

Archaetnos Culture & Cultural  
Resource Consultants  
BK 98 09854/23

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**A REPORT ON A HERITAGE IMPACT ASSESSMENT FOR THE PROPOSED  
UPGRADING OF THE RIMER'S CREEK WTW, BARBERTON, EHLANZENI  
DISTRICT MUNICIPALITY, MPUMALANGA PROVINCE**

For:

***Clean Stream Environmental Services***  
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**REPORT NO.: AE01505V**

By:

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***February 2015***

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## **SUBMISSION OF REPORT**

**Please note that the South African Heritage Resources Agency (SAHRA) or one of its subsidiary bodies needs to comment on this report.**

**It is the client's responsibility to do the submission via the SAHRIS System on the SAHRA website.**

**Clients are advised not to proceed with any action before receiving the necessary comments from SAHRA.**

## **DISCLAIMER**

**Although all possible care is taken to identify all sites of cultural importance during the survey of study areas, the nature of archaeological and historical sites are as such that it always is possible that hidden or subterranean sites could be overlooked during the study. Archaetnos and its personnel will not be held liable for such oversights or for costs incurred as a result thereof.**

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## SUMMARY

Archaetnos cc was requested by Clean Stream Environmental Services to conduct a heritage impact assessment (excluding palaeontology) for the proposed upgrade of the Rimer's Creek Water Treatment Works (WTW). This is in Barberton, Ehlanzeni District Municipality, in the Mpumalanga Province.

A survey of the available literature was undertaken in order to obtain background information regarding the area. This was followed by the field survey which was conducted according to generally accepted HIA practices, aimed at locating all possible objects, sites and features of cultural significance in the area of the proposed development.

All sites, objects, features and structures identified were to be documented according to the general minimum standards accepted by the archaeological profession. Coordinates of individual localities were determined by means of a Global Positioning System (GPS). The information was added to photographs and the description in order to facilitate the identification of each locality.

During the survey no sites of cultural heritage significance was located. The area however is rich in history and some historical and archaeological artefacts were identified. Therefore caution should be taken before development commence. Possible mitigation measures are proposed. This includes social consultation and a watching brief during construction on site. On implementation of these, the proposed development may continue.

It is also important to take cognizance that it is the client's responsibility to do the submission of this report via the SAHRIS System on the SAHRA website. No work on site may commence before receiving the necessary comments from SAHRA.

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## CURRICULUM VITAE OF SPECIALIST: DR ANTON CARL VAN VOLLENHOVEN

### Tertiary education

- BA 1986, University of Pretoria
- BA (HONS) Archaeology 1988 (cum laude), University of Pretoria
- MA Archaeology 1992, University of Pretoria
- Post-Graduate Diploma in Museology 1993 (cum laude), University of Pretoria
- Diploma Tertiary Education 1993, University of Pretoria
- DPhil Archaeology 2001, University of Pretoria.
- MA Cultural History 1998 (cum laude), University of Stellenbosch
- Management Diploma 2007 (cum laude), Tshwane University of Technology
- DPhil History 2010, University of Stellenbosch

### Employment history

- *1988-1991*: Fort Klapperkop Military Museum - Researcher
- *1991-1999*: National Cultural History Museum. Work as Archaeologist, as well as Curator/Manager of Pioneer Museum (1994-1997)
- *1999-2002*: City Council of Pretoria. Work as Curator: Fort Klapperkop Heritage Site and Acting Deputy Manager Museums and Heritage.
- *2002-2007*: City of Tshwane Metropolitan Municipality. Work as Deputy Manager Museums and Heritage.
- *August 2007* – present – Managing Director for Archaetnos Archaeologists.
- *1988-2003*: Part-time lecturer in Archaeology at the University of Pretoria and a part-time lecturer on Cultural Resources Management in the Department of History at the University of Pretoria.
- *2014*: Part-time lecturer for the Honours degree in Museum Sciences in the Department of History and Heritage Studies at the University of Pretoria

### Other

- Published 75 articles in scientific and popular journals on archaeology and history.
- Author and co-author of over 580 unpublished reports on cultural resources surveys and archaeological work. A list of reports can be viewed on [www.archaetnos.co.za](http://www.archaetnos.co.za)
- Published a book on the Military Fortifications of Pretoria.
- Contributed to a book on Mapungubwe.
- Delivered more than 50 papers and lectures at national and international conferences.
- Member of SAHRA Council for 2003 – 2006.
- Member of the South African Academy for Science and Art.
- Accredited professional member of Association for South African Professional Archaeologists.
- Accredited professional member of the South African Society for Cultural History (Chairperson 2006-2008; 2012-2014).
- Has been editor for the SA Journal of Cultural History 2002-2004.
- Member of the Provincial Heritage Resources Agency, Gauteng's Council.
- Member of Provincial Heritage Resources Agency, Gauteng's HIA adjudication committee (Chairperson 2012-2015).

## DECLARATION OF INDEPENDENCE

I, Anton Carl van Vollenhoven from Archaetnos, hereby declare that I am an independent specialist within the field of heritage management.

Signed:

A rectangular image showing a handwritten signature in black ink on a light-colored, textured background. The signature is cursive and appears to read 'Anton Carl van Vollenhoven'.

Date: 17 February 2015

## 1. INTRODUCTION

Archaetnos cc was requested by Clean Stream Environmental Services to conduct a heritage impact assessment (excluding palaeontology) for the proposed upgrade of the Rimer's Creek Water Treatment Works (WTW). The WTW is located within the Barberton Nature Reserve just north of Barberton, Ehlanzeni District Municipality, in the Mpumalanga Province (Figure 1-3).

The project entails the upgrade of the existing Rimer's Creek WTW with a current capacity of 10 Mℓ/d to a total capacity of 15 Mℓ/d. The upgrading will entail the addition of new and extension of existing unit processes to the current treatment train in an effort to provide clean and potable water to the towns of Barberton and Umjindi.

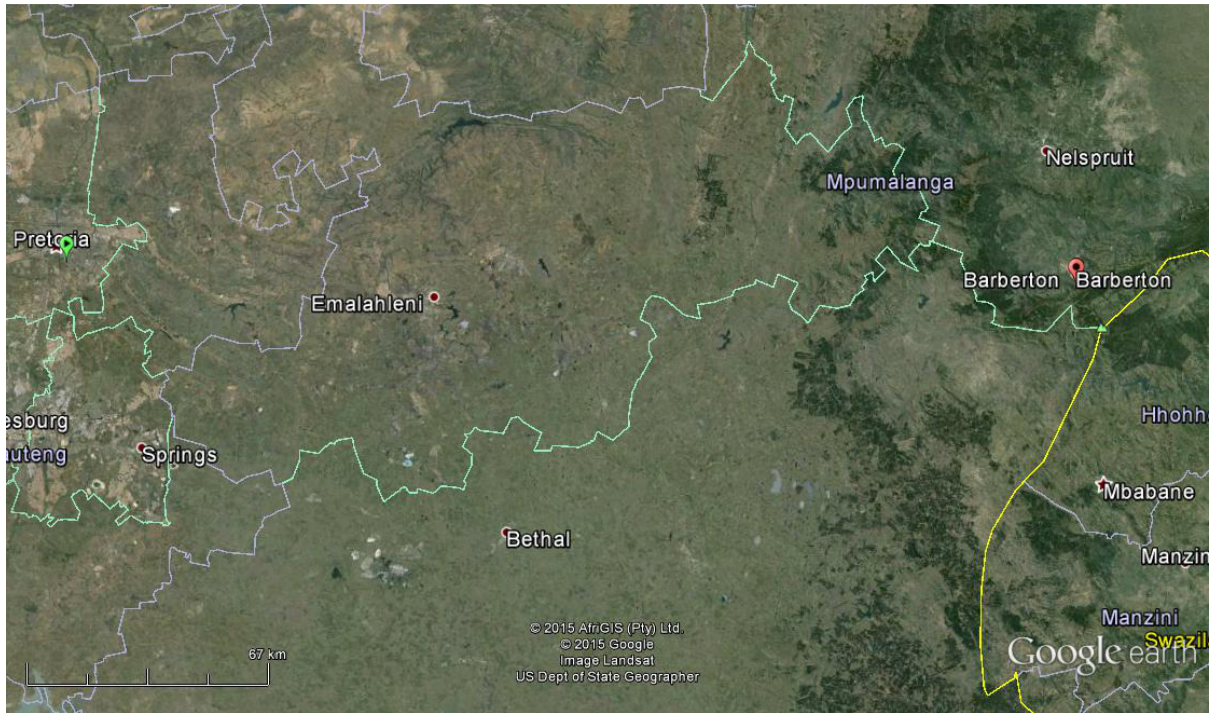
The upgrade is necessary not only to increase capacity, but also to replace the pipeline as it currently is corroded and therefore is negatively affecting the water quality. Therefore the upgrade will also include infrastructure upgrades which will enable the provision of quality clean water (Figure 4).

This will include the following:

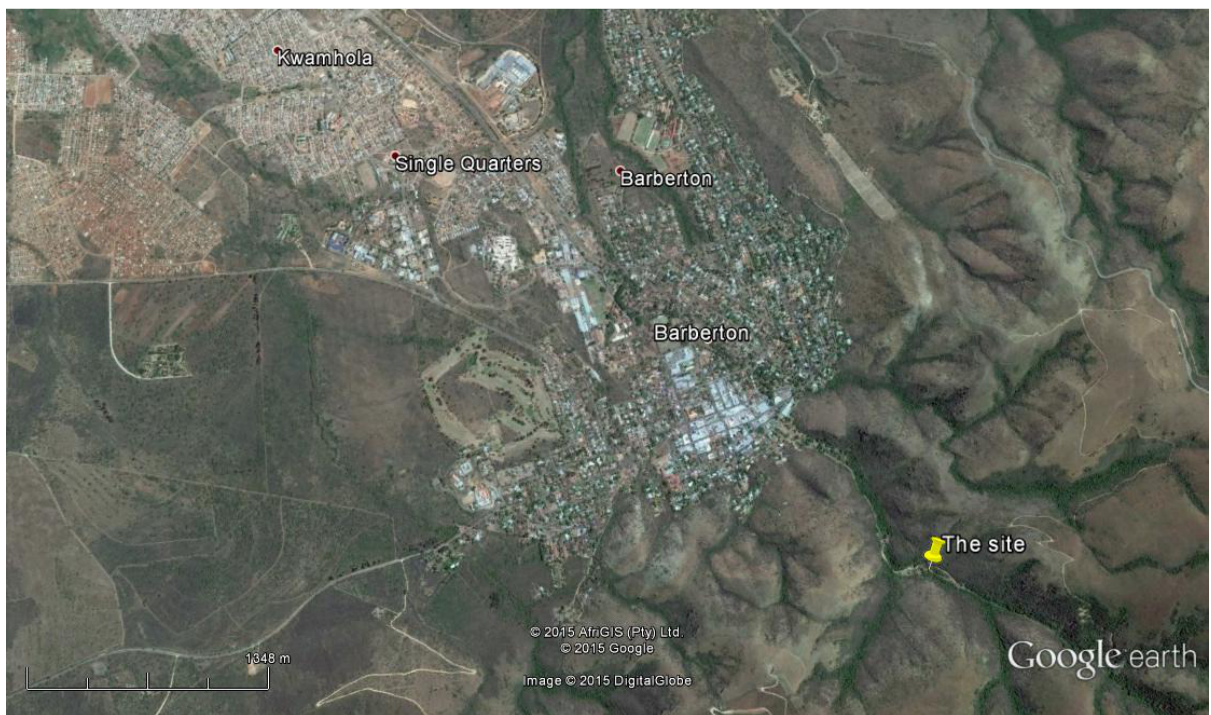
- New aeration facility
- New chemical dosing facility
- New sedimentation tanks with sludge handling
- New supernatant facility with recycle pump station
- Addition of new up-flow filters
- New chloride dosing facility
- New backwash pump station
- Interconnecting pipework
- Provision of all mechanical equipment associated with the new extension
- Provision of all electrical equipment associated with the new extension
- A new access road and associated storm water drainage infrastructure.

The client indicated the area to be surveyed. The field survey was confined to this area.



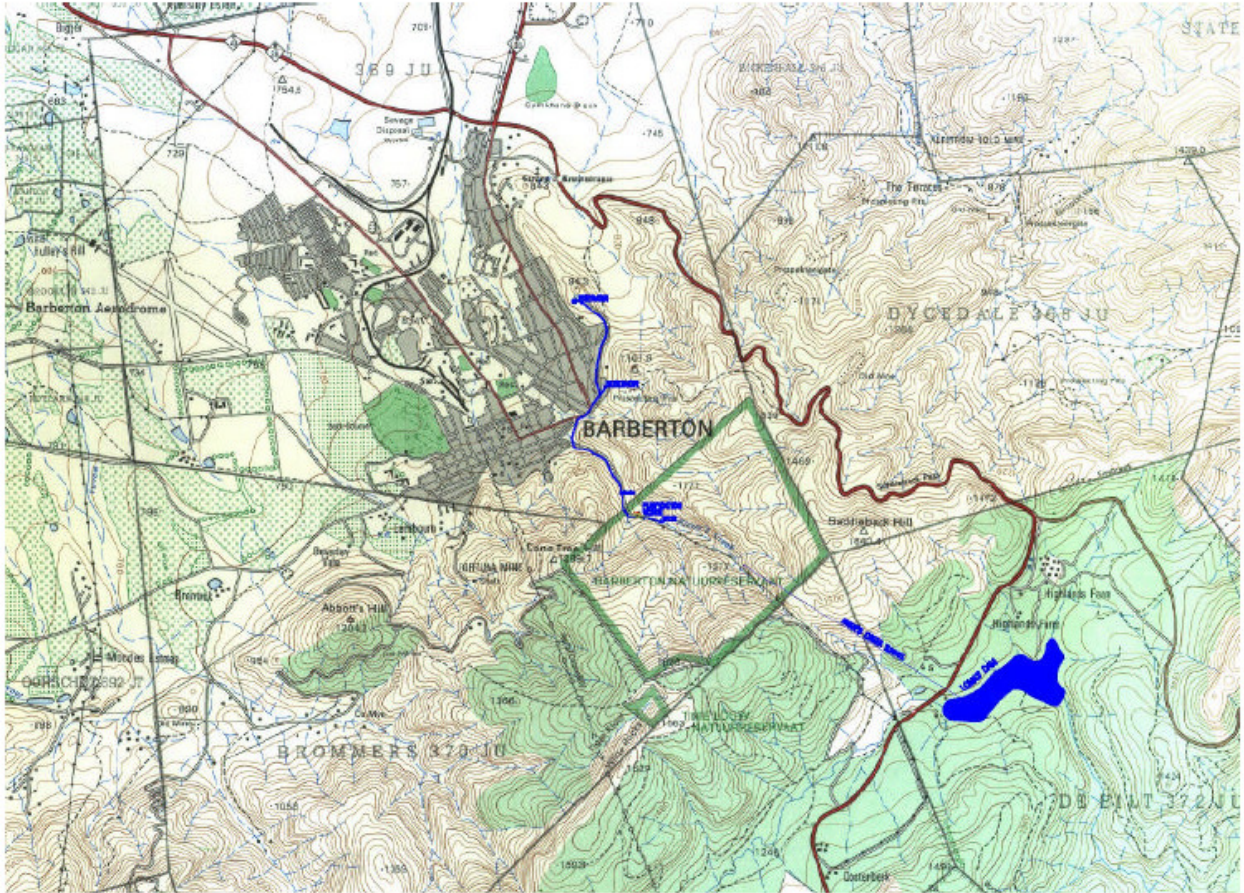


**Figure 1: Location of the town of Barberton in the Mpumalanga Province. North reference is to the top of the map.**

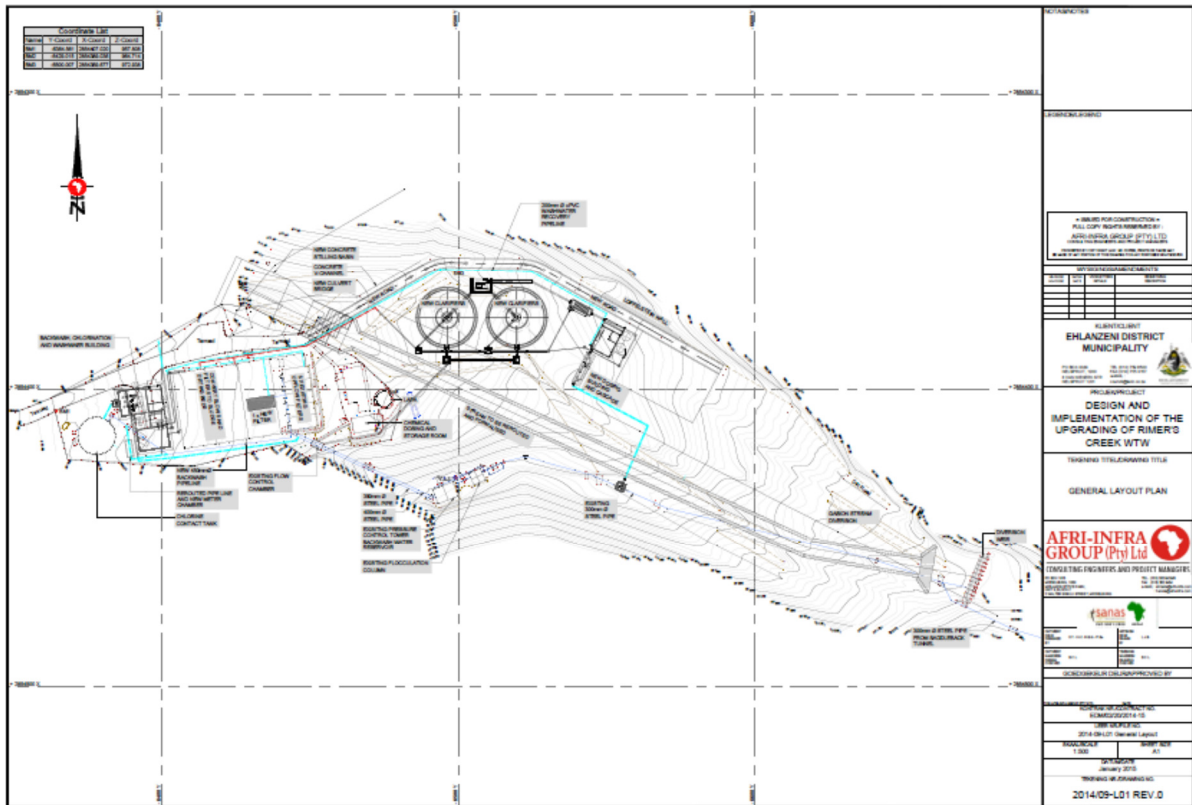


**Figure 2: Location of the site in relation to Barberton.**





**Figure 3: Map indicating the location of the Barberton Nature Reserve.**



**Figure 4: Layout plan of the development.**

## 2. TERMS OF REFERENCE

The Terms of Reference for the survey were to:

1. Identify objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) located on the property (see Appendix A).
2. Study background information on the area to be developed.
3. Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value (see Appendix B).
4. Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions.
5. Recommend suitable mitigation measures to minimize possible negative impacts on the cultural resources by the proposed development.
6. Review applicable legislative requirements.

### **3. CONDITIONS & ASSUMPTIONS**

The following conditions and assumptions have a direct bearing on the survey and the resulting report:

1. Cultural Resources are all non-physical and physical man-made occurrences, as well as natural occurrences associated with human activity (Appendix A). These include all sites, structure and artifacts of importance, either individually or in groups, in the history, architecture and archaeology of human (cultural) development. Graves and cemeteries are included in this.
2. The significance of the sites, structures and artifacts is determined by means of 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.
3. Cultural significance is site-specific and relates to the content and context of the site. Sites regarded as having low cultural significance have already been recorded in full and require no further mitigation. Sites with medium cultural significance may or may not require mitigation depending on other factors such as the significance of impact on the site. Sites with a high cultural significance require further mitigation (see Appendix C).
4. The latitude and longitude of any archaeological or historical site or feature, is to be treated as sensitive information by the developer and should not be disclosed to members of the public.
5. All recommendations are made with full cognizance of the relevant legislation.
6. It has to be mentioned that it is almost impossible to locate all the cultural resources in a given area, as it will be very time consuming. Developers should however note that the report should make it clear how to handle any other finds that might occur.
7. In this instance the vegetation cover was extremely dense and the plant growth high, therefore having a negative effect on both the horizontal and vertical archaeological visibility. However the area seems to have been disturbed to a large extent during the recent past.

### **4. LEGISLATIVE REQUIREMENTS**

Aspects concerning the conservation of cultural resources are dealt with mainly in two acts. These are the National Heritage Resources Act (Act 25 of 1999) and the National Environmental Management Act (Act 107 of 1998).

#### 4.1 The National Heritage Resources Act

According to the above-mentioned act the following is protected as cultural heritage resources:

- a. Archaeological artifacts, structures and sites older than 100 years
- b. Ethnographic art objects (e.g. prehistoric rock art) and ethnography
- c. Objects of decorative and visual arts
- d. Military objects, structures and sites older than 75 years
- e. Historical objects, structures and sites older than 60 years
- f. Proclaimed heritage sites
- g. Grave yards and graves older than 60 years
- h. Meteorites and fossils
- i. Objects, structures and sites of scientific or technological value.

The national estate (see Appendix D) includes the following:

- 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 features of cultural significance
- e. Geological sites of scientific or cultural importance
- f. Archaeological and paleontological importance
- g. Graves and burial grounds
- h. Sites of significance relating to the history of slavery
- i. Movable objects (e.g. archaeological, paleontological, meteorites, geological specimens, military, ethnographic, books etc.)

A Heritage Impact Assessment (HIA) is the process to be followed in order to determine whether any heritage resources are located within the area to be developed as well as the possible impact of the proposed development thereon. An Archaeological Impact Assessment only looks at archaeological resources. The different phases during the HIA/ AIA process are described in Appendix E. An HIA must be done under the following circumstances:

- a. The construction of a linear development (road, wall, power line canal etc.) exceeding 300m in length
- b. The construction of a bridge or similar structure exceeding 50m in length
- c. Any development or other activity that will change the character of a site and exceed 5 000m<sup>2</sup> or involve three or more existing erven or subdivisions thereof
- d. Re-zoning of a site exceeding 10 000 m<sup>2</sup>
- e. Any other category provided for in the regulations of SAHRA or a provincial heritage authority

#### **Structures**

Section 34 (1) of the mentioned act states that no person may demolish any structure or part thereof which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

A structure means any building, works, device or other facility made by people and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith.

Alter means any action affecting the structure, appearance or physical properties of a place or object, whether by way of structural or other works, by painting, plastering or the decoration or any other means.

### **Archaeology, palaeontology and meteorites**

Section 35(4) of this act deals with archaeology, palaeontology and meteorites. The act states that no person may, without a permit issued by the responsible heritage resources authority (national or provincial):

- a. destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or paleontological site or any meteorite;
- b. destroy, damage, excavate, remove from its original position, collect or own any archaeological or paleontological material or object or any meteorite;
- c. trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or paleontological material or object, or any meteorite; or
- d. Bring onto or use at an archaeological or paleontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and paleontological material or objects, or use such equipment for the recovery of meteorites.
- e. Alter or demolish any structure or part of a structure which is older than 60 years as protected.

The above mentioned may only be disturbed or moved by an archaeologist, after receiving a permit from the South African Heritage Resources Agency (SAHRA). In order to demolish such a site or structure, a destruction permit from SAHRA will also be needed.

### **Human remains**

Graves and burial grounds are divided into the following:

- a. ancestral graves
- b. royal graves and graves of traditional leaders
- c. graves of victims of conflict
- d. graves designated by the Minister
- e. historical graves and cemeteries
- f. human remains

In terms of Section 36(3) of the National Heritage Resources Act, no person may, without a permit issued by the relevant heritage resources authority:

- a. Destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;
- b. Destroy, damage, alter, exhume or remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or
- c. Bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation, or any equipment which assists in the detection or recovery of metals.

Unidentified/unknown graves are also handled as older than 60 until proven otherwise.

Human remains that are less than 60 years old are subject to provisions of the Human Tissue Act (Act 65 of 1983) and to local regulations. Exhumation of graves must conform to the standards set out in the **Ordinance on Excavations (Ordinance no. 12 of 1980)** (replacing the old Transvaal Ordinance no. 7 of 1925).

Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province and local police. Furthermore, permission must also be gained from the various landowners (i.e. where the graves are located and where they are to be relocated) before exhumation can take place. Human remains can only be handled by a registered undertaker or an institution declared under the **Human Tissues Act (Act 65 of 1983 as amended)**.

#### **4.2 The National Environmental Management Act**

This act (Act 107 of 1998) states that a survey and evaluation of cultural resources must be done in areas where development projects, that will change the face of the environment, will be undertaken. The impact of the development on these resources should be determined and proposals for the mitigation thereof are made.

Environmental management should also take the cultural and social needs of people into account. Any disturbance of landscapes and sites that constitute the nation's cultural heritage should be avoided as far as possible and where this is not possible the disturbance should be minimized and remedied.

### **5. THE INTERNATIONAL FINANCE CORPORATIONS' PERFORMANCE STANDARD FOR CULTURAL HERITAGE**



This standard recognizes the importance of cultural heritage for current and future generations. It aims to ensure that clients protect cultural heritage in the course of their project activities.

This is done by clients abiding to the law and having heritage surveys done in order to identify and protect cultural heritage resources via field studies and the documentation of such resources. These need to be done by competent professionals (e.g. archaeologists and cultural historians). Possible chance finds, encountered during the project development, also needs to be managed by not disturbing it and by having it assessed by professionals.

Impacts on the cultural heritage should be minimized. This include the possible maintenance of such sites in situ, or when impossible, the restoration of the functionality of the cultural heritage in a different location.

When cultural historical and archaeological artifacts and structures need to be removed is should be done by professionals and by abiding to the applicable legislation. The removal of cultural heritage resources may however only be considered if there are no technically or financially feasible alternatives. In considering the removal of cultural resources, it should be outweighed by the benefits of the overall project to the effected communities. Again professionals should carry out the work and adhere to the best available techniques.

It is necessary to engage into consultation with affected communities. This entails that access to such communities should be granted to their cultural heritage if this is applicable. Compensation for the loss of cultural heritage should only be given in extra-ordinary circumstances.

Critical cultural heritage may not be impacted on. Professionals should be used to advise on the assessment and protection thereof. Utilization of cultural heritage resources should always be done in consultation with the effected communities in order to be consistent with their customs and traditions and to come to agreements with relation to possible equitable sharing of benefits from commercialization.

## **6. METHODOLOGY**

### **6.1 Survey of literature**

A survey of literature was undertaken in order to obtain background information regarding the area. Sources consulted in this regard are indicated in the bibliography.

### **6.2 Field survey**

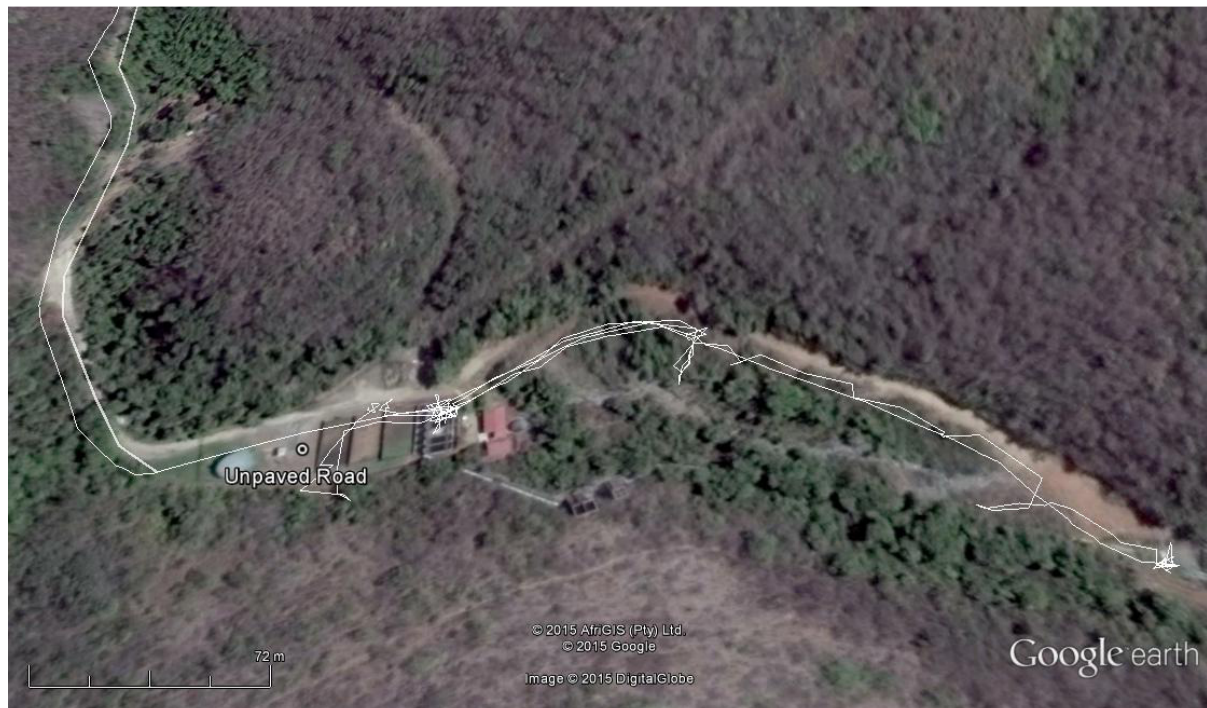
The survey was conducted according to generally accepted HIA practices and was aimed at locating all possible objects, sites and features of cultural significance in the



area of proposed development. One regularly looks a bit wider than the demarcated area, as the surrounding context needs to be taken into consideration.

If required, the location/position of any site was determined by means of a Global Positioning System (GPS)<sup>1</sup>, while photographs were also taken where needed. The survey was undertaken by doing a physical survey via off-road vehicle and on foot and covered as much as possible of the area to be studied (Figure 5). Certain factors, such as accessibility, density of vegetation, etc. may however influence the coverage.

The size of the area that was surveyed is 1 Ha and the survey took three hours to complete. The survey was done during February 2015, but heritage matters are not influenced by seasons.



**Figure 5: GPS track of the surveyed area. North reference is to the top.**

### 6.3 Oral histories

People from local communities are interviewed in order to obtain information relating to the surveyed area. It needs to be stated that this is not applicable under all circumstances. When applicable, the information is included in the text and referred to in the bibliography.

### 6.4 Documentation

All sites, objects features and structures identified were documented according to the general minimum standards accepted by the archaeological profession. Co-ordinates

<sup>1</sup> A Garmin Oregon 550 with an accuracy factor of a few meters.

of individual localities were determined by means of the Global Positioning System (GPS). The information was added to the description in order to facilitate the identification of each locality.

### **6.5 Evaluation of Heritage sites**

The evaluation of heritage sites is done by giving a field rating of each (see Appendix C) using the following criteria:

- The unique nature of a site
- The integrity of the archaeological deposit
- The wider historic, archaeological and geographic context of the site
- The location of the site in relation to other similar sites or features
- The depth of the archaeological deposit (when it can be determined or is known)
- The preservation condition of the site
- Uniqueness of the site and
- Potential to answer present research questions.

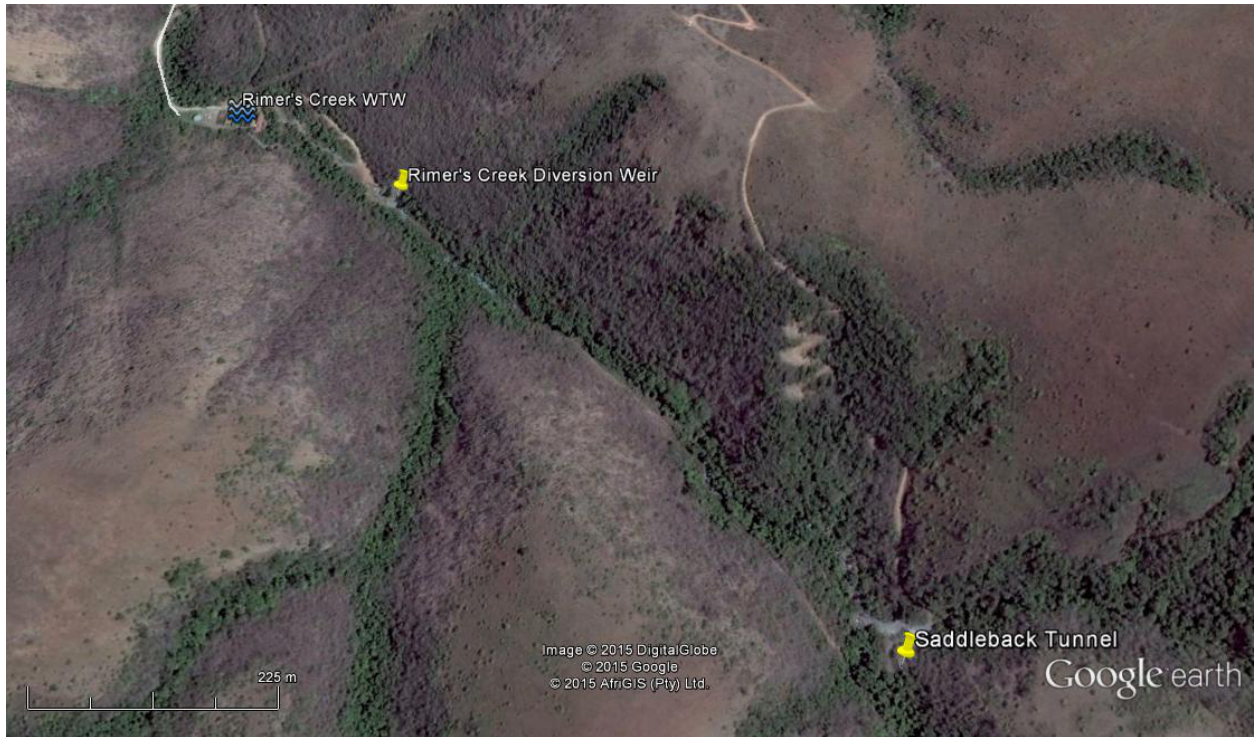
## **7. DESCRIPTION OF THE ENVIRONMENT**

The environment around the surveyed area mostly seems intact with natural vegetation consisting of a variety of plant species. This most likely is due to the slope as Rimer's Creek is found within a narrow valley in between high mountains (Figure 6). Accordingly the topography of the area is very steep towards both the north-east and south-west.

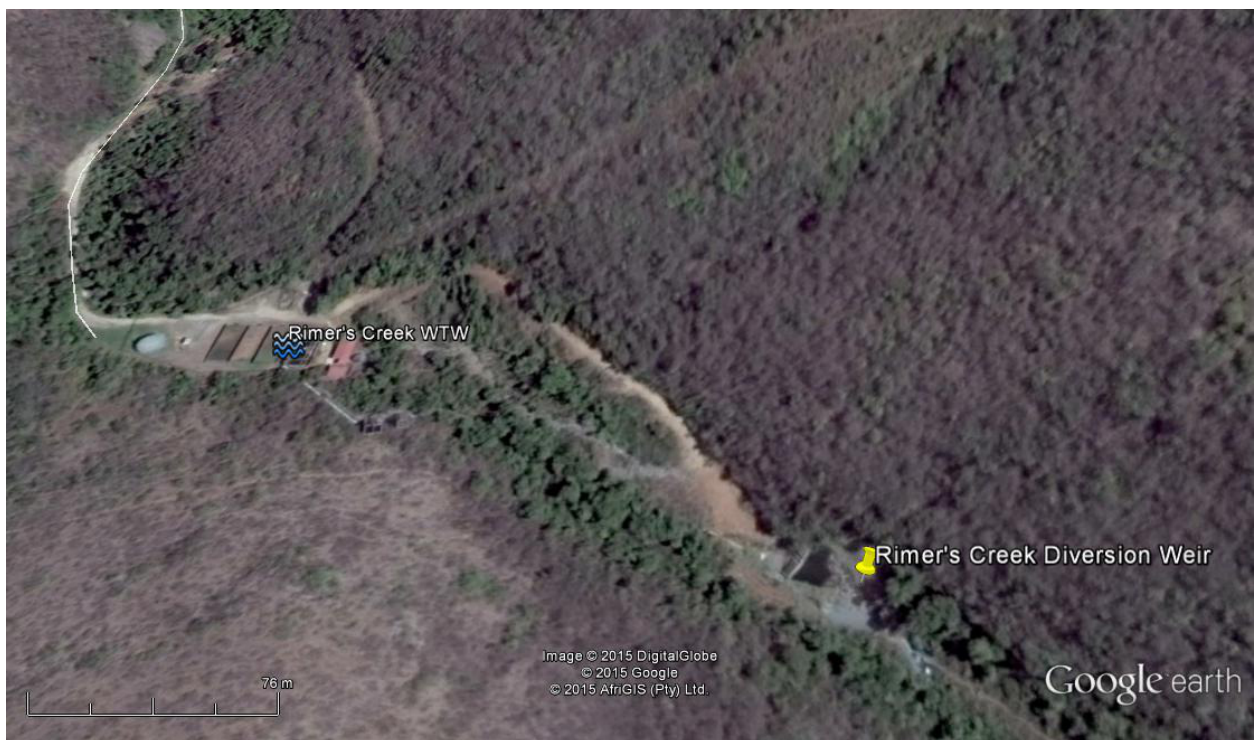
However, the surveyed area lies on an almost level area along a small river and slopes towards the south-east towards another mountain (Figure 7). The surveyed area is drained by this river, called Rimer's Creek. The river runs roughly from south-east to north-west (Figure 8). The development is planned within and close to the fenced existing WTW and the survey was done here.

The area where the survey was carried out shows definite signs of disturbance done during recent historical times. This would include the building of the existing WTW and associated infrastructure in the area. The latter consist of various buildings and the water purification plant (Figure 9-10) as well as the weir (Figure 11). Internal changes, e.g. the upgrade of filtration devices will be made to the existing infrastructure.

The vegetation in the surveyed area consists of pioneer plant species and weeds clearly indicating disturbance (Figure 12). The same goes for the section where the new plant will be erected (Figure 13), which lies towards the north in the surveyed area. The vegetation is dense and the plant growth high. It therefore has a negative effect on archaeological visibility.



**Figure 6: General view of the surrounding landscape indicating the surveyed site. North reference is to the top.**





**Figure 7: View of the Rimer's Creek WTW and diversion weir within the surveyed area. North reference is to the top.**



**Figure 8: View of the river within the surveyed area and the vegetation around it consisting of pioneer plant species.**



**Figure 9: A building and other infrastructure at the existing WTW.**





**Figure 10: Existing WTW at Rimer's Creek.**



**Figure 11: The existing weir at the WTW.**





**Figure 12: General view in the surveyed area showing clear signs of disturbance.**



**Figure 13: View of area where new plant will be erected again showing clear signs of disturbance.**

## **8. HISTORICAL CONTEXT**

No sites of cultural heritage significance were located in the surveyed area. However, in order to enable the reader to better understand this, it is necessary to give background regarding the different phases of human history. It also needs to be indicated that in this area no declared heritage sites are indicated on the SAHRA database.

Many declared heritage sites are found lower down in Rimer's Creek and within the built environment of the town of Barberton. Rimer's Creek is a well-known heritage area within the historical heart of Barberton. The closest heritage site, Fernlea House, is located about 1 km towards the south of the WTW.

According to the Umjindi Environmental Committee and the Barberton/Umjindi Ratepayers Association, the Barberton Makhonjwa Mountain Land is formally recognized as a Tentative World Heritage Site (WHS) and includes all formally proclaimed Protected Areas (four major nature reserves and several minor ones) within the general Barberton Mountainland region. The Barberton Provincial Nature Reserve which encompasses the whole of Rimer's Creek valley where the WTW is located is also included.

## **8.1 Stone Age**

The Stone Age is the period in human history when lithic material was mainly used to produce tools (Coertze & Coertze 1996: 293). In South Africa the Stone Age can be divided in three periods. It is however important to note that dates are relative and only provide a broad framework for interpretation. The division for the Stone Age according to Korsman & Meyer (1999: 93-94) is as follows:

Early Stone Age (ESA) 2 million – 150 000 years ago  
Middle Stone Age (MSA) 150 000 – 30 000 years ago  
Late Stone Age (LSA) 40 000 years ago – 1850 - A.D.

The closest known Early and Middle Stone Age site to the project area is one called Border Cave in Swaziland (Mitchell 2002: 61, 73). This however is not in close vicinity. Another Middle Stone Age site is that of Lion Cavern to the south-west of the surveyed area (Mitchell 2002: 73). Late Stone Age sites were found very close to Barberton. These are called Bornmansdrif, Sweet Home and Kearnsney Estates (Bergh 1999: 4). Others were also found at Siphiso and Caimane in Swaziland (Mitchell 2002: 127, 162).

This probably only indicates a lack of research in the area as well as the fact that there is no comprehensive data base on the prehistory of southern Africa. From the above mentioned it is clear that the surveyed area definitely is suitable for human occupation.

Many rock art sites are known from around Barberton and Swaziland (Bergh 1999: 5; Mitchell 2002: 193), but these of course are high in the mountains whereas the surveyed area is reasonably low down. Accordingly Smith & Zubieta (2007: 36) indicates no rock art sites in the Komati River Valley. No natural shelters were seen during the survey, but such shelters are most likely to be found higher up slope.



The close vicinity of water sources and ample grazing would have made it a prime spot for hunting and obtaining water during the past. Therefore one may assume that Stone Age people probably would have lived and utilized the area. Some Middle and Late Stone Age tools were identified during the survey, but these are out of context and probably were washed down from higher up slope (Figure 14).

Although the Stone Age material that was found is not in context, one will have to be on the lookout for these during construction. Areas where ground breaking equipment will be used should be monitored for stone tools.



**Figure 14: Middle and Late Stone Age tools picked up in the surveyed area.**

## **8.2 Iron Age**

The Iron Age is the name given to the period of human history when metal was mainly used to produce metal artifacts (Coertze & Coertze 1996: 346). In South Africa it can be divided in two separate phases according to Van der Ryst & Meyer (1999: 96-98), namely:

Early Iron Age (EIA) 200 – 1000 A.D.  
Late Iron Age (LIA) 1000 – 1850 A.D.

Huffman (2007: xiii) however indicates that a Middle Iron Age should be included. His dates, which now seem to be widely accepted in archaeological circles, are:

Early Iron Age (EIA) 250 – 900 A.D.  
Middle Iron Age (MIA) 900 – 1300 A.D.  
Late Iron Age (LIA) 1300 – 1840 A.D.

The closest Early Iron Age site to the surveyed is one at Plaston to the north of Nelspruit. This is more than 60 km from the surveyed site (Bergh 1999: 6). Another site has been excavated close to Nelspruit (Esterhuysen & Smith 2007: 12). One however needs to take note that not many Early Iron Age sites have been identified thus far in South Africa.

Bergh (1999: 7) also indicates that many Late Iron Age sites were identified around Badplaas to the west of Barberton. It is also indicated that during the Iron Age iron was worked to the south and east of the surveyed area (Bergh 1999: 8).

One of the early trade routes passed through Barberton from Maputo. A few others went through Sabie Poort and one through the Komati Poort, both to the north-east of where the survey was done (Bergh 1999: 9).

No Iron Age material was identified during the survey. The steepness of the valley most likely made it a difficult area to inhabit, but homesteads may have been located higher or lower down the mountains. The good grazing and access to water in the area would have provided a good environment for Iron Age people. The lack of knowledge about the Iron Age in the vicinity of Barberton may only indicate a lack of research.

### **8.3 Historical Age**

The historical age started with the first recorded oral histories in the area. It includes the moving into the area of people that were able to read and write. This area sometimes is also called the recent historical past. Therefore and because less time has passed, much more cultural heritage resources from this era have been left on the landscape. It is important to note that all cultural resources older than 60 years are potentially regarded as part of the heritage and that detailed studies are needed in order to determine whether these indeed have cultural significance. Factors to be considered include aesthetic, scientific, cultural and religious value of such resources.

At the beginning of the 19<sup>th</sup> century the area to the north of current day Swaziland and Barberton was also inhabited by the Swazi (Eloff et.al. 2007: 63; Bergh 1999: 10; Bornman 1994: 2-6). During the Difaquane (1823-1837) the Swazi moved further inland as a result of land becoming available (Bergh 1999: 11). This indicates that historical Iron Age people probably utilized this environment in the past.

The first early travelers never reached the Barberton area and neither did the Voortrekkers (Bergh 1999: 12-14). White farmers only settled here after 1845, but this was to the north of the Crocodile River (Bergh 1999: 16, 130). This area was traded from the Swazi in 1846, but excluded modern day Barberton (Bergh 1999:16-17). The Komati River then was the border between the Swazi's and the South African Republic (ZAR). The land between the Crocodile and Komati Rivers however stayed government land. The permanent settlement of white people here soon followed.

Gold was discovered in the De Kaap valley in 1874. This resulted in many prospectors coming to the area. Gold was only discovered in Barberton in 1884 (Bornman 1994:

11, 14) and the town of Barberton was proclaimed roundabout 1885. The area became a district in 1902 (Bergh 1999: 20, 22, 144). Rimer's Creek is closely associated with the discovery of gold in Barberton. The lower section, which today forms part of the town, hosts many historical buildings as well as the first stamp battery called the Central Mill, which was an ore crusher (Küsel 2009: 6).

Barberton also saw action during the Anglo-Boer War (1899-1902). The Boers had a large camp here at the start of the War. Here Boer women and children were housed, but the town was invaded by the British in September 1900. They changed the burger camp to a large concentration camp (Bornman 1994: 27; Bergh 1999: 51, 54).

Five blockhouses were erected by the British around Barberton (Bornman 1994: 28). This was to safeguard the town from Boer attacks. Only one of these survived and can be seen close to Rimer's Creek. During a survey of blockhouses it was regarded as being one of the unique examples from this time period, therefore increasing its heritage significance (Van Vollenhoven & Van den Bos 1997).

Other known historical buildings in Barberton are Fernlea House (in Rimer's Creek about 1 km below the WTW), the Cockney Liz Hotel, old Cinema House, the De Kaap Stock Exchange, Belhaven House, Masonic Temple, Lewis and Marks Building, Phoenix Hotel and Stopforth House (Küsel 2009: 10-12; Miller 2010) 4-20). Many of these were mentioned in heritage reports found in the SAHRIS database of SAHRA. It is however very unlikely that these, with the possible exception of Fernlea House and Central Mill area, will be impacted on. If such impact occurs it would be indirect and linked to the construction vehicles passing these sites, which may create a dust issue.

One may therefore expect to find farm and mining buildings, structures and objects from this period in time in the area. Graves may also be found isolated in the veldt, but since the town was established quite late, one would expect graves in formal cemeteries in town and therefore not this close to town in Rimer's Creek. One should therefore be on the lookout for indications of such features during construction activities.

In fact a few historical artefacts were identified along the river in the surveyed area (Figure 15). These seem to date to the late 19<sup>th</sup>/ early 20<sup>th</sup> century and most likely washed down from the mountain. It may be associated with gold digging activities around the turn of the century.



**Figure 15: Historical artefacts (shards from glass bottles and a bar of iron) found in the surveyed area. The glass bottles represent alcoholic and non-alcoholic bottles from the late 19<sup>th</sup>/ early 20<sup>th</sup> century.**

## **9. CONCLUSION AND RECOMMENDATIONS**

The survey of the indicated area was completed successfully. As indicated no sites of cultural heritage significance were found.

It however needs to be stated that the old part of Barberton is of great historical value and that the larger Rimer's Creek is an extremely important heritage area. Community members have been actively involved in attempts to preserve and protect the environment and heritage features it contains.

The following is recommended:

- Based on the heritage significance of the Rimer's Creek area and the community's actions in preserving it, social consultation is of the utmost importance. Proof of engagement with the community will have to be presented to SAHRA.
- However SAHRA only deals with heritage related to palaeontological, historical or archaeological nature. Therefore any other heritage related issues (e.g. natural) should be addressed with the relevant provincial department. The issue of the Barberton Makhonjwa Mountainland being a Tentative World Heritage Site (WHS) which includes nature reserves, although important, cannot be address by a report regarding cultural heritage.

- The developer should take note of the known historical buildings in Barberton and ensure that these are not affected at all, however unlikely the possibility. Special care should be taken that Fernlea House and the Central Mill area, which lies directly below the WTW (although 1 km south) should not be impacted on.
- Any possible graves found should be dealt with in accordance with the legislation indicated above. This basically means reporting it to the SA Police Service and /or SAHRA or calling in an archaeologist to handle the matter.
- It should be noted that the subterranean presence of archaeological and/or historical sites, features or artifacts is always a distinct possibility. This is especially probable here, as historical and archaeological artefacts, albeit out of context, were identified during the survey. It therefore is recommended that as mitigation measure, a watching brief be implemented during construction. This basically means that an archaeologist should be present on site during ground breaking activities (e.g. bulldozing, digging of trenches etc.) to ensure that any possible archaeological material that may be unearthed be handled in accordance with legislation. If identified, such artefacts should be documented and donated to the Barberton Museum.
- The proposed development may continue on approval by SAHRA, after adhering to the above mentioned mitigation measures.

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## **APPENDIX A**

### **DEFINITION OF TERMS:**

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

Structure: A permanent building found in isolation or which forms a site in conjunction with other structures.

Feature: A coincidental find of movable cultural objects.

Object: Artifact (cultural object).

(Also see Knudson 1978: 20).



## **APPENDIX B**

### **DEFINITION/ STATEMENT OF HERITAGE SIGNIFICANCE:**

- 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.
- Aesthetic value: Important in exhibiting particular aesthetic characteristics valued by a community or cultural group.
- 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
- 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

### SIGNIFICANCE AND FIELD RATING:

#### Cultural significance:

- Low            A cultural object being found out of context, not being part of a site or without any related feature/structure in its surroundings.
- Medium        Any site, structure or feature being regarded less important due to a number of factors, such as date and frequency. Also any important object found out of context.
- High            Any site, structure or feature regarded as important because of its age or uniqueness. Graves are always categorized as of a high importance. Also any important object found within a specific context.

#### Heritage significance:

- Grade I        Heritage resources with exceptional qualities to the extent that they are of national significance
- Grade II       Heritage resources with qualities giving it provincial or regional importance although it may form part of the national estate
- Grade III      Other heritage resources of local importance and therefore worthy of conservation

#### Field ratings:

- i. National Grade I significance    should be managed as part of the national estate
- ii. Provincial Grade II significance    should be managed as part of the provincial estate
- iii. Local Grade IIIA                    should be included in the heritage register and not be mitigated (high significance)
- iv. Local Grade IIIB                    should be included in the heritage register and may be mitigated (high/ medium significance)
- v. General protection A (IV A)        site should be mitigated before destruction (high/ medium significance)
- vi. General protection B (IV B)        site should be recorded before destruction (medium significance)
- vii. General protection C (IV C)        phase 1 is seen as sufficient recording and it may be demolished (low significance)

## **APPENDIX D**

### **PROTECTION OF HERITAGE RESOURCES:**

#### **Formal protection:**

National heritage sites and Provincial heritage sites – grade I and II

Protected areas - an area surrounding a heritage site

Provisional protection – for a maximum period of two years

Heritage registers – listing grades II and III

Heritage areas – areas with more than one heritage site included

Heritage objects – e.g. archaeological, palaeontological, meteorites, geological specimens, visual art, military, numismatic, books, etc.

#### **General protection:**

Objects protected by the laws of foreign states

Structures – older than 60 years

Archaeology, palaeontology and meteorites

Burial grounds and graves

Public monuments and memorials

## **APPENDIX E**

### **HERITAGE IMPACT ASSESSMENT PHASES**

1. Pre-assessment or scoping phase – establishment of the scope of the project and terms of reference.
2. Baseline assessment – establishment of a broad framework of the potential heritage of an area.
3. Phase I impact assessment – identifying sites, assess their significance, make comments on the impact of the development and makes recommendations for mitigation or conservation.
4. Letter of recommendation for exemption – if there is no likelihood that any sites will be impacted.
5. Phase II mitigation or rescue – planning for the protection of significant sites or sampling through excavation or collection (after receiving a permit) of sites that may be lost.
6. Phase III management plan – for rare cases where sites are so important that development cannot be allowed.