

Heritage Scoping Assessment Report:

Proposed Construction of Clocolan – Ficksburg 88kV Power Line,
Setsoto Local Municipality,
Free State Province, South Africa

Prepared for

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MANAGEMENT SUMMARY

eThembeni Cultural Heritage was appointed by ACER (Africa) to undertake a Heritage Scoping Assessment of the proposed 88kV power line between Clocolan and Ficksburg in the Free State Province as required by the National Environmental Management Act 107 of 1998 as amended (NEMA), in compliance with Section 38 of the National Heritage Resources Act 25 of 1999 as amended (NHRA).

IDENTIFICATION OF HERITAGE RESOURCES

Heritage resources in the study area were identified from provincial and national heritage databases; a literature review and a review of available maps, including Google Earth imagery.

Formally protected heritage resources

Seven formally protected heritage resources are present in the study area.

Places, buildings and structures

Since the towns of Clocolan and Ficksburg and surrounding European farming activities date to more than 100 years ago numerous buildings and structures older than 60 years will be present throughout the study area.

Landscapes and natural features

This heritage resource category includes sites, areas or reserves protected in terms of environmental legislation, including conservancies and nature reserves. No such places were identified in the study area.

Graves and burial grounds

Given the history and nature of the environment it is very likely that such sites occur in the study area. They will probably be associated with farmsteads, homesteads and workers' accommodation or villages, including abandoned homesteads. All human remains have high heritage significance at all levels for their spiritual, social and cultural values.

Places associated with oral traditions and/or living heritage

Such sites occur throughout the Free State and often have high heritage significance for specific communities for their historical, aesthetic, social, cultural and spiritual values.

Archaeological sites

It is likely that Stone Age and Iron Age archaeological sites of varying heritage significance occur in the study area. However, it is probable that many sites have been disturbed by agricultural activities and that their scientific value is limited.

Palaeontological sites

The geology around Clocolan can have a moderate to high potential for plant fossils with high palaeontological sensitivity. The geology of the Ficksburg area can have a moderate to high potential for fossils with high palaeontological sensitivity.

POTENTIAL DEVELOPMENT IMPACT

Formally protected heritage resources

No formally protected heritage resources will be affected directly by the proposed power line. Indirect visual impacts, if any, are likely to be negligible.

Places, buildings and structures

No places, buildings or structures will be affected directly by the proposed power line. However, indirect visual impacts could negatively affect the sense of place of currently unidentified sites with significance for their historical and architectural values, for example.

Landscapes and natural features

The nature conservation area around the Meulspruit Dam falls within the 2 km buffer zone of the proposed development, but is unlikely to experience significant indirect visual impacts that could negatively affect its sense of place.

Graves and burial grounds

It is possible that graves and burial grounds located outside of formal cemeteries could be affected by proposed power line infrastructure.

Places associated with oral traditions and/or living heritage

It is possible though unlikely that such places will be affected by proposed power line infrastructure.

Archaeological sites

It is possible though unlikely that such places will be affected by proposed power line infrastructure.

Palaeontological sites

It is possible though unlikely that such places will be affected by proposed power line infrastructure, unless bedrock is affected.

RECOMMENDATIONS FOR MITIGATION

General

- Placement of the proposed power line close to the existing 88kV power line servitude and/or in existing services corridors should be considered as a means of minimising the potential impact on heritage resources.
- A suitably qualified heritage practitioner should undertake a 'walk-down' of the final selected power line route and all activity areas (tower positions, access roads, construction camps, materials storage areas, etc.) prior to the start of any construction activities and assess direct impacts on any heritage resources.

Formally protected heritage resources

Indirect visual impacts on formally protected heritage resources should be avoided through sensitive placement of project infrastructure.

Places, buildings and structures

Indirect visual impacts on such heritage resources should be avoided through sensitive placement of project infrastructure.

Landscapes and natural features

Infrastructure proposed in the following locations should be avoided:

- Where it will be out of character or disruptive of the sense of place.
- Where it will break the skyline on a scenic landscape.
- Along scenic tourist routes.
- In a sensitive environment as listed in the body of this report.
- In any area, property, adjacent to sites of cultural or social importance such as historical sites proclaimed in terms of the NHRA, graveyards, public open spaces and visual corridors or gateways.

Graves and burial grounds

No power line infrastructure may be placed within 50 m of a grave or burial ground, unless recommended otherwise by a heritage practitioner.

Places associated with oral traditions and/or living heritage

No power line infrastructure may be placed within 50 m of such places, unless recommended otherwise by a heritage practitioner.

Archaeological sites

No power line infrastructure may be placed within 50 m of such places, unless recommended otherwise by a heritage practitioner.

Palaeontological sites

No power line infrastructure may be placed within 50 m of such places, unless recommended otherwise by a heritage practitioner.

CONCLUSION

We recommend that a full Phase 1 HIA is prepared by an accredited subject specialist prior to any construction activities. According to Section 38(4) of the National Heritage Resources Act the report shall be considered timeously by SAHRA which shall, after consultation with the person proposing the development, decide –

- whether or not the development may proceed;
- any limitations or conditions are to be applied to the development;
- what general protections in terms of the NHRA apply, and what formal protections may be applied to such heritage resources;
- whether compensatory action shall be required in respect of any heritage resources damaged or destroyed as a result of the development; and
- whether the appointment of specialists is required as a condition of approval for the proposal.

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1 INTRODUCTION

eThembeni Cultural Heritage was appointed by ACER (Africa) to undertake a Heritage Scoping Assessment of the proposed 88kV power line between Clocolan and Ficksburg in the Free State Province, Province as required by the National Environmental Management Act 107 of 1998 as amended (NEMA), in compliance with Section 38 of the National Heritage Resources Act 25 of 1999 as amended (NHRA; refer to Appendix A).

South Africa's heritage resources are both rich and widely diverse, encompassing sites from all periods of human history. Resources may be tangible, such as buildings and archaeological artefacts, or intangible, such as landscapes and living heritage. Their significance is based upon their aesthetic, architectural, historical, scientific, social, spiritual, linguistic, economic or technological values; their representivity of a particular time period; their rarity; and their sphere of influence.

The integrity and significance of heritage resources can be jeopardized by natural (e.g. erosion) and human (e.g. development) activities. In the case of human activities, a range of legislation exists to ensure the timeous identification and effective management of heritage resources for present and future generations.

This report represents partial compliance with a Phase 1 Heritage Impact Assessment (HIA) for the proposed development, for submission to the South African Heritage Resources Agency (SAHRA) for review.

2 TERMS OF REFERENCE

The methodology used for HIAs of power lines is unlike that for projects where impacts primarily involve physical landscape disturbance. The greatest change invoked by transmission lines is typically above the ground surface; therefore the emphasis of the Phase 1 HIA is on resources that are sensitive to visual change. Such resources are usually places, structures and landscapes that are or could be publicly celebrated as heritage.

The Phase 1 HIA will always recommend that a heritage practitioner should complete a 'walk-down' of the final selected power line route and all other activity areas (tower positions, access roads, construction camps, materials storage areas, etc.) prior to the start of any construction activities and assess direct impacts on discrete resources such as archaeological and palaeontological sites. Mitigation can usually be achieved by micro-adjustment of tower positions, the exclusion of sensitive areas, basic recording and/or obtaining a permit for alteration, destruction or removal from SAHRA.

Since the visual impact of a distribution line is far less than that of a transmission line, heritage management of this project at this stage comprises a Heritage Scoping Assessment. Such a report will include the following information:

- known heritage resources in the study area from provincial and national heritage databases;
- a literature review to provide the historical context and potential heritage resource sensitivity; and
- a review of available maps, including Google Earth imagery.

In addition, the report should comply with the requirements of NEMA, including providing the assumptions and limitations associated with the study; the details, qualifications and expertise of the person who prepared the report; and a statement of independence.

3 PROJECT DESCRIPTION¹

Ficksburg is supplied from the Clocolan Distribution Substation via an existing 88 kV power line. The maximum demand for the transformers was measured at 16.82 MVA in 2011, which is 84% loading of the installed capacity. The substation is a radial substation with approximately 9000 customers. A fault on the existing 88 kV power line results in supply lost to all customers. This project will result in the construction of a radial feed which will ensure a secure supply should one of the power lines experience a fault.

4 PROJECT LOCATION AND ENVIRONMENTAL DESCRIPTION

The proposed project is located within the jurisdictions of Setsoto Local Municipality (FS191), Thabo Mofutsanyana District (DC19), between the towns of Clocolan and Ficksburg (Figures 1 and 2). On both images the blue polygon indicates the area within which Eskom wishes to locate a second 88kV power line. The red line in Figure 2 indicates the existing line. The relevant Surveyor-General 1:50 000 map sheets are 2827DC Clocolan and 2827DD Ficksburg. Extracts from these maps are not provided because the extent of the survey area is too great to render imagery usefully. The relevant Google Earth file may be accessed by clicking on the following hyperlink [Eskom Clocolan-Ficksburg.kmz](http://Eskom.Clocolan-Ficksburg.kmz).

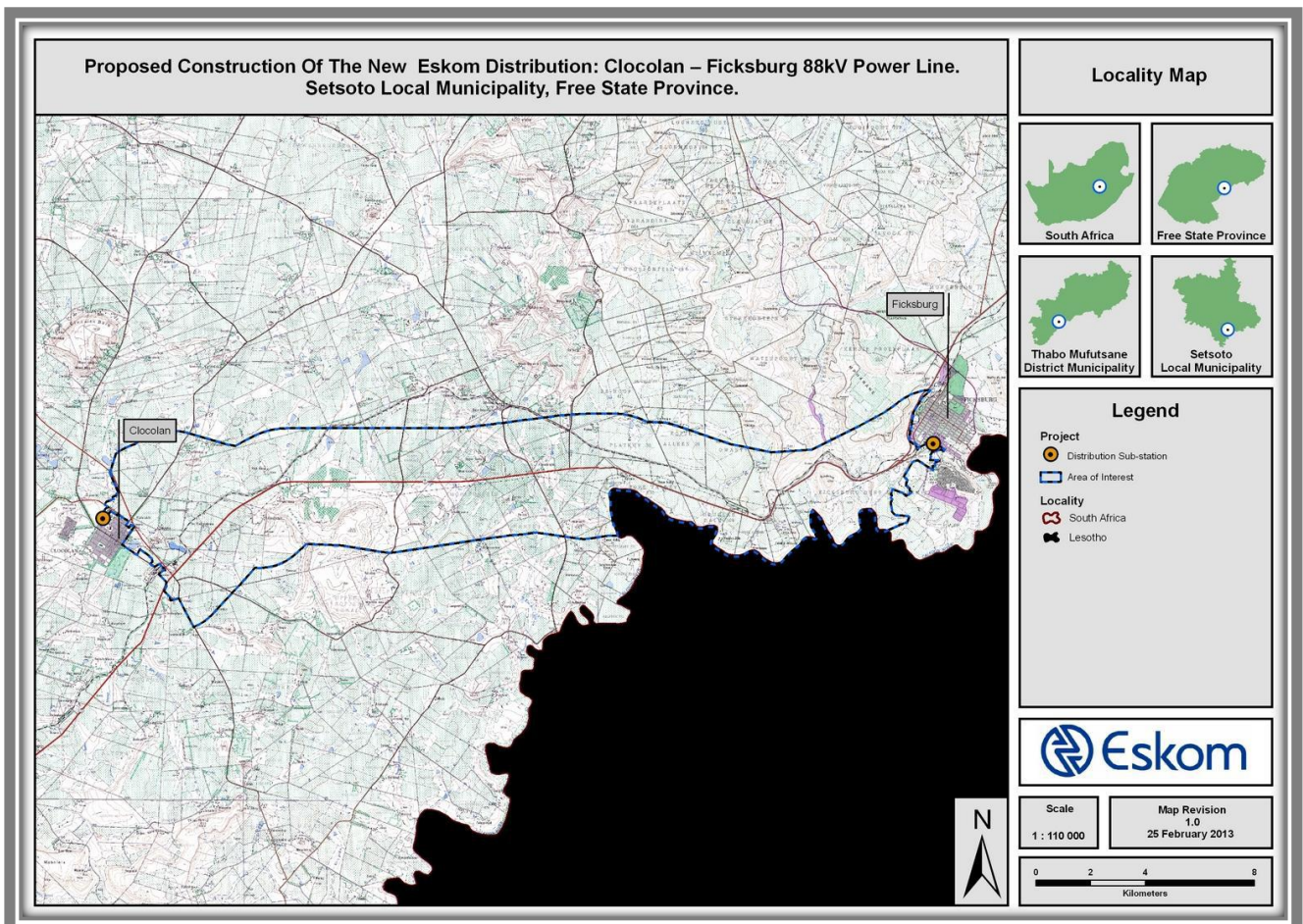


FIGURE 1 LOCATION OF THE PROPOSED PROJECT IN THE FREE STATE.

¹ Information obtained from Background Information Document prepared by the client.

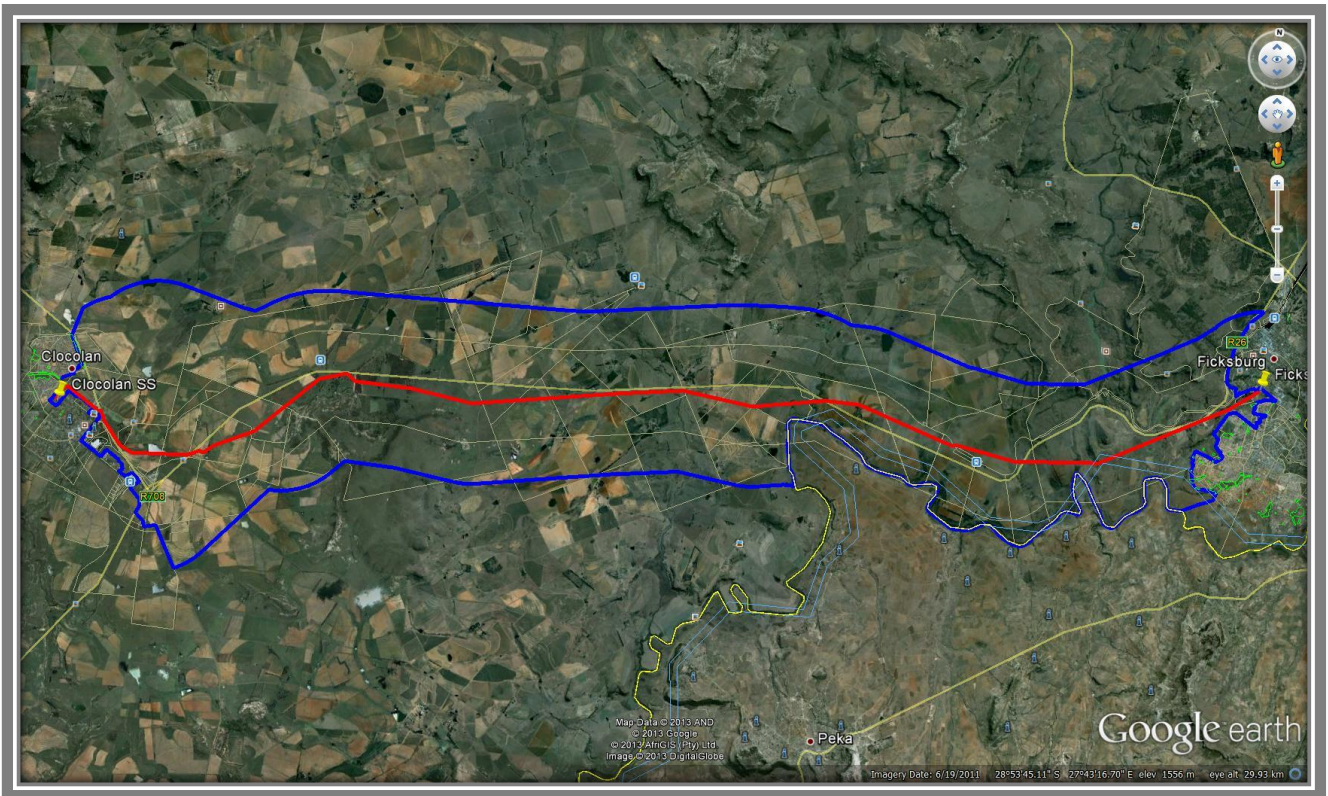


FIGURE 2 LOCATION OF THE PROPOSED PROJECT BETWEEN CLOCOLAN AND FICKSBURG.

The study area is located in the interior plateau of South Africa, consisting of a series of rolling grasslands arising out of the Kalahari Desert in the north². The largest sub-region in the plateau is the 1200-1800 m high central area known as the Highveld, stretching from Western Cape Province to the northeast, encompassing the entire Free State. The southern border of the Highveld rises to form the Great Escarpment, the semicircle of mountain ranges roughly paralleling South Africa's coastline. The Drakensberg / Maloti Mountains, the country's largest mountain range, dominate the southern and the eastern border of the Highveld from the Eastern Cape Province to the border with Swaziland.

The Free State Plateau occupies the entire Free State Province apart from the highlands east of Bethlehem north to the Vaal Dam. Its northern border is the Vaal River. In the north and east it merges with the Highveld. The plateau comprises mostly grassland plains with low hills. These hills increase to the south and south-east where they transform into the Northern Karoo Plateau and the Lesotho Highlands respectively. The altitude varies between 1 250 and 1 700 m.

The Free State lies in the heart of the Karoo Sequence of rocks, containing shales, mudstones, sandstones and the Drakensberg Basalt forming the youngest capping rocks. The province experiences a continental climate, characterised by warm to hot summers and cool to cold winters. Areas in the east experience frequent snowfalls, especially on the higher ranges, whilst the west can be extremely hot in summer. Almost all precipitation falls in the summer months as brief thunderstorms, with aridity increasing towards the west. Areas in the east around Harrismith, Bethlehem and Ficksburg are well watered.

Setsoto Municipality is rich in agriculture. Ninety percent of the country's cherry crop is produced in the Ficksburg district, which is also home to the country's two largest asparagus canning factories. Soya, sorghum, sunflowers and wheat are cultivated in the eastern Free State, where farmers specialise in seed production. About 40% of the country's potato yield comes from the province's high-lying areas.

² <http://en.wikipedia.org/>

Vegetation, terrestrial fauna assessment and wetland delineation³

Three vegetation types occur within the study area, namely Eastern Free State Clay Grassland; Eastern Free State Sandy Grassland; and Basotho Montane Shrubland. The Eastern Free State Clay Grassland is a vulnerable ecosystem as listed by the National Environmental Management: Biodiversity Act 10 of 2004. The nature conservation area around the Meulspruit Dam falls within the 2 km buffer zone of the proposed development.

During the site visit, the following six major vegetation communities were identified in the study area:

- *Seriphium plumosum* – *Eragrostis gummiflua* moist grassy hill seeps
- *Diospyros austro-africana* – *Gymnosporia buxifolia* ridges and mountain slopes
- *Helichrysum aureonitens* – *Eragrostis gummiflua* moist clay grassland
- *Crepis hypochoeridea* – *Eragrostis plana* unchannelled valley bottom
- *Helichrysum callicomum* – *Tristachya leucothrix* sandy rocky grassland
- *Leucosidea sericea* – *Passerina montana* channelled valley bottom

Several wetland types were found in the study area: channelled valley bottoms; unchannelled valley bottoms; and hillslope seeps. Channelled and unchannelled valley bottoms were typically found in the lowest point of the landscape, while the hillslope seeps were found anywhere in the landscape where the underlying soil layers and/or geology prevents water movement into the lower soil horizons. These wetlands are sensitive ecosystems, and it is recommended that the wetlands are avoided. Since the valley bottom wetlands are less than 250 m in width, these wetlands can be spanned; hence all pylons should be placed outside of the wetlands and wetland buffers. During construction, wetlands should also be avoided, and no construction vehicles are to drive through the wetlands.

Plants subject to control are declared as weeds or invader plants by the Conservation of Agricultural Resources Act 43 of 1983. Several alien invasive plant species were found in the study area. It is recommended that alien species within the affected areas be eradicated using the recommended control methods.

Several protected and red listed plants have the potential to occur on site. Careful planning of the proposed development is required within the sensitive ecosystems, and it is recommended that a walk down precedes construction. A qualified ecologist should assist with identification of flora and sensitive faunal habitats during the walk down.

Alternative 1 for the proposed power line runs parallel to the R26 between Clocolan and Ficksburg. This is the preferred alternative, since the impact on the natural environment will be less than for Alternative 2. Alternative 2 for the proposed power line runs parallel to the existing 88kV power line between Clocolan and Ficksburg. This alternative will have a greater impact on the natural environment; however, the significance of the impact will be less, if the new power line is placed between the road and the existing power line.

Ecological impacts associated with the construction and operation of power lines include habitat loss and habitat fragmentation through land take for structures and servitude areas. Plant communities undergo disturbance and damage through these activities. With the edge effects and ecotones that result from the abrupt artificial changes in vegetation, there are various indirect impacts that follow. Species with excellent dispersal abilities, capable of invading and colonising disturbed habitats, are attracted to edges, and move into the core of natural habitats if a power line servitude carries the edge into a previously undisturbed area. By nesting disturbances, or keeping disturbances close together, edge effects and habitat fragmentation are kept to a minimum. This gives rise to the motivation to either (a) use Alternative 1 for the proposed power

³ Extract from the Vegetation, Terrestrial Fauna Assessment and Wetland Delineation Report for the project prepared by ACER (Africa), dated May 2013.

line construction, or (b) build the proposed power line between the road and the existing power line for the greatest part of the linear structure.

5 IDENTIFICATION OF HERITAGE RESOURCES

Clocolan is a town located west of Prynns Berg and some 166 km north-east of Bloemfontein (Raper und.). It was laid out on the farms Harold and Rienzi in 1906 and became a municipality in 1910. The name is of Sotho origin, said to be derived from *hlohloane*, ‘bump and fight’, from an incident in which the bumping over of a basket filled with wheat led to a fight; or ‘pressed in the mountains’.

Ficksburg is located 30 km due east of Clocolan in the so-called Conquered Territory, on the western bank of the Caledon River and the eastern slopes of the Mpharane Mountain, 203 km east-north-east of Bloemfontein (Raper und.). It was laid out in 1867 on the farms Generaalsvlei, Kromdraai, Losberg and Sikonjelasberg, and became a municipality in May 1891. It was named after Johan Izak Jacobus Fick (1816-1892), Commandant-General of the then Orange Free State, who played a prominent role in the Basuto Wars of 1865-1868.

The following heritage resource information was sourced from the SAHRIS database, including examination of the impact assessment reports listed in Appendix B.

— FORMALLY PROTECTED HERITAGE RESOURCES

The following formally protected heritage resources are present in the study area (refer to Appendix B). They may not be altered in any way without a permit from SAHRA. A map of these resources is not provided since all but one occurs within the towns of Clocolan and Ficksburg.

TABLE 1 FORMALLY PROTECTED HERITAGE RESOURCES IN THE STUDY AREA.

Name	Declaration type	Description	Location
Farmhouse, Prynnsberg, Clocolan District	Provisional protection	Prynnsberg is a manor built between 1881 and 1884 near Clocolan by Charles Newberry (1841–1922) ⁴ . The house began as additions to the original single story farmhouse and became a three-story, 20-room manor, constructed of finely crafted sandstone. The house was decorated by the London firm James Shoolbred and Company of Tottenham Court Road.	? 28° 51' 01" S 27° 32' 36" E
Town Hall, Andries Pretorius Street, Clocolan	Heritage Register	Single storey sandstone building ⁵ . Symmetrical front façade, ending in large Cape Dutch gable. Double pitched corrugated iron roof with ventilators on roof ridge. Sandstone extensions on side elevations with Cape Dutch gables. Timber doors and windows. The cornerstone of the building was laid on 15 November 1916 by the Mayor of Clocolan, Councillor T A Wilsenach. Type of site: Town Hall Current use: Town Hall. The building, which was erected in 1916-1917, is a fine example of a sandstone town hall. It contributes to the character of the street and is a landmark in town.	Andries Pretorius Street, Clocolan
81 McCabe Street, Ficksburg	Heritage Register	The house which was erected in 1885 is probably one of the oldest remaining dwellings in Ficksburg ⁶ . Many of the original elements of the building, such as the sliding sash windows, quoining around the doors and windows, timber floors, and fire-places are intact.	28° 52' 12.2988" S 27° 52' 26.0112" E

⁴ http://en.wikipedia.org/wiki/Prynnsberg_Estate

⁵ http://en.wikipedia.org/wiki/List_of_heritage_sites_in_Free_State

⁶ http://en.wikipedia.org/wiki/List_of_heritage_sites_in_Free_State

General Fick Museum, Old Market Square, Ficksburg	Provincial Heritage Site	Building completed in 1893; red pitched corrugated iron roof, sandstone walls, wood doors. This sandstone building, completed in 1893, is a fine example of the magistrate offices erected in the Orange Free State during the Late Republican period. This building together with the adjacent town hall and old post office form an attractive architecture.	Old Market Square, Ficksburg
Town Hall, Old Market Square, Ficksburg	Provincial Heritage Site	Single storey sandstone building ⁷ . Double pitched corrugated iron roof with ventilators. Symmetrical front façade with decorative gable. Extensions on side elevations with lean-to corrugated iron verandahs in between. Timber doors and steel windows. The cornerstone of the building was laid on 21 July 1897 by the Chairman of the Municipality of Ficksburg, Mr M I Fourie. It was completed before the outbreak of the Anglo-Boer War. This sandstone building with its Neo-Classical features was designed by Walter Donaldson and completed during the 1890s. The town hall, adjacent museum building and old post office form one of the finest sandstone building groups in the Free State.	Old Market Square, Ficksburg
Nederduitse Gereformeerde Mother Church, Voortrekker Street, Ficksburg	Provincial Heritage Site	In 1903 J.D. Kestell was confirm the new minister. Construction date 1907-04-12. Sandstone building with corrugated iron roof; six louver ventilators.	Voortrekker Street, Ficksburg
Old Prison-cells, Brand Street, Ficksburg	Provincial Heritage Site	Building originally formed part of a prison erected in 1893. Single storey rectangular sandstone building with flat corrugated iron roof.	Brand Street, Ficksburg

— PLACES, BUILDINGS AND STRUCTURES

The NHRA defines a place as:

- a site, area or region;
- a building or other structure which may include equipment, furniture, fittings and articles associated with or connected with such building or other structure;
- a group of buildings or other structures which may include equipment, furniture, fittings and articles associated with or connected with such group of buildings or other structures;
- an open space, including a public square, street or park; and
- in relation to the management of a place, includes the immediate surroundings of a place.

A structure is 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.

All buildings and structures older than 60 years are afforded general protection in terms of Section 34 of the NHRA. Accordingly, no such structure may be demolished, altered or added to without the prior written approval of SAHRA.

Since the towns of Clocolan and Ficksburg and surrounding European farming activities date to more than 100 years ago numerous buildings and structures older than 60 years will be present throughout the study area.

⁷ http://en.wikipedia.org/wiki/List_of_heritage_sites_in_Free_State

— LANDSCAPES AND NATURAL FEATURES

This heritage resource category includes sites, areas or reserves protected in terms of environmental legislation, including conservancies and nature reserves. No such places are indicated on the relevant 1:50 000 map sheets or on the websites http://en.wikipedia.org/wiki/Free_State_Parks and [http://en.wikipedia.org/wiki/Category:Protected_areas_of_the_Free_State_\(South_African_province\)](http://en.wikipedia.org/wiki/Category:Protected_areas_of_the_Free_State_(South_African_province)).

However, the nature conservation area around the Meulspruit Dam falls within the 2 km buffer zone of the proposed development.

— GRAVES AND BURIAL GROUNDS

The NHRA defines a grave as a place of interment and includes the contents, headstone or other marker of such a place, and any other structure on or associated with such place.

All human remains have high heritage significance at all levels for their spiritual, social and cultural values. Section 36 of the NHRA affords general protection to graves and burial grounds as follows:

- (3) (a) No person may, without a permit issued by SAHRA or a provincial heritage resources authority—
- (a) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;
 - (b) destroy, damage, alter, exhume, 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 equipment, or any equipment which assists in the detection or recovery of metals.

Graves younger than 60 years are protected by Section 2(1) of the Removal of Graves and Dead Bodies Ordinance 7 of 1925 and the Human Tissues Act 65 of 1983 and are the jurisdiction of the National Department of Health and the relevant Provincial Department of Health. Applications for alterations to or removals of such graves must be submitted to the Office of the relevant Provincial Premier. This function is usually delegated to the Provincial MEC for Local Government and Planning, or in some cases the MEC for Housing and Welfare. Authorisation for exhumation and reinterment must also be obtained from the relevant local or regional council where the grave is situated, as well as the relevant local or regional council to where the grave is being relocated. All local and regional provisions, laws and by-laws must also be adhered to. In order to handle and transport human remains the institution conducting the relocation should be authorised under Section 24 Human Tissues Act.

The procedure for consultation regarding burial grounds and graves (NHRA Section 36(5)) is applicable to graves older than 60 years that are situated outside a formal cemetery administered by a local authority (see Appendix A). If the grave is not situated inside a formal cemetery but is to be relocated to one, permission from the local authority is required in compliance with all regulations, laws and by-laws of the cemetery authority.

Given the history and nature of the environment it is very likely that graves and burial grounds located outside a formal cemetery occur in the study area. They will probably be associated with farmsteads, homesteads and workers’ accommodation or villages, including abandoned homesteads. The following table summarises information about known sites obtained from HIA reports (Figures 3a and 3b).

TABLE 2 KNOWN GRAVES AND BURIAL GROUNDS IN THE STUDY AREA.

Type	Source	Description	Location
Grave	Dreyer (2012)	None	28° 54' 34" S 27° 32' 35" E
Grave	Dreyer (2012)	None	28° 54' 36" S 27° 42' 35" E
Burial ground	Dreyer (2012)	None; appears to be informal from Google Earth imagery; near Clocolan waste facility.	28° 54' 25" S 27° 32' 36" E
Graves	Dreyer (2007c)	A cluster of about 16 graves is located near the entrance gate to the Farm Waterpoort 669, Ficksburg. A family from Lesotho come to tend to two of the graves regularly.	28° 50' 40" S 27° 49' 36" E



FIGURE 3A GRAVES AND BURIAL GROUND ADJACENT TO CLOCOLAN WASTE FACILITY.

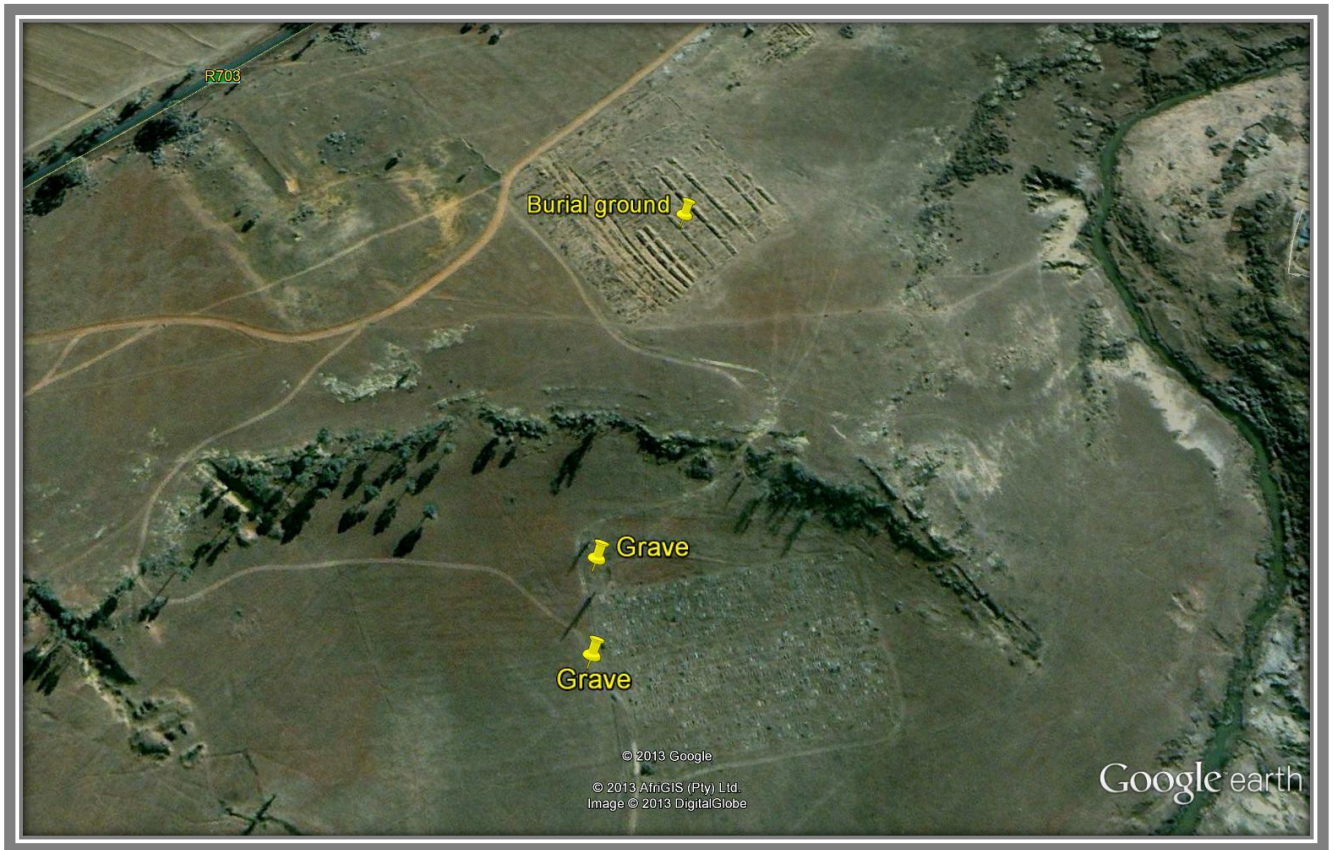


FIGURE 3B GRAVES AND BURIAL GROUND ADJACENT TO CLOCOLAN WASTE FACILITY.

— PLACES ASSOCIATED WITH ORAL TRADITIONS AND/OR LIVING HERITAGE

Places associated with oral traditions and/or living heritage occur throughout the Free State, with Ntsuanatsatsi (Tafelkop), Nkwe (Sunrise) and Sefate (Verkykerskop) among the better known examples. The north-eastern Free State is recognised as the traditional living place of the Batlokwa and Basia peoples, different tribes within the Sotho/Tswana cluster, before the Difaqane (see Appendix C). A memorial stone to commemorate the Batlokwa heritage and to designate the area in which at least eight generations of their chiefs were buried was erected by the late chief Wessels Mota of Qwaqwa at the farm Morgenlicht 869 (Sunrise) in 1962. According to the landowner people visit the site regularly to pray and to pay homage through sacrifice.

Ntsuanatsatsi is not only a significant archaeological site. It is an example of numerous natural features throughout the province that are associated with oral histories, myths and legends attesting to centuries of cultural richness and diversity. The stone-walled ruins at Nsuanatsatsi face eastward and its place-name means 'sunrise' in SeSotho. Local BaFokeng and Batlokwa people believe that the hill is where the first ancestors rose from earth. In former times chiefs are said to have held their councils on top of a ridge across from the hill: 'Their ability to judge the annual motion of the sun by the sunrise locations on Ntsuanatsatsi hill may have contributed to the prominence of these early Sotho leaders. A critical study should model the sunrise phenomena with respect to the hill as observed from different structures in the [archaeological] village' (Snedegar 2007: 28).

Places associated with oral traditions and/or living heritage often have high heritage significance for specific communities for their historical, aesthetic, social, cultural and spiritual values.

— ARCHAEOLOGICAL SITES

The NHRA defines archaeological as follows:

- material remains resulting from human activity which are in a state of disuse and are in or on land and are older than 100 years, including artefacts, human and hominid remains and artificial features and structures;
- rock art, being any form of painting, engraving or other graphic representation on a fixed rock surface or loose rock or stone, which was executed by human agency and is older than 100 years including any area within 10 m of such representation;
- wrecks, being any vessel or aircraft, or any part thereof, which was wrecked in South Africa, whether on land, in the internal waters, the territorial waters or in the culture zone of the Republic, as defined respectively in sections 3, 4 and 6 of the Maritime Zones Act, 1994 (Act No. 15 of 1994), and any cargo, debris or artefacts found or associated therewith, which is older than 60 years or which SAHRA considers to be worthy of conservation;
- features, structures and artefacts associated with military history which are older than 75 years and the sites on which they are found.

Section 35 of the NHRA protects archaeological sites as follows:

- (4) No person may, without a permit issued by the responsible heritage resources authority—
- (a) destroy, damage, excavate, alter, deface or otherwise disturb any archaeological site;
 - (b) destroy, damage, excavate, remove from its original position, collect or own any archaeological material or object;
 - (c) trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological material or object; or
 - (d) bring onto or use at an archaeological site any excavation equipment or any equipment which assists in the detection or recovery of metals or archaeological material or objects.

The archaeological heritage of the general area is summarised in Appendix C. The following table summarises information about known sites obtained from HIA reports (Figure 4) but it is likely that numerous further sites are present in the study area, with rock art sites known from the Ficksburg region.

TABLE 3 KNOWN ARCHAEOLOGICAL SITES IN THE STUDY AREA.

Type	Source	Description	Location
Drystone walling	Dreyer 2006a	Feature could date from about mid 17 th century to early 19 th century (Maggs 1976, Dreyer 1992)	28° 51' 21" S 27° 53' 28" E
Drystone walling	Dreyer (2007c)	Vague remnants of stone walls, possibly dating from the Later Iron Age (LIA), occurred at these locations. Undecorated potsherds resembling LIA ceramic ware were found in association with the walls. The samples are too small for dating or for comparison with other known and described assemblages. A random collection of material on the sites also produced a broken upper grinding stone and several pieces of a cast iron pot.	28° 51' 29" S 27° 49' 32" E 28° 51' 12" S 27° 49' 46" E
Rock art	Dreyer (2007c)	Two panels of rock paintings are located in a cave high up in the mountain. These features lie outside the planned area of development, are difficult to get to, and will not be affected by the planned improvements. It is also the intention of the owners to allow only controlled access to the caves in future.	On Farm Waterpoort 669, Ficksburg. Lodge is located at 28° 51' 52" S 27° 49' 37" E

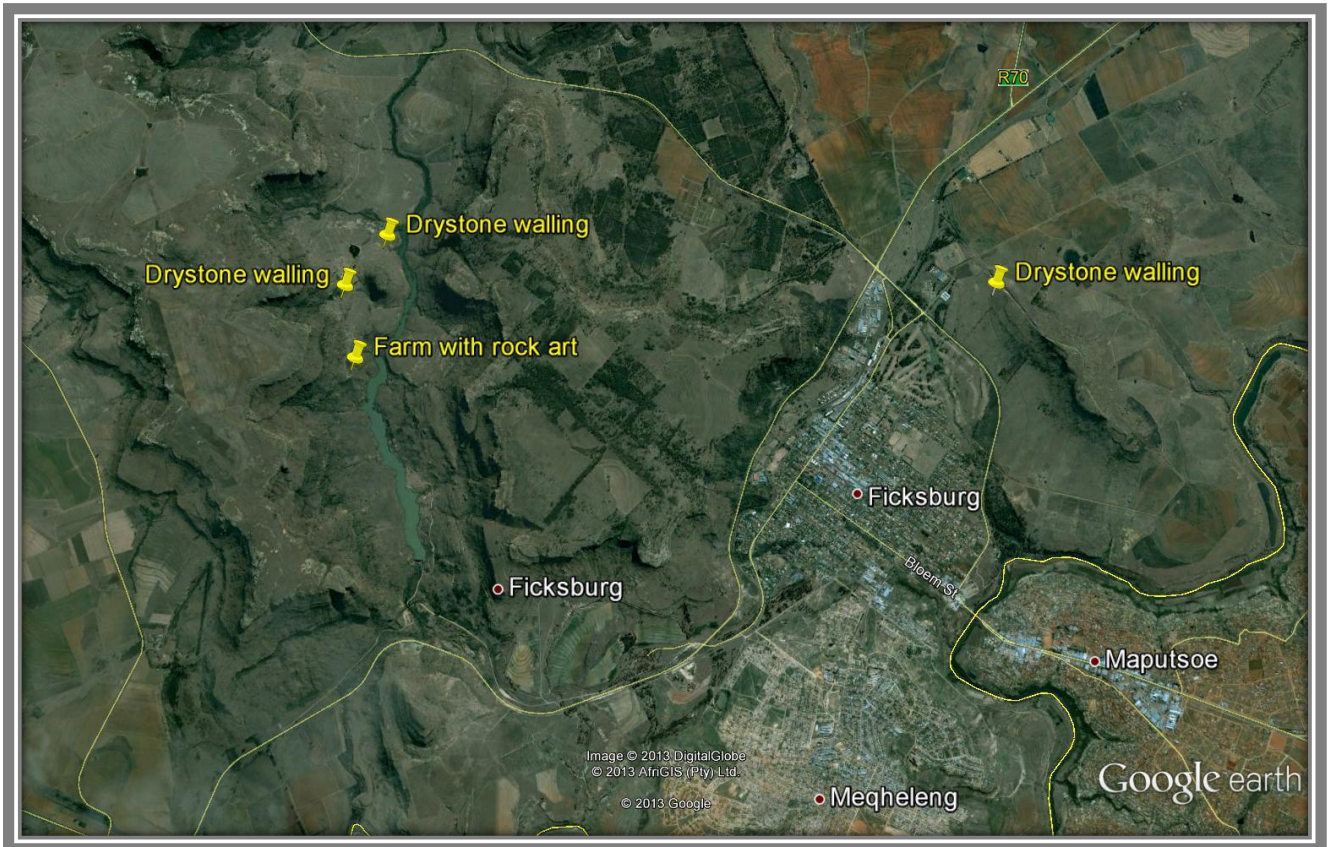


FIGURE 4 KNOWN ARCHAEOLOGICAL SITES IN THE VICINITY OF FICKSBURG.

— PALAEOLOGICAL SITES

The NHRA defines palaeontological as any fossilised remains or fossil trace of animals or plants which lived in the geological past, other than fossil fuels or fossiliferous rock intended for industrial use, and any site which contains such fossilised remains or trace.

Section 35 of the NHRA protects palaeontological sites as follows:

- (4) No person may, without a permit issued by the responsible heritage resources authority—
- (a) destroy, damage, excavate, alter, deface or otherwise disturb any palaeontological site;
 - (b) destroy, damage, excavate, remove from its original position, collect or own any palaeontological material or object;
 - (c) trade in, sell for private gain, export or attempt to export from the Republic any category of palaeontological material or object; or
 - (d) bring onto or use at a palaeontological site any excavation equipment or any equipment which assists in the detection or recovery of palaeontological material or objects.

The geology around Clocolan is underlain by the Triassic Molteno Formation (T_{rm}) of the Karoo Supergroup (Groenewald 2012a). The Molteno Formation consists of coarse-grained grey sandstone and dark grey mudstone. Soils are derived from the underlying rock and are generally deep and relatively high in fertility.

The Molteno Formation can have a moderate to high potential for plant fossils from the Dicroidium assemblage (Johnson et al, 2006 in Groenewald 2012a). The Dicroidium assemblage is an extinct genus of fork-leaved seed ferns that were distributed over Gondwanaland during the Triassic Period with high palaeontological sensitivity. Invertebrate fossils are restricted to trace fossils.

The Ficksburg area is underlain by the Elliot (Tre) Formation which forms part of the Stormberg Group of the Karoo Supergroup (Groenewald 2012 b). Some sandstones of the Clarens (Trc) Formation are visible on the higher elevated areas around the town, while sandstones of the Molteno (Tm) Formation occur in the lower lying areas. Quaternary (Yellow) sediments occur in the valley floors. Very prominent dolerite dykes cut the sedimentary sequences close to the town. The upper Triassic to lower Jurassic Elliot Formation consists of brown red siltstones and mudstones with subordinate very fine grained sandstone. Soils are derived from the underlying rock and are generally deep and relatively high in fertility.

The upper Triassic to lower Jurassic Elliot Formation can have a moderate to high potential for fossils of the Massospondylus and Euskelosaurus Range Zones with high palaeontological sensitivity (Groenewald 2012b). Vertebrate fossils from fishes Semionotus, turtle Australochelys, Dinosaurs Euskelosaurus and Melanorosaurus as well as Therapsids Elliotherium have been recorded. Invertebrate fossils are restricted to trace fossils. No plant fossil material is expected in this formation.

6 POTENTIAL DEVELOPMENT IMPACTS

— FORMALLY PROTECTED HERITAGE RESOURCES

No formally protected heritage resources will be affected directly by the proposed power line. Indirect visual impacts, if any, are likely to be negligible.

TABLE 4 POTENTIAL IMPACT ON FORMALLY PROTECTED HERITAGE RESOURCES.

Nature	Extent	Duration	Intensity	Impact on irreplaceable resources	Consequence	Probability	Significance
Neutral-Negative	Low	High	Low	Low	Low	Low	Low

— PLACES, BUILDINGS AND STRUCTURES

No places, buildings or structures will be affected directly by the proposed power line. However, indirect visual impacts could negatively affect the sense of place of currently unidentified sites with significance for their historical and architectural values, for example.

TABLE 5 POTENTIAL IMPACT ON PLACES, BUILDINGS AND STRUCTURES.

Nature	Extent	Duration	Intensity	Impact on irreplaceable resources	Consequence	Probability	Significance
Neutral-Negative	Low	High	Low	Low	Low	Low	Low

— LANDSCAPES AND NATURAL FEATURES

Guidelines for the development of wind energy facilities in the Western Cape⁸ provide a list of potentially sensitive environmental features/areas that includes the following:

- Properties subject to any statutory conservation status or similar, including, but not restricted to, World Heritage Sites, National Parks, Provincial, Local Authority or Private nature reserves, Wilderness Areas, State Forests, Protected Natural Environments, or adjoining properties in so far as the activity or structure may affect the ecosystem function or aesthetic value of those conservation areas. This therefore includes locations for communication structures where such structures may be visible from sites of conservation significance (i.e. statutory conservation status).
- Natural Heritage Sites or adjoining properties in so far as the activity or structure may affect the ecosystem function or aesthetic value of those sites. This therefore includes locations for communication structures where such structures may be visible from Natural Heritage Sites.
- Any area, property or adjacent property that is of cultural or social importance e.g. historical sites, as proclaimed by the NHRA, graveyards, public open spaces and visual corridors or gateways.
- Any areas identified as areas of natural or conservation significance in statutory or non-statutory land use or development planning documents (structure plans, integrated development frameworks etc.) and/or maps, including the core areas of biosphere reserves or in close proximity thereto.
- Routes of tourism or scenic significance or locations visible from such routes.

The nature conservation area around the Meulspruit Dam falls within the 2 km buffer zone of the proposed development, but is unlikely to experience significant indirect visual impacts that could negatively affect its sense of place.

TABLE 6 POTENTIAL IMPACT ON LANDSCAPES AND NATURAL FEATURES.

Nature	Extent	Duration	Intensity	Impact on irreplaceable resources	Consequence	Probability	Significance
Neutral-Negative	Low	High	Low	Low	Low	Low	Low

— GRAVES AND BURIAL GROUNDS

It is possible that graves and burial grounds located outside of formal cemeteries could be affected by proposed power line infrastructure.

TABLE 7 POTENTIAL IMPACT ON GRAVES AND BURIAL GROUNDS.

Nature	Extent	Duration	Intensity	Impact on irreplaceable resources	Consequence	Probability	Significance
Neutral-Negative	Low	High	High	High	High	Low-Medium	High

⁸ Developed by Department of Environmental Affairs and Development Planning, 2006.

— PLACES ASSOCIATED WITH ORAL TRADITIONS AND/OR LIVING HERITAGE

It is possible though unlikely that such heritage resources will be affected by the proposed project.

TABLE 8 POTENTIAL IMPACT ON PLACES ASSOCIATED WITH ORAL TRADITIONS AND/OR LIVING HERITAGE.

Nature	Extent	Duration	Intensity	Impact on irreplaceable resources	Consequence	Probability	Significance
Neutral-Negative	Low	High	Low	Low	Low	Low	Low

— ARCHAEOLOGICAL SITES

It is possible though unlikely that archaeological sites will be affected by proposed power line infrastructure.

TABLE 9 POTENTIAL IMPACT ON ARCHAEOLOGICAL SITES.

Nature	Extent	Duration	Intensity	Impact on irreplaceable resources	Consequence	Probability	Significance
Neutral-Negative	Low	High	Low	Low	Low	Low	Low

— PALAEOLOGICAL SITES

It is possible though unlikely that palaeontological sites will be affected by proposed power line infrastructure, unless bedrock is affected.

TABLE 10 POTENTIAL IMPACT ON PALAEOLOGICAL SITES.

Nature	Extent	Duration	Intensity	Impact on irreplaceable resources	Consequence	Probability	Significance
Neutral-Negative	Low	High	Low	Low	Low	Low	Low

7 RECOMMENDATIONS

— GENERAL

- Placement of the proposed power line close to the existing 88kV power line servitude and/or in existing services corridors should be considered as a means of minimising the potential impact on heritage resources.
- A suitably qualified heritage practitioner should undertake a 'walk-down' of the final selected power line route and all activity areas (tower positions, access roads, construction camps, materials storage areas, etc.) prior to the start of any construction activities and assess direct impacts on any heritage resources.

— FORMALLY PROTECTED HERITAGE RESOURCES

Indirect visual impacts on formally protected heritage resources should be avoided through sensitive placement of project infrastructure.

— PLACES, BUILDINGS AND STRUCTURES

Indirect visual impacts on significant places, buildings and structures should be avoided through sensitive placement of project infrastructure.

— LANDSCAPES AND NATURAL FEATURES

The aforementioned guidelines for the development of wind energy facilities in the Western Cape have suggested that a buffer zone of 1km be established around significant visually sensitive heritage resources to minimise the change to the 'sense of place'. The point at which a power line may be perceived as intrusive or offensive is subjective. This guideline document supports the following decision-making principles that are relevant to this HIA:

- Structures associated with communication networks that are proposed where they will be out of character or disruptive of the sense of place will be discouraged or completely avoided.
- Structures associated with communication networks, which are proposed where they will break the skyline on a scenic landscape, will be discouraged or completely avoided.
- Structures associated with communication networks, which are proposed along scenic tourist routes will be discouraged or completely avoided.
- Structures associated with communication networks, which are proposed in a sensitive environment as listed above in Section 6 'Landscapes and features' will be strongly discouraged or completely avoided.
- Structures associated with communication networks which are proposed in any area, property, adjacent to sites of cultural or social importance such as historical sites proclaimed in terms of the NHRA, graveyards, public open spaces and visual corridors or gateways will be strongly discouraged or completely avoided.

— **GRAVES AND BURIAL GROUNDS**

No power line infrastructure may be placed within 50 m of a grave or burial ground, unless recommended otherwise by a heritage practitioner.

— **PLACES ASSOCIATED WITH ORAL TRADITIONS AND/OR LIVING HERITAGE**

No power line infrastructure may be placed within 50 m of such places, unless recommended otherwise by a heritage practitioner.

— **ARCHAEOLOGICAL SITES**

No power line infrastructure may be placed within 50 m of such places, unless recommended otherwise by a heritage practitioner.

— **PALAEONTOLOGICAL SITES**

No power line infrastructure may be placed within 50 m of such places, unless recommended otherwise by a heritage practitioner.

8 CONCLUSION

We recommend that a full Phase 1 HIA is prepared by an accredited subject specialist prior to any construction activities. According to Section 38(4) of the National Heritage Resources Act the reports shall be considered timeously by SAHRA which shall, after consultation with the person proposing the development, decide –

- whether or not the development may proceed;
- any limitations or conditions are to be applied to the development;
- what general protections in terms of the NHRA apply, and what formal protections may be applied to such heritage resources;
- whether compensatory action shall be required in respect of any heritage resources damaged or destroyed as a result of the development; and
- whether the appointment of specialists is required as a condition of approval for the proposal.

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⁹ Refer to Appendix B for HIA and PIA report references relevant to the study area.

APPENDIX A STATUTORY REQUIREMENTS

General

The Constitution of the Republic of South Africa Act 108 of 1996 is the source of all legislation. Within the Constitution the Bill of Rights is fundamental, with the principle that the environment should be protected for present and future generations by preventing pollution, promoting conservation and practising ecologically sustainable development. With regard to spatial planning and related legislation at national and provincial levels the following legislation may be relevant:

- Physical Planning Act 125 of 1991
- Municipal Structures Act 117 of 1998
- Municipal Systems Act 32 of 2000
- Development Facilitation Act 67 of 1995 (DFA)
- KwaZulu-Natal Planning and Development Act 6 of 2008.

The identification, evaluation and management of heritage resources in South Africa is required and governed by the following legislation:

- National Environmental Management Act 107 of 1998 (NEMA)
- KwaZulu-Natal Heritage Act 4 of 2008 (KZNHA)
- National Heritage Resources Act 25 of 1999 (NHRA)
- Minerals and Petroleum Resources Development Act 28 of 2002 (MPRDA)

National Heritage Resources Act 25 of 1999

The NHRA established the South African Heritage Resources Agency (SAHRA) together with its Council to fulfil the following functions:

- co-ordinate and promote the management of heritage resources at national level;
- set norms and maintain essential national standards for the management of heritage resources in the Republic and to protect heritage resources of national significance;
- control the export of nationally significant heritage objects and the import into the Republic of cultural property illegally exported from foreign countries;
- enable the provinces to establish heritage authorities which must adopt powers to protect and manage certain categories of heritage resources; and
- provide for the protection and management of conservation-worthy places and areas by local authorities.

Heritage Impact Assessments

Section 38(1) of the NHRA of 1999 requires the responsible heritage resources authority to notify the person who intends to undertake a development that fulfils the following criteria to submit an impact assessment report if there is reason to believe that heritage resources will be affected by such development:

- the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
- the construction of a bridge or similar structure exceeding 50m in length;
- 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;
- the re-zoning of a site exceeding 10 000m² in extent; or
- any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority.

Reports in fulfilment of Section 38(3) of the Act must include the following information:

- the identification and mapping of all heritage resources in the area affected;
- an assessment of the significance of such resources in terms of the heritage assessment criteria set out in regulations;
- an assessment of the impact of the development on such heritage resources;
- 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 results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources;
- if heritage resources will be adversely affected by the proposed development, the consideration of alternatives; and
- plans for mitigation of any adverse effects during and after completion of the proposed development.

Definitions of heritage resources

The NHRA defines a heritage resource as any place or object of cultural significance i.e. of aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance. This includes, but is not limited to, the following wide range of places and objects:

- living heritage as defined in the National Heritage Council Act 11 of 1999 (cultural tradition; oral history; performance; ritual; popular memory; skills and techniques; indigenous knowledge systems; and the holistic approach to nature, society and social relationships);
- ecofacts (non-artefactual organic or environmental remains that may reveal aspects of past human activity; definition used in KwaZulu-Natal Heritage Act 2008);
- places, buildings, structures and equipment;
- places to which oral traditions are attached or which are associated with living heritage;
- historical settlements and townscapes;
- landscapes and natural features;
- geological sites of scientific or cultural importance;
- archaeological and palaeontological sites;
- graves and burial grounds;
- public monuments and memorials;
- sites of significance relating to the history of slavery in South Africa;
- movable objects, but excluding any object made by a living person; and
- battlefields.

Furthermore, a place or object is to be considered part of the national estate if it has cultural significance or other special value because of—

- its importance in the community, or pattern of South Africa's history;
- its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;
- its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;

- its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects;
- its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
- its importance in demonstrating a high degree of creative or technical achievement at a particular period;
- its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons; and
- its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa.

Management of Graves and Burial Grounds

- **Graves younger than 60 years** are protected in terms of Section 2(1) of the Removal of Graves and Dead Bodies Ordinance 7 of 1925 as well as the Human Tissues Act 65 of 1983. Such graves are the jurisdiction of the National Department of Health and the relevant Provincial Department of Health and must be submitted for final approval to the Office of the relevant Provincial Premier. This function is usually delegated to the Provincial Member of the Executive Council for Local Government and Planning, or in some cases the MEC for Housing and Welfare.

Authorisation for exhumation and reinterment must also be obtained from the relevant local or regional council where the grave is situated, as well as the relevant local or regional council to where the grave is being relocated. All local and regional provisions, laws and by-laws must also be adhered to. In order to handle and transport human remains the institution conducting the relocation should be authorised under Section 24 of the Human Tissues Act 65 of 1983.

- **Graves older than 60 years situated outside a formal cemetery administered by a local authority** are protected in terms of Section 36 of the NHRA as well as the Human Tissues Act of 1983. Accordingly, such graves are the jurisdiction of SAHRA. The procedure for Consultation Regarding Burial Grounds and Graves (Section 36(5) of NHRA) is applicable to graves older than 60 years that are situated outside a formal cemetery administered by a local authority. Graves in the category located inside a formal cemetery administered by a local authority will also require the same authorisation as set out for graves younger than 60 years over and above SAHRA authorisation.

If the grave is not situated inside a formal cemetery but is to be relocated to one, permission from the local authority is required and all regulations, laws and by-laws set by the cemetery authority must be adhered to.

The **protocol for the management of graves older than 60 years situated outside a formal cemetery administered by a local authority** is detailed in Section 36 of the NHRA:

- (3) (a) No person may, without a permit issued by SAHRA or a provincial heritage resources authority—
- (a) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;
 - (b) destroy, damage, alter, exhume, 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 equipment, or any equipment which assists in the detection or recovery of metals.
- (4) SAHRA or a provincial heritage resources authority may not issue a permit for the destruction or damage of any burial ground or grave referred to in subsection (3)(a) unless it is satisfied that the applicant has made satisfactory arrangements for the exhumation and re-interment of the contents of such graves, at the cost of the applicant and in accordance with any regulations made by the responsible heritage resources authority.

(5) SAHRA or a provincial heritage resources authority may not issue a permit for any activity under subsection (3)(b) unless it is satisfied that the applicant has, in accordance with regulations made by the responsible heritage resources authority—

(a) made a concerted effort to contact and consult communities and individuals who by tradition have an interest in such grave or burial ground; and

(b) reached agreements with such communities and individuals regarding the future of such grave or burial ground.

(6) Subject to the provision of any other law, any person who in the course of development or any other activity discovers the location of a grave, the existence of which was previously unknown, must immediately cease such activity and report the discovery to the responsible heritage resources authority which must, in co-operation with the South African Police Service and in accordance with regulations of the responsible heritage resources authority—

(a) carry out an investigation for the purpose of obtaining information on whether or not such grave is protected in terms of this Act or is of significance to any community; and

(b) if such grave is protected or is of significance, assist any person who or community which is a direct descendant to make arrangements for the exhumation and re-interment of the contents of such grave or, in the absence of such person or community, make any such arrangements as it deems fit.

The Vermillion Accord on Human Remains¹⁰

Adopted in 1989 at WAC Inter-Congress, South Dakota, USA

1. Respect for the mortal remains of the dead shall be accorded to all, irrespective of origin, race, religion, nationality, custom and tradition.
2. Respect for the wishes of the dead concerning disposition shall be accorded whenever possible, reasonable and lawful, when they are known or can be reasonably inferred.
3. Respect for the wishes of the local community and of relatives or guardians of the dead shall be accorded whenever possible, reasonable and lawful.
4. Respect for the scientific research value of skeletal, mummified and other human remains (including fossil hominids) shall be accorded when such value is demonstrated to exist.
5. Agreement on the disposition of fossil, skeletal, mummified and other remains shall be reached by negotiation on the basis of mutual respect for the legitimate concerns of communities for the proper disposition of their ancestors, as well as the legitimate concerns of science and education.
6. The express recognition that the concerns of various ethnic groups, as well as those of science are legitimate and to be respected, will permit acceptable agreements to be reached and honoured.

¹⁰ <http://www.worldarchaeologicalcongress.org/>

APPENDIX B METHODOLOGY

Desktop study

eThembeni staff members undertook the following tasks:

- Review of known heritage resources in the study area from provincial and national heritage databases;
- A literature review to provide the historical context and potential heritage resource sensitivity; and
- A review of available maps, including Google Earth imagery.

Heritage Impact Assessment reports relevant to the study area

- Anderson, G. 2011. Heritage Survey of the Proposed Clocolan Solid Waste Disposal Site, Free State. Report compiled for Metsi Metseng Geological Services.
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- Dreyer, C. 2012. First Phase Archaeological and Cultural Heritage Assessment of the Proposed New Waste Disposal Site at Clocolan, Free State. Report compiled for Metsi Metseng Geological Services.

Palaeontological Impact Assessment reports relevant to the study area

- Groenewald, G. 2012a. Palaeontological Impact Screening Report Proposed Clocolan Solid Waste Disposal Facility on the Farm: Ferndale 349 of the Setsoto Municipality within the Thabo Mofutsanyane District Municipality in the Free State Province of South Africa. Report compiled for LHL Consulting Engineers.
- Groenewald, G. 2012b. Palaeontological Impact Screening Report Proposed Ficksburg Solid Waste Facility Ficksburg, Free State Province of South Africa Farm: Kersie Proefplaas 952 in the Setsoto Local Municipality within the Thabo Mofutsanyane District Municipality. Report compiled for LHL Consulting Engineers.

Assessment of heritage resource value and significance

Heritage resources are significant only to the extent that they have public value, as demonstrated by the following guidelines for determining site significance developed by Heritage Western Cape in 2007 and utilised during this assessment.

Grade I Sites (National Heritage Sites)

Regulation 43 Government Gazette no 6820. 8 No. 24893 30 May 2003, Notice No. 694 states that: Grade I heritage resources are heritage resources with qualities so exceptional that they are of special national significance should be applied to any heritage resource which is

- a) Of outstanding significance in terms of one or more of the criteria set out in section 3(3) of the NHRA;
 - b) Authentic in terms of design, materials, workmanship or setting; and is of such universal value and symbolic importance that it can promote human understanding and contribute to nation building, and its loss would significantly diminish the national heritage.
-
1. Is the site of outstanding national significance?
 2. Is the site the best possible representative of a national issue, event or group or person of national historical importance?
 3. Does it fall within the proposed themes that are to be represented by National Heritage Sites?
 4. Does the site contribute to nation building and reconciliation?
 5. Does the site illustrate an issue or theme, or the side of an issue already represented by an existing National Heritage Site – or would the issue be better represented by another site?
 6. Is the site authentic and intact?
 7. Should the declaration be part of a serial declaration?
 8. Is it appropriate that this site be managed at a national level?
 9. What are the implications of not managing the site at national level?

Grade II Sites (Provincial Heritage Sites)

Regulation 43 Government Gazette no 6820. 8 No. 24893 30 May 2003, Notice No. 694 states that: Grade II heritage resources are those with special qualities which make them significant in the context of a province or region and should be applied to any heritage resource which -

- a) is of great significance in terms of one or more of the criteria set out in section 3(3) of the NHRA; and
- (b) enriches the understanding of cultural, historical, social and scientific development in the province or region in which it is situated, but that does not fulfil the criteria for Grade 1 status.

Grade II sites may include, but are not limited to –

- (a) places, buildings, structures and immovable 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 natural features of cultural significance;
- (e) geological sites of scientific or cultural importance;
- (f) archaeological and palaeontological sites; and
- (g) graves and burial grounds.

The cultural significance or other special value that Grade II sites may have, could include, but are not limited to –

- (a) its importance in the community or pattern of the history of the province;
- (b) the uncommon, rare or endangered aspects that it possess reflecting the province's natural or cultural heritage
- (c) the potential that the site may yield information that will contribute to an understanding of the province's natural or cultural heritage;
- (d) its importance in demonstrating the principal characteristics of a particular class of the province's natural or cultural places or objects;
- (e) its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group in the province;

- (f) its importance in demonstrating a high degree of creative or technical achievement at a particular period in the development or history of the province;
- (g) its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons; and
- (h) its strong or special association with the life or work of a person, group or organization of importance in the history of the province.

Grade III (Local Heritage Resources)

Regulation 43 Government Gazette no 6820. 8 No. 24893 30 May 2003, Notice No. 694 states that: Grade III heritage status should be applied to any heritage resource which

- (a) fulfils one or more of the criteria set out in section 3(3) of the NHRA; or
- (b) in the case of a site contributes to the environmental quality or cultural significance of a larger area which fulfils one of the above criteria, but that does not fulfill the criteria for Grade 2 status.

Grade IIIA

This grading is applied to buildings and sites that have sufficient intrinsic significance to be regarded as local heritage resources; and are significant enough to warrant *any* alteration being regulated. The significances of these buildings and/or sites should include at least some of the following characteristics:

- Highly significant association with a
 - historic person
 - social grouping
 - historic events
 - historical activities or roles
 - public memory
- Historical and/or visual-spatial landmark within a place
- High architectural quality, well-constructed and of fine materials
- Historical fabric is mostly intact (this fabric may be layered historically and/or past damage should be easily reversible)
- Fabric dates to the early origins of a place
- Fabric clearly illustrates an historical period in the evolution of a place
- Fabric clearly illustrates the key uses and roles of a place over time
- Contributes significantly to the environmental quality of a Grade I or Grade II heritage resource or a conservation/heritage area

Such buildings and sites may be representative, being excellent examples of their kind, or may be rare: as such they should receive maximum protection at local level.

Grade IIIB

This grading is applied to buildings and/or sites of a marginally lesser significance than grade IIIA; and such marginally lesser significance argues against the regulation of internal alterations. Such buildings and sites may have similar significances to those of a grade IIIA building or site, but to a lesser degree. Like grade IIIA buildings and sites, such buildings and sites may be representative, being excellent examples of their kind, or may be rare, but less so than grade IIIA examples: as such they should receive less stringent protection than grade IIIA buildings and sites at local level and internal alterations should not be regulated (in this context).

Grade IIIC

This grading is applied to buildings and/or sites whose significance is, in large part, a significance that contributes to the character or significance of the environs. These buildings and sites should, as a consequence, only be protected and regulated *if the significance of the environs is sufficient to warrant*

protective measures. In other words, these buildings and/or sites will only be protected if they are within declared conservation or heritage areas.

Assessment of development impacts

A heritage resource impact may be defined broadly as the net change, either beneficial or adverse, between the integrity of a heritage site with and without the proposed development. Beneficial impacts occur wherever a proposed development actively protects, preserves or enhances a heritage resource, by minimising natural site erosion or facilitating non-destructive public use, for example. More commonly, development impacts are of an adverse nature and can include:

- destruction or alteration of all or part of a heritage site;
- isolation of a site from its natural setting; and / or
- introduction of physical, chemical or visual elements that are out of character with the heritage resource and its setting.

Beneficial and adverse impacts can be direct or indirect, as well as cumulative, as implied by the aforementioned examples. Although indirect impacts may be more difficult to foresee, assess and quantify, they must form part of the assessment process. The following assessment criteria have been used to assess the impacts of the proposed development on identified heritage resources:

Criteria	Rating Scales	Notes
Nature	Positive	An evaluation of the type of effect the construction, operation and management of the proposed development would have on the heritage resource.
	Negative	
	Neutral	
Extent	Low	Site-specific, affects only the development footprint.
	Medium	Local (limited to the site and its immediate surroundings, including the surrounding towns and settlements within a 10 km radius);
	High	Regional (beyond a 10 km radius) to national.
Duration	Low	0-4 years (i.e. duration of construction phase).
	Medium	5-10 years.
	High	More than 10 years to permanent.
Intensity	Low	Where the impact affects the heritage resource in such a way that its significance and value are minimally affected.
	Medium	Where the heritage resource is altered and its significance and value are measurably reduced.
	High	Where the heritage resource is altered or destroyed to the extent that its significance and value cease to exist.
Potential for impact on irreplaceable resources	Low	No irreplaceable resources will be impacted.
	Medium	Resources that will be impacted can be replaced, with effort.
	High	There is no potential for replacing a particular vulnerable resource that will be impacted.
Consequence a combination of extent, duration, intensity and the potential for impact on irreplaceable resources).	Low	A combination of any of the following: - Intensity, duration, extent and impact on irreplaceable resources are all rated low. - Intensity is low and up to two of the other criteria are rated medium. - Intensity is medium and all three other criteria are rated low.
	Medium	Intensity is medium and at least two of the other criteria are rated medium.
	High	Intensity and impact on irreplaceable resources are rated high, with any combination of extent and duration. Intensity is rated high, with all of the other criteria being rated medium or higher.
Probability (the likelihood of the impact occurring)	Low	It is highly unlikely or less than 50 % likely that an impact will occur.
	Medium	It is between 50 and 70 % certain that the impact will occur.
	High	It is more than 75 % certain that the impact will occur or it is definite that the impact will occur.
Significance (all impacts including potential cumulative impacts)	Low	Low consequence and low probability. Low consequence and medium probability. Low consequence and high probability.
	Medium	Medium consequence and low probability. Medium consequence and medium probability. Medium consequence and high probability. High consequence and low probability.
	High	High consequence and medium probability. High consequence and high probability.

Assumptions and limitations of this Heritage Scoping Assessment

- The description of the proposed project, provided by the client, is assumed to be accurate.
- This report represents only partial compliance with a Phase 1 HIA for the proposed project. The project may not proceed without the completion of the recommendations of this report and the approval of the Phase 1 HIA report by SAHRA.
- A key concept in the management of heritage resources is that of non-renewability: damage to or destruction of most resources, including that caused by bona fide research endeavours, cannot be reversed or undone. Accordingly, management recommendations for heritage resources in the context of development are as conservative as possible.
- Human sciences are necessarily both subjective and objective in nature. eThembeni staff members strive to manage heritage resources to the highest standards in accordance with national and international best practice, but recognise that their opinions might differ from those of other heritage practitioners.
- Staff members involved in this project have no vested interest in it; are qualified to undertake the tasks as described in the terms of reference (refer to Appendix D); and comply at all times with the Codes of Ethics and Conduct of the Association of Southern African Professional Archaeologists.
- eThembeni staff members take no personal or professional responsibility for the misuse of the information contained in this report, although they will take all reasonable precautions against such misuse.

APPENDIX C ARCHAEOLOGY OF THE STUDY AREA

In archaeological terms South Africa's prehistory has been divided into a series of phases based on broad patterns of technology. The primary distinction is between a reliance on chipped and flaked stone implements (the Stone Age), the ability to work iron (the Iron Age) and the Colonial Period, characterised by the advent of writing and in southern Africa primarily associated with the first European travellers (Mitchell 2002). Spanning a large proportion of human history, the Stone Age in Southern Africa is further divided into the Early Stone Age, or Paleolithic Period (about 2 500 000–150 000 years ago), the Middle Stone Age, or Mesolithic Period (about 500 000–30 000 years ago), and the Late Stone Age, or Neolithic Period (about 30 000–2 000 years ago). The simple stone tools found with australopithecine fossil bones fall into the earliest part of the Early Stone Age.

The Stone Age

— Early Stone Age

Most Early Stone Age sites in South Africa can probably be connected with the hominin species known as *Homo erectus*. Simply modified stones, hand axes, scraping tools, and other bifacial artifacts had a wide variety of purposes, including butchering animal carcasses, scraping hides, and digging for plant foods. Most South African archaeological sites from this period are the remains of open camps, often by the sides of rivers and lakes, although some are rock shelters, such as Montagu Cave in the Cape region.

— Middle Stone Age

The long episode of cultural and physical evolution gave way to a period of more rapid change about 120 000 years ago. Hand axes and large bifacial stone tools were replaced by stone flakes and blades that were fashioned into scrapers, spear points, and parts for hafted, composite implements. This technological stage, now known as the Middle Stone Age, is represented by numerous sites in South Africa.

Open camps and rock overhangs were used for shelter. Day-to-day debris has survived to provide some evidence of early ways of life, although plant foods have rarely been preserved. Middle Stone Age bands hunted medium-sized and large prey, including antelope and zebra, although they tended to avoid the largest and most dangerous animals, such as the elephant and the rhinoceros. They also ate seabirds and marine mammals that could be found along the shore and sometimes collected tortoises and ostrich eggs in large quantities.

The Middle Stone Age is perhaps most significant as the time period during which the first modern humans, *Homo sapiens sapiens*, emerged between 120 000 and 30 000 years ago. The Klasies River cave complex, located on the southern Cape coast contains the oldest remains of anatomically modern humans in the world, dating to around 110 000 years ago (Singer & Wymer 1982; Rightmire & Deacon 1991). Humans were anatomically modern by 110 000 years ago but only developed into culturally modern behaving humans between 80 000 and 70 000 years ago, during cultural phases known as the Still Bay and Howieson's Poort time periods or stone tool traditions.

One of the most significant Middle Stone Age sites in South Africa is Rose Cottage Cave, a multi-component site located on the Caledon River in the eastern Free State. The site was excavated in the 1940s by B.D. Malan and by P. Beaumont in 1962. In the latter part of the 20th century the site was investigated again by Professor Lyn Wadley. Its deposits are up to six metres deep and include evidence of its use by humans for over 100 000 years, with significant pre- and post-Howieson's Poort occupations, a possible Middle Stone Age/Late Stone Age transition occupation and a Late Stone sequence with several occupations (see Mohapi 2007; Soriano et al 2007; Wadley 2005).

Chronology was established at Rose Cottage using a combination of thermoluminescence and optically stimulated luminescence OSL methods and results are as follows:

- Post-Howiesons Poort 47-51 ka (TL), 33-57 ka (OSL)
- Howiesons Poort 42-58 ka (TL), 59-66 ka (OSL)
- Pre-Howiesons Poort 76-65 ka (TL), 86 ka (OSL)

The Howiesons Poort artifacts are a collection of blades, backed blades, flakes, triangles, and blanks primarily from fine-grained opaline (or chalcedony). Stone projectile points are considered likely to have been used as tips on arrows for bow-and-arrow hunting. Stone tool manufacturing systems appear to include marginal percussion with a soft stone hammer to make blades and bladelets.

Post-Howiesons Poort artifacts include broad, thick projectile points with faceted platforms that probably were used as spear points, rather than the HP projectiles which researchers have suggested as arrow points. If so, Rose Cottage Cave illustrates that rather than being different levels of sophisticated technology, bow and arrow hunting and spear hunting are complementary technologies.

— Later Stone Age

Basic toolmaking techniques began to undergo additional change about 40 000 years ago. Small finely worked stone implements known as microliths became more common, while the heavier scrapers and points of the Middle Stone Age appeared less frequently. Archaeologists refer to this technological stage as the Later Stone Age or LSA, which can be divided into four broad temporal units directly associated with climatic, technological and subsistence changes (Deacon 1984):

1. Late Pleistocene microlithic assemblages (40-12 000 years ago);
2. Terminal Pleistocene / early Holocene non-microlithic (macrolithic) assemblages (12-8 000 years ago);
3. Holocene microlithic assemblages (8 000 years ago to the Colonial Period); and
4. Holocene assemblages with pottery (2 000 years ago to the Historic Period) closely associated with the arrival of pastoralist communities into South Africa (Mitchell 1997; 2002).

Animals were trapped and hunted with spears and arrows on which were mounted well-crafted stone blades. Bands moved with the seasons as they followed game into higher lands in the spring and early summer months, when plant foods could also be found. When available, rock overhangs became shelters; otherwise, windbreaks were built. Shellfish, crayfish, seals, and seabirds were also important sources of food, as were fish caught on lines, with spears, in traps, and possibly with nets.

Elements of material culture characteristic of the LSA that reflect cultural modernity have been summarised as follows (Deacon 1984):

- Symbolic and representational art (paintings and engravings);
- Items of personal adornment such as decorated ostrich eggshell, decorated bone tools and beads, pendants and amulets of ostrich eggshell, marine and freshwater shells;
- Specialized hunting and fishing equipment in the form of bows and arrows, fish hooks and sinkers;
- A greater variety of specialized tools including bone needles and awls and bone skin-working tools;
- Specialized food gathering tools and containers such as bored stone digging stick weights, carrying bags of leather and netting, ostrich eggshell water containers, tortoiseshell bowls and scoops and later pottery and stone bowls;
- Formal burial of the dead in graves, sometimes covered with painted stones or grindstones and accompanied by grave goods;

- The miniaturization of selected stone tools linked to the practice of hafting for composite tools production; and
- A characteristic range of specialized tools designed for making some of the items listed above.

In the Eastern Free State Rooikrans Rock Shelter on the eastern flank of Tandjiesberg has yielded archaeological deposits with the most recent occupation dating to the 19th or 20th century and the underlying occupation between the 15th and 17th centuries AD. Data from Rooikrans and other 'hunter-gatherer sites in the frontier zone in the western Caledon Valley clearly point to the existence of a 'cultural mosaic' of interspersed hunter-gatherer and farming communities from the sixteenth century AD until the area was occupied by European farmers after 1868' (Thorp 1996:61, 62):

'The emerging evidence seems consistent with ... intensifying interaction along a sedentary farmer/mobile forager frontier, resulting in the types of client relationships described by the historical sources ... The added complication of the advent of European farmers in the area is of interest. Presumably the hunter-gatherers developed a niche for themselves as clients of agro-pastoralists and were also able to establish relationships with European farmers. An old Sotho man interviewed on Rooikrans Farm claimed that 'Bushmen' continued to live on Tandjiesberg, working for the European farmer, until his adulthood. This claim does not seem far-fetched in view of the radiocarbon dates from Level 2 at Rooikrans rock shelter which are calibrated to the beginning of the twentieth century. A similar pattern is described ... near the Toverberg, where after initial hostility 'Bushmen' were working for European farmers in 1822'.

The Iron Age¹¹

The Iron Age archaeological landscape of the Free State is characterised by a wide distribution of stone-walled sites. These structures on the ridges and the dome-shaped stone huts in particular have generated interest and research over the years.

Studies on the history and ways of living of the early inhabitants of the region have revealed detail and consistency in the arrangement and design of the structures (Maggs 1976). The expression of culture in the recognised settlement patterns has left its imprint on the environment, illustrating people's perceptions about social clustering, economic systems and political organisation. These patterns are indicated by the arrangement of huts, stock kraals and ash heaps in a particular order and in relation to one another.

Spatial organisation in general is characterised by the central position of stock kraals and the placing of the main dwelling area on the perimeter of the settlement. Archaeological research indicates that during the occupation of these sites the emphasis was not only on stone-building, for additional structures of perishable materials supplemented living space.

Stone walls were built in a customary manner of two faces of stacked stones with a rubble infill. All the stone structures from the pre-colonial era are either circular or oval in plan. Rectangular buildings and kraals are normally either associated with missionary influences or could represent European preference during early colonial times.

The study of these stone walls is based on the classification of settlement patterns, according to a standardised archaeological framework (Maggs 1976). This arrangement of structures and sites is characterised by connecting walls (Type V), surrounding walls (Type N) and huts with bilobial courtyards (Type Z). The clustering of sites based on settlement layout is confirmed by associated pottery assemblages with different decoration styles (Maggs 1976:290). Different settlement patterns also produced huts of different materials in different styles.

¹¹ This section was written by Cobus J Dreyer and sourced from <http://www.verkykerskop.com/index.php/about-vkk/vkk-about-history/77-about-history-archaeology>

— The Eastern Free State

The type site of the settlements in this region is named Type N, after Ntsuanatsatsi (Tafelkop), a solitary hill along the R34 road between Frankfort and Vrede. Great symbolic value is attached to the name and some Sotho peoples still believe in a creation legend which proclaims that man (motho) originated from a reed bed at Ntsuanatsatsi.

Type N settlements are located in the north-eastern Free State, in the region around the towns of Warden, Frankfort, Vrede, Harrismith and Verkykerskop. This area has always been accepted as the traditional living place of the Batlokwa and Basia peoples, different tribes within the Sotho/Tswana cluster, before the Difaqane. A memorial stone to commemorate the Batlokwa heritage and to designate the area in which at least eight generations of their chiefs were buried was erected by the late chief Wessels Mota of Qwaqwa at the farm Morgenlicht 869 (Sunrise) in 1962. According to Mr Wally Sharratt, the landowner, people still visit the site regularly to pray and to pay homage through sacrifice.

Some of the more important sites, such as Nkwe (Sunrise) and Sefate (Verkykerskop) are known, but other Tlokwa historical sites in the region have not yet been identified. Tlokweg, where Motonosi allegedly gathered his people is indicated somewhere near the town of Vrede and the Vaal River. There is also reference to Lejwe Motho, located between Ntsuanatsatsi (Tafelkop) and Vrede, where Lebaka of the Bamogkalong (Tsoetsi) group settled for some time. Leeukop (Peme), south of Ntsuanatsatsi (Maggs 1976:142) has a different settlement layout. The Malakeng, an independent Batlokwa group, also lived at Seropong, a locality which is still unknown.

Basia people were also living in this particular region, somewhat further up along the Wilge River, always in close relation with the Tlokwa. To complicate matters further, it is known that shortly before the outbreak of the Difaqane, a group of Hlubi under their chief Motsholi came from east of the Drakensberg Mountains to settle in the Tlokwa area. The localities of their settlements are still unidentified.

Archaeological excavations have been done by Maggs (1976) at the farms Helena (Ntsuanatsatsi) and Zoetbron 151, in the lower Klip River valley. Type N walling, as it is known, emphasises the centre/side axis expressed through concentric circles: the inner circle encompasses cattle byres and the men's court, while the female residential zone of beehive houses and grain bins constitutes the outer circle. An outer wall sometimes incorporates small stock enclosures because these animals are associated with women¹². Ash heaps are scattered on the outside of the settlement. At some of the sites settlement layouts resembling sites which generally occur in the central Free State are found. The houses associated with Type N settlements were made of reeds and grass plastered with clay and contained dung floors smeared over stone paving. The pottery of the region is characterised by finger-pinched and comb-stamped ware combined with ochre burnish. The occupation of Type N settlements is linked to the early Fokeng, Koena and Kgatla lineages. Based on radiocarbon dating and lore, Type N sites were occupied during the 15th century to early 17th century.

Although Tswana-speaking now, new archaeological research indicates that the Fokeng moved up from northern KwaZulu-Natal and were originally Nguni speaking. According to oral traditions, Tswana people from the west moved across the Vaal River, found BaFokeng at Ntsuanatsatsi, and assimilated them. Archaeologically, this interaction created another type of walling, called Type V, named after Vegkop near Heilbron. Among other things, this type of settlement includes the famous 'corbelled huts' that captured the imagination of early travellers. Located on the edge of the central cattle area, these low stone huts served mostly as huts for herd boys. In a few places, adults may have lived in larger examples.

¹² <http://www.sahistory.org.za/bloemfontein/prehistory-bloemfontein-area>

An investigation into the historical settlements of this area by CJ Dreyer identified several unrecorded stone-walled living sites of two obviously different periods of occupation. These features clearly represent a Later Iron Age pastoral occupation, dating from pre-Difaqane (wars of devastation 1822-1830) times. It is generally accepted that the occupants of these stone-walled sites were the ancestors of the present day Sotho peoples.

Sites containing remains of rectangular stock kraals and other buildings most likely date from a more recent period of occupation by European farmers. These structures have never been documented or investigated and differ drastically from pre-colonial structures. The layout seems to indicate that different influences and priorities were important in this area during their occupation. The origin and purpose of these structures could not be ascertained. Wall construction consisting of two faces of stacked stones with a rubble infill seems to indicate black expertise, while the rectangular form on the other hand, tends to imply European influence.

A possible explanation may be found in the size, layout and distribution of the units. It has been narrated by the old people that in bygone days, migratory stock farmers (“trekboere”) from the area and from other districts such as Standerton and Volksrust further north and east across the Vaal River, used to move their cattle regularly on a seasonal basis to winter pastures in Natal and even to Swaziland. These treks were usually under the supervision of young European boys assisted by black herders. According to lore this movement of stock took place from long before the Anglo- Boer War (1899-1902) and continued until the 1930s and 1940s. Bearing this in mind, it can be concluded that these kraal sites could have been an aspect of a system of stock migration during colonial times.

APPENDIX D SPECIALIST COMPETENCY AND DECLARATION OF INDEPENDENCE

Specialist competency

Len van Schalkwyk is accredited by the Cultural Resources Management section of the Association of Southern African Professional Archaeologists (ASAPA) to undertake HIAs in South Africa. He is also a member of the ASAPA Cultural Resources Management Committee for 2011 and 2012. Mr van Schalkwyk has a master's degree in archaeology (specialising in the history of early farmers in southern Africa) from the University of Cape Town and 25 years' experience in heritage management. He has worked on projects as diverse as the establishment of the Ondini Cultural Museum in Ulundi, the cultural management of Chobe National Park in Botswana and various archaeological excavations and oral history recording projects. He was part of the writing team that produced the KwaZulu-Natal Heritage Act 1997. He has worked with many rural communities to establish integrated heritage and land use plans and speaks good Zulu.

Mr van Schalkwyk left his position as assistant director of Amafa aKwaZulu-Natali, the provincial heritage management authority, to start eThembeni in partnership with Elizabeth Wahl, who was head of archaeology at Amafa at the time. Over the past decade they have undertaken almost 1000 heritage impact assessments throughout South Africa, as well as in Mozambique.

Elizabeth Wahl has a BA Honours in African Studies from the University of Cape Town and has completed various Masters courses in Heritage and Tourism at the University of KwaZulu-Natal. She is currently studying for an MPhil in the Conservation of the Built Environment at UCT. She is also a member of ASAPA.

Ms Wahl was an excavator and logistical coordinator for Glasgow University Archaeological Research Division's heritage programme at Isandlwana Battlefield; has undertaken numerous rock painting surveys in the uKhahlamba/Drakensberg Mountains, northern KwaZulu-Natal, the Cederberg and the Koue Bokkeveld in the Cape Province; and was the principal excavator of Scorpion Shelter in the Cape Province, and Lenjane and Crystal Shelters in KwaZulu-Natal. Ms Wahl compiled the first cultural landscape management plan for the Mnweni Valley, northern uKhahlamba/Drakensberg, and undertook an assessment of and made recommendations for cultural heritage databases and organisational capacity in parts of Lesotho and South Africa for the Global Environment Facility of the World Bank for the Maloti Drakensberg Transfrontier Conservation and Development Area. She developed the first cultural heritage management plan for the uKhahlamba Drakensberg Park World Heritage Site, following UNESCO recommendations for rock art management in southern Africa.

Declaration of independence

We declare that Len van Schalkwyk, Elizabeth Wahl and eThembeni Cultural Heritage have no financial or personal interest in the proposed development, nor its developers or any of its subsidiaries, apart from in the provision of heritage impact assessment and management consulting services.

