

**Prepared for:**

**CLEAN STREAM ENVIRONMENTAL**

**A PHASE I HERITAGE IMPACT ASSESSMENT (HIA) STUDY  
FOR PORTION 22 OF THE FARM NAAUWPOORT 447JS IN  
EMALAHLENI (WITBANK) IN THE MPUMALANGA  
PROVINCE OF SOUTH AFRICA**

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## EXECUTIVE SUMMARY

This Phase I HIA study for the proposed new Ryno Ridge residential development on Portion 22 of the farm Naauwpoort 447JS near Emalaheni in the Mpumalanga Province of South Africa was done in accordance with Section 38 of the National Heritage Resources Act (No 25 of 1999).

The Phase I HIA study for the proposed new residential development revealed the following 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:

- a bucket-pump that was used to pump drinking water from a bore hole.

Remains which do not hold any cultural historical significance also occur in the Project Area, namely:

- Homesteads that date from the last few decades consisting of foundations for houses, middens and scatters of household debris such as glass ware and tin plate.
- Ruins of dwellings occupied until recently and associated with wrecks of vehicle and other modern household rubbish.

All these remains were geo-referenced and mapped and their levels of significance determined (Figure 2; Table 1).

The bucket-pump is a piece of equipment which qualifies as a heritage artefact as it approaches sixty years in age. It may even be older. This artefact is also significant because:

- it is not in general use any longer and is becoming a scarce and rare piece of equipment;
- it demonstrates a certain level of technological achievement during a specific period in the past; and
- it can be used (e.g. in a museum) to demonstrate aspects of life ways of the past.

The bucket-pump will be affected (removed or destroyed) by the proposed new residential development project. It is recommended that this artefact be removed and donated to a

museum such as the Middelburg Museum or that it be incorporated somewhere in the new development, e.g. at the entrance gates or in a garden at the entrance to Reyno Ridge.

The homesteads which date from the last few decades as well as the ruins of the abandoned houses will be destroyed by the proposed new residential development. However, these remains hold no significance. These remains can subsequently be affected (destroyed, altered, removed) by the new development.

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## **1 INTRODUCTION**

This document contains the report on a Phase I Heritage Impact Assessment (HIA) study done for the proposed new Reyno Ridge residential development on Portion 22 of the farm Naauwpoort 447JS in Emalahleni (Witbank) 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 (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**

The developer intends to establish a new upper class residential development called Reyno Ridge on Portion 22 of the farm Naauwpoort 447JS in Emalahleni in the Mpumalanga Province of South Africa. In order to comply with legislation, the developer requires knowledge of the presence, relevance and the significance of any heritage resources that may occur in or near the proposed new residential area (hereafter referred to as the project area).

Clean Stream Environmental therefore 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 or near the project area and, if so, what the nature, the extent and the significance of these remains are;
- to determine whether such heritage resources will be affected by the proposed new residential development; and
- to evaluate what appropriate mitigation measures could be taken if any of the types and ranges of heritage resources will be affected by the proposed new residential development.



### **3 METHODOLOGY**

This Phase I HIA study was conducted by means of

- surveying the proposed new residential (project) area 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; and
- synthesising all information obtained from the data bases, fieldwork, maps and literature survey.

#### **3.1 Fieldwork**

The proposed new Reyno Ridge residential development on Portion 22 of the farm Naauwpoort 447JS was surveyed on foot.

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

Databases kept and maintained at institutions such as the Provincial Heritage Resources Agency 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 on the Eastern Highveld near the proposed new residential area (see 'Select Bibliography', Part 9).

Literature relating to the pre-historical and the historical unfolding of the Eastern Highveld where the new residential development will take place 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 (see Parts 5 & 9).

In addition, the Project Area was studied by means of the 1:50 000 topographical maps on which the Project Area appears (2529CC Witbank, 1: 50 000 topographical map)

### **3.3 Mapping heritage resources**

All the heritage resources found in the Project Area were geo-referenced using a GPS instrument and thereafter mapped in Arch View (Figure 2; Table 1).

### **3.4 Assumptions and limitations**

It must be pointed out that heritage resources can be found in the most unexpected places. It must also be borne in mind that surveys may not detect all the heritage resources in a given project area. While some remains may simply be missed during surveys (observations), others may occur below the surface of the earth and may only be exposed once development commences.

### **3.5 Some remarks on terminology**

Terms that may be used in this report are briefly outlined in Box 2.

## Box 2- Terminology relevant to this report

The Heritage Impact Assessment (HIA) referred to in the title of this report includes a survey of heritage resources as outlined in the National Heritage Resources Act , Act 25 of 1999 (see Box 1).

Heritage 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.

The term 'pre-historic' 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 South Shaft 3 Project Area, to the first appearance or use of 'modern' Western writing brought to the Eastern Transvaal Highveld by the first colonists who settled in this area after c. 1839.

The term 'relatively 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 may, however, be almost sixty years old and these may qualify as heritage resources in the near future.

It is not always possible, based on observations alone, to distinguish clearly between archaeological remains and historical remains, or between historical remains and remains from the relatively recent past. Although certain criteria may help to make this distinction possible, these criteria are not always present, or, when they are present, they are not always clear enough to interpret with great accuracy. Criteria such as square floor plans (a historical feature) may serve as a guideline. However, circular and square floors may occur together on the same site.

The term 'sensitive remains' is sometimes used to distinguish graves and cemeteries, as well as ideologically significant features such as holy mountains, initiation sites or other sacred places. Graves in particular are not necessarily heritage resources if they date from the recent past and do not have headstones that are older than sixty years. The distinction between 'formal' and 'informal' graves in most instances also refers to graveyards that were used by colonists and by indigenous people. This distinction may be important, as different cultural groups may uphold different traditions and values with regard to their ancestors. These values have to be recognised and honoured whenever graveyards are exhumed and relocated.

The term '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).

The term '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.

Mining heritage sites refer to old, abandoned mining activities, underground or on the surface, which may date from the pre-historic, historical or the relatively recent past.

The term 'mining area' ('critical area') refers to the area where the developer wants to focus development activities. The term 'peripheral area' refers to the area that will not be affected by the proposed new development activities.

The 'South Shaft 3 Project Area' refers to both the mining and peripheral areas.

Phase I studies refer to surveys using various sources of data in order to establish the presence of all possible types of heritage resources in any given area.

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 bodies and the relocation of graveyards, etc. Phase II work may require the input of specialists and requires the cooperation and approval of SAHRA.

## **4 THE PROJECT AREA**

### **4.1 Location**

The Project Area covers Portion 22 of the farm Naauwpoort 447JS in Emalahleni (Witbank) in the Mpumalanga Province of South Africa (2529CC Witbank, 1:50 000 topographical map). The Project Area therefore is located on the Eastern Highveld of Mpumalanga – a region which was occupied by humans from an early period (Figures 1 & 2).

### **4.2 The proposed new residential development**

The proposed new Reyno Ridge residential development will take place on approximately 45 hectares of land and will consist of an upper class residential area in the southern parts of Emahlaleni.

The Project Area is a square piece of land sloping from the north to the south into a gentle, shallow valley and then rising again to the southern border of the Project Area. The Project Area also slopes downwards from the west to the east providing a magnificent view across the Witbank Dam laying in the south-east (Figure 1). The northern higher part of the Project Area is marked by a ridge which is more pronounced in the north-eastern part of the Project Area.

Surface water running from the west towards the east is blocked near the eastern border of the Project Area by a soil wall.

The surface of the Project Area is covered with grass veldt.



**Figure 1- The Project Area where the proposed new Reyno Ridge residential development will occur on the farm Naauwpoort 447JS in Emalahleni in the Mpumalanga Province of South Africa (above)..**

## **5 CONTEXTUALISING THE PROJECT AREA**

The pre-historical and historical context of the Project Area is briefly reviewed in order to help to determine the significance of any heritage resources that may occur in the proposed new residential area. Contextual evidence that serves as background to the Project Area 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.

### **5.1 Stone Age 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 (covers the period from 2.5 million years ago to 250 000 years ago), the Middle Stone Age (refers to the period from 250 000 years ago to 22 000 years ago) and the Late Stone Age (the period from 22 000 years ago to 200 years ago).

The Later Stone Age is also associated with rock paintings and engravings which were done by the San, Khoi Khoi and in more recent times by Iron Age farmers.

Heritage surveys up to now have recorded few outstanding Stone Age sites, rock paintings and engravings in the Eastern Highveld - primarily as a result of limited extensive archaeological surveys.

Stone tools have been recorded around some of the pans which occur on the Eastern Highveld.

## **5.2 The earliest farmers**

The Iron Age is associated with the first agro-pastoralists 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 (covers the 1<sup>st</sup> millennium AD) and the Later Iron Age (covers the first 880 years of the 2<sup>nd</sup> millennium AD).

The Eastern Highveld has probably not been occupied by Early Iron Age communities but was occupied by Late Iron Age farming communities such as the Sotho, Swazi and Ndebele who established settlement complexes that were built with stone walls. It seems as if these sites are more common towards the eastern perimeters of the Eastern Highveld. Small, inconspicuous stone walled sites have been observed along the Olifants River but are an exception and not the rule.

## **5.3 The colonists and the historical period**

Historical towns closest to the new proposed residential area include Witbank and Middelburg.

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.

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

Coal mining on the Eastern Highveld is older than one century. This region has become the most important coal mining centre 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.

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.

By 1920 the output of all operating collieries 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 largest consumers of coal are Sasol, Iscor (Mittal) and Eskom.

## **5.5 A vernacular stone architecture**

A unique stone architectural heritage was established in the Eastern Highveld during 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 on the Eastern Highveld. These included sandstone, ferricrete ('ouklip'), dolerite ('blouklip'), 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. The Eastern Highveld is generally devoid of any natural trees which could be used as timber in the construction of farmsteads, outbuildings, cattle enclosures and other structures while the scarcity of fire wood also prevented the manufacture (firing) of baked clay bricks. Stone therefore served as the most important building material on the Eastern Highveld.

Late Iron Age communities who contributed to the Eastern Highveld's stone walled architecture were the Sotho, Ndebele and Swazi. The tradition set by these indigenous groups may have influenced the first settlers from Natal and the Cape Colony to utilize the same resources that their predecessors. Many farmers from Scottish, Irish, Dutch, German and Scandinavian descent, settled and farmed on the Eastern Highveld. They brought the knowledge of stone masonry from Europe which compensated for the lack of fire-wood which was necessary to fire clay bricks.

## **5.6 Farm homesteads 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.

All, structures and buildings older than sixty years 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 the following 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:

- a bucket-pump that was used to pump drinking water from a bore hole.

Remains which do not hold any cultural historical significance also occur in the Project Area.

The Phase I HIA study is now briefly discussed and illuminated with photographs. Most of the remains were geo-referenced and mapped and their levels of significance determined (Figure 2; Table 1).

#### **6.1.1 The bucket-pump**

A bucket-pump which seems to be in a relative good condition is standing in the valley near the central part of the project area. This piece of equipment qualifies as a heritage artefact as it may be approaching sixty years in age. This piece of equipment may even be older than sixty years (Figures 2 & 3; Table 1). This artefact is also significant because:

- it is not in general use any longer and is becoming a scarce and rare piece of equipment;
- it demonstrates a certain level of technological achievement during a specific period in the past; and
- it can be used (e.g. in a museum) to demonstrate aspects of life ways of the past.

**Figure 2- The proposed new residential development Reyno Ridge on Portion 22 of the farm Naauwpoort 447JS in Emalahleni in the Mpumalanga Province of South Africa. Only a bucket-pump which has historical significance occurs in the Project Area**



**Figure 3- A bucket-pump in the proposed new Reyno Ridge residential area has historical significance (above).**

## **6.2 Remains with no cultural historical significance**

Remains which hold no cultural historical significance also occur in the Project Area, namely:

- Household remains that date from the last few decades consisting of foundations for houses, middens and scatters of household debris such as glass ware and tin plate.
- Ruins of dwellings occupied until recently and associated with wrecks of vehicle and other modern household rubbish.

### 6.2.1 Homesteads from the last few decades

Small homesteads were located in the Project Area some time in the past. These homesteads consisted of clusters of dwellings that were grouped together. Each cluster may have contained as many as three to six or seven dwellings. These dwellings were constructed with stone and clay foundations on which clay and/or brick walls were constructed. These houses were probably covered with corrugated iron roofs.

All the residences were square or rectangular. They are associated with middens composed of ash, fragments of coal and modern household debris (Figures 2, 4 & 5; Table 1).



**Figure 4- Remains of a dwelling dating from the last few decades. These remains hold no significance (above).**





**Figure 5- More remains of a dwelling dating from the last few decades. These remains hold no significance (above).**

### **6.2.2 Ruins of abandoned dwellings**

The ruins of houses that were recently abandoned occur near the south-eastern corner of the project area. These remains are associated with modern household rubbish and were not mapped.

These remains have no cultural historical significance.



<b>Homestead 01: features</b>	<b>Coordinates</b>	<b>Significance</b>
Midden	25° 54.590'; 29° 16.489'	LOW
Dwelling	25° 54.590'; 29° 16.492'	LOW
Midden	25° 54.585'; 29° 16.488'	LOW
Dwelling	25° 54.582'; 29° 16.489'	LOW
Pit (toilet?)	25° 54.577'; 29° 16.488'	LOW
Dwelling	25° 54.577'; 29° 16.490'	LOW
Three stones	25° 54.573'; 29° 16.486'	LOW
Midden	25° 54.572'; 29° 16.481'	LOW
<b>Homestead 02: features</b>		
Midden	25° 54.843'; 29° 16.509'	LOW
Dwelling	25° 54.857'; 29° 16.507'	LOW
Heap of soil (dwelling?)	25° 54.856'; 29° 16.503'	LOW
Dwelling	25° 54.843'; 29° 16.493'	LOW
Dwelling	25° 54.829'; 29° 16.490'	LOW
<b>Homestead 03: features</b>		
<b>Dwelling</b>	25° 54.676'; 29° 16.446'	LOW
<b>Bucket-pump</b>		
Bucket-pump	25° 54.747'; 29° 16.518'	<b>HIGH</b>

**Table 1- Coordinates for the bucket-pump and remains of households that hold no significance (above).**

### **6.3 Impact on the heritage resources**

#### **6.3.1 The bucket-pump**

The bucket-pump will be affected (removed or destroyed) by the proposed new residential development project.

It is recommended that the bucket-pump be removed and donated to a museum such as the Middelburg Museum or that it be incorporated somewhere in the new development, e.g. at the entrance gates or in a garden at the entrance to Reyno Ridge.

### **6.3.2 Impact on the remains with no significance**

The homesteads which date from the last few decades and the ruins of the abandoned settlements will be destroyed by the proposed new residential development. However, these remains hold no significance and can subsequently be affected (destroyed, altered, removed) by the new development.

## 8 CONCLUSION AND RECOMMENDATIONS

The Phase I HIA study for the proposed new residential development revealed the following 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:

- a bucket-pump that was used to pump drinking water from a bore hole.

Remains which do not hold any cultural historical significance also occur in the Project Area, namely:

- Homesteads that date from the last few decades consisting of foundations for houses, middens and scatters of household debris such as glass ware and tin plate.
- Ruins of dwellings occupied until recently and associated with wrecks of vehicle and other modern household rubbish.

All these remains were geo-referenced and mapped and their levels of significance determined (Figure 2; Table 1).

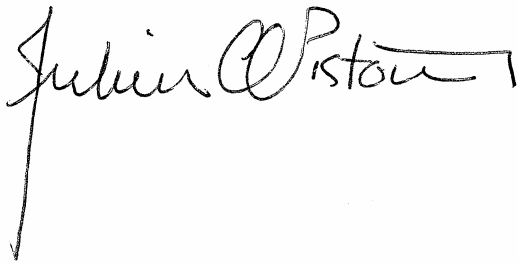
The bucket-pump is a piece of equipment which qualifies as a heritage artefact as it approaches sixty years in age or may even be older. This artefact is also significant because:

- it is not in general use any longer and is becoming a scarce and rare piece of equipment;
- it demonstrates a certain level of technological achievement during a specific period in the past; and
- it can be used (e.g. in a museum) to demonstrate aspects of life ways of the past.

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The homesteads which date from the last few decades as well as the ruins of the abandoned houses will be destroyed by the proposed new residential development. However, these remains hold no significance. These remains can subsequently be affected (destroyed, altered, removed) by the new development.

A handwritten signature in black ink, reading "Julius CC Pistorius". The signature is written in a cursive style with a long vertical line extending downwards from the end of the name.

**DR JULIUS CC PISTORIUS**  
**Archaeologist &**  
**Heritage Management Consultant**

## 9 SELECT BIBLIOGRAPHY

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