

HERITAGE SCOPING REPORT

For the Dalmanutha Wind Energy Facility and associated infrastructure, Mpumalanga
Province, South Africa

Client:

WSP Group Africa (Pty) Ltd

Client contact:

Ashlea Strong

Report prepared by:



Beyond Heritage

Private Bag X 1049

Suite 34

Modimolle

0510

Tel: 082 373 8491

Fax: 086 691 6461

E-Mail: jaco@heritageconsultants.co.za

Report Author:

Mr. J. van der Walt

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EXECUTIVE SUMMARY

ENERTRAG South Africa (hereafter the “Developer”) is proposing the development of the Dalmanutha Wind Energy Facility. WSP has been appointed as the independent Environmental Assessment Practitioner (EAP) to undertake the requisite Environmental Impact Assessment (EIA) process for the Project. Beyond Heritage was contracted to assess the potential impact on heritage resources by the Project.

The assessment is to be undertaken in two phases, a scoping phase and an HIA phase, this report concerns the scoping phase. The aim of the scoping phase is to assess the study area at a desktop level to compile a background history of the study area, and to identify possible heritage issues or fatal flaws that should be avoided during development. Key findings include:

- Heritage assessments in the larger geographical area recorded historical features, archaeological sites as well as burial sites (e.g., Van Schalkwyk 2003; Coetzee 2005; Pistorius 2007; Pelsler & Van der Walt 2008; Van der Walt 2015; Van der Walt 2020). Similar sites can be expected in the Project area.
- The monument for the Berg en Dal battle is located on the periphery of the Project area and the visual impact of the Project will have to be assessed through a Visual Impact Assessment (VIA).
- Several burial sites are indicated on the Genealogical Society database in proximity to the Project and more burial sites can be expected in the Project area.
- The study area is of low to very high paleontological sensitivity and according to the SAHRIS palaeontological sensitivity map must be subjected to a palaeontological assessment in the impact assessment phase.

The scoping study did not identify any fatal flaws and it is expected that if any sites are identified within the development footprint during the field visit, the sites can be mitigated, either by avoidance or by a Phase 2 assessment. To comply with the National Heritage Resources Act (NHRA) and with cognisance of known heritage resources in the greater area it is recommended that the study area should be subjected to a field-based Heritage Impact Assessment (HIA) and a VIA. During these study’s the potential impact on heritage resources will be determined as well as the levels of significance of recorded heritage resources. The HIA & VIA should also provide management and mitigation measures should any significant sites be impacted, ensuring that all the requirements of the South African Heritage Resources Agency (SAHRA) are met.

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ABBREVIATIONS

AIA: Archaeological Impact Assessment
ASAPA: Association of South African Professional Archaeologists
BIA: Basic Impact Assessment
CRM: Cultural Resource Management
ECO: Environmental Control Officer
EIA: Environmental Impact Assessment*
EIA: Early Iron Age*
EIA Practitioner: Environmental Impact Assessment Practitioner
EMP: Environmental Management Plan
ESA: Early Stone Age
GPS: Global Positioning System
HIA: Heritage Impact Assessment
LIA: Late Iron Age
LSA: Late Stone Age
MEC: Member of the Executive Council
MIA: Middle Iron Age
MPRDA: Mineral and Petroleum Resources Development Act
MSA: Middle Stone Age
NEMA: National Environmental Management Act
PRHA: Provincial Heritage Resource Agency
SADC: Southern African Development Community
SAHRA: South African Heritage Resources Agency

**Although EIA refers to both Environmental Impact Assessment and the Early Iron Age both are internationally accepted abbreviations and must be read and interpreted in the context it is used.*

GLOSSARY

Archaeological site (remains of human activity over 100 years old)

Early Stone Age (2 million to 300 000 years ago)

Middle Stone Age (300 000 to 30 000 years ago)

Late Stone Age (30 000 years ago until recently)

Historic (approximately AD 1840 to 1950)

Historic building (over 60 years old)

Lithics: Stone Age artefacts

1. INTRODUCTION

Beyond Heritage was contracted by WSP to conduct a heritage scoping study for the Dalmanutha Wind Energy Facility (“Dalmanutha Wind”) that is located approximately 7km southeast of the Belfast town within Emakhazeni Local Municipality, Mpumalanga Province (Figure 1.1 to 1.3). Site access is via the N4, which is approximately 220 meters from Dalmanutha Wind. Dalmanutha Wind will be located over eighteen farm portions covering approximately 4370 ha. The Project is located on the following farms: Farm 378 portion 1 and 9, Farm 384 portion 7, Farm 385 portion 6, 7, 8, 10, 12, 13, 24, Farm 403 portion 3 and 4, Farm 404 portion 1, 2, Farm 405 portion 3, Farm 412 portion 1 and Farm 467 portion 0. The heritage scoping report forms part of the EIA for the proposed Project.

The aim of the scoping report is to identify possible heritage resources within the Project area and to submit appropriate recommendations with regards to the responsible cultural resources management measures that might be required within the framework provided by Heritage legislation.

The report outlines the approach and methodology utilized for the scoping phase of the Project. The report includes information collected from various sources and consultations. Possible impacts are identified, and mitigation measures are proposed in the following report.

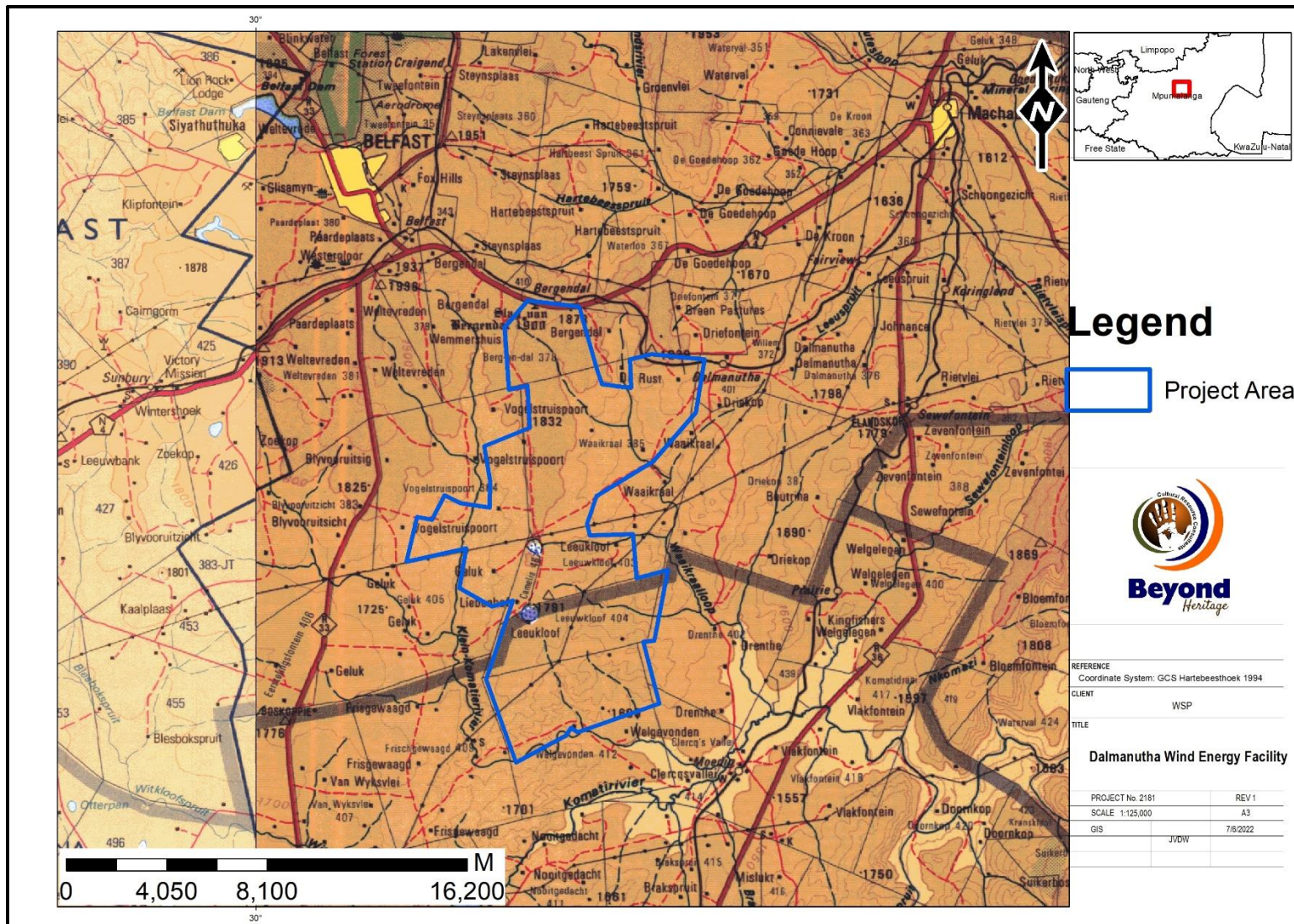


Figure 1.1. Regional setting of the study area.

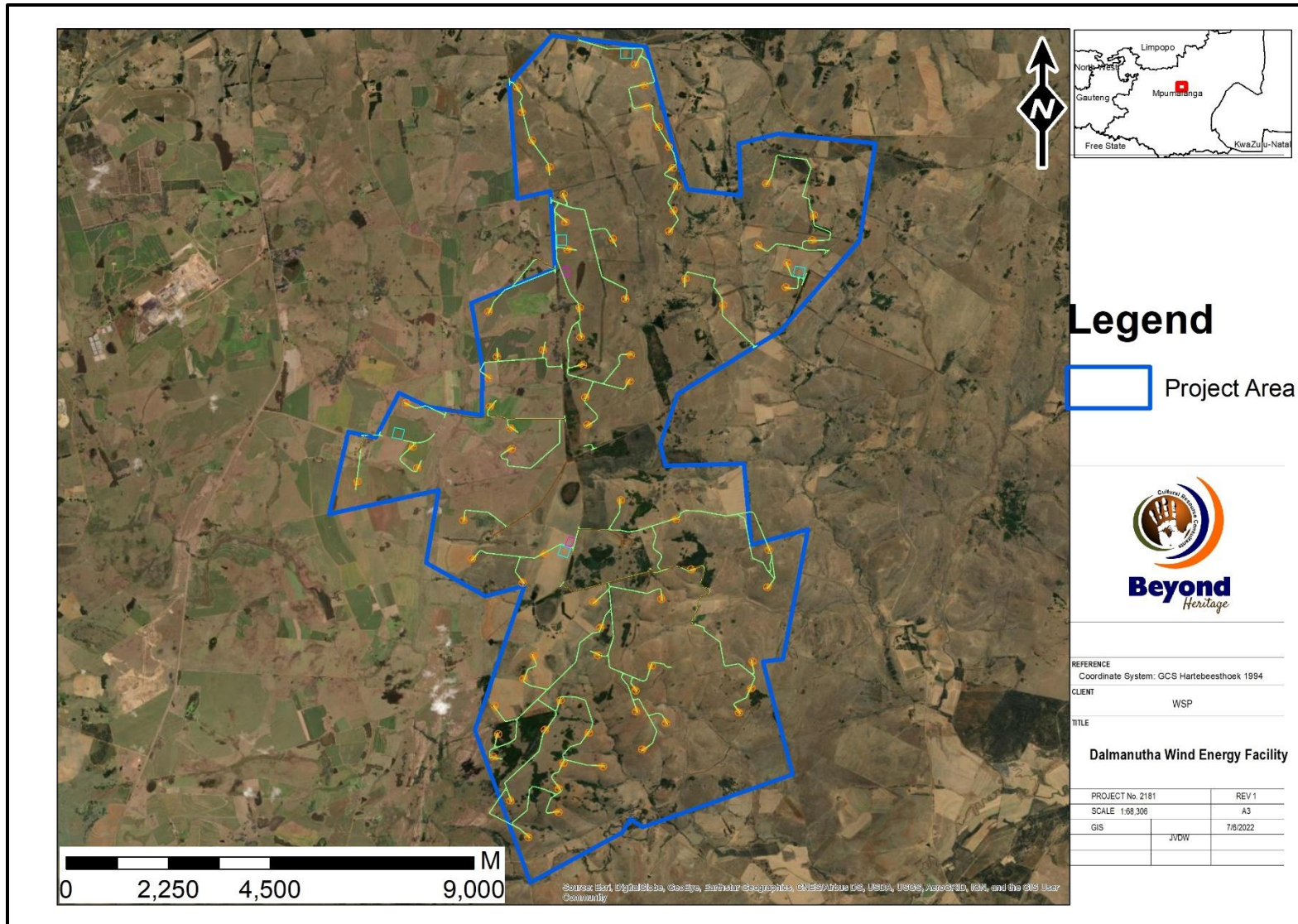


Figure 1.2. Aerial setting of the Project.

1.1 Terms of Reference

The main aim of this scoping report is to determine if any known heritage resources occur within the study area and to predict the occurrence of any possible heritage significant sites that might present a fatal flaw to the proposed Project. The objectives of the scoping report were to:

- » Conduct a desktop study:
 - * Review available literature, previous heritage studies and other relevant information sources to obtain a thorough understanding of the archaeological and cultural heritage conditions of the area;
 - * Gather data and compile a background history of the area;
 - * Identify known and recorded archaeological and cultural sites;
 - * Determine whether the area is renowned for any cultural and heritage resources, such as Stone Age sites, Iron Age sites, informal graveyards or historical homesteads.

- » Report

The reporting of the scoping component is based on the results and findings of the desktop study, wherein potential issues associated with the proposed Project will be identified, and those issues requiring further investigation through the EIA Phase highlighted. Reporting will aim to identify the potential impacts of the proposed Project activity on heritage resources. Reporting will also consider alternatives should any significant sites be impacted on by the proposed Project. This is done to assist the developer in managing heritage resources in a responsible manner, in order to protect, preserve and develop them within the framework provided by Heritage Legislation.

1.2 Nature of the development

The Project entails the development of a WEF, and associated infrastructure as indicated in Table 1.

Table 1. Project details

Extent	9 400ha
Buildable area	Approximately 400 ha
Capacity	Up to 300MW
Number of turbines	Up to 80
Turbine hub height:	Up to 200m
Rotor Diameter:	Up to 200m
Foundation	Approximately 25m ² diameter x 3m deep – 500 – 650m ³ concrete. Excavation approximately 1000m ² , in sandy soils due to access requirements and safe slope stability requirements.
Operations and Maintenance (O&M) building footprint:	Located near the substation. Septic tanks with portable toilets Typical areas include: - Operations building – 20m x 10m = 200m ² - Workshop – 15m x 10m = 150m ² - Stores - 15m x 10m = 150m ²
Construction camp laydown	Typical area 100m x 50m = 5000m ² . Sewage: Conservancy tanks and portable toilets
Temporary laydown or staging area:	Typical area 220m x 100m = 22000m ² . Laydown area could increase to 30000m ² for concrete towers, should they be required.
Cement batching plant (temporary):	Gravel and sand will be stored in separate heaps whilst the cement will be contained in a silo. The footprint will be around 0.5ha. The maximum height of the silo will be 20m.
Internal Roads:	Width of the internal road – Between 8m and 10m, this can be increased to 12m on bends. Length of the internal road – Approximately 60km.
Cables:	The medium voltage collector system will comprise of cables up to and include 33kV that run underground, except where a technical assessment suggests that overhead lines are required, connecting the turbines to the onsite IPP substation.

Independent Power Producer (IPP) site substation and battery energy storage system (BESS):	<p>The total footprint will be up to 4ha in extent. The substation will consist of a high voltage substation yard to allow for multiple (up to) 132kV feeder bays and transformers, control building, telecommunication infrastructure, access roads, etc.</p> <p>The associated BESS storage capacity will be up to 100MW/400MWh with up to four hours of storage. It is proposed that Lithium Battery Technologies, or Vanadium Redox flow technologies will be considered as the preferred battery technology. The main components of the BESS include the batteries, power conversion system, and transformer which will all be stored in various rows of containers.</p>
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2. APPROACH AND METHODOLOGY

The assessment is to be undertaken in two phases, a scoping phase and an HIA phase as part of the Environmental Impact Assessment process, this report concerns the scoping phase. The aim of the scoping phase is to assess the study area at a desktop level to compile a background history of the study area, to identify possible heritage issues or fatal flaws that should be avoided during development.

This was accomplished by means of the following phases (the results are represented in section 4 of this report):

2.1 Literature search

A literature search was conducted utilising data from published articles on the archaeology and history of the area. The aim of this is to extract data and information on the area in question, looking at archaeological sites, historical sites, and graves of the area.

2.2 Information collection

SAHRIS was consulted to collect data from CRM practitioners who undertook work in the area to provide the most comprehensive account of the history of the area where possible.

2.3 Public consultation

A full public consultation process will be facilitated by WSP. Any heritage concerns raised during this process will be addressed in the HIA.

2.4 Google Earth and mapping survey

Google Earth and 1:50 000 maps of the area were utilised to identify possible places where archaeological sites might be located.

2.5 Genealogical Society of South Africa

The database of the genealogical society was consulted to collect data on any known graves in the area.

3. LEGISLATION

3.1 National Heritage Resources Act

For this Project the National Heritage Resources Act, 1999 (Act No. 25 of 1999) is of importance and the following sites and features are protected:

- a. Archaeological artefacts, structures, and sites older than 100 years
- b. Ethnographic art objects (e.g., prehistoric rock art) and ethnography
- c. Objects of decorative and visual arts
- d. Military objects, structures, and sites older than 75 years
- e. Historical objects, structures, and sites older than 60 years
- f. Proclaimed heritage sites
- g. Graveyards and graves older than 60 years
- h. Meteorites and fossils
- i. Objects, structures, and sites of scientific or technological value.

The National Estate includes the following:

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

Section 34 (1) of the Act deals with structures which is older than 60 years. Section 35(4) of this act deals with archaeology, palaeontology, and meteorites. Section 36(3) of the National Heritage Resources Act deals with human remains older than 60 years. Unidentified/unknown graves are also handled as older than 60 until proven otherwise.

3.2 Heritage Site Significance and Mitigation Measures

The presence and distribution of heritage resources define a Heritage Landscape. In this landscape, every site is relevant. In addition, because heritage resources are non-renewable, heritage surveys need to investigate an entire Project area. In all initial investigations, however, the specialists are responsible only for the identification of resources visible on the surface.

This section describes the evaluation criteria used for determining the significance of archaeological and heritage sites. National and Provincial Monuments are recognised for conservation purposes. The following interrelated criteria were used to establish site significance:

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

The criteria above will be used to place identified sites with in SAHRA's (2006) system of grading of places and objects which form part of the national estate. This system is approved by ASAPA for the SADC region. The recommendations for each site should be read in conjunction with section 9 of this report.

Table 2. Heritage significance and field ratings

FIELD RATING	GRADE	SIGNIFICANCE	RECOMMENDED MITIGATION
National Significance (NS)	Grade 1	-	Conservation; national site nomination
Provincial Significance (PS)	Grade 2	-	Conservation; provincial site nomination
Local Significance (LS)	Grade 3A	High significance	Conservation; mitigation not advised
Local Significance (LS)	Grade 3B	High significance	Mitigation (part of site should be retained)
Generally Protected A (GP. A)	-	High/medium significance	Mitigation before destruction
Generally Protected B (GP. B)	-	Medium significance	Recording before destruction
Generally Protected C (GP.C)	-	Low significance	Destruction

4. Archaeological and Historical Information Available on the Study Area

The archaeological record for the greater study area consists of the Stone Age and Iron Age.

4.3.1. Stone Age

The Stone Age of southern Africa starts when hominins (ancestral to modern-day humans) first started to produce crude tools made with stone. The Earlier Stone Age (2 million - 200 000 years ago) is associated with hominins such as *Homo habilis* and *Homo erectus* (Dusseldorp *et al.* 2013). Mpumalanga currently does not have an extensive ESA archaeological record, at Maleoskop on the farm Rietkloof, only a few ESA artefacts have been found and stone tools consisted of choppers (Oldowan), hand axes, and cleavers (Acheulean) (Esterhuysen & Smith 2007) and some surface scatters have been recorded near Piet Retief (Nel & Karodia 2013).

Middle Stone Age artefacts represents archaic and modern humans that occupied the landscape between 300 000 to 40 000 before present. Later Stone Age occupational sequences reflect San and Khoisan communities from 40 000 years ago until recently (Dusseldorp *et al.* 2013). Although the MSA and LSA has not been extensively studied in Mpumalanga, evidence for these periods has been excavated from Bushman Rock Shelter in the Ohrigstad District (Esterhuysen & Smith 2007; Lombard *et al.* 2012) and it is known that San communities lived near Lake Chrissie as recently as the 1950s (e.g., Schlebusch *et al.* 2016). MSA and LSA surface scatters have also been investigated in the vicinity of Piet Retief, and De

Wittekrans nearby Camden is a Later Stone Age archaeological rock art site complex (Nel & Karodia 2013).

4.3.2. Iron Age

The archaeology of farming communities of southern Africa encompasses three phases. The Early Iron Age (200-900 CE) represents the arrival of Bantu-speaking farmers in southern Africa. Living in sedentary settlements often located next to rivers, these farmers cultivated sorghum, beans, cowpeas, and kept livestock. The Middle Iron Age (900-1300 CE) is mostly confined to the Limpopo Valley in southern Africa with Mapungubwe Hill probably representing the earliest 'state' in this region (Huffman 2007).

The Late Iron Age (1300-1840s CE) marks the arrival and spread of ancestral Eastern Bantu-speaking Nguni and Sotho-Tswana communities into southern Africa. The location of Late Iron Age settlements is usually on or near hilltops for defensive purposes. The Late Iron Age as an archaeological period ended by 1840 CE, when the Mfecane caused major socio-political disruptions in southern Africa (Huffman 2007).

Dates from Early Iron Age sites indicated that by the beginning of the 5th century CE Bantu-speaking farmers had settled in the Mpumalanga lowveld. Subsequently, farmers continued to move into and between the lowveld and highveld of Mpumalanga. Iron Age sites such as Welgelegen Shelter, Robertsdrift and Tafelkop dates from the 12th to the 18th century (Derricourt & Evers 1973; Esterhuysen & Smith 2007).

During the mid-17th century Europeans started to settle in modern-day Cape Town. During and after the conflict caused by the Mfecane (1820-1840), during the reign of king kaSenzangakhona Zulu, known as Shaka, Dutch-speaking farmers started to migrate to the interior regions of South Africa. A period that is marked by various skirmishes and battles between the local inhabitants, Dutch settlers and the British (Giliomee & Mbenga 2007).

4.3.4. Battlefields and war history

The discovery of diamonds and gold in the northern provinces had very important consequences for South Africa. After the discovery of these resources, the British, who at the time had colonised the Cape and Natal, had intentions of expanding their territory into the northern Boer republics. This eventually led to the Anglo-Boer War, which took place between 1899 and 1902 in South Africa, and which was one of the most turbulent times in South Africa's history.

Even before the outbreak of war in October 1899 British politicians, including Sir Alfred Milner and Mr. Chamberlain, had declared that should Britain's differences with the Z.A.R. result in violence, it would mean the end of republican independence. This decision was not immediately publicised, and republican leaders based their assessment of British intentions on the more moderate public utterances of British leaders. Consequently, in March 1900, they asked Lord Salisbury to agree to peace on the basis of the status quo ante bellum. Salisbury's reply was, however, a clear statement of British war aims (Du Preez, 1977).

During the British advance between February to September 1900, Lord Roberts replaced Genl. Buller as the supreme commander and applied a different tactic in confronting the Boer forces instead of a frontal attack approach he opted to encircle the enemy. This proved successful and resulted for instance in the surrender of Genl. Piet Cronje and 4000 burghers at Paardeberg on 27 February 1900.

This was the start of a number of victories for the British and shortly after they occupied Pretoria on 5 June 1900, a skirmish at Diamond Hill resulted in the Boer forces under command of Louis Botha, retreated alongside the Delagoa Bay railway to the east. Between the 21-27 August, Botha and 5000 burghers defended their line at Bergendal but were overwhelmed by superior numbers and artillery. This resulted in the Boer forces retreating even further east and three weeks later the British reached Komatipoort and thus the whole of the Eastern Transvaal south of the Delagoa Bay railway line was now occupied by British Forces.

At the time of the War, a number of Blockhouses were located alongside the existing railway, including one near Wonderfontein in the vicinity of the Belfast area.

The “Scorched earth” policy implemented by Roberts led to the establishment of a number of camps where Boer women and children were harboured as a result of their homes being burnt and food reserves destroyed. This policy was also imposed on black people who stayed on Boer farms but also on their own pieces of land and homesteads. Maladministration, bad planning, insufficient medical assistance, malnutrition and exposure led to many deaths among people in these camps both white and black. An estimated 27 927 Boer women and children and a further 14 154 black people succumbed in these camps (Bergh, 1999). Belfast was the location of two camps for black people during the war (Bergh, 1999).

4.3.6. Cultural Landscape

Regionally the area is mostly cultivated, and forms part of a landscape characterised by wide scale cultivation and mining activities. Development in the study area is limited to farming infrastructure such as access roads, fences, and agricultural developments. The study area is part of a large cultural landscape that include battlefield sites and cemeteries.

4.1 General Information

4.1.1. Literature search (SAHRIS)

A brief survey of available literature was conducted to extract data and information on the area in question, to provide general heritage context into which the development would be set. This literature search included published material, unpublished commercial reports, and online material, including reports sourced from the South African Heritage Resources Information System (SAHRIS) outlined under Table 3:

Table 3. Previous Heritage and Archaeological impact assessments studies consulted for the compilation of this report.

Author	Year	Project	Findings
Van Schalkwyk, J.	2003	Archaeological Survey of a Section of The Secunda-Mozambique Gas Pipeline, Carolina District, Mpumalanga	Cemeteries
Coetzee, T.	2005	Archaeological Investigation of the Proposed Black Eagle Valley - Residential Estate, Waterval Boven, Mpumalanga	Iron Age Stone Walled Settlements, farming structures and 2 cemeteries.
Pistorius, JCC.	2007	A Phase I Heritage Impact Assessment (HIA) Study for The Upgrading of Eskom's Nooitgedacht Substation on	No sites were recorded.

		The Farm Wintershoek 451 Near Carolina In the Mpumalanga Province of South Africa	
Van Schalkwyk, J. A.	2007	Heritage Impact Assessment for The Planned Development on The Farms Hebron 421JT And Twyfelaar 11 IT, Carolina Municipal District, Mpumalanga Province	Iron Age, Historical Sites and Cemeteries were recorded.
Van Schalkwyk, J.A.	2007	Heritage Impact Scoping Report for The Planned Hendrina-Marathon Powerline, Mpumalanga Province	Settlements to initiation sites, industrial and farming related sites as well as cemeteries were noted in the area.
Pelser, A and Van der Walt, J.	2008	A Report on A Heritage Impact Assessment for Proposed Opencast Coal Mining Operations for The Klippan Colliery on The Farm Klippan 452 JS (Emachibini), Wonderfontein, Mpumalanga	Graves were recorded.
Pelser, A.	2012	A Report on a Heritage Impact Assessment (HIA) For the Proposed Motshaotshela Colliery Project, Close to Hendrina, Mpumalanga Province	Cemeteries
Van Wyk Rowe, C.	2014	Phase 1 Archaeological / Heritage Impact Assessment for The Development Of A Footbridge Across The Elands River, Elandshoek, Mpumalanga	Historical structures
Van der Walt, J.	2015	Archaeological Impact Assessment for the proposed widening of the N4 National Road, Section 6E, Near Waterval-Onder, Mpumalanga Province	Stone Cairn and two stonewalled sites
Celliers, JP	2018	Phase 1 Archaeological and Heritage Impact Assessment on the farm Mooifontein 292 JT in respect of proposed agricultural development, Mpumalanga Province	Stone enclosure
Van der Walt, J.	2020	Heritage Impact Assessment for the N4 Interchange, Mpumalanga Province	Stone enclosures

4.1 2. Public consultation

A public participation process is facilitated by WSP as per the EIA process with reference to the NHRA and potential heritage concerns will be included in the HIA.

5. PROBABILITY OF OCCURRENCE OF SITES

Based on the above information, it is possible to determine the probability of finding archaeological and cultural heritage sites within the study area to a certain degree. For the purposes of this section of the report the following terms are used – low, medium and high probability. Low indicates that no known occurrences of sites have been found previously in the general study area, medium probability indicates some known occurrences in the general study area are documented and can therefore be expected in the study area and a high probability indicates that occurrences have been documented close to or in the study area and that the environment of the study area has a high degree of probability having sites.

» Palaeontological landscape

Fossil remains. *Low to Medium probability.*

» Archaeological And Cultural Heritage Landscape

NOTE: *Archaeology is the study of human material and remains (by definition) and is not restricted in any formal way as being below the ground surface.*

Archaeological remains dating to the following periods can be expected within the study area:

» **Stone Age finds**

ESA: Low Probability

MSA: Low Probability

LSA: Low to Medium Probability

LSA –Herder: Low Probability

» **Iron Age finds**

EIA: Low Probability

MIA: Low Probability

LIA: Low -Medium Probability

» **Historical finds**

Historical period: Medium to High Probability

Historical dumps: Low to Medium Probability

Structural remains: Medium to High Probability

Cultural Landscape: Low probability

» **Living Heritage**

For example, rainmaking sites: Low Probability

» **Burial/Cemeteries**

Burials over 100 years: Medium to High Probability

Burials younger than 60 years: Medium to High Probability

Subsurface excavations including ground levelling, landscaping, and foundation preparation can expose any number of these.

6. ASSUMPTIONS AND LIMITATIONS

The study area was not subjected to a field survey, and this will be conducted in the EIA phase. It is assumed that information obtained for the wider area is applicable to the study area and the authors acknowledge that the brief literature review is not exhaustive on the literature of the area. Due to the subsurface nature of cultural deposits, the possibility exists that some features or artefacts may only be discovered/recorded during the survey, similarly the possible occurrence of graves not recorded here, and other cultural material cannot be excluded. This study did not assess the impact on medicinal plants and intangible heritage as it is assumed that these components would be highlighted through the public consultation process if relevant. It is possible that new information could come to light in future, which might change the results of this scoping report.

7. FINDINGS

7.1. Archaeology

No Stone Age or Iron Age archaeological sites are known from the immediate area although several sites are known from the wider geographical area as indicated in Figure 7.7.

7.2. Genealogical Society of South Africa

Several burial sites are on record for the general area and are discussed below according to their farm locations. The features are spatially indicated in Figure 7.7.

7.2.1. The Farm Geluk 405

War memorial (Figure 7.1) located at -25 51.716, 30 04.800. The memorial reads:

The 1st the King's Liverpool Regt. to the memory of their comrades who fell in action on the 23rd August 1900. The Guild of Loyal Women contributing to the other service.

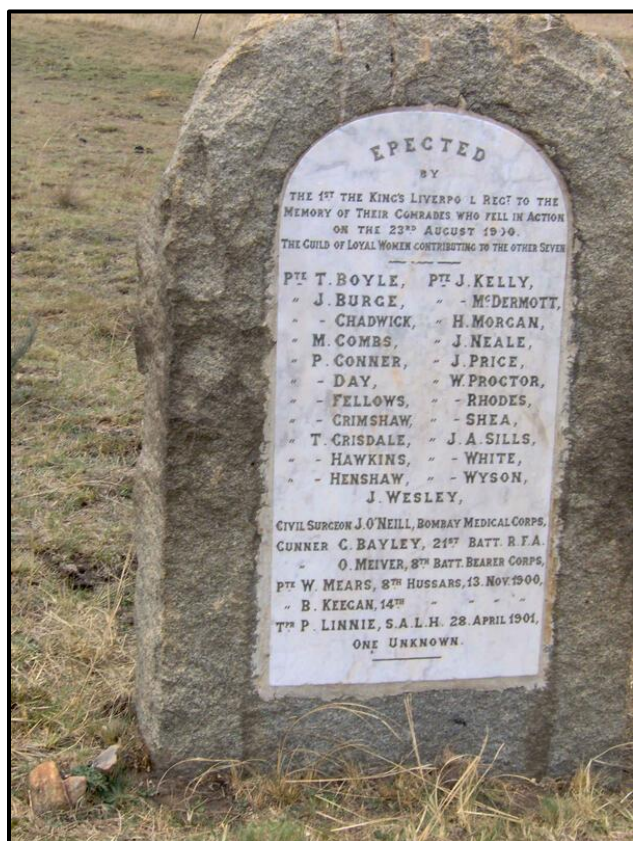


Figure 7.1. War Memorial on the farm Geluk 405(Photo from the GSSA).

The grave of MC Kruger located at -25 51.485, 30 4.724 with numerous other unmarked graves.

7.2.2. The Farm Berg en Dal 378

Approximately 10 graves located in a farm cemetery at -25 44.050, 30 06.230. The graves date to the early 1900's. The farm is also home to a Burgher Monument at -25 44.084, 30 6.183. Another cemetery for British soldiers is located at -25 44.078, 30 06.348.



Figure 7.6. British war Graves (Photo from the GSSA).

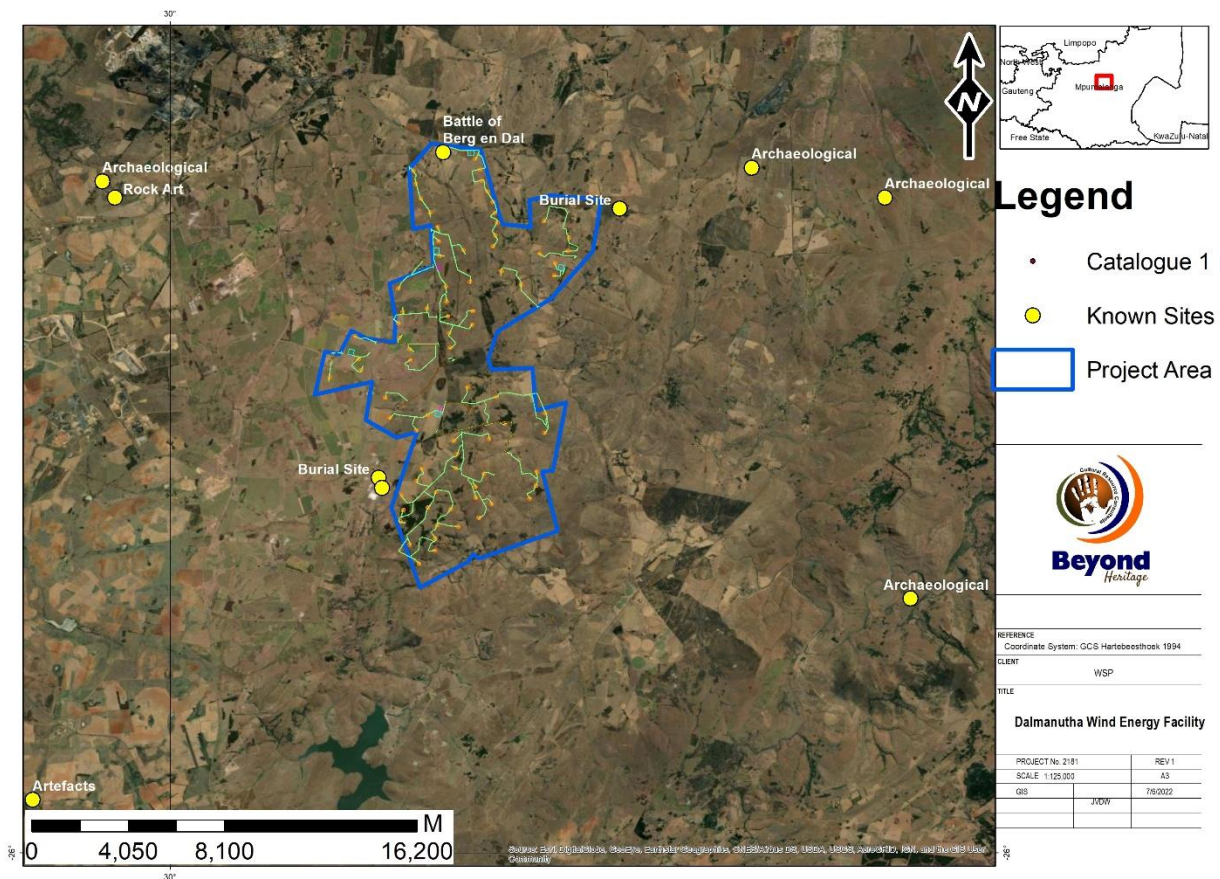
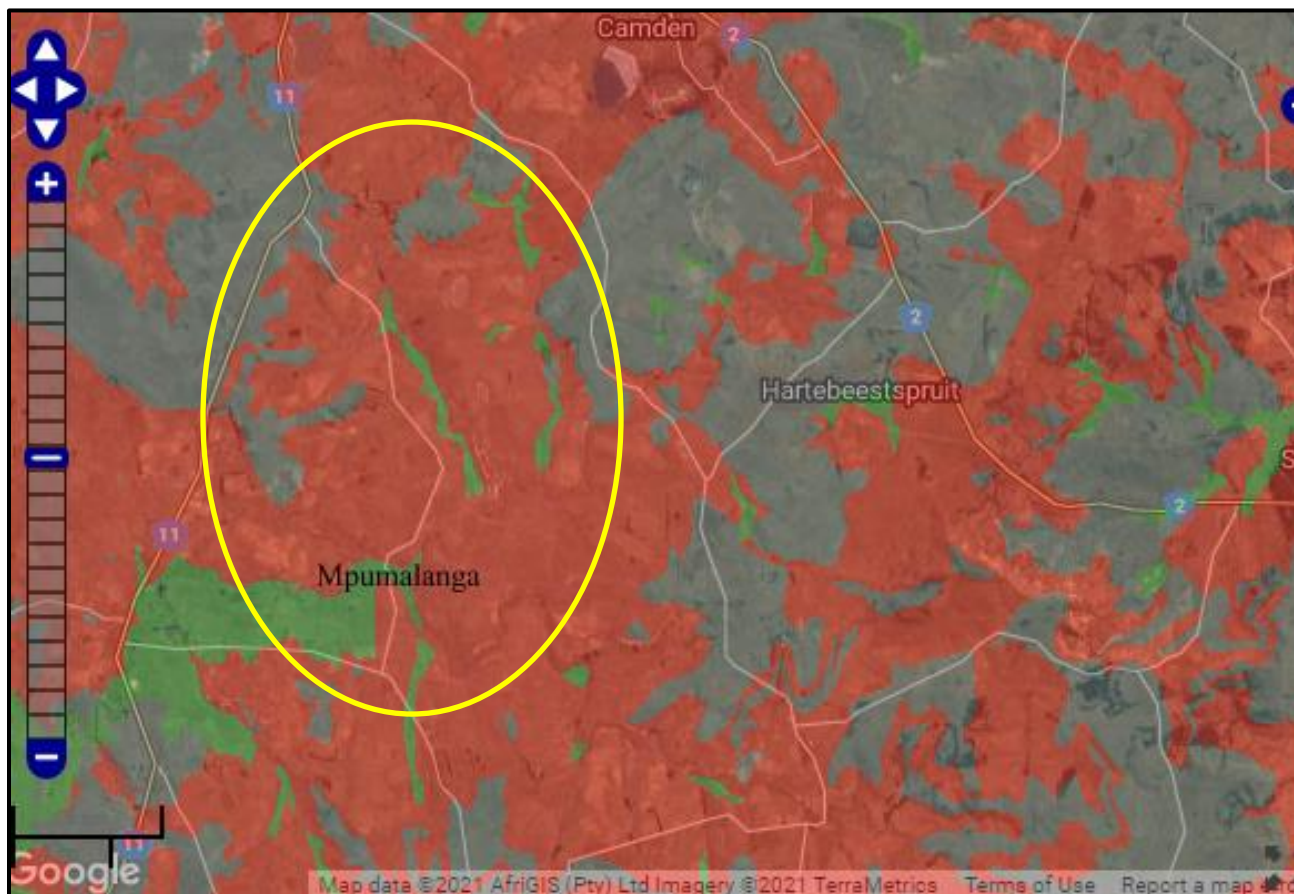


Figure 7.7. Known sites (orange pins) in relation to the Project area and project components.

7.3. Palaeontology

The study area ranges from insignificant to moderate to very high palaeontological sensitivity (Figure 7.8) and further studies will be required in the EIA phase.



Colour	Sensitivity	Required Action
RED	VERY HIGH	Field assessment and protocol for finds is required
ORANGE/YELLOW	HIGH	Desktop study is required and based on the outcome of the desktop study; a field assessment is likely
GREEN	MODERATE	Desktop study is required
BLUE	LOW	No palaeontological studies are required however a protocol for finds is required
GREY	INSIGNIFICANT/ZERO	No palaeontological studies are required
WHITE/CLEAR	UNKNOWN	These areas will require a minimum of a desktop study. As more information comes to light, SAHRA will continue to populate the map.

Figure 7.8. Palaeontological sensitivity map of the approximate study area (yellow polygon).

8. POTENTIAL SIGNIFICANCE OF HERITAGE RESOURCES

Based on the current information obtained for the area at a desktop level it is anticipated that any heritage resources that occur within the proposed development area will have a Local Significance (LS), Grade 3B or lower field rating and all sites should be mitigatable. Graves are of high social significance (Field rating GP A) and can be expected anywhere on the landscape.

9. CONCLUSION AND PLAN OF STUDY FOR EIA

The scoping study did not identify any fatal flaws for the proposed Dalmanutha WEF. To comply with the National Heritage Resources Act (Act 25 of 1999) it is recommended that a Phase 1 HIA & VIA must be undertaken for the study area. During these assessments the potential impact on heritage resources will be determined as well as levels of significance of recorded heritage resources. The HIA & VIA will also provide management and mitigation measures should any significant sites be impacted upon, ensuring that all the requirements of the SAHRA are met. The study area is of insignificant to moderate to very high paleontological sensitivity and according to the SAHRIS palaeontological sensitivity map must be subjected to a palaeontological assessment in the impact assessment phase. During the Public participation and stakeholder consultation process (advertisements & site notices) must reference the National Heritage Resources Act.

10. LIST OF PREPARERS

Jaco van der Walt (Archaeologist and Project Manager)

11. STATEMENT OF COMPETENCY

The author of the report is a member of the Association of Southern African Professional Archaeologists and is also accredited in the following fields of the Cultural Resource Management (CRM) Section (#159): Iron Age Archaeology, Colonial Period Archaeology, Stone Age Archaeology and Grave Relocation. He is also a member of the Association of Professional Heritage Practitioners (#114). Jaco is also an accredited CRM Archaeologist with SAHRA and AMAFA.

Jaco has been involved in research and contract work in South Africa, Afghanistan, Botswana, Mozambique, Zimbabwe, Zambia, Guinea, Nigeria, Tanzania, Afghanistan, and the DRC and conducted well over 700 AIAs and HIAs since he started his career in CRM in 2000. This involved several mining operations, Eskom transmission and distribution projects, and renewable energy developments. The results of several of these projects were presented at international and local conferences.

12. STATEMENT OF INDEPENDENCE

I, Jaco van der Walt as duly authorised representative of Beyond Heritage, hereby confirm my independence as a specialist and declare that neither I nor the Beyond Heritage have any interest, be it business, financial, personal or other, in any proposed activity, application or appeal in respect of which the client was appointed as Environmental Assessment practitioner, other than fair remuneration for work performed on this project.



SIGNATURE:

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