

**A PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT (AIA) FOR THE PROPOSED UPGRADE AND MAINTENANCE OF NATIONAL ROADS R335 & R342 BETWEEN ADDO AND PATERSON, SARAH BAARTMAN DISTRICT MUNICIPALITY, EASTERN CAPE PROVINCE.**

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## **PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT (AIA) FOR THE PROPOSED UPGRADE AND MAINTENANCE OF NATIONAL ROADS R335 & R342 BETWEEN ADDO AND PATERSON, SARAH BAARTMAN DISTRICT MUNICIPALITY, EASTERN CAPE PROVINCE.**

**NOTE:** An archaeological impact assessment is required as a requisite of the National Heritage Resources Act 25 of 1999, Section 38 (1)(a) and (c)(i):

- (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;
- (c) any development or other activity which will change the character of the site –
  - (i) exceeding 5 000 m<sup>2</sup> in extent,

(see Appendix A for the relevant heritage legislation)

### **1. EXECUTIVE SUMMARY**

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

The purpose of the study was to conduct a phase 1 archaeological impact assessment (AIA) for the upgrade and maintenance of National Roads R335 & R342 between Addo and Paterson and associated Borrow Pits, Sarah Baartman District Municipality, Eastern Cape Province.

The survey was conducted 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.

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

No pre-colonial archaeological heritage material was identified along the route for the proposed upgrade and maintenance of the National Roads R335 and R342. Two memorials were located along the R335 situated south and north of Addo Town. The Moth Remembrance Memorial is situated just south of Addo Town. A Memorial and two recently established graves are situated at the corner of the R335 and R336. These memorials are situated a 'safe' distance from the proposed upgrade activities and should not be negatively impacted.

A cemetery is situated immediately adjacent to the R342 between Addo Town and the turn-off to the Addo Elephant National Park near Langbos Township on the left-hand- side of the road. The cemetery is not clearly fenced, although remnants of previous fencing is visible. There is a possibility that if not mitigated effectively damage could be caused to

the burials and graves situated near to the road. A fence should be erected to clearly demarcate the extent of the cemetery before development continues.

Quite a large number of stone artefacts were identified within the proposed Borrow Pit 7 (BP7) area situated on the Farm Goedgemoed between Addo and Shamwari Private Game Reserve. Although these stone artefacts occur *ex situ*. Similarly, stone artefacts were identified within the proposed Borrow Pit 22 (BP 22) area situated on the Farm Tregaron 2, near Enon. These were, however, isolated to the northern-western corner of the proposed borrow pit area. An isolated stone artefact was identified around the existing borrow pit area at the proposed Borrow Pit 20 (BP 20) area situated on the Farm Langbos along the R335, north of Addo Town

### **1.3. Recommendations**

The overall area is considered as having a *low archaeological heritage significance*. Development may proceed as planned however the following recommendations must be considered before development commences and throughout the activities:

#### **R335 and R342 Road Upgrade and Maintenance**

1. A 20 m boundary (as indicated in Figure 4) must be established around the Moth Memorial situated just south of Addo Town within which no construction activities may occur.
2. A 20 m boundary (as indicated in Figure 5) must be established around the Memorial situated just at the corner of the R335 and R336 within which no construction activities may occur.
3. Construction activities for the road upgrade extend to the right-hand-side of the road and a fence be established to clearly demarcate the cemetery area.

#### **Borrow Pits 7, 20 and 22.**

1. A destruction permit for the stone artefact scatters and occurrences situated on the Farms Goedgemoed for the proposed Borrow Pit 20 (BP 20), Tregaron for the proposed Borrow Pit 22 (BP 22) and Langbos for the proposed Borrow Pit 20 (BP 20) must be applied for to the Eastern Cape provincial Heritage Resources Authority (ECPHRA) before development continues.

#### **General Recommendations**

1. If concentrations pre-colonial archaeological heritage material (such as shell middens and associated material) and/or human remains (including graves and burials) are uncovered during construction, all work must cease immediately and be reported to the Albany Museum (046 622 2312) and/or the Eastern Cape Provincial Heritage Resources Agency (ECPHRA) (043 745 0888) 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 archaeological / heritage site will then be conducted to establish the contextual status of the sites and possibly remove the archaeological deposit before development activities continue.

2. A person 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.

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

SRK has been appointed by SANRAL as the independent consultants to assess the environmental impacts in terms of the National Environmental Management Act 107 of 1998 (NEMA), for the proposed development.

This section confirms a declaration of independence that archaeological heritage specialist, Ms Celeste Booth, has no financial or any other personal interests in the upgrade and maintenance of National Roads R335 & R342 between Addo and Paterson and associated Borrow Pits, Eastern Cape Province.

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 nine 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**

### **(From Background Information Documented provided by SRK Consulting)**

#### **2.1. Type of Development**

The South African National Roads Agency Limited (SANRAL) proposes to upgrade and do special maintenance along National Routes R335 and R342 between Addo and Paterson in the Sarah Baartman District Municipality. Six material sourced (borrow pits or quarries) will also be opened to obtain material for the relevant ungraded and maintenance

activities. Although only five of the proposed six borrow pits have been included as part of the study.

The project starts approximately 0.4 km south of the village of Addo and ends at the intersection with the N10 National Road near Paterson and is therefore 36 km in length. Three borrow pits are located close to the town of Addo and three close to Paterson.

## **Project Description**

The project can be divided into three phases:

1. Road upgrade (km 0 to km 12)
2. Road maintenance (km 12 to km 36)
3. Borrow pits

## **Road Upgrade**

The section of the road approximately 0.4 km south of Addo town to 12 km (Langbos access road) will be upgraded.

The major aspects of this phase include the following activities:

- From 0.5 km to km 2.7. the road will be upgraded to have a surfaced width of 13.4 m (SANRAL standard);
- Between km 0 and km 7.8, pedestrian footways will be constructed on the right-hand side of the road (within the road reserve);
- Pedestrian facilities will be developed at km 1 just before Addo town, linking the R335 to Valencia;
- From 2.5 km to 12.4 the road will be upgraded to have a surfaced width of 8.6 m (ECPA standard);
- Between km 0.5 and km 12 pedestrian footways will be constructed on the left-hand side of the road (within road reserve);
- Upgrading part of the existing gravel road entrance to Langbos at km 12;
- Improvements to the geometry of the road;
- Maintenance of existing culverts; and
- Drainage improvements.

## **Road Maintenance**

The section of the road between km 12 and km 37 was previously upgraded and is now scheduled for maintenance only.

The major aspects of this phase include the following activities.

- The section will be maintained at an 8.6 m surfaced width;
- Rehabilitation and revegetation of highly eroded cut slopes at cutting km 15;



- Clearing of vegetation in the road reserve;
- Maintenance of the existing major culverts and road-over-rail bridge; and
- Drainage management

### **Borrow Pits**

Six material sources (borrow pits or quarries) will be opened to obtain material for the relevant upgrade and maintenance activities. Two of the borrow pits were approved for use by the Department of Minerals (DMR) in 2008, but an additional four new borrow pits are required for this project. Although only five of the proposed six borrow pits have been included as part of the study.

### **2.2. Applicant**

The South African National Roads Limited (SANRAL)

### **2.3. Consultant**

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### **2.4. Terms of reference**

The purpose of the study was to conduct a phase 1 archaeological impact assessment (AIA) for the upgrade and maintenance of National Roads R335 & R342 between Addo and Paterson and associated Borrow Pits, Eastern Cape Province.

The survey was conducted to:

- Identify and map all heritage resources in the area affected;
- Assess the significance of such resources in terms of the heritage assessment criteria;
- Assess the impact of development on such heritage resources;

- Evaluate the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development;
- Make recommendations to minimize possible damage to the archaeological heritage.

### **3. ARCHAEOLOGICAL BACKGROUND**

Little systematic archaeological research has been conducted within the immediate area of the proposed development. Archaeological sites have been excavated near Addo, within the Greater Addo Elephant National Park, near Uitenhage and archaeological research has recently been conducted within the Sundays River Valley between Kirkwood and Addo. These research excavations have yielded evidence of occupation over the last 1 million years.

Several relevant archaeological and heritage impact assessments have been conducted within the wider region including the area between the proposed site and Jansenville, Kirkwood, Addo and the Greater Addo Elephant National Park (GAENP), Patensie, Hankey, Humansdorp, Port Elizabeth and the coastal areas. These impact assessments have identified several Early, Middle, and Later Stone Age artefact scatters and sites as well as evidence of Khoekhoen pastoralist occupation and/or interaction by the presence of broken earthenware pot sherds. Archaeological sites in the form of shell middens and scatters have been reported along the surrounding coastline and within the 5 km archaeologically sensitive coastal zone. Archaeological sites in this area predominantly date to the various Stone Ages as no evidence of early black farmer settlements, referred to as Iron Age communities, has been documented within wider area. Historical ruins, dwellings and homesteads established by colonial settlement are distributed across the wider regions under discussion. Nineteenth century ceramics, glass, and other artefacts are usually found in association with these historical settlements.

#### **3.1. Early Stone Age (ESA) - 1.5 million to 250 000 years ago**

The Early Stone Age from between 1.5 million and 250 000 years ago refers to the earliest that *Homo sapiens sapiens* predecessors began making stone tools. The earliest stone tool industry was referred to as the Olduvai Industry originating from stone artefacts recorded at Olduvai Gorge, Tanzania. The Acheulian Industry, the predominant southern African Early Stone Age Industry, replaced the Olduvai Industry approximately 1.5 million years ago, is attested to in diverse environments and over wide geographical areas. The hallmark of the Acheulian Industry is its large cutting tools (LCTs or bifaces), primarily handaxes and cleavers. Bifaces emerged in East Africa more than 1.5 million years ago (mya) but have been reported from a wide range of areas, from South Africa to northern Europe and from India to the Iberian coast. The end products were similar across the geographical and chronological distribution of the Acheulian techno-complex: large flakes that were suitable in size and morphology for the production of handaxes and cleavers perfectly suited to the available raw materials (Sharon 2009).

One of the most well-known Early Stone Age sites in southern Africa is Amanzi Springs (Deacon 1970), situated about 10 km north-east of Uitenhage and 45 km south east of the WEF site. The site is situated on a north-facing hill overlooking the Coega River. The earliest reference to the spring was made by an early traveller, Barrow (1801). FitzPatrick first reported stone artefacts in the area in 1924. Ray Inskeep (Inskeep 1965) conducted a small-scale excavation of the site in 1963. It was only in 1964 and 1965 that large scale excavations were conducted by Hilary Deacon. In a series of spring deposits, a large number of stone tools were found *in situ* to a depth of 3-4 m. Wood and seed material preserved remarkably very well within the spring deposits, and possibly date to between 800 000 to 250 000 years old.

Other Early Stone Age sites that contained preserved bone and plant material include Wonderwerk Cave in the Northern Province, near Kimberly and Montagu Cave in the Western Cape, near the small town of Montagu (Mitchell 2007). Early Stone Age sites have also been reported in the foothills of the Sneeuberge Mountains (in Prins 2011).

Early Stone Age tools is the earliest evidence for human ancestors occupying the Sundays River Valley and surrounding area and occur throughout the region in river gravels that cap hilltops and slopes and on the palaeosols / calcrete floors in the dune systems like those at Geelhoutboom and Brandewynkop (Butzer 1978; Deacon & Geleijnse 1988). Large hand axes have been reported from Coega Kop and along the Coega and Sundays Rivers. Archaeological research has been recently been carried out near Kirkwood and Addo.

The Albany Museum Database holds records and archaeological collections of sites researched within the region.

### **3.2. Middle Stone Age (MSA) – 250 000 – 30 000 years ago**

The Middle Stone Age spans a period from 250 000 - 30 000 years ago and focuses on the emergence of modern humans through the change in technology, behaviour, physical appearance, art and symbolism. Various stone artefact industries occur during this time period, although less is known about the time prior to 120 000 years ago, extensive systemic archaeological research is being conducted on sites across southern Africa dating within the last 120 000 years (Thompson & Marean 2008). The large handaxes and cleavers were replaced by smaller stone artefacts called the Middle Stone Age flake and blade industries. Surface scatters of these flake and blade industries occur widespread across southern Africa although rarely with any associated botanical and faunal remains. It is also common for these stone artefacts to be found between the surface and approximately 50-80 cm below ground. Fossil bone may in rare cases be associated with Middle Stone Age occurrences (Gess 1969). These stone artefacts, like the Earlier Stone Age handaxes are usually observed in secondary context with no other associated archaeological material.

The Middle Stone Age is distinguished from the Early Stone Age by the smaller-sized and distinctly different stone artefacts and *chaîne opératoire* (method) used in manufacture, the introduction of other types of artefacts and evidence of symbolic behaviour. The prepared core technique was used for the manufacture of the stone artefacts which display a characteristic faceted striking platform and includes mainly unifacial and bifacial flake blades and points. The Howiesons Poort Industry (80 000 - 55 000 years ago) is distinguished from the other Middle Stone Age stone artefacts: the size of tools are generally smaller, the range of raw materials include finer-grained rocks such as silcrete, chalcedony, quartz and hornfels, and include segments, backed blades and trapezoids in the stone toolkit which were sometimes hafted (set or glued) onto handles. In addition to stone artefacts, bone was worked into points, possibly hafted, and used as tools for hunting (Deacon & Deacon 1999).

Other types of artefacts that have been encountered in archaeological excavations include tick shell (*Nassarius kraussianus*) beads, the rim pieces of ostrich eggshell (OES) water flasks, ochre-stained pieces of ostrich eggshell and engraved and scratched ochre pieces, as well as the collection of materials for purely aesthetic reasons. Although Middle Stone Age artefacts occur throughout the Eastern Cape, the most well-known Middle Stone Age sites include the type-site for the Howiesons Poort stone tool industry, Howiesons Poort (HP) rock shelter, situated close to Grahamstown and Klasies River Mouth Cave (KRM), situated along the Tsitsikamma coast. Middle Stone Age sites are located both at the coast and in the interior across southern Africa.

The Klasies River Cave complex (caves 1-5), situated 55 km west of Jeffreys Bay, is the most significant archaeological site with evidence of occupation and human development over the last 120 000 years. Previous excavations at the Klasies River main site exposed anatomically modern human remains dating to about 110 000 years old (Singer & Wymer 1982; Rightmire & Deacon 1991; Deacon 1992, 1993, 1995, 2001; Deacon, H.J. & Shuurman, R. 1992; Henderson 1992; Deacon & Deacon 1999).

Archaeological sites excavated within the wider region have revealed evidence of occupation during the Middle Stone Age period. Scatters of Middle Stone Age stone artefacts are also known to occur within the surrounding area where these have been recorded in archaeological and heritage impact assessments within the region.

The Albany Museum Data Recording Centre holds records of sites and artefacts in its collections.

### **3.3. Later Stone Age (LSA) – 30 000 years ago – recent (100 years ago)**

The Later Stone Age (LSA) spans the period from about 20 000 years ago until the colonial era, although some communities continue making stone tools today. The period between 30 000 and 20 000 years ago is referred to as the transition from the Middle Stone Age to

Later Stone Age; although there is a lack of crucial sites and evidence that represent this change. By the time of the Later Stone Age the genus *Homo*, in southern Africa, had developed into *Homo sapiens sapiens*, and in Europe, had already replaced *Homo neanderthalensis*.

The Later Stone Age is marked by a series of technological innovations, new tools and artefacts, the development of economic, political and social systems, and core symbolic beliefs and rituals. The stone toolkits changed over time according to time-specific needs and raw material availability, from smaller microlithic Robberg (20/18 000-14 000 ya), Wilton (8 000-the last 500 years) Industries and in between, the larger Albany/Oakhurst (14 000-8 000ya) and the Kabeljous (4 500-the last 500 years) Industries. Bored stones were used as part of digging sticks, grooved stones for sharpening and grinding and stone tools fixed to handles with mastic also become more common. Fishing equipment such as hooks, gorges and sinkers also appear within archaeological excavations. Polished bone tools such as eyed needles, awls, linkshafts and arrowheads also become a more common occurrence. Most importantly bows and arrows revolutionized the hunting economy. It was only within the last 2 000 years that earthenware pottery was introduced, before then tortoiseshell bowls were used for cooking and ostrich eggshell (OES) flasks were used for storing water. Decorative items like ostrich eggshell and marine/fresh water shell beads and pendants were made.

Hunting and gathering made up the economic way of life of these communities; therefore, they are normally referred to as hunter-gatherers. Hunter-gatherers hunted both small and large game and gathered edible plantfoods from the veld. For those that lived at or close to the coast, marine shellfish and seals and other edible marine resources were available for gathering. The political system was mainly egalitarian, and socially, hunter-gatherers lived in bands of up to twenty people during the scarce resource availability dispersal seasons and aggregated according to kinship relations during the abundant resource availability seasons. Symbolic beliefs and rituals are evidenced by the deliberate burial of the dead and in the rock art paintings and engravings scattered across the southern African landscape.

The majority of archaeological sites found in the area would date from the past 10 000 years where San hunter-gatherers inhabited the landscape living in rock shelters and caves as well as on the open landscape. These latter sites are difficult to find because they are in the open veld and often covered by vegetation and sand. Sometimes these sites are only represented by a few stone tools and fragments of bone. The preservation of these sites is poor and it is not always possible to date them (Deacon and Deacon 1999). Caves and rock shelters, however, in most cases, provide a more substantial preservation record of pre-colonial human occupation.

Later Stone Age sites occur both at the coast (caves, rock shelters, open sites and shell middens) and in the interior (caves, rock shelters and open sites) across southern Africa. There are more than a few significant Later Stone Age sites in the Eastern Cape. The most

popular are the type sites for the above-mentioned stone artefact industries, namely Wilton (for the Wilton Industry), Melkhoutboom (for the Albany Industry), both rock shelters situated to the west of Grahamstown, and Kabeljous Rock Shelter (for the Kabeljous Industry) situated just north of Jeffreys Bay. There are many San hunter-gatherers sites in the interior mountainous region north of the study site. Here, caves and rock shelters were occupied by the San during the Later Stone Age and contain numerous paintings along the walls.

The majority of hunter-gatherer groups had been pushed out of the Zuurberg by the 1820's and were forced to move further inland to escape European settlements within the area. The last San/KhoiSan group was killed by Commandos in the Groendal area in the 1880s.

Extensive Later Stone Age research has been conducted along the coastline south of the proposed development site and it is thought that these past communities may have moved between the mountainous areas and the coast according to excavated remains. Later Stone Age stone artefact scatters and sites are known to occur within region, along the coastal areas, Uitenhage and Port Elizabeth, as well as within the Greater Addo Elephant National Park and towards Jansenville where these have been recorded in archaeological and heritage impact assessments.

The Albany Museum Data Recording Centre holds records of sites and artefacts in its collections.

### **3.4. Last 2 000 years – Khoekhoen Pastoralism**

Until 2 000 years ago, hunter-gatherer communities traded, exchanged goods, encountered and interacted with other hunter-gatherer communities. From about 2 000 years ago the social dynamics of the southern African landscape started changing with the immigration of two 'other' groups of people, different in physique, political, economic and social systems, beliefs and rituals. Relevant to the study area, one of these groups, the Khoekhoen pastoralists or herders entered southern Africa with domestic animals, namely fat-tailed sheep and goats, travelling through the south towards the coast. Khoi pastoralist sites are often found close to the banks of large streams and rivers. They also introduced thin-walled pottery common in the interior and along the coastal regions of southern Africa. Their economic systems were directed by the accumulation of wealth in domestic stock numbers and their political make-up was more hierarchical than that of the hunter-gatherers.

The most significant Khoekhoen pastoralist sites in the Eastern Cape include Scott's Cave near Patensie (Deacon 1967), Goedgeloof shell midden along the St. Francis coast (Binneman 2007) and Oakleigh rock shelter near Queenstown (Derricourt 1977). Often, these archaeological sites are found close to the banks of large streams and rivers. Many

sites were found along the Cape St Francis coast during archaeological and heritage impact assessments, with the oldest dating to 1 500 years old (Binneman 1996, 2001, 2005).

Khoi groups who lived in the area during the seventeenth and eighteenth centuries include the Inqua around the Aberdeen area, the Damaqua between the Gamtoos and Swartkops Rivers and the Gonaqua extending from the Sundays River to the Fish River by the middle of the eighteenth century. Many of these communities were eventually absorbed into the eighteenth century colonial lifestyle and several became farmworkers for the Dutch and British or clients of the amaXhosa engages in elephant hunting. A few groups settled at Mission Stations such as Enon, Bethelsdorp and Theopolis.

The Albany Museum Database holds records of sites and artefacts in its collections.

### **3.5. Human Remains**

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. In some instances, packed stones or rocks may indicate the presence of informal pre-colonial burials.

Graves with rich grave goods were uncovered during excavations at the sites of Melkhoutboom and Vygeboom in the Greater Addo Elephant National Park. Stapleton and Hewitt apparently recovered a number of human remains from under circles of cairns on a farm near Kirkwood in 1928. The cairns were located near to the Sundays River.

The Albany Museum Database holds records of human remains that have been exposed and collected for conservation and curation within the wider region from the coastal areas to the south and east as well as inland around to Graaff Reinet and within the Greater Addo Elephant National Park. Cultural Resource Management practitioners whilst conducting archaeological heritage impact assessments have also recorded formal historical cemeteries and informal burials.

### **3.6. Rock Art (Paintings and Engravings)**

Rock art is generally associated with the Later Stone Age period mostly dating from the last 5 000 years to the historical period. It is difficult to accurately date the rock art without destructive practices. The southern African landscape is exceptionally rich in the distribution of rock art which is determined between paintings and engravings. Rock paintings occur on the walls of caves and rock shelters across southern Africa. Rock engravings, however, are generally distributed on the semi-arid central plateau, with most of the engravings found in the Orange-Vaal basin, the Karoo stretching from the Eastern Cape (Cradock area) into the Northern Cape as well as the Western Cape, and Namibia.

At some sites both paintings and engravings occur in close proximity to one another especially in the Karoo and Northern Cape. The greatest concentrations of engravings occur on the andesite basement rocks and the intrusive Karoo dolerites, but sites are also found on about nine other rock types including dolomite, granite, gneiss, and in a few cases on sandstone (Morris 1988). Substantial research has also been conducted in the Western Cape Karoo area around Beaufort West (Parkington 2008). Rock paintings are prolific in the inland mountainous regions situated north of the site.

There are several San hunter-gatherers sites in the Elandsberg and Groot Winterhoekberg Mountains, as well as within the Groendal area to the east and the Zuurberg Mountains. Here caves and rock shelters were occupied by the San during the Later Stone Age and contain paintings along the walls.

The Albany Museum Database holds records of sites and collections of rock painting sites of the wider regions and there are several that remain undocumented.

### **3.7. Historical Background**

The wider region emulates a dynamic landscape of historical cultural interaction between the Khoekhoen and AmaXhosa groups, early travellers, the Dutch and later the British Settlers as well as conflict between these groups. According to written documents Khoekhoen groups were established within the region during the eighteenth century. Early eighteenth century travellers who passed through the region included Beutler (1752), Thunberg (1773), and Sparrman (1775) Swellengrebel (1776) Van Plettenberg (1778), Paterson (1779) Sir John Barrow (1797). These travellers mention the areas of "Kragga Kamma" which included the whole area between the Van Staden's River and Baakens River near Port Elizabeth. The influx of European settlement had not yet affected this area of South Africa during the eighteenth century. The Coega / Koega River was first mentioned by in 1752 (Theal 1896) several of these travellers also mention also mentioned early landmarks such as the Sundays River, the Addo Drift Inn / Zondags Drift Inn). Van Reenen, who set out to find the survivors of the Grosvenor mentions places like Wolwefontein and the Zondags River in his diary records.

By the late eighteenth century Dutch farmers from the Western Cape had started moving to the region. Missionaries moved into the area as early 1818. By this time the Dutch farmers were well established within the area. The Moravians established a Mission Station at Enon in 1818 along the Witterivier on the farm of Jacobus Scheepers, which was also a military post. These German missionaries pioneered the citrus industry within the region. In 1889 the Trappist Monks at Dunbrody. British settlers started moving into the region after their arrival from 1820 onwards.

The Zuurberg Pass was completed in 1840 using convict labour for its construction. This pass would later become a very important route. Sir Harry Smith travelled this route in



1857 transporting troops to the Frontier for the 8<sup>th</sup> Frontier War. Later the Smuts Commando travelled with route in 1901 during the Anglo-Boer War.

The region area is also known for numerous skirmishes that took place between the Xhosa inhabitants, European settlers, British military and Khoi pastoralists during the 18<sup>th</sup> and 19<sup>th</sup> centuries and some historical remains related to these events may still be preserved. In the 1800's the Boers clashed with AmaXhosa groups who had settled in the Sundays River Valley which is referred to as the Slagboom / Tollbar ambush. The exact location is not known but Thomas Pringle described it as apparently have taken place along a narrow path. In 1811 Uitenhage became the focus for military operations against the amaXhosa in the frontier war of 1811-12, and in 1815 its garrison played a leading role in the suppression of the Slachter's Nek rebellion. The 'farms' in the district were subject to invasions and Van Reenen in his journal gives a list of 470 farms from the Langkloof and Gamtoos River to the Swartkops River that were "burnt, destroyed and deserted". A band of Xhosa reputedly invaded the Kragga Kamma area during The War of the Axe in 1846. During the Anglo-Boer War (1899-1902), the Smuts Commando travelled to the village Bayville established during the 1870's (later became Kirkwood named after James Somers Kirkwood) after surviving several clashes with the British at Bedrogsfontein, Brakkefontein and Deer Cottage.

Very little historical archaeological research has been conducted with the area and most information is known from documentary evidence of events.

#### **4. DESCRIPTION OF THE PROPERTY**

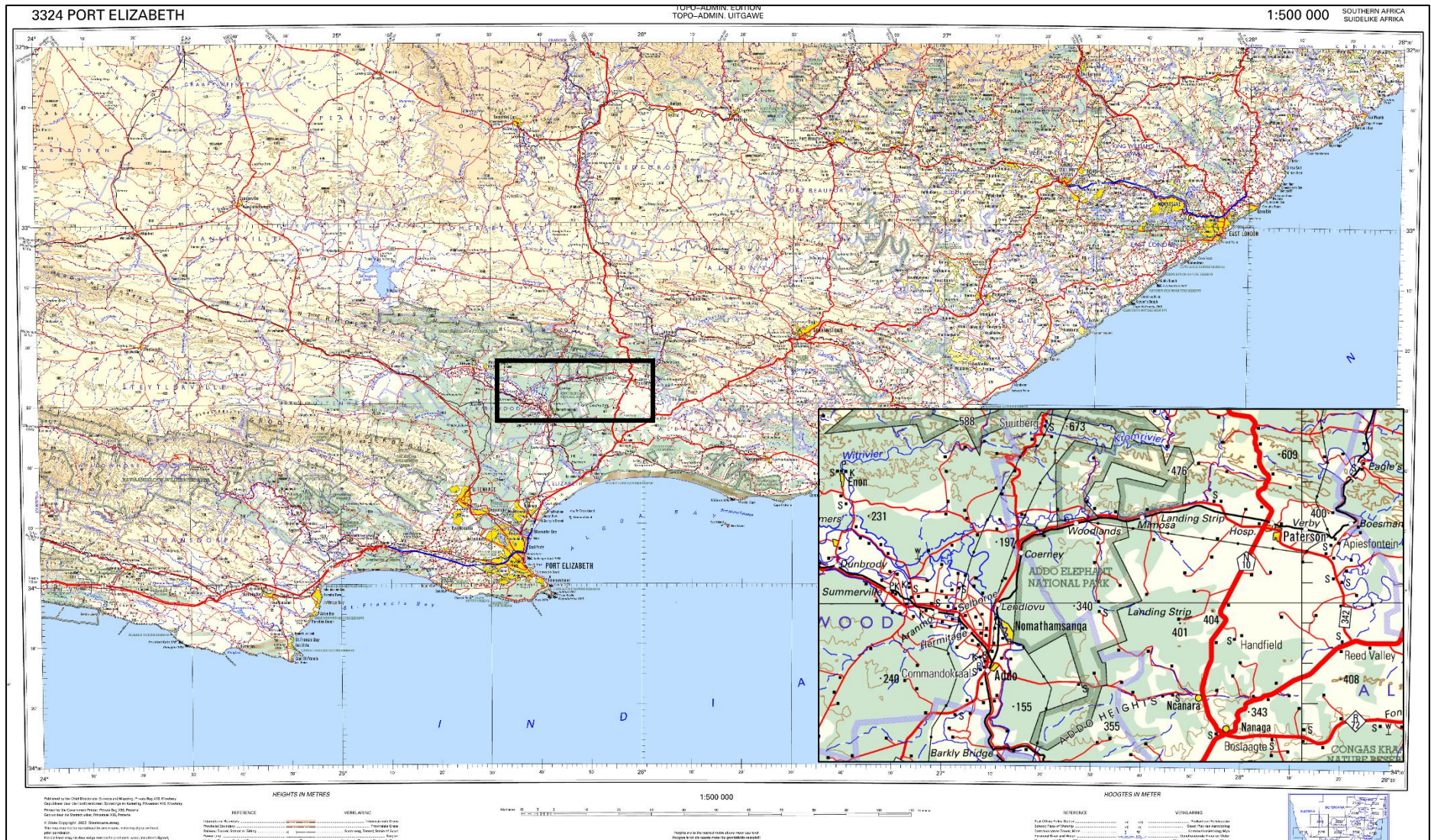
##### **4.1. Location data**

The project starts approximately 0.4 km south of the village of Addo and ends at the intersection with the N10 National Road near Paterson and is therefore 36 km in length. Three borrow pits are located close to the town of Addo and three close to Paterson.

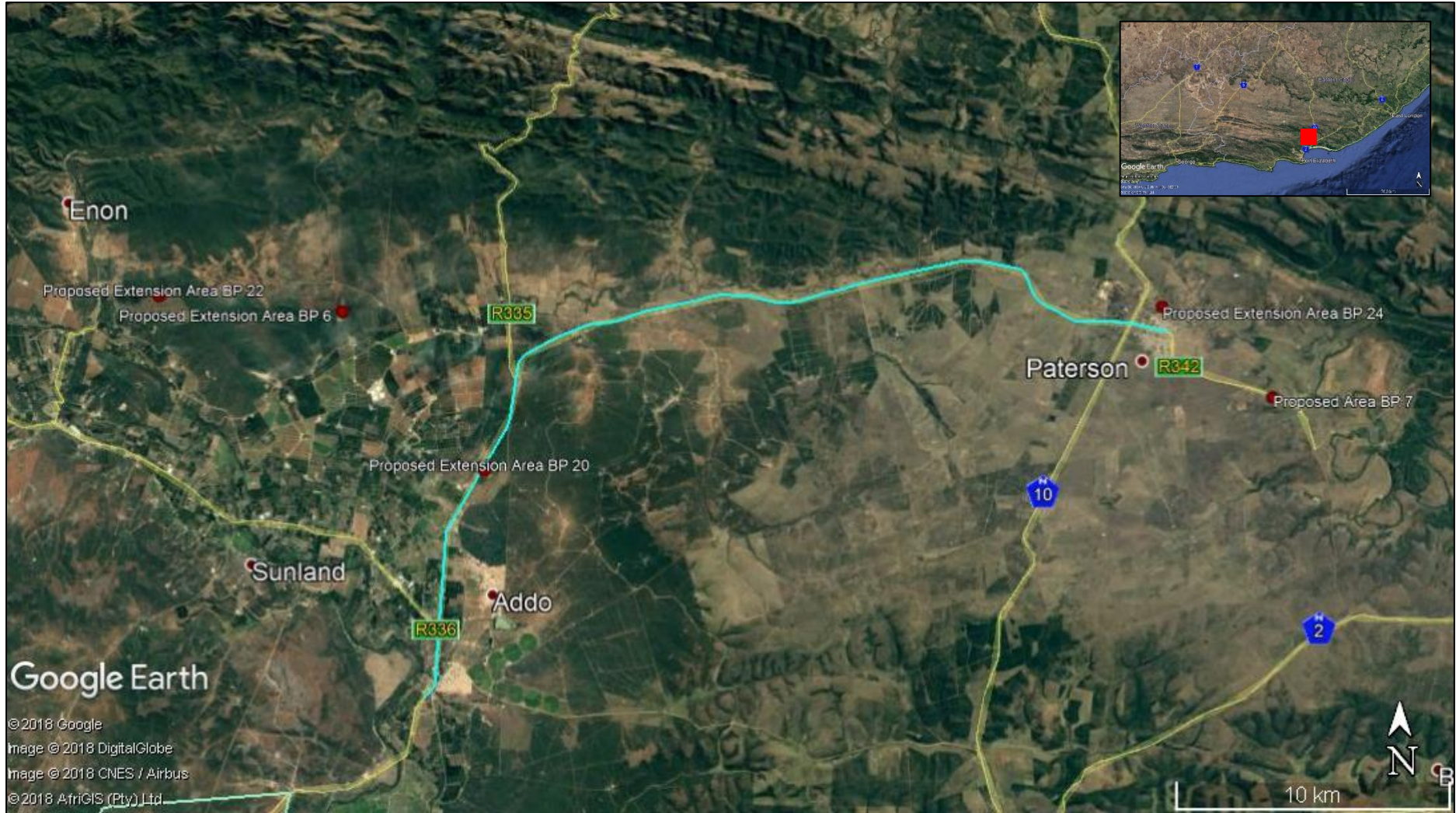
##### **4.2. Maps**

1:250 000 topographic map: 3326 PORT ELIZABETH

1:50 000 topographic maps (not included in report): 3325BC COERNEY (1990 Edition); 3325BD PATERSON (1986 Edition); 3325DA ADDO (1986 Edition); 3326AC ALICEDALE (1998 Edition)



**Figure 1. 1: 500 000 topographic map PORT ELIZABETH showing the area proposed for the National Roads R335 and R342 road upgrade and maintenance and associated borrow pits.**



**Figure 2. Aerial view showing the area proposed for the National Roads R335 and R342 road upgrade and maintenance and associated borrow pits.**

## **5. ARCHAEOLOGICAL INVESTIGATION**

### **5.1. Methodology**

A brief overview of archaeological research within the wider region and relevant archaeological, heritage, and cultural impact assessments have been included as an overview to the possible archaeological, historical and other heritage resources that may occur within the proposed mining area.

The survey for the upgrade and maintenance of the R335 and R342 National Roads were limited to the road reserve (Figure 3). The road reserve throughout the route is covered in dense grass, shrub and tree vegetation, therefore limiting visibility. The survey was done by conducting spot checks from the vehicle along the route if any surface exposed areas were available. Some of the culverts had been cleaned and the surface disturbance allowed for investigation. Usually if artefacts are identified within the road reserve area they would occur in an ex situ context being previously disturbed by road construction and maintenance activities.

The surveys conducted for the proposed Borrow Pit areas were conducted on foot. The existing borrow pits were surveyed to identify possible artefactual material that could have been churned up during previous mining activities. Each proposed borrow pit will be discussed below.

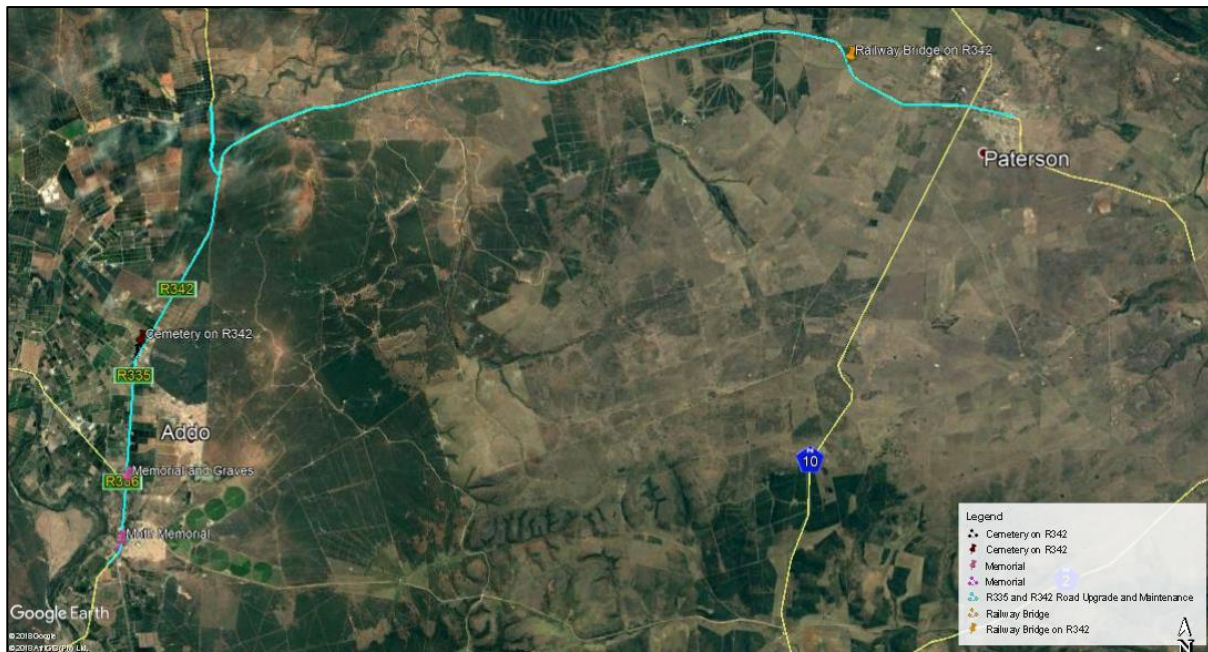
Photographs and the GPS co-ordinates were taken using a Garmin Oregon 650. The relevant GPS coordinates have been plotted on Google Earth generated maps. The author has not been able to include the photographs taken on the survey. The photographs were downloaded onto the laptop and the laptop has since ceased to function and the data is irretrievable. Owing to the deadline of the report it was not possible to return to the area.

### **5.2. Results of the Archaeological Survey**

#### **5.2.1 Upgrade and Maintenance of the National Roads R335 & R342**

The road upgrade (km 0 to km 12) will include the following activities:

- From 0.5 km to km 2.5. the road will be upgraded to have a surfaced width of 13.4 m (SANRAL standard);
- Between km 0 and km 7.8, pedestrian footways will be constructed on the right-hand side of the road (within the road reserve);
- Pedestrian facilities will be developed at km 1 just before Addo town, linking the R335 to Valencia;
- From 2.5 km to 12.4 the road will be upgraded to have a surfaced width of 8.6 m (ECPA standard);



**Figure 3. View of the National Roads R335 and R342 proposed for upgrade and maintenance showing the location of protected heritage resources and the railway bridge documented along the route.**

- Between km 0.5 and km 12 pedestrian footways will be constructed on the left-hand side of the road (within road reserve);
- Upgrading part of the existing gravel road entrance to Langbos at km 12;
- Improvements to the geometry of the road;
- Maintenance of existing culverts; and
- Drainage improvements.

The portion proposed for road upgrade, km 0.5 – km 12, from the south of Addo Town runs through Addo Town to the Langbos turn-off, is heavily disturbed by previous construction activities (Figures 4 - 12). These activities include the construction and continued maintenance of the existing road, entrances to properties, the development of Addo Town and associated infrastructure, as well as the railway line that cuts across the road.

The pedestrian walkway and road to Nomathamsanqa Township has recently been upgraded (Figure 11). The current pedestrian walkway to Valencia Township is a path through the thicket vegetation (Figure 7).

The portion of the Langbos Road proposed for upgrade is currently a gravel road that leads to the farming areas (Figure 12). The road reserve is covered in dense vegetation cover that made archaeological visibility difficult.

No archaeological heritage remains were identified along the route, however, several other protected heritage resources were identified along the route. These are highlighted below.

The Moth Remembrance Memorial (Figures 18-20) and the Struggle related Memorial and graves (Figures 21-25) are situated on the left side of the road within the 0.5 km and 2.5 km area that will be upgraded to have a surfaced width of 13.4 m.

The Moth Remembrance Memorial is situated just south of Addo Town. The memorial was established in memory of those who fought in the First (1914-18) and Second (1939-1945) World Wars.

A Memorial and two newly established graves is situated at the corner of the R335 and R336. These memorials are currently situated outside the road reserve and at a relatively 'safe' distance from the proposed upgrade activities and should not be negatively impacted.

Public monuments and memorials are protected under Section 37 of the National Heritage Resources Act 25 of 1999 (NHRA 25 of 1999) and should therefore be clearly demarcated before construction commences.

A cemetery is situated immediately adjacent to the R342 between Addo Town and the turn-off to the Addo Elephant National Park near Langbos Township on the left side of the road within the area from 2.5 km to 12.4 km that will be upgraded to have a surface width of 8.6 m (Figures 26-30). The cemetery includes various graves from that are indicated by a rock acting as a headstone, some burials can only be identified as a 'heap' and contains no burial stone or other identifier. There are also stone-packed graves and more formalised graves situated within the area.

The cemetery is not clearly fenced, although remnants of previous fencing is visible. There is a possibility that if not mitigated effectively damage could be caused to the burials and graves situated near to the road. A fence should be erected to clearly demarcate the extent of the cemetery before development continues. It is suggested that no construction activities occur on the left side of the road for the extent of the cemetery and that the widening of the road is conducted on the right-hand-side of the road.

The section of the road between km 12 and km 37 that was previously upgraded and is now scheduled for maintenance only includes the following activities.

- The section will be maintained at an 8.6 m surfaced width;
- Rehabilitation and revegetation of highly eroded cut slopes at cutting km 15;
- Clearing of vegetation in the road reserve;
- Maintenance of the existing major culverts and road-over-rail bridge; and
- Drainage management

Similarly, this portion of the road km 12 – km 37 proposed for road maintenance is heavily disturbed by past construction activities (Figures 13-15). No archaeological or other heritage resources were identified within the road reserve area proposed for the upgrade.

These activities include the construction and continued maintenance of the existing road and associated infrastructure such as drainage and culverts and entrances to properties. The road reserve is covered in dense vegetation that made archaeological visibility difficult.

No archaeological heritage remains were identified along the route, however, several other protected heritage resources were identified along the route. However, historical buildings are located near the town of Paterson (Figures 16-17). It is unlikely that these buildings will be negatively affected by the road maintenance activities.



**Figure 4. View of the road reserve proposed for upgrade (km 0.5– km 12) facing north towards Addo Town.**



**Figure 5. View of the Moth Remembrance Memorial from the road reserve (km 0.5 – km 12).**



**Figure 6. View of Addo Town facing north (km 0.5 – km 12).**





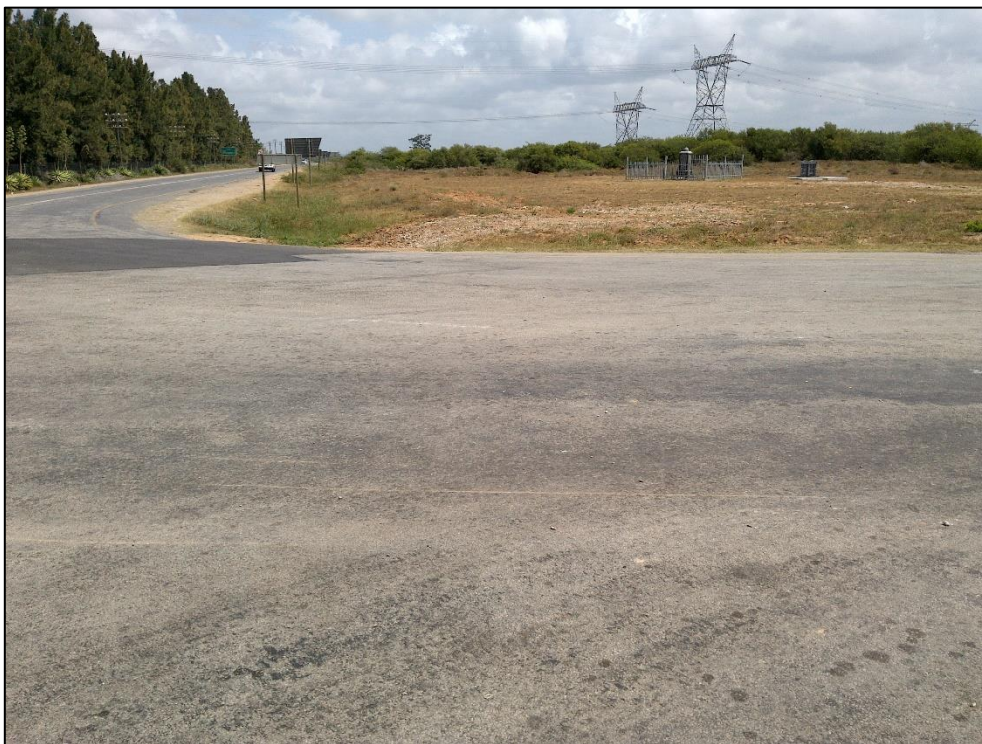
**Figure 7. View of the area proposed for upgrade of the pedestrian walkways into Valencia Township (km 0.5 – km 12).**



**Figure 8. View of the road reserve proposed for upgrade (km 0.5 – km 12) facing south towards Addo Town.**



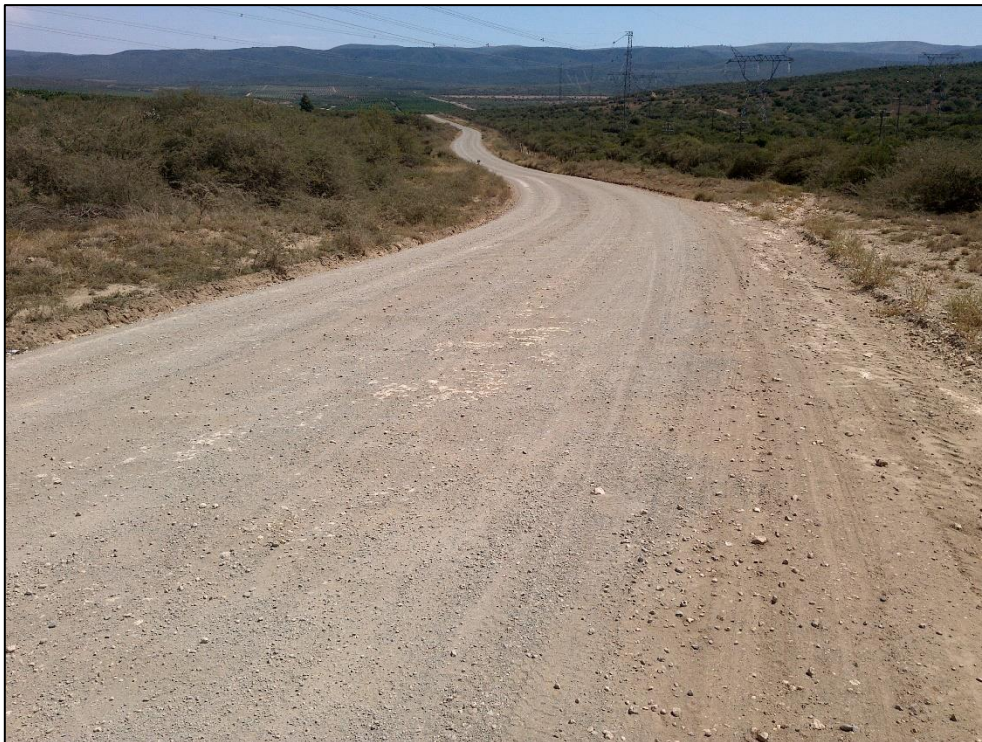
**Figure 9. View of the road reserve proposed for upgrade (km 0.5 – km 12) facing south towards Addo Town showing the rail line crossing.**



**Figure 10. View of the Struggle Memorial and associated graves in proximity to the road and road reserve (km 0.5 - km 12).**



**Figure 11. View of the road reserve proposed for upgrade (km 0.5 – km 12) facing south towards Addo Town showing the recent construction of a pedestrian walkway / pavement into the Main Street leading to Nomathamsanqa Township.**



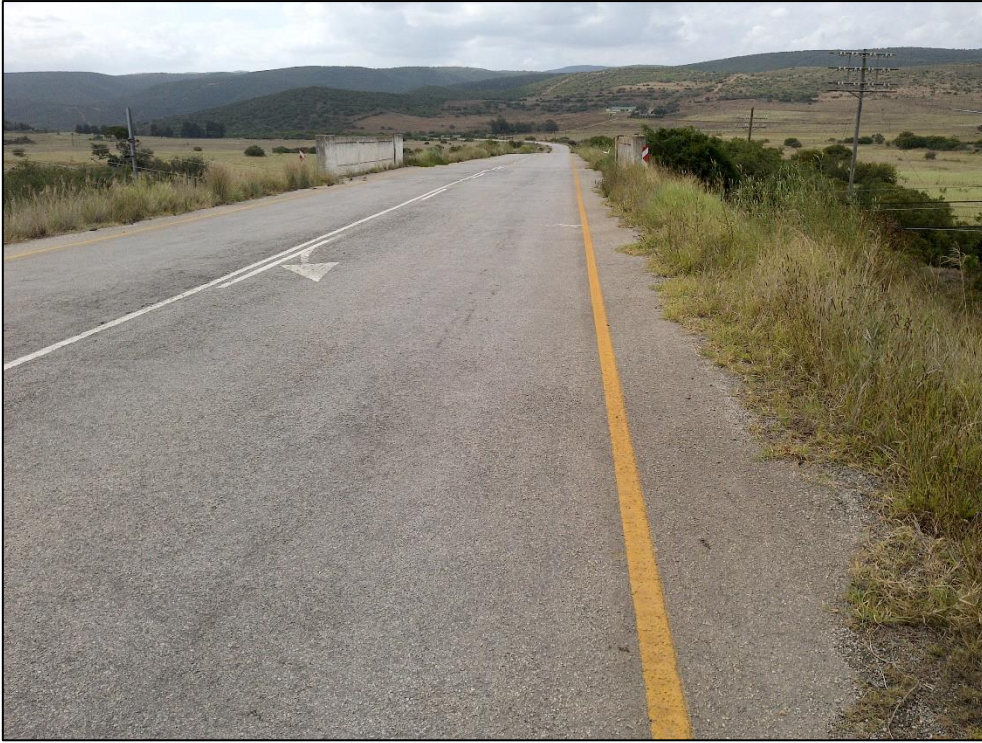
**Figure 12. View of the portion of the Langbos Road proposed for upgrade (km 0.5 - km 12).**



**Figure 13. View of the dense vegetation cover and culvert situated within the road reserve area proposed for maintenance (km 12–km 37) facing north.**



**Figure 14. View of the dense vegetation cover within the road reserve area proposed for maintenance (km 12–km 37) facing north.**



**Figure 15. View of the bridge over the railway line situated within the area proposed for road maintenance (km 12 – km 37) facing south.**



**Figure 16. View of the historical buildings situated near Paterson (km 12 – km 37).**



**Figure 17. View of the historical buildings situated near Paterson (km 12 – km 37).**



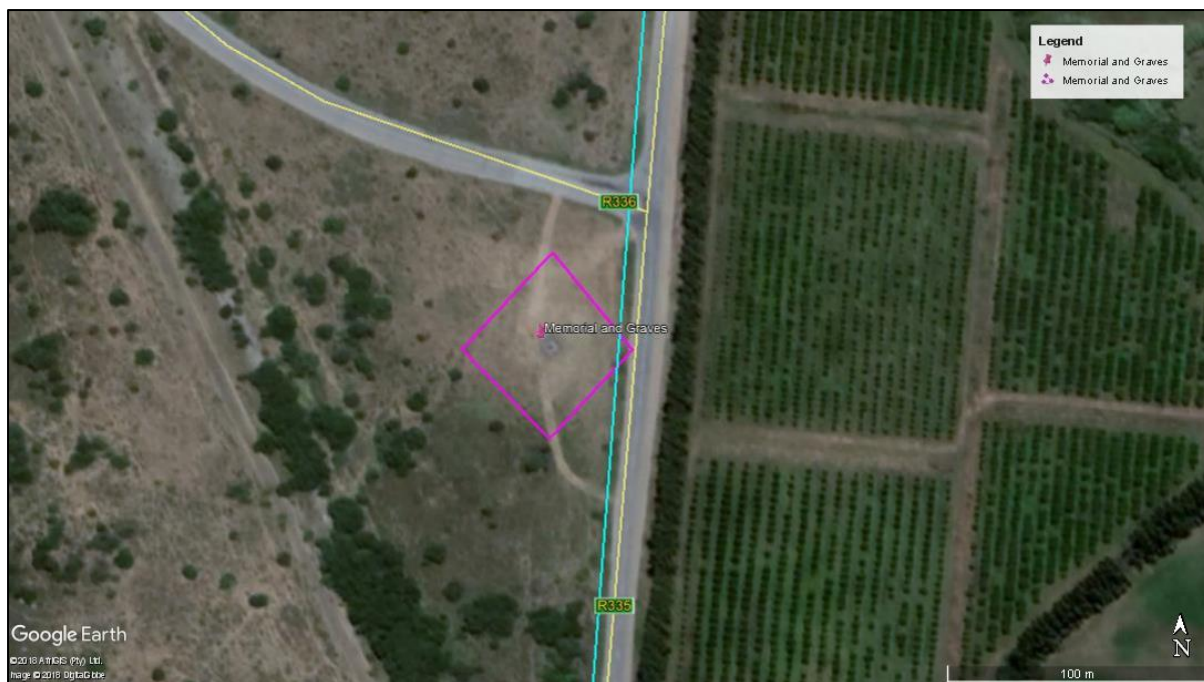
**Figure 18. Location of the Moth Remembrance Memorial south of Addo town showing the 20 m boundary where no construction activities should occur.**



**Figure 19. View of the Moth Remembrance Memorial south of Addo town.**



**Figure 20. Close up view of the Moth Memorial Plaque remembering those who fought in the First and Second World Wars.**



**Figure 21. Location of the Struggle associated Memorial and two graves at the corner of the R335 and R336 north of Addo Town showing the 20 m boundary where no construction activities should occur.**



**Figure 22. View of the Memorial and two more recently established graves associated with those who gave their lives during the Struggle.**

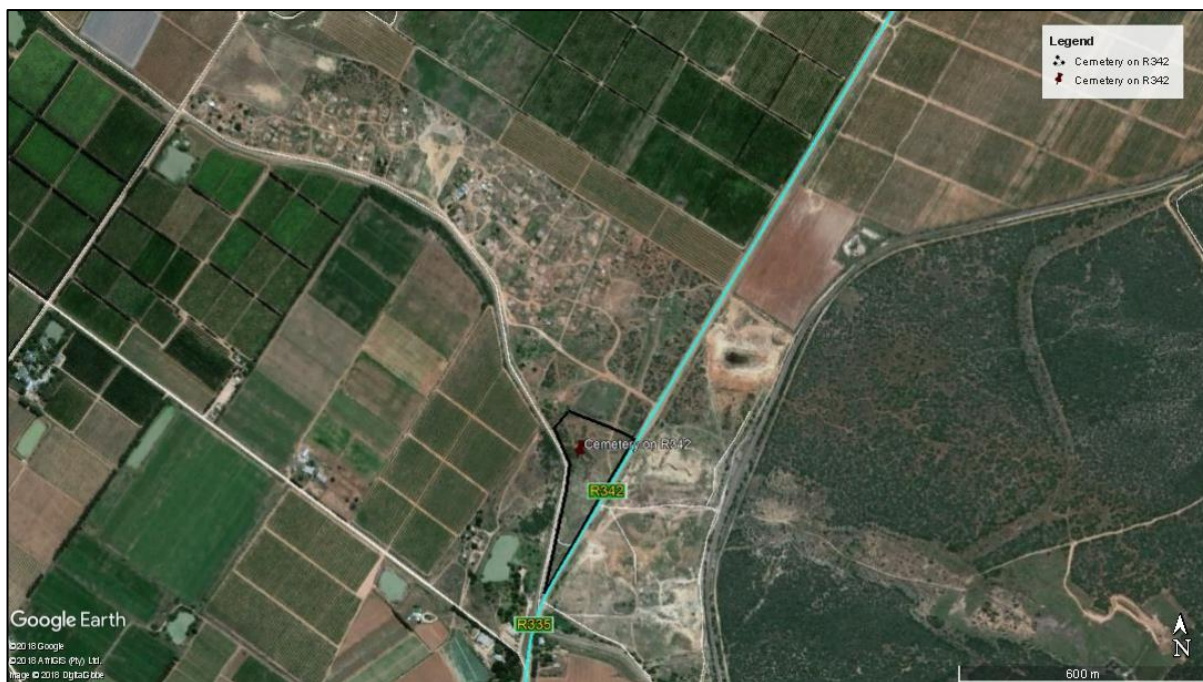




Figure 23. Close up view of the grave stone.



Figures 24-25. Close up view of the inscriptions and names of those who gave their lives during the Struggle.



**Figure 26. Location of the Cemetery situated next to the R342 situated near the Langbos Township between Addo Town and the Addo Elephant National Park turn-off.**



**Figure 27. View of the graves in proximity to the road and road reserve.**



**Figure 28. View facing towards the road showing the more formerly established graves, a headstone and the almost invisible heaps representing graves.**



**Figure 29. View of the more formerly established graves.**



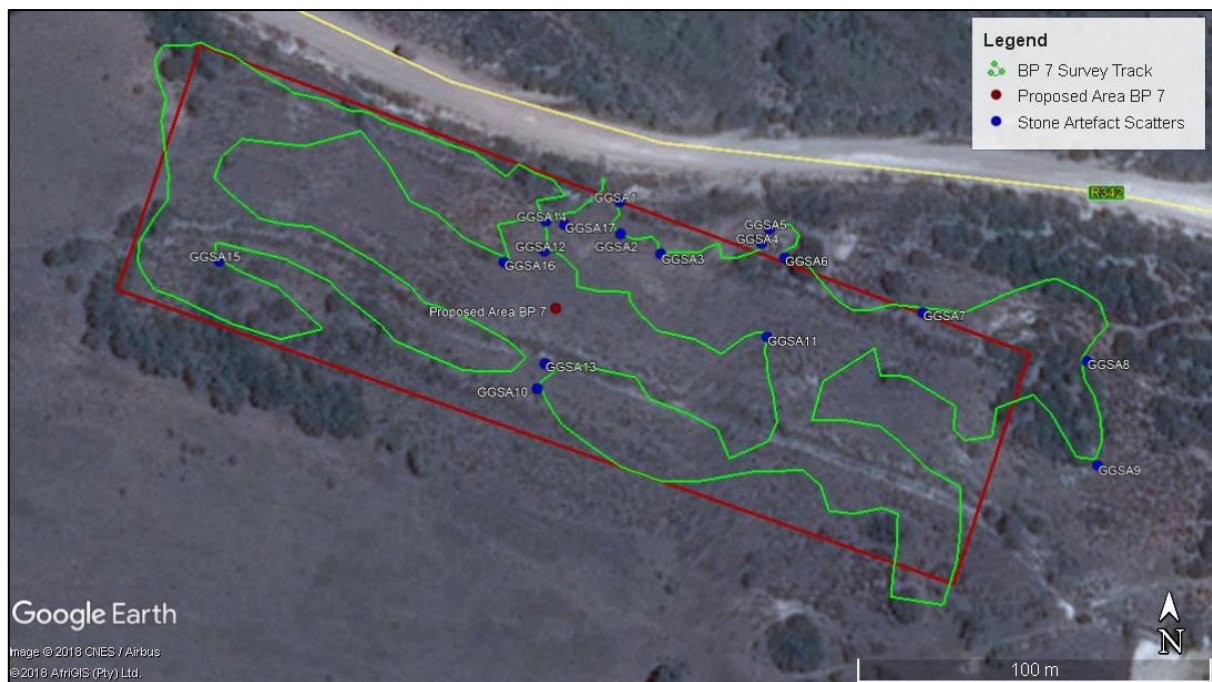
Figure 30. View of the stone packed graves.

## 5.2.2. Borrow Pits

### 5.2.2.1. Borrow Pit 7 (BP7)



Figure 31. Aerial view showing the boundary of Borrow Pit 7 (BP7).



**Figure 32. Aerial view of the boundary of Borrow Pit 7 (BP7) showing the survey tracks and stone artefact scatters documented within the area.**

Borrow Pit 7 (BP 7) (Figure 31) is located on the southern side of the R342 on Farm Goedgemoed situated between the town of Paterson to the west and Shamwari Private Game Reserve to the east (Figures 33-35). The area is mostly rural and is dominated by agricultural, dairy and private game reserve activities. Several stone artefact scatters were identified within the proposed borrow pit (Figures 36-41). These occurred mostly from the centre to the north of the area. Isolated scatters were indented along the southern boundary area. The artefacts included some Later Stone Age and Middle Stone Age artefacts manufactured on a quartzite raw material. The artefacts were made up mostly of flakes, chunks and cores, no formal tools were observed.

It is unlikely that the stone artefact surface scatters that occur on the exposed surface areas are positioned *in situ*; however, stone artefacts may occur between 50 – 80 cm below the surface. The area is considered as having a low archaeological significance, although the recommendations must be noted for mitigation in the case where concentrations of stone artefacts and associated material and human remains may be uncovered during the mining activities.



**Figure 33. View of the general landscape for the proposed Borrow Pit 7 (BP7) facing south-east.**



**Figure 34. View of the general landscape for the proposed Borrow Pit 7 (BP7) facing north-east.**



**Figure 35. View of the exposed surface areas along the northern boundary where a large portion of stone artefacts were observed.**



**Figures 36-41. Examples of stone artefacts identified within the proposed Borrow Pit (BP7) area.**



### 5.2.2.2. Borrow Pit 24 (BP 24)



**Figure 42. Aerial view of the boundary of Borrow Pit 24 (BP24) and the existing borrow pit situated to the south of BP24 showing the survey tracks.**

Borrow Pit 24 (BP 24) (Figure 42) is located north on the Farm De Bruyn's Kraal 113 (Dufisani Land Trust Property) just north of the town of Paterson. The area is largely made up of vegetated and semi-vegetated Holocene river sand dunes and pine trees (Figures 43-46).

A previous phase 1 archaeological impact assessment conducted by the author and colleagues (Binneman *et al.* 2010) to the north and includes the area proposed for Borrow Pit 24, identified three ephemeral Middle Stone Age (MSA) and Later Stone Age (LSA) stone artefact surface scatters were observed, one on Elva Heights Farm 102, east of the N10 National Route, and two on the Difusi Land Trust Property (current property). No other associated archaeological materials were observed with the stone artefact scatters and were not considered to be in primary context. The stone artefact occurrences occurred to the east and west of the current proposed site with no archaeological resources being recorded within the proposed Borrow Pit 24 (BP 24) area.

No archaeological heritage remains, features, or sites were observed within the proposed borrow pit area, however, stone artefacts may occur between 50 – 80 cm below the surface. The area is considered as having a low archaeological significance, although the recommendations must be noted for mitigation in the case where concentrations of stone artefacts and associated material and human remains may be uncovered during the mining activities.



**Figure 43. View of the existing borrow situated to the south of BP24.**



**Figure 44. View of the general landscape for the proposed Borrow Pit 24 (BP24) facing north.**

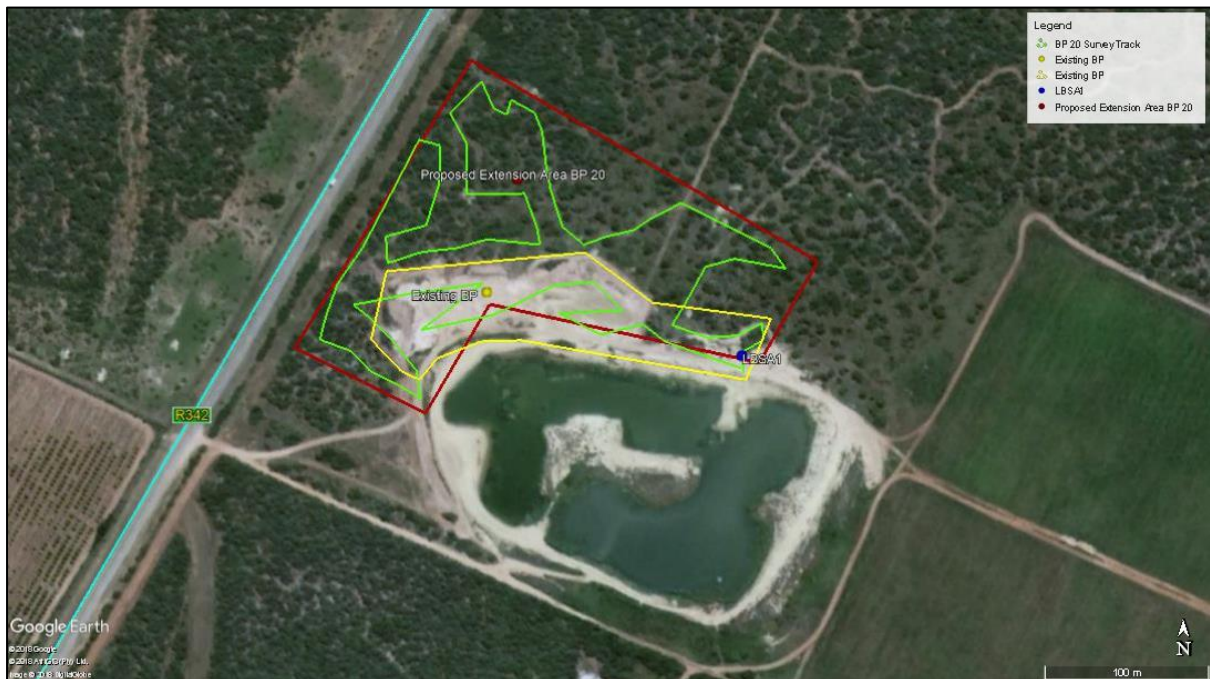


**Figure 45. View of the general landscape for the proposed Borrow Pit 24 (BP24) facing south.**



**Figure 46. Exposed surface areas allowed for the investigation of archaeological remains.**

### 5.2.2.3. Borrow Pit 20 (BP 20)



**Figure 47. Aerial view of the boundary of Borrow Pit 20 (BP20) showing the survey tracks and stone artefact scatter documented within the area.**

Borrow Pit 20 (BP 20) (Figure 47) is located on the eastern side of the R335 on the Farm Langbos situated between the Addo Town and the Addo Elephant National Park (AENP). The area is mostly rural and is dominated by citrus and other agricultural activities and the National Park. One Middle Stone Age stone artefact (flake) manufactured on a quartzite raw material was identified on the edge of the existing borrow pit (Figure 51).

The proposed area was densely vegetated that limited archaeological visibility (Figures 48-50). Some test pits had been dug to assess the quality of the material to mined, these areas were investigated for possible exposure of archaeological resources, however, none were observed.

No archaeological heritage remains, features, or sites were observed within the proposed borrow pit area, however, stone artefacts may occur between 50 – 80 cm below the surface. The area is considered as having a low archaeological significance, although the recommendations must be noted for mitigation in the case where concentrations of stone artefacts and associated material and human remains may be uncovered during the mining activities.



**Figure 48. View of the existing borrow pit situated on the southern boundary of the proposed Borrow Pit 20 (BP20).**



**Figure 49. View of the general landscape of the proposed Borrow Pit 20 (BP20) facing north.**



**Figure 50. Example of a surface exposed area that allowed for archaeological investigation.**



**Figure 51. Example of the stone artefact identified on the boundary of the existing borrow pit area.**

#### 5.2.2.4. Borrow Pit 22 (BP 22)



**Figure 52. Aerial view of the boundary of Borrow Pit 22 (BP22) showing the existing borrow pit area, survey tracks and stone artefact scatters documented within the area.**

Borrow Pit 22 (BP 22) (Figure 52) is located on the Farm Tregaron 2, 3 km south east of the village of Enon at the foot of the Suurberg Mountains. The area is mostly rural and is dominated by citrus and other agricultural activities. Two Middle Stone Age stone artefacts (flakes) manufactured on a quartzite raw material was identified in the north-western boundary corner of the proposed borrow pit. Stone artefacts were more easily observed along the gravel access road to the proposed borrow pit area (Figures 58-59).

The proposed area was densely vegetated that limited archaeological visibility (Figures 53-57). The area has in the past been cultivated for orchards as is evident by the vegetation clearing and disturbance.

The author recently conducted an assessment for bush clearing on the Farm Lupus Den situated about 1km south of the current area (Booth 2017) where stone artefacts were identified over the entire extent of the area. This may be due to the area no have been disturbed in the past.

The area is considered as having a low archaeological significance, although the recommendations must be noted for mitigation in the case where concentrations of stone artefacts and associated material and human remains may be uncovered during the mining activities.



**Figure 53. View of the existing borrow pit situated on the western boundary of the proposed Borrow Pit 22 (BP22).**



**Figure 54. View of the general landscape showing the dense vegetation cover and surface disturbances as the result of agricultural activities facing upslope in a southerly direction.**





**Figure 55. View of the general landscape showing the dense vegetation cover and surface exposed areas facing upslope in a southerly direction.**



**Figure 56. View of the general landscape and dense vegetation cover facing north.**

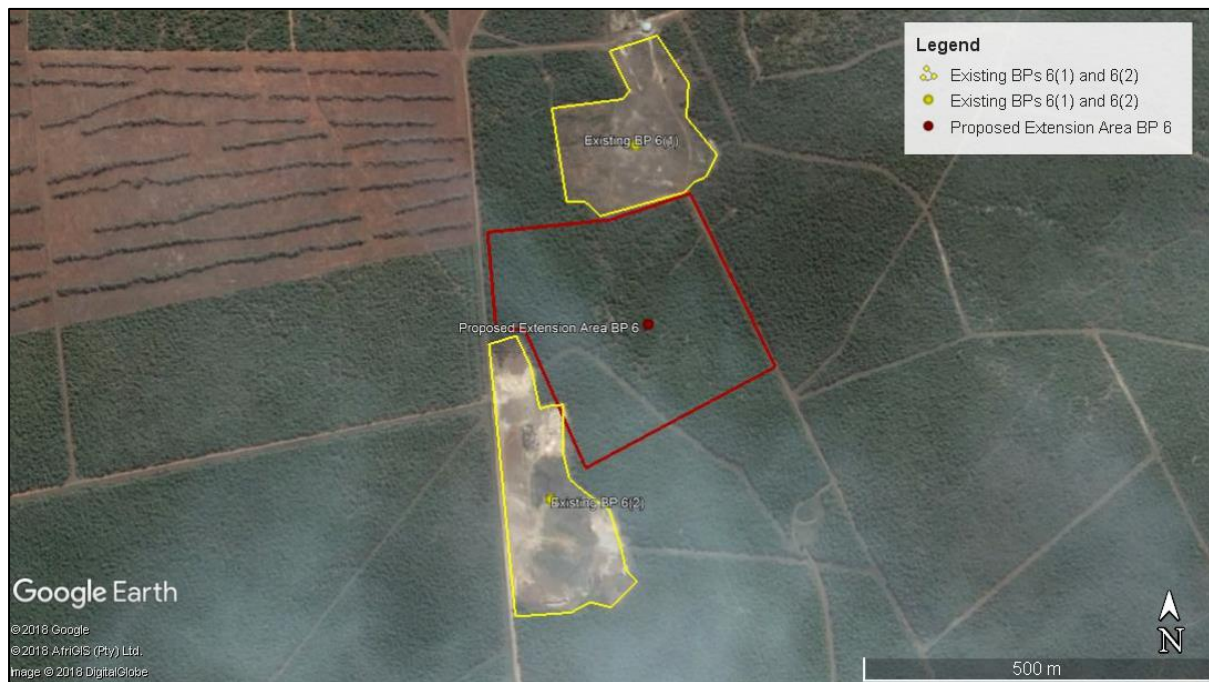


**Figure 57. View of the surface exposed internal gravel road that allowed for archaeological investigation.**



**Figures 58-59. Examples of stone artefacts identified within the proposed Borrow Pit 22 (BP22) area.**

### 5.2.2.5. Borrow Pit 6 (BP6)



**Figure 60. Aerial view showing the boundary of Borrow Pit 6 (BP6) and existing borrow pits to the north and south of the proposed area.**

Borrow Pit 6 (BP 6) (Figure 60) is located on the Farm Swanepoelshoek 104, situated about 6 km from BP 22 and 10.5 km south-east of the village of Enon at the foot of the Suurberg Mountains. The area is rural and is dominated by citrus and other agricultural activities. The proposed area is surrounded by existing mining activities immediately to the north and south (Figures 61-62). The area is covered in dense Sundays Valley Thicket vegetation, however, the internal gravel roads and some bush clearing allowed for archaeological investigation (Figures 63-64).

No archaeological heritage remains, features, or sites were observed within the proposed borrow pit area, however, stone artefacts may occur between 50 – 80 cm below the surface. However, taking into consideration the archaeological findings in Booth (2017), as mentioned in the previous section, it is possible that archaeological remains will be uncovered during the bush clearing and excavation.

The area is considered as having a low archaeological significance, although the recommendations must be noted for mitigation in the case where concentrations of stone artefacts and associated material and human remains may be uncovered during the mining activities.



**Figure 61. View of the existing borrow pit / mining activity (Existing BP6 [1], Fig 60) situated north of the proposed Borrow Pit 6 (BP6) area.**



**Figure 62. View of the existing borrow pit / mining activity (Existing BP6 [2], Fig 60) situated south of the proposed Borrow Pit 6 (BP6) area.**



**Figure 63. View of the general landscape showing the densely vegetated Sundays River Valley Thicket cover facing east**



**Figure 64. View of the general landscape showing the densely vegetated Sundays River Valley Thicket and areas of bush clearing that allowed for archaeological investigation.**

**6. COORDINATES AND SITES FOR THE PROPOSED UPGRADE AND MAINTENANCE OF NATIONAL ROADS R335 & R342 BETWEEN ADDO AND PATERSON, SARAH BAARTMAN DISTRICT MUNICIPALITY, EASTERN CAPE PROVINCE.**

**Table 1: Coordinates and Sites for the proposed upgrade and maintenance of National Roads R335 & R342 between Addo and Paterson, Sarah Baartman District Municipality, Eastern Cape Province.**

Reference	Description	Co-ordinates	Heritage Grading
Moth Memorial	Monument	33°33'21.65"S; 25°41'16.99"E	Protected under Section 37 (NHRA)
Memorial and Graves	Monument and two recent graves	33°32'20.37"S; 25°41'24.17"E	Protected under Section 37 (NHRA)
Cemetery on R342	Unfenced cemetery situated next to the R342	33°30'07.54"S; 25°41'40.78"E	<i>High Significance</i> Protected under Section 36 (NHRA)
<b>BP7: Farm Goedgemoed</b>			
Proposed Area BP 7	Area proposed for the establishment of the borrow pit.	33°27'42.23"S; 26°01'05.00"E	N/A
GGSA1	Stone artefact scatter	33°27'41.27"S; 26°01'05.68"E	'General' Protection C (Field Rating IV C) <i>Low Significance</i>
GGSA2	Stone artefact scatter	33°27'41.56"S; 26°01'05.69"E	'General' Protection C (Field Rating IV C) <i>Low Significance</i>
GGSA3	Stone artefact scatter	33°27'41.74"S; 26°01'06.12"E	'General' Protection C (Field Rating IV C) <i>Low Significance</i>
GGSA4	Stone artefact scatter	33°27'41.73"S; 26°01'06.13"E	'General' Protection C (Field Rating IV C) <i>Low Significance</i>
GGSA5	Stone artefact scatter	33°27'41.64"S; 26°01'07.21"E	'General' Protection C (Field Rating IV C) <i>Low Significance</i>
GGSA6	Stone artefact scatter	33°27'41.77"S; 26°01'07.46"E	'General' Protection C (Field Rating IV C) <i>Low Significance</i>
GGSA7	Stone artefact scatter	33°27'42.26"S; 26°01'08.96"E	'General' Protection C (Field Rating IV C) <i>Low Significance</i>
GGSA8	Stone artefact scatter	33°27'42.70"S; 26°01'10.78"E	'General' Protection C (Field Rating IV C) <i>Low Significance</i>
GGSA9	Stone artefact scatter	33°27'43.64"S; 26°01'10.86"E	'General' Protection C (Field Rating IV C) <i>Low Significance</i>
GGSA10	Stone artefact scatter	33°27'42.94"S; 26°01'04.81"E	'General' Protection C (Field Rating IV C) <i>Low Significance</i>
GGSA11	Stone artefact scatter	33°27'42.48"S; 26°01'07.26"E	'General' Protection C (Field Rating IV C) <i>Low Significance</i>
GGSA12	Stone artefact scatter	33°27'41.72"S; 26°01'04.88"E	'General' Protection C (Field Rating IV C) <i>Low Significance</i>
GGSA13	Stone artefact scatter	33°27'41.72"S; 26°01'04.89"E	'General' Protection C (Field Rating IV C) <i>Low Significance</i>
GGSA14	Stone artefact scatter	33°27'41.45"S; 26°01'04.89"E	'General' Protection C (Field Rating IV C) <i>Low Significance</i>

GGSA15	Stone artefact scatter	33°27'41.82"S; 26°01'01.46"E	'General' Protection C (Field Rating IV C) <i>Low Significance</i>
GGSA16	Stone artefact scatter	33°27'41.82"S; 26°01'04.45"E	'General' Protection C (Field Rating IV C) <i>Low Significance</i>
GGSA17	Stone artefact scatter	33°27'41.48"S; 26°01'05.09"E	'General' Protection C (Field Rating IV C) <i>Low Significance</i>
<b>BP 24: Farm De Bruyn's Kraal 113 (Difusi Land Trust)</b>			
Existing BP	Existing borrow pit	33°26'03.49"S; 26°58'26.52"E	N/A
Proposed Extension Area BP 24	Area proposed for the establishment of the borrow pit.	33°25'56.11"S; 25°58'28.63"E	N/A
<b>BP 20: Farm Langbos</b>			
Existing BP	Existing borrow pit	33°29'11.21"S; 25°42'30.89"E	N/A
Proposed Extension Area BP 20	Area proposed for the establishment of the borrow pit.	33°29'09.01"S; 25°42'30.89"E	N/A
LBSA1	Stone artefact scatter	33°29'12.45"S; 25°42'30.89"E	'General' Protection C (Field Rating IV C) <i>Low Significance</i>
<b>BP 22: Farm Tregaron 2</b>			
Existing BP	Existing borrow pit	33°25'44.38"S; 25°34'45.27"E	N/A
Proposed Extension Area BP 22	Area proposed for the establishment of the borrow pit.	33°25'42.53"S; 25°34'51.71"E	N/A
TGSA1	Stone artefact scatter	33°25'43.00"S; 25°34'45.16"E	'General' Protection C (Field Rating IV C) <i>Low Significance</i>
TGSA2	Stone artefact scatter	33°25'40.21"S; 25°34'46.29"E	'General' Protection C (Field Rating IV C) <i>Low Significance</i>
TGSA3	Stone artefact scatter	33°25'45.64"S; 25°34'41.03"E	'General' Protection C (Field Rating IV C) <i>Low Significance</i>
<b>BP 6: Farm Swanepoelshoek 104</b>			
Existing BP 6(1)	Existing borrow pit	33°25'53.44"S; 25°39'10.26"E	N/A
Existing BP 6(2)	Existing borrow pit	33°26'09.29"S; 25°39'05.67"E	N/A
Proposed Extension Area BP 6	Area proposed for the establishment of the borrow pit.	33°26'01.42"S; 25°39'10.94"E	N/A

## **7. DESCRIPTION OF SITES**

### **7.1. R335 and R342 Road Upgrade and Maintenance**

#### **7.1.1. Moth Memorial**

The Moth Remembrance Memorial and the Struggle related Memorial and graves are situated on the left side of the road within the 0.5 km and 2.5 km area that will be upgraded to have a surfaced width of 13.4 m. The Moth Remembrance Memorial is situated just south of Addo Town.

Protected under Section 37 of the National Heritage Resources Act 25 of 1999 (NHRA 25 of 1999)

The proposed road upgrade activities should not have any negative effect on the memorial. A boundary of 20 m around the memorial should be established where no construction activities may occur.

#### **7.1.2. Memorial and Graves**

A Memorial and two newly established graves is situated at the corner of the R335 and R336. These memorials are currently situated outside the road reserve and at a relatively 'safe' distance from the proposed upgrade activities and should not be negatively impacted.

Protected under Section 37 of the National Heritage Resources Act 25 of 1999 (NHRA 25 of 1999)

The proposed road upgrade activities should not have any negative effect on the memorial. A boundary of 20 m around the memorial should be established where no construction activities may occur.

#### **7.1.3. Cemetery**

A cemetery is situated immediately adjacent to the R342 between Addo Town and the turn-off to the Addo Elephant National Park near Langbos Township on the left side of the road within the area from 2.5 km to 12.4 km that will be upgraded to have a surface width of 8.6 m. The cemetery includes various graves from that are indicated by a rock acting as a headstone, some burials can only be identified as a 'heap' and contains no burial stone or other identifier. There are also stone-packed graves and more formalised graves situated within the area.

Protected under Section 36 of the National Heritage Resources Act 25 of 1999 (NHRA 25 of 1999)



The burials and graves are visible from the boundary of the road reserve. It is possible if not mitigated adequately that some of the burials and graves may be negatively affected. It is recommended that construction activities for the road upgrade extent to the right-hand-side of the road and that a fence be established to demarcate the cemetery area.

## **7.2. Borrow Pits**

### **7.2.1. Stone Artefacts Scatters and Occurrences**

#### **7.2.1.1. Borrow Pit 7 (BP 7)**

Several stone artefact scatters were identified within the proposed borrow pit. These occurred mostly from the centre to the north of the area. Isolated scatters were identified along the southern boundary area. The artefacts included some Later Stone Age and Middle Stone Age artefacts manufactured on a quartzite raw material. The artefacts were made up mostly of flakes, chunks and cores, no formal tools were observed.

#### **7.2.1.2. Borrow Pit 20 (BP 20)**

One Middle Stone Age stone artefact (flake) manufactured on a quartzite raw material was identified on the edge of the existing borrow pit.

#### **7.2.1.3. Borrow Pit 22 (BP 22)**

Two Middle Stone Age stone artefacts (flakes) manufactured on a quartzite raw material was identified in the north-western boundary corner of the proposed borrow pit. Stone artefacts were more easily observed along the gravel access road to the proposed borrow pit area.

The archaeological remains are considered as having a *low cultural significance* and have been allocated a heritage grading of:

*'General' Protection C (Field Rating IV A)*: These sites have been sufficiently recorded (in the Phase 1). It requires no further recording before destruction (usually Low significance).

However, in accordance with Section 35 of the National Heritage Resources Act 25 of 1999 (NHRA 25 of 1999), no archaeological heritage materials may be disturbed, removed or destroyed with a permit from relevant heritage authority, a destruction permit must be applied for to the Eastern Cape Provincial Heritage Resources Authority for the destruction of the stone artefacts recorded during the study.

(See Table 1. for short descriptions and co-ordinates)

## **8. CULTURAL LANDSCAPE**

Cultural landscapes are increasingly becoming a significant considering factor when conducting various archaeological and heritage impact assessments for proposed developments. This section gives a brief introduction to the concept of cultural landscape and its relation to various aspects of the dynamic interaction of humans as cultural agents and the landscape as a medium. A description of the interwoven relationships of humans with the landscape over time will be given including the archaeological, historical, and contemporary connections. Lastly, the living heritage makes up a small part of the study undertaken, its significance will be highlighted in relation to the communities who still identify with the area and retain a sense of identity to the landscape.

### **8.1. Concept of Cultural Landscape**

Cultural landscapes can be interpreted as complex and rich extended historical records conceptualised as organisations of space, time, meaning, and communication moulded through cultural process. The connections between landscape and identity and, hence, memory are fundamental to the understanding of landscape and human sense of place. Cultural landscapes are the interface of culture and nature, tangible and intangible heritage, and biological and cultural diversity. They represent a closely woven net of relationships, the essence of culture and people's identity. They are symbol of the growing recognition of the fundamental links between local communities and their heritage, human kind, and its natural environment. In contemporary society, particular landscapes can be understood by taking into consideration the way in which they have been settled and modified including overall spatial organisation, settlement patterns, land uses, circulation networks, field layout, fencing, buildings, topography, vegetation, and structures. The dynamics and complex nature of cultural landscapes can be regarded as text, written and read by individuals and groups for very different purposes and with very many interpretations. The messages embedded in the landscape can be read as signs about values, beliefs, and practices from various perspectives. Most cultural landscapes are living landscapes where changes over time result in a montage effect or series of layers, each layer able to tell the human story and relationships between people and the natural processes.

The impact of human action of the landscape occurs over time so that a cultural landscape is the result of a complex history and creates the significance of place in shaping historical identities by examining a community's presence or sense of place. The deeply social nature of relationships to place has always mediated people's understanding of their environment and their movements within it and is a process which continues to inform the construction of people's social identity today. Social and spatial relationships are dialectically interactive and interdependent. Cultural landscape reflects social relations and institutions and they shape subsequent social relations.

Cultural landscapes tell the story of people, events, and places through time, offering a sense of continuity, a sense of the stream of time. Landscapes reflect human activity and are imbued with cultural values. They combine elements of space and time and represent political as well as social and cultural constructs. Culture shapes the landscape through day-to-day routine and these practices become traditions incorporated with a collective memory the ultimate embodiments of memorial consciousness', examples such as monuments, annual events and, archives. As they have evolved over time, and as human activity has changed, they have acquired many layers of meaning that can be analysed through archaeological, historical, geographical, and sociological study.

Indigenous people, European explorers, missionaries, pastoralists, international and domestic travellers all looked or look at similar landscapes and experience different versions of reality. Regardless of the power of different cultural groups, however, all groups create cultural landscape and interpret them from their own perspectives. This gives rise to tensions and contradictions between groups, invariably expressed in landscape forms as well.

The dynamics and complex nature of cultural landscapes can be regarded as text, written and read by individuals and groups for very different purposes and with very many interpretations. The messages embedded in the landscape can be read as signs about values, beliefs, and practices from various perspectives.

Most cultural landscapes are living landscapes where changes over time result in a montage effect or series of layers, each layer able to tell the human story and relationships between people and the natural processes. A common theme underpinning the concept of ideology of landscape itself it the setting for everything we do is that of the landscape as a repository of intangible values and human meaning that nurture our very existence. Intangible elements are the foundation of the existence of cultural landscapes, and that are still occupied by contemporary communities, Landscape, culture and collective memory of a social group are intertwined and that this binds the individuals to their community. Culture shapes their everyday life, the values bind gradually, change slowly, and transfer from generation to generation – culture is a form of memory. We see landscapes as a result of our shared system of beliefs and ideologies. In this way landscape is a cultural construct, a mirror of our memories and myths encoded with meanings which can be read and interpreted. Pivotal to the significance of cultural landscapes and the ideas of the ordinarily sacred is the realisation that it is the places, traditions, and activities of ordinary people that create a rich cultural tapestry of life, particularly through our recognition of the values people attach to their everyday places and concomitant sense of place and identity.

Living heritage means cultural expressions and practices that form a body of knowledge and provide for continuity, dynamism, and meaning of social life to generations of people as individuals, social groups, and communities. It also allows for identity and sense of

belonging for people as well as an accumulation of intellectual capital current and future generation in the context of mutual respect for human, social and cultural rights.

Protection of these cultural landscapes involves some management issues such as successful conservation is based on the continuing vital link between people and their landscapes. This link can be disrupted or affected by for instance economic reasons. Other threats can also be attributed to urban expansion and development, tourism, war and looting and something beyond our human intervention: natural disasters and climate change. Cultural landscape management and conservation processes bring people together in caring for their collective identity and heritage and provide a shared local vision within a global context. Local communities need, therefore, to be involved in every aspect of identification, planning and management of the areas as they are the most effective guardians of landscape heritage.

Most elements of living heritage are under threat of extinction due to neglect, modernisation, urbanisation, globalisation, and environmental degradation. Living heritage is at the centre of people's culture and identity, it is important to provide space for its continued existence. Living heritage must not be seen as merely safeguarding the past, but it must be seen as safeguarding the logic of continuity of what all communities or social groups regard as their valuable heritage, shared or exclusive.

In some instances, villages may capitalise on local landscape assets in order to promote tourism. Travel and tourism activities are built around the quest for experience, and the experience of place and landscape is a core element of that quest. It is a constant desire for new experiences that drives tourism, rather than a quest for authenticity. It is, therefore, important to engage actively with the tourism industry so that aspects of life and landscape important to cultural identity, including connection with place are maintained.

## **8.2. Archaeological Landscape**

The area was once part of an ancient landscape inhabited by various families of the genus *Homo*. Various studies recording archaeological sites and occurrences within the wider region stretching from Jansenville, Kirkwood, and Addo to Patensie and Humansdorp to the coastal areas to the east and south of the proposed development area have reported on the evidence of the presence of *Homo erectus* (Early Stone Age), *Homo sapiens* (Middle Stone Age), and *Homo sapiens* (Later Stone Age). The only remains dating to the Early and Middle Stone Ages are stone artefacts as the organic evidence and sites have not been preserved. The influence of climatic conditions and the rising and falling of the sea levels may also attribute to much archaeological site information being lost.

Pre-colonial human remains are mostly unmarked and invisible on the landscape, however, in some instances, they may be marked by organised piles of stones.

### **8.3. Historical and Contemporary Landscape**

The archaeological interpretation of the cultural landscape relies solely on the presence and surface visibility of artefacts left behind on the landscape by the populations who occupied and migrated through the proposed development area. A more comprehensive historical layer is able to be fitted onto the cultural landscape owing to the availability of written documents and the continuing existence of the traces left behind by European Settlers and the moulding of these traces used to shape the contemporary communities that occupies and regards itself attached to its present cultural landscape.

The contemporary cultural landscape is the product of centuries of human interaction, more so when the European Settlers entered the area. Remnants of these cultural interactions remain on the landscape, such as the built environment, features, artefacts, and marked and unmarked graves / burials with only oral histories and stories handed down from one generation to the next to remain in the collective memory of the community/ies living on the landscape.

## **9. RECOMMENDATIONS**

The overall area is considered as having a *low archaeological heritage significance*. Development may proceed as planned however the following recommendations must be considered during the course of development:

### **R335 and R342 Road Upgrade and Maintenance**

1. A 20 m boundary (as indicated in Figure 4) must be established around the Moth Memorial situated just south of Addo Town within which no construction activities may occur.
2. A 20 m boundary (as indicated in Figure 5) must be established around the Memorial situated just at the corner of the R335 and R336 within which no construction activities may occur.
3. Construction activities for the road upgrade extend to the right-hand-side of the road and a fence be established to demarcate the cemetery area.

### **Borrow Pits 7, 20 and 22.**

1. A destruction permit for the stone artefact scatters and occurrences situated on the Farms Goedgemoed for the proposed Borrow Pit 20 (BP 20), Tregaron for the proposed Borrow Pit 22 (BP 22) and Langbos for the proposed Borrow Pit 20 (BP 20) must be applied for to the Eastern Cape Provincial Heritage Resources Authority (ECPHRA) before development continues.

## General Recommendations

1. If concentrations pre-colonial archaeological heritage material (such as shell middens and associated material) and/or human remains (including graves and burials) are uncovered during construction, all work must cease immediately and be reported to the Albany Museum (046 622 2312) and/or the Eastern Cape Provincial Heritage Resources Agency (ECPHRA) (043 745 0888) 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 archaeological / heritage site will then be conducted to establish the contextual status of the sites and possibly remove the archaeological deposit before development activities continue.
2. A person 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.

## 10. CONCLUSION

The proposed route for the road upgrade and maintenance is considered as having a *low archaeological heritage significance* owing to no archaeological heritage being identified during the survey and the disturbance of the road reserve with the construction of the road and related maintenance over time. However, two memorials occur along the route but which should not be negatively affected during the upgrade activities if the mitigation measures are considered and implemented. The cemetery which is located close to the near Langbos Township is situated very near to the road reserve and is not clearly demarcated on the landscape. If not mitigated adequately the burials and graves are in danger of being negatively affected by the construction activities.

Scatters of stone artefacts were identified within three proposed areas for the borrow pits which will be utilised in association with the road upgrade and maintenance activities. These artefact scatters are considered as low archaeological significance and development may proceed within these areas when the permit from the Eastern Cape Heritage Resources Authority (ECPHRA) has been obtained.

The proposed project would have negative implications on the heritage resources documented within the report. The recommendations must be considered as appropriate mitigation measures to protect and conserve the archaeological heritage remains observed within the proposed development area and further archaeological remains that may occur and are not immediately visible on the surface.

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### **13. GENERAL REMARKS AND CONDITIONS**

**NOTE:** This report is a phase 1 archaeological impact assessment (AIA) only 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 phase 1 archaeological impact assessment (AIA) 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 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.