

Heritage Impact Assessment Report

For the proposed 5km of 22 kV powerline that is going to tap off from an existing 22kV powerline and supply a customer at Vaalharts Kartoën. The development will take place under the Phokwane local municipality near Hartswater in the Northern Cape Province, South Africa

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ABBREVIATIONS

ASAPA	Association of Southern African Professional Archaeologist
EIA	Environmental Impact Assessment
HIA	Heritage Impact Assessment
LIA	Late Iron Age
LSA	Late Stone Age
MSA	Middle Stone Age
NEMA	National Environmental Management Act
NHRA	National Heritage Resource Act
SAHRA	South African Heritage Resource Agency

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DEFINITIONS

Archaeological resources

These include:

- Material remains resulting from human activities which are in a state of disuse and are in or on land and which are older than 100 years including artefacts, human and hominid remains and artificial features and structures;
- Rock art, being any form of painting, engraving or other graphic representation on a fixed rock surface or loose rock or stone, which was executed by human agency and which is older than 100 years, including any area within 10m of such representation;
- Wrecks, being any vessel or aircraft, or any part thereof which was wrecked in South Africa, whether on land, in the internal waters, the territorial waters or in the maritime culture zone of the republic as defined in the Maritimes Zones Act, and any cargo, debris or artefacts found or associated therewith, which is older than 60 years or which SAHRA considers to be worthy of conservation;
- Features, structures and artefacts associated with military history which are older than 75 years and the site on which they are found.

Cultural significance

This means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance.

Development

This means any physical intervention, excavation, or action, other than those caused by natural forces, which may in the opinion of the heritage authority in any way result in the change to the nature, appearance or physical nature of a place or influence its stability and future well-being, including:

- Construction, alteration, demolition, removal or change in use of a place or a structure at a place;
- Carrying out any works on or over or under a place;
- Subdivision or consolidation of land comprising a place, including the structures or airspace of a place;
- Constructing or putting up for display signs or boards;
- any change to the natural or existing condition or topography of land;
- and any removal or destruction of trees, or removal of vegetation or topsoil.

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Environment

The surroundings within which humans exist and that is made up of:

- a) The land, water and atmosphere of the earth;
- b) Micro-organisms, plant and animal life;
- c) Any part or combination of a) and b) and the interrelationships among and between them; and
- d) The physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well-being (*i.e.* the social environment)

Natural vegetation

The existing vegetation species, indigenous or otherwise, of trees, shrubs, groundcover, grasses and all other plants found growing on the site.

Site

The piece of land and any other place on, under, over, in or through which the development activity is to be executed or carried out. The site shall include the activity area, internal roads and access route

Heritage resources: This means any place or object of cultural significance.

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1 INTRODUCTION

The author is an in-house qualified archaeologist with a BA Honours in Archaeology from (UNISA). She is appointed as an Environmental Officer by Eskom Distribution Central East Cluster and was requested by Nondwe Khanye from Eskom distribution Gemma Cluster (email:khanyen@eskom.co.za) to conduct a Heritage Impact Assessment for the proposed 5km of 22kV powerline that is going to tap off from an existing 22kV powerline and supply a customer at Vaalharts Cotton factory. The development will take place under the Phokwane local municipality near Hartswater in the Northern Cape Province, South Africa as requested by SAHRA.

2 AIMS WITH THIS REPORT

The following is the aim of the report:-

- To detail a desktop analysis of the status of heritage resources, as outlined in the National Heritage Resources Act, Act No. 25 of 1999, in the area earmarked for the proposed development;
- To establish whether any of the types of heritage resources as outlined in Section 3 of the National Heritage Resources Act, Act No. 25 of 1999 is likely to occur within the project area;
- If the above applies, to determine the significance of these heritage resources and the extent to which they are affected by the proposed development;
- To propose suitable mitigation measures for heritage resources that may be affected or impacted by the proposed development.

3 LEGAL REQUIREMENTS

The Heritage Impact Assessment (HIA) is governed by national legislation as outlined below:

- National Heritage Resources Act, Act No. 25 of 1999 (NHRA) and associated guidelines

Section 3 of the National Heritage Resources Act, Act No 25 of 1999, lists the following as National Estates:-

- (a) places, buildings, structures and equipment of cultural significance; 2
- (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;

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- (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, 1983 (Act No. 65 of 1983);
- (h) sites of significance relating to the history of slavery in South Africa;
 - (i) movable objects, including—
 - (i) objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects and 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, photographic 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, 1996 (Act No. 43 of 1996).
- (3) Without limiting the generality of subsections (1) and (2), a place or object is to be considered part of the national estate if it has cultural significance or other special value because of—
 - (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;

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- (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
- (i) sites of significance relating to the history of slavery in South Africa.

4 METHODOLOGY

The methodology followed in the compilation of the report was as follows:

- A desktop study was done of the development footprint and environmental area.
- A search was done on the SAHRIS database to determine what Archaeological and Heritage Impact studies had been done in the area
- The site was inspected on foot and by vehicle on 18 November 2021 and relevant observations are indicated in this report.

5 PROPOSED ACTIVITY

5.1 Location

Hartswater is an agricultural town on the Phokwane River, a small tributary of the Harts River, some 23km South of Taung and 36km North of Warrenton. Hartswater town is the centre of the Vaalharts Irrigation Scheme, it became a municipality in April 1960. It takes its name from the Harts River. Hartswater is centrally located to Jan Kemsdorp, Pampierstad, Ganspan, Taung and Christiana. The proposed line will transverse between a factory, an informal township, agricultural land and the Historical canals which form part of the Vaalharts Irrigation Scheme. The Vaalharts Irrigation Scheme falls within the Phokwane Local Municipality and is the largest in South Africa and comprises of approximately 35 000ha. Crop and livestock farming practices are the predominant farming methods practised in this local municipality.

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Table 1 – Site Location and Property Information

Receiving Environment	Ganspan Tadcaster 22kV powerline
Town	Hartswater
Responsible Local Authority	Phokwane Local Municipality
Magisterial District	Frances Baard District Municipality
Region	23 km south of Taung and 36 km north of Warrenton.
Country	South Africa
Site centre GPS Coordinates	Start Point: 27°47'29.91"S 24°49'39.26"E Pole Number: GATC202-23 End point: 27°45'45.88"S 24°50'4.43"E Pole Number: GATC202-75

5.2 Description of the Affected Environment

The development site lies within the Savanna biome which is the largest biome in Southern Africa. It is characterized by a grassy ground layer and a distinct upper layer of woody plants (trees and shrubs). The Vaalharts irrigation scheme is covering 36.950ha, the scheme, which is one of the largest irrigation schemes in the world, is managed by Vaalharts Water, watering 1 250 farms of some 25ha each in the lush valley. The town's growth has been nurtured by its irrigation canals and is surrounded by trees and tracts of fertile ground.

The proposed line will commence from the Vaalharts Cotton factory next to the historical canal and traverses an informal township on the western side. The portion of the line will transverse the Meent Road route to the eastern side of the project area. The eastern side of the project area is used for agriculture land and also used for cattle, goat and sheep grazing with high level of disturbance present with historical canals. The general site condition is indicated in Figure 2 to Figure 8.

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Figure 1: Google Earth map showing the location of the proposed 5km 22kV Vaalharts Kartoen Powerline

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Figure 2: Vaalharts Cotton Factory: Start point of the proposed line



Figure 3: Pathway from the Factory where the proposed line will be constructed

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Figure 4: The small canal running parallel to the proposed line



Figure 5: The Informal Township next to the Canal and proposed line

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Figure 6: The Public Road (Meent Street) which the proposed line will transverse



Figure 7: The Proposed line will be on right running parallel to the canal and the existing line

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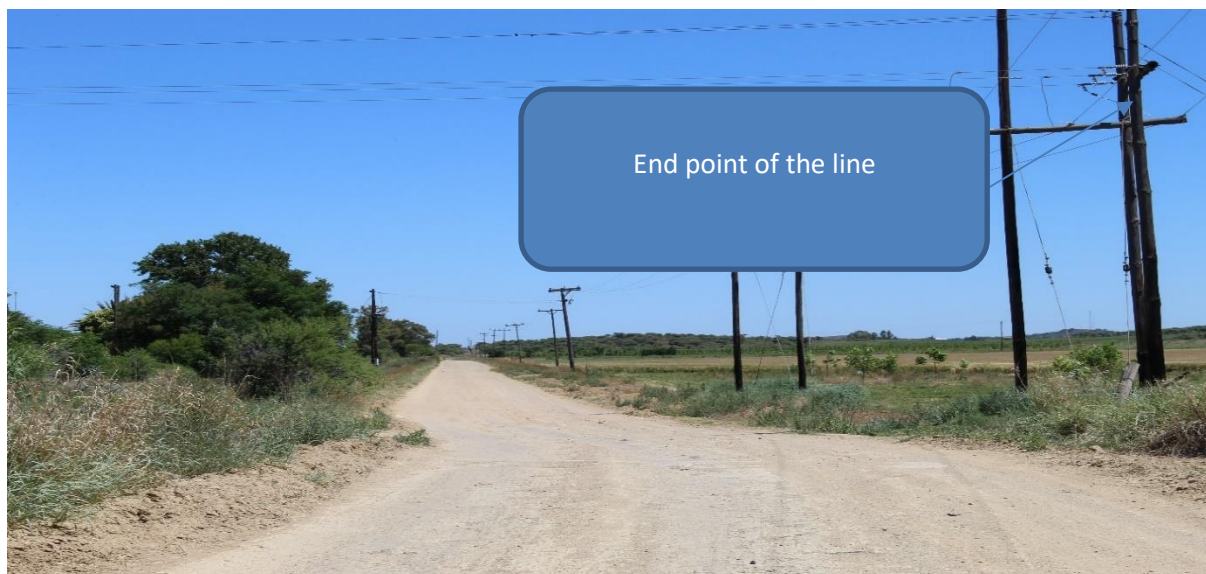


Figure 8: Existing powerline: End Point of the proposed line

6 SITE SIGNIFICANCE

Table 2-Site significance classification standards as prescribed by SAHRA

FIELD RATING	GRADE	SIGNIFICANCE	RECOMMENDED MITIGATIONS
National Significance	Grade 1	High Significance	Conservation; National Site nomination
Provincial Significance	Grade 2	High Significance	Conservation; Provincial Site nomination
Local Significance	Grade 3 A	High Significance	Conservation; Mitigation not advised
Local Significance	Grade 3 B	High Significance	Mitigation (Part of site should be retained)
Generally Protected A	-	High / Medium Significance	Mitigation before destruction
Generally Protected B	-	Medium Significance	Recording before destruction
Generally Protected C	-	Low Significance	Destruction

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7 FINDING AND DISCUSSIONS

7.1 Stone Age Period

The Stone Age period is the first and longest part of human history and gets its name from the use of simple stone tools. The Stone Age people were hunters, gatherers and scavengers who were nomadic who used stone. The Stone Age period has been further divided:

Early Stone Age 2 500 000 - 150 000 Before Present

Middle Stone Age 150 000 - 30 000 BP

Late Stone Age 30 000 - until c. AD 200

The Taung town which is 30km from Hartswater is significant in terms of early human development. In 1924, the fossilized skull of an early human infant was discovered by a quarry-worker in the nearby Buxton-limestone quarry. The fossil remains were described by Raymond Dart in 1925 as the type specimen of *Australopithecus Africanus*.

A small number of Middle Age Stone (MSA) flakes and formal tools such as a broken point, a blade and a side scraper were documented in a study town Hartswater

A couple of large flake tools in association with small cores and macro and a microlithic LSA tools were identified near a site situated 10km west of Hartswater.

- No material dating to this period was noted on the proposed route.

7.2 Iron Age Period

Iron Age period is about the Bantu speaking people who brought a new life to Southern Africa. For the first time, people lived in settled communities, cultivated crops such as sorghum, millets, ground beans and cowpeas and they herded cattle as well as sheep and goats. These early farming people also made their own iron tools, archaeologist called them Iron Age Early Iron Age AD 200 - AD 900

Middle Iron Age AD 900 - AD 1300

Late Iron Age AD 1300 - AD 1830

Stone ruins indicate the occurrence of Iron Age settlements, Dithakong in the Northern Cape Kuruman was one site with such ruins. This settlement was the first of the large Tswana towns to come to the attention of the outside world when in 1801 it was visited by an official expedition from Cape Town led by Truter and Somerville and accompanied by the outstanding

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British artist Samuel Daniel. Dithakong site is similar to a settlement patterns found only in Sotho-Tswana settlements with a central group of roughly circular to oval stock pens, linked to one to form a secondary enclosure.

- No Iron Age artefacts or settlement were noted on the proposed route.

7.3 Historical Period

The arrival of European settlers in the interior is accompanied by significant events. These settlers were largely self-sufficient, relying on cattle/sheep farming and also hunting. Few towns were established and farming remains the most dominant economy. Hartswater is an agricultural town on the Phokwane River. Hartswater town is the centre of the Vaalharts Irrigation Scheme, it became a Municipality in April 1960. It takes its name from the Harts River. The Vaalharts Irrigation Scheme is one of the largest irrigation schemes in the world covering 369.50 square in the Northern Cape Province. This system provides irrigation water to a total of 39,820ha scheduled land, industrial water to six and other industrial water users.

Kgosi Galeshewe was thrust into the Chieftancy of the Ba-Tlhaping tribe of Tswana-speaking people when he was born in 1840. Galeshewe was one of the heroic figures who fought colonialism with stealth, always at the forefront of protecting the interests of his people against British Coloniers. Galeshewe was viewed as an enemy by the oppressor, especially for his ability to stand up and fight for the rights of his people, his own people saw him as a hero who risked his life for their good. He remained a champion who believed in the economic emancipation of his people and who always believed in their potential to use the land for their own development. Galeshewe died in Magogong outside Hartswater in 1927.

Historical structure assumed to be dated at least around the first part of the 20th century were documented in the study town Hartswater. The ruined remains of a single storey multi structures, similar to a residential house constructed out of mud brick but a roof were absent from the structures.

- The proposed line will traverse along the Historical canals

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7.4 Graveyard/ Burial ground

Although no burial sites or graves were identified in the area of the proposed line, there is always the possibility of encountering previously unidentified burial sites in any landscape in South Africa.

In the rural areas of the Northern Cape Province graves and cemeteries are often found within settlements or around homesteads.

- There was no place of burial or graveyard noted in the area of the proposed line.

8 RECOMMENDATIONS

It is recommended that the responsible authorities, the South Africa Heritage Resources Agency (SAHRA) grant the project a Positive Review Comment.

Locally, the project area has been altered in many places by recent settlement and agricultural activities. Considering the Scheme is considered to be a heritage resource of Grade 1/National Significance it is recommended that Construction crews must be properly inducted to ensure they are fully aware of the significance of the Scheme.

9 ACKNOWLEDGEMENT

I thank Asandiswa Bongo (Surveyor) who accompanied and showed me the various areas the powerline will be running through.

10 CONCLUSIONS

In conclusion, beside the reported Schemes, no other Heritage Resources as defined and protected by the NHRA (1999) inclusive of Archaeological sites, Built Structures older than 60 years, sites of Cultural significance associated with Oral History, Burial Grounds, Graves of Victims of Conflict and Cultural Landscapes identified during the assessment of the proposed development significant heritage traces were found that are considered to require further mitigation.

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