



Archaetnos Culture & Cultural  
Resource Consultants  
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**A REPORT ON A HERITAGE IMPACT ASSESSMENT  
FOR THE PROPOSED STRUMOSA SOLID WASTE TRANSFER STATION  
NEAR RUSTENBURG IN THE NORTHWEST PROVINCE**

For:

***BKS (PTY) LTD  
333 GROSVENOR STREET  
HATFIELD  
0083***

**REPORT: AE01210P**

by:

***A.J. Pelsler  
Accredited member of ASAPA  
Professional Member of SASCH***

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Archaetnos  
P.O. Box 55  
GROENKLOOF  
0027  
Tel: 083 291 6104/**083 459 3091**  
Fax: **086 520 0673**  
E-mail: **antonp21@yahoo.com**

Members: 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]  
AJ Pelsler BA (UNISA), BA (Hons) (Archaeology), MA (Archaeology) [WITS]

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## SUMMARY

Archaetnos cc was appointed by BKS (Pty) Ltd to conduct a Heritage Impact Assessment for the proposed development of the so-called Strumosa Solid Waste Transfer Station, on a portion of the original farm Rustenburg 272 JQ, in Rustenburg, Northwest Province.

The area has been fairly extensively disturbed in the recent past by various activities including urban developments such as roads, housing, commercial enterprises, a golf course in close proximity and others. Large scale, informal, residential dumping has already impacted on the area as well. If any sites, features or objects of a cultural heritage (archaeological and/or historical) nature or significance existed in the area during the past it would have been disturbed or destroyed to a large degree. Dense vegetation and grass cover in the area of the assessment made visibility difficult as well. Recommendations regarding the mitigation of impacts on any possible sites, objects or features that could be located in the area are given at the end of this report.

**If the recommendations put forward at the end of this document are implemented, then, from a Cultural Heritage point of view, there would be no objection to the continuation of the proposed development.**

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## 1. INTRODUCTION

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The area has been fairly extensively disturbed in the recent past by various activities including urban developments such as roads, housing, commercial enterprises, a golf course in close proximity and others. Large scale, informal, residential dumping has already impacted on the area as well. Dense vegetation and grass cover in the area of the assessment made visibility difficult as well. Recommendations regarding the mitigation of impacts on any possible sites, objects or features that could be located in the area are given at the end of this report.

The client indicated the extent/boundaries of the proposed development, and the assessment was to be confined to this area.

## 2. TERMS OF REFERENCE

The Terms of Reference for the survey were to:

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

## 3. LEGISLATIVE REQUIREMENTS

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

### 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. Sites of Archaeological and palaeontological importance
- g. Graves and burial grounds
- h. Sites of significance relating to the history of slavery
- i. Movable objects (e.g. archaeological, palaeontological, 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. An HIA must be done under the following circumstances:

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

### **Structures**

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

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

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

### Archaeology, palaeontology and meteorites

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

- a. destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;
- b. destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological 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 palaeontological material or object, or any meteorite; or
- d. bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and palaeontological 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 of 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.

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 to) before exhumation can take place.

Human remains can only be handled by a registered undertaker or an institution declared under the **Human Tissues Act (Act 65 of 1983 as amended)**.

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

### **3.2 The National Environmental Management Act**

This act 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.

## **4. METHODOLOGY**

### **4.1 Survey of literature**

A survey of literature was undertaken in order to place the development area in an archaeological and historical context. The sources consulted in this regard are indicated in the bibliography.

### **4.2 Field survey**

The assessment was conducted according to generally accepted HIA/AIA practices and was aimed at locating all possible objects, sites and features of cultural (archaeological and historical) significance in the area of proposed development. If required, the location/position of any site is determined by means of a Global Positioning System (GPS), while photographs are also taken where needed.

The assessment was undertaken partially on foot, although portions were traversed by vehicle.



### **4.3 Oral histories**

People from local communities are sometimes 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.

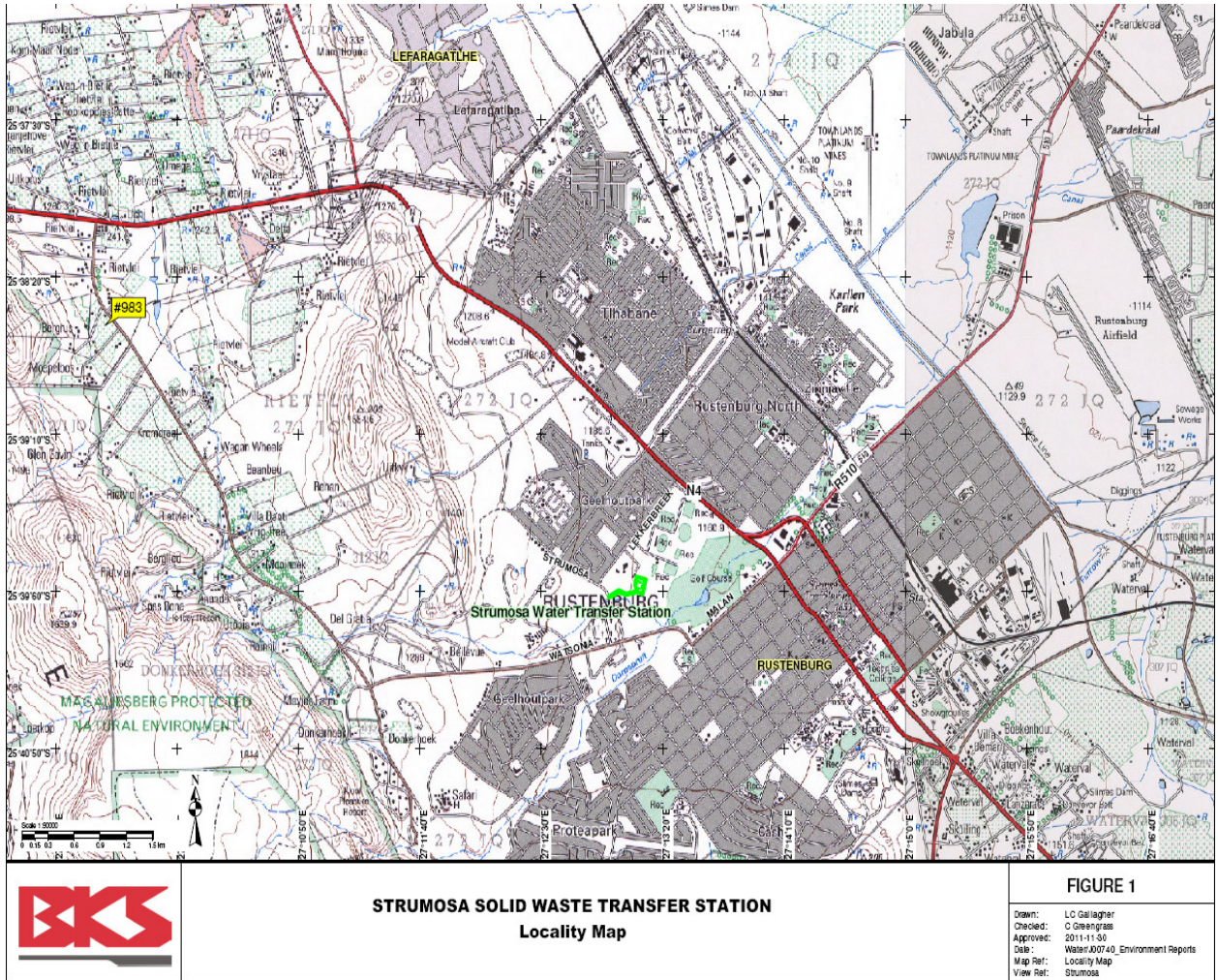
### **4.4 Documentation**

All sites, objects, features and structures identified are documented according to the general minimum standards accepted by the archaeological profession. Co-ordinates of individual localities are determined by means of the Global Positioning System (GPS). The information is added to the description in order to facilitate the identification of each locality.

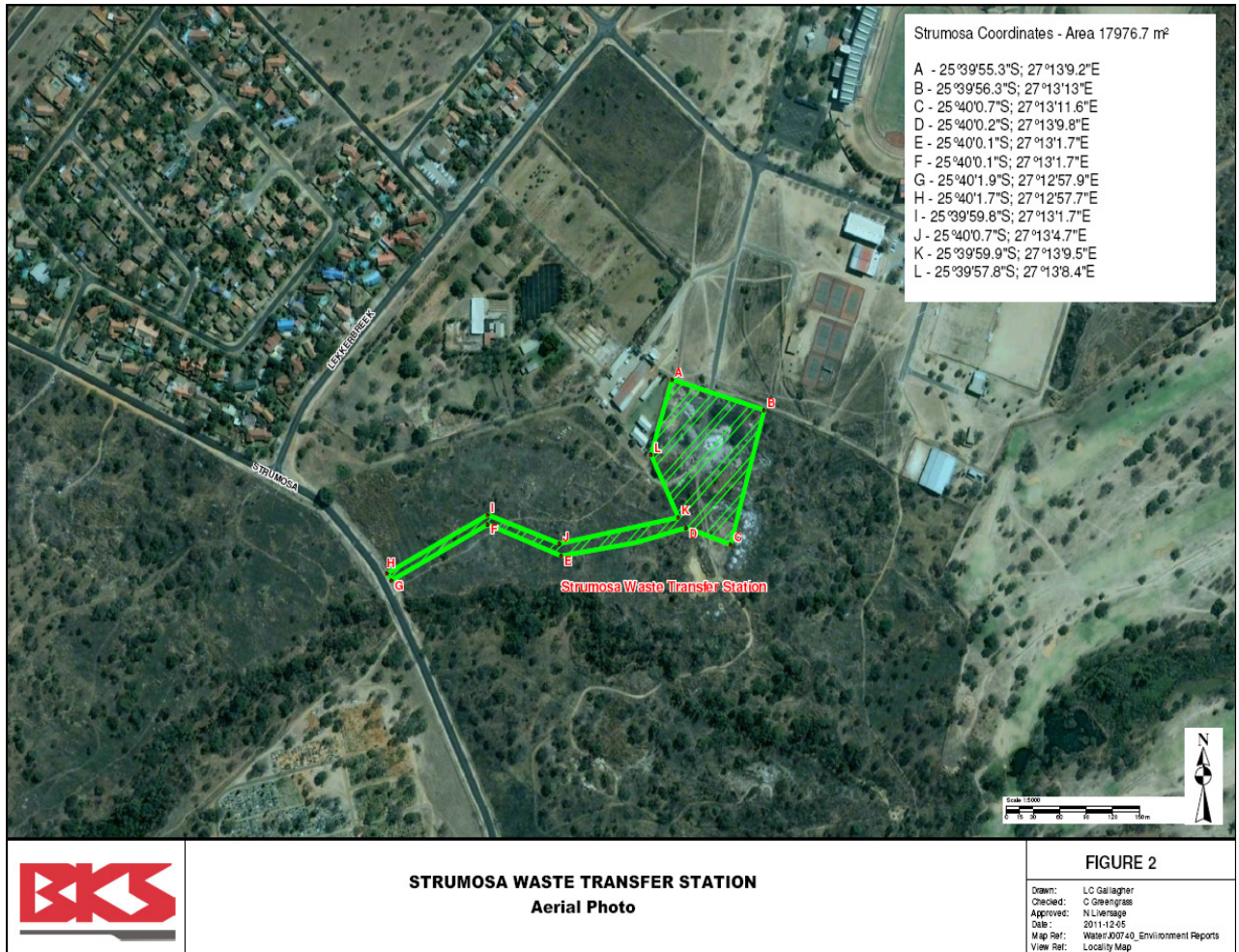
## **5. DESCRIPTION OF THE AREA**

The proposed development area is located on a portion of the original farm Rustenburg 272 JQ in Rustenburg in the Northwest Province. The topography of the area is flat, with outcrops or hills present. The Dorpspruit crosses through the larger geographical area to the east. The development is hemmed in by residential developments including Geelhoutpark, Rustenburg North and others, while to its north it is bounded in by recreational areas including a sports stadium.

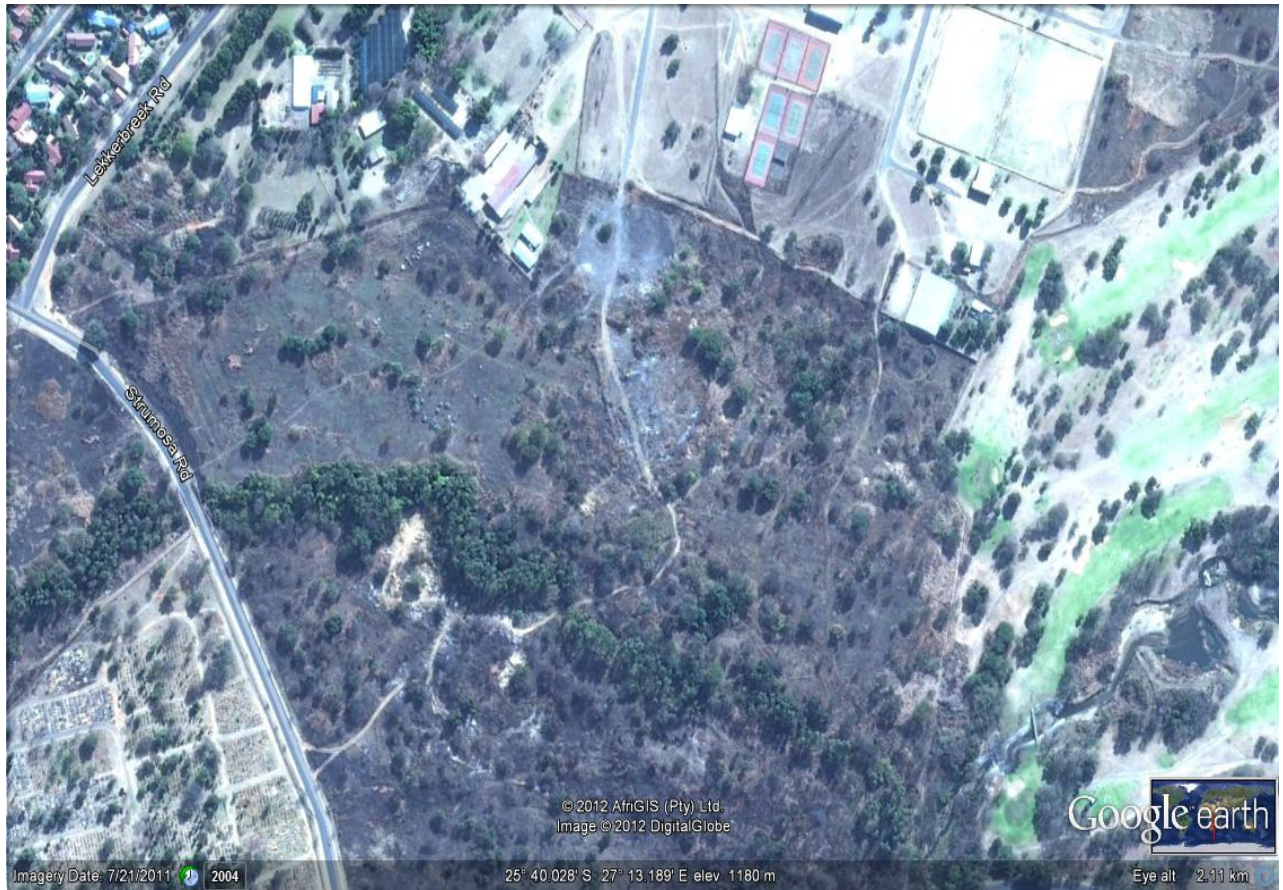
The area has been extensively disturbed in the past through these developments, while large-scale informal residential dumping has also impacted on it. If any sites of cultural heritage (archaeological & historical) significance did exist here in the past these would have been disturbed or destroyed to a large degree. Dense vegetation in the area also made archaeological visibility difficult.



**Figure 1: Topographic Locality map (courtesy BKS (Pty) Ltd).**



**Figure 2: Aerial view of the area. This plan shows the layout of the planned development (courtesy BKS (Pty) Ltd).**



**Figure 3: Aerial view of the area, showing the disturbed nature of it. Note the various development and golf course hemming it in (Google Earth 2012).**



**Figure 4: Dense vegetation in the area.**



**Figure 5: Informal dumping in the area.**



**Figure 6: More dumping occurring in the area.**

## **6. DISCUSSION**

A short, general, background to the archaeology and history of the area is given in the following section.

### **6.1 Stone Age**

The Stone Age is the period in human history when lithic (stone) material was mainly used to produce tools (Coertze & Coertze 1996: 293). In South Africa the Stone Age can be divided in basically into three periods. It is however important to note that dates are relative and only

provide a broad framework for interpretation. The division for the Stone Age according to Korsman & Meyer (1999: 93-94) is as follows:

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

The closest known Stone Age sites in the vicinity of Rustenburg are found in the area known as the Magaliesberg Research Area. It consists of nine sites including rock shelters in the Magaliesberg Mountain. These date back to the Middle and Late Stone Age (Bergh 1999: 4; Korsman & Meyer 1999: 94-95).

The development area does not contain shelters or any other indication of possible Stone Age living areas. One can therefore assume that Stone Age people would have stayed somewhere in the hills and would have passed this area during their hunting and gathering activities.

Stone Age material is frequently found close to rivers, although none was found during this survey. The banks of the Dorpspruit might produce scattered stone age material.

## **6.2 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 two separate phases according to Van der Ryst & Meyer (1999: 96-98), namely:

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

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

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

The closest Early Iron Age site is that at Broederstroom near Brits (Bergh 1999: 7). Many Late Iron Age sites are known to occur in the area around Rustenburg and the larger geographical areas. In a band stretching roughly from Brits in the east to Zeerust in the west many Iron Age sites have been discovered previously (Bergh 1999: 7-8). These all belong to the Later Iron Age (Bergh 1999: 8-9). A metal (iron) smelting site was identified along the Hex River to the east of Rustenburg (Bergh 1999: 8).

During earlier times the area was inhabited by a Tswana group, the Fokeng. In the 19<sup>th</sup> century and even today, this group still inhabits this area with other Tswana groups, the Kwena and the Po (Bergh 1999: 9-10). During the difaqane these people moved further to the west, but they returned later on after the Ndebele of Mzilikazi left the area (Bergh 1999: 11).

Based on the research by Huffman the following Iron Age traditions (based on pottery) can be expected in the area, namely the Mzonjani facies of the Urewe Tradition (at

Broederstroom) dating to around AD450-750; the Olifantspoort facies of the same tradition (AD1500-1700); the Uitkomst facies of Urewe (AD1650-1820) and the Buispoort facies of the same tradition dating to between AD1700 and AD1840 (Huffman 2007: 127, 171, 191 & 203).

No Iron Age material or features were identified during the assessment.

### **6.3 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.

Early travelers moved through this part of the Northwest Province. This included David Hume in 1825, Robert Scoon and William McLuckie as well as Dr Robert Moffat and Reverend James Archbell in 1829 (Bergh 1999: 12). They were followed by the expedition of Dr Andrew Smith in 1835 (Bergh 1999: 13). In 1836 William Cornwallis Harris visited the area. The well known explorer Dr David Livingston passed through this area between 1841 and 1847 (Bergh 1999: 13).

The Voortrekkers followed them from 1844 onwards (Bergh 1999: 14) and Rustenburg was established in 1851 (p.17). During the so-called First War of Independence (between the Boers and British) from 1880-1881 Rustenburg was besieged by the Boers (Bergh 1999: 46), while during the Anglo-Boer War (1899-1902) there were a number of battles around the area (p.51 and 54).

No historical sites or features were identified during the assessment. Although none were identified during 2012 it should be noted that sites could be identified during the development process. This could include low stone packed or unmarked graves.

## **7. CONCLUSIONS AND RECOMMENDATIONS**

In conclusion it is possible to say that the Heritage Assessment for the proposed Strumosa Solid Waste Transfer Station in Rustenburg in the Northwest Province was conducted successfully. No objects, features or sites of cultural heritage (archaeological or historical) origin or significance were recorded in the area of assessment, although recent residential and other developments would have extensively disturbed or destroyed any evidence of these if it did exist here in the past. The very dense vegetation in the area also made archaeological visibility difficult.

**Finally, it should be noted that the subterranean presence of archaeological and/or historical sites, features or artifacts are always a distinct possibility. Care should therefore be taken during any development activities that if any of these are accidentally discovered, a qualified archaeologist be called in to investigate. This would include the discovery of previously unknown graves.**

## **8. REFERENCES**

Locality maps and plans provided by BKS (Pty) Ltd

Aerial view of the area: Google Earth 2012

Bergh, J.S. (red.). 1999. **Geskiedenisatlas van Suid-Afrika. Die vier noordelike provinsies.** Pretoria: J.L. van Schaik.

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## APPENDIX A

### DEFINITION OF TERMS:

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

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

**Feature:** A coincidental find of movable cultural objects.

**Object:** Artifact (cultural object).

(Also see Knudson 1978: 20).

## APPENDIX B

### DEFINITION/ STATEMENT OF HERITAGE SIGNIFICANCE:

- Historic value:** Important in the community or pattern of history or has an association with the life or work of a person, group or organization of importance in history.
- Aesthetic value:** Important in exhibiting particular aesthetic characteristics valued by a community or cultural group.
- Scientific value:** Potential to yield information that will contribute to an understanding of natural or cultural history or is important in demonstrating a high degree of creative or technical achievement of a particular period
- Social value:** Have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.
- Rarity:** Does it possess uncommon, rare or endangered aspects of natural or cultural heritage.
- Representivity:** Important in demonstrating the principal characteristics of a particular class of natural or cultural places or object or a range of landscapes or environments characteristic of its class or of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, province region or locality.

## APPENDIX C

### SIGNIFICANCE AND FIELD RATING:

#### Cultural significance:

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

#### Heritage significance:

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

#### Field ratings:

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

## APPENDIX D

### PROTECTION OF HERITAGE RESOURCES:

#### **Formal protection:**

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

Protected areas - an area surrounding a heritage site

Provisional protection – for a maximum period of two years

Heritage registers – listing grades II and III

Heritage areas – areas with more than one heritage site included

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

#### **General protection:**

Objects protected by the laws of foreign states

Structures – older than 60 years

Archaeology, palaeontology and meteorites

Burial grounds and graves

Public monuments and memorials

## **APPENDIX E**

### **HERITAGE IMPACT ASSESSMENT PHASES**

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