Archaetnos Culture & Cultural
Resource Consultants
BK 98 09854/23

A REPORT ON A HERITAGE IMPACT ASSESSMENT FOR THE ESKOM TRANSNET FREIGHT RAIL PROJECT, LIMPOPO PROVINCE

For:

Landscape Dynamics
PO Box 947
Groenkloof
0027

REPORT NO.: AE01920V

By:

Prof. A.C. van Vollenhoven (L.AKAD.SA.)
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&
Johan Smit, BA (Hons)

3 May 2019

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SUBMISSION OF REPORT

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

It is the client's responsibility to do the submission via the SAHRIS System on the SAHRA website. Arrangements can however be made if necessary.

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

DISCLAIMER

Although all possible care is taken to identify all sites of cultural importance during the survey of study areas, the nature of archaeological and historical sites is as such that it always is possible that hidden or subterranean sites could be overlooked during the study. Access to certain areas is also sometimes limited. Archaetnos and its personnel will not be held liable for such oversights or for costs incurred as a result thereof. Any additional sites identified can be visited and assessed afterwards and the report amended, but only upon receiving an additional appointment.

EXECUTIVE SUMMARY

Archaetnos cc was requested by Landscape Dynamics to conduct a Heritage Impact Assessment (HIA) for ESKOM, related to the proposed ESKOM TRANSNET Freight Rail Project. The project runs runs south and west of the Medupi Power Station near Lephalale to just north of Thabazimbi in the Limpopo Province.

The project entails the construction of:

- 4 x 132kV Traction Substations (Lephalale, Diepspruit, Matlabas and Marekele)
- 4 x communication towers
- ±7km 132kV line from Medupi to proposed Lephalale Traction Sub
- ±26km 132kV line from Lephalale Traction Sub to existing Theunispan Sub
- ±15km 132kV line from Theunispan Sub to Theunispan T-off
- 3 x 132kV line bays at Theunispan Sub
- Loop in-out the 132kV traction stations as follows:
    - Lephalale Traction – 2 x 40 m 132kV lines from the new Medupi Theunispan line
    - Diepspruit Traction – 2 x 1 km 132kV lines from the existing Medupi Thabazimbi line
    - Matlabas Traction – 2 x 1 km 132kV lines from the existing Medupi Thabazimbi line
    - Marekele Traction – 2 x 2.5 km 132kV Lines from the existing Medupi Thabazimbi line

A survey of literature was undertaken in order to obtain background information regarding the area. The field survey was conducted according to generally accepted HIA practices and was aimed at locating all possible objects, sites and features of cultural significance in the area of proposed development.

No sites of cultural heritage importance were identified.

The following is recommended:

1. Since no sites were identified, the project may continue.

2. From a heritage perspective there is no preference for any of the preferred or alternative routes.

3. Due to accessibility issues and the density of vegetation further studies would be needed. A walk down, after positions of pylons have been determined is therefore recommended. This will be applicable to all project components.

4. It should be noted that the subterranean presence of archaeological and/or historical sites, features or artefacts is always a distinct possibility. Care should therefore be taken when development commences that if any of these are discovered, work on site immediate cease and a qualified archaeologist be called in to investigate the occurrence**.**

CURRICULUM VITAE

Prof. Anton Carl van Vollenhoven

PERSONAL INFORMATION

- Born: 20 January 1966, Pretoria, RSA
- Address: Archaetnos, PO Box 55, Groenkloof, 0027
- Cell phone: 083 291 6104
- Nationality: RSA
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TERTIARY EDUCATION

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

EMPLOYMENT HISTORY

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

OTHER

- Has published 34 peer-reviewed and 42 popular articles.
- Hs written 11 books/book contributions/conference proceedings .

- Has been the author and co-author of over 911 unpublished reports on cultural resources surveys and archaeological work.
- Has delivered more than 72 papers and lectures at national and international conferences.
- Member of SAHRA Council for 2003 – 2006.
- Member of the South African Academy for Science and Art.
- Member of Association for South African Professional Archaeologists.
- Member of the South African Society for Cultural History (Chairperson 2006-2008; 2012-2014; 2018-2020).
- Has been editor for the SA Journal of Cultural History 2002-2004.
- Editorial member of various scientific journals.
- Member of the Provincial Heritage Resources Agency, Gauteng's Council.
- Member of Provincial Heritage Resources Agency, Gauteng's HIA adjudication committee (Chairperson 2012-2019).

A list of reports can be viewed on www.archaetnos.co.za.

DECLARATION OF INDEPENDENCE

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

Signed:  Date: 3 May 2019

LIST OF ACRONYMS:

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

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1. INTRODUCTION

Archaetnos cc was requested by Landscape Dynamics to conduct a Heritage Impact Assessment (HIA) for ESKOM, related to the proposed ESKOM TRANSNET Freight Rail Project. The project runs runs south and west of the Medupi Power Station near Lephalale to just north of Thabazimbi in the Limpopo Province (Figure 1-2).

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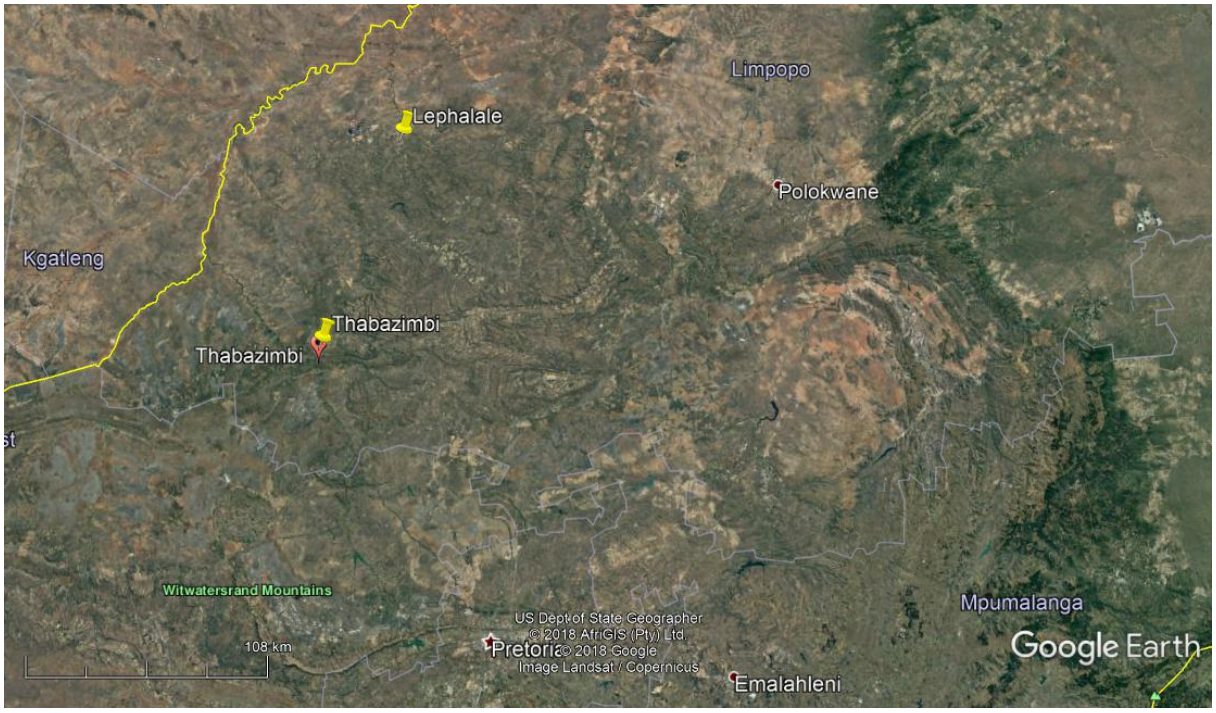

Figure 1: Location of Lephalale and Thabazimbi in the Limpopo Province.

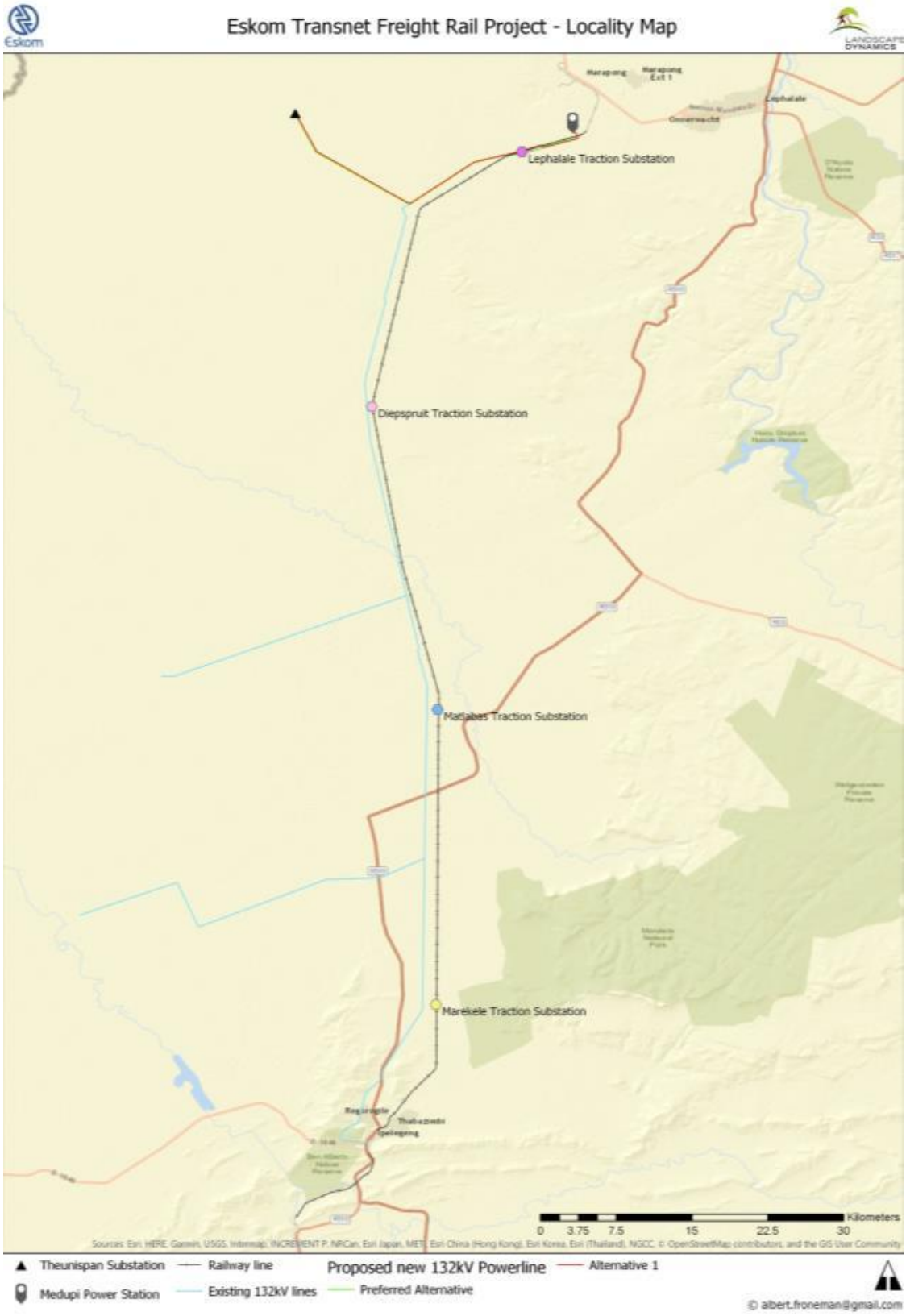

Figure 2: Location map of the project.

The HIA is done as part of the Environmental Impact Assessment (EIA) process according to the Environmental Impact Assessment Regulations which came into effect in December 2014, as amended and promulgated in terms of section 24(5) of the National Environmental Management Act, 1998 (Act No. 107 of 1998). Listing Notices 1 and 3 are applicable and a Basic Assessment Report has to be compiled. The decision-making authority for this EIA is the national Department of Environmental Affairs (DEA).

Alternative route options and substation sites are being investigated and assessed as part of this basic EIA process. These were indicated by the client and surveyed by a foot an off road vehicle.

Although one project, each of the components can be handled separately. These are indicated in Figure 3-7.

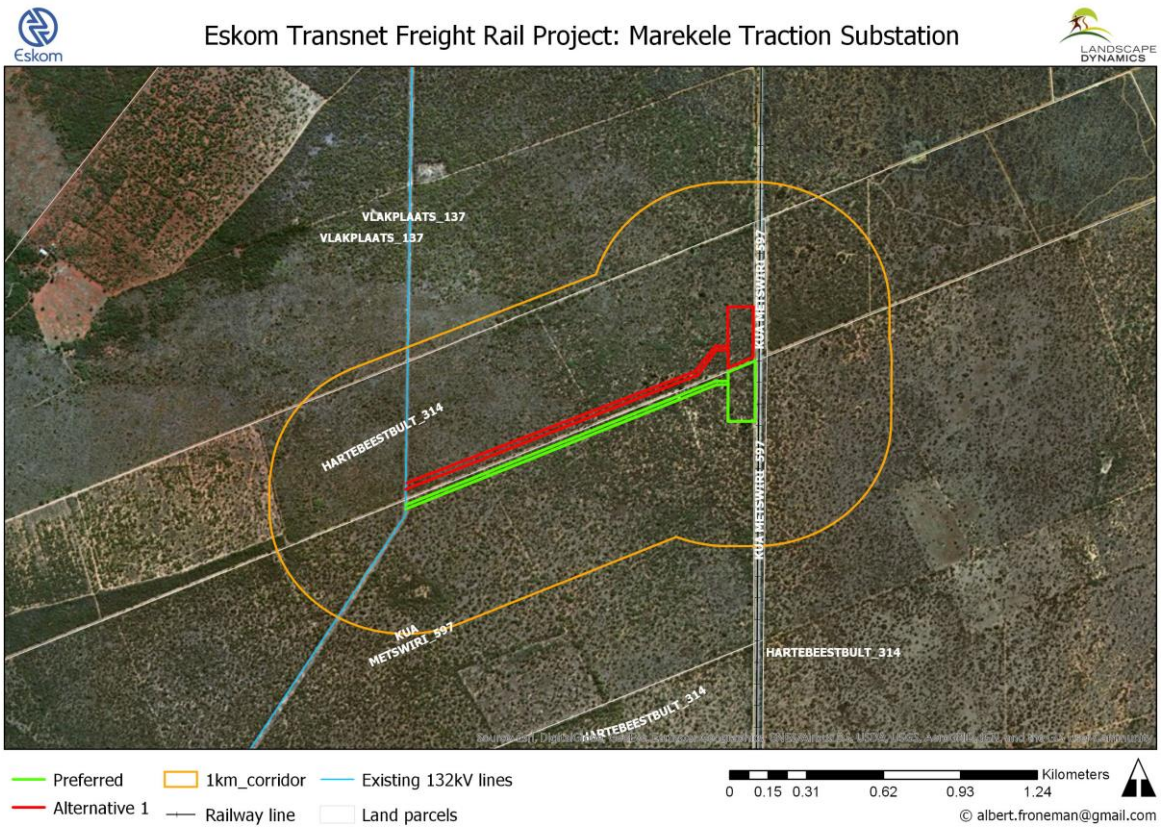

Figure 3: Marakele Traction Substation proposal.

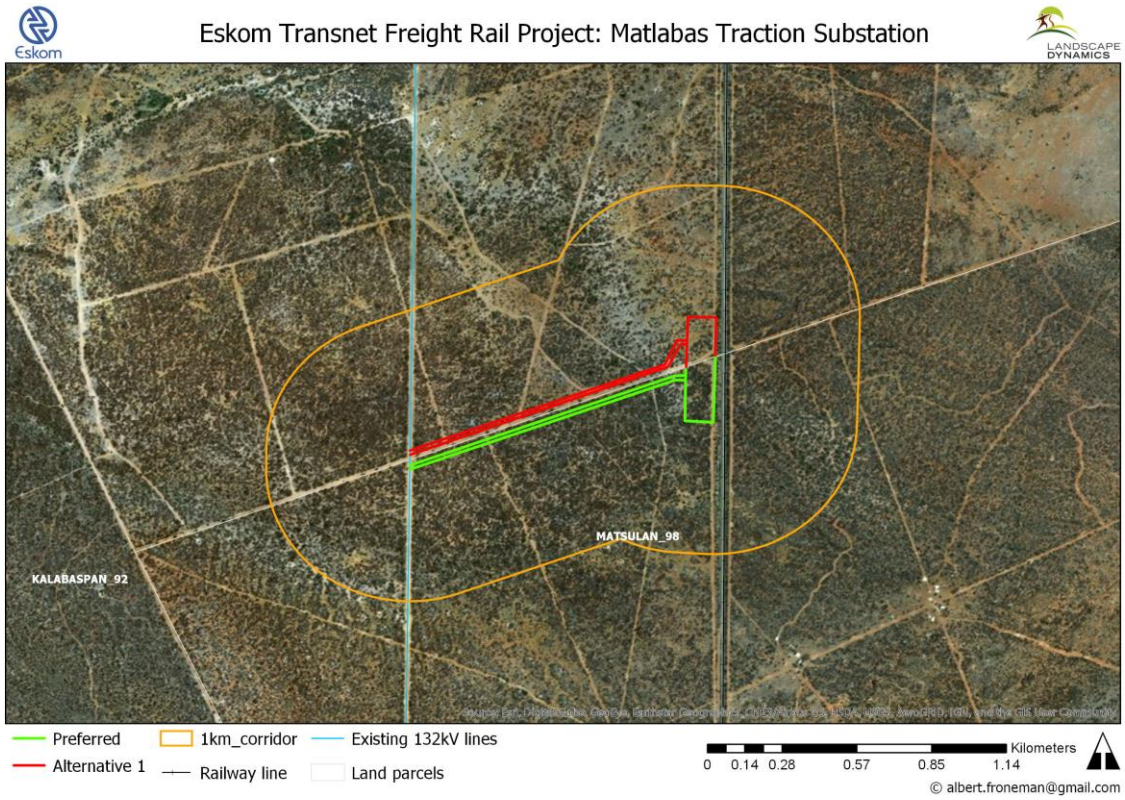

Figure 4: Matlabas Traction Substation proposal.

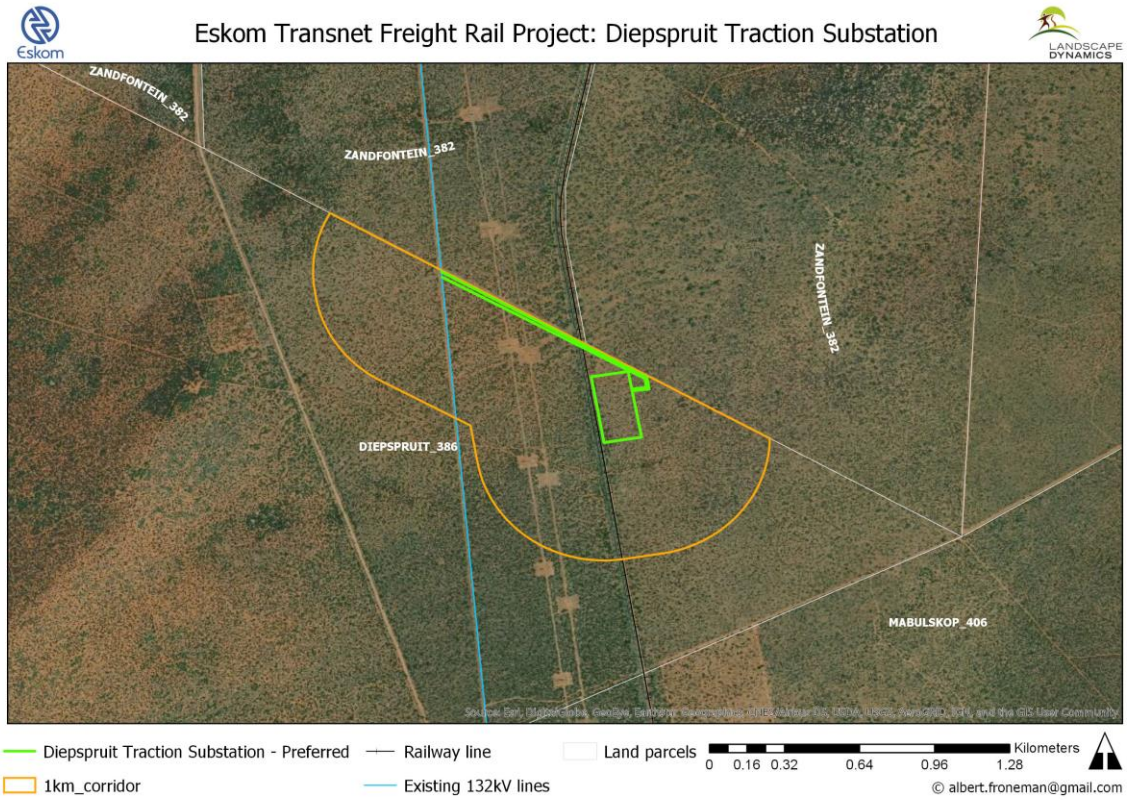

Figure 5: Diepspruit Traction Substation proposal.

Figure 6: Theunispan Substation proposal.

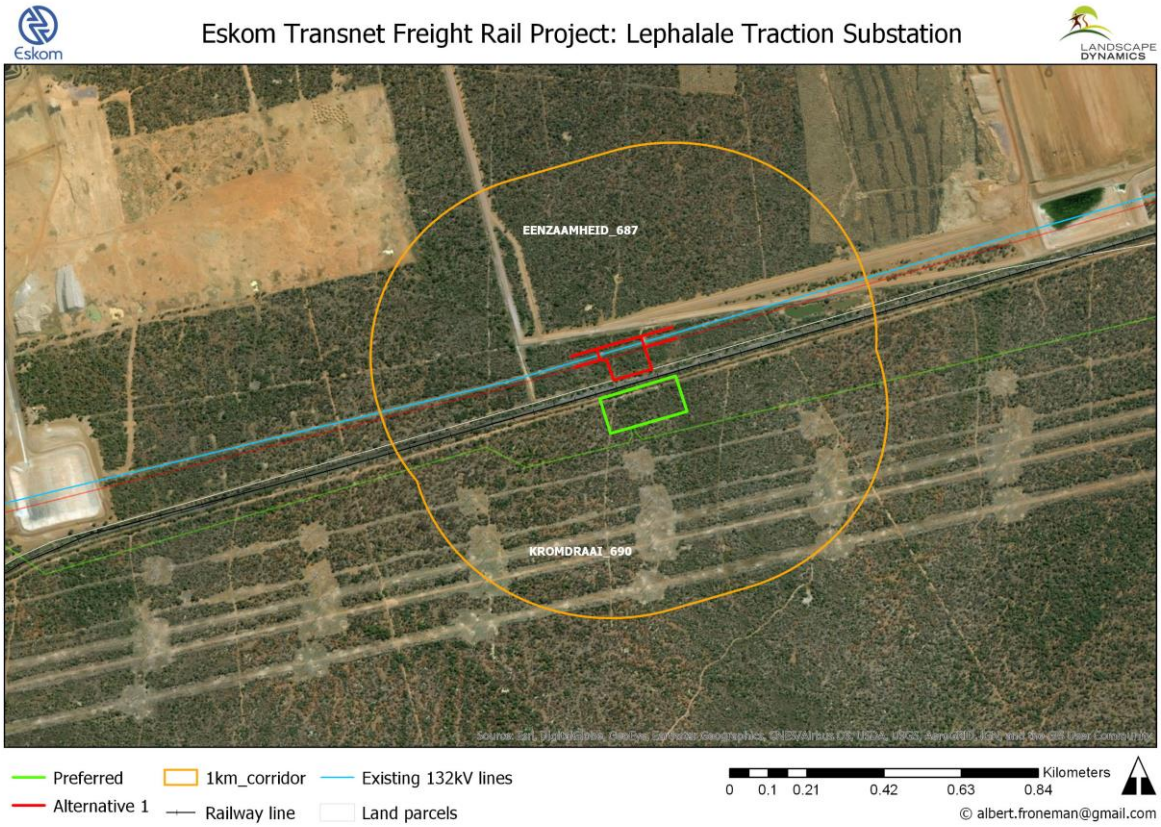

Figure 7: Lephalale Traction Substation proposal.

2. TERMS OF REFERENCE

The Terms of Reference for the survey were to:

1. Identify objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) located in the surveyed area (see Appendix A).

2. Study background information on the area to be developed.

3. Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, and aesthetic and tourism value (see Appendix B).

4. Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions.

5. Recommend suitable mitigation measures to minimize possible negative impacts on the cultural resources by the proposed development.

6. Review applicable legislative requirements.

3. CONDITIONS & ASSUMPTIONS

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

1. Cultural Resources are all non-physical and physical man-made occurrences, as well as natural occurrences associated with human activity (Appendix A). These include all sites, structure and artefacts of importance, either individually or in groups, in the history, architecture and archaeology of human (cultural) development. Graves and cemeteries are included in this.

2. The significance of the sites, structures and artefacts is determined by means of their historical, social, aesthetic, technological and scientific value in relation to their uniqueness, condition of preservation and research potential. The various aspects are not mutually exclusive, and the evaluation of any site is done with reference to any number of these aspects.

3. Cultural significance is site-specific and relates to the content and context of the site. Sites regarded as having low cultural significance have already been recorded in full and require no further mitigation. Sites with medium cultural significance may or may not require mitigation depending on other factors such as the significance of impact on the site. Sites with a high cultural significance require further mitigation (see Appendix C).

4. The latitude and longitude of any archaeological or historical site or feature, is to be treated as sensitive information by the developer and should not be disclosed to members of the public.

5. All recommendations are made with full cognizance of the relevant legislation.

6. It has to be mentioned that it is almost impossible to locate all the cultural resources in a given area, as it will be very time consuming. Developers should however note that this report should make it clear how to handle any other finds that might occur.

7. Access was not possible in all instances due to locked gates and game fences. However, since this is a Basic Assessment, it is acceptable. However, it will be necessary to finalise the study during a walk-down survey.

4. 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).

4.1 The National Heritage Resources Act

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

a. Archaeological artefacts, 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 or scientific or technological value.

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

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

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

Archaeological Impact Assessment (AIA) only looks at archaeological resources. The different phases during the HIA process are described in Appendix E.

An HIA must be done under the following circumstances:

a. The construction of a linear development (road, wall, power line canal etc.) exceeding 300m in length
b. The construction of a bridge or similar structure exceeding 50m in length
c. Any development or other activity that will change the character of a site and exceed 5 000m^2 or involve three or more existing erven or subdivisions thereof
d. Re-zoning of a site exceeding 10 000 m^2
e. Any other category provided for in the regulations of SAHRA or a provincial heritage authority

Structures

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

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

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

Archaeology, palaeontology and meteorites

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

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

d. bring onto or use at an archaeological or paleontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and paleontological material or objects, or use such equipment for the recovery of meteorites, or
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.

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

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

Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province and local police. Furthermore, permission must also be gained from the various landowners (i.e. where the graves are located and where they are to be relocated) before exhumation can take place. Human remains can only be handled by a registered undertaker or an institution declared under the **National Health Act** (**Act 61 of 2003**).

4.2 The National Environmental Management Act

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

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

5. THE INTERNATIONAL FINANCE CORPORATIONS' PERFORMANCE STANDARD FOR CULTURAL HERITAGE

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

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

Impacts on the cultural heritage should be minimized. This include the possible maintenance of such sites in situ, or when impossible, the restoration of the functionality of the cultural heritage in a different location. When cultural historical and archaeological artefacts and structures need to be removed is should be done by professionals and by abiding to the applicable legislation.

The removal of cultural heritage resources may however only be considered if there are no technically or financially feasible alternatives. In considering the removal of cultural resources, it should be outweighed by the benefits of the overall project to the effected communities. Again professionals should carry out the work and adhere to the best available techniques.

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

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

6. METHODOLOGY

6.1 Survey of literature

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

6.2 Field survey

The survey was conducted according to generally accepted HIA practices and was aimed at locating possible objects, sites and features of cultural significance in the area of proposed development. Since it was a basic assessment the aim was only to get a good idea of the heritage in the area. One sometimes looks a bit wider than the demarcated area, as the surrounding context needs to be taken into consideration.

Where required, the location/position of any site was determined by means of a Global Positioning System (GPS)[1], while photographs were also taken where needed. The survey was undertaken by doing a physical survey via off-road vehicle and on foot and covered as much as possible of the area to be studied (Figure 8-12). Certain factors, such as accessibility, density of vegetation, etc. may however influence the coverage. The surveyed took approximately 10 hours to complete.

[1] A Garmin Oregon 550 with an accuracy factor of a few meters.

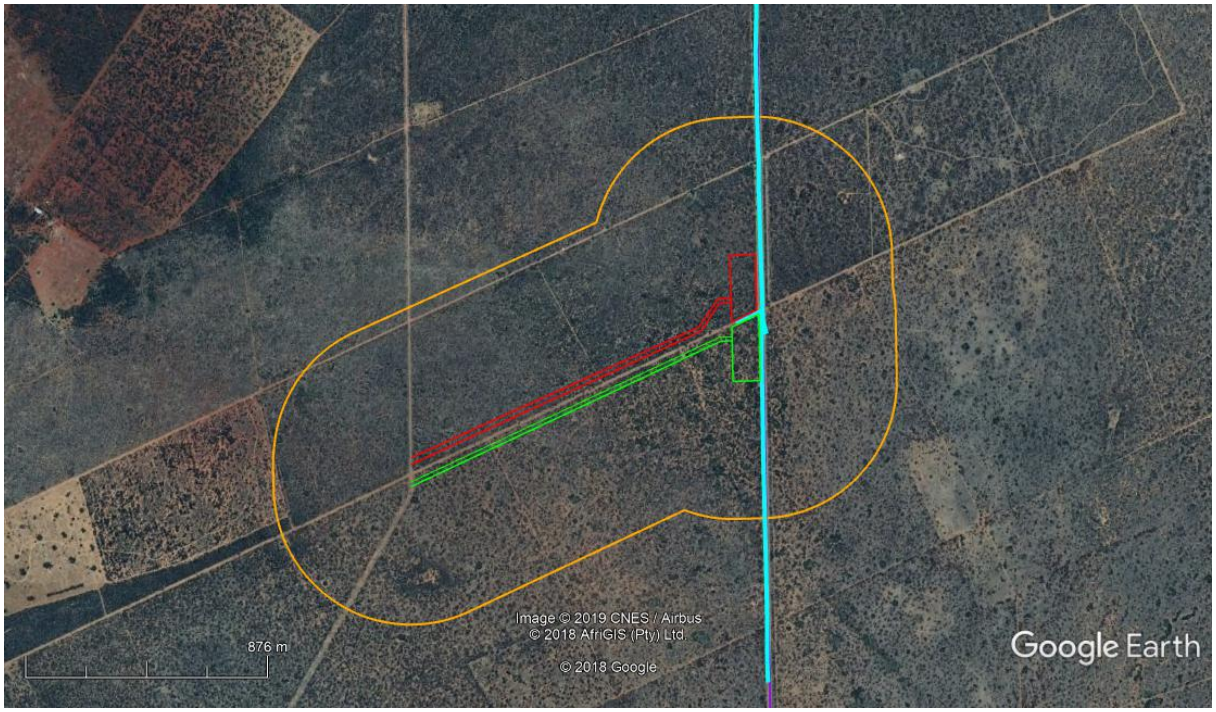

Figure 8: GPS track of the field survey: Marekele Traction Substation.

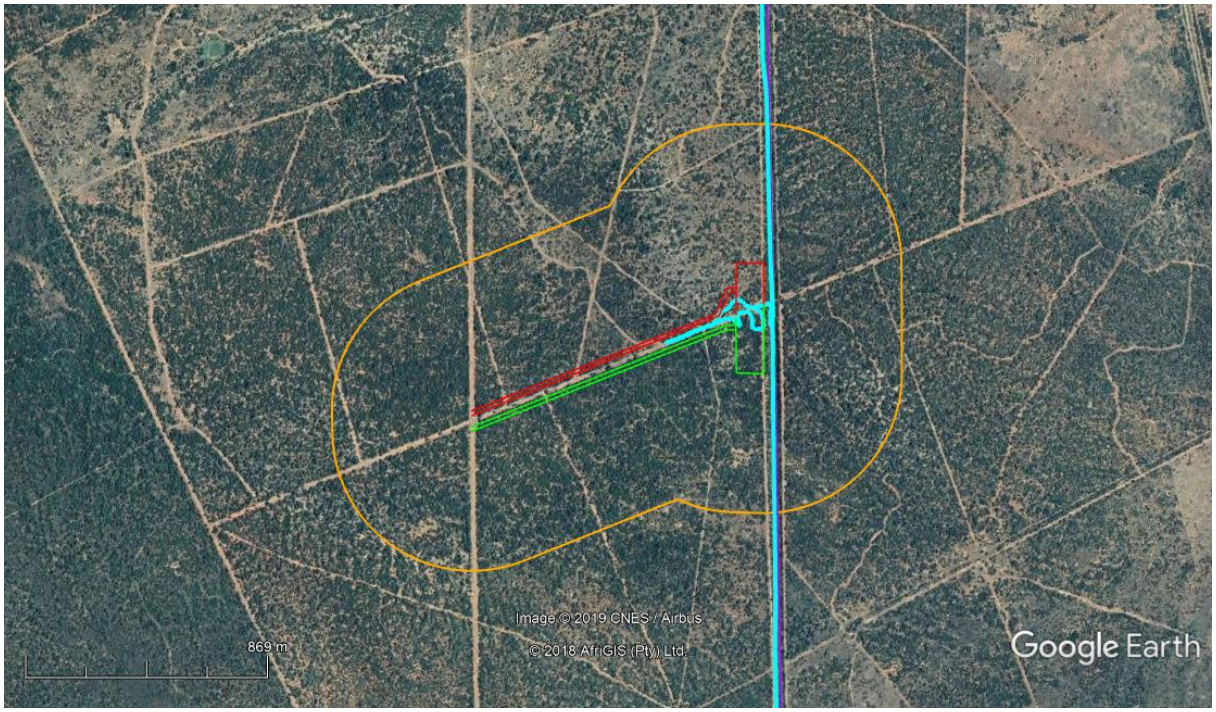

Figure 9: GPS track of the field survey: Matlabas Traction Substation.

Figure 10: GPS track of the field survey: Diepspruit Traction Substation.

Figure 11: GPS track of the field survey: Theunispan Substation.

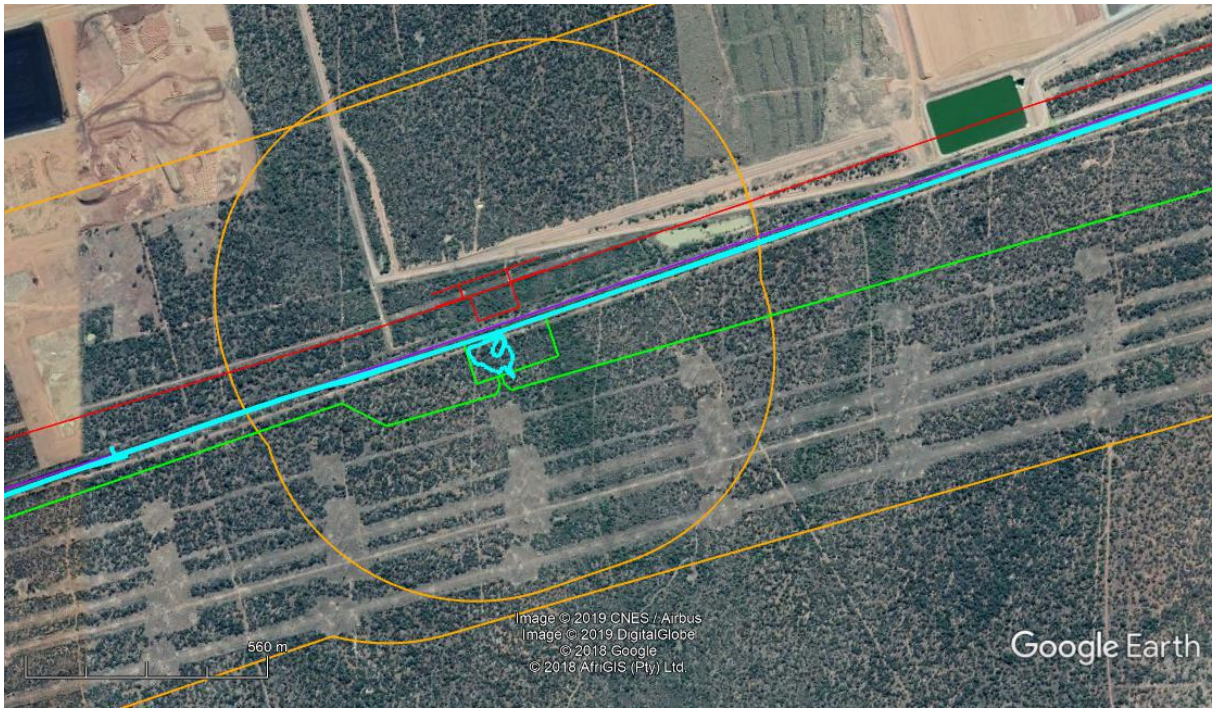

Figure 12: GPS track of the field survey: Lephalale Traction Substation.

6.3 Oral histories and social consultation

People from local communities are 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.

The project coordinator (Landscape Dynamics) handles the social consultation. Site notices are indicated in Appendix F.

6.4 Documentation

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

6.5 Evaluation of Heritage sites

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

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

7. DESCRIPTION OF THE ENVIRONMENT

The five components of the project will each be discussed separately below.

Marekele Traction Substation

The environment at this project component consisted of natural bush. The vegetation cover was medium-high. Game farms are operating in the area and therefore access could not be obtained to the entire route of both the preferred and alternative routes. However, the sites for the preferred and alternative substations was accessed. It showed similar characteristics (Figure 13-14).

The topography of both areas is flat. No outstanding natural features or drainage lines are present.

Figure 13: General view at the preferred position for the for the substation.

Figure 14: General view at alternative 1 for the substation.

Matlabas Traction Substation

The environment at this project component also mainly consisted of natural bush. The vegetation cover was medium-high. Game farms are operating in the area and therefore access could not be obtained to the entire route of both the preferred and alternative routes. A section thereof could be accessed and shows disturbance, namely a gravel road (Figure 15).

At the preferred site the area shows disturbances including a railway line and gravel road (Figure 16). At the alternative site disturbances were also noted, mainly consisting of overgrazing and open patches within the natural bush (Figure 17).

The topography of both areas is flat. No outstanding natural features or drainage lines are present.

Figure 15: General view along both the proposed routes for the lines coming into the proposed substations.

Figure 16: General view at the proposed site for the substation.

Figure 17: General view at alternative 1 for the substation.

Diepspruit Traction Substation

In this case there is only a preferred option since some of the farmers indicated they do not wish any possible routes and substations on their land. Again the environment at this project component mainly consisted of natural bush. The vegetation cover was reasonably high. Disturbance were however with a few open patches along the proposed route (Figure 18).

Access could not be obtained on the entire route as gates were locked at these farms. At the site of the substation the area shows disturbances. This includes a grass growing on what was a gravel road as well as a railway line and existing gravel road (Figure 19-20).

The topography of the area is flat. No outstanding natural features or drainage lines are present.

Figure 18: General view along both the proposed route for the lines coming into the proposed substation.

Figure 19: General view at the proposed site for the substation.

Figure 20: Another view at the proposed substation site.

Theunispan Substation

As was the case with other project components, many game farms are managed in this area and therefore access was not always possible. This is mainly in the western section of the routes. In the eastern section, close to the Medupi Power Station, disturbances mainly consist of industrial developments (Figure 21). Other disturbance includes a railway track and open patches of soil as well as existing power lines (Figure 22-24).

However, the natural vegetation seems to be mainly intact in most of the surveyed area. It consists of medium high grass and typical bushveld trees (Figure 25-26). The site of the Theunispan substation is disturbed by the existing infrastructure of the substation (Figure 27).

The topography of the area is flat. No outstanding natural features or drainage lines are present.

Figure 21: General view of the surveyed area close to the Medupi Power Station.

Figure 22: Railway line along the proposed power line routes.

Figure 23: General view of area with open patches along both the proposed and alternative routes.

Figure 24: Existing power lines along the proposed routes.

Figure 25: View of vegetation along both proposed routes.

Figure 26: Another view along the routes, this one at a point where it crossed the tar road.

Figure 27: Theunispan Substation.

Lephalale Traction Substation

In this case the area of both substations could be accessed. It is similar to what was described above. The natural vegetation mainly consisted of natural bush and the vegetation cover was reasonably high. Disturbance were however with a few open patches in the area (Figure 28-29).

The topography of the area is flat. No outstanding natural features or drainage lines are present.

Figure 28: General view at the proposed preferred site for the substation.

Figure 29: General view at the alternative site for the substation.

8. HISTORICAL CONTEXT

This geographical area between Thabazimbi and Leohalale is reasonably well-known as one containing prehistoric sites. One however has to realize that new sites are being discovered regularly and therefore the chances are that there will be more. On the existing SAHRA database no such sites are indicated here, but there are a few heritage surveys that were done in the area as was research done in the wider geographical region. This information is included in the discussion.

8.1 Stone Age

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

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

The closest known Stone Age site in the vicinity of Thabazimbi is a number of Late Stone Age sites in the Magaliesberg Mountains, which lies approximately 100 km to the south. A rock art site is known to the northeast. Rock engravings are found to the south and east of Rustenburg (the latter lying about 100 km to the south of Thabazimbi (Bergh 1999: 4-5).

Sites dated to the Middle Stone Age are known close to the Lephalala River to the south of the surveyed area (Bergh 1999: 4). Rock art are found in abundance in the geographical area to the east and south of the town of Lephalale (Bergh 1999: 5). Stone Age material have also been identified in the wider geographical area during previous heritage studies (Archaetnos database; SAHRIS database).

8.2 Iron Age

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

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

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

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

Many Late Iron Age sites have been identified in the area around the towns of Rustenburg, Koster and Groot Marico as well as in the Waterberg Mountains. This however excludes the study area (Bergh 1999: 7-8). During earlier times the area towards the south and east of the study site was inhabited by Tswana groups, namely the Fokeng, Kgatla and Kwena. These people fled from Mzilikazi during the Difaquane. The Kwena remained in present-day Botswana, but the others returned (Bergh 1999: 9-11). Iron Age sites were found during surveys on farms in the vicinity (Archaetnos database).

In an area around the Lephalala River some 200 Late Iron Age sites have been identified (Bergh 1999: 7). The lack of known sites closer to the surveyed area may only indicate that little research has been done in this area.

The type of environment on the surveyed area definitely is suitable for human habitation. The good grazing and access to water in the area would have provided a good environment for Iron Age people although building material seem to be reasonably scarce. One would therefore expect that Iron Age people may have utilized the area for grazing purposes. This is the same reason why white settlers later on moved into this environment.

8.3 Historical Age

The Historical Age started with the first recorded oral histories in the area. It includes the in-migration of people that were able to read and write. Due to factors such as population growth and a decrease in mortality rates, more people inhabited the country during the recent historical past. Therefore and because less time has passed, much more cultural heritage resources from this era have been left on the landscape.

It is important to note that all cultural resources older than 60 years are potentially regarded as part of the heritage and that detailed studies are needed in order to determine whether these indeed have cultural significance. Factors to be considered include aesthetic, scientific, cultural and religious value of such resources.

Early travelers have moved through this part of the Northwest and Limpopo Provinces. The first of these was the expedition of Dr. Andrew Cowan and Lt. Donovan in 1808.

They were followed by Robert Scoon and William McLuckie in 1827 and 1829 and Dr. Robert Moffat and Reverend James Archbell in 1829 (Bergh 1999: 12, 117-119).

Hume again moved through this area in 1830 followed by the expedition of Andrew Geddes Bain in 1831. After them came Dr. Andrew Smith in 1835 (Bergh 1999: 13, 120-121). Hume again moved through the area with Scoon in 1835. In 1836 William Cornwallis Harris visited the area. The well-known explorer Dr. David Livingston passed through this area in 1847 (Bergh 1999: 13, 119-122).

In 1837 the Voortrekkers moved through the area towards the south-west of Thabazimbi, at Silkaatskop and the Dwarsberg (Bergh 1999: 14). During this year a Voortrekker commando moved out against Mzilikazi and was engaged in a battle with his impi to the north-west of the Pilanesberg. The area around Thabazimbi, including the study area was inhabited by white settlers between 1841 and 1850 (Bergh 1999: 14-15).

One may therefore expect to find farm buildings and objects related to the early farming activities at the site. Graves from this period may also be found. In fact such graves were identified on nearby farms during earlier surveys in the wider geographical area (Archaetnos database; SAHRIS database).

9. DISCUSSION OF HERITAGE RESOURCES IDENTIFIED DURING THE SURVEY

No sites were identified.

10. CONCLUSION AND RECOMMENDATIONS

The heritage survey in the indicated area was completed successfully.

The following is recommended:

1. Since no sites were identified, the project may continue.

2. From a heritage perspective there is no preference for any of the preferred or alternative routes.

3. Due to accessibility issues and the density of vegetation further studies would be needed. A walk down, after positions of pylons have been determined is therefore recommended. This will be applicable to all project components.

4. It should be noted that the subterranean presence of archaeological and/or historical sites, features or artefacts is always a distinct possibility. Care should therefore be taken when development commences that if any of these are discovered, work on site immediate cease and a qualified archaeologist be called in to investigate the occurrence**.**

11. REFERENCES

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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 artefacts, 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: Artefact (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:

National Grade I significance	should be managed as part of the national estate
Provincial Grade II significance	should be managed as part of the provincial estate
Local Grade IIIA	should be included in the heritage register and not be mitigated (high significance)
General protection A (IV A)	site should be mitigated before destruction (high/ medium significance)
General protection B (IV B)	site should be recorded before destruction (medium significance)
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

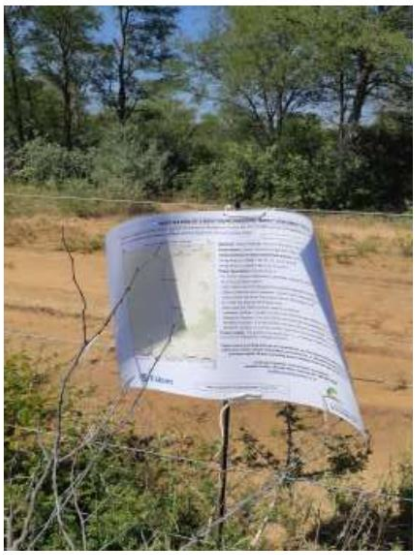
1. Pre-assessment or scoping phase – establishment of the scope of the project and terms of reference.
2. Baseline assessment – establishment of a broad framework of the potential heritage of an area.
3. Phase I impact assessment – identifying sites, assess their significance, make comments on the impact 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.

APPENDIX F

SITE NOTICES

Eskom Transnet Freight Rail Project
Onsite Notifications
Seven onsite notifications were placed on 15 April 2019


At the start of the line close to the Medupi Power Station




At the proposed Lephalale Traction Substation


At the approximate centre of the new route where the line 'bents' to the north-west