

**SPECIALIST REPORT**  
**PHASE 1 ARCHAEOLOGICAL / HERITAGE IMPACT ASSESSMENT FOR**  
**PROPOSED SIYANQOBA RESIDENTIAL DEVELOPMENT ON THE FARMS**  
**TWEEDAM 377 JS AND REMAINING EXTENT OF LEEUWPOORT 283 JS,**  
**EMALAHLENI, MPUMALANGA PROVINCE**

**REPORT COMPILED FOR**  
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## EXECUTIVE SUMMARY

A Phase 1 Heritage Impact Assessment (HIA) regarding archaeological and other cultural heritage resources was conducted on the footprint for the proposed Siyanqoba residential development, Emalahleni, Mpumalanga Province.

The study area is situated on topographical map 1:50 000, 2529 CC WITBANK, which falls within the Mpumalanga Province, and is situated on the following farms: *Tweedam 377 JS and remaining extent of the farm Leeuwpoort 283 JS*, under the jurisdiction of the Nkangala district municipality and Emalahleni local municipality.

The National Heritage Resources Act, no 25 (1999)(NHRA), protects all heritage resources, which are classified as national estate. The NHRA stipulates that any person who intends to undertake a development, is subjected to the provisions of the Act.

The study area is situated towards the north of Emalahleni, on the R544 (past Pine Ridge residential area), a distance of approximately 8km. The study area was divided in sections A & B, on the farm *Tweedam* and C, D and E on the farm *Leeuwpoort*. Sections A, C, D & E are natural habitats which are currently used for cattle grazing. Section B was previously exploited for agricultural purposes, and a commercial bluegum plantation. The field survey, literature studies and personal communication with community members and specialists in the field, revealed that this area is very poor in heritage sites.

A Graveyard consisting of approximately 70 graves was located in section E and will be affected by the proposed development. However, the Proposed Development Framework (**Appendix 1**) indicated that this section will form part of a Public Open Space (POS).

It is recommended, based on the findings of this report, that the graveyard forms part of the POS as initially indicated by the Client, and that this section be fenced off and maintained. Families of the deceased must be allowed access to the graveyard. No archaeological or other heritage features of significance were observed in the study area.

**Disclaimer:** *Although all possible care is taken to identify all sites of cultural significance during the investigation, it is possible that hidden or sub-surface sites could be overlooked during the study. Christine Rowe trading as Adansonia Heritage Consultants will not be held liable for such oversights or for costs incurred by the client as a result.*

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- 1) The results of the project;*
- 2) The technology described in any report;*
- 3) Recommendations delivered to the Client.*

January 2014

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EMALAHLENI, MPUMALANGA PROVINCE**

**A. BACKGROUND INFORMATION TO THE PROJECT**

Vipcon Property Developers & Project Management requested that studies be undertaken for the proposed residential development at Siyanqoba Extension, Emalahleni.

Adansonia Heritage Consultants were appointed by Wandima Environmental Services cc, to conduct a phase 1 heritage impact assessment (HIA) on archaeological and other heritage resources on the study area. The proposed development entails:

- A residential development at Siyanqoba extensions on the farms *Tweedam 377 JS and the remaining extent of the farm Leeuwpoort 283 JS*.
- 4 residential areas with a total of 8000 erven, 7 schools, 1 business centre, 2 public open spaces, 3 community facilities and 1 public transport centre (see **Appendix :1** Proposed Development Framework).

A literature study, relevant to the study area was done, in conjunction with topographical maps, to determine that no archaeological or heritage resources will be impacted upon. (See **Fig. 2:** Topographical Map).

The aims for this report are to source all relevant information on archaeological and heritage resources in the study area, and to advise the client on sensitive heritage areas as well as where it is viable for the development to take place in terms of the specifications as set out in the National Heritage Resources Act no., 25 of 1999 (NHRA). Recommendations for maximum conservation measures for any heritage resource will also be made. The study area is indicated in **Appendix 1 & 2 & Fig. 1 – 4a**.

- This study forms part of an EIA, Consultant: Wandima Environmental Services, P.O. Box 1072, Nelspruit, 1200, Tel: 013 7525452 / Fax: 013 – 7526877 / e-mail: [admin@wandima.co.za](mailto:admin@wandima.co.za)

- Type of development: 4 residential areas with erven, schools, a business centre, public open spaces, community facilities and a public transport centre.
- Rezoning for the proposed development is involved as it is currently zoned as agricultural.
- Location of Province, Magisterial district / Local Authority and Property (farms):  
The area falls within the Mpumalanga Province under the jurisdiction of the Nkangala district municipality and Emalahleni local municipality on the farms *Tweedam 377 JS* and *the remaining extent of the farm Leeuwpoort 283 JS*.
- Land owners: Both sections belong to *Smith Broers Boerdery (Pty) Ltd*.
- **Terms of reference:** As specified by section 38 (3) of the NHRA, the following information is provided by Adansonia Heritage Consultants in this report:
  - a) The identification and mapping of heritage resources where applicable;
  - b) Assessment of the significance of the resources;
  - c) Alternatives given to affected heritage resources by the development;
  - d) Plans for measures of mitigation.

- **Legal requirements:**

The legal context of the report is grounded in the National Heritage Resources Act no. 25, 1999, as well as the National Environmental Management Act (1998) (NEMA):

- **Section 38 of the NHRA**

This report constitutes a heritage impact assessment investigation linked to the environmental impact assessment required for a residential development. The proposed development is a listed activity in terms of Section 38 (1) of the NHRA. Section 38 (2) of the NHRA requires the submission of a HIA report for authorisation purposes to the responsible heritage resources agency, (SAHRA).

Heritage conservation and management in South Africa is governed by the NHRA and falls under the overall jurisdiction of the South African Heritage Resources Agency (SAHRA) and its provincial offices and counterparts.

Section 38 of the NHRA requires a Heritage Impact Assessment (HIA) to be conducted

by an independent heritage management consultant, for the following development categories:

- Any development or other activity which will change the character of a site:
  - exceeding 5000m<sup>2</sup> in extent;
  - the rezoning of a site exceeding 10 000m<sup>2</sup> in extent

In addition, the new EIA regulation promulgated in terms of NEMA, determines that any environmental reports must include cultural / archaeological (heritage) issues.

The end purpose of this report is to alert Wandima Environmental Services, the client and interested and affected parties about existing heritage resources that may be affected by the proposed development, and to recommend mitigation measures aimed at reducing the risks of any adverse impacts on these heritage resources. Such measures could include the recording of any heritage buildings or structures older than 60 years prior to demolition, in terms of section 34 of the NHRA and also other sections of this act dealing with archaeological sites, buildings and graves.

The NHRA section 2 (xvi) states that a “heritage resource” means any place or object of cultural significance, and in section 2 (vi) that “cultural significance” means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance.

Apart from a heritage report assisting a client to make informed development decisions, it also serves to provide the relevant heritage resources authority with the necessary data to perform their statutory duties under the NHRA. After evaluating the heritage scoping report, the heritage resources authority will decide on the status of the resource, whether the development may proceed as proposed or whether mitigation is acceptable, and whether the heritage resource require formal protection such as a Grade I, II or III, with relevant parties having to comply with all aspects pertaining to such grading.

- **Section 35 of the NHRA**

Section 35 (4) of the NHRA stipulates that no person may, without a permit issued by SAHRA, destroy, damage, excavate, alter or remove from its original position, or collect, any archaeological material or object. This section may apply to any significant

archaeological sites that may be discovered. In the case of such chance finds, the heritage practitioner will assist in investigating the extent and significance of the finds and consult with an archaeologist about further action. This may entail removal of material after documenting the find or mapping of larger sections before destruction. This section does not apply since no archaeological material was found which might be impacted by the proposed development.

- **Section 36 of the NHRA**

Section 36 of the NHRA stipulates that no person may, without a permit issued by SAHRA, 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. This section does apply since a burial site dating from the 1950's, with approximately 70 graves, were found.

- **Section 34 of the NHRA**

Section 34 of the NHRA stipulates that no person may alter, damage, destroy, relocate etc, any building or structure older than 60 years, without a permit issued by SAHRA or a provincial heritage resources authority. This section does not apply since structures older than 60 years will not be affected by the proposed development.

- **Section 37 of the NHRA**

This section deals with public monuments and memorials but does not apply in this report.

- **NEMA**

The regulations in terms of Chapter 5 of the National Environmental Management Act, (107/1998), provide for an assessment of development impacts on the cultural (heritage) and social environment and for specialist studies in this regard.

## **B BACKGROUND TO ARCHAEOLOGY AND HISTORY OF THE STUDY AREA**

- **Literature review, museum databases & previous relevant impact assessments**

In order to place the area in archaeological context, primary and secondary sources were consulted. Ethnographical and linguistic studies by early researchers such as



Ziervogel, Theal and Van Warmelo shed light on the cultural groups living in the area since ca 1600. Historic and academic sources by Küsel and Bergh, were consulted, as well as historic sources by Makhura and Webb.

There are no museums in the Emalahleni (Witbank) district which could be consulted, and no historical information was available at the municipalities or information centre. The author relied on the assistance of community members who lived in the area, as well as local people documenting history in the area. Very little contemporary research has been done on prehistoric African settlements in the study area. The 1974 *topographical map 2529CC WITBANK*, (**Fig. 2**), revealed that this area was disturbed with mainly plantations and mining on the farm *Tweedam*, and one graveyard was indicated on the study area (*Leeuwoort*). A power line is situated on the border between the two farms in the study area. Recent Google images indicate that the farm *Tweedam* was mainly used for agricultural and mining purposes (see **Fig. 3, 4 & 4a**).

Visibility during the survey was excellent (sections A, B, C and D) to fair (section D), as the area was extensively used for grazing of livestock and the grass was fairly short. (See **Fig. 2**: Topographical map).

According to Bergh, there are no recorded sites that date from the Stone Age, (except for one rock painting site to the south of Witbank),<sup>1</sup> Early or Later Iron Age. The SAHRA database was consulted and a few Specialists AIA reports also revealed very little information in terms of archaeological or cultural nature. Four HIA reports were previously conducted by the author in the Witbank / Middelburg / Siyabuswa areas and revealed the same.

- Phase 1 HIA for proposed 132kV Power Lines from Doornpoort (Emalahleni / Witbank) to Rockdale (Middelburg), 2011 & 2012: burial sites and a few recent kraals were identified;
- Phase 1 HIA for proposed residential township on the remainder of the farm Rockdale 442 JS, Middelburg, 2012: two graves of unknown origin were identified;
- Phase 1 HIA for proposed township establishment on Portion 27 of the farm Middelburg Town and Townlands 287 JS, Middelburg, 2013: a few recent kraals

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<sup>1</sup> J.S. Bergh, *Geskiedenis Atlas van Suid-Afrika Die Vier Noordelike Provinsies*, pp. 4-7.

were identified;

- Phase 1 HIA for proposed residential development (Moripe Garden) on the farm Kameelrivier 160 JR, Siyabuswa, 2012: no features of significance were identified;

**Studies by other archaeologists also revealed little information:**

- Van Vollenhoven and Pelser: Report on HIA for the proposed Middelburg Eastern Bypass route, Middelburg Town and Townlands 287 JS, 2012 p. 11-19: revealed a Late Iron Age site;
- National Cultural History Museum: Archaeological Investigation of an Iron Age site on the farm Rietfontein 101 JS, Emalahleni District (Witbank), Mpumalanga 2004: LIA stone walls and potsherds.

No Late Iron age features were present on the section of the current study area as discussed in this report.

## **STONE AGE**

The Stone Age is the period in human history when people produced stone tools. The Stone Age in South Africa can be divided in three periods:

Early Stone Age (ESA): +- 2 million – 150 000 years ago;

Middle Stone Age (MSA): +- 150 000 – 30 000 years ago;

Later Stone Age (LSA): +- 40 000 – 1850AD.

No recorded sites are indicated in the immediate study area by Bergh (see above).

## **IRON AGE**

The Iron Age is the period in time when humans manufactured metal artifacts.

According to Van der Ryst & Meyer,<sup>2</sup> it can be divided in two separate phases, namely:

Early Iron Age (EIA) +- 200 – 1000 AD;

Late Iron Age (LIA) +- 1000 – 1850 AD.

No Iron Age sites were recorded in the historical atlas by Bergh, for the immediate vicinity of Emalahleni / Witbank. The closest known Iron Age occurrences in the study area, are an excavated site by the National Cultural History Museum (2003KH30), on the

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<sup>2</sup> Van der Ryst, M.M, & Meyer, A, Die Ystertydperk in *Geskiedenis Atlas van Suid-Afrika Die Vier Noordelike Provinsies*, pp. 96 – 98.

farm Rietfontein 101JS, Emalahleni (Witbank) district 2004, as well as Late Iron Age sites in the Middelburg area (on the farm Middelburg Town and Townlands 287 JS - Van Vollenhoven & Pelsler 2009: pp. 11 – 19).

## PRE COLONIAL HISTORY

Very little contemporary research has been done on prehistoric African settlements in the study area. The area surrounding Emalahleni (Witbank) was sparsely populated in the 19<sup>th</sup> century, and although Bergh,<sup>3</sup> indicated that only the *Ndzundza Ndebele* group was situated to the north, ethnographical and linguistic studies by early researchers such as D. Ziervogel and N.J. Van Warmelo, revealed that the study area (Witbank), was inhabited by the *Ndzundza abaga* (Ndebele), *Nhlapho abakwa*, *Manala abaga*,<sup>4</sup> and various tribes of the *baSotho* (*baKôpa*, *baPedi*). (See **Fig. 1: NJ Van Warmelo, 1935 Map: Bantu Tribes of South Africa**). Van Warmelo based his 1935 survey of *Bantu Tribes of South Africa* on the amount of taxpayers living in the area. One dot on the map represented 10 taxpayers, which were mainly male and did not reflect the extended numbers in a household.

Some of the community members that were consulted were:

Ms. Georgina Mandiwana (Venda);

Ms. Ester Mabena (Ndebele);

Ms. Anna Mokoena (Ndebele).<sup>5</sup>

They were all sure that there were no archaeological or cultural heritage resources on the study area, and none of them were able to give more information on the graveyard in section E. Ms. Ester Mabena is 50 years of age and grew up on Leeuwpoort.

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<sup>3</sup> Van der Ryst, M.M., & Meyer, A, Die Ystertydperk in *Geskiedenis Atlas van Suid-Afrika Die Vier Noordelike Provinsies*, p.10.

<sup>4</sup> Van Warmelo, *Preliminary survey of the Bantu Tribes of South Africa*, pp. 87-88.

<sup>5</sup> Personal communication: G. Mandiwana; E. Mabena & A. Mokoena, 28-12-2013.

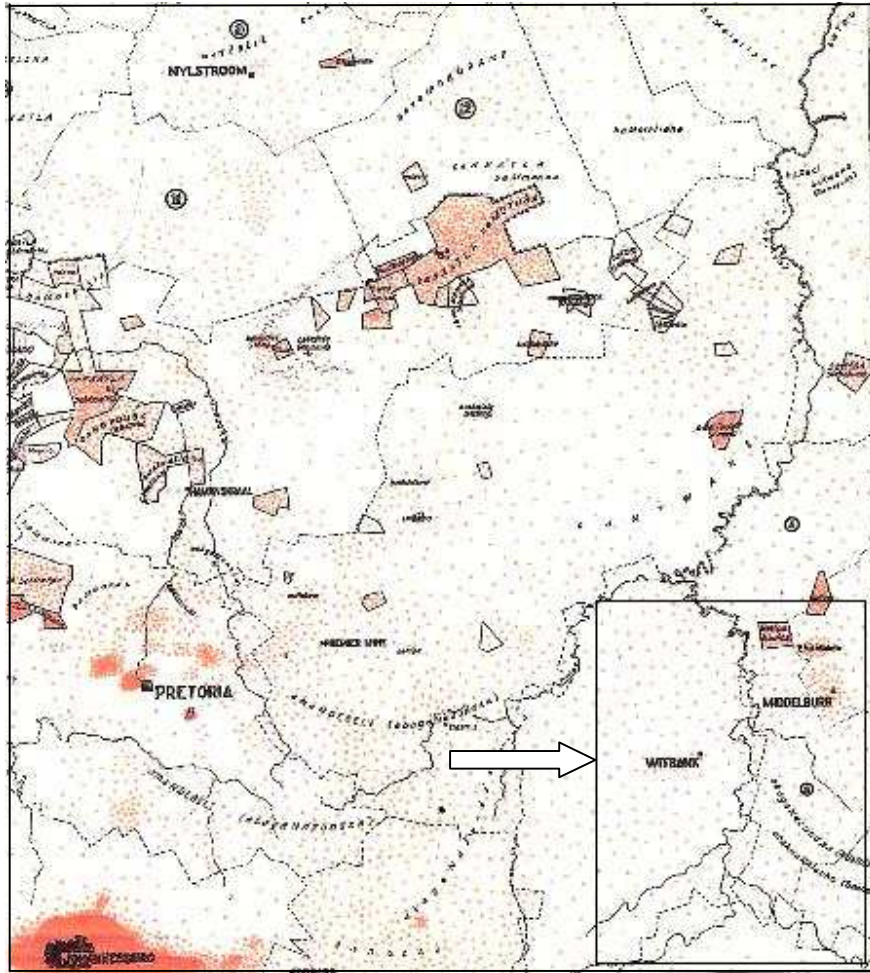


Fig. 1: Map: NJ van Warmelo, 1935: Showing Ndebele settlement in the Witbank area.

### **amaNdebele**

According to Van Warmelo, the *amaNdebele* are the earliest known offshoot of the *Nguni* group. The Ndebele is divided into two groups, the Southern and the Northern, and they are separated from one another. A certain legendary chief *Msi* or *Musi* heads a list of about twenty-five successive chiefs who lived just north of where Pretoria now stands. His two sons were *Manala* and *Ndzundza*, and form the most important tribes of the Southern group. The *abagaNdzundza* moved eastwards and settled near Roos Senekal, north of Middelburg, and it is said that some of *Manala*'s followers, the *abagaManala*, also settled in the Witbank district. The tribes slowly broke up after the days of the Republic.<sup>6</sup>

<sup>6</sup> Van Warmelo, *Preliminary survey of the Bantu Tribes of South Africa*, p. 87.

## Central Sotho

The tribes in this group were at one time largely under the rule of the baPedi, who's last independent king was *Sekhukhune*, who's stronghold was to the north of Middelburg (Steelpoort area) although his domain was extremely large.<sup>7</sup> Great numbers of *baSotho* who belong to the above group, who still speak *sePedi* but which became detribalized, live in the districts of Witbank, Middelburg, Lydenburg, and Springs. They mingle freely with other groups such as the Zulu, Swazi and Tonga.

## History of Witbank (Emalahleni)

Emalahleni, formerly known as Witbank is situated on the highveld of Mpumalanga, South Africa. The name Witbank is Afrikaans for "White Ridge" and is named after a white sandstone outcrop where wagon transport drivers rested. Witbank Colliery was established by Sameul Stanford and the Neumann group as Zeraatsfontein (Leraatsfontein) and the name "Witbank" was derived from a white quartz outcrop, which according to Thomas Bains, "loomed like a wagon tent in the distance". The town was laid out by Witbank Colliery in 1903 and Sameul Stanford erected the first wood and iron building consisting of a shop and hotel. In March 2006 the town was renamed Emalahleni, the Nguni word for "the place of coal". Emalahleni is in the coal mining area with 22 collieries in an area no more that 40km in any direction. There are also a number of power stations as well as a steel mill, Highveld Steel and Vanadium Corporation nearby, which all require coal.

Witbank was established in 1890 and early attempts to exploit the coal deposits failed until the railway from Pretoria reached the area in 1894. It was proclaimed a town in 1903 and became a municipality in 1914. Witbank is today the energy centre of South Africa and the focal point of Africa's largest coalfields, power stations and steel manufacturing.<sup>8</sup>

Originally early residents of Witbank area were mainly stock farmers as there was no market for agricultural produce. Wool was produced and sold in Durban. Crops were restricted to the needs of local families. Early travelers in the area, such as Thomas Bains, mentioned in 1872 that coal was used by local residents as fuel. Evidence has

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<sup>7</sup> Van Warmelo, *Preliminary survey of the Bantu Tribes of South Africa*, p 108.

<sup>8</sup> <[http://www.mpumalanga-happenings.co.za/witbank\\_homepage.htm](http://www.mpumalanga-happenings.co.za/witbank_homepage.htm)>



also been found that at first the Black man, and later the Voortrekkers, mined coal from the outcrops and riverbeds, and transported it by ox-wagon to the Witwatersrand.<sup>9</sup>

### C. DESCRIPTION OF AREA TO BE AFFECTED BY DEVELOPMENT

The proposed project will involve the following:

- A residential development at Siyanqoba extensions on the farms *Tweedam 377 JS* and the remaining extent of the farm *Leeuwpoort 283 JS*.
- 4 residential areas with a total of 8000 erven, 7 schools, 1 business centre, 2 public open spaces, 3 community facilities and 1 public transport centre.

Information supplied by Wandima Environmental Services (See list of GPS co-ordinates below).



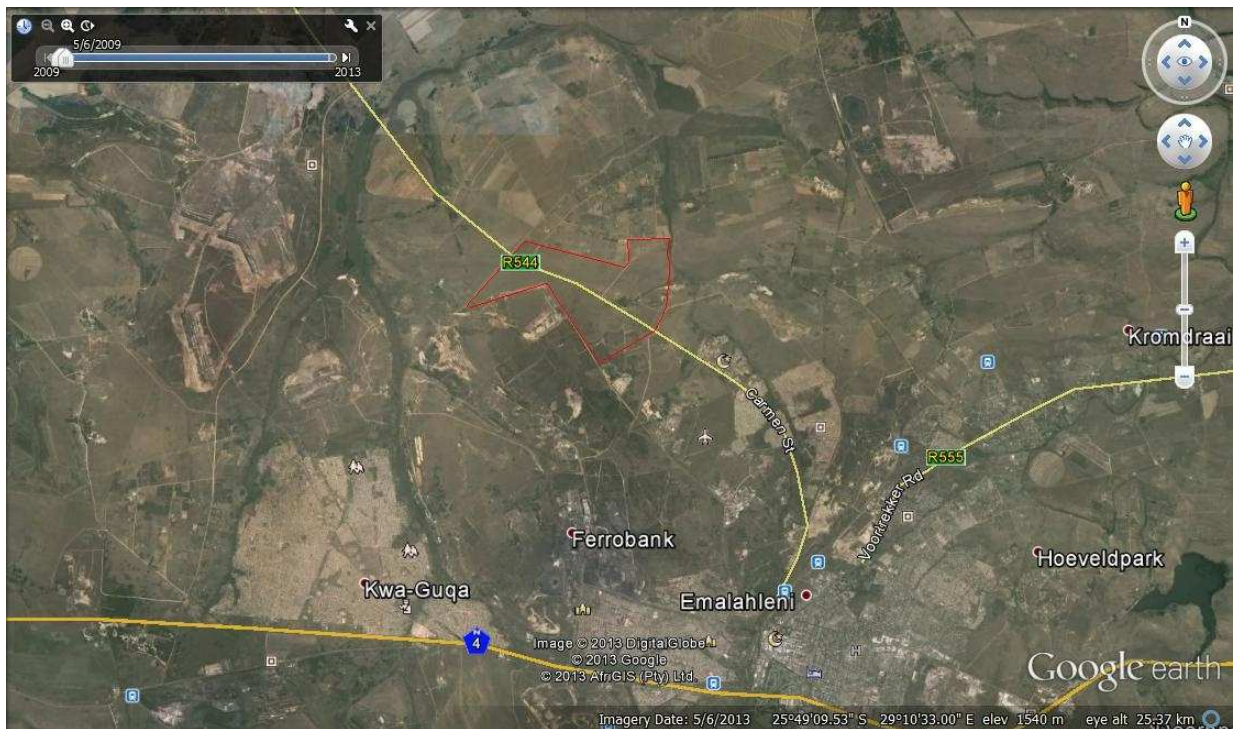
**Fig. 2:** Topographical map 2529 CC Witbank indicating the study area.

<sup>9</sup> <<http://www.shtetlinks.jewishgen.org/witbank/Whistory.htm>>

#### D. LOCALITY

The property is located to the north west of the town of Emalahleni (Witbank) and is approximately 665ha in size (*Leeuwpoot* is 288.3383ha and *Tweedam* is 314.2450ha). The proposed development will consist of 8000 erven, 7 schools, 1 business centre, 2 public open spaces, 3 community facilities and 1 public transport centre. Services infrastructure will also be installed (See **Appendix 1: Proposed Development Framework**)<sup>10</sup>.

The site is approximately 8 km from Emalahleni (Witbank). The farm *Leeuwpoot 283 JS* is situated north of the R544 with a power line towards the south, and the section on *Tweedam 377 JS*, is south of the R544. (see **Fig. 2: Topographical map, 2529CC WITBANK**. The area is within the Mpumalanga Province).



**Fig. 3:** Location of the study area within the wider Emalahleni district.

A current coal mine, agricultural farms and bluegum plantations are situated to the south of the study area, and several smallholdings form the border on the northern side. A tributary of the Blesbokspruit is towards the east of the *Leeuwpoot* section with a dam

<sup>10</sup> WANDIMA BID document for the Siyanqoba development, 4 Nov. 2013.



next to the R544. Previous commercial bluegum plantations form part of the eastern border of the *Tweedam* section. A power line forms the western border of the study area. A power line cuts through the entire middle of the two sections, parallel to the R544.

The study area was divided into sections A & B (*Tweedam 377 JS*) and sections C, D & E (*Leeuwpoort 283 JS*). Sections A, C, D & E are natural land which is used for cattle grazing by the local people. Section B was previous agricultural land with a commercial bluegum plantation towards the east, which was already established in 1974 (See **Fig. 2 & 4**). The area is zoned as agricultural and will have to be rezoned for residential development.



**Fig. 4:** The study area indicates the general features and Graveyard (G1).

The general study area consists of the Highveld grassland of the Witbank-Middelburg area in central Mpumalanga, with sandy soils. The landscape is fairly flat except in section E (east) where it is sloping towards the Blesbokspruit and a catchment dam, just north of the R544 (see **Fig. 4**). A continuous rocky ridge can be followed on sections C



and D, and becomes quite prominent in section E. The natural vegetation consists of sour grassland with an area on section B which was transformed for agriculture. Seepage wetlands and pans (depressions, seasonally or permanently filled with water) are generally common in the landscape. The most serious transformation of the natural environment consists of numerous open cast and underground coal mines and several large power stations that are visible on all horizons.<sup>11</sup>

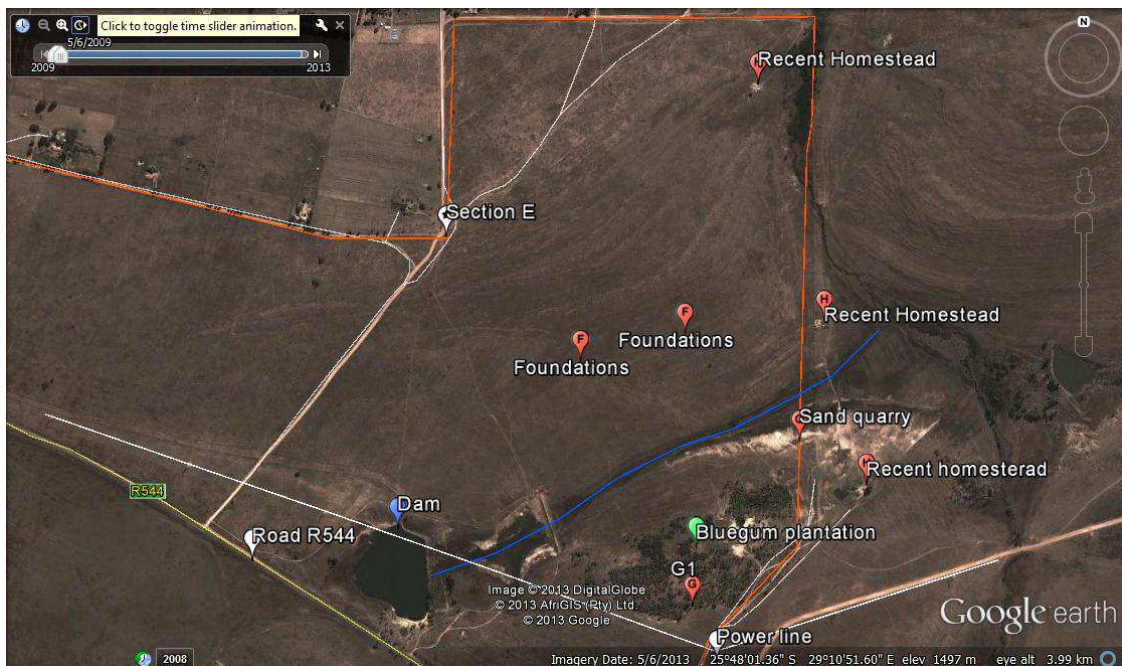


Fig. 4a: Detail of section E. Note the recent homestead of Ester Mabena, location of foundations, sand quarry, catchment dam, bluegum plantation and graveyard.

Square foundations of recent structures were observed in the study area but are not believed to have any significance. The members of the community have no knowledge of these structures. This section was used for grazing of livestock and many cattle paths are visible throughout this section.

The general geology of the area consists of quartzite ridges of the Witwatersrand Supergroup and the Pretoria Group as well as the Selons River Formation of the Rooiberg Group. These geological groups support soils of various qualities depending on the land type.

<sup>11</sup> D. van der Walt & C van der Walt, *Specialist Biodiversity report, Vegetation & Terrestrial Fauna*, p. 9.

The study area is situated nationally within the Grassland Biome, and is classified as Banken Veld (Alcocks: 1953) and as Moist Sandy Highveld Grassland. This vegetation unit is found around water bodies with stagnant or slow flowing water such as lakes, pans, periodically flooded vleis and the edges of slow flowing rivers.

- **Description of methodology:**

The Proposed Development Framework, (**Appendix 1**), 1974 *Topographical map (Fig. 2)*, as well as *Google Earth images (Fig. 3, 4 & 4a)*, indicate the study area and were intensively studied to assess the current and historic disturbed areas and infrastructure. In order to reach a comprehensive conclusion regarding the cultural heritage resources in the study area, the following methods were used:

- The desktop study consists mainly of archival sources studied on distribution patterns of early African groups who settled in the area since the 17<sup>th</sup> century, and which have been observed in past and present ethnographical research and studies.
- Literary sources, books and government publications, which were available on the subject, have been consulted, in order to establish relevant information but revealed sparse information.
- Some specialists currently working in the field of anthropology and archaeology have also been consulted on the subject.
- The Archaeological database of the National Cultural History Museum was consulted and revealed one LIA excavation which took place on the farm Rietfontein to the south of Emalahleni.
- Personal communication with community members were consulted throughout the survey.
- The fieldwork and survey was conducted on foot and with a vehicle, with three people over 2 days of the proposed study area.
- Section B was previously utilized for agricultural and commercial plantation purposes and the rest of the study area was natural veld and used for cattle grazing by locals.
- The sour grassland terrain was even and accessible and visibility was generally good.
- The relevant data was located with a GPS instrument (Garmin Etrex) datum WGS 84, and plotted. Co-ordinates were within 4-6 meters of the identified sites.

- Evaluation of the resources which might be impacted upon by the footprint, was done within the framework provided by the National Heritage Resources Act, no. 25 (1999);
- Personal communication with relevant stakeholders on the specific study area, were held, such as with community members and Principal Investigator, Dr. U Küsel, who worked in the area and confirmed that he is not aware and has not encountered any archaeological sites in this study area although the National Cultural History Museum and Van Vollenhoven identified some Late Iron Age features in the wider area.
- **GPS: Co-ordinates of the proposed residential area (see Google image Fig. 4)**

COORDINATES		
NO	South	East
a	25° 48' 22.87" S	29° 08' 29.73" E
b	25° 47' 36.34" S	29° 09' 16.59" E
c	25° 47' 53.22" S	29° 10' 39.93" E
d	25° 47' 35.91" S	29° 10' 40.61" E
e	25° 47' 35.10" S	29° 11' 12.41" E
f	25° 48' 23.62" S	29° 11' 10.93" E
g	25° 48' 37.89" S	29° 10' 57.97" E
h	25° 49' 08.55" S	29° 10' 18.21" E
i	25° 48' 01.10" S	29° 09' 33.90" E

#### E. DESCRIPTION OF IDENTIFIED SITES

All comments should be studied in conjunction with **Fig. 1 – 4 & Appendices 1 & 2**, which indicate the areas, photographs and which correspond with the summary below.

- **Section 1: Leeuwoort 283 JS (288,3382 ha):**

Site Location	Description & Comments	Heritage Feature
C	Section consists of sandy soils with natural grassland which is currently used for grazing of livestock. Fairly flat with a slight rocky ridge towards south. Power lines are parallel to R544. Smallholdings to the north. Visibility was good.	No archaeological or heritage features were identified in this section, which was also confirmed by community members. Fig. 10.
D	Large section consists of sandy soils with	No archaeological or heritage

	natural grassland which is currently used for cattle grazing. Section is flat with a slight rocky ridge which continues in this section from C (see fig. 4). Power lines run parallel to the R544. Smallholdings to the north. Visibility was good.	features were identified in this section, which was also confirmed by community members. Fig. 11 & 12.
E	Section consists of sandy soils with natural grassland with low bushes in the rocky section which slopes towards the Blesbokspruit in the east. A catchment dam is situated on the south side next to the R544. The power lines continue in this section. A quarry is situated within a small bluegum plantation in the eastern section. This section is also used as grazing for livestock. There are smallholdings to the north. Visibility was good to fair. The homestead of Ester Mabena (95) is situated next to the Blesbokspruit. Other homesteads fall outside the study area (Fig. 13 – 15). Square foundations of recent structures were observed in the study area but are not considered to have any significance.	A small graveyard dated to the 1950's is situated to the east of the dam between the bluegum plantation. Approximately 70 graves were identified. Most of the graves were marked. S25° 48' 24.06" E29° 11' 02.90" Fig. 16 – 19. The homestead of Ester Mabena next to the Blesbokspruit. S25° 47' 40.15" E29° 11' 09.10" Fig. 14. Square foundations of a recent nature have no significance (Fig. 4 a)

• **Section 2: Tweedam 377 JS (314,2450ha):**

Site Location	Description & Comments	Heritage Feature
A	This section consists of sandy soils with natural grassland which is currently used for cattle grazing. The area is flat with many cattle tracks visible. A small dam is situated next to the R544 in the north-western corner of this section, near a small quarry. A pipeline was constructed along the R544 and a radio mast is also visible. Visibility was very good. This section is bordered by a sand quarry in the south, power lines in the west and an operational mine in the east.	No archaeological or heritage features were identified in this section, which was also confirmed by community members. Fig. 5, 6 & 7.

B	This section is highly disturbed by previous agricultural activities which are now invaded by weeds, and an old commercial bluegum plantation towards the east. The R544 is towards the north and the southern section is bordered by an operational mine and bluegum plantations. Local people dump rubbish in this section.	No archaeological or heritage features were identified in this section, which was also confirmed by community members. Fig. 8 & 9.
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#### F. DISCUSSION ON THE FOOTPRINT OF THE PROPOSED DEVELOPMENT

<b>ACT</b>	<b>COMPO-NENT</b>	<b>IMPLICATION</b>	<b>RELEVANCE</b>	<b>COMPLIANCE</b>
NHRA	S 34	Impact on buildings and structures older than 60 years	Recent homesteads and square foundations are situated on section E of which only one will be impacted upon by the development.	The homestead and square foundations are not historic feature and therefore has no significance under the NHRA legislation
NHRA	S35	Impacts on archaeological and palaeontological heritage resources	None present	None
NHRA	S36	Impact on graves	Graveyard with approximately 70 graves were identified in section E	The graveyard will be affected by the proposed development. Mitigation measures are recommended.
NHRA	S37	Impact on public monuments	None present	None
NHRA	S38	Developments requiring an HIA	Development is a listed activity	HIA done
NEMA	EIA regulations	Activities requiring an EIA	Development is subject to an EIA	HIA is part of EIA

- **Summarised identification and cultural significance assessment of affected heritage resources:** (See significance assessment criteria in **Appendix 3, Standardized set of conventions used to assess the impact of projects on individual heritage features**).

**General issues of site and context:**

<b>Context</b>		
Urban environmental context	No	-
Rural environmental context	Yes	Farming settlements and smallholdings, mining and industry, in rural context
Natural environmental context	Yes	Very small fragments are still in natural context, and now utilized for cattle grazing
<b>Formal protection (NHRA)</b>		
(S. 28) Is the property part of a protected area?	No	-
(S. 31) Is the property part of a heritage area?	No	-
<b>Other</b>		
Is the property near to or visible from any protected heritage sites	No	-
Is the property part of a conservation area or special area in terms of the Zoning scheme?	No	Rezoning will take place for residential development
Does the site form part of a historical settlement or townscape?	No	-
Does the site form part of a rural cultural landscape?	Yes	Site is situated in a rural area.
Does the site form part of a natural landscape of cultural significance?	No	-
Is the site adjacent to a scenic route?	No	-
Is the property within or adjacent to any other area which has special environmental or heritage protection?	No	-
Does the general context or any adjoining properties have cultural significance?	No	-

<b>Property features and characteristics</b>		
Have there been any previous development impacts on the property?	Yes	Section B on the farm <i>Tweedam</i> was transformed for agricultural and commercial bluegum plantation purposes.  A homestead was observed in section E as well as a graveyard which is protected under the NHRA
Are there any significant landscape features on the property?	Yes	The property borders the Blesbokspruit and catchment dam in the east
Are there any sites or features of geological significance on the property?	No	-
Does the property have any rocky outcrops on it?	Yes	The terrain is mostly flat with only the section in E, which is a low hill sloping prominently towards the Blesbokspruit in the east
Does the property have any fresh water sources (springs, streams, rivers) on or alongside it?	Yes	The Blesbokspruit is in the eastern section

<b>Heritage resources on the property</b>		
<b>Formal protection (NHRA)</b>		
National heritage sites (S. 27)	Yes	All graves, burial sites and cemeteries are formally protected by NHRA.
Provincial heritage sites (S. 27)	No	-
Provincial protection (S. 29)	No	-
Place listed in heritage register (S. 30)	No	-
<b>General protection (NHRA)</b>		
Structures older than 60 years (S. 34)	No	-
Archaeological site or material (S. 35)	No	-

<b>Heritage resources on the property</b>		
Palaeontological site or material (S. 35)	No	-
Graves or burial grounds (S. 36)	Yes	A graveyard consisting of approximately 70 graves will be affected by the proposed development
Public monuments or memorials (S. 37)	No	-
<b>Other</b>		
Any heritage resource identified in a heritage survey (author / date / grading)	No	-
Any other heritage resources (describe)	No	-

<b>NHRA S (3)2 Heritage resource category</b>	<b>ELE-MENTS</b>	<b>INDICATORS OF HERITAGE SIGNIFICANCE</b>										<b>RISK</b>	
		Histo- rical	Rare	Sci- enti- fic	Typi- cal	Techno- logi- cal	Aes- thetic	Pers- on / com- munit- y	Land- mark	Ma- te- rial con- diti- on	Sust- aina- bility		
Buildings / structures of cultural significance	None	0	0	0	0	0	0	0	0	0	0	0	-
Areas attached to oral traditions / intangible heritage	No	0	0	0	0	0	0	0	0	0	0	0	-
Historical settlement/ townscapes	No	0	0	0	0	0	0	0	0	0	0	0	-
Landscape of cultural significance	No	-	-	-	-	-	-	-	-	-	-	-	-



**Heritage resources on the property**

Geological site of scientific/cultural importance	No	-	-	-	-	-	-	-	-	-	-	-
Archaeological / palaeontological sites	No	-	-	-	-	-	-	-	-	-	-	-
Grave / burial grounds	Yes	Yes	-	-	Yes	-	-	Yes	-	-	-	<b>Yes: Risk:</b> Graveyard with 70+ graves will be affected by the proposed development.  Mitigation needed
Areas of significance related to labour history	No	-	-	-	-	-	-	-	-	-	-	-
Movable objects	No	-	-	-	-	-	-	-	-	-	-	-

- Summarised recommended impact management interventions

<b>NHRA S (3)2 Heritage resource category</b>	<b>SITE</b>	<b>IMPACT SIGNIFICANCE Cultural significance rating</b>		<b>Impact management</b>	<b>Motivation</b>
		<b>Cultural significan</b>	<b>Impact significanc</b>		
Buildings / structures of cultural significance	No	No	None	-	-
Areas attached to oral traditions / intangible heritage	No	None	None	-	-

<b>NHRA S (3)2 Heritage</b>	<b>SITE</b>	<b>IMPACT SIGNIFICANCE</b>		<b>Impact management</b>	<b>Motivation</b>
		<b>Cultural significance rating</b>			
Historical settlement/ townscape	No	None	None	-	-
Landscape of cultural significance	No	None	None	-	-
Geological site of scientific/ cultural importance	No	None	None	-	-
Archaeologic al / palaeontolog ical sites	No	None	None	-	-
Grave / burial grounds	Yes	Yes	Yes	No development to take place in this section	Proposed development Framework plan ( <b>App. 1</b> ) indicated that this section will be kept as a Public Open Space (POS).
Areas of significance related to labour history	No	None	None	-	-
Movable objects	No	None	None	-	-

<b>ACT</b>	<b>COMPO- NENT</b>	<b>IMPLICATION</b>	<b>RELEVANCE</b>	<b>COMPLIANCE</b>
NHRA	S 34	Impact on buildings and structures older than 60 years	None present	None
NHRA	S35	Impacts on archaeological and palaeontological heritage resources	None present	None

<b>ACT</b>	<b>COMPO- NENT</b>	<b>IMPLICATION</b>	<b>RELEVANCE</b>	<b>COMPLIANCE</b>
NHRA	S36	Impact on graves	Graves present	Area to be included as part of a POS
NHRA	S37	Impact on public monuments	None present	None
NHRA	S38	Developments requiring an HIA	Development is a listed activity	Full HIA
NEMA	EIA regulations	Activities requiring an EIA	Development is subject to an EIA	HIA is part of EIA

## **G. STATEMENT OF SIGNIFICANCE & EVALUATION OF HERITAGE RESOURCES IN THE STUDY AREA**

Section 38 of the NHRA, rates all heritage resources into National, Provincial or Local significance, and proposals in terms of the above is made for all identified heritage features.

### **• Evaluation methods**

Site significance is important to establish the measure of mitigation and / or management of the resources. Sites are evaluated as *HIGH (National importance)*, *MEDIUM (Provincial importance)* or *LOW (local importance)*, as specified in the NHRA. It is explained as follows:

### **• National Heritage Resources Act**

The National Heritage Resources Act no. 25, 1999 (NHRA) aims to promote good management of the national estate, and to enable and encourage communities to conserve their legacy so that it may be bequeathed to future generations. Heritage is unique and it cannot be renewed, and contributes to redressing past inequities.<sup>12</sup> It promotes previously neglected research areas.

All archaeological and other cultural heritage resources are evaluated according to the NHRA, section 3(3). A place or object is considered to be part of the national estate if it has cultural significance or other special value in terms of:

(a) its importance in the community, or pattern of South Africa's history;

<sup>12</sup>National Heritage Resources Act, no. 25 of 1999. p. 2.

- (c) its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- (g) its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;
- (h) its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa.<sup>13</sup>

- **Graves**

**SAHRA Policy on burial grounds**

NHRA Sections 27 & 36: The policy is that graves and cemeteries should be left undisturbed, no matter how inaccessible and difficult they are to maintain. It is our obligation to empower civil society to nurture and conserve our heritage. It is only when essential developments threaten a place of burial, that human remains should be disinterred to another cemetery or burial ground.

From a historical point of view and for research purposes, it is vital that burial sites are not disturbed. The location and marking of an individual's grave tells a life story, possibly where he / she died defending (or attacking) a particular place or situation and makes it easier to understand the circumstances of his / her death.<sup>14</sup>

- **The significance and evaluation of the archaeological and cultural heritage features in the study area, can be summarised as follows:**

<b>Site no:</b>	<b>Cultural Heritage feature</b>	<b>Significance</b>	<b>Measures of mitigation</b>
Section E = G 1	Graveyard with approximately 70 graves	High	Mitigation needed as G1 (graveyard) will be impacted upon by the proposed development (Fig. 16 – 19).

- **Field rating:**

The graveyard in section E (G1), on the farm *Leeuwpoort 283 JS*, is in the eastern section of the proposed development, and rated as **High** and of outstanding significance as specified by the NHRA. The graveyard dates to at least 1951 (the earliest date

<sup>13</sup>National Heritage Resources Act, no. 25 of 1999. pp. 12-14

<sup>14</sup>SAHRA, Burial sites, <http://www.sahra.org.za/burial.htm>, Access, 2008-10-16.

identified on one of the graves) although inscriptions on many of the grave stones are unidentifiable. Some of the graves are also unmarked. The graveyard is over 60 years in use. Some of the head stones on the graves are modern, while others are handmade (see **Fig. 19**). Typical Ndebele names such as *Skosana, Morena and Nkambule* are amongst the deceased. Mitigation measures are necessary to avoid a negative impact on this site.

The homestead of Ester Mabena and square foundations in sections E are recent and not of any historic significance.

## **H. RECOMMENDATIONS**

The various sections in the proposed development, range from natural habitats to highly disturbed agricultural land as well as commercial bluegum plantations. The entire area is currently utilized by locals for cattle grazing and it borders an operational mine, plantations, smallholdings and a tributary of the Blesbokspruit.

One graveyard, with approximately 70 graves, was encountered. The developer indicated in the Proposed Development Framework (**Appendix 1**) that this section will be used as a Public Open Space. This is recommended, as the graveyard is quite extensive and relocation will be extremely complex and expensive. It is further recommended that the graveyard be fenced off and maintained and that the families of the deceased be allowed access to the site.

No archaeological, historical or other heritage features were observed in the rest of the study area.

## **I. CONCLUSION**

Archaeological material or graves are not always visible during a field survey and therefore some significant material may only be revealed during construction activities of the proposed development. It is therefore recommended that the developers be made aware of this possibility and when human remains, clay or ceramic pottery etc. are observed, a qualified archaeologist must be notified and an assessment be done. Further research might be necessary in this regard for which the developer is responsible.

Adansonia Heritage Consultants can not be held responsible for any archaeological material or graves which were not located during the survey.

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