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**PHASE 1 HIA REPORT FOR THE PROPOSED CLEARANCE
OF INDIGENOUS VEGETATION FOR THE DEVELOPMENT OF A NEW PIVOT POINT
AND POULTRY HOUSES ON A PORTION OF RIEKERSDAM 109JP
NEAR GROOT MARICO, NORTHWEST PROVINCE**

For:

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REPORT: **APAC022/25**

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SUMMARY

APelser Archaeological Consulting (APAC) was appointed by AB Enviro Consult to conduct a Phase 1 HIA for the proposed clearance of indigenous vegetation for the development of a new pivot point & poultry (chicken) houses on a portion of the farm Riekersdam 109JP. The study & development area is located close to Groot Marico in the Northwest Province.

Background research indicates that there are some cultural heritage sites and features in the larger geographical area within which the study area falls. Over and above an informal cemetery in the general study area, the assessment of the study area did not identify any sites, features or material of cultural heritage (archaeological and/or historical) origin or significance in the areas that will be affected by the proposed vegetation clearance and development actions. This report discusses the results of both the background research and physical assessment.

It is recommended that the proposed development actions be allowed to continue, taking into consideration the recommendations put forward at the end of the report.

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1. INTRODUCTION

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Background research indicates that there are some cultural heritage sites and features in the larger geographical area within which the study area falls. Over and above an informal cemetery in the general study area, the assessment of the study area did not identify any sites, features or material of cultural heritage (archaeological and/or historical) origin or significance in the areas that will be affected by the proposed vegetation clearance and development actions.

The client indicated the location and boundaries of the study area and the assessment focused on this portion.

2. TERMS OF REFERENCE

The Terms of Reference for the study was to:

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

3. LEGISLATIVE REQUIREMENTS

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

3.1. The National Heritage Resources Act

According to the 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 includes the following:

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

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

- a. The construction of a linear development (road, wall, power line, canal etc.) exceeding 300m in length
- b. The construction of a bridge or similar structure exceeding 50m in length
- c. Any development or other activity that will change the character of a site and exceed 5 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 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 the Act deals with archaeology, palaeontology and meteorites. The act states that no person may, without a permit issued by the responsible heritage resources authority (national or provincial)

- a. destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;
- b. destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;
- c. trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or palaeontological material or object, or any meteorite; or
- d. bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.
- e. alter or demolish any structure or part of a structure which is older than 60 years as protected.

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

Human remains

Graves and burial grounds are divided into the following:

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

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

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

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

Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province and local police. Furthermore, permission must also be gained from the various landowners (i.e. where the graves are located and where they are to be relocated to) before exhumation can take place.

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

3.2. The National Environmental Management Act

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

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

4. METHODOLOGY

4.1. Survey of literature

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

4.2. Field survey

The field assessment section of the study was conducted according to generally accepted HIA practices and aimed at locating all possible objects, sites and features of heritage significance in the area of the proposed development. The location/position of all sites, features and objects is determined by means of a Global Positioning System (GPS) where possible, while detail photographs are also taken where needed.

4.3. Oral histories

People from local communities are sometimes interviewed in order to obtain information relating to the surveyed area. It needs to be stated that this is not applicable under all circumstances. When applicable, the information is included in the text and referred to in the bibliography.

4.4. Documentation

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

5. DESCRIPTION OF THE AREA

The study area is situated on a portion of the original farm Riekersdam 109JP, near Groot Marico in the Northwest Province.

The topography of the study area is relatively flat and open, with little or no rocky ridges or outcrops present. Although there was dense vegetation in sections, visibility on the ground was for the most part good. The study area has been impacted fairly extensively in the recent past through agricultural activities including ploughing and crop growing. As a result of these activities if any sites of archaeological and/or historical significance did occur here in the past it would have been disturbed or destroyed as a result of recent activities to a large degree. The only site identified in the general area consists of an informal farm cemetery, but the site will not be negatively impacted by the intended vegetation clearance and proposed developments (pivot point and poultry houses). Existing pivot points and agricultural fields were also visited as part of the assessment.



Figure 1: General location of study area (Google Earth 2022).



Figure 2: Closer view of study area location showing the existing pivot points/circles & the area where vegetation clearance for the new pivot points/circles are proposed (Google Earth 2022).

6. DISCUSSION

The Stone Age is the period in human history when lithic (stone) material was mainly used to produce tools. In South Africa the Stone Age can be divided basically into three periods. It is however important to note that dates are relative and only provide a broad framework for interpretation. A basic sequence for the South African Stone Age (Lombard et.al 2012) is as follows:

Earlier Stone Age (ESA) up to 2 million – more than 200 000 years ago

Middle Stone Age (MSA) less than 300 000 – 20 000 years ago

Later Stone Age (LSA) 40 000 years ago – 2000 years ago

It should also be noted that these dates are not a neat fit because of variability and overlapping ages between sites (Lombard et.al 2012: 125).

There are some known Stone Age sites in the study area, including rock art (engravings) sites located in the larger geographical a few kilometers west of Zeerust and near Groot Marico to the east of Zeerust (Bergh 1999: 5). A number of individual MSA/LSA stone tools were also identified in the area of Zeerust during recent assessments by the author (Pelser 2013 & 2016).

No Stone Age sites or material were identified in the study area during the March 2022 assessment.

The Iron Age is the name given to the period of human history when metal was mainly used to produce artifacts. In South Africa it can be divided in two separate phases (Bergh 1999: 96-98), namely:

Early Iron Age (EIA) 200 – 1000 A.D.

Late Iron Age (LIA) 1000 – 1850 A.D.

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

Early Iron Age (EIA) 250 – 900 A.D.

Middle Iron Age (MIA) 900 – 1300 A.D.

Late Iron Age (LIA) 1300 – 1840 A.D.

A survey of the Groot Marico area documented more than 100 LIA sites adding to the well-known sites such as stone-walled complexes of Buispoort and Braklaagte, the Mmakgame megasite, the 18th century capital of the Hurusthwe at Kaditshwene and the copper mines of Dwarsberg in the Madikwe Game Reserve. All these sites are dated to between the 15th and 19th Centuries AD (Hutten 2012:8-9).

In a band stretching roughly from Brits in the east to Zeerust in the west there are many known Iron Age sites (Bergh 1999: 7-8). These all belong to the Later Iron Age (Bergh

1999:8-9). No EIA sites are known to occur in the area (Bergh 1999: 6). By the end of the 18th century the Ba Hurutshe stone walled sites (capitals) were located at Kaditshwene and Tshwenyane north of Zeerust (Bergh 1999: 106). Prof. J.Boeyens of UNISA did extensive archaeological research on this and other sites in the region (Boeyens 2003). A number of Late Iron Age stone walled sites and features were also located during a recent assessment in the Zeerust area by the author (Pelsler 2013: 15-16; 18-20). During earlier times the area was settled by the Fokeng. In the 19th century this group inhabited this area with other Tswana groups including the Kwena and the Po (Bergh 1999: 15 9-10). During the difaqane these people moved further to the west, but they returned later on (Bergh 1999: 11).

Tom Huffman's research work shows that Iron Age sites, features or material could possibly be found in the area. This could include the so-called Uitkomst facies of the Urewe Tradition dating to between AD1650 and AD1820 (Huffman 2007: 171); Rooiberg facies of the same tradition dating to between AD1650 and AD1750 (p.175); Olifantspoort facies of Urewe dating to between AD1500 and AD1700 (p.191); the Madikwe facies of the Urewe Tradition dating to between AD1500 & AD1900 (p.193) and finally the Buispoort facies of the same tradition dating to between AD1700 and AD1840 (Huffman 2007: 203).

Again, no Iron Age sites, features or material were identified in the study areas during the March 2022 fieldwork.

Early travelers have moved through this part of the Northwest Province. This included David Hume in 1825, Robert Scoon and William McLuckie in 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). In 1836 William Cornwallis Harris visited the area. The well-known explorer Dr. David Livingstone passed through this area between 1841 and 1847 (Bergh 1999: 13, 119-122).

A number of battles were fought in the larger area during the Anglo-Boer War (1899-1902), including the battle of Kleinfontein on the 5th of September 1901 and the battle of Marico River on the 24th of October 1901 (Bergh 1999: 54).

A recent informal graveyard, containing the graves of farm workers, was located on the farm in the general study area.

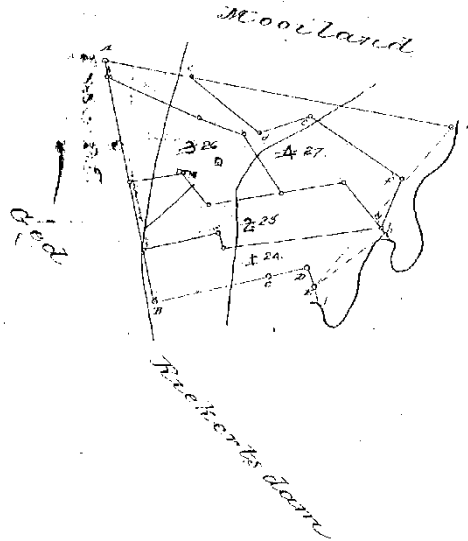
An old map (dating to 1894) from the database of the Chief Surveyor General (www.csg.dla.gov.za) indicates that the whole of the farm Riekersdam 109JP was originally given by Deed to one Barend Christoffel Lottering in 1865 (**CSG document A18751**). The farm was then located in the Ward of Groot Marico, District of Marico and in the Zuid-Afrikaansche Republiek (Z.A.R). The farm was surveyed in September 1890.

According to one source the town of Groot Marico was laid out on the farm Wonderfontein, owned by one Francois Joubert, and earned the status of a Health Committee in 1924. During the Second World War a number of Italian prisoners of war were stationed in the town and built a number of fine stone walls that are still visible. It was proclaimed a town in 1948.

However, its major claim to popularity rests on the reputation accorded to it by the famous South African writer, Herman Charles Bosman (database of Northwest History – www.nwhist.co.za).

AFBETREK

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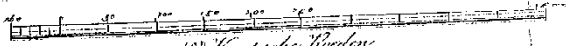


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Figure 3: 1894 map of the farm Riekersdam 109JP (www.csg.dia.gov.za).

Results of the study area assessment

No cultural heritage (archaeological and/or historical) sites, features or material were identified in the areas that are earmarked for the clearance of indigenous vegetation for the development of a new pivot point/crop circles and the poultry houses. These areas have been impacted by recent historical agricultural activities (ploughing/crop growing) and if any cultural resources did occur here in the past it would have been extensively disturbed or destroyed as a result.

The only cultural heritage site located in the general area on the farm is a recent informal graveyard containing a number of graves of farm workers. Most of these graves are stone-packed without formal headstones, although some have small inscribed stones or metal plaques. The graves seem to date from the 1970's to more recent (early 2000's).

Although the site and graves on it will not be directly impacted by the proposed development activities, graves always carry a High Significance Rating in terms of Cultural Heritage. Care should therefore be taken to not impact on the site and graves in any way. The graveyard has been fenced-in already with access provided to descendants to enable them to visit.

GPS Location of Site: **S25 26 35.53 E26 23 37.84.**



Figure 4: Closer view of area showing location of graveyard in relation to the study/development area (Google Earth 2022).



Figure 5: View of one of the existing old pivot points/crop circles.



Figure 6: A view of the graveyard recorded.



Figure 7: Closer view of the graveyard and graves.



Figure 8: General view of the area where vegetation clearance will take place.



Figure 9: Another view. Note the dense vegetation.



Figure 10: Some sections are more open.



Figure 11: Another section of the study area.



Figure 12: Another view of one of the existing pivot points/crop circles showing the extensive impact of agricultural activities on the general landscape.



Figure 13: A view of a section of the area where proposed new poultry (chicken) houses are planned. The area has been impacted previously by agricultural activities.

Based on the background research and physical field assessment, from a Cultural Heritage perspective, the proposed clearance of indigenous vegetation for the development of the pivot point/s and poultry houses should therefore be allowed to continue.

Furthermore it should be noted that although all efforts are made to cover a total area during any assessment and therefore to identify all possible sites or features of cultural (archaeological and/or historical) heritage origin and significance, that there is always the possibility of something being missed. This will include low stone-packed or unmarked graves. This aspect should be kept in mind when development work commences and if any sites (including graves) are identified then an expert should be called in to investigate and recommend on the best way forward.

7. CONCLUSIONS AND RECOMMENDATIONS

APelser Archaeological Consulting (APAC) was appointed by AB Enviro Consult to conduct a Phase 1 HIA for the proposed clearance of indigenous vegetation for the development of a new pivot point & poultry (chicken) houses on a portion of the farm Riekersdam 109JP. The study & development area is located close to Groot Marico in the Northwest Province.

Background research indicates that there are some cultural heritage sites and features in the larger geographical area within which the study area falls. No cultural heritage (archaeological and/or historical) sites, features or material were identified in the areas that are earmarked for the clearance of indigenous vegetation for the development of a new

pivot point/crop circles and the poultry houses. These areas have been impacted by recent historical agricultural activities (ploughing/crop growing) and if any cultural resources did occur here in the past it would have been extensively disturbed or destroyed as a result.

A recent informal graveyard containing a number of graves of farm workers are located on the farm in the general study area. Most of these graves are stone-packed without formal headstones, although some have small inscribed stones or metal plaques. The graves seem to date from the 1970's to more recent (early 2000's). The site and graves on it will not be directly impacted by the proposed development activities, but as graves always carry a High Significance Rating in terms of Cultural Heritage care should be taken to not impact on the site and graves in any way. The graveyard has been fenced-in already with access provided to descendants to enable them to visit.

It should be noted that although all efforts are made to locate, identify and record all possible cultural heritage sites and features (including archaeological remains) there is always a possibility that some might have been missed as a result of grass cover and other factors. The subterranean nature of these resources (including low stone-packed or unmarked graves) should also be taken into consideration. Should any previously unknown or invisible sites, features or material be uncovered during any development actions then an expert should be contacted to investigate and provide recommendations on the way forward.

Finally, from a Cultural Heritage perspective, the proposed clearance of indigenous vegetation for the development of the pivot point/s and poultry houses should therefore be allowed to continue.

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www.nwhist.co.za

APPENDIX A: DEFINITION OF TERMS:

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

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

Feature: A coincidental find of movable cultural objects.

Object: Artifact (cultural object).

(Also see Knudson 1978: 20).

APPENDIX B: DEFINITION/ STATEMENT OF HERITAGE SIGNIFICANCE

Historic value: Important in the community or pattern of history or has an association with the life or work of a person, group or organization of importance in history.

Aesthetic value: Important in exhibiting particular aesthetic characteristics valued by a community or cultural group.

Scientific value: Potential to yield information that will contribute to an understanding of natural or cultural history or is important in demonstrating a high degree of creative or technical achievement of a particular period

Social value: Have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.

Rarity: Does it possess uncommon, rare or endangered aspects of natural or cultural heritage.

Representivity: Important in demonstrating the principal characteristics of a particular class of natural or cultural places or object or a range of landscapes or environments characteristic of its class or of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, province region or locality.

APPENDIX C: SIGNIFICANCE AND FIELD RATING:

Cultural significance:

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

Heritage significance:

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

Field ratings:

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

APPENDIX D: PROTECTION OF HERITAGE RESOURCES:

Formal protection:

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

Protected areas - An area surrounding a heritage site

Provisional protection – For a maximum period of two years

Heritage registers – Listing Grades II and III

Heritage areas – Areas with more than one heritage site included

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

General protection:

Objects protected by the laws of foreign states

Structures – Older than 60 years

Archaeology, palaeontology and meteorites

Burial grounds and graves

Public monuments and memorials

APPENDIX E: HERITAGE IMPACT ASSESSMENT PHASES

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