

**A PHASE 1 ARCHAEOLOGICAL HERITAGE IMPACT ASSESSMENT OF THE  
PROPOSED ESTABLISHMENT OF ECO-RESIDENTIAL UNITS ON PORTION 2  
OF FARM SWAN LAKE NO. 755, ASTON BAY, KOUGA MUNICIPALITY,  
EASTERN CAPE PROVINCE**

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**Note:** This report follows the minimum standard guidelines required by the South African Heritage Resources Agency for compiling Archaeological Heritage Phase 1 Impact Assessment (AHIA) reports.

## **SUMMARY**

### **Purpose of the study**

To conduct a Phase 1 Archaeological Heritage Impact Assessment of the proposed establishment of eco-residential units on Portion 2 of farm Swan Lake No. 755, Aston Bay, Kouga Municipality, Eastern Cape; to evaluate the importance of the archaeological heritage sites, the potential impact of the development and to make recommendations to minimize possible damage to these sites.

### **The investigation**

No visible archaeological sites/materials were found during the investigation. The entire property consists of high coastal sand dunes and covered by dense coastal vegetation.

### **Cultural sensitivity**

Research and surveys in the wider region indicate that the immediate coastline is rich in archaeological sites, despite the fact that a large number has been destroyed during residential development in the past. The proposed property for development is situated on the coast and the possibility of finding archaeological sites/material is high.

### **Recommendations**

1. Bush clearing must be conducted by hand and inspected by an archaeologist.
2. All construction work must be monitored. A person must be trained as a site monitor to report to the foreman when archaeological sites are found.
3. If any concentrations of archaeological material are exposed during construction, all work in that

area should cease and it should be reported immediately to the nearest museum/archaeologist or to the South African Heritage Resources Agency.

4. Potential home owners should be made aware of the cultural heritage of the immediate region. This could take the form of a 'management strategy' which could be included in the constitution of the Home Owners Association.

### **Community consultation**

Consultation with the Gamtkwa KhoiSan Council was conducted as required by the National Heritage Resources Act No. 25 of 1999, Section 38(3e). They will communicate their recommendations to Coastal & Environmental Services.

## **PROJECT INFORMATION**

### **Status**

The report is part of an Environmental Impact Assessment.

### **The type of development**

Eco-residential development.

### **The Developer**

Glenny Buchan Trust  
P.O. Box 50  
Jeffreys Bay  
6330

### **The Consultant**

Coastal & Environmental Services  
P.O. Box 934  
Grahamstown  
6140  
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### **Terms of reference**

The original proposal was to conduct a Phase 1 Archaeological Heritage Impact Assessment of the proposed establishment of eco-residential units on Portion 2 of farm Swan Lake No. 755, Aston Bay, Kouga Municipality, Eastern Cape; to evaluate the importance of the archaeological heritage sites, the potential impact of the development and to make recommendations to minimize possible damage to these sites.

## **BRIEF ARCHAEOLOGICAL BACKGROUND**

### **Literature/research review**

The coastline between Kabeljous River Mouth and Cape St Francis once housed hundreds of

archaeological sites, including the remains of the indigenous people (Rudner 1968). Unfortunately, in a few decades virtually all of these important archaeological features have been destroyed by the development of the coastal towns and many were covered with dune sand and vegetation (Binneman 1985, 2001, 2005).

Little is known of the very early prehistory of the region. The oldest evidence of the early inhabitants are large stone tools, called handaxes and cleavers, which can be found in the river gravels which capped the hill slopes in the region (Laidler 1947. These large stone tools are from a time period called the Earlier Stone Age and may date between 1 million and 250 000 years old). These large stone tools are often found associated with the gravels in the area, and were later replaced by smaller stone tools called the Middle Stone Age (MSA) flake and blades industries. Evidence of MSA sites occur throughout the region and date between 120 000 and 30 000 years old. Fossil bone may in rare cases be associated with MSA occurrences along the coast.

The time period, between 120 000 - 30 000 years ago, also witness the emergence of the first modern humans (*Homo sapiens sapiens*). The oldest remains of anatomically modern humans in the world (some 110 000 years old) comes from the Klasies River complex of caves some 60 kilometres east of Aston Bay (Singer & Wymer 1982; Rightmire & Deacon 1991; Deacon 1992, 1993, 2001; Deacon, H. J & Shuurman, R. 1992; Deacon & Deacon 1999). The archaeological deposits at the Klasies River Caves (1-5) date to 120 000 years old and provide an excellent platform to study past human behaviour (Klein 1976; Henderson 1992; Henderson & Binneman 1997). The site also yielded the oldest evidence in the world for the exploitation of marine food resources by people.

Although humans were already anatomically modern by 110 000 years ago, they were not yet exhibiting 'modern behaviour' and only developed into culturally modern behaving humans between 80 000 and 70 000 years ago. This occurred during cultural phases known as the Still Bay and Howieson's Poort time periods/stone tool traditions/industries. The Howieson's Poort Industry is well represented at Klasies River Cave 2 (Deacon & Wurz 1996; Wurz 1999) and also in the dunes near Oyster Bay (Carrion *et al.* 2000).

The most common archaeological sites found in the area are shell middens (Binneman 1996, 2001, 2005; Rudner 1968). They are relatively large piles of marine shell and are popularly referred to as 'strandloper middens'. In general these shell middens date from the past 6 000 years. They are found mainly opposite rocky coasts, but also occur along sandy beaches if there was a large enough source of white mussel. These concentrations of shell represent the campsites of San hunter-gatherers (dating from as old as 6 000 years ago), Khoi pastoralists and KhoiSan (dating from the past 1 800 in the region) peoples who lived along the immediate coast and collected marine foods on a daily basis. The Khoi people were the first food producers in South Africa and introduced domesticated animals (sheep, goat and cattle) and ceramic vessels to southern Africa as early as 2 000 years ago. The oldest sheep remains recovered from the middens near the Kabeljous River Mouth were radiocarbon dated to 1 560 years old - the oldest date for the presence of sheep in the Eastern Cape (Binneman 1996, 2001).

Shell middens are usually within 300 of the high water mark, but can be found up to 5 km inland. Mixed with the shell and other marine food waste are other terrestrial food remains, cultural material and often human remains are found buried in the middens. Also associated with middens are large stone floors which were probably used as cooking platforms.

Other archaeological sites may consist of concentrations of stone artefact and/or bone remains. Some of the stone tools may date back to 100 000 years old, and the fossil bone occurrences along the coast may also date this old (See appendix for a list of possible archaeological sites that maybe found in the area).

### **Cultural sensitivity of the coastal areas**

Archaeological research conducted and observations made in the region between Kabeljous River Mouth and Cape St Francis indicates that this part of the coast and adjacent inland are extremely rich in archaeological heritage sites and material. For example, research at a rocks shelters and

caves, such as Klasies River Mouth yielded the oldest remains of anatomically modern humans in the world. At Kabeljous River Mouth the oldest sheep remains in the Eastern Cape were recovered from shell middens. These remains, associated with Khoi pastoralists, the first food producers in South Africa, were radiocarbon dated to 1 560 years old - the oldest date for the presence of sheep in the Eastern Cape.

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### **Museum/University databases and collections**

The Albany Museum in Grahamstown houses collections and information from the region. Other institutions which may also have collections and information from the region include the University of Cape Town and Iziko Museums.

### **Relevant impact assessments**

- Webley, L.E. 2006. Heritage assessment of Jubilee Estate, the Farm Seekoeirivier No. 355. Prepared for: Ecological Management Services, Kimberley.

## **DESCRIPTION OF THE PROPERTY**

### **Area surveyed**

#### Location data

Portion 2 of farm Swan Lake No. 755, Aston Bay, Kouga Municipality, District of Humansdorp, Cacadu District Municipality Eastern Cape.

The property proposed for development is situated in a relatively pristine dune area along the coast opposite (south and southwest) the Marina Martinique and is approximately 9.1ha in size (general GPS reading: 34.04.926S: 24.54.983E) (Maps 1-2). Most of the dunes are covered by Dune Fynbos and Thicket vegetation. The dunes in this region are high, reaching some 90m above sea level (Figs 1-6). A small vlei is situated in the western side of the property.

#### Map

1:50 000 - 3424BB Humansdorp

## **ARCHAEOLOGICAL INVESTIGATION**

### **Methodology**

The entire property is situated on high sand dunes (still active along the immediate coast) and well covered by dense coastal vegetation. The investigation was conducted on foot, but the dense vegetation made it impossible to survey the property for archaeological remains.

### **Archaeological survey**

GPS readings were taken with a Garmin Plus II.

No visible *in situ* archaeological sites/materials were found during the investigation.



**Figs 1-6. General views of the proposed property for development.**

## **RECOMMENDATIONS**

The proposed development takes place on the coast, and therefore falls within the sensitive zone where marine related archaeological sites, such as shell middens may be found. It is therefore recommended that:

1. All vegetation must be carefully removed (cut by hand and not bulldozed or any other mechanical method). After removal of the vegetation the area must be investigated again by an archaeologist and all construction work afterwards must be monitored. Should any archaeological sites or material be exposed during or after the initial removing of the vegetation, then further recommendations will follow for a Phase 2 (see below).



**Note:** An archaeologist must be on site when the cleaning exercise takes place to monitor the process and can stop the operations if sites are found.

After the surface cleaning exercise, the area will be investigated again. Should any archaeological sites or material be exposed, further recommendations will follow for a Phase 2:

Phase 2: Preliminary recommendations - to be finalised after Phase 1. May include:

- A Phase 2 Mitigation process whereby systematic excavations will be conducted to establish the contextual status of the sites and possibly remove the archaeological deposits before construction of the development starts.
  - A person be trained as a site monitor to be on site to report to the site foreman when sites are found - (training and job creation)
    - The site must be monitored during all construction work, and should any further archaeological remains be encountered, the work should be stopped to contact the nearest archaeologist to investigate the finds. Recommendations will follow after the investigation and may include:
      - A Phase 3 Mitigation process to systematically excavate and remove the archaeological deposits before construction of the development continues.
2. If any concentrations of archaeological material are exposed anywhere during construction, all work in that area should cease and it should be reported immediately to the nearest museum/archaeologist or to the South African Heritage Resources Agency, so that a systematic and professional investigation can be undertaken. Sufficient time should be allowed to remove/collect such material (See Appendix A for a list of possible archaeological sites that maybe found in the area).
5. Although there are few visible archaeological sites in close proximity of the property, the proposed development will have an impact on cultural resources in the surrounding areas. Important archaeological and historical sites and material are in walking distance and residents will no doubt visit or 'discover' these through their recreational activities. Against this background the following recommendations are proposed:
- Terms of conditions, in the form of a 'management strategy' should be included in the constitution of the Home Owners Association or into any other relevant legal organisation. The purpose of this 'management strategy' would be to inform the home owners and visitors to the development of possible heritage resources on the property and surrounds, and to prevent or at best minimize possible damage of sites or prevent the collecting of material by residents and/or visitors. This 'management strategy' document (terms of conditions) can be compiled by the South Africa Heritage Resources Agency in cooperation with the Home Owners Association.

### **Motivation for 5.**

There is no doubt that the development will have an impact and ripple effect on the archaeological heritage resources of the region. The impact will be indirect, but will increase over time. It is therefore the responsibility of the developers to inform potential homeowners and visitors to the development of the importance of the archaeological heritage of the area. In this way, the developers will make a contribution to the potential protection and preservation of these archaeological resources of the region.

The immediate and adjacent areas to the proposed development are rich in archaeological heritage sites, i.e. open-air sites, caves and shelters with extremely valuable and important unique

archaeological deposits. There are sites within walking distance from the development and many others also within a short driving distance, for example the Klasies River Cave Complex. These sites and others will be 'discovered' by landowners and visitors during their stay/visit to the estate and region.

## **GENERAL REMARKS AND CONDITION**

**Note:** This report is a phase 1 archaeological heritage impact assessment/investigation only and does not include or exempt other required heritage impact assessments (see below).

The National Heritage Resources Act (Act No. 25 of 1999, section 35) requires a full Heritage Impact Assessment (HIA) in order that all heritage resources, that is, 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 emphasised that the conclusions and recommendations expressed in this archaeological heritage sensitivity investigation are based on the visibility of archaeological sites/features and may not therefore, reflect the true state of affairs. Many sites/features may be covered by soil and vegetation and will only be located once this has been removed. In the event of such finds being uncovered, (such as during any phase of construction work), archaeologists 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 Act No. 25 of 1999.

It must also be clear that Archaeological Specialist Reports (AIAs) will be assessed by the relevant heritage resources authority. The final decision rests with the heritage resources authority, which should grant a permit or a formal letter of permission for the destruction of any cultural sites.

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

### 1. Shell middens

Shell middens can be defined as an accumulation of marine shell deposited by human agents rather than the result of marine activity. The shells are concentrated in a specific locality above the high-water mark and frequently contain stone tools, pottery, bone 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.

### 2. Human Skeletal material

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.

### 3. Fossil bone

Fossil bones or any other concentrations of bones, whether fossilized or not, should be reported.

### 4. Stone artefacts

These are 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.

### 5. Stone features and platforms

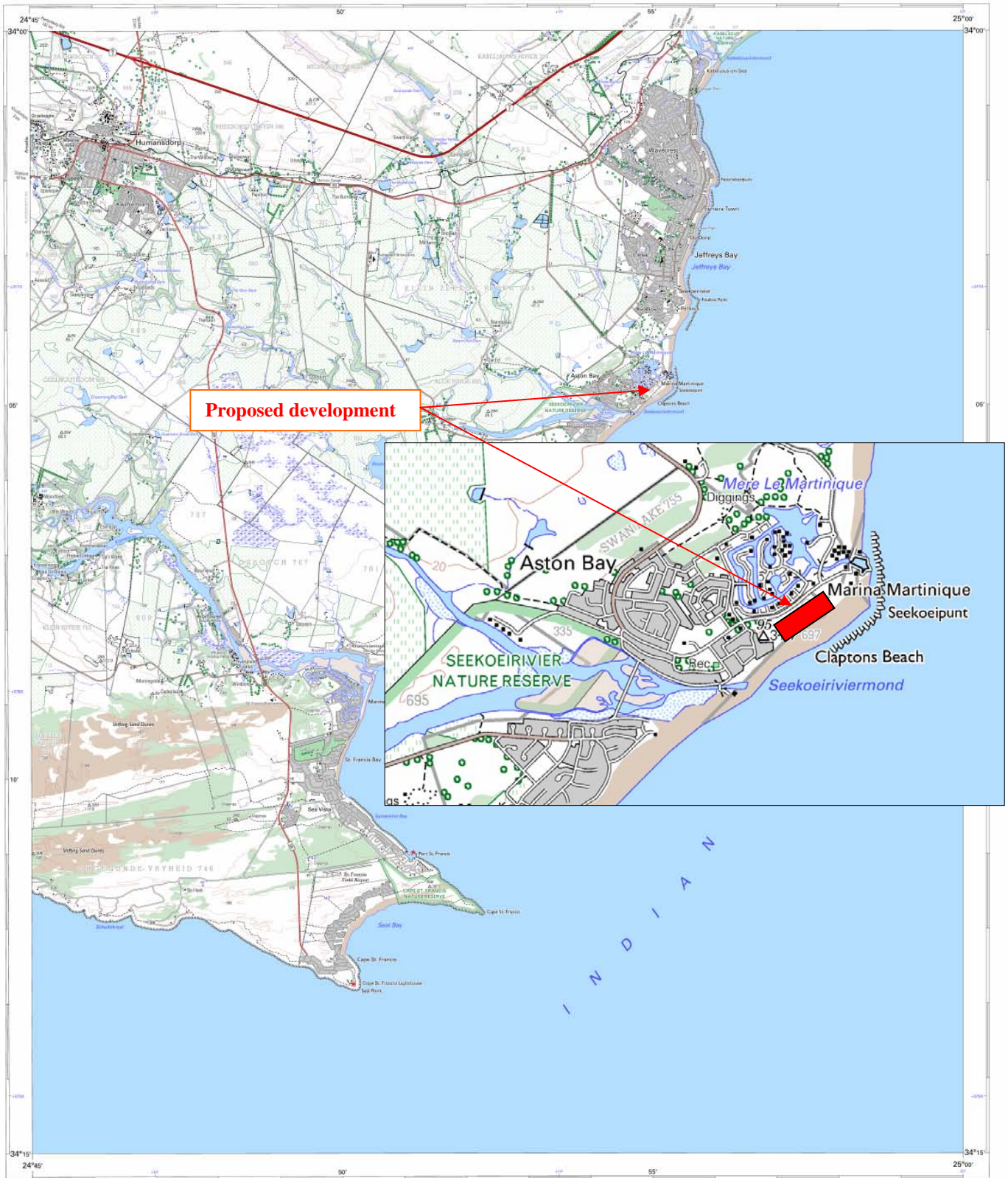
These occur in different forms and sizes, but easily identifiable. The most common are an accumulation of roughly circular fire cracked stones tightly spaced and filled in with charcoal and marine shell. They are usually 1-2 metres in diameter and may represent cooking platforms for shell fish. Others may resemble circular single row cobble stone markers. These occur in different sizes and may be the remains of wind breaks or cooking shelters.

### 6. Historical artefacts or features

These are easy to identify and include foundations of buildings or other construction features and items from domestic and military activities.

3424BB HUMANSDORP

1:50 000 SOUTH AFRICA  
SUID-AFRIKA



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Scale 1:50 000

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**Map 1. 1:50 000 map indicating the location of the proposed development.**





Map 2. Aerial photograph indicating the location of the proposed development along the Aston Bay Coast..