

HERITAGE IMPACT ASSESSMENT FOR THE PROPOSED SMITHFIELD TO ROUXVILLE AND ROUXVILLE TO ZASTRON 33KV POWERLINE ROUTES, FREE STATE PROVINCE

REPORT SUBMITTED TO: Eskom Distribution Division

Free State Operational Unit

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EXECUTIVE SUMMARY

- 1. A Heritage Impact Assessment (HIA) study will be conducted on behalf of Eskom SOE for a proposed new power-line route from Smithfield substation (approx. 50 km) through the Rouxville substation to the Zastron substation (approx. 35 km).
- 2. The following is a summary of the findings of the heritage survey:

2.1 General observations

On all the farms traversed by the powerline route thick covers of grass impaired ground visibility, lowering the chances of spotting surface occurrences of artifacts or features of heritage interest. For the most part the proposed powerline is running along road servitudes, only making a major deviation from the road in Rouxville where it skirts the town traversing farmland. The proposed development will thus impact a linear footprint largely degraded by activities along road servitudes. As a result it was not likely that one encountered undisturbed archaeological provenances along or close to the road servitudes.

2.2 The Stone Age

No Stone Age tools were found.

2.3 The Early Iron Age

No sites of the Iron Age period were found.

2.4 Commercial Farming Heritage

There is material evidence of commercial farming activities which form part of a rural cultural landscape now being recognised as heritage. Several stone pillars or monoliths up to length of 1.30 m were found in the footprint of the proposed powerline, either standing or collapsed. They were fencing posts often to substitute wooden poles which were not locally available on the grassveld. The stone pillars were mostly planted at corners for stabilisation necessary to keep the fences standing. While the powerlines may pass overhead, there is no compelling reason to disturb these features.

An isolated planting of eucalyptus trees was recorded as significant in the highveld terrain devoid of trees (ZST13). It is recommended that the powerlines can pass on the side of the trees but not over them. Tree branches may be pruned subject to consultation with the landowner, but wholesale removal of trees must be avoided.

2.5 Burial ground

There is an old burial ground on the outskirts of Zastron (ZST10) which is in Eskom's records of preliminary feasibility studies. During a walkabout the graveyard, it was observed that most graves were poorly marked. The burial ground holds more than 60 graves. It is not fenced and an attempt to ascertain the extent of the graveyard was therefore not conclusive. In the map below the blue quadrilateral shows the extent of superficial evidence, but since it is likely that some graves are not marked, the burial ground might extend beyond the hypothetical boundary.



A blue circle in the map below shows the extent of a 100 m reserve around the burial ground measured from the corners of the burial ground furthest from its centre, c. 38 m radius. This shows that the proposed route encroaches into the proposed buffer with one of the postholes (B34) only 25m from the limits of the burial ground.

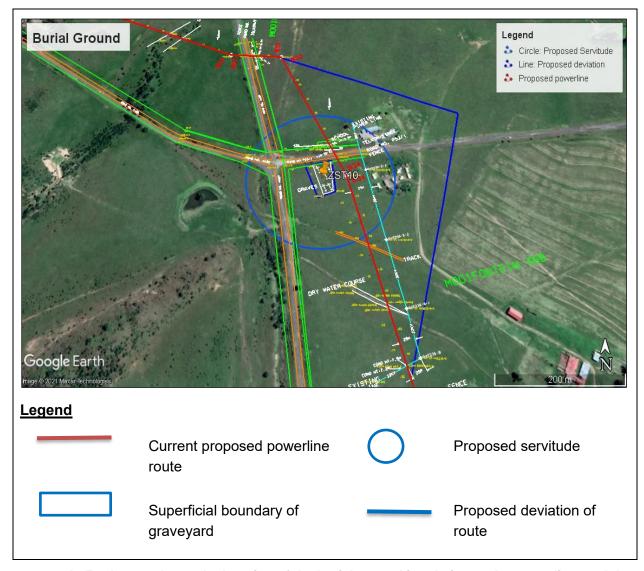


Figure 1: Google Earth map shows the location of the burial ground in relation to the powerline, and the proposed deviation of the powerline away from the graveyard

2.6 Recommendations

Deviation of a section of route is recommended to avoid the graves servitude, and a feasible option seems to be to move the line to the east as indicated on the map above.

- 1. As an alternative option, the developer may submit an application to the heritage authority seeking a waiver of the servitude.
- 2. The next-of-kin of the late Mr Arthur John Webb to whom a roadside memorial (RXV06) is dedicated was consulted in respect of the position of the memorial in



relation to the proposed powerline route. There was no objection and Eskom has received a letter of acknowledgement of the communication.

2.7 Risk Assessment

Granting an exemption to run the powerline through the graves servitude is the discretion of the heritage authority considering that this is a mandatory requirement. Posthole excavations and placement of stay anchors can potentially damage artifacts or human remains if they occur below the surface. On the basis of the ground survey the likelihood of this occurring was rated medium to high as the limits of the burial ground have not been fixed with any reasonable certainty. Avoidance of the servitude therefore remains the better of the two options.

2.8 Ranking of sites and Risk Assessment

	RANKING	SIGNIFICANCE	NO OF SITES
1	High	National and Provincial heritage sites (Section 7 of NHRA). All burials including those protected under Section 36 of NHRA. They must be protected.	1 (burial ground)
2	Medium A	Substantial archaeological deposits, buildings protected under Section 34 of NHRA. Footprint of early modern mining. Cultural Landscapes. These may be protected at the recommendations of a heritage expert.	0
3	Medium B	Sites exhibiting archaeological characteristics of the area, but do not warrant further action after they have been documented.	9
4	Low	Heritage sites which have been recorded, but considered of minor importance relative to the proposed development.	6
		TOTAL	16



2.9 Table of Heritage sites

SITE NO	LATITUDE	LONGITUDE	PERIOD	DESCRIPTION	RANKING	MITIGATION
SFD01	30°14'55.12"S	26°34'8.66"E	Modern	On the farm Groenspruit 516. Wind pump and concrete reservoir.	Low	No action required
SFD02	30°18'41.85"S	26°42'30.70"E	Modern	On the farm Klipplaatdrift 68. A farm gate with short flanking walls of dressed (coursed) sandstone.	Medium B	Avoid disturbance
RXV03	26°42'30.70"E	26°51'14.90"E	Modern	On the farm Dorpscronden van Rouxville 108, eastern outskirts of Rouxville. Remnants of a brick building at an abandoned pump station. Rusted drinking trough.	Low	No action required
RXV04	30°25'19.80"S	26°49'7.70"E	19th/20th C	On the farm Dorpscronden van Rouxville 108, south-western outskirts of Rouxville. Two stone pillars, 80 cm tall, 20 m apart, were used as fencing posts.	Medium B	Avoid disturbance
RXV05	30°25'14.80"S	26°49'4.50"E	19th/20th C	On the farm Dorpscronden van Rouxville 108, on the south-western outskirts of Rouxville. A stone pillar 120 cm long was used as a fencing post	Medium B	Avoid disturbance
RXV06	30°24'2.30"S	26°51'35.70"E	21st C	On the farm Paisley B 1039. A roadside memorial in a rectangular steel palisade, floor of ceramic tiles. Landmark for fatal traffic accident.	Medium B	Avoid disturbance
RXV07	30°21'9.69"S	26°55'39.67"E	Modern	On the farm Knectkloof 125. Wind pump and concrete reservoir.	Low	No action required



SITE NO	LATITUDE	LONGITUDE	PERIOD	DESCRIPTION	RANKING	MITIGATION				
RXV08	30°17'39.73"S	27° 0'23.82"E	Modern	On the farm Sadowa 331. A small lake. The dam wall is reinforced by dressed (coursed) stonework on the lakeside. Stones of a dark shade used for coursing in middle section of the wall to create a decoration pattern.	Medium B	Will not be affected				
RXV09	30°17'47.46"S	27° 0'26.80"E	Modern	On the farm Zevenfontein 254. Wind pump and concrete reservoir.	Low	No action required				
ZST10 Corner A	30°16'33.35"S	27° 4'41.61"E	20th C	Burial ground on the northern outskirts of Zastron. It holds 60+ graves. Most of the graves are poorly marked with stones. Some of the names inscribed:	High	100 m servitude to be reserved.				
Corner B	30°16'32.99"S	27° 4'43.48"E		Makhoa Anna Moleleki DOB 10-04-1898 DOD 22-						
Corner C	30°16'35.04"S	27° 4'43.75"E						08-1980; Mamallao (no dates); Tlatsi (no dates); John Mmane (no dates); Mmane Matankisa (no		
Corner D	30°16'35.39"S	27° 4'42.56"E		dates); Mophosi Agness Mahohodi DOB 22-03-1963 DOD 23-01-2008.						
ZST11	30°16'57.09"S	27° 1'24.81"E	Modern	On the farm Belfast 513. Two abandoned farm buildings.	Low	No action required				
RXV12	30°19'39.57"S	26°59'5.37"E	Modern	On the farm Heningsdale 400. Wind pump and concrete reservoir.	Low	No action required				
RXV13	30°20'40.90"S	26°57'24.46"E	Modern	On the farm Umbala 1059. An isolated planting of Eucalyptus is an important landscape feature.	Medium B	Branches may be trimmed, but removal of trees to be avoided				



5	SITE NO	LATITUDE	LONGITUDE	PERIOD	DESCRIPTION	RANKING	MITIGATION
F	RXV14	30°21'15.20"S	26°54'57.00"E	19th/20th C	On the farm Fraai Uizcht 322, One stone pillar, 1.6m tall, used as fencing post.	Medium B	Avoid disturbance
F	RXV15	30°21'17.50"S	26°54'48.60"E	19th/20th C	On the farm Fraai Uitzicht 322, on the southwestern outskirts of Rouxville. Four stone pillars of different heights, were used as fencing posts.	Medium B	Avoid disturbance
F	RXV16	30°21'27.20"S	26°54'22.60"E	19th/20th C	On the farm Uitzicht 322, on the south-western outskirts of Rouxville. Two stone pillars of different heights, were used as fencing posts.	Medium B	Avoid disturbance



3. Conclusion and recommendations

The project must be allowed to go ahead with the following recommendations being made:

- A 100 m servitude to be reserved around the burial ground, which entails that the proposed powerline is rerouted to avoid the servitude.
- The structures and landscape features that have been flagged must not be disturbed.
- If archaeological or other heritage relics are found during the construction phase, heritage authorities will be advised immediately and a heritage specialist will be called to attend. Since archaeological deposits are usually buried underground, if artefacts or skeletal material are exposed in the area during construction, such activities should be halted, and the provincial heritage resources authority or SAHRA notified in order for an investigation and evaluation of the finds to take place.



1. INTRODUCTION

A Heritage Impact Assessment (HIA) study was undertaken on behalf of Eskom SOE for a proposed new powerline route from Smithfield substation through the Rouxville substation (approx. 50 km) to the Zastron substation (approx. 35 km) (Figure 1).



Figure 1: Google Earth map shows the route of the powerline from Smithfield through Rouxville to Zastron

A ground survey was conducted from 23 to 26 July 2021 for the possible occurrence of archaeological and historical material along the route of the proposed powerline.

1.1 Nature of development and expected impact:

The project entails the installation of overhead electricity cables carried by wooden pole pylons. For the most part, the proposed powerline is running alongside the N6 highway from Smithfield to Rouxville and the R26 Rd from Rouxville to Zastron. The project will entail the following physical works:

- Clearance, where necessary, for the servitude for the overhead powerline
- Excavation of postholes;
- Establishment of temporary offices, storage facilities and parking for plant (excavators and other equipment)
- Establishment of temporary accommodation for labourers



Heritage Resources are likely to be damaged or destroyed as a result of the proposed physical works.

1.2 Location of the Project and Physical Setting

The proposed route of the powerline is set along the N6 highway from Smithfield to Rouxville, where the powerline leaves the road skirting the town in an arc south of the town. It then loops back to the R526 road from Rouxville to Zastron (Figure 1). Terrain features along the way are presented below in a panorama of pictures (Figure 2 -8). It is flat to rolling plains interrupted by isolated hills and shallow valleys. The country around Zastron has a number of prominent topographic features including the Aasvoelberg Mountain, a large sandstone massif and the highest peak in the Free State Province at an altitude of 2 207 m AMS. The underlying bedrock for the entire powerline route is sandstone with exposures of the same rock in a few places.

The powerline will cross the Caledon River a short distance before the midway point from Smithfield to Rouxville along the N6 highway. Caledon River (known in the local SeSotho language as Mohokare) is a tributary of the Orange River. It rises in the Drakensberg Mountains on the border of Lesotho and South Africa, and flows in a south-westerly direction. It passes through Maseru, Lesotho's capital, before it forms the border between South Africa and Lesotho, and then enters South Africa's Free State Province north of Wepener. It joins the Orange River near Bethulie after a meandering course of 480 km¹.



Figure 2: View east along the route of the proposed powerline along the N6 highway

¹ Caledon River, Southern Africa. Found at: https://www.britannica.com/place/Caledon-River





Figure 3. The powerline route is aligned with the barbed wire fencing passing behind it. The N6 highway is behind the camera. Note the grassveld and flat-topped hill in the background

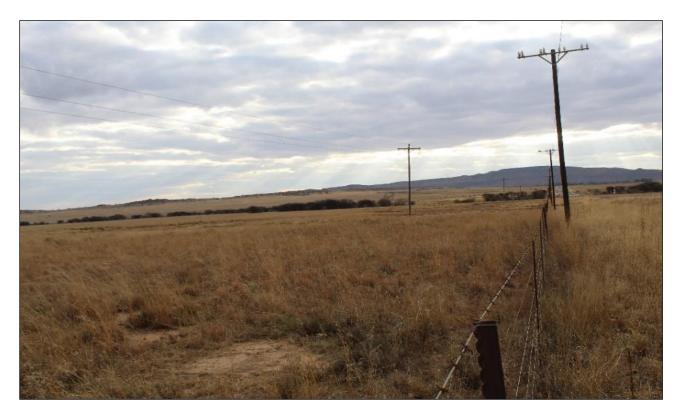


Figure 4. View of the powerline route with the hill which forms the western backdrop of Smithfield in the background





Figure 5: The powerline route is set along a section of the old road from Smithfield to Rouxville



Figure 6: Powerline will cross the Caledon River on the north side of the Caledon River Bridge





Figure 7: The powerline route traverses grassveld in a 180° loop skirting Rouxville Town



Figure 8. The Aasvoelberg Mountain, view from the west. The powerline route is the middle ground running roughly parallel with the mountain



2. LEGAL FRAMEWORK

National Heritage Resources Act (No 25 / 1999) (MHRA) is the principal law on the management of heritage resources in South Africa. The following Sections are of important reference when a Heritage Impact Assessment is being undertaken and the report is evaluated:

2.1 Protection of buildings and structures

Section 34 of NHRA is a precautionary statutory provision to protect all buildings at least 60 years old in case it is found that they are worth retaining as landmarks of cultural heritage significance. It reads:

(1) No person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

2.2 Prescription of heritage impact assessments

Heritage Impact Assessments are prescribed when the scale of a development proposal crosses thresholds as set out in Section 38(1) of the National Heritage Resources Act (No 25 1999):

- (a) the construction of a road, wall, power line, pipeline, canal or other similar forms of linear development or barrier exceeding 300m in length;
- (b) the construction of a bridge or similar structure exceeding 50m in length;
- (c) any development or other activity which will change the character of a site—
- (i) exceeding 5 000m² in extent; or
- (ii) involving three or more existing erven or subdivisions thereof; or
- (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
- (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
- (d) the re-zoning of a site exceeding 10 000 m² in extent; or
- (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority.

2.3 Graves and burial grounds

Section 36 of the NHRA provides for the protection of certain graves and burial grounds. Graves are generally classified under the following categories:

- Graves younger than 60 years;
- Graves older than 60 years, but younger than 100 years;
- Graves older than 100 years; and
- Graves of victims of conflict
- Graves of individuals of royal descent



Graves that have been specified as important by the Ministers of Arts and Culture.

This study is mindful of public sensibilities about the sanctity of graves and burial grounds whether they are protected by the law or not.

2.4 The National Environmental Management Act (107/1998)

This Act states that a survey and evaluation of cultural resources must be done in areas where development projects that will affect 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 is a much broader undertaking to cater for the cultural and social needs of people. 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.

2.5 The Burra Charter on Conservation of Places of Cultural Significance

Generic principles and standards for the protection of heritage resources in South Africa are drawn from international charters and conventions. In particular, South Africa has adopted the ICOMOS Australia Charter for the Conservation of Places of Cultural Significance (the Burra Charter 1999) as a benchmark for best practice in heritage management.



4. APPROACH AND METHODOLOGY

4.1 Literature Survey

A preliminary picture of the heritage sensitivity of the area was obtained through a literature survey where previous heritage impact assessment studies that have been undertaken in the broader area are of important reference. Of particular relevance to the present study is a heritage survey in 2017 for a powerline route along the N6 highway from Smithfield to Aliwal North, which partly overlaps with the present study:

Rossouw, L. **2017**. Phase 1 Heritage Impact Assessment of a proposed new Eskom 132kV power line between the Rouxville substation in the Free State Province and the Melkspruit substation in Aliwal North, Eastern Cape Province.

Rossouw noted that all periods of the cultural sequence are represented in the broader area from the Stone Age, through the Iron Age, pre-colonial indigenous communities to occupation by early Boer Trek farmers. He noted that stone tool open-sites had been recorded at Goedemoed, Weenkop and Wesselsdal near Rouxville.

He also highlighted established workshop sites where tools were made at Spitzkop near Smithfield, the Smithfield Townlands. The fact that the original Smithfield material used by Goodwin and Van Riet Lowe to describe the Smithfield Stone Tool Industry in 1929 was a surface collection retrieved from the banks of a stream running through the town of Smithfield needs to be emphasised. Other workshop sites were found at Ventershoek near Wepener and Mooifontein near Zastron. Rock paintings have been recorded on 31 farms near Rouxville.

During the survey in 2017 several historical ruins, one small graveyard and two Voortrekker centenary memorials were recorded.

4.2 Fieldwork

Field observations were made by means of walking surveys. Since the route of the proposed powerline follows the N6 highway and R526 Rd a windscreen survey was the most efficient means of collecting additional data especially relating to terrain features and landscape characteristics. Observations were made and photographs taken as we drove slowly along the roads.

4.3 Documenting Cultural Landscapes

The concept of cultural landscapes is of relevant application when dealing with heritage in built environments or territories which have been modified by human activities. Cultural landscapes are defined in Paragraph 47 of the *Operational Guidelines for the Implementation of the World Heritage Convention (2015 edition)* as "cultural properties that represent the combined works of nature and of man". They are illustrative of the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and of successive social, economic and cultural forces, both external and internal.



A cultural landscape is "a geographic area including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values." Some key elements of the rural landscape associated with modern commercial farming were recorded and potential heritage significance which may be impacted upon by the project evaluated.

4.4 Limitations of the study

On all the farms along the route thick covers of grass impaired ground visibility, which lowered the chances of spotting surface occurrences of artifacts or features. For the most part the proposed powerline route is running along road servitudes, only making a major deviation from the road on approaching Rouxville where it skirts the town traversing farmland. The proposed development will therefore impact a linear footprint largely degraded by recent and activities associated with the construction and maintenance of roads and their servitudes. It was not likely that one would encounter undisturbed archaeological provenances along or close to the road servitudes.

It was not advisable to call for public meetings under the regime of health protocols imposed in Level 4 lockdown when coronavirus infections spiked again at the onset of the winter season.



5. ARCHAEOLOGICAL AND HISTORICAL CONTEXT

The following outline of the cultural sequence has been developed from a wide range of sources.

5.1 Cultural Sequence Summary2

PERIOD	EPOCH	ASSOCIATED CULTURAL GROUPS	TYPICAL MATERIAL EXPRESSIONS
Early Stone Age 2.5m – 250 000 YCE	Pleistocene	Early Hominids: Australopithecines Homo habilis Homo erectus	Typically large stone tools such as hand axes, choppers and cleavers.
Middle Stone Age 250 000 – 25 000 YCE	Pleistocene	First <i>Homo sapiens</i> species	Typically smaller stone tools such as scrapers, blades and points.
Late Stone Age 20 000 BC – present	Pleistocene / Holocene	Homo sapiens including San people	Typically small to minute stone tools such as arrowheads, points and bladelets.
Early Iron Age / Early Farmer Period c300 – 900 AD (or earlier)	Holocene	Iron Age Farmers	Typically distinct ceramics, bead ware, iron objects, grinding stones.
Later Iron Age 900ADff	Holocene	Iron Age Farmers, the emergence of complex state systems	Typically distinct ceramics, evidence of long-distance trade and contacts
(ii) Mapungubwe (K2)	1350AD		Metals including gold, long- distance exchanges

² Adapted from Exigo Consultancy. 2015. Frances Baard District Municipality: Proposed Nkandla Extension 2 Township Establishment, Erf 258 Nkandla, Hartswater, Northern Cape Province.



PERIOD	ЕРОСН	ASSOCIATED CULTURAL GROUPS	TYPICAL MATERIAL EXPRESSIONS
(ii) Historical period	Nguni / Sotho/Venda people	Iron Age Farmers	Mfecance / Difaqane
(iii) Colonial period	19 th Century	European settlers / farmers / missionaries/ industrialisation	Buildings, Missions, Mines, metals, glass, ceramics

5.2 Appearance of Hominids

The cultural sequence begins with the appearance of hominids 3 to 4 million years ago. The hominid site nearest to the study area is the Cradle of Humankind near Krugersdorp which is a UNESCO World Heritage Site proclaimed together with the Sterkfontein Caves (Krugersdorp) and Makapans Valley (Mokopane) as a serial property. To date, no hominid sites have been reported along the Vaal River.

5.3 The Early Stone Age (2 million to 250 000 years BP)

The Stone Age dates back more than 2 million and is divided into three epochs, the Early, Middle and Late Stone Ages. People then made stone and bone implements that were used for cutting and hunting. Material evidence is found in caves, rock-shelters and on riversides and edges of streams, and very rarely seen in open country. Pear-shaped handaxes, cleavers and core tools are type tools of the Early Stone Age period.3 The tool industries have been called Oldowan and Acheulian and were probably used to butcher large animals such as elephants, rhinoceros and hippopotamus. Acheulian artefacts are usually found near sites where they were manufactured and thus close to the raw material or at kill sites. Early hunters are classified as hominids meaning that they had not evolved to the present human form.

5.4 Middle Stone Age (MSA) [250 000 yrs - 30 000 yrs BP]

The Middle Stone Age (MSA), appeared 250 000 years ago and is marked by the introduction of a new tool kit which included prepared cores, parallel-sided blades and triangular points hafted to make spears. By then humans had become skilful hunters, especially of large grazers such as wildebeest, hartebeest and eland. By humans had evolved significantly to become anatomically modern. Caves were used for shelter suggesting permanent or semi-permanent settlement. There is archaeological evidence from some of the caves indicating the making of fire.4

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³ Deacon, H.J. & Deacon, J. 1999. Human Beginnings in South Africa: Uncovering the Secrets of the Stone Age. Cape Town: David Philip.

⁴ Deacon, J & H. Deacon. 1999. Human Beginnings in South Africa. Cape Town: David Philip.



A number of field surveys undertaken by this author and many other practitioners have confirmed significant hunter-gatherer activity in the broader area from the MSA onwards.

5.5 Later Stone Age (LSA) [40 000 yrs to ca2000 yrs BP]

The Later Stone Age is associated with the appearance of anatomically modern humans called Homo sapiens. Several behavioural traits are noticed, such as rock art and purposeful burials with ornaments, which became a regular practice. LSA technology is characterised by microlithic scrapers and segments made from very fine-grained rock. Spear hunting continued, but LSA people also hunted small game with bows and poisoned arrows. Practitioners of rock art were ancestors of the San and sites abound in the whole of Southern Africa.

With reference to the area of study, one of the LSA stone tool industries is called Smithfield after the work of Van Riet Lowe (1929). The term Smithfield was first used in 1925 to describe the collections made by the Dr. Kannemeyer near the town of Smithfield; the precise location not known, but nevertheless this made it an internationally acclaimed "type site" (Goodwin & van Riet Lowe 1929 in Ryano 2014, p7). Subsequently Stone Age specialists divided the Smithfield Industry into phases named A, B and C based on different typologies of artifacts.

5.6 Iron Age

The Iron Age was a gradual expansion of the settlement of different groups of speakers of Bantu languages over a period that could have spanned more than 2 millennia. These communities indigenous to the continent were farmers who brought with them domestic animals, crops, pottery and metal technology. However, there are few if any sites attributed to the EIA in the western parts of the country.5 Most Iron Age settlements are concentrated in the eastern part of the country. The woodland zone was preferred for settlement, but there is a strong possibility that transhumant pastoralism was practised and seasonal hunting camps were established in the inhospitable western regions of the country. There is however increasing evidence that sheep and probably cattle as well might have moved into the area much earlier than the Iron Age.⁶

5.7 The recent past

During the early 1820s, the area including present-day Lesotho was affected by political upheavals which started on the eastern seaboard with the rise of the Shaka's Zulu Kingdom. This triggered a series of migrations, displacements, raids and wars which affected many Nguni and Sotho communities, and hence referred to as Mfecane or Difaqane, which means the crushing, great scattering or dispersal. The Sotho communities in the Caledon River Valley were not spared by the conflict situation, community turned against community, and conflict spread further afield to the Rouxville District.

⁵ Phillipson, D. W. 2005. African Archaeology. Cambridge: University of Cambridge Press.

⁶ University of Witwatersrand. Huffman 2007. A Handbook on the Iron Age. Scottsville: UKZN Press



European trek-farmers crossed the Orange River from the Cape Colony as early as 1819 and settled throughout the region during the 1820s and 1830s. One of the earliest farms in the region was established in 1835 at Klipplaatsdrif, about 24 km from Rouxville on the way to Smithfield. Historical landmarks situated within 5 km of Aliwal North include the Anglo Boer War Concentration Camp Memorial Garden and Graveyard (Rossouw 2017, p 7).

5.8 The Towns

5.8.1 Smithfield

Smithfield was founded in 1848 when the area between the Vaal and the Orange Rivers was under British control. The focal point of the town was the Dutch Reformed Church which provided communion to the farmers in the area. It was named after Sir Harry Smith the governor of the Cape Colony. The town is the third oldest town in present-day the Free State. White settlers arrived in the area from the 1830s. In 1845, a treaty was signed between Moshoeshoe of the Basotho and the Cape Colony under Governor Sir Harry Smith. The treaty recognised white occupation in the area, though no boundaries were stipulated. Moshoeshoe was under the impression that he was authorising temporary grazing land to the settlers, while the settlers believed they had been given permanent land rights. Conflicts ensued. The British annexed the area between the Orange and Vaal Rivers, which they named the Orange River Sovereignty, but later handed it over the Boer Republic of the Orange Free State. Between 1858 and 1868 the Basotho fought a series of wars to resist Boer occupation. The Basotho destroyed farmhouses and burned large swathes of pasturage and cropland in the area between Smithfield and Reddersburg.

In the 1870s the town was on one of the main routes to the diamond field of Kimberley from the coast via Aliwal North. General Barry Hertzog was the MP of Smithfield from 1907 to 1939. He became leader of the National Party from 1914 to 1939 and Prime Minister of South Africa from 1924 to 1929. On 19 August 1963, Prime Minister HF Verwoerd addressed a conference in Smithfield, announcing plans to withdraw from the British Commonwealth and to unilaterally declare a Republic. His announcement from Smithfield made international news headlines.⁷

⁷ Smithfield, Free State. Found at: https://en.wikipedia.org/wiki/Smithfield,_Free_State





Figure 9: The hill that forms the western backdrop of the town with a white painted inscription of the name of the town on the eastern slope of the hill.

5.8.2 Rouxville

Rouxville funded in 1863 started as a halfway stopover between Aliwal and Smithfield. It was named after Reverend Pieter Roux of the Dutch Reformed Church parish in Smithfield. Jacobus Johannes (Jim) Fouché (1898-1980) grew up on the family farm in Rouxville, where he first attended school. He later returned to Rouxville after College and became one of the leading farmers of the region. He was a Member of Parliament representing Smithfield from 1941 to1950. He served in many government portfolios before he served as State President from 1968 to 1975.8

⁸ Rouxville History. Found at: https://rouxvilleinformation-freestate.co.za/rouxville-history/





Figure 10. Signage on the entrance to Rouxville from Aliwal North

5.8.3 Zastron

Zastron lies at the foot of the Aasvoelberg, the highest peak in the Free State. The town was named after Ms Johanna Sibella Zastron who married J.H. Brand, President of the Orange Free State Republic from 1864 to 1888. Zastron was laid out in 1876 and became a municipality in 1882. ⁹

⁹ Zastron. Found at: https://www.sahistory.org.za/place/zastron





Figure 11: Centenary monument erected at the entrance to Zastron



6. FINDINGS OF THE HERITAGE SURVEY

6.1 General observations

On all the farms traversed by the powerline route thick covers of grass impaired ground visibility, lowering the chances of spotting surface occurrences of artifacts or features of heritage interest. For the most part the proposed powerline is running along road servitudes, only making a major deviation from the road in Rouxville where it skirts the town traversing farmland. The proposed development will thus impact a linear footprint largely degraded by activities along road servitudes. As a result it was not likely that one encountered undisturbed archaeological provenances along or close to the road servitudes.

6.2 The Stone Age

No Stone Age tools were found.

6.3 The Early Iron Age

No sites of the Iron Age period were found.

6.4 Commercial Farming Heritage

There is material evidence of commercial farming activities which form part of a rural cultural landscape now being recognised as heritage. Several stone pillars or monoliths up to length of 1.30 m were found in the footprint of the proposed powerline, either standing or collapsed. They were fencing posts often to substitute wooden poles which were not locally available on the grassveld. The stone pillars were mostly planted at corners for stabilisation necessary to keep the fences standing. While the powerlines may pass overhead, there is no compelling reason to disturb these features.

Several wind pumps which are located together with concrete water reservoirs were recorded. An isolated planting of eucalyptus trees was recorded as significant in the highveld terrain devoid of trees. It is recommended that the powerlines can pass on the side of the trees but not over them. Tree branches may be pruned subject to consultation with the landowner, but wholesale removal of trees must be avoided.

6.5 Burial ground

There is an old burial ground on the outskirts of Zastron (ZST10) which is in Eskom's records of preliminary feasibility studies. During a walkabout the graveyard, it was observed that most graves were poorly marked. The burial ground holds more than 60 graves. It is not fenced and an attempt to ascertain the extent of the graveyard was therefore not conclusive. In the map below the blue quadrilateral shows the extent of superficial evidence, but since it is likely that some graves are not marked, the burial ground might extend beyond the hypothetical boundary. A blue circle has been drawn to show the extent of a 100 m reserve around the burial ground measured from the corners of the burial ground furthest from its centre, about 38 m radius. This shows that the proposed route encroaches into the proposed buffer with one of the postholes (B34) only 25m from the limits of the burial ground.



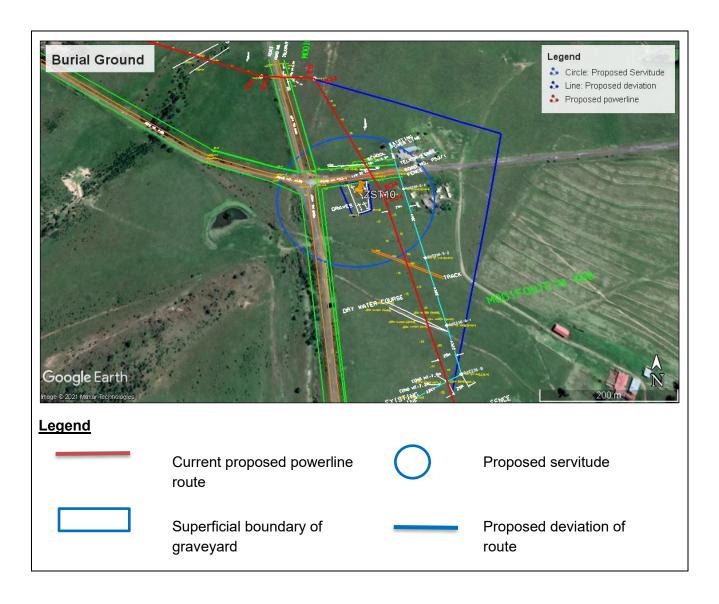


Figure 12: Google Earth map shows the location of the burial ground in relation to the powerline, and the proposed deviation of the powerline away from the graveyard

6.6 Recommendations

Deviation of a section of the route is recommended to avoid the graves servitude. A feasible option is to move the line to the east as indicated in Figure 10. Alternatively the developer may submit an application to the heritage authority seeking a waiver of the servitude.

6.7 Risk Assessment

Granting an exemption to run the powerline through the servitude is the discretion of the heritage authority considering that this is a mandatory requirement. Posthole excavations and placement of stay anchors can potentially damage artifacts or human remains if they occur below the surface. On the basis of the ground survey, the likelihood of this occurring is rated <u>medium</u> to <u>high</u> as the limits of the burial ground have not been fixed with any reasonable certainty. Avoidance of the servitude is therefore recommended as the better of the two options.



6.8 Roadside Memorial

The next-of-kin of the late Mr Arthur John Webb to whom a roadside memorial (RXV06) is dedicated was consulted in respect of the position of the memorial in relation to the proposed powerline route. There was no objection and Eskom has received a letter of acknowledgement of the communication.

6.9 Ranking of sites and Risk Assessment

	RANKING	SIGNIFICANCE	NO OF SITES
1	High	National and Provincial heritage sites (Section 7 of NHRA). All burials including those protected under Section 36 of NHRA. They must be protected.	1 (burial ground)
2	Medium A	Substantial archaeological deposits, buildings protected under Section 34 of NHRA. Footprint of early modern mining. Cultural Landscapes. These may be protected at the recommendations of a heritage expert.	0
3	Medium B	Sites exhibiting archaeological characteristics of the area, but do not warrant further action after they have been documented.	9
4	Low	Heritage sites which have been recorded, but considered of minor importance relative to the proposed development.	6
		TOTAL	16



Table 1: Heritage sites

SITE NO	LATITUDE	LONGITUDE	PERIOD	DESCRIPTION	RANKING	MITIGATION
SFD01	30°14'55.12"S	26°34'8.66"E	Modern	On the farm Groenspruit 516. Wind pump and concrete reservoir.	Low	No action required
SFD02	30°18'41.85"S	26°42'30.70"E	Modern	On the farm Klipplaatdrift 68. A farm gate with short flanking walls of dressed (coursed) sandstone.	Medium B	Avoid disturbance
RXV03	26°42'30.70"E	26°51'14.90"E	Modern	On the farm Dorpscronden van Rouxville 108, eastern outskirts of Rouxville. Remnants of a brick building at an abandoned pump station. Rusted drinking trough.	Low	No action required
RXV04	30°25'19.80"S	26°49'7.70"E	19th/20th C	On the farm Dorpscronden van Rouxville 108, south-western outskirts of Rouxville. Two stone pillars, 80 cm tall, 20 m apart, were used as fencing posts.	Medium B	Avoid disturbance
RXV05	30°25'14.80"S	26°49'4.50"E	19th/20th C	On the farm Dorpscronden van Rouxville 108, on the south-western outskirts of Rouxville. A stone pillar 120 cm long was used as a fencing post	Medium B	Avoid disturbance
RXV06	30°24'2.30"S	26°51'35.70"E	21st C	On the farm Paisley B 1039. A roadside memorial in a rectangular steel palisade, floor of ceramic tiles. Landmark for fatal traffic accident.	Medium B	Avoid disturbance
RXV07	30°21'9.69"S	26°55'39.67"E	Modern	On the farm Knectkloof 125. Wind pump and concrete reservoir.	Low	No action required



SITE NO	LATITUDE	LONGITUDE	PERIOD	DESCRIPTION	RANKING	MITIGATION
RXV08	30°17'39.73"S	27° 0'23.82"E	Modern	On the farm Sadowa 331. A small lake. The dam wall is reinforced by dressed (coursed) stonework on the lakeside. Stones of a dark shade used for coursing in middle section of the wall to create a decoration pattern.	Medium B	Will not be affected
RXV09	30°17'47.46"S	27° 0'26.80"E	Modern	On the farm Zevenfontein 254. Wind pump and concrete reservoir.	Low	No action required
ZST10 Corner A	30°16'33.35"S	27° 4'41.61"E	20th C	Burial ground on the northern outskirts of Zastron. It holds 60+ graves. Most of the graves are poorly marked with stones. Some of the names inscribed: Makhoa Anna Moleleki DOB 10-04-1898 DOD 22-08-1980; Mamallao (no dates); Tlatsi (no dates); John Mmane (no dates); Mmane Matankisa (no dates); Mophosi Agness Mahohodi DOB 22-03-1963 DOD 23-01-2008.	High	100 m servitude to be reserved.
Corner B	30°16'32.99"S	27° 4'43.48"E				
Corner C	30°16'35.04"S	27° 4'43.75"E				
Corner D	30°16'35.39"S	27° 4'42.56"E				
ZST11	30°16'57.09"S	27° 1'24.81"E	Modern	On the farm Belfast 513. Two abandoned farm buildings.	Low	No action required
RXV12	30°19'39.57"S	26°59'5.37"E	Modern	On the farm Heningsdale 400. Wind pump and concrete reservoir.	Low	No action required
RXV13	30°20'40.90"S	26°57'24.46"E	Modern	On the farm Umbala 1059. An isolated planting of Eucalyptus is an important landscape feature.	Medium B	Branches may be trimmed, but removal of trees to be avoided



SITE NO	LATITUDE	LONGITUDE	PERIOD	DESCRIPTION	RANKING	MITIGATION
RXV14	30°21'15.20"S	26°54'57.00"E	19th/20th C	On the farm Fraai Uizcht 322, One stone pillar, 1.6m tall, used as fencing post.	Medium B	Avoid disturbance
RXV15	30°21'17.50"S	26°54'48.60"E	19th/20th C	On the farm Fraai Uitzicht 322, on the southwestern outskirts of Rouxville. Four stone pillars of different heights, were used as fencing posts.		Avoid disturbance
RXV16	30°21'27.20"S	26°54'22.60"E	19th/20th C	On the farm Uitzicht 322, on the south-western outskirts of Rouxville. Two stone pillars of different heights, were used as fencing posts.		Avoid disturbance



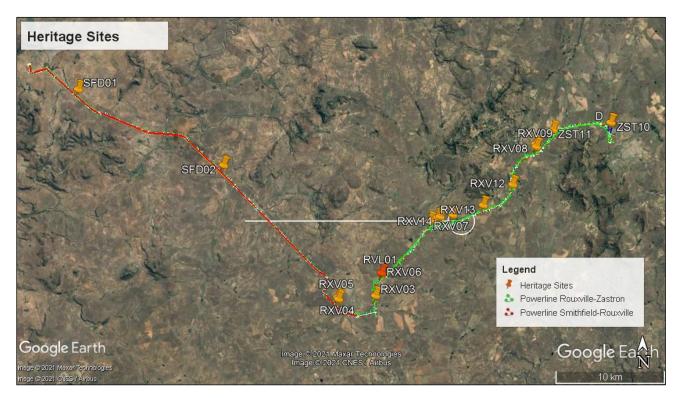


Figure 13: Google Earth map shows the location of heritage sites

6.10 Assessment of Impacts using the Heritage Impact Assessment Statutory Framework

Section 38 of the NHRA

Section 38 (Subsection 3) of the National Heritage Resources Act also provides a schedule of tasks to be undertaken in an HIA process:

Section 38(3) The responsible heritage resources authority must specify the information to be provided in a report required in terms of subsection (2)(a): Provided that the following must be included:

- (a) The identification and mapping of all heritage resources in the area affected Sixteen (16) heritage sites were recorded.
- (b) An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 6(2) or prescribed under section 7

There are no Grade I or Grade II sites. There is a burial ground on the outskirts of Zastron with more than 60 graves. A 100 m servitude will be reserved. This will entail a deviation from the proposed route.

(c) An assessment of the impact of the development on such heritage resources N/A.



(i) An evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development

The supply of power is critical for sustainable growth of the economy. In the area energy supply must be increased to meet growing demand from farms, agri-processing and mining.

(e) The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources

Public notices were placed at the substation in Smithfield, the Post Office in Rouxville and Spar Supermarket at Zastron. No public objections have to the projects have been received (Figures 14-17). A public notice was published in the Bloem News issue of 1 July 2021. In both cases a window period of 30 days was stated in which the public were expected send in comments or express their views about the project.

The roadside memorial outside Rouxville on the road to Zastron (RXV06) was a subject of interest as to its treatment from a heritage perspective. The general view is that monuments to the dead must be respected. Initially it was thought that the memorial was situated on Mr W J Ludick's farm (Mobile 073 1989 026). On being approached he said the memorial was located on municipal land 300 m south of the boundary of his property. He gave us contact details of the widow of the deceased, Mrs Diana Webb (Tel: 051 673 1331, Mobile: 060 345 7716). Mrs Webb said the memorial was for her husband, Arthur John Webb, who died in a vehicle accident in October 2011. She said she had no objections to the powerline passing close to the memorial, and confirmed this understanding in an email attached to this report (Appendix A).

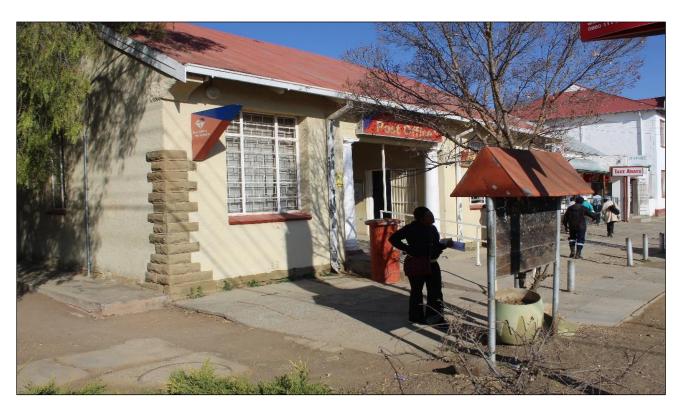


Figure 14: Rouxville Post Office





Figure 15: Public notice placed on the notice board at Rouxville Post Office



Figure 16: Public notice placed on the notice board in the Spar Supermarket at Zastron





Figure 17: Public notice placed at the Eskom substation at Smithfield

(f) If heritage resources will be adversely affected by the proposed development, the consideration of alternatives

It has been recommended that a section of powerline route be moved east to avoid encroaching into the servitude of a burial ground on the outskirts of Zastron.

(g) Plans for mitigation of any adverse effects during and after the completion of the proposed development.

In the event of the discovery of other heritage resources during the construction phase, the Provincial Heritage Resources Authority or SAHRA will be informed immediately and an archaeologist or heritage expert called to attend.



6.11 Risk Assessment of the findings

EVALUATION CRITERIA	RISK ASSESSMENT
Description of potential impact	Negative impacts range from partial to total destruction of surface and under-surface movable/immovable relics including graves.
Nature of Impact	Negative impacts can both be direct or indirect.
Legal Requirements	Sections 34, 35, 36, 38 of National Heritage Resources Act No. 25 (1999)
Stage/Phase	Excavation of postholes and anchoring of stays
Extent of Impact	Posthole excavations can result in the damage and destruction of archaeological resources above and below the surface (which may include human remains) not seen during the survey.
Duration of Impact	Any accidental destruction of surface or subsurface relics is not reversible.
Intensity	Uncertain.
Probability of occurrence	Medium to High.
Confidence of assessment	High.
Level of significance of impacts before mitigation	High.
Mitigation measures	Option 1: A 100 m servitude to be reserved around the burial ground, which entails the powerline to be rerouted to avoid the servitude.
	Option 2: Apply to the Heritage Authority for an exemption for the powerline to encroach into the servitude.
	If archaeological or other heritage relics are found during the construction phase, heritage authorities will be advised immediately and a heritage specialist will be called to attend.
Level of significance of impacts after mitigation	Low.
Cumulative Impacts	None.
Comments or Discussion	None.



7. CONCLUSION AND RECOMMENDATIONS

The project must be allowed to go ahead with the following recommendation being made:

- A 100 m servitude to be reserved around the burial ground, which entails that the proposed powerline is rerouted to avoid the servitude.
- The structures and landscape features that have been flagged must not be disturbed.
- If archaeological or other heritage relics are found during the construction phase, heritage authorities will be advised immediately and a heritage specialist will be called to attend. Since archaeological deposits are usually buried underground, if artefacts or skeletal material are exposed in the area during construction, such activities should be halted, and the provincial heritage resources authority or SAHRA notified in order for an investigation and evaluation of the finds to take place.



8. REFERENCES

Deacon, H.J. & Deacon, J. 1999. Human Beginnings in South Africa: Uncovering the Secrets of the Stone Age. Cape Town: David Philip.

De Jong, R. C. 2010. Heritage Impact Assessment Report: Proposed Manganese and Iron Ore Mining Right Application in Respect of the Remainder of the Farm Paling 434, Hay Registration Division, Northern Cape Province. Cultmatrix.

Goodwin, A.J.H. & van Riet Lowe, C. 1929. The Stone Age cultures of South Africa. Annals of the South African Museum 27.

Exigo Consultancy. 2015. Frances Baard District Municipality: Proposed Nkandla Extension 2 Township Establishment, Erf 258 Nkandla, Hartswater, Northern Cape Province

Phillipson, D. W. 2005. African Archaeology. Cambridge: University of Cambridge Press.

Roussouw, L. 2017. Phase 1 Heritage Impact Assessment of a proposed new Eskom 132kV power line between the Rouxville substation in the Free State Province and the Melkspruit substation in Aliwal North, Eastern Cape Province. (SAHRIS)

Ryano, K. P. 2014. The Later Stone Age in the Southern Cape, South Africa, during the Terminal Pleistocene/Early Holocene with a Focus on Klipdrift Cave. PhD Thesis. University of the Witwatersrand.

Websites

Smithfield, Free State. Found at: https://en.wikipedia.org/wiki/Smithfield, Free State

Rouxville History. Found at: https://rouxvilleinformation-freestate.co.za/rouxville-history/

Zastron. Found at: https://www.sahistory.org.za/place/zastron



9. CATALOGUE OF HERITAGE SITES

SITE NO	COORDINATES		PERIOD
SFD01	30°14'55.12"S	26°34'8.66"E	Modern



DESCRIPTION: On the farm Groenspruit 516. Wind pump and concrete reservoir.

HERITAGE SIGNIFICANCE	Association with modern commercial farming.	
MITIGATION	No action required.	



SITE NO	COORDINATES		PERIOD
SFD02	30°18'41.85"S	26°42'30.70"E	Modern





DESCRIPTION: On the farm Klipplaatdrift 68. A farm gate with short flanking walls of dressed (coursed) sandstone.

HERITAGE SIGNIFICANCE	Association with early modern commercial farming
MITIGATION	Avoid disturbance.



SITE NO	COORDINATES		PERIOD
RXV03	26°42'30.70"E	26°51'14.90"E	Modern



DESCRIPTION: On the farm Dorpscronden van Rouxville 108, on the eastern outskirts of Rouxville. Remnants of a brick building at an abandoned pump station. Rusted drinking trough.

HERITAGE SIGNIFICANCE	Association with modern commercial farming.
MITIGATION	No further action required.



SITE NO	COORDINATES		PERIOD
RXV04	30°25'19.80"S	26°49'7.70"E	19 th /20 th Century





DESCRIPTION: On the farm Dorpscronden van Rouxville 108, on the south-western outskirts of Rouxville. Two stone pillars, 80 cm tall, 20 m apart, were used as fencing posts.

HERITAGE SIGNIFICANCE	Association with early modern commercial farming.
MITIGATION	Avoid disturbance



SITE NO	COORDINATES		PERIOD
RXV05	30°25'14.80"S	26°49'4.50"E	19 th /20 th century



DESCRIPTION: On the farm Dorpscronden van Rouxville 108, on the south-western outskirts of Rouxville. A stone pillar 120 cm long was used as a fencing post.

HERITAGE SIGNIFICANCE	Association with early modern commercial farming.	
MITIGATION	Avoid disturbance.	



SITE NO	COORDINATES		PERIOD
RXV06	30°24'2.30"S	26°51'35.70"E	21st century





DESCRIPTION: On the farm Paisley B 1039. A roadside memorial fenced in a rectangular steel palisade, floor of ceramic tiles.

HERITAGE SIGNIFICANCE	Road accident memorials in memory of road accident victims	
MITIGATION	Avoid disturbance. Lines should not pass over the memorial.	



SITE NO	COORDINATES	3	PERIOD
RXV07	30°21'9.69"S	26°55'39.67"E	Modern



DESCRIPTION : On the	farm Knectkloof 125. \	Wind pump and	concrete reservoir.
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HERITAGE SIGNIFICANCE	Association with modern commercial farming.
MITIGATION	No action required.



SITE NO	COORDINATES		PERIOD
RXV08	30°17'39.73"S	27° 0'23.82"E	Modern



DESCRIPTION: On the farm Sadowa 331. A small lake. The dam wall is reinforced by dressed (coursed) stonework on the lakeside. Courses of stones of a dark shade in middle section of the wall create a decoration pattern.

HERITAGE SIGNIFICANCE	Association with modern commercial farming	
MITIGATION	Will not be affected by the project.	



SITE NO	COORDINATES		PERIOD
RXV09	30°17'47.46"S	27° 0'26.80"E	Modern



DESCRIPTION: On the farm Zevenfontein 254. Wind pump and concrete reservoir.

HERITAGE SIGNIFICANCE	Association with modern commercial farming.
MITIGATION	No action is required.



SITE NO	COORDINATES		PERIOD
ZST10			20 th Century
А	30°16'33.35"S	27° 4'41.61"E	
В	30°16'32.99"S	27° 4'43.48"E	
С	30°16'35.04"S	27° 4'43.75"E	
4	30°16'35.39"S	27° 4'42.56"E	









SITE NO COORDINATES PERIOD







DESCRIPTION: Burial ground on the northern outskirts of Zastron. It holds 60+ graves. Most of the graves are poorly marked with stones. Some of the names inscribed: Makhoa Anna Moleleki DOB 10-04-1898 DOD 22-08-1980; Mamallao (no dates); Tlatsi (no dates); John Mmane (no dates); Mmane Matankisa (no dates); Mophosi Agness Mahohodi DOB 22-03-1963 DOD 23-01-2008.

HERITAGE SIGNIFICANCE	Section 36 of the NHRA. Graves are sacred.	
MITIGATION	100 m servitude to be reserved around the burial ground.	



SITE NO	COORDINATES		PERIOD
ZST11	30°16'57.09"S	27° 1'24.81"E	Modern



DESCRIPTION: On the farm Belfast 513. Two abandoned farm buildings.

HERITAGE SIGNIFICANCE Association with modern commercial farming.	
MITIGATION	No action required.



SITE NO	COORDINATES		PERIOD
RXV12	30°19'39.57"S	26°59'5.37"E	Modern



DESCRIPTION: On the farm Heningsdale 400. Wind pump and concrete reservoir.

HERITAGE SIGNIFICANCE	Association with modern commercial farming.		
MITIGATION	No action required.		



SITE NO	COORDINATES		PERIOD
RXV13	30°20'40.90"S	26°57'24.46"E	Modern



DESCRIPTION: On the farm Umbala 1059. An isolated planting of Eucalyptus is an important landscape feature.

HERITAGE SIGNIFICANCE	Association with modern commercial farming.			
MITIGATION	Branches may be trimmed, but removal of trees to be avoided.			



SITE NO	COORDINATES		PERIOD			
RXV14	30°21'15.20"S	26°54'57.00"E	19 th /20 th century			



DESCRIPTION: On the farm Fraai Uizcht 322. Stone pillar 1.6m tall, was used as fencing post.

HERITAGE SIGNIFICANCE	Association with early modern commercial farming.
MITIGATION	Avoid disturbance.



SITE NO	COORDINATES		PERIOD			
RXV15	30°21'17.50"S	26°54'48.60"E	19 th /20 th century			



DESCRIPTION: On the farm Fraai Uitzicht 322, on the south-western outskirts of Rouxville. Four stone of different heights, were used as fencing posts.

HERITAGE SIGNIFICANCE	Association with early modern commercial farming.
MITIGATION	Avoid disturbance.



SITE NO	COORDINATES		PERIOD		
RXV16	30°21'27.20"S	26°54'22.60"E	19 th /20 th century		



DESCRIPTION: On the farm Fraai Uitzicht 322, on the south-western outskirts of Rouxville. Two stone of different heights, were used as fencing posts.

HERITAGE SIGNIFICANCE	Association with early modern commercial farming.
MITIGATION	Avoid disturbance.



10. APPENDICES

- A: Letter from Mrs Diana Webb acknowledging communication in respect of the Roadside Memorial (RXV06).
- B: Copy of the Public Notice which appeared in the Bloem News issue of 1 July 2021.
- C: Attendance Register.
- D: Maps of track log.
- E: Archaeological and Heritage Chance Find Procedure



APPENDIX A:

Letter from Mrs Diana Webb acknowledging communication in respect of the Roadside Memorial (RXV06).

Good day

I received a phone call from Mr. Edward Matenga

He informed me about the new powerline that will be constructed.

He also informed me that the powerline will pass 16m from the memorial side of my late husband Arthur – John Webb.

This letter is to confirm that I have no issues about the powerline passing the memorial side

And that Eskom can continue with the construction of the powerline

Regards

Dianne Webb



APPENDIX B:

Copy of the Public Notice which appeared in the Bloem News issue of 1 July 2021.











APPENDIX C:

Attendance Register.

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1	SERVICES
4	SERVICES

ATTENDANCE REGISTER

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Client	Name	ESKOM	Meeting Date		
Project Name Description		Archaeology Services for Smithfield to Rouxville and Rouxville to Zastron 33kv Powerline Routes	Meeting Duration		
		TSJESKOM	Chairperson		
Meetin	g Location		1		
NO.	NAME AND SURNAME	CONTACT	EMAIL	SIGNATURE	
1	Mahlatse Moena	0791990679	moenank@eskom.co.z	Malvery.	
2	Paul Jansen	0736999417	jansensi Deskom. co. za	@:1	
3	Paul Jansen EDWALDMATENGA	0739810637	finatenas 3986	grant.ca	u Eller
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APPENDIX D:

Maps of track log.

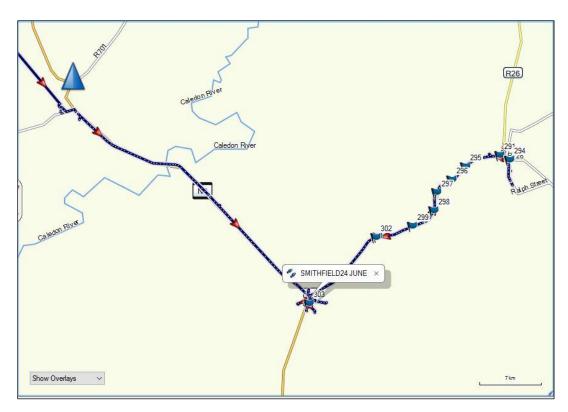


Figure 1: Track log overview

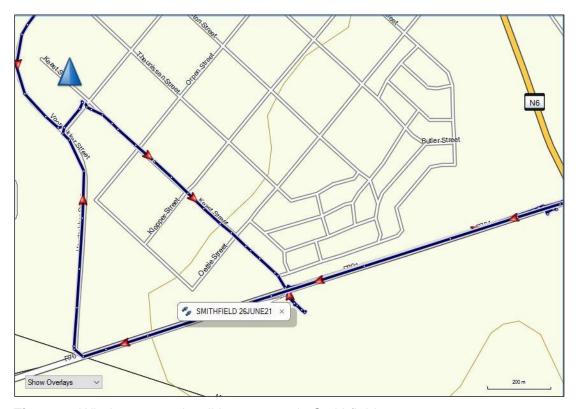


Figure 2: Windscreen and walking surveys in Smithfield

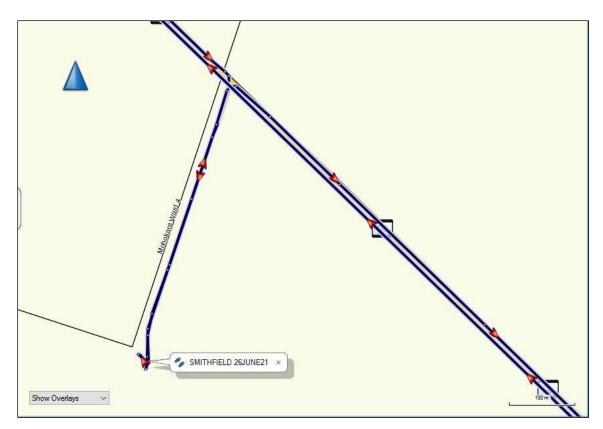


Figure 3: Walking and Windscreen Surveys along the N6 highway between Smithfield and Rouxville

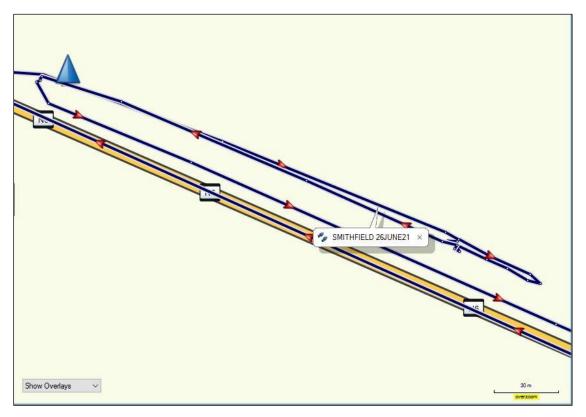


Figure 4: Windscreen and Walking surveys along the N6 highway west of the Caledon River



Figure 5: Windscreen and Walking Surveys around Rouxville

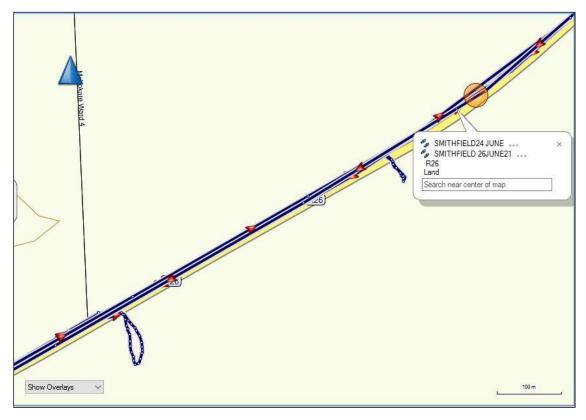


Figure 6: Windscreen and Walking surveys along the R526 highway between Rouxville and Zastron



Figure 7: Windscreen and walking surveys in Zastron



APPENDIX E:

Archaeological and Heritage Chance Find Procedure



ARCHAEOLOGICAL AND HERITAGE CHANCE FINDS PROCEDURE
FOR THE PROPOSED SMITHFIELD TO ROUXVILLE AND ROUXVILLE TO ZASTRON
33KV POWERLINE ROUTES, FREE STATE PROVINCE

REPORT SUBMITTED TO:

Eskom Distribution Division

Free State Operational Unit

Mahlatse Moeng | MoengMK@eskom.co.za

Date of Submission | 06 August 2021



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(aluga

Full Name: Edward Matenga

Title / Position: Heritage Management Consultant



DOCUMENT CONTROL

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REVISION AND AMENDMENTS

DATE	No.	DESCRIPTION OF REVISION OR AMENDMENT
06/08/2021	1	Final Version revision



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ABBREVIATIONS

BGG Burial Grounds and Graves unit of SAHRA

CPF Chance Finds Procedure

CMP Conservation Management Plan

ECO Environmental Control Officer

ESA Early Stone Age
LSA Later Stone Age
MSA Middle Stone Age

NHRA National Heritage Resources Act (No 25/1999)

SAPS South African Police Services

SAHRA South African Heritage Resources Agency



1. BACKGROUND

A Heritage Impact Assessment (HIA) study was undertaken on behalf of Eskom SOE for a proposed new powerline route from Smithfield substation through the Rouxville substation (approx. 50 km) to the Zastron substation (approx. 35 km).

A ground survey was conducted from 23 to 26 July 2021 for the possible occurrence of archaeological and historical material along the route of the proposed powerline. An HIA report has been prepared to which this Chance Finds Procedure is appended.

During project implementation, the Archaeological and Heritage Chance Finds Procedure (CPF) will be applied as a manual for the protection of unidentified heritage resources which may occur in the in the corridor of the powerline.

2. LEGAL FRAMEWORK

The National Heritage Resources Act (No 25 / 1999) is the principal law for the protection of heritage resources and for the application of the CPF, attention is drawn to the following Sections:

- Section 3 on the definition and types of heritage resources
- Section 4 on the provisional protection of buildings more than 60 years old
- Section 35 on the protection of archaeological and palaeontological resources
- Section 36 on the protection of graves and human remains

3. NATURE OF DEVELOPMENT AND EXPECTED IMPACT

The project entails the installation of overhead electricity cables carried by wooden pole pylons. For the most part, the proposed powerline is running alongside the N6 highway from Smithfield to Rouxville and the R26 Rd from Rouxville to Zastron. The following are physical works which are likely to impact heritage above and/or below the surface:

- Clearance, where necessary, for the servitude for the overhead powerline
- Excavation of postholes;
- Establishment of temporary offices, storage facilities and parking for plant (excavators and other equipment)
- Establishment of temporary accommodation for labourers

Heritage Resources are likely to be damaged or destroyed as a result of the proposed physical works.



4. HERITAGE SITES AND OBJECTS THAT MIGHT OCCUR IN THE AREA

The following site types/objects have been encountered in the broader region and are therefore flagged for possible occurrence along the route of the powerline:

- Surface scatters or concentrations of stone tools of the ESA, MSA, LSA periods.
- Substantial subsurface occurrences of stone tools.
- Graves, burial grounds and human bones.
- Stone pillars.

5. GENERAL

A principal aim of the CFP is to raise awareness of all personnel in the project regarding the prospect of finding archaeological resources that unseen during the Phase 1 scoping heritage assessment and establish a protocol for the protection of these resources. The appointed Environmental Control Officer (ECO) and Site Manager keep copies of the CPF at the field offices. Training of field personnel on cultural heritage resources that might potentially be found on area should be provided.

6. PROCEDURE FOR ARCHAEOLOGICAL FINDS

If you discover what you suspect may be a possible archaeological site:

- Stop all work in the area to avoid damaging the site.
- Do not disturb any archaeological remains that you may encounter.
- The finds must be reported to ECO or Site Manager
- The finds must be reported to the heritage authority, i.e. SAHRA and/or the provincial heritage resources agency.
- The heritage authority will send a heritage specialist and /or ask the permit holder to appoint a heritage specialist to make a preliminary assessment of the findings.
- If the potential significance of the finds are deemed to warrant further action and they cannot be avoided, then then heritage specialist will submit a report advising SAHRA accordingly.
- SAHRA will determine the appropriate course of action.



7. PROCEDURE FOR GRAVES, BURIAL GROUNDS AND HUMAN REMAINS

If you discover what you suspect may be possible human remains:

- Stop all work in the area to avoid damaging the site.
- Do not disturb any possible human remains that you may encounter.
- The finds must be reported to ECO or Site Manager.
- The finds must be reported to the local area station of SAPS.
- The finds must be reported to the SAHRA Burial Grounds and Graves (BGG) Unit.
- The BGG Unit will send a heritage specialist and /or ask the permit holder to appoint a heritage specialist to make a preliminary assessment of the findings.
- If the graves/human remains cannot be avoided SAHRA will require that the human remains be re-interred in a formal cemetery.
- Public participation to identify interested and affected parties (if any) will be undertaken in terms of NHRA Regulations 39, 41 and 41 in the Government Notice No R548 (year 2000).
- An application will be lodged to the BGG for the relocation of the human remains in terms of NHRA Regulations 34 in the Government Notice No R548 (year 2000).
- If the graves/ human remains must not be relocated, the BGG Unit may require that any damage done to the site is repaired and a 100m buffer zone is enforced around the site.

8. PRESCRIPTION OF A CONSERVATION MANAGEMENT PLAN

A Conservation Management Plan (CMP) for the Burial Ground (ZST10) may be required if Eskom elects to apply for an exemption to run the powerline across the servitude of 100 m recommended around the burial ground, and the exemption is granted by the heritage authority.

9. SAHRA CONTACT DETAILS

SAHRA HEAD OFFICE	SAHRA BGG UNIT
111 Harrington Street Cape Town, 8001 Email: info@sahra.org.za Tel: (021) 462 4502 Fax: (021) 462 4509	Office 101, 1st floor, Sancardia Mall, 541 Madiba Street Pretoria Tel: 012 320 8490/ 4965 Fax: +27 12 320 8486