



Archaetnos Culture & Cultural  
Resource Consultants  
BK 98 09854/23

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**A REPORT ON A CULTURAL HERITAGE IMPACT ASSESSMENT FOR A  
PROPOSED NEW DAM AND PIPELINES AT AMSTERDAM, MPUMALANGA  
PROVINCE**

For:

**ADIENVIRONMENTAL cc  
PO Box 647  
Witbank  
1035**

**REPORT NO.: AE01727V**

By:

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

***19 May 2017***

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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.**

**Should it be necessary to visit a site again as a result of the above mentioned, an additional appointment is required.**

**Reasonable editing of the report will be done upon request by the client if received within 60 days of the report date. However editing will only be done once and clients are therefore requested to send all possible changes in one request. Any format changes or changes requested due to insufficient or faulty information provided to Archaetnos on appointment, will only be done by additional appointment.**

**Any changes to the scope of a project will require an additional appointment.**

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## EXECUTIVE SUMMARY

### Purpose:

Archaetnos cc was requested by AdiEnvironmental cc to conduct a cultural heritage impact assessment (HIA) for a proposed new dam and associated pipelines on the Remainder of portion 11 of the farm Amsterdam 408 IT. This is in the town of Amsterdam in the Mpumalanga Province.

### Project description:

The development entails a new dam and associated water pipelines.

### Methodology:

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.

### Public consultation:

Public consultation was done by AdiEnvironmental cc. A BID document was compiled for this purpose and was distributed to various possible stakeholders. Newspaper notices were published in February and April 2017. In February 2017 various site notices were placed on site.

### Findings:

During the survey no sites of cultural heritage significance were identified within the immediate project area.

### Recommendations:

The report is seen as ample mitigation and the proposed development may continue, but only after it had been approved by SAHRA.

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 via the SAHRIS System on the SAHRA website. No work on site may commence before receiving the necessary comments from SAHRA.

## CURRICULUM VITAE OF SPECIALIST: PROF 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
- *2015*: Appointed extraordinary professor in history at the Mafikeng Campus of the Northwest University

### 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 2012-2019).


ASAPA Accreditation number: 166

SASCH Accreditation number: CH001

## 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: 19 May 2017

### LIST OF ACRONYMS:

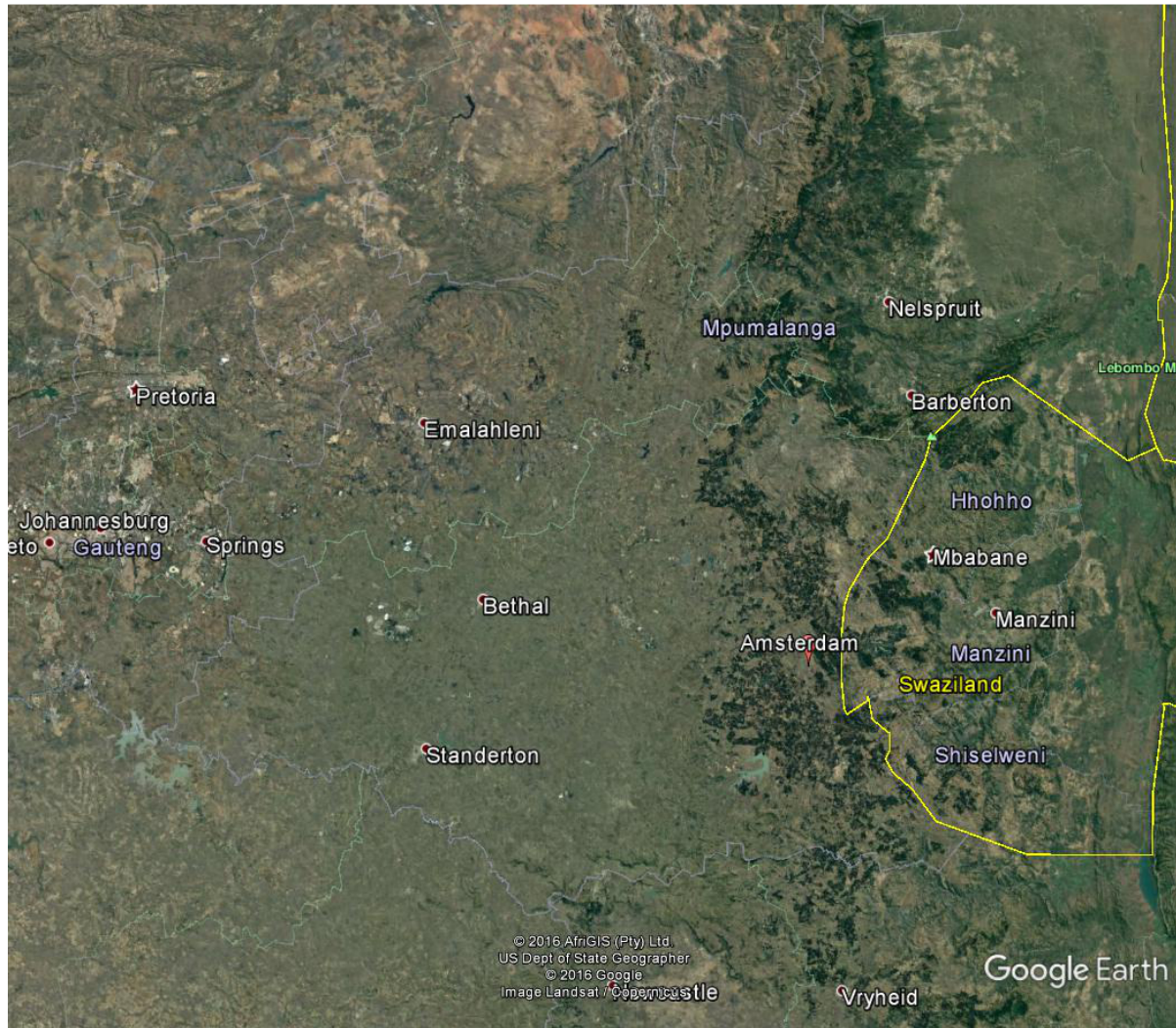
AIA – Archaeological Impact Assessment  
CMP – Cultural Management Plan  
EAP – Environmental Assessment Practitioner  
EIA – Environmental Impact Assessment  
HIA – Heritage Impact Assessment  
PIA – Palaeontological Impact Assessment  
SAHRA –South African Heritage Resources Agency

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## 1. INTRODUCTION

Archaetnos cc was requested by AdiEnvironmental cc to conduct a cultural heritage impact assessment (HIA) for a proposed new dam and associated pipelines on the Remainder of portion 11 of the farm Amsterdam 408 IT. This is in the town of Amsterdam in the Mpumalanga Province (Figure 1). The 1:50 000 topographic map information of the site is 2630DA.



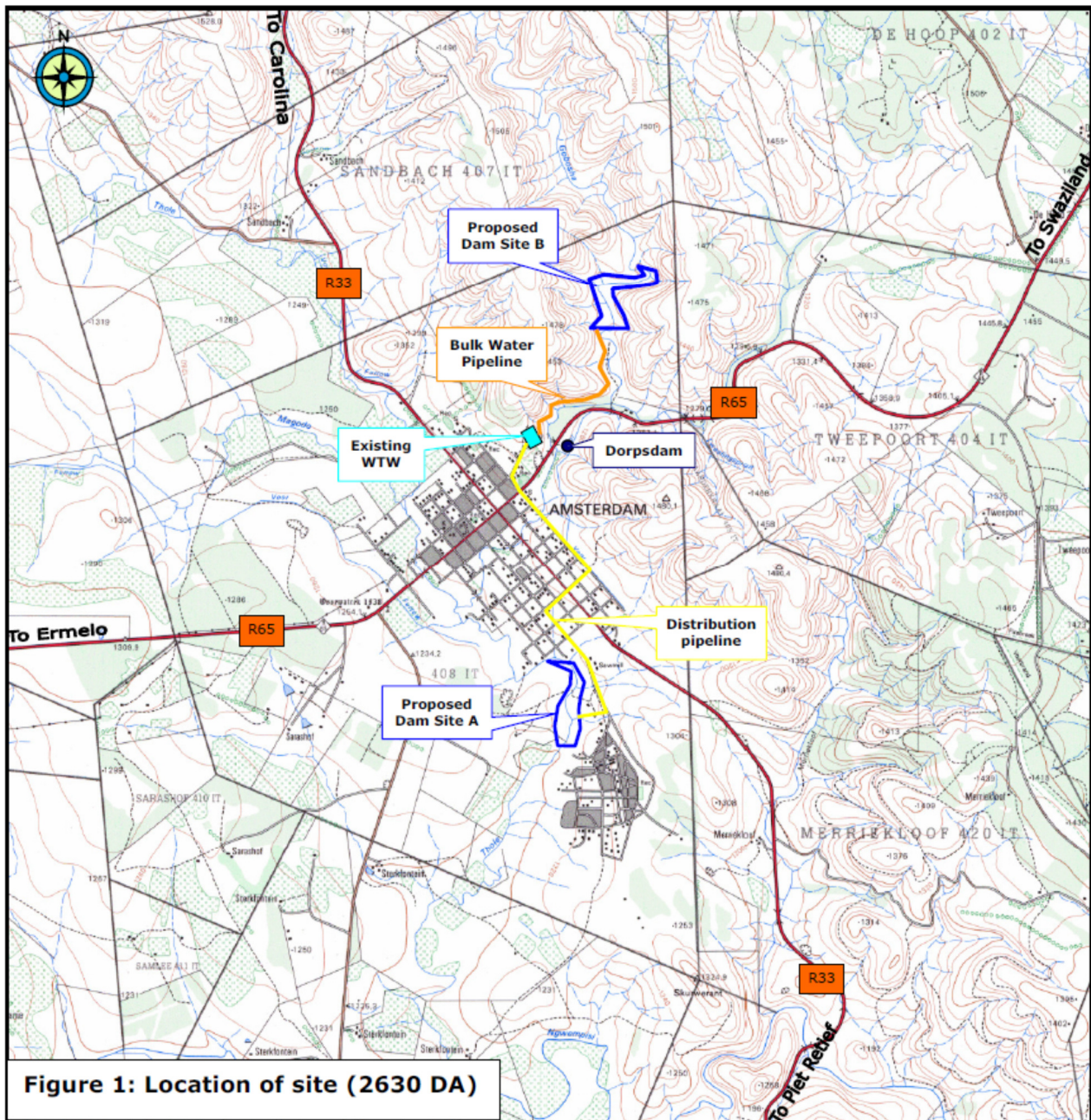
**FIGURE 1: LOCATION OF AMSTERDAM IN THE MPUMALANGA PROVINCE.**

The development is within the Gert Sibande District Municipality. The project entails the construction of a new dam and abstraction facility in either the Gabosha River or the Thole River in order to improve the delivery of potable water to the Amsterdam and Kwathandeka communities. Two possible dam sites were identified, namely Dam Site A and Dam Site B. Proposed Dam Site A is located in close proximity to Kwathandeka within the Thole River. Proposed Dam Site B is located upstream of Amsterdam and the Amsterdam WTW within the Gabosha River. In addition, the Dorps



Dam will be desilted and the Amsterdam WTW upgraded. As part of the project, a bulk water pipeline will be installed from the dam site to the existing Amsterdam Water Treatment (Purification) Works (WTW) while a distribution pipeline will be installed from the WTW to Amsterdam/Kwathandeka (Figure 2).

The heritage study forms part of an Environmental Impact Assessment. The Client indicated the area to be surveyed. This was done on foot and via off-road vehicle in May 2017.



**FIGURE 2: LOCATION OF THE DEVELOPMENT (ADIENVIRONMENTAL CC).**

## **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. 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.

### **3.1 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 (AIA) only looks at archaeological resources.

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
- 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.

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

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

### **3.2 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.

### **3.3 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). Any possible chance find, 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 includes the possible maintenance of such sites in situ, or when not possible, 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, this 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 affected communities. Again professionals should carry out the work and adhere to the best available techniques.

Consultation with affected communities should be conducted. This entails that such communities should be granted access 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 affected 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.

## **4. METHODOLOGY**

### **4.1 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.

### **4.2 Reference to other specialist studies**

On the existing SAHRA Database (SAHRIS) three heritage reports in the vicinity were noted (Radford & Van Vollenhoven 2012; Van der Walt 2014; Van Schalkwyk 2016). These are discussed below.

Both a palaeontological and visual impact assessment will also be done as part of the project.

### **4.3 Public consultation and stakeholder engagement**

Public consultation was done by AdiEnvironmental cc and can be requested from them. A BID document was compiled for this purpose and was distributed to various possible stakeholders. See section 8 of this report for the necessary information.

Newspaper notices were published in the Highvelder on 24 February 2017 (Figure 3) and 7 April 2017 as well as in the Excelsior News on 7 April 2017. In February 2017 various site notices were placed on site (Figure 4).

**0900 LEGALS**  
**0910 PUBLIC/LEGAL NOTICES**

**VERKOOP VAN BESIGHEID**  
Ingevolge Artikel 34(1) van die Insolvensiewet No 24 van 1936 geskied kennis hiermee dat HENDRIK WILHELM LAMPRECHT, ID: 680724 5007 085 in sy kapasiteit as enigste lid van Asapi 1083 CC, met registrasienuommer: 2001/043451/23 wat handel dryf as BORA BORA BAKERY te Ennissstr 28, Ermelo, van voormemens is om genoemde besigheid te verkoop en oor te dra aan TANDISOL (PTY) LTD, registrasienuommer: 2015/244975/07, wat handel dryf as PLAASKOMBUIJS te Murray St, Ermelo, intends to sell the said business after a period of 30 (Thirty) days from the last publication of this notice to TANDISOL (PTY) LTD, registration no: 2015/244975/07, who will thereafter carry on business for their own account as PLAASKOMBUIJS. Dated at Ermelo on this 20th day of February 2017.  
Bernard 072 132 4423

**SALE OF BUSINESS**  
In terms of Section 34(1) of the Insolvency Act No 24 of 1936 notice is hereby given that HENDRIK WILHELM LAMPRECHT, ID: 680724 5007 085 in his capacity as sole member of Asapi 1083 CC, with registration no: 2001/043451/23 carrying on business as BORA BORA BAKERY at 28 Enniss St, Ermelo, intends to sell the said business after a period of 30 (Thirty) days from the last publication of this notice to RUSKS FOR AFRICA CC, with registration no: 2007/022075/23, who will thereafter carry on business for their own account as BORA BORA BAKERY. Dated at Ermelo on this 20th day of February 2017.  
SP Fourie 082 809 8229

**VERKOOP VAN BESIGHEID**  
Ingevolge Artikel 34(1) van die Insolvensiewet No 24 van 1936 geskied kennis hiermee dat alleen-eienaar GERRIT DE JAGER, ID: 770211 5006 086 wat handel dryf as DIE PLAASKOMBUIJS te Murraystr, Ermelo, van voormemens is om genoemde besigheid te verkoop en oor te dra aan Tandisol (Pty) Ltd, Registrasienuommer: 2015/244975/07, 30 (Dertig) dae na laaste publikasie van hierdie kennisgewing wat daarna handel sal dryf in dieselfde naam en op dieselfde adres vir hulle rekening en voordeel. Gedateer in Ermelo op hierdie 20ste dag van Februarie 2017.  
Bernard 072 132 4423

Faks jou advertensie na 086 668 7530 en ons sal u skakel met 'n prys.

**TE KOOP / FOR SALE**  
3 Slaapkamerhuus DE BRUINPARK Naby JJ van der Merwe Onmiddellik beskikbaar  
Direk vanaf eienaar  
**R930 000** prys verlaag  
**Skakel 081 010 9640**

**NOTICE OF SALE IN EXECUTION**  
CASE NO: 461/2011  
In the Magistrates Court of Govan Mbeki held at Bethal.  
In the matter between: **EAST AUTO INDUSTRIAL (EDMS) BPK H/A FILTER DIENSTE**, Plaintiff and **WILMA BOERDERY**, Defendant. Pursuant to a court order granted by this Honourable Court on 07/11/2016 the under mentioned goods belonging to the abovementioned defendant will be sold in execution by the Sheriff of Hendrina on 15 March at 10H00 at the premises, Sheriff offices, 11 Murray Street Liria Hof Flats No 1, Ermelo, to the highest bidder, namely:  
**x1 Geel Diesel Wa: x1 Rooi Sleepwa, Reg: CFX 331 MP**  
CONDITIONS:  
1. Strictly cash or bank guaranteed cheque or EFT Transfer;  
2. VAT if applicable;  
3. Voetstoots.  
Signed at Ermelo on this 03rd day of February 2017.  
**P A STOFFBERG**  
Plaintiff's Attorneys  
Cnr Church & Joubertstreet, Ermelo, 2351  
P. O. box 41, Ermelo, 2350  
Tel: (017) 819 7542 / Fax no: (017) 819 3009  
Doxec 12, Ermelo Ref no: VERW: MNR D OLIVIER/cs/EASA/0053

**NOTICE OF SALE IN EXECUTION**  
CASE NO: 2085/2014  
In the Magistrate's Court for the District of Musakaligwa held at Ermelo.  
In the matter between: **BEKKER BRINK & BRINK INC**, Execution Creditor and **SAM VILAKAZI**, Execution Debtor. Kindly take notice that in terms of Judgement granted on the 13th day of January 2015, in the Ermelo Magistrate's Court and a warrant of Execution issued thereafter, a sale in execution of the under mentioned goods will be held at Sheriff's office, 11 Murray Street, Liria Hof Flat 1, Ermelo on the 15th day of March 2017 at 10:00 AM, consisting of:  
**GOODS:**  
**1x Tata Bus with Registration Number: FFZ 558 MP to the highest bidder.**  
Dated at Ermelo on 7 February 2017.  
**Execution Creditor's Attorneys**  
**BEKKER BRINK & BRINK INC**  
Absa Building, 60 Kerk Street, Ermelo, 2350  
Private Bag 39016, Ermelo, 2350  
Tel No: 017 811 2003; Fax No: 017 811 2065  
Email: litigasie2@bekerbrink.co.za  
DX 5, Ermelo  
Ref: B005402289/Uos/MR. PC BEUKES/vr  
Address of Execution Debtor: M Sam Vilakazi of 69 Hoy Street, Breyten.

**NOTICE OF CONSULTATION AND ENVIRONMENTAL MANAGEMENT PLAN INVITATION TO PARTICIPATE: HAWKS-T-MINING (PTY) LTD**  
Notice is given in terms of Section 10 of Mineral Resources Development Act (Act no 28 of 2002) in order to carry out the following activity:  
**HAWKS-T-MINING (PTY) LTD has applied for PROSPECTING RIGHT TO PROSPECT FOR (COAL) in terms of Section 16 of the Minerals and Petroleum Resources Development Act 28 of 2002. The applicants cover the farm: GROOTBOOM 167 IT situated in the magisterial district of ERMELO, MPUMALANGA with DMR Ref: MP 30/5/1/12/14440 PR.**  
You can be involved in the Public Participation Process by:  
- Sending a fax, email or mail with your name, contact details and concerns/questions relating to the project.  
- Providing us with the names of additional people that can be contacted.  
All correspondence, which should be received on or before 15 MARCH 2017 will be submitted to the DMR. All issues raised during the public participation process will be responded to in writing to the interested and Affected Parties (I&APs).  
**CORRESPONDANCE MAY BE DIRECTED TO: PAUL TSHAMANO EMAIL: mbavhip@gmail.com FAX: 086 715 2735**

**NOTICE OF THE COMMENCEMENT OF AN ENVIRONMENTAL IMPACT ASSESSMENT PROCESS**  
Notice is hereby given in terms of Section 24 and 24D of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment Regulations, 2016, of the intent to carry out a scoping and environmental impact assessment process for the following activity:  
**Description of the activity:**  
Gert Sibande District Municipality intends to construct a new dam and abstraction facility in either the Gaobasha River or the Thole River in order to improve the delivery of potable water to the Amsterdam and Kwathandeka communities. As part of the project, a bulk water pipeline will be installed from the dam site to the existing Amsterdam Water Treatment (Purification) Works (WTP) while a distribution pipeline will be installed from the WTP to Amsterdam/Kwathandeka. In addition, the Derps Dam will be dewatered and the Amsterdam WTP upgraded.  
The project could involve Listed Activities 0, 12, 15, 24 and 27 (Listing Notice 1), Listed Activities 15 and 18 (Listing Notice 2) and Listed Activities 4 and 14 (Listing Notice 3) as identified in terms of Section 24(2) and 24D of the National Environmental Management Act, 1998 (Government Notice, R363, R364 and R365 of 4 December 2014).  
Applications in terms of the National Water Act, 1998 (Act 36 of 1998) and the National Heritage Resources Act, 1999 (Act 25 of 1999) will also be submitted.  
**Location of the activity:**  
Proposed Dam Site A is located in close proximity to Kwathandeka within the Thole River. Proposed Dam Site B is located upstream of Amsterdam and the Amsterdam WTP within the Gaobasha River. Both sites are located on the Remainder of Portion 11 of the farm Amsterdam 408 IT.  
The pipelines will also be located on the Remainder of Portion 11 of Amsterdam 408 IT and within the Amsterdam/Kwathandeka urban area.  
**Name of proponent:**  
Gert Sibande District Municipality  
**Date of advertisement:**  
23 February 2017  
In order to ensure that you are identified as an interested and/or affected party or to obtain further information, please submit your name, contact information and interest in the matter to the contact person on/before 23 March 2017. A copy of this notice and a background information document (BID) can be downloaded from our website ([www.adenvironmental.co.za](http://www.adenvironmental.co.za)) or can be forwarded on request.  
Reference number assigned by AdEnvironmental cc: **EIA2017/01.**  
**Name of consultant:**  
AdEnvironmental cc.  
P.O. Box 647, Willemia, 1035  
Tel/fax: 013-697 5021.  
E-mail: [rsana@adenvironmental.co.za](mailto:rsana@adenvironmental.co.za)  
Contact person: Rana van Randburg  
**Please note: No Jobs Available**

**LEGALSALES / NOTICES**

**NOTICE OF SALE IN EXECUTION**  
CASE NUMBER: 24186/2016  
In the High Court of South Africa, Gauteng Division, Pretoria.  
In the matter between: **THE STANDARD BANK OF SOUTH AFRICA LIMITED**, Plaintiff and **CORNELIUS PETRUS BOTHA**, (identity number: 730521 5032 083), 1st Defendant, **HELENA GERTRUIDA BOS**, (identity number: 720315 0017 088), 2nd Defendant.  
In Execution of a Judgement of the North Gauteng High Court, Pretoria (Republic of South Africa) in the abovementioned suit, a sale without reserve will be held by the Sheriff, Ermelo at cnr Kerk & Joubert Street, Ermelo on Tuesday the 14th day of March 2017 at 10H00 of the undermentioned property of the defendants subject to the conditions of sale which are available for inspection at the offices of the Sheriff's Offices, Ermelo during office hours.  
**Erf 4061, Ermelo, Extension 17 Township, Registration Division LT, Province of Mpumalanga, Measuring 1136 (one thousand one hundred and thirty-six) square meters, held by Deed of Transfer No: T12076/2008, subject to the conditions therein contained subject to such conditions as are mentioned or referred to the aforesaid Deed's.**  
The following information is furnished with regard to improvements on the property although nothing in this respects is guaranteed:  
**4x Bedrooms, 2x Bathrooms, 1x Kitchen, 1x dining, 1x Study, 2x Garage, 1x Servant Quarters.**  
**Take further notice that:**  
1. This sale is a sale in execution pursuant to the judgement obtained in the above Honourable Court.  
2. The rules of auction is available 24 hours before the auction and can be inspected at the office of the Sheriff.  
3. Registration as a buyer is a pre-requisite subject to specific condition, inter alia:  
(a) in accordance to the Consumer Protection Act 68 of 2008.  
<http://www.info.gov.za/view/downloadfile>Action?id=9961>  
(b) FICA-legislation: Requirement proof of ID and residential address.  
(c) Payment of a registration fee of R10 000.00 in cash for immovable property.  
(d) Registration conditions.  
Dated at Pretoria on the 1st day of February 2017.  
**PLAINTIFF'S ATTORNEYS**  
**VEZI & DE BEER INCORPORATED**  
319 ALPINE ROAD, LYNNWOOD, PRETORIA  
P. O. BOX 13461, HATFIELD, 0028,  
Tel: (012) 361 5640  
Direct fax: 086 685 4170  
REF: M MOHAMED/KB/DEB10444

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FIGURE 3: NEWSPAPER NOTICE (BOTTOM RIGHT).





**FIGURE 4: SITE NOTICE.**

#### **4.4 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. In this case it was not done additionally since it would be covered by the Public consultation report.

#### **4.5 Physical 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 via off-road vehicle and on foot and covered as much as possible of the area to be studied (Figure 5).

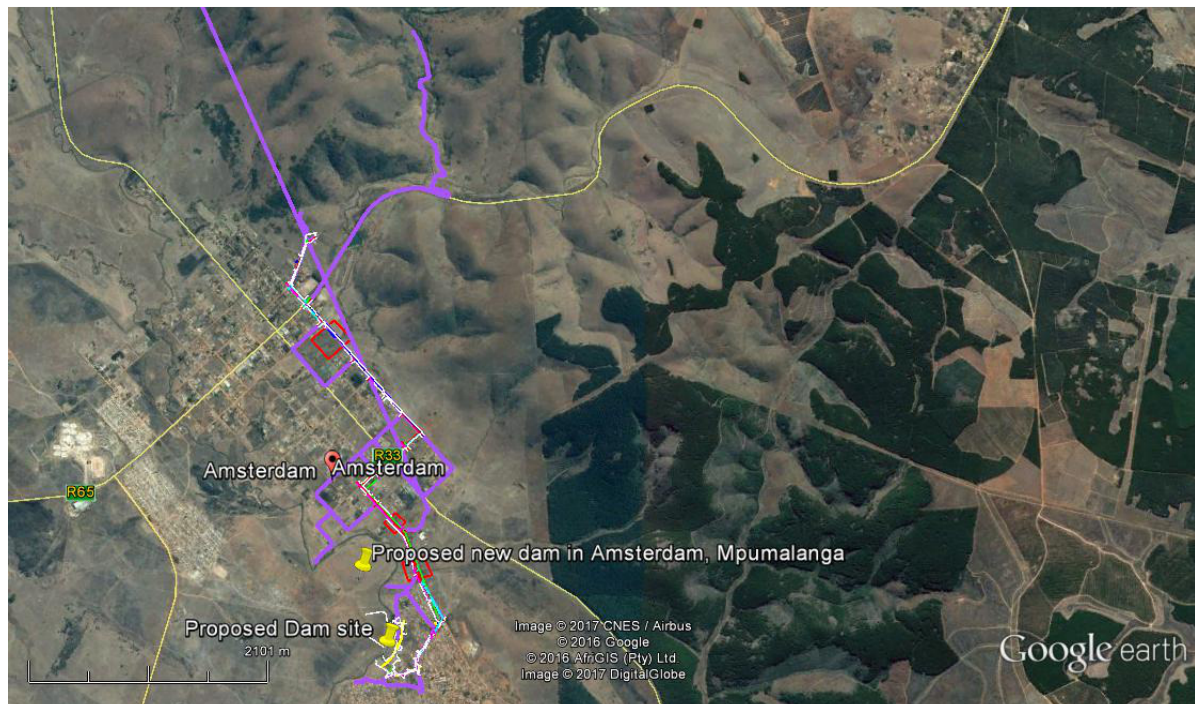
Certain factors, such as accessibility, density of vegetation, etc. may however influence the coverage. In this instance the area was found to be almost completely

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

disturbed and therefore no problems with visibility were experienced. This is especially true of the section through the town, but disturbance was also noted at the proposed dam sites.

The vegetation cover in certain areas was reasonably high and dense, which had a negative effect on archaeological visibility, but as this vegetation mostly consist of regrowth and pioneer species like grass and weeds, it is a clear indication of disturbance, therefore again indicating it as being a low risk area for containing heritage sites. The size of the combined surveyed areas are approximately 40 Ha and the length of the pipelines approximately 8 km. The survey took 5 hours to complete.



**FIGURE 5: GPS TRACK OF THE SURVEYED AREA (PURPLE LINES). NORTH REFERENCE IS TO THE TOP.**

#### **4.6 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.

#### **4.7 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.

## **5. ASSUMPTIONS, GAPS, RESTRICTIONS, CONDITIONS AND LIMITATIONS**

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, structures 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. Large sections of the surveyed area have been disturbed by recent human interventions and therefore it is seen as a low risk areas to reveal heritage sites. This is especially true of the section through the town where the proposed

pipeline is mainly located within the road reserve, as well as Dam Site A which had been used for agriculture in the past.

8. The vegetation cover in certain areas was reasonably high and dense, which had a negative effect on archaeological visibility, but as this vegetation mostly consist of regrowth and pioneer species like grass and weeds, it is a clear indication of disturbance, therefore again indicating it as being a low risk area for containing heritage sites. These areas include the northern section of the proposed Dam Site A, Dam Site B and pipeline sections along the river between the town and Dam Site B.
9. No high risk areas were identified.

## **6. DESCRIPTION OF THE SOCIO-ECONOMIC ENVIRONMENT**

Amsterdam is a small town which consists of a working class population located in Mkhondo and encompasses a large Swati population as a result of the Swaziland border which is relatively close to this area. There are large plantations of blue gum, pine and wattle trees in the area. The town also boasts a peaceful community with rich culture and traditions.

The Town is located some 77 km east of Ermelo. Part of a Scottish settlement established by Alexander McCorkindale in 1868, it was proclaimed a town in June 1881.

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

The area that was surveyed can be divided into three sections. The first is the proposed Dam Site A, located in close proximity to Kwathandeka within the Thole River. Here the vegetation cover varies between short and medium high. It also is reasonably dense, especially towards the river (Figure 6). A large area clearly has been used for agricultural purposes in the past (Figure 7). These old fields have therefore also added to the disturbance of the area. The topography runs uphill towards the east and west of the river, but has a gradual slope.

The second section is the proposed Dam Site B, located upstream of Amsterdam and the Amsterdam WTW within the Gabosha River. Here the vegetation cover varies between short and high. Again it is reasonably dense, especially towards the river. Density and height of vegetation has a negative effect on both the vertical as the horizontal archaeological visibility. The vegetation however consist of weeds, grass and regrowth; an indication of earlier disturbance (Figure 8-9). The topography here is much steeper than at site A. It again runs upwards from the river into an eastern, western and northern direction.



**FIGURE 6: GENERAL VIEW OF VEGETATION AT PROPOSED DAM SITE A.**



**FIGURE 7: OLD FIELDS AT THE PROPOSED DAM SITE A.**



**FIGURE 8: GENERAL VIEW OF VEGETATION AT DAM SITE B.**



**FIGURE 9: VIEW AT DAM SITE B. NOTE THE STEEP TOPOGRAPHY.**

The third section that was surveyed is the pipeline route. It starts in Kwathandeka at an area which clearly had been disturbed by earlier activities (Figure 10). From here it follows the tar road through the township (Figure 11). It then runs in a northern

direction toward the town of Amsterdam and crosses the river twice (Figure 12-13). In town it follows existing roads (Figure 14) and again crosses the river (Figure 15). On the northern side of the town it turns into an eastern direction, following a gravel road up to the existing water works (Figure 16-17). Up to this point the vegetation cover is very low, with open patches in between patches with dense vegetation. It however clearly shows signs of having been disturbed in the recent past.

From this point on the vegetation cover is more natural, although it still shows signs of disturbance (Figure 18). This for instance includes wattle trees along the river and mountain which are invaders (Figure 19). The proposed pipeline more or less follows the river, which eventually turns towards the north (Figure 20) to end at the proposed Dam Site B.



**FIGURE 10: VIEW OF AREA WHERE THE PIPELINE ROUTE STARTS IN KWATHANDEKA.**



**FIGURE 11: PROPOSED PIPELINE ROUTE THROUGH KWATHANDEKA.**



**FIGURE 12: RIVER CROSSING BETWEEN KWATHANDEKA AND AMSTERDAM.**





**FIGURE 13: RIVER CROSSING SOUTH OF AMSTERDAM.**



**FIGURE 14: ROAD ADJACENT TO AMSTERDAM ALONG WHICH THE PROPOSED PIPELINE RUNS.**



**FIGURE 15: RIVER CROSSING ADJACENT TO AMSTERDAM.**



**FIGURE 16: GRAVEL ROAD TOWARD THE EAST OF THE TOWN IN THE DIRECTION OF THE WTW, WHERE THE PIPELINE WILL BE INSTALLED.**



**FIGURE 17: VIEW OF WTW WHERE THE PIPELINE WILL BE INSTALLED.**



**FIGURE 18: GENERAL VIEW OF AREA WHERE THE PIPELINE WILL BE INSTALLED TOWARDS THE EAST OF THE WTW.**



**FIGURE 19: WATTLE TREES ALONG THE PROPOSED PIPELINE ROUTE BETWEEN THE TOWN AND DAM SITE B.**



**FIGURE 20: VIEW ALONG THE RIVER WHERE THE PIPELINE WILL BE INSTALLED APPROXIMATELY AT THE POINT WHERE THE PIPELINE TURNS TOWARDS THE NORTH.**

## **8. RESULTS OF PUBLIC CONSULTATION AND STAKEHOLDER ENGAGEMENT**

No information related to heritage were received.

## **9. HISTORICAL CONTEXT**

This geographical area is not well-known as one containing many prehistoric sites. One however has to realize that this most likely only indicates that not much research has been done here before. On the existing SAHRA Database three heritage reports were noted (Radford & Van Vollenhoven 2012; Van der Walt 2014; Van Schalkwyk 2016). The information from these are included in the discussion.

### **9.1 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 larger geographical region has been inhabited by humans since at least the MSA. During this time people became more mobile, occupying areas formerly avoided. They preferred open sites near watercourses and as a result, tools belonging to this period mostly occur in the open or in erosion dongas (Van Schalkwyk 2016: 10).

LSA people had an even more advanced technology than the MSA people and therefore occupied more diverse habitats. Apart from stone tools, people now also used other material to produce ostrich eggshell beads, bone arrowheads and wood. These people occupied rock shelters and caves (Van Schalkwyk 2016: 10). A number of Stone Age sites, including rock painting sites are known in the Ermelo, Chrissiesmeer and Carolina areas, but none in the Amsterdam area (Bergh 1999: 4 – 5).

This provides evidence of Stone Age people being present in the wide geographical area. However no sites are known from Amsterdam.

### **9.2 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 area is not known for its Iron Age sites. During the EIA people only cultivated cereals (sorghum, millet) that need summer rainfall. Therefore EIA people did not move outside this rainfall zone, and thus did not occupy the central interior Highveld area. Iron Age people preferred to settle on the alluvial soils near rivers for agricultural purposes, but also for firewood and water. The occupation of the larger geographical area did not start much before the 1500s. This is due to climatic change, with the climate becoming warmer and wetter, creating condition that allowed LIA farmers to occupy areas previously unsuitable, such as the Mpumalanga Highveld. At the same time, maize was introduced from Maputo and grown extensively. Maize crops yield far more than sorghum and millets. The increase in food production led to increased populations by the 19th century (Van Schalkwyk 2016: 10).

Late Iron Age people preferred to settle on the steep slope of a mountain, possibly for protection, or for cultural considerations such as grazing for their enormous cattle herds. Because of the lack of trees they built their settlements in stone (Van Schalkwyk 2016: 10). A number of stone-walled archaeological sites, which are dated to the Late Iron Age (c. AD 1640 - AD 1830s), were identified west of the study area, and some of them have been excavated (Taylor 1979; Pelsler et al 2007). These sites are conventionally associated with Tswana-speaking people. The Tswana-speakers were located to the south and west in the study area, with the Ndzundza Ndebele (Nguni-speakers) to the north (Van Schalkwyk 2016: 10).

Radford & Van Vollenhoven (2012) identified an Iron Age site on portion 11 of the farm Amsterdam 408 IT. This included a site consisting of two small circles with packed stones, either indicating a platform and possible graves. These are located toward the north-west of the town and therefore relatively far from the proposed development (Figure 21).

### **9.3 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.

Between 1800 and 1820 by a major drought must have caused an agricultural collapse on a large, subcontinent scale. It also was a period of great military tension. By 1821

the military tension spilled onto the Highveld. Various marauding groups of displaced Sotho-Tswana moved across the plateau in the 1820s and Mzilikazi raided the plateau extensively between 1825 and 1837 (Van Schalkwyk 2016:10). This was called the Difaquane. It however seems as if the Amsterdam region was not affected much by the Difaquane. The geographical area towards the east of the study area was occupied by Swazi-speakers, also of Nguni origin (Bergh 1999: 6-7).

Also none of the known historical trade routes went through this area (Bergh 1999: 10). The first white settlers moved into this area in the late 1850's (Bergh 1999: 14). The area formed part of the Lydenburg District by 1845, but the town was only established in 1882 when it became part of the Ermelo District. During this time to modern international border with Swaziland was also established nearby (Bergh 1999: 20). Amsterdam, like most towns in the vicinity have various buildings older than 60 years, giving it a latent heritage significance. Two such buildings were noted along the pipeline route, both church buildings in Kwathandeka (Figure 22-23). It will however not be impacted on by the development.

The various battles and skirmishes resulting from the conflict during the Anglo-Boer War (1899-1902) had a huge impact on heritage resources in the area, as many farms were burned down. However, regarding large events during this war, the only one to be noted at Amsterdam is that the commando of C Botha retreated towards Amsterdam on 13 August 1900 during the British March of February-October 1900 (Bergh 1999: 51).

Graves were identified on portion 11 of the farm Amsterdam 408 IT before (Radford & Van Vollenhoven 2012). Other sites identified during the mentioned survey is two Shembe Circles which were at that time still being used by the local community as church site. Again these sites are located toward the north-west of the town and therefore relatively far from the proposed development (Figure 21).



**FIGURE 21: KNOWN HERITAGE SITES IN RELATION TO THE DEVELOPMENT. SITE 1 - TWO SMALL CIRCLES WITH PACKED STONES (POSSIBLE GRAVES) SITE 2 - SHEMBE CIRCLE SITE 3 – SHEMBE CIRCLE**



**FIGURE 22: CHURCH BUILDING JUST SOUTH OF THE POINT WHERE THE PROPOSED PIPELINE ROUTE STARTS IN KWATHANDEKA.**





**FIGURE 23: ANOTHER CHURCH BUILDING ALONG THE ROUTE IN KWATHANDEKA.**

## **10. CONCLUSION AND RECOMMENDATIONS**

The survey of the indicated area was completed successfully. As indicated no sites of cultural heritage significance were identified within the proposed project area. This includes Dam Site A, Dam Site B and the pipeline route, including the river crossings.

The following is recommended:

- This report is seen as ample mitigation and the proposed development may thus continue, but only after the report had been approved by SAHRA.
- 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:**

- Negligible – The site has no heritage significance, although it may be older than 60 years.
- Low - A cultural object being found out of context, not being part of a site or without any related feature/structure in its surroundings. A site with minimal importance which is decreased by its bad state of decay.
- Low-Medium - A site of lesser importance, which is increased by a good state of preservation and contextual importance (e.g. a specific community).
- 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.
- Medium-High - A site that has high importance due to its age or uniqueness, but which decreases due to its bad state of decay.
- High - Any site, structure or feature regarded as important because of its age or uniqueness. Also any important object found within a specific context.
- Very High - A site of exceptional importance due to its age, uniqueness and good state of preservation.

#### **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: The site should be managed as part of the national estate, should be nominated as Grad I site, should be maintained in situ with a protected buffer zone and a CMP must be recommended. Score above 50.

Provincial Grade II significance: The site should be managed as part of the provincial estate, should be nominated as Grade II site, should be maintained in situ with a protected buffer zone and a CMP must be recommended. Score between 40 and 50.

Local Grade IIIA: The site should be included in the heritage register and not be mitigated (high significance), should be maintained in situ with a protected buffer zone and a CMP must be recommended. Score between 36 and 40.

Local Grade IIIB: The site should be included in the heritage register and may be mitigated (high/ medium significance). Mitigation is subject to a permit application lodged with the relevant heritage authority. Score between 6 and 35.

Local Grade IIIC: The description in the phase 1 heritage report is seen as sufficient recording (low significance) and it may be granted destruction at the discretion of the relevant heritage authority without a formal permit application, subjected to the granting of Environmental Authorisation. Score below 5.

## **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.