



Archaetnos Culture & Cultural
Resource Consultants
BK 98 09854/23

**A REPORT ON A CULTURAL HERITAGE IMPACT ASSESSMENT FOR A
PROPOSED HOUSING DEVELOPMENT ON PORTIONS 72 AND 162 OF THE
FARM WATERKLOOF 305JQ, RUSTENBURG, NORTH WEST PROVINCE**

For:

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REPORT NO.: AE01709V

By:

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21 March 2017

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SUBMISSION OF REPORT

Please note that the South African Heritage Resources Agency (SAHRA) or one of its subsidiary bodies needs to comment on this report.

It is the client's responsibility to do the submission via the SAHRIS System on the SAHRA website.

Clients are advised not to proceed with any action before receiving the necessary comments from SAHRA.

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EXECUTIVE SUMMARY

Purpose:

Archaetnos cc was requested by Hydro Science to conduct a cultural heritage impact assessment (HIA) for a proposed housing development on portions 72 and 162 of the farm Waterkloof 305JQ. This is close to the town of Rustenburg in the North West Province.

Project description:

The development entails a residential township, including all basic services. This includes sewage, water, electricity, roads, houses and storm water drainage. The HIA forms part of the Basic Assessment start of the process.

Methodology:

The methodology for the study includes a survey of literature and a field survey. The latter was conducted according to generally accepted HIA practices and was aimed at locating all possible objects, sites and features of cultural significance in the area of proposed development.

If required, the location/position of any site was determined by means of a Global Positioning System (GPS), while photographs were also taken where needed. The survey was undertaken by doing a physical survey via off-road vehicle and on foot and covered as much as possible of the area to be studied. Certain factors, such as accessibility, density of vegetation, etc. may however influence the coverage.

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

Public consultation:

Public consultation was handled by Hydro Science. This is a full public participation process and is dealt with as per NEMA requirements.

Findings:

During the survey two sites of cultural heritage significance were identified. These are discussed and mitigation measures are proposed.

Recommendations:

- It is proposed that Site no. 1, the memorial, be relocated to a green zone within the development. The same goes for the nearby second memorial. This should preferably be at the location of the graves, Site no. 2.
- It would be sensible to add a small plaque with contextual information on the Wissekerke family.

- It is recommended that the graves at Site no. 2 be preserved in situ and that the memorial (Site no. 1) be placed at this location. If not possible, the graves may however be exhumed and relocated. Since the graves are younger than 60 years, only an undertaker needs to be involved and it should be done in accordance with the legislation indicated in this report.
- Should the graves be preserved in situ, a buffer zone of at least 20 m should be allowed and a cultural heritage management plan for the preservation of the site should be drafted.
- The proposed development may continue only after the mitigation measures indicated above had been implemented and approved by SAHRA.
- It should be noted that the subterranean presence of archaeological and/or historical sites, features or artifacts is always a distinct possibility. Due to the density of vegetation, it also is possible that some sites may only become known later on. Operating controls and monitoring should therefore be aimed at the possible unearthing of such features. Care should therefore be taken when development commences that if any of these are discovered, a qualified archaeologist be called in to investigate the occurrence.

CURRICULUM VITAE OF SPECIALIST: PROF ANTON CARL VAN VOLLENHOVEN

Tertiary education

- BA 1986, University of Pretoria
- BA (HONS) Archaeology 1988 (cum laude), University of Pretoria
- MA Archaeology 1992, University of Pretoria
- Post-Graduate Diploma in Museology 1993 (cum laude), University of Pretoria
- Diploma Tertiary Education 1993, University of Pretoria
- DPhil Archaeology 2001, University of Pretoria.
- MA Cultural History 1998 (cum laude), University of Stellenbosch
- Management Diploma 2007 (cum laude), Tshwane University of Technology
- DPhil History 2010, University of Stellenbosch

Employment history

- *1988-1991*: Fort Klapperkop Military Museum - Researcher
- *1991-1999*: National Cultural History Museum. Work as Archaeologist, as well as Curator/Manager of Pioneer Museum (1994-1997)
- *1999-2002*: City Council of Pretoria. Work as Curator: Fort Klapperkop Heritage Site and Acting Deputy Manager Museums and Heritage.
- *2002-2007*: City of Tshwane Metropolitan Municipality. Work as Deputy Manager Museums and Heritage.
- *August 2007* – present – Managing Director for Archætnos Archaeologists.
- *1988-2003*: Part-time lecturer in Archaeology at the University of Pretoria and a part-time lecturer on Cultural Resources Management in the Department of History at the University of Pretoria.
- *2014*: Part-time lecturer for the Honours degree in Museum Sciences in the Department of History and Heritage Studies at the University of Pretoria
- *2015*: Appointed extraordinary professor in history at the Mafikeng Campus of the Northwest University

Other

- Published 75 articles in scientific and popular journals on archaeology and history.
- Author and co-author of over 580 unpublished reports on cultural resources surveys and archaeological work. A list of reports can be viewed on www.archaetnos.co.za
- Published a book on the Military Fortifications of Pretoria.
- Contributed to a book on Mapungubwe.
- Delivered more than 50 papers and lectures at national and international conferences.
- Member of SAHRA Council for 2003 – 2006.
- Member of the South African Academy for Science and Art.
- Accredited professional member of Association for South African Professional Archaeologists.
- Accredited professional member of the South African Society for Cultural History (Chairperson 2006-2008; 2012-2014).
- Has been editor for the SA Journal of Cultural History 2002-2004.
- Member of the Provincial Heritage Resources Agency, Gauteng's Council.

- Member of Provincial Heritage Resources Agency, Gauteng's HIA adjudication committee (Chairperson 2012-2019).

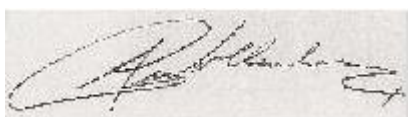
ASAPA Accreditation number: 166

SASCH Accreditation number: CH001

DECLARATION OF INDEPENDENCE

I, Anton Carl van Vollenhoven from Archaetnos, hereby declare that I am an independent specialist within the field of heritage management.

Signed:



Date: 21 March 2017

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LIST OF ACRONYMS:

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

1. INTRODUCTION

Archaetnos cc was requested by Hydro Science to conduct a cultural heritage impact assessment (HIA) for a proposed housing development on portions 72 and 162 of the farm Waterkloof 305JQ. This is close to the town of Rustenburg in the North West Province (Figure 1-3).

The development entails a residential township, including all basic services. This includes sewage, water, electricity, roads, houses and storm water drainage.

The HIA forms part of the Basic Assessment start of the process. The client indicated the area to be surveyed and the field work was confined thereto.



FIGURE 1: LOCATION OF RUSTENBURG IN THE NORTH WEST PROVINCE.

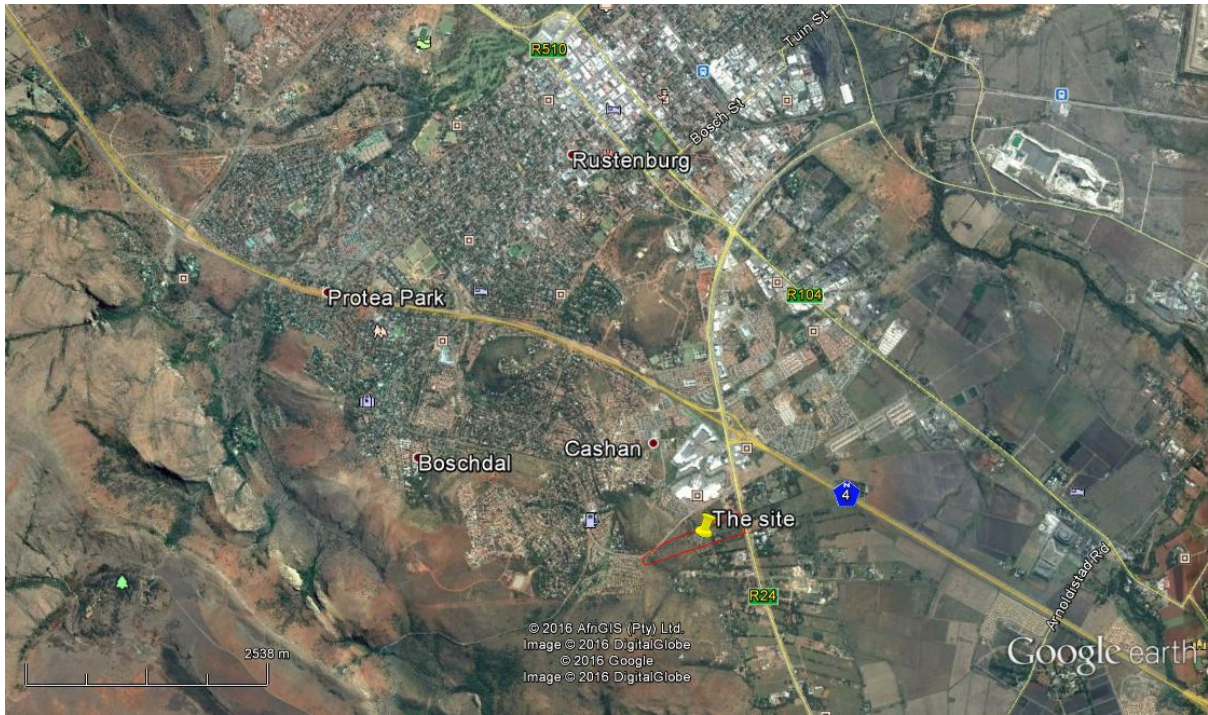


FIGURE 2: LOCATION OF THE SITE IN RUSTENBURG.

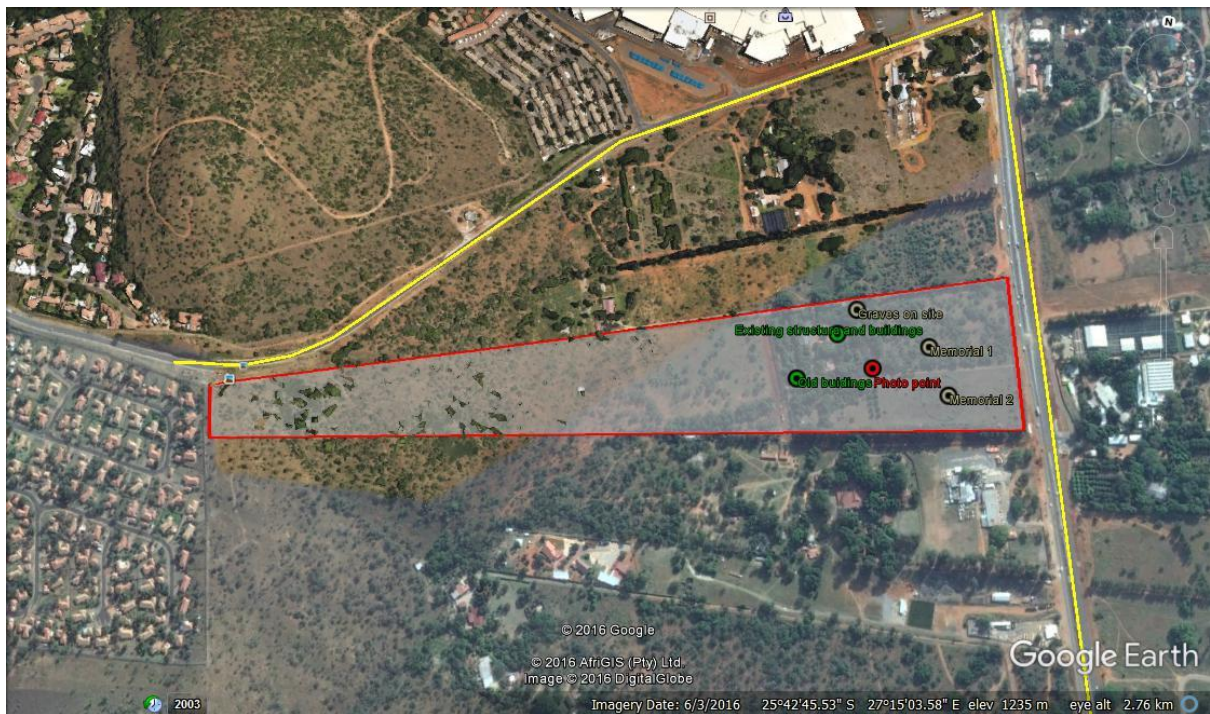


FIGURE 3: MAP INDICATING THE PROPOSED DEVELOPMENT (HYDRO SCIENCE).

2. PROJECT INFORMATION

2.1 LOCALITY

TABLE 1: SUMMARY OF GEOGRAPHICAL DETAILS

Size of farm and portions	18.9151 Ha
Magisterial district	Rustenburg Local Municipality and Bojanala District Municipality
1:50 000 map sheet number	2527CA
Central co-ordinate of the development	25° 42' 46.73" South; 27° 15' 05.42" East

2.2 APPLICANT AND EAP DETAILS

The applicant is Magic Plant Hire (Pty) Ltd and the EAP compiling the application is Hydro Science.

3. TERMS OF REFERENCE

The Terms of Reference for the survey were to:

1. Identify objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) located on the property (see Appendix A).
2. Document the found cultural heritage sites according to best practice standards for heritage related studies.
3. Study background information on the area to be developed.
4. Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value (see Appendix B).
5. Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions.
6. Recommend suitable mitigation measures to minimize possible negative impacts on the cultural resources by the proposed development.
7. Review applicable legislative requirements.

4. LEGISLATIVE REQUIREMENTS

Aspects concerning the conservation of cultural resources are dealt with mainly in two acts. The first of these are the National Heritage Resources Act (Act 25 of 1999), which deals with the cultural heritage of the Republic of South Africa. The second is the National Environmental Management Act (Act 107 of 1998), which inter alia deals with cultural heritage as part of the Environmental Impact Assessment process.

4.1 The National Heritage Resources Act

According to the above-mentioned act the following is protected as cultural heritage resources:

- a. Archaeological artifacts, structures and sites older than 100 years
- b. Ethnographic art objects (e.g. prehistoric rock art) and ethnography
- c. Objects of decorative and visual arts
- d. Military objects, structures and sites older than 75 years
- e. Historical objects, structures and sites older than 60 years
- f. Proclaimed heritage sites
- g. Grave yards and graves older than 60 years
- h. Meteorites and fossils
- i. Objects, structures and sites of scientific or technological value.

The national estate (see Appendix D) includes the following:

- a. Places, buildings, structures and equipment of cultural significance
- b. Places to which oral traditions are attached or which are associated with living heritage
- c. Historical settlements and townscapes
- d. Landscapes and features of cultural significance
- e. Geological sites of scientific or cultural importance
- f. Archaeological and paleontological importance
- g. Graves and burial grounds
- h. Sites of significance relating to the history of slavery
- i. Movable objects (e.g. archaeological, paleontological, meteorites, geological specimens, military, ethnographic, books etc.)

A Heritage Impact Assessment (HIA) is the process to be followed in order to determine whether any heritage resources are located within the area to be developed as well as the possible impact of the proposed development thereon. An Archaeological Impact Assessment (AIA) only looks at archaeological resources.

A Palaeontological Impact Assessment (PIA) is an assessment of palaeontological heritage. Palaeontology is a different field of study, and although also sometimes

required by the South African Heritage Resources Agency (SAHRA)¹, should be done by a professional palaeontologist.

The different phases during the HIA process are described in Appendix E. An HIA must be done under the following circumstances:

- a. The construction of a linear development (road, wall, power line, canal etc.) exceeding 300m in length
- b. The construction of a bridge or similar structure exceeding 50m in length
- c. Any development or other activity that will change the character of a site and exceed 5 000m² or involve three or more existing erven or subdivisions thereof
- d. Re-zoning of a site exceeding 10 000 m²
- e. Any other category provided for in the regulations of SAHRA or a provincial heritage authority

Structures

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

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

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

Archaeology, palaeontology and meteorites

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

- a. destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or paleontological site or any meteorite;
- b. destroy, damage, excavate, remove from its original position, collect or own any archaeological or paleontological material or object or any meteorite;
- c. trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or paleontological material or object, or any meteorite; or

¹ Please consult SAHRA to determine whether a PIA is necessary.

- d. bring onto or use at an archaeological or paleontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and paleontological material or objects, or use such equipment for the recovery of meteorites.
- e. alter or demolish any structure or part of a structure which is older than 60 years as protected.

The above mentioned may only be disturbed or moved by an archaeologist, after receiving a permit from the South African Heritage Resources Agency (SAHRA). In order to demolish such a site or structure, a destruction permit from SAHRA will also be needed.

Human remains

Graves and burial grounds are divided into the following:

- a. ancestral graves
- b. royal graves and graves of traditional leaders
- c. graves of victims of conflict
- d. graves designated by the Minister
- e. historical graves and cemeteries
- f. human remains

In terms of Section 36(3) of the National Heritage Resources Act, no person may, without a permit issued by the relevant heritage resources authority:

- a. destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;
- b. destroy, damage, alter, exhume or remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or
- c. bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation, or any equipment which assists in the detection or recovery of metals.

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

Human remains that are less than 60 years old are subject to provisions of the Human Tissue Act (Act 65 of 1983) and to local regulations. Exhumation of graves must conform to the standards set out in the **Ordinance on Excavations (Ordinance no. 12 of 1980)** (replacing the old Transvaal Ordinance no. 7 of 1925).

Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province and local police. Furthermore, permission must also be gained from the various

landowners (i.e. where the graves are located and where they are to be relocated) before exhumation can take place.

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

4.2 The National Environmental Management Act

This act (Act 107 of 1998) states that a survey and evaluation of cultural resources must be done in areas where development projects, that will change the face of the environment, will be undertaken. The impact of the development on these resources should be determined and proposals for the mitigation thereof are made.

Environmental management should also take the cultural and social needs of people into account. Any disturbance of landscapes and sites that constitute the nation's cultural heritage should be avoided as far as possible and where this is not possible the disturbance should be minimized and remedied.

4.3 The International Finance Corporations' Performance Standard for Cultural Heritage

This standard recognizes the importance of cultural heritage for current and future generations. It aims to ensure that clients protect cultural heritage in the course of their project activities.

This is done by clients abiding to the law and having heritage surveys done in order to identify and protect cultural heritage resources via field studies and the documentation of such resources. These need to be done by competent professionals (e.g. archaeologists and cultural historians). Any possible chance find, encountered during the project development, also needs to be managed by not disturbing it and by having it assessed by professionals.

Impacts on the cultural heritage should be minimized. This includes the possible maintenance of such sites in situ, or when not possible, the restoration of the functionality of the cultural heritage in a different location. When cultural historical and archaeological artifacts and structures need to be removed, this should be done by professionals and by abiding to the applicable legislation. The removal of cultural heritage resources may, however, only be considered if there are no technically or financially feasible alternatives. In considering the removal of cultural resources, it should be outweighed by the benefits of the overall project to the affected communities. Again professionals should carry out the work and adhere to the best available techniques.

Consultation with affected communities should be conducted. This entails that such communities should be granted access to their cultural heritage if this is applicable. Compensation for the loss of cultural heritage should only be given in extra-ordinary circumstances.

Critical cultural heritage may not be impacted on. Professionals should be used to advise on the assessment and protection thereof. Utilization of cultural heritage resources should always be done in consultation with the affected communities in order to be consistent with their customs and traditions and to come to agreements with relation to possible equitable sharing of benefits from commercialization.

5. METHODOLOGY

5.1 Survey of literature

A survey of literature was undertaken in order to obtain background information regarding the area. Sources consulted in this regard are indicated in the bibliography.

5.2 Reference to other specialist desktop studies

A Geotechnical report will be done as part of the project. It can further be indicated that the SAHRIS Palaeosensitivity map for the site indicates both orange (high) and grey regions (insignificant to zero) for this area. It means that at least a desktop study will be needed.

5.3 Public consultation and stakeholder engagement

Public consultation is handled by Hydro Science and the necessary report can be requested from them. This included engagement with property owners and owners of adjacent properties, public meetings and open days and engagement with interested and affected parties.

This is a full public participation process and is dealt with as per NEMA requirements. Site notices were placed on site and newspaper notices were placed in the Rustenburg Herald on 7 April 2017 (Figure 4).

5.4 Physical field survey

The survey was conducted according to generally accepted HIA practices and was aimed at locating all possible objects, sites and features of cultural significance in the area of proposed development. One regularly looks a bit wider than the demarcated area, as the surrounding context needs to be taken into consideration.

If required, the location/position of any site was determined by means of a Global Positioning System (GPS)², while photographs were also taken where needed. The survey was undertaken by doing a physical survey via off-road vehicle and on foot and covered as much as possible of the area to be studied (Figure 5).

² A Garmin Oregon 550 with an accuracy factor of a few meters.

Certain factors, such as accessibility, density of vegetation, etc. may however influence the coverage. In this instance, the under footing was extremely dense and the vegetation cover medium to extremely high. Accordingly, both the horizontal and the vertical archaeological visibility was influenced negatively. The survey took 5 hours to complete.

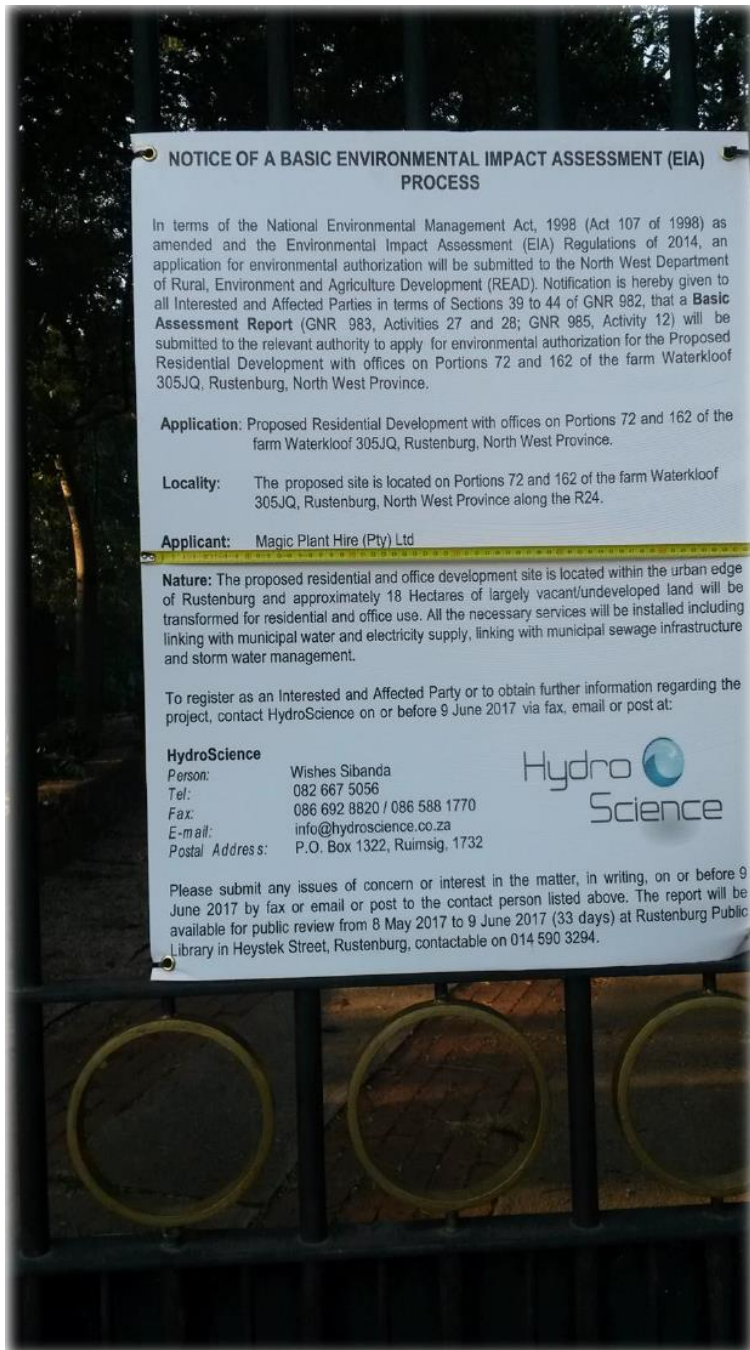


Figure 4: Site notice.

5.5 Documentation

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

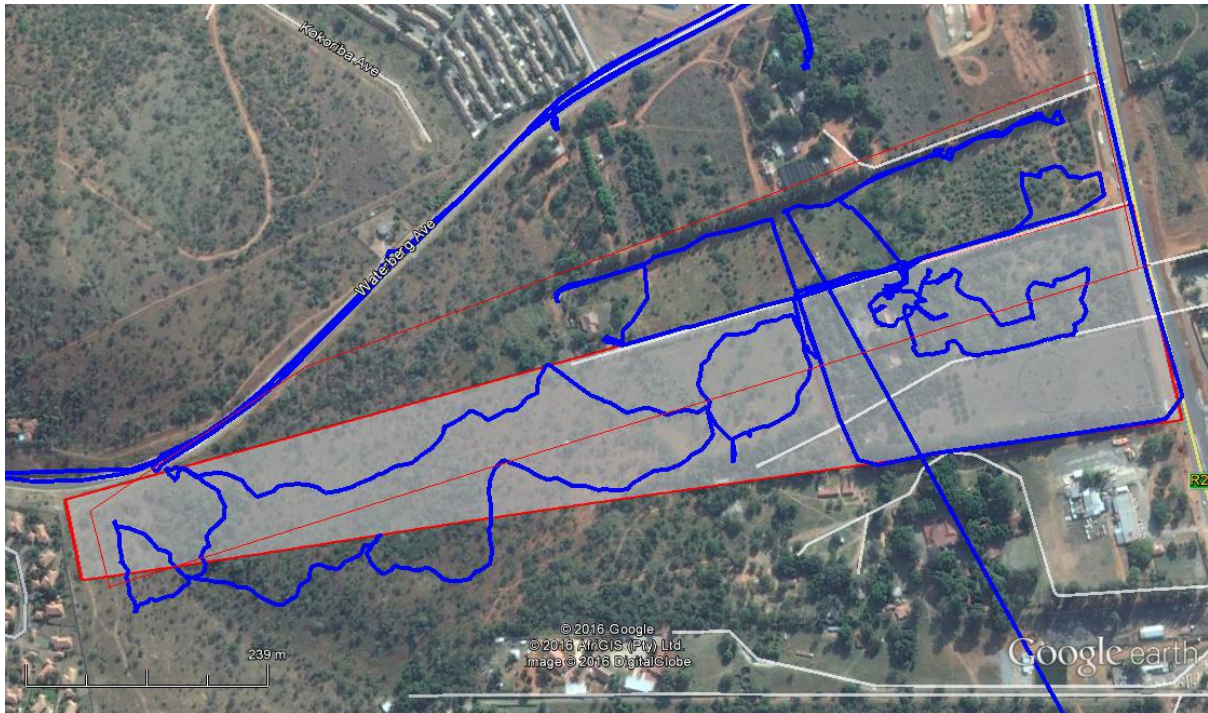


Figure 5: GPS track of the surveyed area. North reference is to the top.

5.6 Evaluation of Heritage sites

The evaluation of heritage sites is done by giving a field rating of each (see Appendix C) using the following criteria:

- The unique nature of a site
- The integrity of the archaeological deposit
- The wider historic, archaeological and geographic context of the site
- The location of the site in relation to other similar sites or features
- The depth of the archaeological deposit (when it can be determined or is known)
- The preservation condition of the site
- Uniqueness of the site and
- Potential to answer present research questions.

6. ASSUMPTIONS, GAPS, RESTRICTIONS, CONDITIONS AND LIMITATIONS

The following conditions and assumptions have a direct bearing on the survey and the resulting report:

1. Cultural Resources are all non-physical and physical man-made occurrences, as well as natural occurrences associated with human activity (Appendix A). These include all sites, structures and artifacts of importance, either individually or in groups, in the history, architecture and archaeology of human (cultural) development. Graves and cemeteries are included in this.
2. The significance of the sites, structures and artifacts is determined by means of their historical, social, aesthetic, technological and scientific value in relation to their uniqueness, condition of preservation and research potential. The various aspects are not mutually exclusive, and the evaluation of any site is done with reference to any number of these aspects.
3. Cultural significance is site-specific and relates to the content and context of the site. Sites regarded as having low cultural significance have already been recorded in full and require no further mitigation. Sites with medium cultural significance may or may not require mitigation depending on other factors such as the significance of impact on the site. Sites with a high cultural significance require further mitigation (see Appendix C).
4. The latitude and longitude of any archaeological or historical site or feature, is to be treated as sensitive information by the developer and should not be disclosed to members of the public.
5. All recommendations are made with full cognizance of the relevant legislation.
6. It has to be mentioned that it is almost impossible to locate all the cultural resources in a given area, as it will be very time consuming. Developers should however note that the report should make it clear how to handle any other finds that might occur.
7. In this particular case, large parts of the surveyed area have been disturbed by recent human interventions. Accordingly, these areas are seen as low risk areas to reveal heritage sites.
8. The vegetation cover in certain areas was extremely high and dense, especially in the north-western section, consisting mainly of impenetrable sickle bush. This of course had a negative effect on both the vertical and the horizontal archaeological visibility. It is, however, an indication of disturbance and therefore this area is not seen as being a high risk for containing archaeological sites.

7. DESCRIPTION OF THE SOCIO-ECONOMIC ENVIRONMENT

Rustenburg has a population of more than 450 000 people. The population is mostly represented by people between the ages of 21 and 35 years old. Gender structure is more males than females, with the former contributing to more than 55% of the population. The town has an unemployment rate of 30% and more than 50% of the people are employed by the mining sector.

8. DESCRIPTION OF THE PHYSICAL ENVIRONMENT

The area that was surveyed is mostly disturbed by recent human activities. This is especially true of the eastern side where houses and associated features are found. It includes a laid out garden (Figure 6), farm dams, three houses and workers dwellings as well as other outbuildings (Figure 7-12). None of these are older than 60 years. There also is an orchard in the central section of the surveyed area.

Higher up against the slope (west) the vegetation cover seems more natural although it is largely infested by sickle bush indicating an earlier disturbance. In the north-western section the sickle bush is impenetrable. Pioneer species such as weeds and grass dominate the vegetation cover (Figure 13-15). The grass varies between medium to extremely high grass (higher than head level).

The topography of the surveyed area is fairly flat on the eastern side. It then rises towards the west where some hillocks are located. The upper areas are also very rocky with no flattened areas, which could have been used for historical settlements. No natural watercourses were noted.



Figure 6: View of some of the features in the mentioned laid out garden.



Figure 7: The main house.



Figure 8: Second house on the property.



Figure 9: An outbuilding and other associated features.



Figure 10: Garages on the property.



Figure 11: House on the second property.



Figure 12: Workers dwelling on the edge of the surveyed area.



Figure 13: General view of disturbed vegetation in the surveyed area.



Figure 14: High, dense vegetation in the surveyed area.



Figure 15: Note the weeds in the surveyed area.

9. RESULTS OF PUBLIC CONSULTATION AND STAKEHOLDER ENGAGEMENT

Will be discussed in the Public Consultation report done by Hydro Science and if anything related to heritage is noted it will be included here.

10. HISTORICAL CONTEXT

Two sites of cultural heritage significance were located during the survey. A security guard on the premises, Mr N Dlamini, indicated that he is unaware of other sites. He has been working here for three years and knows the area reasonably well.

Some background information is given in order to place the surveyed area and the sites found in a historical context and to contextualize possible finds that could be unearthed during construction activities. Quite a large number of reports were written about the Rustenburg area and a few on the farm Waterkloof. These documents describe objects of very limited heritage value. It indicated various sites, mainly graves, but none of these are applicable to the current study (SAHRA's SAHRIS database; Archaetnos database).

10.1 Stone Age

The Stone Age is the period in human history when lithic material was mainly used to produce tools (Coertze & Coertze 1996: 293). In South Africa, the Stone Age can be divided into three periods. It is, however, important to note that dates are relative and only provide a broad framework for interpretation. The division for the Stone Age according to Korsman & Meyer (1999: 93-94) is as follows:

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

The closest known Stone Age site in the vicinity of the surveyed area is a rock art site to the northeast of Rustenburg, not close to this development. A number of Late Stone Age sites are also known from the Magaliesberg Mountains. Rock engravings are found to the south and east of Rustenburg. These date back to the Late Stone Age (Bergh 1999: 4-5).

No natural shelter exists on the property, but the Magaliesberg Mountain Range is only a few kilometers to the south of the site. The area probably provided good grazing and therefore it is possible that Stone Age people may have utilized the site for hunting purposes. One may therefore find Stone Age material out of context lying around, but since the site has been disturbed it will not have much significance.

10.2 Iron Age

The Iron Age is the name given to the period of human history when metal was mainly used to produce metal artifacts (Coertze & Coertze 1996: 346). In South Africa it can be divided in two separate Iron ages according to Van der Ryst & Meyer (1999: 96-98), namely:

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

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

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

Many Late Iron Age sites have been identified in the area around the towns of Rustenburg, Koster and Groot Marico as well as in the Waterberg Mountains, which excludes the surveyed area (Bergh 1999: 7-8). During earlier times, this part of the Northwest Province was inhabited by Tswana groups, namely the Fokeng and

Kwena. These people fled from Mzilikazi during the Difaquane, but later on returned (Bergh 1999: 9-11).

Since the environment has been totally disturbed, one would not expect to find large Iron Age sites. The close proximity to the Magaliesberg Mountain may, however, mean that people used the plains and therefore isolated pottery may well be present. Again it is possible that isolated decontextualized finds may be present, but these will not have significance.

10.3 Historical Age

The historical age began with the first recorded oral histories in the area. It includes the moving into the area of people that were literate. This era is often referred to as the Colonial era, or the recent past.

Due to factors such as population growth and a decrease in mortality rates, more people inhabited the country during the recent historical past. Therefore, much more cultural heritage resources from this era have been left on the landscape. It is important to note that all cultural resources older than 60 years are potentially regarded as part of the heritage and that detailed studies are required in order to determine whether these indeed have cultural significance. Factors to be considered include aesthetic, scientific, cultural and religious value of such resources.

Early travelers have moved through this part of the Northwest Province. This included Coenraad de Buys in 1821 and 1825, David Hume in 1825, Robert Scoon and William McLuckie in 1827 and 1829 and Dr. Robert Moffat and Reverend James Archbell in 1829 (Bergh 1999: 12, 117-119).

Hume again moved through this area in 1830 followed by the expedition of Dr. Andrew Smith in 1835 (Bergh 1999: 13, 120-121). Hume again moved through the area with Scoon in 1835. In 1836 William Cornwallis Harris visited the area. The well-known explorer Dr. David Livingston passed through this area in 1847 (Bergh 1999: 13, 119-122).

In 1837 the Voortrekkers also moved through the Swartruggens area (Bergh 1999: 11). During this year, a Voortrekker commando moved out against Mzilikazi and was engaged in a battle with his impi to the north of Swartruggens. The area surveyed was inhabited by white settlers as early as 1839 (Bergh 1999: 14-15).

The greater Magaliesberg and Rustenburg area was hotly contested during the Anglo-Boer War (1899-1902). British troops reached Rustenburg on 14 June 1900. Three battles occurred here during the War - the first at Buffelspoort on 3 December 1900, a further clash at Nooitgedacht on 13 December 1900 and third skirmish at Vlakfontein on 29 May 1901 (Bergh 1999: 51-52).

Historical structures, such as farm houses and infrastructure relating to these times, may be found in the surveyed area. It is also possible that graves associated with the above, may be present. Such structures were indeed identified close to the surveyed

area during previous studies (Archaetnos database). It needs to be noted that the former President Paul Kruger owned the farm Waterkloof during the mid 1800's (De Kock 1997: 6).

11. DISCUSSION OF SITES IDENTIFIED DURING THE SURVEY

As indicated, two sites of cultural importance were identified in the surveyed area. Both date to the Historical Age.

11.1 Site 1 – Memorials

GPS: 25° 42' 41.0" South; 27° 15' 16.7" East

This is a memorial to the former owners/ residents of the property. A second memorial was identified nearby.

It has the names of all four people together with their dates of birth and death, except for the latest owner who only died recently (Figure 16-18). These are:

Pieter Wissekerke 2 March 1906 – 29 August 1970

Edna Huberta Roberts Wissekerke 3 November 1907 – 9 February 1970

Linda Wissekerke 4 October 1938 – 1 May 1960

Pieter Wissekerke 8 April 1940

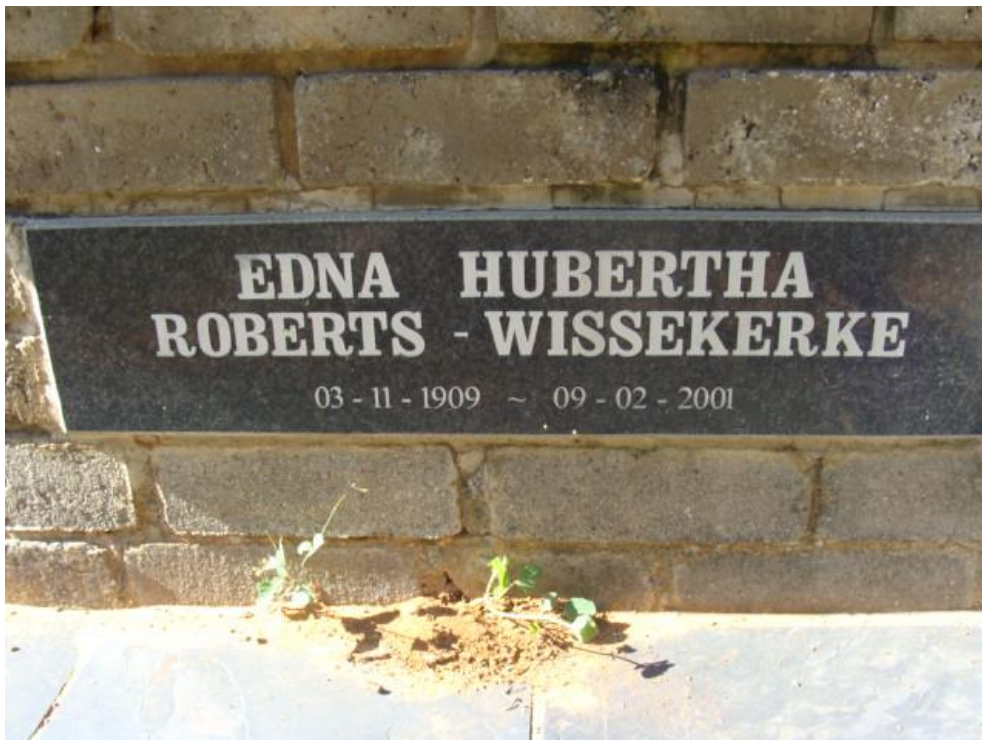


Figure 16: One of the names on the memorial.



Figure 17: Wissekerke memorial.



Figure 18: The second memorial.

Cultural significance Table:

A place is considered to be part of the national estate if it has cultural significance because of -	Applicable or not	Rating: 1 - Neglible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 - Medium-High/ 6 - High/ 7 - Very High
Its importance in the community or pattern of South Africa's history	Y	2 – L

Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	Y	3 - L-M
Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	N	
Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	N	
Its importance in exhibiting particular aesthetic characteristics valued by a community cultural group	N	
Its importance in demonstrating a high degree of creative or technical achievement at a particular period	N	
Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	Y	2 – L
Its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa	N	
Sites of significance relating to the history of slavery in South Africa	N	
Reasoned assessment of significance using appropriate indicators outlined above:		2 – Low

Integrity scale:

- 1 – Bad state of preservation, but no contextual information
- 2 – Bad state of preservation and includes contextual information
- 3 – Reasonable state of preservation, but no contextual information
- 4 – Reasonable state of preservation and includes contextual information
- 5 – Good state of preservation, but no contextual information
- 6 - Good state of preservation and includes contextual information
- 7 – Excellent state of preservation, but no contextual information
- 8 – Excellent state of preservation and includes contextual information

Field-rating = Cultural significance x Integrity
 = 2 (Low) x 6
 = 12

The field rating therefore is Local Grade IIIB. It may be mitigated and should be included in the heritage register.

It is proposed that the memorial be relocated to a green zone within the development. One may even add a plaque with contextual information on the Wissekerke family.

11.2 Site 2 – two family graves

GPS: 25° 42' 42.7" South; 27° 15' 20.8" East

The site consists of the two graves of Pieter Wissekerke (2 March 1906 – 29 August 1970) and Linda Wissekerke (4 October 1938 – 1 May 1960). Both are dressed with cement and granite (Figure 19). Both graves are younger than 60 years and are therefore not regarded as being heritage graves.



Figure 19: The two graves.

Cultural significance Table:

A place is considered to be part of the national estate if it has cultural significance	Applicable or not	Rating: 1 - Neglible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 -
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because of -		Medium-High/ 6 - High/ 7 - Very High
Its importance in the community or pattern of South Africa's history	N	
Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	Y	6 - H
Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	N	
Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	Y	2 - L
Its importance in exhibiting particular aesthetic characteristics valued by a community cultural group	N	
Its importance in demonstrating a high degree of creative or technical achievement at a particular period	N	
Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	Y	6 - H
Its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa	N	
Sites of significance relating to the history of slavery in South Africa	N	
Reasoned assessment of significance using appropriate indicators outlined above:		6 – High

Integrity scale:

- 1 – Bad state of preservation, but no contextual information
- 2 – Bad state of preservation and includes contextual information
- 3 – Reasonable state of preservation, but no contextual information
- 4 – Reasonable state of preservation and includes contextual information
- 5 – Good state of preservation, but no contextual information
- 6 - Good state of preservation and includes contextual information

- 7 – Excellent state of preservation, but no contextual information
- 8 – Excellent state of preservation and includes contextual information

Field-rating = Cultural significance x Integrity
= 6 (High) x 5
= 30

The field rating therefore is Local Grade IIIB. The site should be included in the heritage register and may be mitigated. Mitigation is subject to a permit application lodged with the relevant heritage authority.

Two possibilities exist. The first option would be to fence the graves in and have a management plan drafted for the sustainable preservation thereof. This should be written by a heritage expert. This usually is done when the graves are in no danger of being damaged, but where there will be a secondary impact due to the activities of the development.

The second option is to exhume the mortal remains and then to have it relocated. This usually is done when the graves are in the area to be directly affected by the development activities. For this, a specific procedure should be followed, which includes social consultation. For graves younger than 60 years, only an undertaker is needed. For those older than 60 years and unknown graves, an undertaker and archaeologist is needed. Permits should be obtained from the Burial Grounds and Graves unit of SAHRA. This procedure is quite lengthy and involves social consultation.

It is recommended that the graves be preserved in situ and that the memorial (Site 1) be placed at this location. If not possible, the graves may however be exhumed and relocated. Since the graves are younger than 60 years, only an undertaker needs to be involved and it should be done in accordance with the legislation indicated in this report.

12. CONCLUSION AND RECOMMENDATIONS

The survey of the indicated area was completed successfully. As indicated two sites of cultural heritage significance were identified within the proposed project area (Figure 20).

The following is recommended:

- It is proposed that Site no. 1, the memorial, be relocated to a green zone within the development. The same goes for the nearby second memorial found. This should preferably be at the location of the graves, Site no. 2.
- It would be sensible to add a small plaque with contextual information on the Wissekerke family.

- It is recommended that the graves at Site no. 2 be preserved in situ and that the memorial (Site no. 1) be placed at this location. If not possible, the graves may however be exhumed and relocated. Since the graves are younger than 60 years, only an undertaker needs to be involved and it should be done in accordance with the legislation indicated in this report.
- Should the graves be preserved in situ, a buffer zone of at least 20 m should be allowed and a cultural heritage management plan for the preservation of the site should be drafted.
- The proposed development may continue only after the mitigation measures indicated above had been implemented and approved by SAHRA.
- It should be noted that the subterranean presence of archaeological and/or historical sites, features or artifacts is always a distinct possibility. Due to the density of vegetation, it also is possible that some sites may only become known later on. Operating controls and monitoring should therefore be aimed at the possible unearthing of such features. Care should therefore be taken when development commences that if any of these are discovered, a qualified archaeologist be called in to investigate the occurrence.



Figure 20: Google Earth image indicating the location of the sites identified.

13. REFERENCES

Archaetnos database.

- Bergh, J.S. (red.). 1999. **Geskiedenisatlas van Suid-Afrika. Die vier noordelike provinsies.** Pretoria: J.L. van Schaik.
- Coertze, P.J. & Coertze, R.D. 1996. **Verklarende vakwoordeboek vir Antropologie en Argeologie.** Pretoria: R.D. Coertze.
- De Kock, W.J. 1997. **Paul Kruger (1825 – 1904).** Sunnyside: Business Print Centre.
- Dlamini, N. 2017.03. 16. Security guard. Personal communication.
- Huffman, T.N. 2007. **Handbook to the Iron Age: The Archaeology of Pre-Colonial Farming Societies in Southern Africa.** Scottsville: University of KwaZulu-Natal Press.
- International Finance Corporation. 2012. **Overview of performance standards on Environmental and Social Sustainability. Performance Standard 8, Cultural Heritage.** World Bank Group.
- Knudson, S.J. 1978. **Culture in retrospect.** Chicago: Rand McNally College Publishing Company.
- Korsman, S.A. & Meyer, A. 1999. Die Steentydperk en rotskuns. Bergh, J.S. (red.). **Geskiedenisatlas van Suid-Afrika. Die vier noordelike provinsies.** Pretoria: J.L. van Schaik.
- Republic of South Africa. 1980. **Ordinance on Excavations** (Ordinance no. 12 of 1980). The Government Printer: Pretoria.
- Republic of South Africa. 1983. **Human Tissue Act** (Act 65 of 1983). Pretoria: The Government Printer.
- Republic of South Africa. 1998. **National Environmental Management Act** (no 107 of 1998). Pretoria: The Government Printer.
- Republic of South Africa. 1999. **National Heritage Resources Act** (No 25 of 1999). Pretoria: the Government Printer.
- SAHRA's SAHRIS database.
- Van der Ryst, M.M. & Meyer, A. 1999. Die Ystertydperk. Bergh, J.S. (red.). **Geskiedenisatlas van Suid-Afrika. Die vier noordelike provinsies.** Pretoria: J.L. van Schaik.

APPENDIX A

DEFINITION OF TERMS:

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

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

Feature: A coincidental find of movable cultural objects.

Object: Artifact (cultural object).

(Also see Knudson 1978: 20).

APPENDIX B

DEFINITION/ STATEMENT OF HERITAGE SIGNIFICANCE:

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

APPENDIX C

SIGNIFICANCE AND FIELD RATING:

Cultural significance:

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

Heritage significance:

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

Field ratings:

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

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

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

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

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

APPENDIX D

PROTECTION OF HERITAGE RESOURCES:

Formal protection:

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

Protected areas - an area surrounding a heritage site

Provisional protection – for a maximum period of two years

Heritage registers – listing grades II and III

Heritage areas – areas with more than one heritage site included

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

General protection:

Objects protected by the laws of foreign states

Structures – older than 60 years

Archaeology, palaeontology and meteorites

Burial grounds and graves

Public monuments and memorials

APPENDIX E

HERITAGE IMPACT ASSESSMENT PHASES

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