacts is easily achieved where this impact would not have a direct influence on the decision to develop in the area.
30-60	Medium	Mitigation of impact is both feasible and fairly easy. The impact could influence the decision to develop in the area unless it is effectively mitigated.
>60	High	Significant impacts where there is difficult. The impact must have an influence on the decision process to develop in the area.

**Table 4: Overview of the findings and their significance**

Name of the resource	Co-ordinates	Description/Condition	Significance	Field Rating/Grade
Shembe Church Circle markings	Varying homesteads	The markings are found on the boundaries of different homesteads along the pipeline route	Medium-High	Generally Protected A (GP.A)  /
Upper Nseleni Post Office Block A	28°33' 12.94745" S 31° 38' 35.2702" E	Historical building with architectural style of colonial post offices. However oral history indicates that the building was never used as a post office.	Medium	Generally Protected B (GP.B)  /
Upper Nseleni Post Office Block B	28° 33' 13.7031" S 31° 38' 35.339" E	Part of the post office building (another block). However oral history indicates that the building was never used as a post office.	Medium	Generally Protected B (GP.B)  /
Upper Nseleni Grocery Store	28° 33' 13.9087" S 31° 33' 35.5251" E	Old grocery store at the on the same yard as the post office buildings which has deteriorated over time due to lack of maintenance	Medium	Generally Protected B (GP.B)  /

Sidakeni- Empangeni Post Box	28° 33' 56.1286" S  31° 41' 10.2615" E	Isolated old posting box	Medium	Generally Protected B (GP.B)  /
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### **Conclusions:**

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Thorough background study and survey of the site were conducted and findings were recorded in line with SAHRA Guidelines. Therefore, it is recommended that the proposed project proceed on condition that the recommended measures as outlined in this report are followed. In the case of chance finds during the excavation phase operations that expose archaeological or historical remains should cease immediately, pending evaluation by the provincial heritage agency.

### **Recommendations:**

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- i. The developer should exercise caution during the construction phase and avoid disturbing the Shembe Church white stones around homesteads along the pipe line route.
- ii. The built environment in close to the proposed route of the pipeline should not be destroyed or altered a separate permit would have to be sought from Kwa Zulu Natali Heritage should the developer wish to destroy or alter parts of the old buildings
- iii. An archaeological awareness program should be carried out prior to construction so that construction workers will know what to watch out for during the construction phase.
- iv. Archaeological watching briefs at regular intervals should also be carried out to insure that no possible archaeological resources are lost during the construction phase.

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## **REFERENCES**

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

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

Penner, D. (1970). *Archaeological Survey in Zululand Game Reserves*. Natal Parks Board. Unpublished Report.

Prins, F. (2014) *Heritage Impact Assessment of the proposed, Greater Mthonjaneni Ssa 2 Bulk Water Supply Project within the Mthonjaneni Local Municipality, Northern Kwazulu-Natal*, Unpublished report submitted to Amafa; Pietermaritzburg.

### **Legislative Frameworks used**

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ICOMOS, 1996. International Charter for the Conservation and Restoration of Monuments and sites (the Venice charter).

ICOMOS, 1999. The Australia ICOMOS charter for places of cultural significance (the Burra Charter).

ICOMOS Charter, Principles for the analysis, conservation and structural restoration of architectural heritage (2003)

National Heritage and Resources Act of South Africa No. 25 of 1999

Kwazulu-Natal Heritage Act No. 4 of 2008

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## ***APPENDIX A***

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### **Definition of terms adopted in this HIA**

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The terminology adopted in this document is mainly influenced by the NHRA of South Africa (1999) and the Burra Charter (1979).

**Adaptation:** Changes made to a place so that it can have different but reconcilable uses.

**Artefact:** Cultural object (made by humans).

**Buffer Zone:** Means an area surrounding a cultural heritage which has restrictions placed on its use or where collaborative projects and programs are undertaken to afford additional protection to the site.

**Co-management:** Managing in such a way as to take into account the needs and desires of stakeholders, neighbours and partners, and incorporating these into decision making through, amongst others, the promulgation of a local board.

**Conservation:** In relation to heritage resources, includes protection, maintenance, preservation and sustainable use of places or objects so as to safeguard their cultural significance as defined. These processes include, but are not necessarily restricted to preservation, restoration, reconstruction and adaptation.

**Contextual Paradigm:** A scientific approach which places importance on the total context as catalyst for cultural change and which specifically studies the symbolic role of the individual and immediate historical context.

**Cultural Resource:** Any place or object of cultural significance

**Cultural Significance:** Means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance of a place or object for past, present and future generations.

**Feature:** A coincidental find of movable cultural objects (also see Knudson 1978: 20).

**Grading:** The South African heritage resource management system is based on a grading system, which provides for assigning the appropriate level of management responsibility to a heritage resource.

**Heritage Resources Management:** The utilization of management techniques to protect and develop cultural resources so that these become long term cultural heritage which are of value to the general public.

**Heritage Resources Management Paradigm:** A scientific approach based on the Contextual paradigm, but placing the emphasis on the cultural importance of archaeological (and historical) sites for the community.

**Heritage Site Management:** The control of the elements that make up the physical and social environment of a site, its physical condition, land use, human visitors, interpretation etc. Management may be aimed at preservation or, if necessary at minimizing damage or destruction or at presentation of the site to the public.

**Historic:** Means significant in history, belonging to the past; of what is important or famous in the past.

**Historical:** Means belonging to the past, or relating to the study of history.

**Maintenance:** Means the continuous protective care of the fabric, contents and setting of a place. It does not involve physical alteration.

**Object:** Artefact (cultural object)

**Paradigm:** Theories, laws, models, analogies, metaphors and the epistemological and methodological values used by researchers to solve a scientific problem.

**Preservation:** Refers to protecting and maintaining the fabric of a place in its existing state and retarding deterioration or change, and may include stabilization where necessary. Preservation is appropriate where the existing state of the fabric itself constitutes evidence of specific cultural significance, or where insufficient evidence is available to allow other conservation processes to be carried out.

**Protection:** With reference to cultural heritage resources this includes the conservation, maintenance, preservation and sustainable utilization of places or objects in order to maintain the cultural significance thereof.

**Place :** means a geographically defined area. It may include elements, objects, spaces and views. Place may have tangible and intangible dimensions.

**Reconstruction:** To bring a place or object as close as possible to a specific known state by using old and new materials.

**Rehabilitation:** The repairing and/ or changing of a structure without necessarily taking the historical correctness thereof into account (NMC 1983: 1).

**Restoration:** To bring a place or object back as close as possible to a known state, without using any new materials.

**Site:** A large place with extensive structures and related cultural objects. It can also be a large assemblage of cultural artefacts, found on a single location.

**Sustainable:** Means the use of such resource in a way and at a rate that would not lead to its long-term decline, would not decrease its historical integrity or cultural significance and would ensure its continued use to meet the needs and aspirations of present and future generations of people.

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## ***APPENDIX B***

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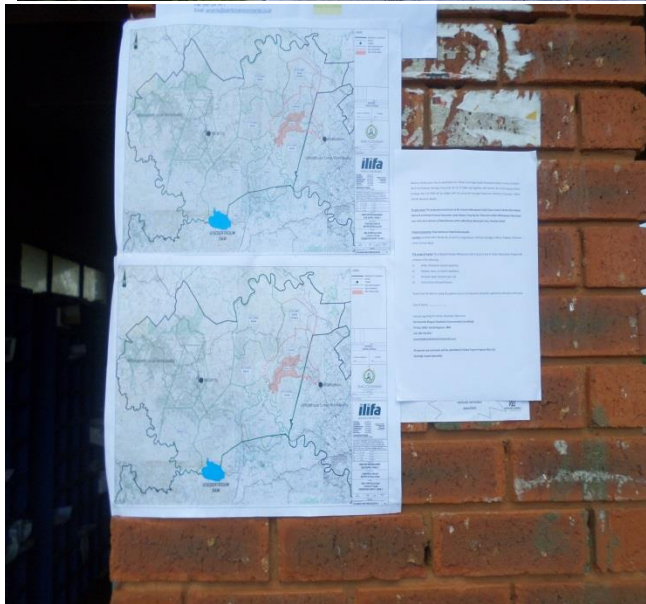
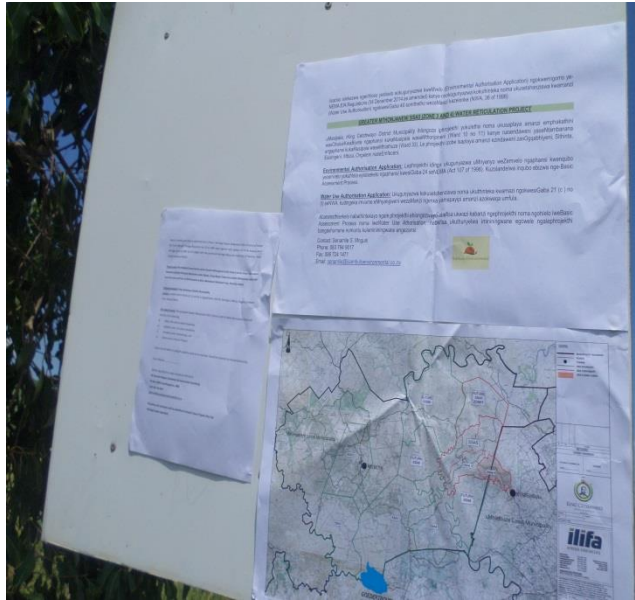
**Table 5: Definitions of Values**

Value	Definition
Historic value	Important in the community or pattern of history or has an association with the life or work of a person, group or organization of importance in history.
Scientific value	Potential to yield information that will contribute to an understanding of natural or cultural history or is important in demonstrating a high degree of creative or technical achievement of a particular period
Aesthetic value	Important in exhibiting particular aesthetic characteristics valued by a community or cultural group.
Social value	Have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons
Rarity	Does it possess uncommon, rare or endangered aspects of natural or cultural



	heritage
Representivity	Important in demonstrating the principal characteristics of a particular class of natural or cultural places or object or a range of landscapes or environments characteristic of its class or of human activities (including way of life, philosophy, custom, process, land-use function, design or technique) in the environment of the nation, province region or locality.

# APPENDIX C



Notice is hereby given that an application for a Phase 1 Heritage Impact Assessment (HIA) in terms of Section 38 of the National Heritage Resources Act 25 of 1999 read together with Section 36 of the Kwazulu-Natal Heritage Act 4 of 2008 will be lodged with the provincial Heritage Resources Authority of KwaZulu –Natal (AmafaaKwaZulu-Natali).

Project name: **The proposed Greater Mthonjaneni Water Reticulation Project within Ward 6 (Sub-Supply Area 5: Zone 3 and 4) within Mthonjaneni area. The project developer or applicant is the King Cetshwayo District Municipality.** The proposed project is a linear activity whereby the pipelines will traverse a lot of area or sub-wards within Mthonjaneni area, Ward 6, located under the Cambini Traditional Authority, under the Mthonjaneni Local Municipality.

Project proponent: iSambulo Environmental Consulting on behalf of the developer: King Cetshwayo District Municipality

Location: Located in the Eastern part of the Cambini Traditional Authority area within ward 6. It is generally in the vicinity of KwaBiyela Area and Ndundulu approximately 40km north of the provincial R 66 road, KwaZulu-Natal.

The scope of works: of the proposed construction of water reticulation network pipelines of approximately 196,2 km of uPVC and 59,5 km of HDPE pipeline and appurtenant works.

- a) Water reticulation network pipelines of approximately 255,2 km
- b) Isolation, scour, air valves installation
- c) Domestic water metered tap

Give co-ordinates and areas the locations for the route.

Graves that fall within or along the pipeline route or its reservoirs should be reported by the local community.

Date of Notice: .....

Queries regarding this matter should be referred to:

**Ms SenamileMnguni**

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