

**Prepared for:**

**CLEAN STREAM ENVIRONMENTAL SERVICES:  
COALFIELDS CC**

**A PHASE I HERITAGE IMPACT ASSESSMENT (HIA) STUDY  
FOR A PROPOSED NEW RESIDENTIAL DEVELOPMENT IN  
THE BOTSHABELO NATURE RESERVE NEAR  
MIDDELBURG IN THE MPUMALANGA PROVINCE OF  
SOUTH AFRICA**

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## EXECUTIVE SUMMARY

This Phase I Heritage Impact Assessment (HIA) study for a proposed new residential development in the Botshabelo Nature Reserve near Middelburg in the Mpumalanga Province was undertaken according to Section 38 of the National Heritage Resources Act (No 25 of 1999). The aims with the study were:

- To establish whether any of the types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999) (see Box 1) occur in the Project Area and, if so, to determine the nature, the extent and the significance of these remains.
- To establish if any of these heritage resources will be affected by the proposed new residential development and, if so, to evaluate what appropriate mitigation measures could be taken to reduce the impact of the proposed residential development on these remains.

The Phase I HIA study for the proposed new residential development did not reveal the significance presence of any of the types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999) in the Project Area.

The residential development occurs at a considerable distance from the Botshabelo cultural village and its associated infrastructure and therefore does not have a direct physical impact on this cultural landscape.

The residential development may have a positive influence on the Botshabelo cultural village as it may contribute to a renewed interest in this historical village and the nature reserve which may generate further positive spin-offs. These may include means of generating a reliable and sustainable income for the management, maintenance and development of the heritage and natural features of the nature reserve. This will benefit local and international tourists visiting Mpumalanga as well as the local economy.

The new residential development should perhaps consider historical events and architectural themes encapsulated in the Botshabelo cultural village such as the missionary station, colonial townscape and the indigenous architecture which may provide innovative and complimentary ideas to be incorporated in the new residential development.

**General**

It is possible that this Phase I HIA study may have missed heritage resources in the Project Area as heritage sites may occur in thick clumps of vegetation while others may lie below the surface of the earth and may only be exposed once the residential development commences.

If any heritage resources of significance is exposed during the residential project the South African Heritage Resources Authority (SAHRA) should be notified immediately, all development activities must be stopped and an archaeologist accredited with the Association for Southern African Professional Archaeologist (ASAPA) should be notify in order to determine appropriate mitigation measures for the discovered finds. This may include obtaining the necessary authorisation (permits) from SAHRA to conduct the mitigation measures.

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## **1 INTRODUCTION**

This document contains the report on a Phase I Heritage Impact Assessment (HIA) study which was done for a proposed new residential development in the Botshabelo Nature Reserve near Middelburg in the Mpumalanga Province of South Africa.

The Mpumalanga Province of South Africa has a rich heritage comprised of remains dating from the pre-historic and from the historical (or colonial) periods of South Africa. Pre-historic and historical remains in the Mpumalanga Provinces present a record of the heritage of most groups living in South Africa today. Various types and ranges of heritage resources that qualify as part of South Africa's 'national estate' (outlined in Section 3 of the National Heritage Resources Act, Act No 25 of 1999) occur in this province (see Box 1).

## **Box 1: Types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999).**

The National Heritage Resources Act (Act 25 of 1999, Section 3) outlines the following types and ranges of heritage resources that qualify as part of the national estate:

- (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 natural features of cultural significance;
- (e) geological sites of scientific or cultural importance;
- (f) archaeological and palaeontological sites;
- (g) graves and burial grounds including-
  - (i) ancestral graves;
  - (ii) royal graves and graves of traditional leaders;
  - (iii) graves of victims of conflict;
  - (iv) graves of individuals designated by the Minister by notice in the Gazette;
  - (v) historical graves and cemeteries; and
  - (vi) other human remains which are not covered in terms of the Human Tissue Act (Act 65 of 1983);
- (h) sites of significance relating to the history of slavery in South Africa;
- (i) moveable objects, including -
  - (i) objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects, material, meteorites and rare geological specimens;
  - (ii) objects to which oral traditions are attached or which are associated with living heritage;
  - (iii) ethnographic art and objects;
  - (iv) military objects;
  - (v) objects of decorative or fine art;
  - (vi) objects of scientific or technological interest; and
  - (vii) books, records, documents, photographs, positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act (Act 43 of 1996).

The National Heritage Resources Act (Act 25 of 1999, Sec 3) also distinguishes nine criteria for a place and/or object to qualify as 'part of the national estate if they have cultural significance or other special value ...'. These criteria are the following:

- (a) its importance in the community, or pattern of South Africa's history;
- (b) its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;
- (c) its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- (d) its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects;
- (e) its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
- (f) its importance in demonstrating a high degree of creative or technical achievement at a particular period;
- (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; and/or
- (i) its significance relating to the history of slavery in South Africa.

## **2 AIMS WITH THIS REPORT**

A proposed new residential development is planned on 127 hectares of land within the Botshabelo Nature Reserve near Middelburg in the Mpumalanga Province of South Africa. The proposed new residential development may impact on any of the types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999).

Clean Stream Environmental Services, Coal Fields CC (hereafter referred to as Clean Stream), who is responsible for compiling the Environmental Impact Assessment (EIA) for the project, commissioned the author to undertake a Phase I Heritage Impact Assessment (HIA) study for the proposed new residential development.

The aims with the Phase I HIA study were the following:

- To establish whether any of the types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999) (see Box 1) occur in the Project Area and, if so, to determine the nature, the extent and the significance of these remains.
- To establish if any of these heritage resources will be affected by the proposed new residential development and, if so, to evaluate what appropriate mitigation measures could be taken to reduce the impact of the proposed residential development on these remains.



### **3 METHODOLOGY**

This Phase I HIA study was conducted by means of the following:

- Surveying the proposed Project Area with a vehicle and selected spots on foot.
- Briefly surveying literature relating to the pre-historical and historical context of the Project Area.
- Consulting maps of the proposed Project Area.
- Consulting archaeological (heritage) data bases.
- Synthesising all information obtained from the data bases, fieldwork, maps and literature survey.

#### **4.1 Fieldwork**

The proposed Project Area was surveyed with a vehicle where accessible dirt track roads existed while selected, sensitive spots in the Project Area were surveyed on foot.

#### **4.2 Databases, literature survey and maps**

Databases kept and maintained at institutions such as the Provincial Heritage Resources Agency (PHRA) and the Archaeological Data Recording Centre at the National Flagship Institute (Museum Africa) in Pretoria were consulted to determine whether any heritage resources of significance has been identified during earlier heritage surveys in or near the Project Area.

The author is not unacquainted with the Project Area at large as he had done several heritage impact assessment studies near the Project Area (see Part 8, 'Select Bibliography').

Literature relating to the pre-historical and the historical unfolding of the Project Area was reviewed (see Part 5, 'Contextualising the Project Area').

It is important to contextualise the pre-historical and historical background of the Project Area in order to comprehend the identity and meaning of heritage sites in and near the Project Area.

In addition, the Project Area was studied by means of maps on which it appears (Middelburg 2529DA; 1:50 000 topographical map & Pretoria 2529, 1:250 000 map).

### **4.3 Assumptions and limitations**

It is possible that this Phase I HIA study may have missed heritage resources in the Project Area as heritage sites may occur in thick clumps of vegetation while others may lie below the surface of the earth and may only be exposed once the residential development commences.

If any heritage resources of significance is exposed during the residential project the South African Heritage Resources Authority (SAHRA) should be notified immediately, all development activities must be stopped and an archaeologist accredited with the Association for Southern African Professional Archaeologist (ASAPA) should be notified in order to determine appropriate mitigation measures for the discovered finds. This may include obtaining the necessary authorisation (permits) from SAHRA to conduct the mitigation measures.

### **3.4 Some remarks on terminology**

Terms that may be used in this report are briefly outlined below:

- Conservation: The act of maintaining all or part of a resource (whether renewable or non-renewable) in its present condition in order to provide for its continued or future use. Conservation includes sustainable use,

protection, maintenance, rehabilitation, restoration and enhancement of the natural and cultural environment.

- Cultural resource management: A process that consists of a range of interventions and provides a framework for informed and value-based decision-making. It integrates professional, technical and administrative functions and interventions that impact on cultural resources. Activities include planning, policy development, monitoring and assessment, auditing, implementation, maintenance, communication, and many others. All these activities are (or will be) based on sound research.
- Cultural resources: A broad, generic term covering any physical, natural and spiritual properties and features adapted, used and created by humans in the past and present. Cultural resources are the result of continuing human cultural activity and embody a range of community values and meanings. These resources are non-renewable and finite. Cultural resources include traditional systems of cultural practice, belief or social interaction. They can be, but are not necessarily identified with defined locations.
- Heritage resources: The various natural and cultural assets that collectively form the heritage. These assets are also known as cultural and natural resources. Heritage resources (cultural resources) include all human-made phenomena and intangible products that are the result of the human mind. Natural, technological or industrial features may also be part of heritage resources, as places that have made an outstanding contribution to the cultures, traditions and lifestyles of the people or groups of people of South Africa.
- In-Situ Conservation: The conservation and maintenance of ecosystems, natural habitats and cultural resources in their natural and original surroundings.
- Iron Age: Refers to the last two millennia and 'Early Iron Age' to the first thousand years AD. 'Late Iron Age' refers to the period between the 16<sup>th</sup> century and the 19<sup>th</sup> century and can therefore include the Historical Period.

- Maintenance: Keeping something in good health or repair.
- Pre-historical: Refers to the time before any historical documents were written or any written language developed in a particular area or region of the world. The historical period\_and historical remains refer, for the Project Area, to the first appearance or use of 'modern' Western writing brought to the Eastern Highveld by the first Colonists who settled here from the 1840's onwards.
- Preservation: Conservation activities that consolidate and maintain the existing form, material and integrity of a cultural resource.
- Recent past: Refers to the 20<sup>th</sup> century. Remains from this period are not necessarily older than sixty years and therefore may not qualify as archaeological or historical remains. Some of these remains, however, may be close to sixty years of age and may, in the near future, qualify as heritage resources.
- Protected area: A geographically defined area designated and managed to achieve specific conservation objectives. Protected areas are dedicated primarily to the protection and enjoyment of natural or cultural heritage, to the maintenance of biodiversity, and to the maintenance of life-support systems. Various types of protected areas occur in South Africa.
- Reconstruction: Re-erecting a structure on its original site using original components.
- Replication: The act or process of reproducing by new construction the exact form and detail of a vanished building, structure, object, or a part thereof, as it appeared at a specific period.
- Restoration: Returning the existing fabric of a place to a known earlier state by removing additions or by reassembling existing components.
- Stone Age: Refers to the prehistoric past, although Late Stone Age peoples lived in South Africa well into the Historical Period. The Stone Age is divided into an Earlier Stone Age (3 million years to 150 000 thousand years ago) the Middle Stone Age (150 000 years to 40 000 years ago) and the Late Stone Age (40 000 years to 200 years ago).

- Sustainability: The ability of an activity to continue indefinitely, at current and projected levels, without depleting social, financial, physical and other resources required to produce the expected benefits.
- Translocation: Dismantling a structure and re-erecting it on a new site using original components.
- Project Area: refers to the area (footprint) where the developer wants to focus its development activities (refer to plan).
- Phase I studies refer to surveys using various sources of data in order to establish the presence of all possible types and ranges of heritage resources in any given Project Area (excluding paleontological remains as these studies are done by registered and accredited palaeontologists).
- Phase II studies include in-depth cultural heritage studies such as archaeological mapping, excavating and sometimes laboratory work. Phase II work may include the documenting of rock art, engraving or historical sites and dwellings; the sampling of archaeological sites or shipwrecks; extended excavations of archaeological sites; the exhumation of human remains and the relocation of graveyards, etc. Phase II work involve permitting processes, require the input of different specialists and the co-operation and approval of SAHRA.

## **4 THE PROJECT AREA**

### **4.1 Location**

The proposed new residential development is located on a 137 hectare piece of land on the farm Toevlugt 320JS in the far northern corner of the Botshabelo Nature Reserve near Middelburg in the Mpumalanga Province (Middelburg 2529DA; 1: 50 000 topographical map) (Pretoria [2528]: 1: 250 000) (Figures 1-3).

The Project Area comprises a level stretch of land that is sandy and which is covered with grass veldt. A small ephemeral pan occurs near its western perimeter whilst a stand of wattle trees and limited infrastructure of a temporary nature occur in the south. A few two track roads criss-cross the Project Area.

### **4.2 The nature of the Project Area**

The Project Area covers a level stretch of land that is covered with grass veldt. No Blue Gum or Oak trees which usually are associated with historical farmsteads as they were planted by the first colonists who settled on the Eastern Highveld during the first part of the nineteenth century occur in the Project Area.

The Project Area is located near the Bothabelo cultural village and landscape which comprises the Botshabelo missionary station and other associated infrastructure which is located within the Botshabelo Nature Reserve (see Part 5, 'Contextualising the Project Area').

The historical significance of this cultural landscape is described in more detail before the results of the Phase I HIA study is discussed.

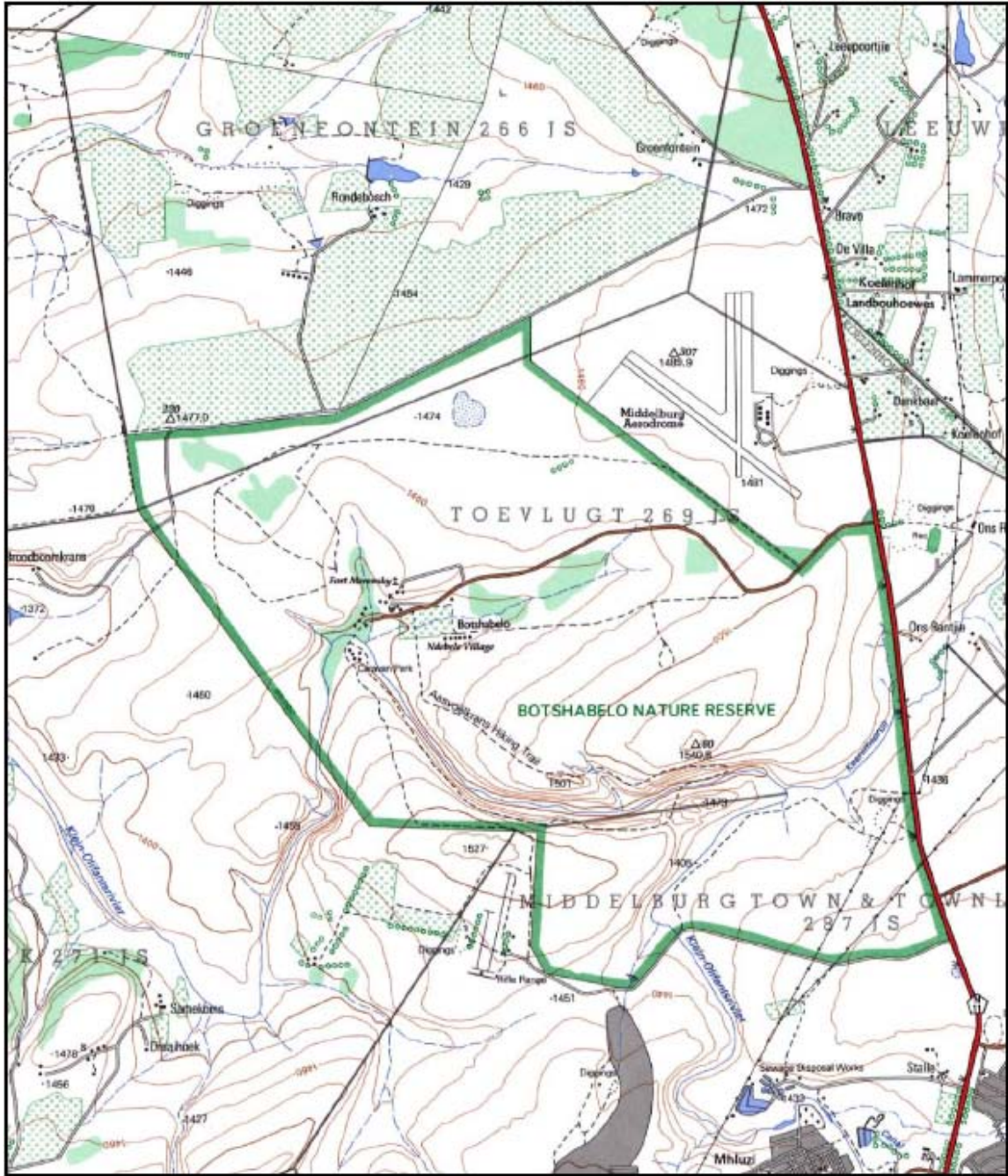


Figure 1- The proposed new residential development on Toevlugt 269JS in the Botshabelo Nature Reserve near Middelburg involves the most northern corner of the nature reserve and is confined to a piece of land wedged between a pan and the northern and north-eastern border of the nature reserve (above).

## **5 CONTEXTUALISING THE PROJECT AREA**

Contextual evidence that serves as background to the residential development includes the following: the Stone Age; the earliest farmers and stone builders; the arrival of the colonists; early coal mining and farm homesteads with graveyards from the recent past. This pre-historical and historical information helps to determine the significance of any heritage resources that may occur in the Project Area.

### **5.1 Stone Age and rock art sites**

Stone Age sites are marked by stone artefacts that are found scattered on the surface of the earth or as parts of deposits in caves and rock shelters. The Stone Age is divided into the Early Stone Age (ESA) (covers the period from 2.5 million years ago to 250 000 years ago), the Middle Stone Age (MSA) (refers to the period from 250 000 years ago to 22 000 years ago) and the Late Stone Age (LSA) (the period from 22 000 years ago to 200 years ago).

Dongas and eroded areas at Maleoskop near Groblersdal is one of only a few places in Mpumalanga where ESA Olduwan and Acheulian artefacts have been recorded.

Evidence for the MSA has been excavated at the Bushman Rock Shelter near Ohrigstad. This cave was repeatedly visited over a prolonged period. The oldest layers date back to 40 000 years BP and the youngest to 27 000BP (BP, Before Present).

LSA occupation of the Mpumalanga Province also has been researched at Bushman Rock Shelter where it dates back 12 000BP to 9 000BP and at Höningnestkrans near Badfontein where a LSA site dates back to 4 870BP to 200BP.



The LSA is also associated with rock paintings and engravings which were done by San hunter-gatherers, Khoi Khoi herders and EIA farmers. Approximately 400 rock art sites are distributed throughout Mpumalanga, notably in the northern and eastern regions at places such as Emalahleni (Witbank) (4), Lydenburg (2), White River and the southern Kruger National Park (76), Nelspruit and the Nsikazi District (250). The Ermelo area holds eight rock paintings.

The rock art of the Mpumalanga Province can be divided into San rock art which is the most wide spread, herder or Khoe Khoe paintings (thin scattering from the Limpopo Valley) through the Lydenburg district into the Nelspruit area) and localised late white farmer paintings. Farmer paintings can be divided into Sotho-Tswana finger paintings and Nguni engravings (Only 20 engravings occur at Boomplaats, north-west of Lydenburg). Farmer paintings are more localised than San or herder paintings and were mainly used by the painters for instructional purposes.

During the LSA and Historical Period, San people called the Batwa lived in sandstones caves and rock shelters near Lake Chrissie in the Ermelo area. The Batwa are descendants of the San, the majority of which intermarried with Bantu-Negroid people such as the Nhlapo from Swazi-descend and Sotho-Tswana clans such as the Pai and Pulana. Significant intermarriages and cultural exchanges occurred between these groups. (The reference to Magageng ['a place of caves'] which is a Sotho term for Lake Chrissie points to this influence). Cultural assimilation between these groups led to San groups speaking Swazi and Sotho-Tswana languages and adopting names such as Ngwenya, abaKhosi and abaMlambo. (Early literature distinguishes between the Ngwenya-Mlambo and the Batwa claiming that the latter have not interbred with the Bantu-Negroid).

The Batwa were hunter-gatherers who lived from food which they collected from the veldt as well as from the pans and swamps in the area. During times of unrest,

such as the *difaqane* in the early nineteenth century, the San would converge on Lake Chrissie for food and sanctuary. The caves, lakes, water pans and swamps provided relatively security and camouflage. Here, some of the San lived on the surfaces of the water bodies by establishing platforms with reeds.

With the arrival of the first colonists in the nineteenth century many of the local Batwa family groups were employed as farm labourers. Descendants of the Batwa people still live in the larger Project Area.

A subsurface sandstone valley on Klipfontein 214IS, west of the proposed Hartbeesfontein Project, contains the so-called 'mushroom rock', a natural feature that resembles a mushroom which was created by water action on the soft sandstone. A small waterfall and stream flows through this highly scenic valley. According to Highveld Heritage Tours (a tour guiding company based in Ermelo) the 'Batwa Valley' was occupied by the Batwa San. Reconstructions of stone walls under overhangs and stone tools collected in the valley are used as demonstration material to explain that the Batwa used the sandstone valley for shelter and the tools as artefacts. It is told that the Batwa who lived in the valley was massacred, whilst those who survive was driven out of the valley and the area by the Ndwandwe-Nquni and the Swazi during the nineteenth century.

## **5.2 Iron Age remains**

The Iron Age is associated with the first agro-pastoralists or farming communities who lived in semi-permanent villages and who practised metal working during the last two millennia. The Iron Age is usually divided into the Early Iron Age (EIA) (covers the 1<sup>st</sup> millennium AD) and the Later Iron Age (LIA) (covers the first 880 years of the 2<sup>nd</sup> millennium AD).

Evidence for the first farming communities in the Mpumalanga Province is derived from a few EIA potsherds which occur in association with the LSA

occupation of the Höningnest Shelter near Badfontein. The co-existence of EIA potsherds and LSA stone tools suggest some form of 'symbiotic relationship' between the Stone Age hunter-gatherers who lived in the cave and EIA farmers in the area (also note Batwa and Swazi/Sotho Tswana relationship).

The Welgelegen Shelter on the banks of the Vaal River near Ermelo also reflects some relationship between EIA farmers who lived in this shelter and hunter-gatherers who manufactured stone tools and who occupied a less favourable overhang nearby during AD1200.

EIA sites were also investigated at Sterkspruit near Lydenburg (AD720) and in Nelspruit where the provincial governmental offices were constructed. The most infamous EIA site in South Africa is the Lydenburg head site which provided two occupation dates, namely during AD600 and from AD900 to AD1100. At this site the Lydenburg terracotta heads were brought to light. Doornkop, located south of Lydenburg, dates from AD740 and AD810.

The Late Iron Age is well represented in Mpumalanga and stretches from AD1500 well into the nineteenth century and the Historical Period. Several spheres of influence, mostly associated with stone walled sites, can be distinguished in the region. Some of the historically well known spheres of influence include the following:

- Early arrivals in the Mpumalanga Province such as Bakone clans who lived between Lydenburg and Machadodorp and Eastern Sotho clans such as the Pai, Pulana and Kutswe who established themselves in the eastern parts of the province.
- Swazi expansion into the Highveld and Lowveld of the Mpumalanga Province occurred during the reign of Sobhuza (AD1815 to c.1836/39) and Mswati (AD1845 to AD1868) while Shangaan clans entered the province across the Lembombo Mountains in the east during the second half of the nineteenth century.

- The Bakgatla (Pedi) chiefdom in the Steelpoort Valley rose to prominence under Thulare during the early 1800's and was later ruled by Sekwati and Sekhukune from the village of Tsjate in the Leolo Mountains. The Pedi maintained an extended sphere of influence across the Limpopo and Mpumalanga Provinces during the nineteenth century.
- The Ndzundza-Ndebele established settlements at the foot of the Bothasberge (Kwa Maza and Esikhunjini) in the 1700's and lived at Erholweni from AD1839 to AD1883 where the Ndzundza-Ndebele's sphere of influence became known as KoNomthjarhelo which stretched across the Steenkampsberge.
- The Bakopa lived at Maleoskop (AD1840 to AD1864) where they were massacred by the Swazi while the Bantwane live in the greater Groblersdal and Marble Hall areas.
- Corbelled stone huts which are associated with ancestors of the Sotho on Tafelkop near Davel which date from the AD1700's into the nineteenth century.
- Stone walled settlements spread out along the eastern edge of the Groot Dwarsriver Valley served as the early abode for smaller clans such as the Choma and Phetla communities which date from the nineteenth century.

### **5.3 The Historical Period**

Historical towns closest to the new proposed residential development include Witbank and Middelburg. The Botshabelo Nature Reserve also contains the surviving buildings of the Berlin Missionary Station and other historical structures which are located near some of the upper tributaries and catchment of the Keeromspruit.

Witbank came into being as the railway line between Pretoria and Lourenço Marques which was built in 1894 passed close to where Witbank is located today. The first Europeans who came to the area observed the abundance of coal, which was evident on the surface or in the beds of streams. A stage post for wagons close to a large outcrop of whitish stones (a 'white ridge') gave the town its name. Witbank was established in 1903 on a farm known as Swartbos which belonged to Jacob Taljaard.

Middelburg is one of the oldest towns that were established by the Voortrekkers in the previous Transvaal. The town was established on the farms of Klipfontein and Keerom on the banks of the Klein Olifants River in 1859. It is generally accepted that Middelburg's name is derived from the fact that the Transvaal Republic established the town midway between Pretoria and Lydenburg.

The choice for Middelburg's location was not well accepted by the inhabitants and it was moved to the farm Sterkfontein. Here, a town was established and named Nasaret (Nazareth). However, the name did not appeal to the local community and its original name was reinstated. Middelburg temporary served as the seat of the Transvaal Republic after the siege of Pretoria during the Second Anglo Boer War.

Today Middelburg and Witbank are important centres where coal is mined and transported to Richards Bay from where it is exported all over the world. The 20<sup>th</sup> century also saw the introduction of large-scale irrigation and dry land farming on the Eastern Highveld. Today the economic activities of the area include diamond and coal mining, light and heavy industries as well as steel and vanadium operations.

The Berlin Missionary Station called Botshabelo was established in 1865. The term 'botshabelo' means 'the place of refuse' and refers to the fact that the mission station was established by the Reverent Alexander Merensky as a haven

for Bapedi refugees who had converted to Christianity and who had fled from the Bapedi chief Sekhukhune in the Steelpoort Valley.

Besides a school and a church Merensky and his parishioners also built a German styled fort which was initially called Fort Wilhelm for the Prussian king William I. The fort is a good example of Sotho stone work which fell into disrepair by 1960. It was presented to the Simon van Der Stel Foundation for restoration. Most of the funds for the restoration works were provided by Hans Merensky, well-known geologist who was born to Alexander Merensky and his wife at Botshabelo in 1871.

The fort was renamed Merenky and proclaimed a national monument in 1962.

A second church which was consecrated in October 1873 was for many years the largest church building in the Transvaal. Both this church and the first temporary place of worship still stand. The following developments also occurred, a school for children of converts was established in 1871; a training school for catechists and evangelists in 1878; a teacher training college in 1906 and a secondary school with a hostel in 1940.

These schools and training facilities were closed down in 1969 in terms of the Nationalist Party's apartheid policy.

A Ndebele village is situated on the south side of the Keeromspruit and is called Botshabelo Historical Village. Its inhabitants are mainly descendants of the early refugees who sheltered at Botshabelo.

#### **5.4 A coal mining heritage**

Coal mining on the Eastern Highveld is now older than one century and has become the most important coal mining region in South Africa. Whilst millions of tons of high-grade coal are annually exported overseas more than 80% of the

country's electricity is generated on low-grade coal in Eskom's power stations such as Duvha, Matla and Arnot situated near coalmines on the Eastern Highveld.

The earliest use of coal (charcoal) in South Africa was during the Iron Age (300-1880AD) when metal workers used charcoal, iron and copper ores and fluxes (quartzite stone and bone) to smelt iron and copper in clay furnaces.

Colonists are said to have discovered coal in the French Hoek Valley near Stellenbosch in the Cape Province in 1699. The first reported discovery of coal in the interior of South Africa was in the mid-1830 when coal was mined in Kwa Zulu/Natal.

The first exploitation for coal was probably in Kwa Zulu/Natal as documentary evidence refers to a wagon load of coal brought to Pietermaritzburg to be sold in 1842. In 1860 the coal trade started in Dundee when a certain Pieter Smith charged ten shillings for a load of coal dug by the buyer from a coal outcrop in a stream. In 1864 a coal mine was opened in Molteno. The explorer, Thomas Baines mentioned that farmers worked coal deposits in the neighbourhood of Bethal (Transvaal) in 1868. Until the discovery of diamonds in 1867 and gold on the Witwatersrand in 1886, coal mining only satisfied a very small domestic demand.

With the discovery of gold in the Southern Transvaal and the development of the gold mining industry around Johannesburg came the exploitation of the Boksburg-Spring coal fields, which is now largely worked out. By 1899, at least four collieries were operating in the Middelburg-Witbank district, also supplying the gold mining industry. At this time coal mining also has started in Vereeniging. The Natal Collieries importance was boosted by the need to find an alternative for imported Welsh anthracite used by the Natal Government Railways.

By 1920 the output of all operating colliers in South Africa attained an annual figure of 9,5million tonnes. Total in-situ reserves were estimated to be 23 billion tonnes in Witbank-Springs, Natal and Vereeniging. The total in situ reserves today are calculated to be 121 billion tonnes. The largest consumers of coal are Sasol, Iscor and Eskom.

## **5.5 A vernacular stone architectural heritage**

A unique stone architectural heritage was established in the Eastern Highveld from the second half of the 19<sup>th</sup> century well into the early 20<sup>th</sup> century. During this time period stone was used to build farmsteads and dwellings, both in urban and in rural areas. Although a contemporary stone architecture also existed in the Karoo and in the Eastern Free State Province of South Africa a wider variety of stone types were used in the Eastern Highveld. These included sandstone, ferricrete ('oukclip'), dolerite ('bloukclip'), granite, shale and slate.

The origins of a vernacular stone architecture in the Eastern Highveld may be ascribed to various reasons of which the ecological characteristics of the region may be the most important. Whilst this region is generally devoid of any natural trees which could be used as timber in the construction of farmsteads, outbuildings, cattle enclosures and other structures, the scarcity of fire wood also prevented the manufacture of baked clay bricks. Consequently stone served as the most important building material in the Eastern Highveld.

LIA Sotho, Pedi, Ndebele and Swazi communities contributed to the Eastern Highveld's stone walled architecture. The tradition set by these groups influenced settlers from Natal and the Cape Colony to utilize the same resources to construct dwellings and shelters. Farmers from Scottish, Irish, Dutch, German and Scandinavian descend settled and farmed in the Eastern Highveld. They brought the knowledge of stone masonry from Europe. This compensated for the lack of fire wood on the eastern Highveld which was necessary to bake clay bricks.



## **5.6 Farmsteads and graveyards from the recent past**

Farm homesteads with outbuildings that date from the more recent past occur throughout the Eastern Highveld. Many of these farm homesteads hold little historical significance. However, buildings and other infrastructure which are part of these farm homesteads may be older than sixty years or may approach this age and therefore are protected by Section 34 of the National Heritage Resources Act (No 25 of 1999).

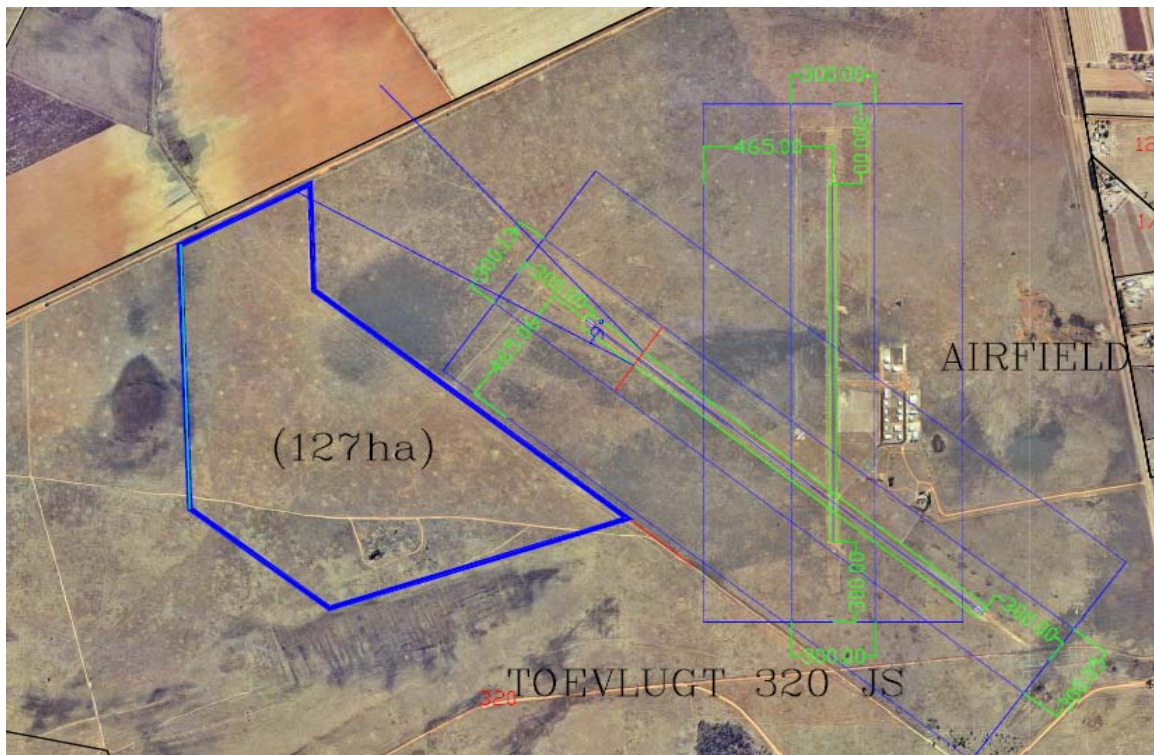
Many of these farm homesteads are associated with formal and informal graveyards. Dwellings which have been used by farm labourers and which have disintegrated over time are in many instances associated with informal graves and sometimes with informal cemeteries. These informal graves and cemeteries may occur in the most unexpected places, such as in maize fields where they have not been ploughed under over time.

## 6 THE PHASE I HERITAGE IMPACT ASSESSMENT

### 6.1 Types and ranges of heritage resources

The Phase I HIA study for the proposed new residential development revealed none of the types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999).

The Phase I HIA study is now briefly discussed and illustrated with photographs.



**Figure 2- The proposed residential development on 137 hectares of land in the far northern corner of the Botshabelo Nature Reserve on the farm Toevlugt 320JS north of Middelburg in the Mpumalanga Province (Middelburg 2529DA; 1: 50 000 topographical map) (Pretoria [2528]: 1: 250 000).**

**No heritage resources of significance were observed on this piece of land (above).**



**Figures 3 & 4- The proposed residential area is a level piece of land which is covered with sandy soil and tall grass. The only conspicuous vegetation includes a clump of wattle trees near its southern border (above and below).**





**Figure 5- A single stone tool manufactured from quartzite was noticed in the Project Area. It occurs out of an archaeological context and may have been brought into the area by hunter-gatherers, probably during the Middle Stone Age (200 000 years to 22 000 years ago).**

## **6.2 Summary**

The Phase I HIA study for the proposed new residential development did not reveal the significance presence of any of the types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999) in the Project Area.

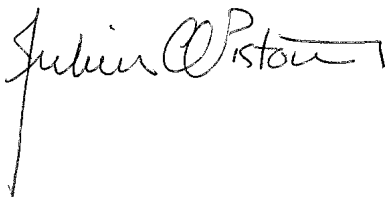
## **7 CONCLUSION AND RECOMMENDATIONS**

The Phase I HIA study for the proposed new residential development did not reveal the significance presence of any of the types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999) in the Project Area.

The residential development occurs at a considerable distance from the Botshabelo cultural village and its associated infrastructure and therefore does not have a direct physical impact on this cultural landscape.

The residential development may have a positive influence on the Botshabelo cultural village as it may contribute to a renewed interest in this historical village and the nature reserve which may generate further positive spin-offs. These may include means of generating a reliable and sustainable income for the management, maintenance and development of the heritage and natural features of the nature reserve. This will benefit local and international tourists visiting Mpumalanga as well as the local economy.

The new residential development should perhaps consider historical events and architectural themes encapsulated in the Botshabelo cultural village such as the missionary station, colonial townscape and the indigenous architecture which may provide innovate and complimentary ideas to be incorporated in the new residential development.



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