



Archaetnos Culture & Cultural  
Resource Consultants  
BK 98 09854/23

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**A REPORT ON A CULTURAL HERITAGE IMPACT ASSESSMENT FOR THE  
PROPOSED PROVISION OF BULK SERVICES (WATER AND SEWAGE) TO THE  
HAMMANSKRAAL WEST AREA, CITY OF TSHWANE, GAUTENG PROVINCE**

For:

***TGM Environmental Services cc***  
*PO Box 219*  
*Groenkloof*  
*0027*  
*E-mail: delia@tgmenviron.co.za*

**REPORT NO.: AE01801V**

By:

***Prof. A.C. van Vollenhoven (L.AKAD.SA.)***  
***Accredited member of ASAPA (Accreditation number: 166)***  
***Accredited member of SASCH (Accreditation number: CH001)***

***12 January 2018***

Archaetnos  
P.O. Box 55  
GROENKLOOF  
0027  
Tel: 083 291 6104  
Fax: 086 520 4173  
E-mail: antonv@archaetnos.co.za

Member: AC van Vollenhoven BA, BA (Hons), DTO, NDM, MA (Archaeology) [UP], MA (Culture History) [US], DPhil (Archaeology) [UP], Man Dip [TUT], D Phil (History) [US]

## **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.**

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## EXECUTIVE SUMMARY

Archaeon cc was requested by TGM Environmental Services CC to conduct a cultural heritage impact assessment (HIA) for the proposed provision of bulk services (water and sewage) to the Hammanskraal West area. This is in the City of Tshwane in the Gauteng Province.

The methodology for the study includes a survey of literature and a field survey. The latter 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.

If required, the location/position of any site was determined by means of a Global Positioning System (GPS), 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. Certain factors, such as accessibility, density of vegetation, etc. may however influence the coverage.

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

During the survey no site of cultural heritage significance was identified. This is due to the entire area being disturbed by former and recent human interventions.

It is therefore recommended that the proposed development may continue. This report is seen as ample mitigation.

It should be noted that the subterranean presence of archaeological and/or historical sites, features or artifacts is always a distinct possibility. Due to the density of vegetation it also is possible that some sites may only become known later on. Operating controls and monitoring should therefore be aimed at the possible unearthing of such features. Care should therefore be taken when development commences that if any of these are discovered, a qualified archaeologist be called in to investigate the occurrence.

It is also important to take cognizance that it is the client's responsibility to do the submission of this report to the Provincial Heritage Resources Agency of Gauteng (PHRA-G). No work on site may commence before receiving the necessary comments from the PHRA-G.

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**CURRICULUM VITAE**  
**Prof Anton Carl van Vollenhoven**

**PERSONAL INFORMATION**

- Born: 20 January 1966, Pretoria, RSA
- Address: Archaetnos, PO Box 55, Groenkloof, 0027
- Cell phone: 083 291 6104
- Nationality: RSA
- E-mail: antonv@archaetnos.co.za

**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.
- 2014-2015: Part-time lecturer for the Honours degree in Museum Sciences in the Department of History and Heritage Studies at the University of Pretoria
- Since 2015: Extraordinary Professor of History at the Mafikeng campus of the Northwest University

**OTHER**

- Has published 79 articles in scientific and popular journals on archaeology and history.
- Has been the author and co-author of over 845 unpublished reports on cultural resources surveys and archaeological work.
- Has published books on the Military Fortifications of Pretoria and Heritage Guidelines.
- Contributed to a book on Mapungubwe.
- Has delivered more than 66 papers and lectures at national and international conferences.
- Member of SAHRA Council for 2003 – 2006.

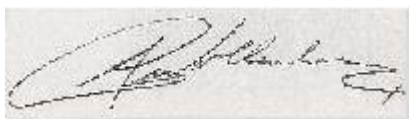
- Member of the South African Academy for Science and Art.
- Member of Association for South African Professional Archaeologists.
- Member of the South African Society for Cultural History (Chairperson 2006-2008; 2012-2014).
- Has been editor for the SA Journal of Cultural History 2002-2004.
- Member of the Provincial Heritage Resources Agency, Gauteng's Council.
- Member of Provincial Heritage Resources Agency, Gauteng's HIA adjudication committee (Chairperson 2012-2015).

A list of reports can be viewed on [www.archaetnos.co.za](http://www.archaetnos.co.za).

### 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:



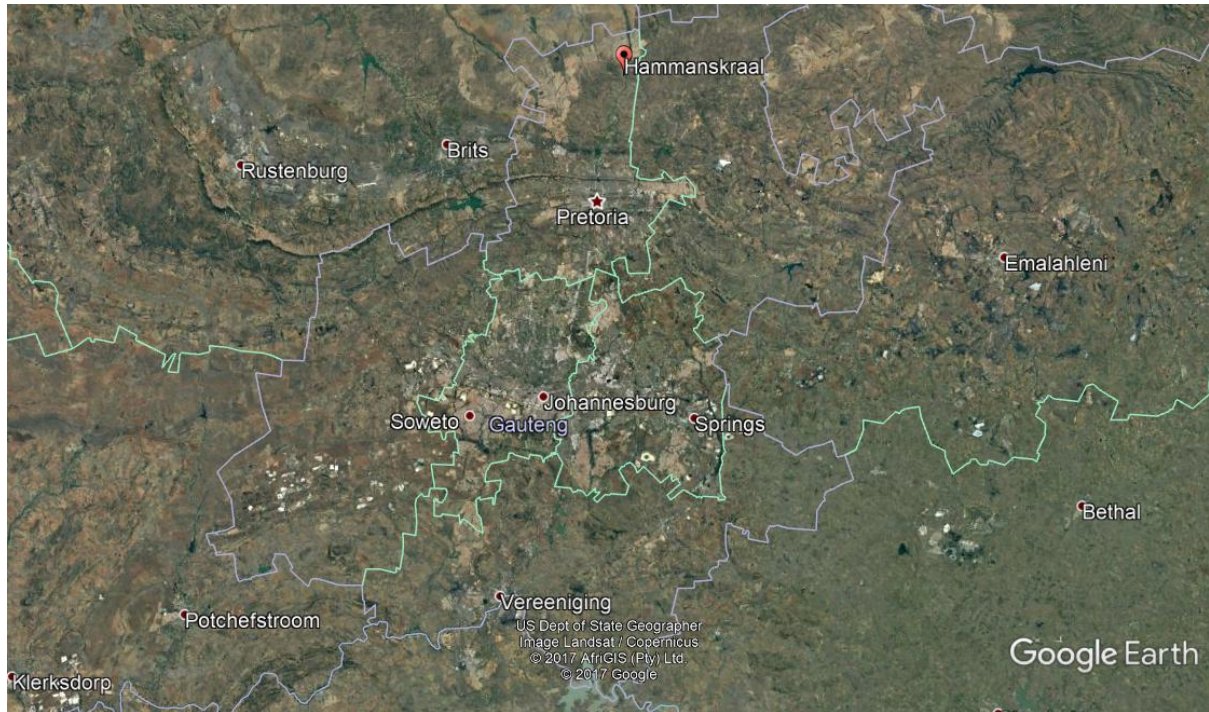
Date: 12 January 2018

### LIST OF ACRONYMS:

AIA – Archaeological Impact Assessment  
 CMP – Cultural Management Plan  
 EAP – Environmental Assessment Practitioner  
 EIA – Environmental Impact Assessment  
 HIA – Heritage Impact Assessment  
 PIA – Palaeontological Impact Assessment  
 SAHRA –South African Heritage Resources Agency

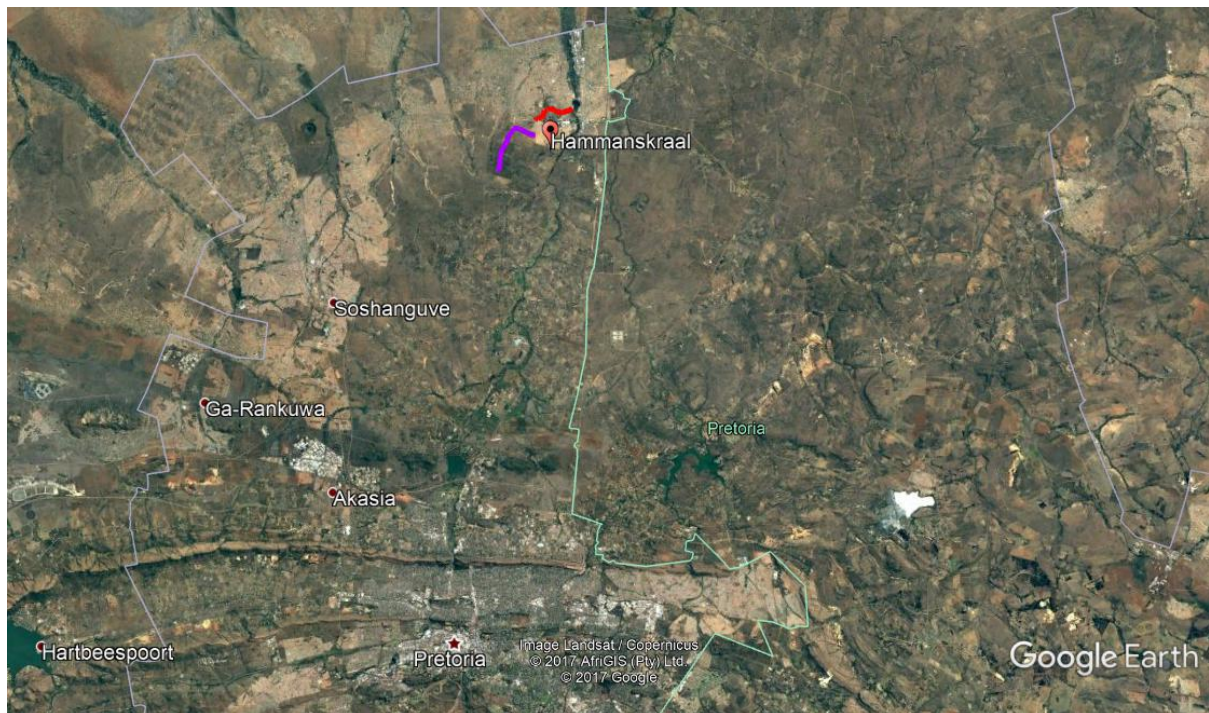
## 1. INTRODUCTION

Archaeos cc was requested by TGM Environmental Services CC to conduct a cultural heritage impact assessment (HIA) for the proposed provision of bulk services (water and sewage) to the Hammanskraal West area. This is in the City of Tshwane in the Gauteng Province (Figure 1-3).



**Figure 1: Location of Hammanskraal in Tshwane in the Gauteng Province.  
North reference is to the top.**





**Figure 2: Location of the site in Hammanskraal. North reference is to the top.**

The details of the project are as follows:

#### Bulk water pipeline

The proposed steel bulk water pipeline will be approximately 5.2km in length. The bulk water pipeline will be constructed from the Hammanskraal West Reservoir in an eastern direction (reservoir access road) for approximately 150m. The construction of the pipeline will then continue in a northern direction for approximately 3.3km and in an eastern direction for approximately 1.7km where it will connect with an existing pipeline.

The pipeline will follow the same route as the existing DN600 pumping main, but will as far as possible be constructed on the opposite side of the road. The pipeline will be constructed:

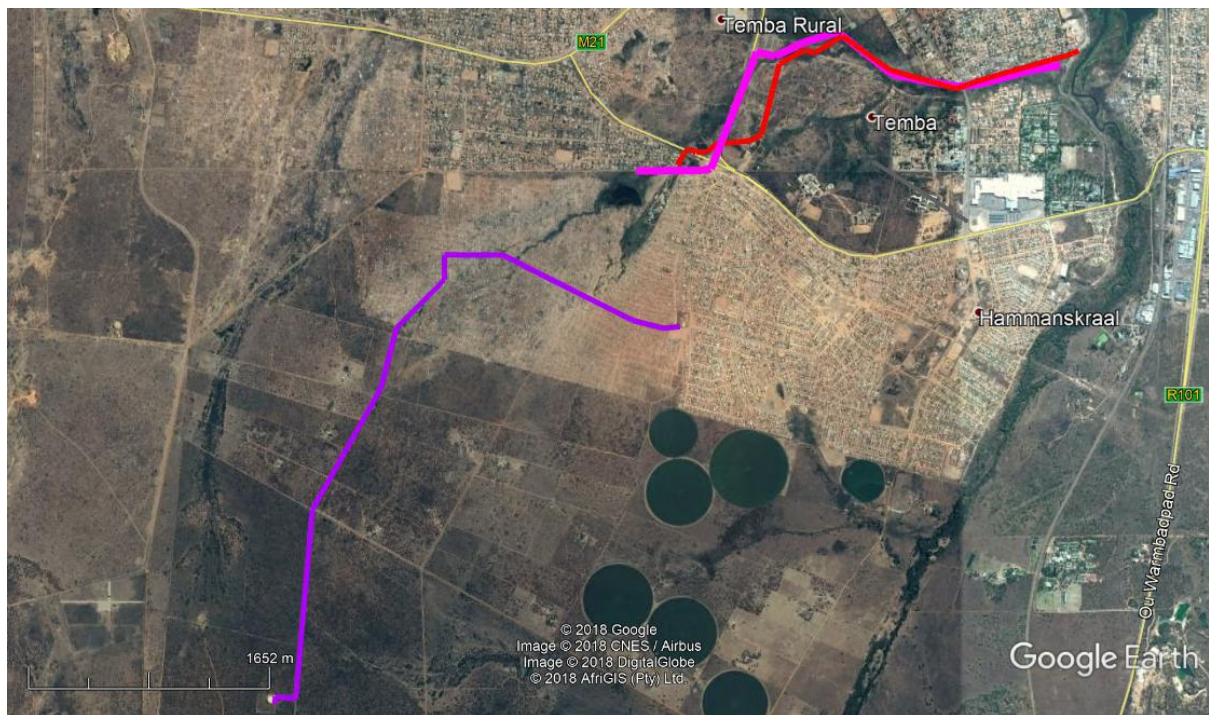
- Along the Northern side of the reservoir access road
- Along the western side of the road on the North-running section
- Along the southern side of the road on the East-running section

#### Bulk sewer pipeline

The proposed concrete bulk sewer pipeline will be approximately 3.4km in length. The bulk sewer pipeline will follow, for the most part, approximately the same route as the existing DN315 / DN400 outfall sewer that serves Hammanskraal Ext. 2, but will be constructed on the opposite side of the stream in the middle section. Two alternatives were investigated.

The client indicated the areas to be surveyed and the survey was confined to these. It was done via foot and off-road vehicle.





**Figure 3: Detail of the proposed water (purple) and sewage (red – preferred; pink - alternative) lines which was surveyed. North reference is to the top.**

## **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. Document the found cultural heritage sites according to best practice standards for heritage related studies.
3. Study background information on the area to be developed.
4. Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value (see Appendix B).
5. Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions.
6. Recommend suitable mitigation measures to minimize possible negative impacts on the cultural resources by the proposed development.

7. 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.

### **4. LEGISLATIVE REQUIREMENTS**

Aspects concerning the conservation of cultural resources are dealt with mainly in two acts. The first of these are the National Heritage Resources Act (Act 25 of 1999) which deals with the cultural heritage of the Republic of South Africa. The second is the National Environmental Management Act (Act 107 of 1998) which inter alia deals with cultural heritage as part of the Environmental Impact Assessment process.

#### 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 and can only be done by a professional archaeologist.

A Palaeontological Impact Assessment (PIA) is an assessment of palaeontological heritage. Palaeontology is a different field of study, and although also sometimes required by the South African Heritage Resources Agency (SAHRA)<sup>1</sup>, should be done by a professional palaeontologist.

The different phases during the HIA 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

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<sup>1</sup> Please consult SAHRA to determine whether a PIA is necessary.

- 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). 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 **National Health Act (Act 61 of 2003)** 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 **National Health Act (Act 61 of 2003)**.

#### **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 need to be managed by not disturbing such finds and by having them 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.

Consultation with affected communities should be engaged in. 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>2</sup>, while photographs were also taken where needed. The survey was undertaken by doing a physical survey on foot and covered as much as possible of the area to be studied (Figure 4).

Certain factors, such as accessibility, density of vegetation, etc. may however influence the coverage. The length of the surveyed area is approximately 5.2km in length for the proposed bulk water pipeline and approximately 3.4km in length for the sewage line. The survey took 5 hours to complete.



**Figure 4: GPS track of the surveyed area (green lines on purple, pink and red). 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

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<sup>2</sup> A Garmin Oregon 550 with an accuracy factor of a few meters.

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 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 area that was surveyed is located in an almost entirely urbanized location consisting of formal and informal housing. The surrounding landscape therefore consist of roads, infrastructure and various buildings, with limited natural areas in between. Therefore, both proposed routes are almost entirely disturbed with the natural vegetation mostly consisting of pioneer plant species such as grass, weeds and thorn bushes.

Bulk water line:

The proposed route starts at a water reservoir (Figure 5) towards the south-west of Hammanskraal. It then follows a gravel road, roughly in a north-eastern direction, following the same route as an existing water pipeline.

The vegetation cover here varies between short and medium high grass, reasonably dense in under footing. However, the area clearly is disturbed (Figure 6-7). Therefore, the horizontal archaeological visibility is good and the vertical archaeological visibility fair.

The northern section of the proposed route runs through an informal settlement with informal housing and gravel streets (Figure 8). The route then ends in a formal

section of Hammanskraal and connects with an existing pipeline (Figure 9). The topography of the surveyed area is fairly flat, with a slight fall towards the north.



**Figure 5: Reservoir at the starting point of the proposed bulk water pipeline.**



**Figure 6: General view of the route along gravel road.**





**Figure 7: View of vegetation along the route.**



**Figure 8: Informal housing along the route.**



**Figure 9: Final section of the route in between formal and informal houses in Hammanskraal.**

Bulk sewage line:

Both alternatives are reasonably similar and also close to each other. The preferred route starts a few hundred metres towards the north of the northern point of the water route, with the alternative a few metres further west. This is in a more formal section of Hammanskraal showing houses, gravel roads and illegal dumping (Figure 10). It then follows an existing sewage pipeline, roughly in a north-eastern direction. It also runs parallel to a stream. The area therefore is very wet, and the vegetation cover varies between short and medium high grass with reasonably dense in under footing (Figure 11-13).

The area clearly is disturbed, indicated by power lines (Figure 14), excavations and pioneer plant species. Thick impenetrable sickle bushes were also encountered (Figure 15). Therefore, the horizontal archaeological visibility is good and the vertical archaeological visibility fair.

The route ends at a dam (Figure 16). The topography of the surveyed area is fairly flat, with a slight fall towards the north-east.



**Figure 10: Formal houses and illegal dumping close to the starting point of the proposed sewage route.**



**Figure 11: General view of the route, running parallel to a river.**





**Figure 12: View of vegetation along the route.**



**Figure 13: Another view of vegetation along the proposed route**



**Figure 14: Power lines and area with deep excavations along the route.**



**Figure 15: Impenetrable sickle bushes along the route.**





**Figure 16: Final section of the route, ending at a dam.**

## **8. HISTORICAL CONTEXT**

No sites of cultural heritage significance were located during the survey. A large formal graveyard was identified (Figure 17), but this will not be impacted on, as it lies more than 100 m away from the proposed sewer route.



**Figure 17: Formal grave yard identified close to the sewer route (GPS coordinates - 25°23'42.02"S; 28°15'17,38"E).**

Some background information is given in order to place the surveyed area and the sites found in a historical context and to contextualize possible finds that could be unearthed during construction activities. Many heritage reports have been done in the Tshwane area. However, none of these indicate that heritage sites were discovered (SAHRIS database; Archaetnos database). Much research has however been done here and can be incorporated in the discussion.

### **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.

It is important to note that some of the oldest humanoid fossils have been found close to Pretoria, namely at Kromdraai, Sterkfontein, Swartkrans, Gladysvale and Drimolen (in the Krugersdorp area). These hominids include *Australopithecus Africanus*, *Australopithecus Robustus* and *Homo Habilis* and can be as old as 3 million years. These early people were the first to make stone tools (Van Vollenhoven 2000: 146).

One of the important Early Stone Age sites are situated to the south of Hammanskraal, close to the Wonderboom Nature Reserve (Korsman & Meyer 1999: 93). The Wonderboom site is a so-called Late Acheul site. This means it is the later phase of the Acheulian culture, which is an Early Stone Age culture. Similar tools were also found on other parts of the Magaliesberg (Van Vollenhoven 2006: 183) which are also south of Hammanskraal. These stone tools were probably manufactured by the earliest hominids as indicated above. It is therefore quite possible that these people would have also utilised the area towards the north of the Magaliesberg, i.e. where Hammanskraal is situated.

Middle Stone Age material was identified at Erasmusrand and the Groenkloof Nature Reserve (Van Vollenhoven 2006: 183). Middle Stone Age artefacts were found at the Tswaing meteor crater in Soshanguve to the west of the surveyed area (Van Vollenhoven 2000: 40).

At the Erasmusrand cave some Late Stone Age tools were also identified as well as at Groenkloof (Van Vollenhoven 2006: 184). LSA material was also found at Zwartkops and Hennops River (Bergh 1999: 4). Again, some LSA lithic tools were identified at the Tswaing meteor crater (Van Vollenhoven 2000: 40). This last phase of the Stone Age is associated with the San people.

One may therefore expect to find stone tools in the surveyed area. It is especially the areas close to the hills which may reveal such artefacts.

## **8.2 Iron Age**

The Iron Age is the name given to the period of human history when metal was mainly used to produce artifacts (Coertze & Coertze 1996: 346). In South Africa it can be divided in three separate phases according to Huffman (2007: xiii) namely:

Early Iron Age (EIA) 250 – 900 A.D.

Middle Iron Age (MIA) 900 – 1300 A.D.

Late Iron Age (LIA) 1300 – 1840 A.D.

Early and Late Iron Age sites have been identified in and around the City of Tshwane. Moloko pottery (1200 A.D.) was found at Tswaing (Van Vollenhoven 2000: 42). Bergh (1999: 7) indicates that 125 sites are known in the Pretoria area, but this is under-estimation. In Soshanguve, a LSA site was identified (Van Vollenhoven 2000: 42). According to Delius (1983: 12) and Horn (1996: 23) LIA people moved into the Pretoria area since 1600 A.D.

No Iron Age sites and features were however identified during the survey.

## **8.3 Historical Age**

The Historical Age started with the first historical sources which can be used to learn more about people of the past. In South Africa it can be divided into two phases. The first includes oral histories as well as the recorded oral histories of past societies. The latter were usually written by people who contact with such a community for a short time. This is followed by the second phase which includes the moving into the area of people that were able to read and write (Van Vollenhoven 2006: 189).

Early travelers have moved through the area that later became known as Pretoria as early as 1829. This was when the first white people visited the area, namely Robert Schoon and William McLuckie. During the same year the well-known missionary Dr. Robert Moffat also visited the area (Rasmussen 1978: 69). In October 1829 the missionary James Archbell and the trader David Hume traveled through this part of the country (Changuion 1999: 119).

The first Bantu language speakers in the area were the so-called Transvaal Ndebele, specifically the southern group. Their history goes back to Chief Msi (Musi) and the genealogy of the Manala (Mahbena) clan, the Ndzundza (Mapoch) clan, the Mathombeni (Kekana) clan and the Hwanda clan (Horn 1996: 23).

Chief Msi lived in the Pretoria area somewhere between 1600 and 1700 A.D. His sons divided the tribe in three groups, namely the Hwaduba, Manala and Ndzundza (Horn 1996: 23).

The largest group of Bantu speaking people in the Tshwane area is the Northern Sotho, but Southern Sotho's and Tswanas are also present. These groups have a typical building tradition consisting of large building complexes and round huts with conical roofs (Bergh 1999: 106).

It seems as if all these groups fled from the area during the Difaquane when Mzilikazi came here in 1827. He killed the men, burned down their villages, confiscated the livestock and took the women to marry members of his impi (Van Vollenhoven 2000: 156).

The missionary Jean-Pierre Pellissier even visited Mzilikazi in March 1932. In June/July of that year he was attacked by the impi of Dingane, the Zulu chief. As a result, he left the area during that year (Bergh 1999: 112). This left an area described as being deserted by the missionary Robert Moffat. Sotho groups however started moving back into the area after Mzilikazi left (Junod 1955: 68).

The first white people also came to the Pretoria area during this time (Coetzee 1992: 11). In 1839 JGS Bronkhorst settled on the farm Elandspoort. He was the first permanent white settler in the area (Van Vollenhoven 2005: 17-45). This however is much further to the south although still within the City of Tshwane.

## **9. PUBLIC CONSULTATION**

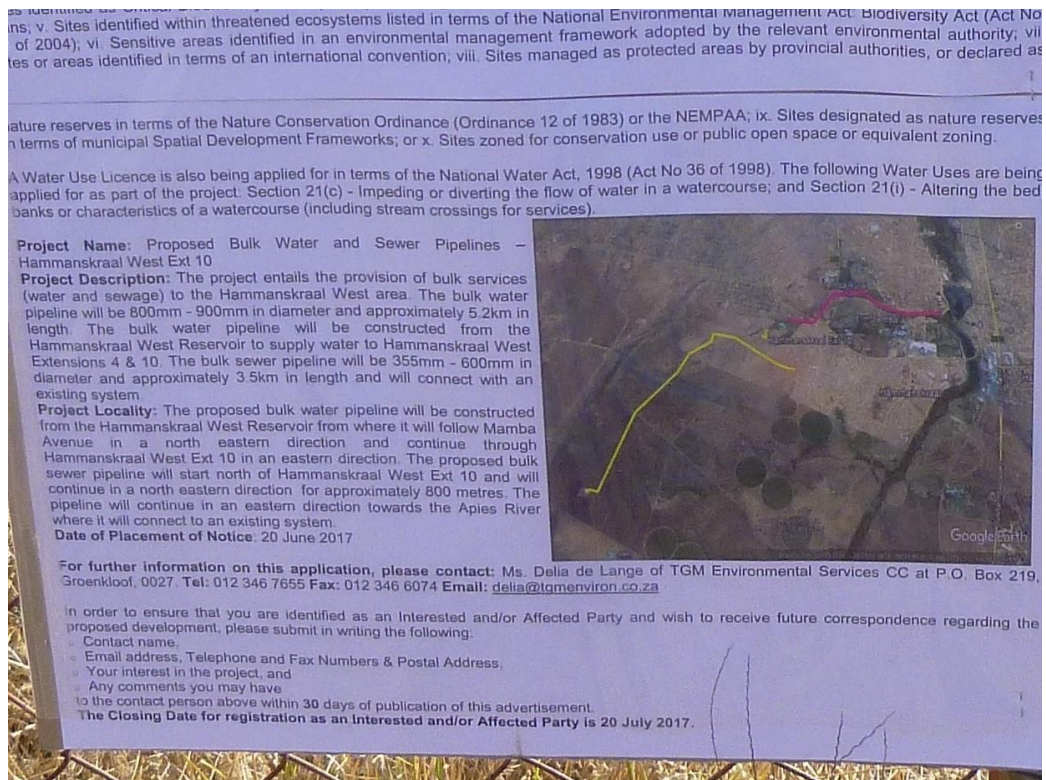
The application forms part of a Basic Assessment process. Public consultation (Figure 18-21) is handled by the Environmental Impact Assessment Practitioner. Both site and newspaper notices were used.

The period for comments ended on 30 July 2017. No comments related to heritage were received.



**Figure 18: One of various site notices.**





**Figure 19: Wording of the site notice, kindicating the closing date for comments as 20 July 2017.**

078 155 5215  
**BABA GUMEDE**  
**ALL PROBLEMS R330**  
 My truth is my answer  
 with 100% guaranteed. I  
 have never failed to solve  
 any kind of problem. Bring  
 back lost love fast &  
 love you alone. Love  
 powder to get anyone  
 you want & get married  
 quickly. Make your  
 partner think & dream  
 about you all I time.  
 Hire short boys, lucky stick  
 & magwandu to  
 bring money. Finish jobs  
 that other herbalist failed.  
 Get Done! Money &  
 Promotion at will.  
 Win any kind of games. Woza  
 woza to boost your  
 business & bring more  
 customers. Treat any  
 human disease, all  
 female problems & fast  
 fighting for women  
 private part. Bind your  
 partner so that he/she  
 never leave you anyone,  
 bind your properties & get  
 stolen properties back.

**PAY AFTER THE  
 JOB IS DONE**  
**CALL: BABA GUMEDE**  
**078 155 5215**  
**FIND ME AT**  
**JOHANNESBURG**

**ALL KING BHENGU**  
**PROBLEMS R340**  
**CONTACT 073-040-5848**  
**MY MUTHI IS STRONG**  
**100%, I PROMISE YOU**  
**DON'T LOSE HOPE**  
We are the biggest African traditional healers. Trust in our help and wipe your tears now. "Bring back lost lover, protect partner from cheating, make your more and mend broken marriages no matter how far she or he is." "Likwanya to revenge your enemies without suspecting"

- \*Financial problems, choose to bring money in your house "Strong boys to deliver the money in your account"
- \*Get help to collect get money on the street or shops
- \*Get stolen properties back and delete your credit. True Doctors don't need big money.

Just R340 and get help, deliver all your problems to King Bhengu, don't lose hope of what other Doctors can do for you.

**King Bhengu @ 5848**  
**Contact 073-040-5848**  
**Pay after all the job is done.**



**R100 ONLY**  
**BABA ZAMA**  
WILL HELP IN ALL  
PROBLEMS, WHY KEEP  
ON WASTING TOO MUCH  
MONEY? NO MATTER  
WHERE YOU ARE, NO  
MATTER THE KIND OF  
PROBLEM YOU HAVE  
WITH **BABA ZAMA**  
MIRACLES WILL HAPPEN  
CALL **BABA ZAMA**  
AND TELL HIM YOUR  
PROBLEMS WITH THAT  
R100 ONLY YOU WILL GET  
HELP 100% FINANCIAL  
PROBLEMS, "BRING BACK  
LOST LOVER'S PLAY"  
"WITH ANY MONEY  
GAMES GET LUCKY  
(LOST NUMBERS) WHY  
ARE YOU WASTING  
MUCH MONEY? WHY  
ARE WASTING YOUR  
MONEY FOR NOTHING?  
KEEP WHAT YOU HAVE  
AND SEND ONLY R100 TO  
**BABA ZAMA** AND ALL  
YOUR PROBLEMS WILL BE  
LIKE HISTORY LIKE EVERY-  
THING I AMST LOST LIVING  
THAT IN MY LIFE AND  
THAT WAS MY LAST  
MONEY. **BABA**  
**ZAMA** CHANGED MY  
LIFE COMPLETELY,  
UNBELIEVABLE MIRACLES!  
FROM **BABA ZAMA**  
I AM ONE OF PEOPLE  
WHO GET HELP FROM  
**BABA ZAMA**, MY NAME  
IS THANDISE SEMASE  
FROM SOWETO MY  
NUMBER IS 071998406,  
IT'S THE ONLY WAY  
WHO HELP DOWN  
MUCH THEY CO  
UNDERSTAND OUR PROBLEMS,  
I ONLY PAID R100 AND  
**BABA ZAMA**  
HELPED ME  
CALL **BABA ZAMA**  
**NOW ON: 0604032419**

**R200 ONLY  
THROUGH CHIEF  
MPALA AND MAMA  
MTAWA CHANGED MY  
LIFE COMPLETELY**

The two greatest and strongest doctors are now working together with the strong muthi from East Africa to solve and change your life completely. Even other doctors have tried their best and failed with 100% guarantee. Specialist in financial problems, relationships, all kinds of sicknesses, all kinds of stolen goods, with only R200 FOR ALL PROBLEMS. To make you rich quickly—short boys and rats to put money in your account or house within hours. Black stone and rainforest stone to bring money in your house.

Lucky wafers and magic ring to bring money, quick results. Bring back lost lover within a few hours. All women and men problems and may more, quick results.

Don't forget that there are many doctors out there promising to help poor people, they fail. So we are here to fulfill our promise and help by all means, no matter how bad the situation. We promise to help you completely with 100% guarantee.

**We are all over, delivery and mail order with courier or DHL services. Don't waste time just go now.**

**CHIEF MPALA  
CHIEF-821-1394  
MAMA MTAWA  
870-580-3842**

**R100 ONLY MAMA BHULE WILL HELP YOU WITH ALL YOUR PROBLEMS**  
MY NAME IS STEVEN MTHOMBENI AND MY PHONE NUMBER IS 0813966166. I AM HERE TO TESTIFY ABOUT WHAT THE MIRACLES THAT **MAMA BHULE** PERFORMED IN MY LIFE. IT'S TRUE THAT LICENSE FOR YOUR DREAMS IS IN YOUR HANDS, I AM ONE OF THE PEOPLE WHO LOST A LOT OF MONEY TO THE FAKE DOCTORS BUT AFTER I READ THE TESTIMONY OF JOSEPH

WITH ONLY R130  
YOUR FINANCIAL  
PROBLEMS ARE OVER  
WITH BABA SHAKA  
STOP WASTING TIME  
AND YOUR FAKE  
DOCTORS WHO ONLY  
WANT TO STEAL YOUR  
MONEY AND LEAVE YOU  
SUFFERING EVEN MORE  
THAN BEFORE. MY NAME  
IS AYANDA AND I'M HERE  
TO TESTIFY WHAT BABA  
SHAKA DID TO ME LAST  
MONTH WHEN I WAS IN  
DEBT. I WAS IN A LOT OF  
TROUBLE WITH ONLY R130  
BABA SHAKA CHANGED  
MY LIFE OF NOTHING TO  
SOMEONE. HE ASKED ME  
TO CHOOSE IF I WANTED  
MONEY IN MY BANK  
ACCOUNT OR IN MY  
HOUSE. SO I CHOSE IN MY  
HOUSE. JUST WITHIN  
FIVE HOURS I WAS  
CHECKING MY BANK  
ACCOUNT AND I WAS  
SURPRISED TO FIND A LOT  
OF MONEY AND I PAID  
HIM HIS 10% AND HE  
THANKED HIM FOR  
CHANGING MY LIFE. I TOOK MY FRIENDS  
AND RELATIVES WHO WERE  
IN FINANCIAL PROBLEMS  
BECAUSE I COULD NOT  
JUST KEEP THE JOY TO  
MYSELF AND THEY ALL  
CAME BACK HAPPY FOR  
THEIR CHANGED LIVES.  
PLEASE DON'T BE  
CHEATED DOWN BY  
DOCTORS, CHOOSE RIGHT  
AND YOUR PROBLEMS DO  
NOT HESITATE, CONTACT  
BABA SHAKA TODAY  
AND YOUR FINANCIAL  
PROBLEMS ARE HISTORY  
CALL BABA SHAKA  
ON: 078-297-2801  
DON'T THINK TWICE

**LOANS**

1445

**A BRIDGING  
LOAN?**

Waiting for pension  
or package payouts?  
SMS or Send  
"Please Call Me" to  
**082 301 7856**  
Tel: 0860 105 546

**BRIDGING CASH**  
While waiting for  
PENSION/PACKAGE

# CONSOLIDATION

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082 494 6846	079 540 4117	084 684 5392
082 495 8832		073 974 3126

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Get a course worth  
**R14 000 for**  
**only R8 500.**  
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Motor Mechanic  
Panel beating  
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Diesel Mechanic  
Petrol Mechanic  
Pneumatics

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**available**

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- FREE Overall, Safety Boots and Needs

No Experience needed,  
must be 16 years and older,  
011 324 1483 / 082 692 1154

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**SKILLS LEAD TO**  
**EMPLOYMENT**

**FREE Forklift Training**  
**Petra Training Academy**  
Excavator, Cranes, Dumper  
TLB, Boiler Making, Scoop  
Welding, Bobcat, Roller  
Free Accommodation & Job  
[www.petratraining.co.za](http://www.petratraining.co.za)  
We also renew certificates  
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**SETA Accredited & Registered**

**SKILLS COLLEGE**  
For accredited training in  
Welding, Boilermaking,  
Electrical and more. Call:  
**Silverton 012-804-3900**  
**Rosslyn 012-541-0100**  
[www.skillscollege.co.za](http://www.skillscollege.co.za)

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**START  
YOUR OWN  
TRUCKING  
BUSINESS**  
☎ 011 763 8111

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**EASY CAR FINANCE**

No deposit needed if you earn a net salary of R5 000. you can apply for finance. Blacklisted, ITC clients with a salary or R6 000 welcome.

**MANY CARS**

available Toyota, VW, BMW, AUDI and LDV's call now for a quick response.

**Anton 078 570 4464**

Fax: 011 811 3167

[bargainautos1@gmail.com](mailto:bargainautos1@gmail.com)

**LOANS!!!!!!**

Clear your name  
and get a **LOAN**  
up to **R150 000**  
**SEND A**  
**PLEASE-CALL-ME**  
**NOW TO**  
**082 896 7191**

A black and white photograph of a man with a wide, joyful smile, looking upwards and to the right. He is holding a large banknote, possibly a 1000 Rand note, in his right hand, which is raised towards his face. The background is dark and out of focus.

**To advertise please call:**

**NATIONAL CLASSIFIEDS**  
**0860 103 781**

<b>EASTERN CAPE</b> <b>041 398 0327</b>	<b>GAUTENG</b> <b>0860 103 781</b>	<b>KZN</b> <b>031 533 7706</b>
<b>CAPETOWN</b> <b>021 406 2759</b>	<b>FREETOWN</b> <b>051 404 7603</b>	

**DAILY SUN**

**BRULE** I DECIDE TO TRY  
AGONY AND RAGE MY  
BIG FINANCIAL  
PROBLEMS, I CALLED HER  
AND SHE EXPLAINED TO  
ME HER WAYS ON HOW  
SHE CAN HELP ME.  
MAGIC WALLET,  
MAGIC STICK, RATS,  
SHORTBOYS, GAMBLING,  
SLOW DOWN GETTING A  
JOB QUICK, I CHOSE RATS  
TO PUT MONEY IN MY  
HOUSE AND I SEND R100  
TO START THE JOB, THEN  
I WAS SHOCKED AFTER I  
WAITED FOR FIVE HOURS  
AND I GOT MY RESULTS  
I WANTED MY SISTER  
ALSO TO JOIN ME TO  
USE CHOSE SHORTBOYS  
THAT BRINGS MONEY IN  
HER ACCOUNT, SHE IS  
ALSO HAPPY WITH THE  
FAST RESULTS. ALL  
THOSE PEOPLE I HAVE  
INTRODUCED TO **MAMA  
BRULE** THEY GOT 100%  
RESULTS FOR THEIR  
PROBLEMS. AND THEY  
ARE NOT REGRETTING  
IT. OPEN YOUR EYES.  
**CALL MAMA BRULE**  
**NOW ON: 0603400917**

<b>East Rand</b>	011 394 6937
	081 562 0510
<b>JHB CBD</b>	011 338 9015
	081 468 9688
<b>PTA</b>	012 323 4641
	072 831 1028
<b>Vaal</b>	016 933 5451
	081 404 0945
<b>Polekwane</b>	015 295 2070

**CONSOLIDATE  
DEBT**

PAY 1 INSTALMENT  
R100 000 = R1000

**SMS ASSIST TO 45111**  
sms charged @ R1

**MEDICAL**

**0123224541** Same Day Abortion one Health Medical Centre Cnr Andries & Skinner St **0786541744**

EMPLOYMENT  
ADMINISTRATIVE

**WARNING!**  
**Money must**  
**not be paid**  
**when**  
**applying**  
**for**  
**Employment!**  
**087 741 3122**

**HOSPITALITY/  
CATERING** 3690

**Waiters & Waitresses**  
Urgently needed. Cnr Van  
der Walt & Pretorius Str,  
next to Steers, PTA  
Central. Training provided.  
0761185734/0605770058

**PARTTIME/TEMPS**

3720

**BE on TV or a MODEL?**  
CASTINGS THIS Fri & Sat  
**JHB R390.SMS Yr Name**  
& Cell # to 0734047350  
\***Platinum-Blue.Com**\*

## LEGAL & TENDERS

## GENERAL NOTICES

NOTICE FOR BASIC ASSESSMENT  
PROCESS AND WATER USE LICENCE  
APPLICATION

Notice is hereby given that the City of

For the proposed bulk water and sewer pipelines in Hammondshire West Exit 10. This notice is issued in terms of Government Notices R983 and R985 of the EA Regulations 2014 Gas amended. These regulations fall under the ambit of the National Environmental Management Act (No 107 of 1998), as amended (NEMA). The listed activities linked to these interventions are as follows:

**Activities listed under GN R983: Activity 9, Activity 10 and Activity 19**

**Activities listed under GN R985: Activity 12 and Activity 14**

A Water Use Licence is also being applied for in terms of the National Water Act, 1998 (Act No 36 of 1998).

The bulk water pipeline will be constructed from the Hammanskraal West Reservoir to

**Project Locality:** The proposed bulk water pipeline will be constructed from the Hammanskraal West Reservoir from where it will follow Mamba Avenue in a north eastern

Handover of the land will take place on 10 June 2017 and will continue in a north easterly direction for approximately 500 metres. The road will continue in an easterly direction towards the Apies River where it will connect to an existing system.

**DATE OF PLACEMENT OF NOTICES: 20 June 2017**

**For further information on this project, please contact:** M.S. DeJager of TGM Environmental Services CC  
PO Box 127, Greyton 6525  
Tel: 022 336 5555 Fax: 022 336 5074  
Email: [dejong@tgmenviroir.co.za](mailto:dejong@tgmenviroir.co.za)

In order to ensure that you are identified as an interested and/or affected party and with a view to ensuring that you are kept informed of the proposed development, please submit in writing to the contact person above within 30 days of publication of this advertisement.

**Contact name:**  
**Contact address, Telephone and Fax Numbers & Postal Address:**  
**Your interest in the project, and a statement of how you may be affected by the project.**

**The Closing Date for Registration as an Interested and/or Affected Party is 20 July 2017.**

**Figure 20: Newspaper Notice (yellow section right hand side).**

**NOTICE FOR BASIC ASSESSMENT  
PROCESS AND WATER USE LICENCE  
APPLICATION  
FOR PROPOSED BULK WATER  
AND SEWER PIPELINES -  
HAMMANSKRAAL WEST EXT 10  
REF NR. TGM2017/002**

Notice is hereby given that the City of Tshwane intends to apply for Environmental Authorisation to the Gauteng Department of Agriculture and Rural Development (GDARD) for the proposed bulk water and sewer pipelines in Hammanskraal West Ext 10. This notice is issued in terms of Government Notices R983 and R985 of the EIA Regulations 2014 (as amended). These regulations fall under the ambit of the National Environmental Management Act (No 107 of 1998), as amended (NEMA). The listed activities linked to these interventions are as follows:

**Activities listed under GN R983:** Activity 9, Activity 10 and Activity 19

**Activities listed under GN R985:** Activity 12 and Activity 14

A Water Use Licence is also being applied for in terms of the National Water Act, 1998 (Act No 36 of 1998).

**Project Name:** Proposed Bulk Water and Sewer Pipelines - Hammanskraal West Ext 10  
**Project Description:** The project entails the provision of bulk services (water and sewage) to the Hammanskraal West area. The bulk water pipeline will be 800mm - 900mm in diameter and approximately 5.2km in length. The bulk water pipeline will be constructed from the Hammanskraal West Reservoir to supply water to Hammanskraal West Extensions 4 & 10. The bulk sewer pipeline will be 355mm - 600mm in diameter and approximately 3.5km in length and will connect with an existing system.  
**Project Locality:** The proposed bulk water pipeline will be constructed from the Hammanskraal West Reservoir from where it will follow Mamba Avenue in a north eastern direction and continue through Hammanskraal West Ext 10 in an eastern direction. The proposed bulk sewer pipeline will start north of Hammanskraal West Ext 10 and will continue in a north eastern direction for approximately 800 metres. The pipeline will continue in an eastern direction towards the Apies River where it will connect to an existing system.  
**Date of Placement of Notice:** 20 June 2017

**For further information on this application, please contact:** Ms. Delia de Lange of TGM Environmental Services CC at P.O. Box 219, Groenkloof, 0027.  
 Tel: 012 346 7655 Fax: 012 346 6074  
 Email: delia@tgmenviiron.co.za

In order to ensure that you are identified as an Interested and/or Affected Party and wish to receive future correspondence regarding the proposed development, please submit in writing the following:

Contact name  
 Email address, Telephone and Fax Numbers & Postal Address,  
 Your interest in the project, and  
 Any comments you may have to the contact person above within 30 days of publication of this advertisement.

**The Closing Date for registration as an Interested and/or Affected Party is 20 July 2017.**

**Figure 21: Detail of newspaper notice.**

## **10.CONCLUSION AND RECOMMENDATIONS**

As indicated no sites of cultural heritage significance was located in the surveyed area. The survey of the indicated area was completed successfully. The following is recommended:

- Since nothing of heritage importance was identified the proposed development may continue.

- From a heritage perspective there is no preference for any of the alternative sewage lines.
- This report is seen as ample mitigation.
- It should be noted that the subterranean presence of archaeological and/or historical sites, features or artifacts is always a distinct possibility. Due to the density of vegetation it also is possible that some sites may only become known later on. Operating controls and monitoring should therefore be aimed at the possible unearthing of such features. Care should therefore be taken when development commences that if any of these are discovered, a qualified archaeologist be called in to investigate the occurrence.

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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:

National Grade I significance	should be managed as part of the national estate
Provincial Grade II significance	should be managed as part of the provincial estate
Local Grade IIIA	should be included in the heritage register and not be mitigated (high significance)
Local Grade IIIB	should be included in the heritage register and may be mitigated (high/ medium significance)
General protection A (IV A)	site should be mitigated before destruction (high/ medium significance)
General protection B (IV B)	site should be recorded before destruction (medium significance)
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.