

**AN ARCHAEOLOGICAL HERITAGE WALK-THROUGH FOR THE PROPOSED  
GOLDEN VALLEY II WIND ENERGY FACILITY, BLUE CRANE ROUTE LOCAL  
MUNICIPALITY, EASTERN CAPE PROVINCE.**

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## **AN ARCHAEOLOGICAL HERITAGE WALK-THROUGH FOR THE PROPOSED GOLDEN VALLEY II WIND ENERGY FACILITY, BLUE CRANE ROUTE LOCAL MUNICIPALITY, EASTERN CAPE PROVINCE.**

**NOTE:** The original heritage impact assessment for the proposed Terra Wind Energy Golden Valley Project, Blue Crane Route Local Municipality was conducted during 2010 (Hart & Webley 2010).

This archaeological heritage walk-through report follows the South African Heritage Resources Agency (SAHRA) Review Comment on the Heritage Impact Assessment (Hart & Webley 2010), June 2010, SAHRA File No. 9/2/034/0002.

### **1. EXECUTIVE SUMMARY**

#### **1.1. Purpose of the Study**

The purpose of the study was to conduct an archaeological heritage walk-through of the proposed development area of the Golden Valley II Wind Energy Facility (WEF) Farms: Remaining extent of the Farm Leuwe Drift 153, Portion 10 of the Farm Gezhiret 161, Portion 14 of the Farm Smoordrift 162, Farm Quaggas Kuyl 155, Farm Great Riet Fontein 160, Portion 1 of the Farm Baviaans Krantz 151, Portion 1 of the Farm Mullerskraal 159, Remaining extent of the Farm Mullerskraal 159, Portion 17 of the Farm Smoordrift 162, Portion 1 of the Farm Varken Kuyl 158, and Remainder of the Farm Jagersfontein 159,

The archaeological heritage walk-through survey was conducted to assess the amendments to the layout of the Golden Valley II Wind Energy Facility to establish the range and importance of the exposed and *in situ* archaeological heritage material remains, sites and features; to establish the potential impact of the development; and to make recommendations to minimize possible damage to the archaeological heritage of the proposed development area of the Golden Valley II Wind Energy Facility (WEF).

#### **1.2. Brief Summary of Findings**

The proposed development will be located on the hilltops between the towns of Cookhouse and Bedford. The site is located between the Patryshoogte Road that links Bedford and Cookhouse and the Smoordrift Road off the N10 national road that links to Bedford.

No archaeological heritage remains were observed on the hilltops within the proposed turbine positions or along the internal access gravel roads followed during the survey. Some areas contained dense vegetation that obscured archaeological visibility, however, in general, archaeological visibility was good.

The built environment structures include mostly unused drinking troughs and reservoirs, and working kraals which have no heritage significance.

The Quagas Kuyl homestead is abandoned and the buildings are slowly deteriorating over time.

### **1.3. Declaration of Independence and Qualifications**

This section confirms a declaration of independence that archaeological heritage specialist, Ms Celeste Booth, has no financial or any other personal interests in the project for the walk-through of the Golden Valley II Wind Energy Facility proposed development area and associated power line. Ms Celeste Booth was appointed on a strictly professional basis to conduct a Phase 1 Archaeological Impact Assessment in line with the South African national heritage legislation, the National Heritage Resources Act 25 of 1999 (NHRA 25 of 1999) and in response to the recommendations provided by the Department of Environmental Affairs and according to the environmental impact assessment regulations.

Ms Celeste Booth (BSc Honours: Archaeology) is an archaeologist who has had ten years of full-time experience in Cultural Resource Management in the Eastern Cape and sections of the Northern Cape and Western Cape. Ms Booth has conducted several Archaeological Desktop Studies and Phase 1 Archaeological Impact Assessments within the Eastern Cape and in the Karoo region across the Eastern Cape, Northern Cape and Western Cape.

## **2. BACKGROUND INFORMATION**

### **2.1. Previous studies conducted for the proposed Golden Valley Wind Energy Facility (WEF)**

#### **2.1.1. Hart & Webley 2010**

The original Heritage Impact Assessment for the proposed Terra Wind Energy Golden Valley Project was conducted in 2010 (Hart & Webley 2010, ACO Associates).

The terms of reference for the archaeological heritage study were to:

- Determine the likelihood of archaeological remains of significance in the proposed site(s);
- Identify and map (where applicable) the location of any significant archaeological remains;
- Assess the sensitivity and significance of archaeological remains on the site(s); and
- Identify mitigatory measures to protect and maintain any valuable archaeological sites and remains that may exist within the proposed site(s).

The authors mentioned that neither SAHRA nor any other heritage compliance organisation has developed a specific policy with respect to heritage and renewable energy. A pilot study was commissioned by the Provincial Government of the Western Cape “Towards a Regional Methodology for Wind Energy Site Selection in the West Coast region” (May 2006) was the only locally available policy guideline. The study, however, did not consider “cultural landscape or heritage” but concluded that wind energy facilities can have a profound impact on the surrounding landscape in terms of the natural qualities of places. In terms of landscapes and heritage, there are no proactive detailed local regional studies that can be consulted, however the Western Cape pilot study recognized that severe impacts can occur and suggested a buffer of 500 m from heritage sites.

The methodology included a desktop study, ground survey and data analysis. Two other similar assessments in the immediate area provided valuable insights into the distribution of archaeological sites in this area had been conducted in 2008 and 2009 (Hart & Webley 2008; Halkett & Webley 2009).

Data collection took place during the physical site inspection which included contacting landowners and enquiring about the possible whereabouts of heritage features on their property (old buildings, cemeteries, settlement, San (Bushmen) rock paintings and archaeological sites). The proposed locations of as many turbines as possible were inspected on foot, large areas of landscape were transversed and every accessible track was driven with an off-road vehicle. Farm buildings were visited and assessed for heritage significance: archaeological sites were recorded, mapped and photographed.

Data analysis involved the assessment of the spatial distribution of archaeological sites on the landscape to determine which areas held the highest potential for heritage material. Indications are that strong trends exist in the study area. The analysis of the archaeological material on individual sites was based on the experience of the team members who were familiar with the standard classification systems for artefactual material to the degree that they can roughly date and characterise an archaeological site based on its content. Built environment was considered in terms of the grading system for structures that is presently employed by a number of SAHRA offices and some provincial compliance offices.

Assumptions and limitations: The physical survey of the study area proved difficult. Much time was spent finding landowners and negotiating access to property. Organised hunting on certain land portions meant that less time was spent in certain areas than was desirable. The proposal was for some 214 turbines. It was not possible to inspect each turbine owing to the amount of time it took to reach many of the localities which were very remote. Locked gates, jackal and kudu fences all contributed to the physical difficulty of the work.

The proposed locations of the turbines provided by the proponent were considered preliminary and not field-tested. No information with respect to proposed roads was provided by the proponent, which meant that a potential source of significant impact in heritage terms could not be fully assessed for the purposes of the Environmental Impact Assessment.

Given the low level of detail at that stage of the project, the ACO team focussed on carrying out a general survey of the study area focussing on determining the general density of heritage / archaeological occurrences and the relative sensitivity of the range of topography.

The results and discussion deduced that none of the sites documented and described would be directly impacted by the proposed activity in terms of the information that had been provided. The heritage survey revealed that the heritage of the study area was characterised by archaeological sites spanning the Early, Middle and Late Stone Ages.

The following sites were recorded and graded during the heritage impact assessment:

1. Early Stone Age material was located at single locality: A scatter of Early Stone Age material situated on the lower slopes of the hilltop referred to as "Onder Smoorsdrift" on the Farm Bygevoegt 164. The site which was (moderately) scattered over a wide but definable area on a gentle gradient above a river. The site was significant in that it was the only example of its kind found in the study area so far. Suggested grade: Locally significant 3b.
2. Middle Stone Age material was found thinly scattered throughout the study area, however definable sites could not be easily identified. The material may be described as "ancient litter" containing occasional flakes and blades. Like the Late Stone Age material it is more common on alluvial fans around dongas, sandy flat areas and is even occasionally seen on remote hilltops and steep slopes. Relatively dense scatters were identified:
  - An eroded scatter of MSA material, mostly informal flakes, blades and large cores made from hornfels on a valley bottom cut through by a deep donga. This is one of very few instances where MSA material is noticeably denser than anywhere else. Suggested grade: low local significance grade 3c.
  - An eroded scatter of mostly MSA material found along the banks of a shallow stream bed.
  - MSA material thinly associated with a dammed donga on the Farm Olivewoods.
3. Late Stone Age material was limited to two recorded occurrences:
  - A scatter of ceramics strewn along the edges of an erosion gully which has cut into an alluvial fan (Farm Great Drift 173). The site is unusual as only ceramics in the style of Cape Coastal Pottery and a stone cairn were noted. Pottery of this kind is associated with the period after 2 000 years ago when pre-historic pastoralists entered the Cape bringing with them domestic stock and the knowledge of working clay into pottery. Suggested grade locally significant 3b.
  - A large assortment of informal artefacts scattered widely over a large alluvial fan on the Farm Bygevoegt 164. The site which lies on sandy land is cut through

by a very large erosion gully. The presence of up to 20 upper and lower grinding stones is a possible indication that there may be prehistoric graves here as such artefacts were used as grave markers or ornaments. No human remains were noted at the time of inspection. The raw material was Hornfels and Siltstone. Suggested grade: moderately locally significant 3b.

#### 4. Historical archaeology:

A single occurrence was recorded. There is a single disused set of farm buildings at Groot Rietfontein. The farm house which was originally a rectangular cottage built from home-made bricks and mud mortar. Apart from one end-wall, it has collapsed completely. Indications are that the structure is of 19<sup>th</sup> century origin judging by the proportions of the last remaining window opening. Other features of the site are a corrugated outbuilding, stone wire kraal as well as various enclosures. There is a wind pump and a corrugated outbuilding with historical artefactual material greater than 100 years of age was noted.

#### 5. General Built Environment:

Farm houses and buildings within the study were inspected for their heritage significance. While almost every farm house has elements which are greater than 60 years of age, none of them may be considered particularly unique or typical of their type. Virtually all of them have late 19<sup>th</sup> or early 20<sup>th</sup> century origins; however they are occupied with the inevitable result that they have been considerably altered. Characteristically the main houses take on the form of rectangular bungalows with large front verandas. In almost every instance the curvilinear veranda roofs and cast iron has been removed and replaced with modern brick and glass (winter weather in the area can be bracing). Prevailing security concerns have also taken their toll on the exterior of structures. None of the buildings are worth more than a 3b-c grading (in terms of SAHRA's criteria). It was noted that many of the out buildings and kraals and buildings are an important "place marker". Farm grave yards were noted at Olywenfontein and The Olives which also has a spectacular arrangement of stone kraals.

The impacts on the heritage resources identified during the study were of a general nature determined prior to the draft final layout of the wind energy facility and where necessary archaeological sites had to be mitigated once more information became available.

The recommendations of the Heritage Impact Assessment suggested:

- Turbines must be positioned in such a way that they are at least 500 m away from farm complexes, most of which have a moderate degree of heritage significance.
- Turbines must be positioned in such a way that shadow flicker does not affect any farm complexes. Guarantees for the demolition of turbines after their useful life must be in place as a condition of approval. Road alignments must be planned in such a way that the minimum of cut and fill operations are required.
- Existing farm tracks must be reused or upgraded to minimise the amount of change to untransformed landscape.
- In general terms, construction of turbines and roads in valley bottoms should be kept to a minimum.
- During the detailed planning phase, drawings of proposed road alignments, infrastructure and near-final turbine positions should be submitted to an archaeologist for review and field-proofing. Micro adjustment of alignments and turbine positions is likely to be sufficient to achieve adequate mitigation.

The South African Heritage Resources Agency (SAHRA) Review Comment on the Heritage Impact Assessment (Hart & Webley 2010), June 2010, SAHRA File No. 9/2/034/0002, does not object to the development if the recommendations in the Heritage Review Comment are adhered to. SAHRA noted that after evaluating the Phase 2 reports from monitoring, recording and collection of the heritage resources, further recommendations in terms of the heritage sites and of the turbines layout may be necessary. SAHRA has supported the recommendations of the authors and required that:

1. A site visit for all turbines that must be undertaken to ascertain that their erection will not impact on any archaeological resources of significance. A report from the site visit must be sent to SAHRA for review. Where necessary, the specialist must inform SAHRA of urgent mitigation measures to be put in place before this phase of assessment is completed.
2. A permit must be applied for the destruction of the destitute building at Groot Rietfontein. SAHRA will require that, in terms of s.38(4)(b&c) of the National Heritage Resources Act, the provisions of s.35 apply, as appropriate.
3. This wind farm, as much as all those proposed, will undoubtedly change the sense of place and the landscape of the area. It is suggested that, in order to minimise the impact of the wind turbines on the landscape, the minimum amount of new access roads and excavation is carried out. Moreover it is recommended that a

post-operation rehabilitation plan be submitted before authorization is granted to ensure that the landscape may be revegetated and rehabilitated after dismissal.

4. The Early Stone Age site needs recording and collection. The archaeologist must apply for a collection permit from SAHRA, which will require that, in terms of s.38(4)(b&c) of the National Heritage Resources Act, the provisions of s.35 apply, as appropriate; a report from recording and collection must be submitted to SAHRA.
5. The extent of Middle Stone Age occurrences should be recorded including their main characteristics (typology, material, density).
6. For any alteration or demolition of structures older than 60 years, a permit applied for with the Eastern Cape provincial Heritage Resources Authority, it is possible that a Conservation Architect may need to be contacted, but this can be further discussed with the PHRA.

## **2.2. Construction activities associated with the Golden Valley II Wind Energy Facility**

BioTherm (Terra Wind Golden Valley Wind Power) is applying for an amendment to the for Golden Valley II WEF environmental authorisation. An additional land parcel has been added to the existing WEF layout. The addition of the land parcel and wind turbines has been included as part of the current study.

The changes to the Golden Valley II WEF include the following:

- From authorized 132 turbines to maximum of 49 turbines;
- From a hub height of 100 to a maximum of 130m;
- From a rotor diameter of 130 to a maximum of 170m; and
- The additional land parcel which includes the Farm Patryshoogte 152

The proposed access roads will mostly follow the existing internal farm gravel roads but will deviate for easier manoeuvring of the turbine delivery trucks. Most of the cabling between the turbines is to be laid underground and will run adjacent to the access roads with a few exceptions due to the topography.

### **2.3. Applicant:**

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### **2.4. Environmental Assessment Practitioner (EAP)**

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Tel: 046 622 2364  
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Contact Person: Ms Caroline Evans

### **2.5. Terms of reference**

The purpose of the study was to conduct an archaeological heritage walkthrough for the Golden Valley II Wind Energy Facility amendment. The Terms of Reference (ToR) are as follows:

1. Undertake a heritage ground-truthing survey of the footprint of the Golden Valley II Wind Energy Facility.
2. Describe and take GPS locations of any heritage features potentially affected by the project infrastructure.
3. Describe any mitigation measures that should be implemented to safeguard heritage features during the construction and operation phases.
4. Submit the final report to the Eastern Cape Provincial Heritage Resources Authority (ECPHRA) for review.

5. Address any of Eastern Cape Provincial Heritage Resources Authority (ECPHRA) comments.

### **3. DESCRIPTION OF THE PROPERTY**

#### **3.1. Location data**

The Golden Valley II Wind Energy Facility is located about 30 km south west of Bedford, 15 km south east of Cookhouse, east of the N10 national road, and north and east of the village of Middleton situated on the N10 national road. The site is situated between two gravel public roads that lead from Middleton to Bedford (west) and from Sheldon Railway Station to Bedford (east). The Amakhala Emoyeni Wind Energy Facility is situated on the properties to the east of the Golden Valley Wind Energy Facility. The hills are easily accessible from the farm entrances. Most of the study site is covered in low sensitivity scrub grassland and scattered rocky outcrops.

The proposed Golden Valley II Wind Energy Facility is to be constructed on the farms: Remaining extent of the Farm Leuwe Drift 153, Portion 10 of the Farm Gezhiret 161, Portion 14 of the Farm Smoordrift 162, Farm Quaggas Kuyl 155, Farm Great Riet Fontein 160, Portion 1 of the Farm Baviaans Krantz 151, Portion 1 of the Farm Mullerskraal 159, Remaining extent of the Farm Mullerskraal 159, Portion 17 of the Farm Smoordrift 162, Portion 1 of the Farm Varken Kuyl 158, and Remainder of the Farm Jagersfontein 159, located in the Blue Crane Route Municipality (BCRM) in the Eastern Cape Province of South Africa.

#### **3.2. Map**

1:50 000 Maps: 3225 DD GOLDEN VALLEY

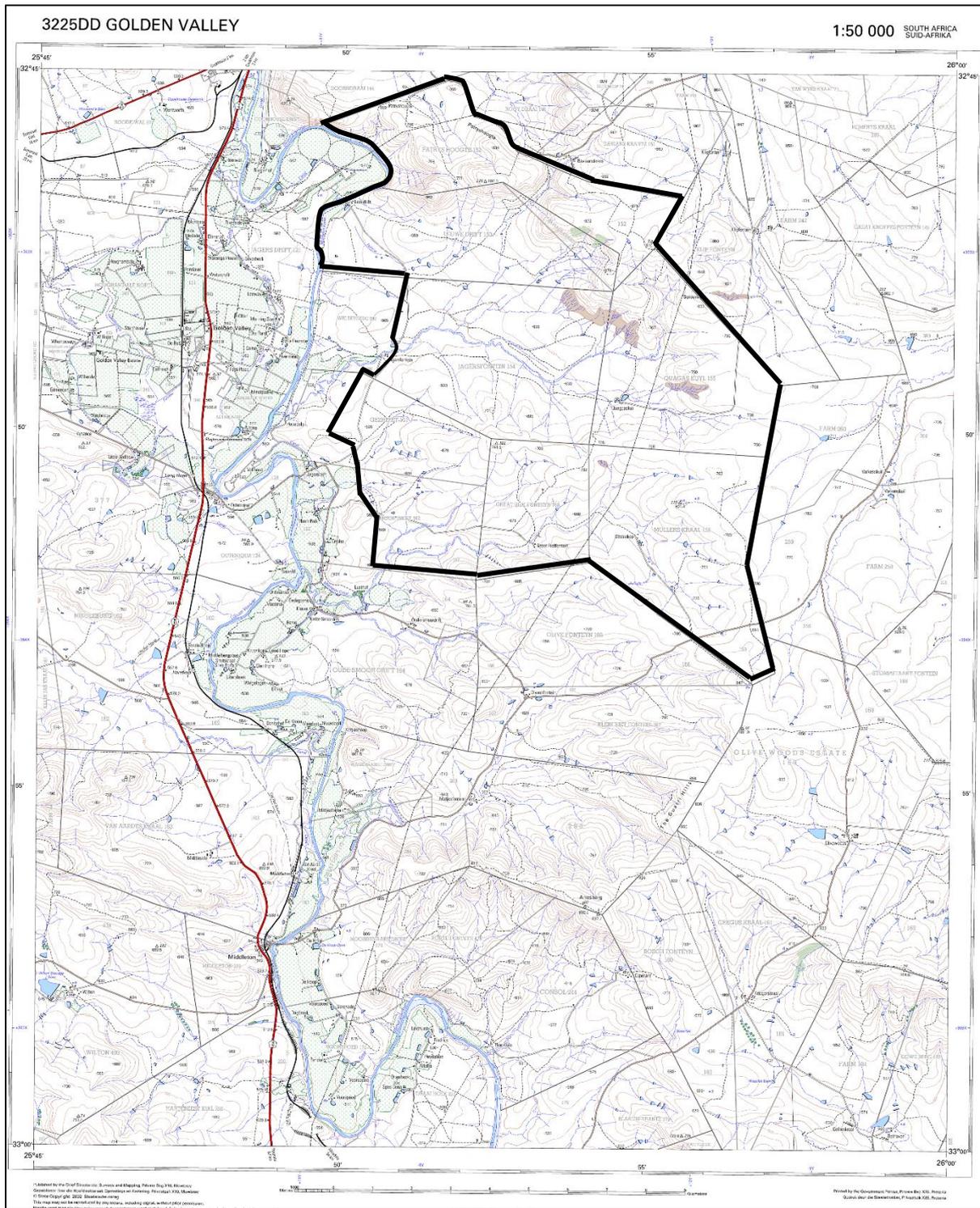


Figure 1. 1: 50 000 topographic map 3225 DD GOLDEN VALLEY showing the farm portions for the Golden Valley II Wind Energy Facility.

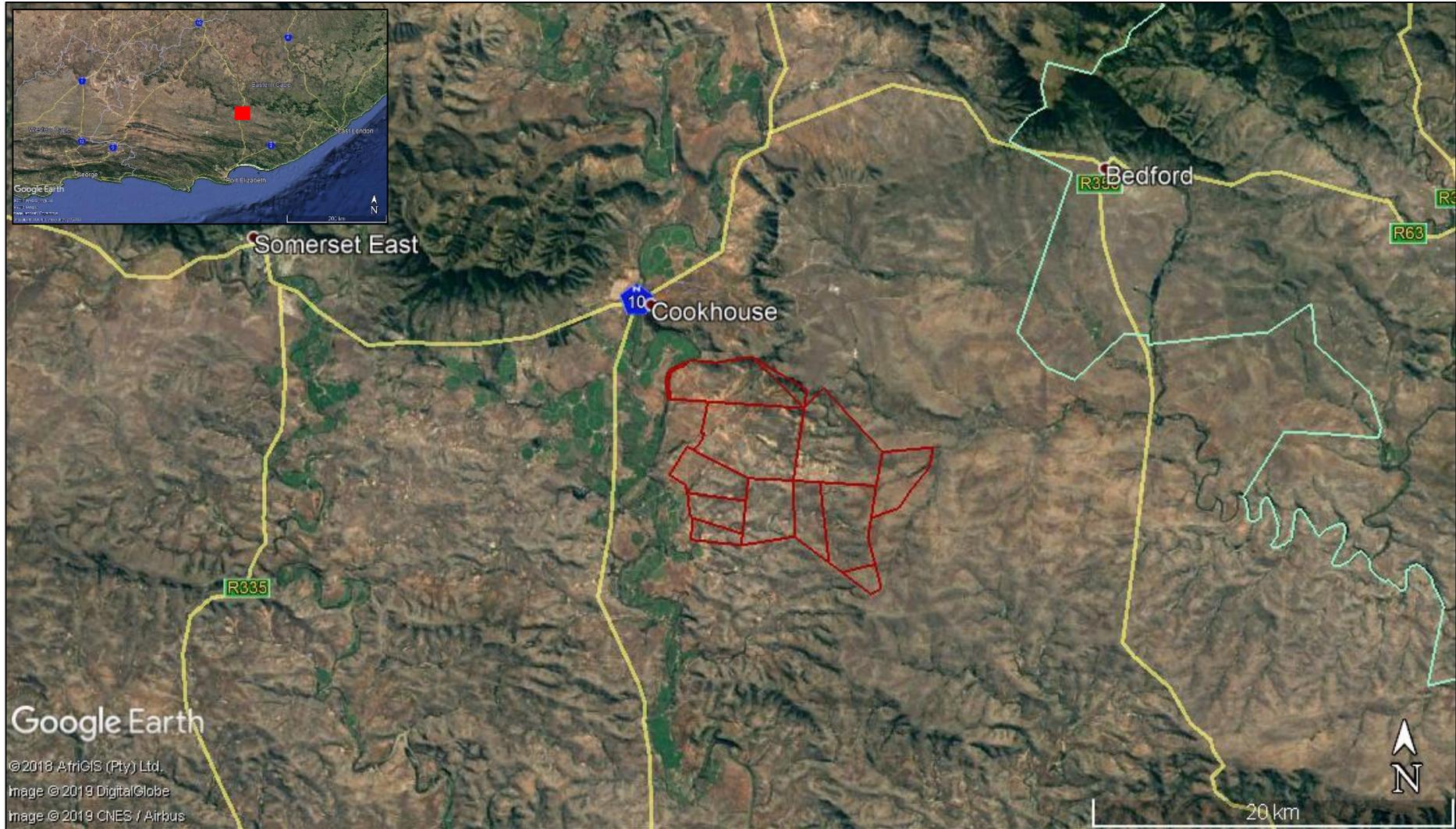
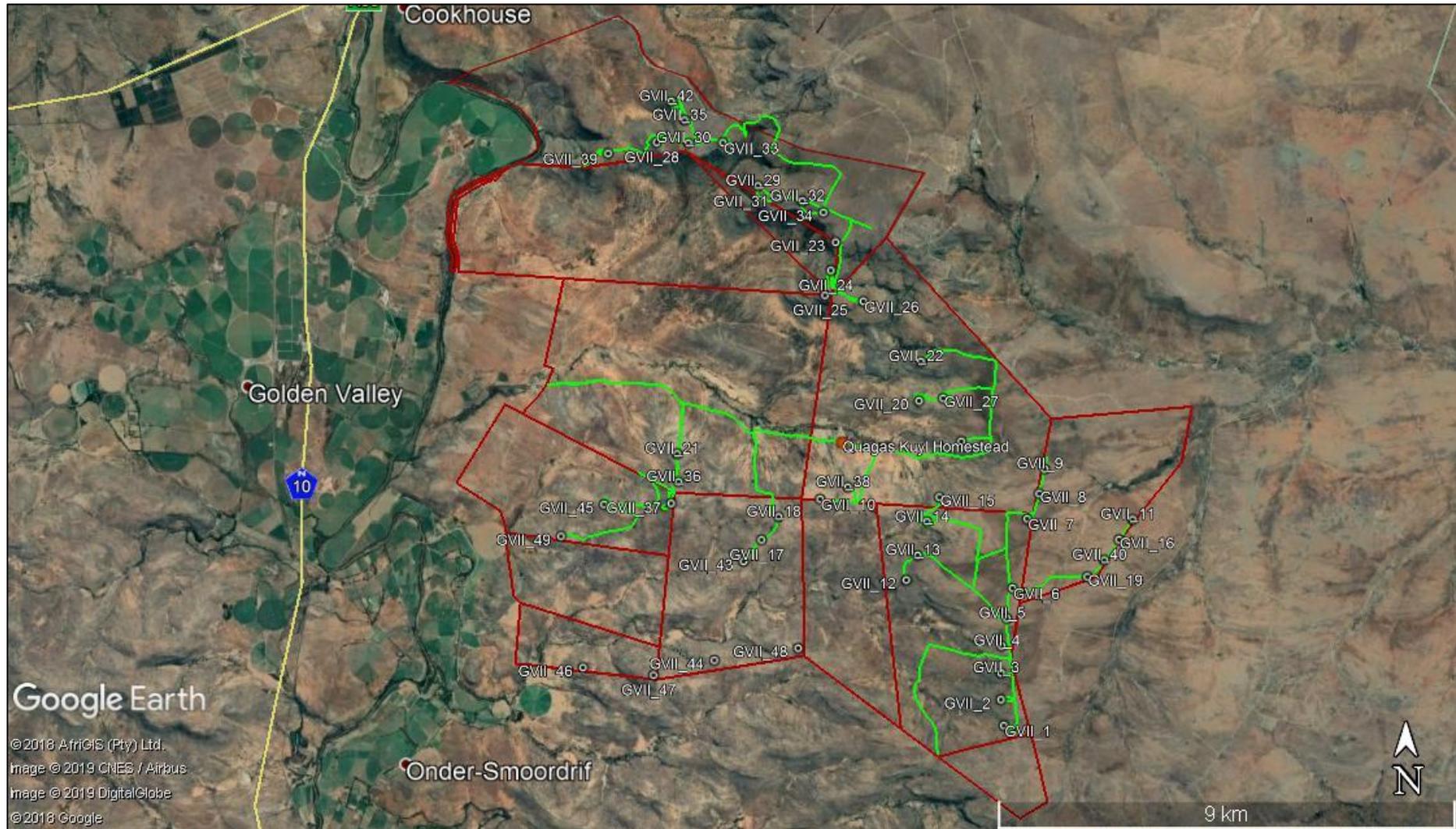


Figure 2. Aerial view showing the location of the Golden Valley II Wind Energy Facility (red block).



**Figure 3. Close-up aerial view showing the location of the Golden Valley II Wind Energy Facility (red block), survey tracks and location of the remains of the abandoned Quagas Kuyil Homestead.**

## **4. ARCHAEOLOGICAL INVESTIGATION**

### **4.1. Methodology**

A comprehensive literature review was included in the Hart & Webley 2010 report therefore no archaeological heritage background has been included in this walk-through report. No systematic archaeological research has been conducted within this region of the Eastern Cape however a range of pre-colonial and historical heritage resources have been documented in several assessment reports from 2008 for wind energy facilities, power lines and smaller developments. The reports compiled from these archaeological and heritage assessments were consulted to establish the expected heritage resources of the area (Binneman 2012a/b; Booth 2011, 2014, 2015; and reports compiled by the Archaeology Contracts Office cc between 2008 and 2010).

The recommendations of the previous heritage assessments and communication as well as the national and provincial heritage authorities' comments were considered before the survey and have been addressed in this report (Hart & Webley 2010).

The archaeological walk-through survey focused on the proposed development area of the footprint of the Golden Valley II WEF.

The areas proposed for the establishment of the wind turbines are relatively easily accessible by an off-road vehicle in some areas and on foot in most areas. Most of the areas have roads leading along the route between the proposed turbine positions and others are easily accessible on foot.

Archaeological surface visibility varied across the proposed development site with archaeological visibility being good over most of the area, but was also obscured by dense grass and shrub vegetation. Exposed surface areas such as water erosion areas and internal farm gravel roads as well as sparsely vegetated areas and rocky outcrops were investigated for possible archaeological heritage remains.

The GPS co-ordinate readings and photographs were taken using a Garmin Oregon 650 unit. This data has been plotted using the Basecamp and Google Earth applications to generate comprehensive maps of the area proposed for the Golden Valley II Wind Energy Facility.

## 4.2. Results of the Archaeological Investigation

The majority of the development area had been covered by the original survey conducted in 2010 (Halkett *et al*), except for the additional land parcel on the Farm Patryshoogte 152.

The general landscape comprises relatively easily accessible undulating hills with a few acquiring access by 4x4. The wind energy facility is planned to be constructed on these hilltops. The vegetation cover is varied across the proposed development site. The majority of the area, however, is covered in dense grass and shrub vegetation (Figures 16-25). Prickly pear trees dominated several areas of the development area as well as grazed and transformed grass cover. Some sparsely vegetated areas allowed for a relief for archaeological visibility and there were very few exposed surface areas relative to the size of the development site (Figures 26-31). Small rocky outcrops occur throughout the area.

The original heritage impact assessment (Hart & Webley 2010) identified several pre-colonial Stone Age sites ranging from the Early Stone Age, Middle Stone Age and the Later Stone Age with some Cape Coastal Pottery. The Early Stone Age site was scattered over a wide but definable area on a gentle gradient on the lower slopes of a hilltop above a river. The Middle Stone Age material was found to be thinly scattered unidentified sites throughout the study area which the authors describe as “ancient litter” that contained occasional flakes and blades. Middle Stone Age material was mostly located in valley bottoms in deep dongas, a streambed and a thin scatter associated with a dammed donga on the Farm Olive Woods Estate 169. The authors also ascertained that the Middle Stone Age material was more common on alluvial fans, sandy flat areas and occasionally seen on remote hilltops and steep slopes. Later Stone Age material was limited to two recorded occurrences both within erosion gullies.

Similarly, Booth (2015) identified mostly isolated scatters of Middle Stone Age stone artefacts such as flakes, blades, and cores manufactured on quartzite raw materials that occur locally in the region and included mostly characteristic Middle Stone Age flakes. As well as one densely scattered area on the hilltop referred to Ariesberg was established to be visible over an area of about 1 500 m x 800 m.

No archaeological or other heritage materials were observed during the walk-through for the Golden Valley II WEF. It is also possible that stone artefacts may occur below the vegetation cover between the surface and 50 – 80 cm below the ground.

The remains of the Quagas Kuyl homestead which probably dates to older than 60 years was recorded. The homestead includes the main house, which could be of late 19<sup>th</sup> / early 20<sup>th</sup> centuries, of which it seems that one of the side walls is on the verge of collapse, it was not deemed safe to venture close to the building. Similarly, the staff houses are in a state of degradation and collapse. The stone packed kraal has been altered over time, however, is in a relatively stable state as well as the shed.

Other built environment structures include disused reservoirs and drinking troughs, most being replaced by modern troughs and JoJo tanks.



**Figure 4. View of the general landscape for the establishment of wind turbines.**



**Figure 5. View of the general landscape for the establishment of wind turbines.**



**Figure 6. View of the general landscape for the establishment of wind turbines.**



**Figure 7. View of the general landscape for the establishment of wind turbines.**



**Figure 8. View of the general landscape for the establishment of wind turbines.**



**Figure 9. View of the general landscape for the establishment of wind turbines.**



**Figure 10. View of the general landscape for the establishment of wind turbines.**



**Figure 11. View of the general landscape for the establishment of wind turbines showing an exposed surface area.**



**Figure 12. View of the general landscape for the establishment of wind turbines showing an exposed surface area.**



**Figure 13. View of the general landscape for the establishment of wind turbines showing an exposed surface area.**



**Figure 14. View of a small rocky outcrop on the Farm Leuwe Drift 153 that was investigated for possible rock art.**



**Figure 15. View of the Quagas Kuyl farmhouse highlighting the risk of the collapse of the side wall.**



**Figure 16. View of deterioration of the staff houses within the Quagas Kuyl homestead.**



**Figure 17. View of stone packed kraal within the Quagas Kuyl homestead.**



**Figure 18. View of shed within the Quagas Kuyl homestead.**



**Figure 19. Examples of the unused drinking troughs and reservoirs occurring throughout the area.**



**Figure 20. Examples of upgraded drinking troughs and reservoirs occurring throughout the area.**

## **5. DESCRIPTION OF SITES**

### **5.1. Built Environment:**

The general built environment encountered during the survey included drinking troughs and reservoirs currently mostly unused as well as working kraals. Therefore, no heritage significance has been allocated to these features.

### **5.2. Quagas Kuyl Homestead**

The remains of the Quagas Kuyl homestead which probably dates to older than 60 years was recorded. The homestead includes the main house, which could be of late 19<sup>th</sup> / early 20<sup>th</sup> centuries, of which it seems that one of the side walls is on the verge of collapse, it was not deemed safe to venture close to the building. Similarly, the staff houses are in a state of degradation and collapse. The stone packed kraal has been altered over time, however, is in a relatively stable state as well as the shed.

Buildings / structures older than 60 years are protected in Section 34 of the National Heritage Resources Act 25 of 1999. It is unlikely that the kraal will be negatively impacted during the development of the wind energy facility. Caution must be taken in the transportation of the infrastructure along the Middleton-Bedford access road.

The significance is considered a 'General' Protection C (Field Rating IV C): This site has been sufficiently recorded. It requires no further recording before destruction (*Low significance*). However, it is recommended that mitigation measures are implemented as to avoid any negative during the construction and lifetime of the proposed development.

## 6. CO-ORDINATES AND SITES FOR THE WALK-THROUGH FOR THE GOLDEN VALLEY II WIND ENERGY FACILITY, BLUE CRANE ROUTE LOCAL MUNICIPALITY, EASTERN CAPE PROVINCE.

**TABLE 1. CO-ORDINATES AND SITES FOR THE WALK-THROUGH FOR THE GOLDEN VALLEY II WIND ENERGY FACILITY, BLUE CRANE ROUTE LOCAL MUNICIPALITY, EASTERN CAPE PROVINCE.**

REFERENCE	DESCRIPTION	CO-ORDINATE	HERITAGE GRADING
<b>Quagas Kuyl Homestead</b>			
Quagas Kuyl Homestead	Abandoned homestead comprising main farmhouse, staff houses, stone packed kraal and shed. Mostly in a state of deterioration	32°49'35.38"S; 25°54'31.95"E	*General* Protection C (Field Rating IV C): Low significance

## 7. CUMULATIVE IMPACTS AND CULTURAL LANDSCAPE

The numerous applications and proposed establishment and construction of several wind energy facilities between Cookhouse, Bedford and Riebeeck East as well as the adjacent regions have sparked a concern with regards to cumulative impacts that these projects may have on the heritage resources and the cultural landscape. Therefore, it is of the utmost importance to provide a thorough documentation of the archaeological and historical heritage resources, sites and features within the specific project area. The archaeological and historical heritage resources must be appropriately mitigated at a project / site specific level so that there is less of a risk of losing the information after the construction of these alternative energy facilities. The loss of information at regional scale is at risk as these facilities cause an immense amount of surface disturbance and destruction where archaeological and historical heritage resources are at risk of being destroyed without justification.

In addition, the cultural landscape of the wider region is inhibited by mass industrialisation of the landscape that changes the character of the landscape and hence impacts on the sense of place and aesthetic value negatively.

## 8. SENSITIVITY AREAS

No significant sensitivity areas have been identified during the walkthrough for the Golden Valley II WEF. It should be noted that if it is necessary for the for the abandoned homesteads at Great Riet Fontein and Quagas Kuyl be demolished that a specialised historical built environment specialist be consulted for make application for the demolition permits. It is, however, strongly advised that these homesteads not be negatively impacted during the development process and that the access roads be rerouted so as not to have any further negative impact on the structures.

## 9. CONCLUSION AND SUMMARY OF THE TERMS OF REFERENCE

The purpose of the study was to conduct an archaeological heritage walkthrough for the development area t of the proposed Golden Valley II Wind Energy Facility and associated power line, Blue Crane Route Local Municipality, Eastern Cape Province. The Terms of Reference (ToR) included the following:

- Undertake a heritage ground-truthing survey of the footprint of the Golden Valley II Wind Energy Facility:

A heritage ground-truthing survey of the footprint of the Golden Valley II Wind Energy Facility was undertaken over several days. The majority of the development area had been covered by the original survey conducted in 2010 (Halkett *et al*), except for the additional land parcel.

The walk-through of the development area was conducted on foot by following the layout of the proposed roads and investigating the wind turbine locations and cable routes.

- Describe and take GPS locations of any heritage features potentially affected by the project infrastructure.

GPS locations and photographs of heritage resources and the general built environment were taken using a Garmin Oregon 650 PGS device. No archaeological or other heritage materials were observed during the walk-through for the Golden Valley II WEF. It is also possible that stone artefacts may occur below the vegetation cover between the surface and 50 – 80 cm below the ground.

The remains of the Quagas Kuyl homestead which probably dates to older than 60 years was recorded. The homestead includes the main house, which could be of late

19<sup>th</sup> / early 20<sup>th</sup> centuries, of which it seems that one of the side walls is on the verge of collapse, it was not deemed safe to venture close to the building. Similarly, the staff houses are in a state of degradation and collapse. The stone packed kraal has been altered over time, however, is in a relatively stable state as well as the shed. The appropriate mitigation recommendations must be followed to avoid unnecessary damage to the heritage resource.

- Describe any mitigation measures that should be implemented to safeguard heritage features during the construction and operation phases.

The mitigation measures have been highlighted and included in the report as recommendations. The report must be submitted to the Eastern Cape Provincial Heritage Resources Agency (ECPHRA) where possibly further recommendations may be suggested.

- Address any of SAHRA (or the applicable Eastern Cape authority's) comments.

The South African Heritage Resources Review Comments and the Eastern Cape Provincial Heritage Resources Agency's Interim comment have been considered as well as the specialists' report recommendations. Some of these recommendations have been included as part of this report to the future development and mitigation for the heritage resources encountered.

It must be noted that two of SAHRA's recommendations are not relevant to the current project, these include:

1. A permit must be applied for the destruction of the destitute building at Groot Rietfontein. SAHRA will require that, in terms of s.38(4)(b&c) of the National Heritage Resources Act, the provisions of s.35 apply, as appropriate.
  - This would only be required if it is intended for the building to be demolished during the construction of the WEF.
2. The Early Stone Age site needs recording and collection. The archaeologist must apply for a collection permit from SAHRA, which will require that, in terms of s.38(4)(b&c) of the National Heritage Resources Act, the provisions of s.35 apply, as appropriate; a report from recording and collection must be submitted to SAHRA.

- The farm on which the site was documented is not included within the footprint of the current layout.

The other recommendations have been addressed:

1. A site visit for all turbines that must be undertaken to ascertain that their erection will not impact on any archaeological resources of significance. A report from the site visit must be sent to SAHRA for review. Where necessary, the specialist must inform SAHRA of urgent mitigation measures to be put in place before this phase of assessment is completed.
  - The current archaeological heritage walk-through represents the recommended site visit. SAHRA no longer oversees the heritage of the Eastern Cape as it did in 2010 and the report must be sent to ECPHRA for review. Once this report has been finalised the archaeologist must inform the ECPHRA heritage officer of the urgent mitigation measures before the phase of assessment is completed.
2. This wind farm, as much as all those proposed, will undoubtedly change the sense of place and the landscape of the area. It is suggested that, in order to minimise the impact of the wind turbines on the landscape, the minimum amount of new access roads and excavation is carried out. Moreover, it is recommended that a post-operation rehabilitation plan be submitted before authorization is granted to ensure that the landscape may be revegetated and rehabilitated after dismissal. It is on the onus of the developer that a post-operation rehabilitation plan be submitted.
3. The extent of Middle Stone Age occurrences should be recorded including their main characteristics (typology, material, density).
  - No archaeological heritage remains were identified during the archaeological heritage walk-through.
4. For any alteration or demolition of structures older than 60 years, a permit applied for with the Eastern Cape provincial Heritage Resources Authority, it is possible that a Conservation Architect may need to be contacted, but this can be further discussed with the PHRA.
  - The structures recommended for demolition are not included within the footprint of the current project and therefore will not be negatively affected. However,

this recommendation stands for structures that have been documented during the archaeological heritage walk-through.

The final report to be submitted to the Eastern Cape Heritage Resources Agency (ECPHRA) by the archaeological heritage specialist for review and comment.

## **10. RECOMMENDATIONS**

The overall area is considered as having a low archaeological significance. The following recommendations must be considered before development continues, one SAHRA recommendation has been included as it deals with a long-term post operation rehabilitation plan:

1. This wind farm, as much as all those proposed, will undoubtedly change the sense of place and the landscape of the area. It is suggested that, in order to minimise the impact of the wind turbines on the landscape, the minimum amount of new access roads and excavation is carried out. Moreover, it is recommended that a post-operation rehabilitation plan be submitted before authorizations is granted to ensure that the landscape may be revegetated and rehabilitated after dismissal.
2. An archaeological heritage walk-through survey must be conducted for the final layout
3. It is recommended that the homesteads are not negatively impacted during the construction and lifetime of the proposed development and that the access roads be rerouted so as not to have any further negative impact on the structures. However, for any alteration or demolition of structures older than 60 years, a historical built environment specialist must be consulted and a permit applied for with the Eastern Cape Provincial Heritage Resources Authority (ECPHRA) (it is possible that a historical built environment specialist may need to be contacted, but this can be further discussed with the PHRA).
4. If concentrations of historical and pre-colonial archaeological heritage material and/or human remains (including graves and burials) are uncovered during construction, all work must cease immediately and be reported to the South African Heritage Resources Agency (SAHRA) so that systematic and professional investigation/excavation can be undertaken. Phase 2 mitigation in the form of test-pitting/sampling or systematic excavations and collections of the pre-colonial shell middens and associated artefacts will then be conducted to establish the contextual

status of the sites and possibly remove the archaeological deposit before development activities continue.

5. A person, preferably the Environmental Control Officer, must be trained as a site monitor to report any archaeological sites found during the development. Construction managers/foremen and/or the Environmental Control Officer (ECO) should be informed before construction starts on the possible types of heritage sites and cultural material they may encounter and the procedures to follow when they find sites.

## **11. RELEVANT ARCHAEOLOGICAL AND HERITAGE IMPACT ASSESSMENTS**

- Binneman, J. 2012a. An archaeological walkthrough survey of the turbine footprint for the proposed Phase 1 Amakhala Emoyeni Wind Energy Facility, Cookhouse District, Blue Crane Route Municipality, Eastern Cape Province. Prepared for Savannah Environmental Ltd. (Pty).
- Binneman, J. 2012b. Basic archaeological assessments for: 1. The Kopleegte substation (250m x 250m), 2. The new 132kv power line from Kopleegte Substation to Poseidon Substation, 3. The re-route of the 66kv power line from Poseidon Substation to Zebra Substation, 4. The re-route of the 132kv power line from Klipfontein to Poseidon Substation, Cookhouse District, Blue Crane Route Municipality, Eastern Cape Province. Prepared for Savannah Environmental Ltd. (Pty).
- Booth, C. 2011. A phase I archaeological impact assessment (AIA) for the proposed Cookhouse II wind energy facility, Blue Crane Route Local Municipality, Eastern Cape. Prepared for Savannah Environmental Ltd. (Pty).
- Booth, C, 2015. An archaeological heritage walk-through (final layout and power line) for the proposed Golden Valley I Wind Energy Facility, Blue Crane Route Local Municipality, Eastern Cape Province.
- Booth, C. 2016. A letter of recommendation (with conditions) for the exemption of a full phase 1 archaeological impact assessment (AIA) for the proposed application for environmental authorisation for a mining permit on the Farm Klipfontein No. 242, Blue Crane Route Municipality, Division of Bedford, Eastern Cape Province.
- Booth, C. 2019. A phase 1 archaeological impact assessment (AIA) for the proposed citrus farm development on Portion 2 Of Farm 144 (Doordraai), Near Cookhouse, Blue Crane Route Municipality, Eastern Cape Province.
- Halkett, D., Webley, L., Orton, J. and Pinto, H. 2010. Heritage impact assessment of the proposed Amakhala-Emoyeni wind Energy Facility, Cookhouse District, Eastern Cape. Prepared for Savannah Environmental Ltd. (Pty).

- Halkett, D. and Webley, L. 2010. Heritage scoping assessment of a proposed Amakhala Emoyeni wind Energy Facility to be situated on 19 farms in the Cookhouse District, Eastern Cape. Unpublished report prepared for Savannah Environmental Ltd. (Pty). ACO Associates cc.
- Hart, T. and Webley, L. 2010. Heritage impact assessment of a proposed Cookhouse Wind Energy Project, Blue Crane Route Local Municipality. Unpublished report prepared for CES Ltd. (Pty). ACO Associates cc.
- Webley, L. and Hart, T. 2008. Scoping Heritage Impact Assessment of a proposed Wind Energy Facility to be situated on portions of farms Arolsen 69, Farm 148, Farm 148/1; Rooidraai 146, Baviaans Krans 151, Baviaans Krantz 151/2, Klip Fonteyn 150/2, Roberts Kraal 281, Zure Kop 74/1, Zure Kop 74/2, Van Wyks Kraal 73, Van Wyks Kraal 73/2 and Van Wyks Kraal 73/3 in the Cookhouse District, Eastern Cape. Unpublished report prepared for Savannah Environmental Ltd. (Pty). ACO Associates.
- Webley, L., Halkett, D. and Hart, T. 2009. Heritage Impact Assessment of a proposed Wind Energy Facility to be situated on portions of farms Arolsen 69, Farm 148, Farm 148/1; Rooidraai 146, Baviaans Krans 151, Baviaans Krantz 151/2, Klip Fonteyn 150/2, Roberts Kraal 281, Zure Kop 74/1, Zure Kop 74/2, Van Wyks Kraal 73, Van Wyks Kraal 73/2 and Van Wyks Kraal 73/3 in the Cookhouse District, Eastern Cape. Unpublished report prepared for Savannah Environmental Ltd. (Pty). ACO Associates.

## 12. GENERAL REMARKS AND CONDITIONS

**NOTE:** This report is an archaeological heritage walk-through for the amendments for the project and does not include or exempt other required specialist assessments as part of the heritage impact assessments (HIAs).

The National Heritage Resources Act (Act No. 25 of 1999, Section 35 [Brief Legislative Requirements]) requires a full Heritage Impact Assessment (HIA) in order that all heritage resources including all places or objects of aesthetics, architectural, historic, scientific, social, spiritual, linguistic, or technological value or significance are protected. Thus, any assessment should make provision for the protection of all these heritage components including archaeology, shipwrecks, battlefields, graves, and structures older than 60 years, living heritage, historical settlements, landscapes, geological sites, palaeontological sites and objects.

It must be emphasized that the conclusions and recommendations expressed in this archaeological heritage walk-through / ground truthing survey are based on the

visibility of archaeological remains, features and, sites and may not reflect the true state of affairs. Many archaeological remains, features and, sites may be covered by soil and vegetation and will only be located once this has been removed. In the event of such archaeological heritage being uncovered (such as during any phase of construction activities), archaeologists or the relevant heritage authority must be informed immediately so that they can investigate the importance of the sites and excavate or collect material before it is destroyed. The onus is on the developer to ensure that this agreement is honoured in accordance with the National Heritage Resources Act No. 25 of 1999 (NHRA 25 of 1999).

Archaeological Specialist Reports (desktops and AIA's) will be assessed by the relevant heritage resources authority. The final comment/decision rests with the heritage resources authority that may confirm the recommendations in the archaeological specialist report and grant a permit or a formal letter of permission for the destruction of any cultural sites.

## APPENDIX A: HERITAGE LEGISLATIVE REQUIREMENTS

Sections 3, 34, 35, 36, 38, 48, 49 and 51 of the National Heritage Resources Act 25 of 1999 apply:

### **S3. National estate**

(1) For the purposes of this Act, those heritage resources of South Africa which are of cultural significance or other special value for the present community and for future generations must be considered part of the national estate and fall within the sphere of operations of heritage resources authorities.

(2) Without limiting the generality of subsection (1), the national estate may include –

- (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 natural features of cultural significance;
- (e) geological sites of scientific or cultural importance;
- (f) archaeological and palaeontological sites;
- (g) graves and burial grounds, including –
  - (i) ancestral graves;
  - (ii) royal graves and graves of traditional leaders;
  - (iii) graves and victims of conflict;
  - (iv) graves of individuals designated by the Minister by notice in the Gazette;
  - (v) historical graves and cemeteries; and
  - (vi) other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
- (h) sites of significance relating to the history of slavery in South Africa;
- (i) movable objects, including –
  - (i) objects recovered from the soil or waters of South Africa, including archaeological and palaeontological specimens;
  - (ii) objects to which oral traditions are attached or which are associated with living heritage;
  - (iii) ethnographic art and objects;
  - (iv) military objects;
  - (v) objects of decorative or fine art;
  - (vi) objects of scientific or technological interest; and
  - (vii) books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act (Act No. 43 of 1996).

(3) Without limiting the generality of subsections (1) and (2), a place or object is to be considered part of the national estate if it has cultural significance or other special value because of –

- (a) its importance in the community, or pattern of South Africa's history;
- (b) its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;
- (c) its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- (d) its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects;
- (e) its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
- (f) its importance in demonstrating a high degree of creative or technical achievement at a particular period;
- (g) its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa; and
- (i) sites of significance relating to the history of slavery in South Africa.

### **S34. Structures**

- (1) No person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.
- (2) Within three months of the refusal of the provincial heritage resources authority to issue a permit, consideration must be given to the protection of the place concerned in terms of one of the formal designations provided for in Part 1 of this Chapter.
- (3) The provincial heritage resources authority may at its discretion, by notice in the Provincial Gazette, make an exemption from the requirements of subsection (1) within a defined geographical area, provided that it is satisfied that heritage resources falling into the defined area or category have been identified and adequately provided for in terms of the provisions of Part 1 of this Chapter.
- (4) Should the provincial heritage resources authority believe it to be necessary if by, following a three-month notice period published in the Provincial Gazette, withdraw or amend a notice under subsection (3).

### **S35. Archaeology, palaeontology and meteorites**

- (1) Subject to the provisions of section 8, the protection of archaeological and palaeontological sites and material and meteorites is the responsibility of a provincial heritage resources authority: Provided that the protection of any wreck in the territorial waters and maritime cultural zone shall be the responsibility of SAHRA.
- (2) Subject to the provisions of subsection (8)(a), all archaeological objects, palaeontological material and meteorites are the property of the State. The responsible heritage authority must, on behalf of the State, at its discretion ensure that such objects are lodged with a museum or other public institution that has a collation policy acceptable to the heritage resources authority and may in doing so establish such terms and conditions as it sees fit for the conservation of such objects.
- (3) Any person who discovers archaeological or palaeontological objects or material or a meteorite in the course of development or agricultural activity must immediately report the find to the responsible heritage resources authority, or to the nearest local authority or museum, which must immediately notify such heritage resources authority.
- (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 or palaeontological site or any meteorite;
  - (b) destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;
  - (c) trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or palaeontological material or object, or any meteorite; or
  - (d) bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment which assist in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.
- (5) When the responsible heritage resources authority has reasonable cause to believe that any activity or development which will destroy, damage or alter any archaeological or palaeontological site is under way, and where no application for a permit has been submitted and not heritage resources management procedure in terms of section 38 has been followed, it may –
  - (a) Serve on the owner or occupier of the site or on the person undertaking such development an order for the development to cease immediately for such period as is specified in the order;
  - (b) Carry out an investigation for the purpose of obtaining information on whether or not an archaeological or palaeontological site exists and whether mitigation is necessary;
  - (c) If mitigation is deemed by the heritage resources authority to be necessary, assist the person on whom the order has been served under paragraph (a) to apply for a permit as required in subsection (4); and
  - (d) Recover the costs of such investigation from the owner or occupier of the land on which it is believed an archaeological or palaeontological site is located or from the person proposing to undertake the development if no application for a permit is received within two weeks of the order being served.
- (5) The responsible heritage resources authority may, after consultation with the owner of the land on which archaeological or palaeontological site or a meteorite is situated, serve a notice on the owner or any other controlling authority, to prevent activities within a specified distance from such site or meteorite.

- (6)(a) Within a period of two years from the commencement of this Act, any person in possession of any archaeological or palaeontological material or object or any meteorite which was acquired other than in terms of a permit issued in terms of this Act, equivalent provincial legislation or the National Monuments Act, 1969 (Act No. 28 of 1969), must lodge with the responsible heritage resources authority lists of such objects and other information prescribed period shall be deemed to have been recovered after the date on which this Act came into effect.
- (b) Paragraph (a) does not apply to any public museum or university.
- (c) The responsible authority may at its discretion, by notice in the Gazette or the Provincial Gazette, as the case may be, exempt any institution from the requirements of paragraph (a) subject to such conditions as may be specified in the notice, and may by similar notice withdraw or amend such exemption.
- (8) and object or collection listed under subsection (7) –
- (a) remains in the ownership of the possessor for the duration of his or her lifetime, and SAHRA must be notified who the successor is; and
- (9) must be regularly monitored in accordance with regulations by the responsible heritage authority.

### **S36. Burial grounds and graves**

- (1) Where it is not the responsibility of any other authority, SAHRA must conserve and generally care for burial grounds and graves protected in terms of this section, and it may make such arrangements for their conservation as it sees fit.
- (2) SAHRA must identify and record the graves of victims of conflict and any other graves which it deems to be of cultural significance and may erect memorials associated with the grave referred to in subsection (1), and must maintain such memorials.
- (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.
- (3) SAHRA or 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.
- (4) 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.
- (5) 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 the 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.
- (6)(a) SAHRA must, over a period of five years from the commencement of this Act, submit to Minister for his or her approval lists of graves and burial grounds of persons connected with the liberation struggle and who died in exile or as a result of the action of State security forces or agents provocateur and which,

after a process of public consultation, it believes should be included among those protected under this section.

- (c) The Minister must publish such lists as he or she approved in the Gazette.
- (6) Subject to section 56(2), SAHRA has the power, with respect to the graves of victims of conflict outside the Republic, to perform any function of a provincial heritage resources authority in terms of this section.
- (7) SAHRA must assist other State Departments in identifying graves in a foreign country of victims of conflict connected with the liberation struggle and, following negotiations with the next of kin, or relevant authorities, it may reinter the remains of that person in a prominent place in the capital of the Republic.

### **S.37 Public monuments and memorials**

Public monuments and memorials must, without the need to publish a notice to this effect, be protected in the same manner as places which are entered in a heritage register referred to in section 30.

### **S38. Heritage resources management**

- (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorized as –
  - (a) the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300 m in length;
  - (b) the construction of a bridge or similar structure exceeding 50 m in length;
  - (c) any development or other activity which will change the character of the site –
    - (i) exceeding 5 000 m<sup>2</sup> in extent, or
    - (ii) involving three or more 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 resources authority;
  - (d) the re-zoning of a site exceeding 10 000 m<sup>2</sup> in extent; or
  - (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must as the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.
- (2) The responsible heritage resources authority must, within 14 days of receipt of a notification in terms of subsection (1) –
  - (a) if there is a reason to believe that heritage resources will be affected by such development, notify the person who intends to undertake the development to submit an impact assessment report. Such report must be compiled at the cost of the person proposing the development, by a person or persons approved by the responsible heritage resources authority with relevant qualifications and experience and professional standing in heritage resources management; or
  - (b) notify the person concerned that this section does not apply.
- (3) The responsible heritage resources authority must specify the information to be provided in a report required in terms of subsection (2)(a): Provided that the following must be included:
  - (a) The identification and mapping of all heritage resources in the area affected;
  - (b) An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 6(2) or prescribed under section 7;
  - (c) An assessment of the impact of development on such heritage resources;
  - (d) 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;
  - (e) The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources;
  - (f) If heritage resources will be adversely affected by the proposed development, the consideration of alternative; and
  - (g) Plans for mitigation of any adverse effects during and after the completion of the proposed development.

- (4) The report must be considered timeously by the responsible heritage resources authority which must, after consultation with the person proposing the development, decide –
- (a) whether or not the development may proceed;
  - (b) any limitations or conditions to be applied to the development;
  - (c) what the general protections in terms of this Act apply, and what formal protections may be applied, to such heritage resources;
  - (d) whether compensatory action is required in respect of any heritage resources damaged or destroyed as a result of development; and
  - (e) whether the appointment of specialists is required as a condition of approval of the proposal.
- (5) A provincial heritage resources authority may not make any decision under subsection (4) with respect to any development with impacts on a heritage resource protected at national level unless it has consulted SAHRA.
- (6) The applicant may appeal against the decision of the provincial heritage resources authority to the MEC, who –
- (a) must consider the views of both parties; and
  - (b) may at his or her discretion –
    - (i) appoint a committee to undertake an independent review of the impact assessment report and the decision of the responsible heritage resources authority;
 

And
    - (ii) consult SAHRA; and
  - (c) must uphold, amend or overturn such decision.
- (7) The provisions of this section do not apply to a development described in subsection (1) affecting any heritage resource formally protected by SAHRA unless the authority concerned decides otherwise.
- (8) The provisions of this section do not apply to a development as described in subsection (1) if an evaluation of the impact of such development on heritage resources is required in terms of the impact of such development of heritage resources is required in terms of the Environment Conservation Act, 1989 (Act No. 73 of 1989), or the integrated environmental management guidelines issued by the Department of Environmental Affairs and Tourism, or the Mineral Act, 1991 (Act No. 50 of 1991), or any other legislation: Provided that the consenting authority must ensure that the evaluation fulfils the requirements of the relevant heritage resources authority in terms of subsection (3), and any comments and recommendations of the relevant heritage resources authority with regards to such development have been taken into account prior to the granting of the consent.
- (9) The provincial heritage resources authority, with the approval of the MEC, may, by the notice in the Provincial Gazette, exempt from the requirements of this section any place specified in the notice.
- (10) Any person who has complied with the decision of a provincial heritage resources authority in subsection (4) or of the MEC in terms of subsection (6) or other requirements referred to in subsection (8), must be exempted from compliance with all other protections in terms of this part, but any existing heritage agreements made in terms of section 42 continue to apply.

#### **S48. Permits**

- (1) A heritage resources authority may prescribe the manner in which an application is made to it for any permit in terms of this Act and other requirements for permit applications, including –
- (a) any particulars or information to be furnished in the application and any documents, drawings, plans, photographs and fees which should accompany the application;
  - (b) minimum qualifications and standards of practice required of persons making application for a permit to perform specified actions in relation to particular categories of protected heritage resources;
  - (c) standards and conditions for the excavation and curation of archaeological and palaeontological objects and material and meteorites recovered by authority of a permit;
  - (d) the conditions under which, bore a permit is issued, a financial deposit must be lodged and held in trust for the duration of the permit or such period as the heritage resources authority may specify, and conditions of forfeiture of such deposit;
  - (e) conditions for the temporary export and return of objects under section 32 or section 35;
  - (f) the submission of reports on work done under authority of a permit; and

- (g) the responsibilities of the heritage resources authority regarding monitoring of work done under authority of a permit.
- (2) On application by any person in the manner prescribed under subsection (1), a heritage resources authority may in its discretion issue to such person a permit to perform such actions at such time and subject to such terms, conditions and restrictions or directions as may be specified in the permit, including a condition –
- (a) that the applicant give security in such form and such amount determined by the heritage resources authority concerned, having regard to the nature and extent of the work referred to in the permit, to ensure the satisfactory completion of such work or the curation of objects and material recovered during the course of the work; or
  - (b) providing for the recycling or deposit in a materials bank of historical building materials; or
  - (c) stipulating that design proposals be revised; or
  - (d) regarding the qualifications and expertise required to perform that actions for which the permit is issued.
- (3) A heritage resources authority may at its discretion, in respect of any heritage resource protected by it in terms of the provisions of Chapter II, by notice in the Gazette or the Provincial Gazette, as the case may be, grant an exemption from the requirement to obtain a permit from it for such activities or class of activities by such persons or class of persons in such circumstances as are specified in the notice.

#### **S49. Appeals**

- (1) Regulations by the Minister and the MEC must provide for a system of appeal to the SAHRA Council for a provincial heritage resources council against a decision of a committee or other delegated representative of SAHRA or a provincial heritage resources body authority.
- (2) Anybody wishing to appeal against a decision of the SAHRA Council or the council of a provincial heritage resources authority must notify the Minister or MEC in writing within 30 days. The Minister or MEC, must have due regards to –
- (a) the cultural significance of the heritage resources in question;
  - (b) heritage conservation principles; and
  - (c) any other relevant factor which is brought to its attention by the appellant or the heritage resources authority.

#### **S51. Offences and penalties**

- (1) Notwithstanding the provisions of any other law, any person who contravenes –
- (a) sections 27(18), 29(10), 32(13) OR 32(19) is guilty of an offence and liable to a fine or imprisonment or both such fine and imprisonment as set out in item 1 of the Schedule;
  - (b) sections 33(2), 35(4) is guilty of an offence and liable to a fine or imprisonment or both such fine and imprisonment as set out in item 2 of the Schedule;
  - (c) sections 28(3) or 34(1) is guilty of an offence and liable to a fine or imprisonment or both such fine and imprisonment as set out in item 3 of the Schedule;
  - (d) sections 27(22), 32(15), 35(6), or 44(3) is guilty of an offence and liable to a fine or imprisonment or both such fine and imprisonment as set out in item 4 of the Schedule;
  - (e) sections 27(23)(b), 32(17), 35(3) or 51(8) is guilty of an offence and liable to a fine or imprisonment or both such fine and imprisonment as set out in item 5 of the Schedule;
  - (f) sections 32(13), 32(16), 32(20), 35(7)(a), 44(2), 50(5) or 50(12) is guilty of an offence and liable to a fine or imprisonment or both such fine and imprisonment as set out in item 6 of the Schedule.
- (2) The Minister, with the concurrence of the relevant MEC, may prescribe a penalty of a fine or of imprisonment for a period not exceeding six months for any contravention or failure to comply with regulations by heritage resources authorities or by-laws by local authorities.
- (3) The Minister or the MEC, as the case may be, may make regulations in terms of which the magistrate of the district concerned may –
- (a) levy admission of guild fines up to a maximum amount of R10 000 for infringement of the terms of this Act for which such heritage resources authority is responsible; and
  - (b) serve a notice upon a person who is contravening a specified provision of this Act or has not complied with the terms of a permit issued by such authority, imposing a daily fine of R50 for the duration of the contravention, subject to a maximum period of 365 days.

(4) The Minister may from time to time by regulation adjust the amounts referred to in subsection (3) in order to account for the effect of inflation.

(5) Any person who-

- (a) fails to provide any information that is required to be given, whether or not on the request of a heritage resources authority, in terms of this Act;
- (b) for the purpose of obtaining, whether for himself or herself or for any other person, any permit, consent or authority in terms of this Act, makes any statement or representation knowing it to be false or not knowing or believing it to be true;
- (c) fails to comply with or perform any act contrary to the terms, conditions, restrictions or directions subject to which any permit, consent or authority has been issued to him or her in terms of this Act;
- (d) obstructs the holder of a permit in terms of this Act in exercising a right granted to him or her by means of such a permit;
- (e) damages, takes, or removes, or causes to be damaged, taken or removed from a place protected in terms of this Act any badge or sign erected by a heritage authority or a local authority under section 25(2)(j) or section 27(17), any interpretive display or any other property or thing.
- (f) receives any badge, emblem or any other property or thing unlawfully taken or removed from a place protected in terms of this Act; and
- (g) within the terms of this Act, commits or attempts to commit any other unlawful act, violates any prohibition or fails to perform any obligation imposed upon him or by its terms, or who counsels, procures, solicits or employs any other person to do so.

shall be guilty of an offence and upon conviction shall be liable to such maximum penalties, in the form of a fine or imprisonment or both such fine and such imprisonment, as shall be specified in the regulations under subsection (3).

(6) Any person who believes that there has been an infringement of any provision of this Act, may lay a charge with the South African Police Service or notify a heritage resources authority.

(7) A magistrate's court shall, notwithstanding the provisions of any other law, be competent to impose any penalty under this Act.

(8) When any person has been convicted of any contravention of this Act which has resulted in damage or to alteration of a protected heritage resource the court may -

- (a) order such person to put right the result of the act of which he or she was guilty, in the manner so specified and within such period as may be so specified, and upon failure of such person to comply with the terms of such order, order such person to pay to the heritage resources authority responsible for the protection of such resource a sum equivalent to the cost of making good; or
- (b) when it is of the opinion that such a person is not in a position to make good damage done to a heritage resources by virtue of the offender not being the owner or occupier of a heritage resources or for any other reason, or when it is advised by the heritage resources authority responsible for the protection of such resource that it is unrealistic or undesirable to require that the results of the act be made good, order such person to pay the heritage resources authority a sum equivalent to the cost of making good.

(9) In addition to other penalties, if the owner of a place has been convicted of an offence in terms of this Act involving the destruction of, or damage to, the place, the Minister on the advice of SAHRA or the MEC on the advice of a provincial heritage resources authority, may serve on the owner an order that no development of such place may be undertaken, except when making good the damage and maintaining the cultural value of the place, or for a period not exceeding 10 years specified in the order.

(10) Before making the order, the local authority and any person with a registered interest in the land must be given a reasonable period to make submissions on whether the order should be made and for how long.

(11) An order of no development under subsection (9) attaches to the land and is binding not only on the owner as at the date of the order, but also on any person who becomes an owner of the place while the order remains in force.

(12) The Minister on the advice of SAHRA, may reconsider an order of no development and may in writing amend or repeal such order.

(13) In any case involving vandalism, and whenever else a court deems it appropriate, community service involving conservation of heritage resources may be substituted for, or instituted in addition to, a fine or imprisonment.

(14) Where a court convicts a person of an offence in terms of this Act, it may order for forfeiture to SAHRA or the provincial heritage resources authority concerned, as the case may be, of a vehicle, craft, equipment or any other thing used or otherwise involved in the committing of the offence.

(15) A vehicle, craft, equipment or other thing forfeited under subsection (14) may be sold or otherwise disposed of as the heritage resources authority concerned deems fit.

## **APPENDIX B: GRADING SYSTEM**

The National Heritage Resources Act 25 of 1999 stipulates the assessment criteria and grading of archaeological sites. The following categories are distinguished in Section 7 of the Act and the South African Heritage Resources Agency:

- National: This site is suggested to be considered of Grade 1 significance and should be nominated as such. Heritage resources with qualities so exceptional that they are of special national significance.
- Provincial: This site is suggested to be considered of Grade II significance and should be nominated as such. Heritage resources which, although forming part of the national estate, can be considered to have special qualities which make them significant within the context of a province or a region
- Local: This site is suggested to be Grade IIIA significance. This site should be retained as a heritage register site (High significance) and so mitigation as part of the development process is not advised.
- Local: This site is suggested to be Grade IIIB significance. It could be mitigated and (part) retained as a heritage register site (High significance).
- 'General' Protection A (Field Rating IV A): This site should be mitigated before destruction (usually High/Medium significance).
- 'General' Protection B (Field Rating IV B): This site should be recorded before destruction (usually Medium significance).
- 'General' Protection C (Field Rating IV C): This site has been sufficiently recorded (in the Phase 1). It requires no further recording before destruction (usually Low significance).

## **APPENDIX C: IDENTIFICATION OF ARCHAEOLOGICAL FEATURES AND MATERIAL FROM COASTAL AND INLAND AREAS: guidelines and procedures for developers**

## 1. Stone artefacts

Stone artefacts are the most common and identifiable precolonial artefacts occurring on the South Africa landscape. Early Stone Age, Middle Stone Age and Later Stone Age stone artefacts occur in various concentrations on the South Africa landscape. Stone artefacts are very commonly found occurring on flat floodplains in a mostly secondary or disturbed context. However, they can be also be found in an *in situ* or undisturbed context in areas where little human or animal impact happens such as open sites mostly near rocky outcrops, amongst boulders and caves.

These may be difficult for the layman to identify. However, large accumulations of flaked stones which do not appear to have been distributed naturally should be reported. If the stone tools are associated with bone remains, development should be halted immediately and archaeologists notified.



**Early Stone Age (ESA) stone artefact**  
(1.5 million years ago – 250 000 years ago)



**Middle Stone Age stone artefacts**  
(250 000 – 30 000 years ago)



**Later Stone Age stone artefacts**  
(30 000 years ago – historical times)



## 2. Pottery scatters

Pottery scatters can be associated with either Khoekhoen pastoralists, the Nguni first farming communities (referred to as the South African Iron Age) or colonial settlement and can be dated to within the last 2 000 years which occur both at the coast and inland. Pottery associated with Bushmen / hunter-gatherers is generally thought to occur in the Karoo region. The most obvious difference between Khoekhoen and Nguni pottery are the decorations, shapes, sizes and wall thickness. Khoekhoen pottery is generally thinner than the thicker walled and robust Nguni pottery. Colonial ceramics ranges from earthenware, stoneware, porcelain and European glazed and unglazed ceramics.

Precolonial pottery and Colonial ceramics are more easily identifiable by the layman and should be reported.



**Khoekhoen earthenware pottery  
(last 2 000 years)**



**Iron Age earthenware pottery  
(last 2 000 years)**



### 3. Historical artefacts and features

These are easy to identify and include colonial artefacts (such as ceramics, glass, metal, etc.), foundations of buildings or other construction features and items from domestic and military activities associated with early travellers' encounters on the landscape and European settlement.



**Example of a Fortified Structure  
(Fort Double Drift)**



**Ruin of stone packed dwelling**



**Glass artefacts**

#### 4. Shell middens (marine and freshwater)

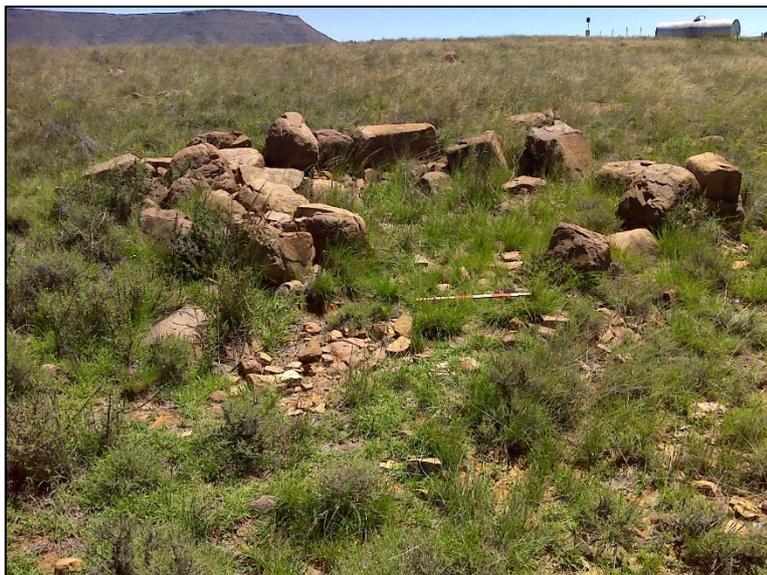
Shell middens can be defined as an accumulation of marine or freshwater shell deposited by past human populations rather than the result of natural or animal activity. Marine shell middens occur all along the coast and may extend within 5 km of the coastline. This area is generally regarded as being archaeologically sensitive. The shells are concentrated in a specific locality above the high-water mark and frequently contain various edible and sometimes inedible marine shells, stone tools, pottery, bone (fish and animal) and occasionally also human remains. Shell middens may be of various sizes and depths, but an accumulation which exceeds 1 m<sup>2</sup> in extent, should be reported to an archaeologist. Freshwater shell middens occur along river banks and comprise freshwater shell, fish and animal bone, stone tools, pottery, and sometimes human remains.



**Examples of the occurrence of coastal shell middens**

## 5. Large stone features

They come in different forms and sizes, but are easy to identify. The most common are roughly circular stone walls (mostly collapsed) and may represent stock enclosures, remains of wind breaks or cooking shelters. Others consist of large piles of stones of different sizes and heights and are known as *isisivane*. They are usually near river and mountain crossings. Their purpose and meaning are not fully understood; however, some are thought to represent burial cairns while others may have symbolic value.



### Examples of stone packed features

#### 6. Graves, Burials and Human Skeletal material

Formal historical graves are easily identifiable as they are in most cases fenced off or marked with engraved headstones. Informal stone packed graves in several instances also occur within these fenced off areas.

It is difficult to detect the presence of archaeological human remains on the landscape as these burials, in most cases, are not marked at the surface. Human remains are usually observed when they are exposed through erosion or construction activities for development. Several human remains have been rescued eroding out of the dunes along this coastline and dongas in inland areas. In some instances, packed stones or rocks may indicate the presence of informal pre-colonial burials.

Human remains, whether the complete remains of an individual buried during the past, or scattered human remains resulting from disturbance of the grave, should be reported. In general, the remains are buried in a flexed position on their sides, but are also found buried in a sitting position with a flat stone capping and developers are requested to be on the alert for this.



**Exposed human remains eroding out a coastal shell midden.**



**Exposed human remains eroding out an inland donga**

## 7. Identification of Precolonial and Historical Iron Age Occupation

- 7.1. Circular hollows / sunken soil: may indicate storage pits and possible hut floors.
- 7.2. Ash heaps / middens that contain cultural material and food waste.
- 7.3. Khaki green soils / dung accumulations that would indicate the kraal area.
- 7.4. Baked clay blocks that would indicate the remains of hut structures.
- 7.5. Pitted upper and lower grindstones that show evidence of utilisation. These artefacts may be whole or broken.
- 7.6. Thick walled decorated and undecorated pot sherds.
- 7.7. Iron slag / blow pipes (tuyeres) that would indicate iron working.
- 7.8. Metal artefacts and ornaments.

