

A PHASE 1 ARCHAEOLOGICAL HERITAGE IMPACT ASSESSMENT FOR THE PROPOSED REZONING AND SUBDIVISION OF FARM 36 AND 37, THEESECOMBE, PORT ELIZABETH, NELSON MANDELA BAY MUNICIPALITY, EASTERN CAPE PROVINCE, FOR THE DEVELOPMENT OF TWO RESIDENTIAL NODES, LODGE AND NATURE RESERVE.

Prepared for: CEN Integrated Environmental Management Unit

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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

Proposal

The original proposal was to conduct a survey of possible archaeological heritage sites for the proposed subdivision of farm 36 and 37, Theesecombe, Port Elizabeth, Nelson Mandela Bay Municipality, Eastern Cape Province, for the development of two residential nodes, lodge and nature reserve; to establish the range and importance of the heritage sites, the potential impact of the development and to make recommendations to minimize possible damage to these sites.

The investigation

Stone tools were found at two localities during the investigation. Half of property is covered by impenetrable Dune thicket vegetation and the remainder by dense grass which may cover sites and/or material.

Cultural sensitivity

The area investigated is within 5 km from the coast and although it appears to be of low cultural sensitivity, many archaeological sites/materials may be exposed when the vegetation and top soil are removed (for example human remains).

Recommendations

1. 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.
2. If any concentrations of archaeological material are uncovered during development it should be reported immediately to the nearest archaeologist, museum and/or the South African Heritage Resources Agency.
2. Construction managers/foremen should be informed, before construction starts, on the possible types of heritage sites which may be encountered during construction.

PROJECT INFORMATION

Status

The report is part of an Environmental Impact Assessment.

The type of development

The development of two residential nodes, lodge and nature reserve.

The Developer

East Cape Game Properties

The Consultant

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Terms of reference

Conduct a survey of possible archaeological heritage sites for the proposed subdivision of farm 36 and 37, Theesecombe, Port Elizabeth, Nelson Mandela Bay Municipality, Eastern Cape Province, for the development of two residential nodes, lodge and nature reserve; to establish the range and importance of the heritage sites, the potential impact of the development and to make recommendations to minimize possible damage to these sites.

BRIEF ARCHAEOLOGICAL BACKGROUND

Literature review

Little is known about the archaeology of the immediate area, mainly because no systematic research has been conducted there. The oldest evidence of the early inhabitants in this area are large stone tools, called handaxes and cleavers, which can be found amongst river gravels and in old spring deposits in the region (Deacon 1970). These large stone tools are from a time period called the Earlier Stone Age (ESA) and may date between 1 million and 250 000 years old. The large Handaxes and cleavers were replaced by smaller stone tools called the Middle Stone Age (MSA) flake and blade industries. Evidence of MSA sites occur throughout the region and date between 200 000 and 30 000 years old. Fossil bone may in rare cases be associated with MSA occurrences. (Deacon & Deacon 1999).

The majority of archaeological sites found in the area date from the past 10 000 years (called the Later Stone Age) and are associated with the campsites of San hunter-gatherers and Khoi pastoralists. These 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 Africa (Deacon & Deacon 1999). There are many San hunter-gatherers

sites in the nearby Elandsberg and Groot Winterhoekberg Mountains. Here caves and rock shelters were occupied by the San during the Later Stone Age and contain paintings along the walls. The last San/KhoiSan group was killed by Commando's in the Groendal area in the 1880s.

Some 2 000 years ago Khoi pastoralists occupied the region and lived mainly in small settlements. They were the first food producers in South Africa and introduced domesticated animals (sheep, goat and cattle) and ceramic vessels to southern.

The most common archaeological sites along the nearby coast are shell middens (relatively large piles of marine shell) found usually concentrated opposite rocky coasts, but also along sandy beaches (people refer to these as 'strandloper middens') (Rudner 1968). These were campsites of San hunter-gatherers, Khoi herders and KhoiSan peoples who lived along the immediate coast (up to 5 km) and collected marine foods. Mixed with the shell are other food remains, cultural material and often human remains are found in the middens. In general middens date from the past 6 000 years. Also associated with middens are large stone floors which were probably used as cooking platforms (Binneman 2001, 2005).

References

- Binneman, J.N.F. 2001. An introduction to a Later Stone Age coastal research project along the south-eastern Cape coast. *Southern African Field Archaeology* 10:75-87.
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- Rudner, J. 1968. Strandloper pottery from South and South West Africa. *Annals of the South African Museum* 49:441-663.

Relevant impact assessments

- Binneman, J. 2009. A phase 1 archaeological heritage impact assessment for the proposed subdivision of portion 12 of the farm Kragga Kamma No. 23, Port Elizabeth, Nelson Mandela Bay Municipality, Eastern Cape Province, for the development of an agrivillage and the necessary services infrastructure. Prepared for CEN Integrated Environmental Management Unit, Port Elizabeth.

DESCRIPTION OF THE PROPERTY

Area surveyed

Location data

The proposed properties for Subdivision, farms 36 and 37, is situated in the Theesecombe area, Port Elizabeth, Nelson Mandela Bay Municipality, Eastern Cape Province. This large property for development is located between Kragga Kamma Road (south), west of Lakeside Road and the coast (Maps 1 & 2). The development is approximately 746 hectare in extent.

Map

1:50 000 3325 CD & 3425 AB Uitenhage

ARCHAEOLOGICAL INVESTIGATION

Methodology

The survey was conducted on foot and spots checks from a vehicle. GPS readings were taken with a Garmin Plus II and all important features were digitally recorded. The proposed property for development is managed as a game farm and the northern part is covered by dense grass and alien vegetation, while the southern part is covered dense impenetrable coastal dune thicket vegetation (Figs 1-8). The development will take place on an old Holocene dune system underlain by a much older Pleistocene/Tertiary fossil dune system, running roughly parallel to the coast (west to east). The dense vegetation made it difficult to find archaeological sites/materials. Narrow tracks which run through the dense dune ticket were followed where possible to look for sites. Mole heaps and other surface disturbances were also investigated to see if any archaeological materials were pushed to the surface. Archaeological sites/materials were found at only two areas and included occasional Earlier, Middle and Later Stone Age stone tools. The property falls within five kilometres from the coast and archaeological and it is highly possible that many sites such as shell middens are covered by dune sand and vegetation.





Figs 1-8. Different vegetation zones on the proposed property for development; grassland (top four photographs), dense dune thicket (middle) and alien vegetation (bottom).

Description of the sites

Site 1: Earlier and Middle Stone Age stone tools (Map 2) – 33.59.409S; 25.23.509E

Next to the western boundary fence is a small area where calcrete was mined. Underlying the recent dune sand and on top of the calcrete is a yellow brown hard sand which contained Earlier and Middle Stone Age stone tools (Figs 9-12). The Earlier Stone Age stone tools consisted of a few flaked cobbles and flakes and the Middle Stone Age stone tools of small flakes. The stone tools may date between 30 000 and 250 000 years old. No other material was associated with the stone tools, but fossil bone is often found with Middle Stone Age stone tools.



Figs 9-12. Different views of the calcrete quarry (top right), hard yellow brown sand with stone tools (top left) and Earlier and Middle Stone Age stone tools (bottom).

Site 2: Later Stone Age stone tools (Map 2) – 33.59.133S; 25.24.430E

Later Stone Age stone tools were found where the surface of the loose dune sand was disturbed where the alien vegetation was removed. The stone tools included utilised and flaked cobbles and a large backed flake (segment) (Figs 13-14). The stone tools belong to a stone industry called the Kabeljous Industry and date younger than 4 500 years old (Binneman 2007). No other material was associated with the stone tools, but other archaeological material such as shellfish remains may be covered by dune sand and vegetation.



Figs 13-14. View of the area cleared of alien vegetation and the exposed stone tools.

Discussion

The few Earlier, Middle and Later Stone Age stone tools found at two different locations indicate that there are possibly many sites covered by dune sand and vegetation. The proposed property for development is within 5 km from the coast and falls inside the maximum distance coastal archaeological sites/materials such as shell middens are expected to be found from the beach. There is also a possibility that human remains and/or other archaeological and historical material may be uncovered during the development removed. Such material must be reported to the nearest museum, archaeologist or to the South African Heritage Resources Agency if exposed (see general remarks and conditions below).

RECOMMENDATIONS

1. All construction work must be monitored if the development takes place on the fossil dune crests. An archaeologist must inspect the construction site when the topsoil and surface vegetation is removed to establish if there are any archaeological sites/materials. Alternatively a person must be trained as a site monitor to report to the foreman when archaeological sites are found. This person must monitor all levelling and trenching activities during the construction phase.
2. If any concentrations of archaeological material are exposed during construction, all work in that area should stop 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 1 for a list of possible archaeological sites that maybe found in the area).
3. Construction managers/foremen 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.

GENERAL REMARKS AND CONDITIONS

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 m² 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

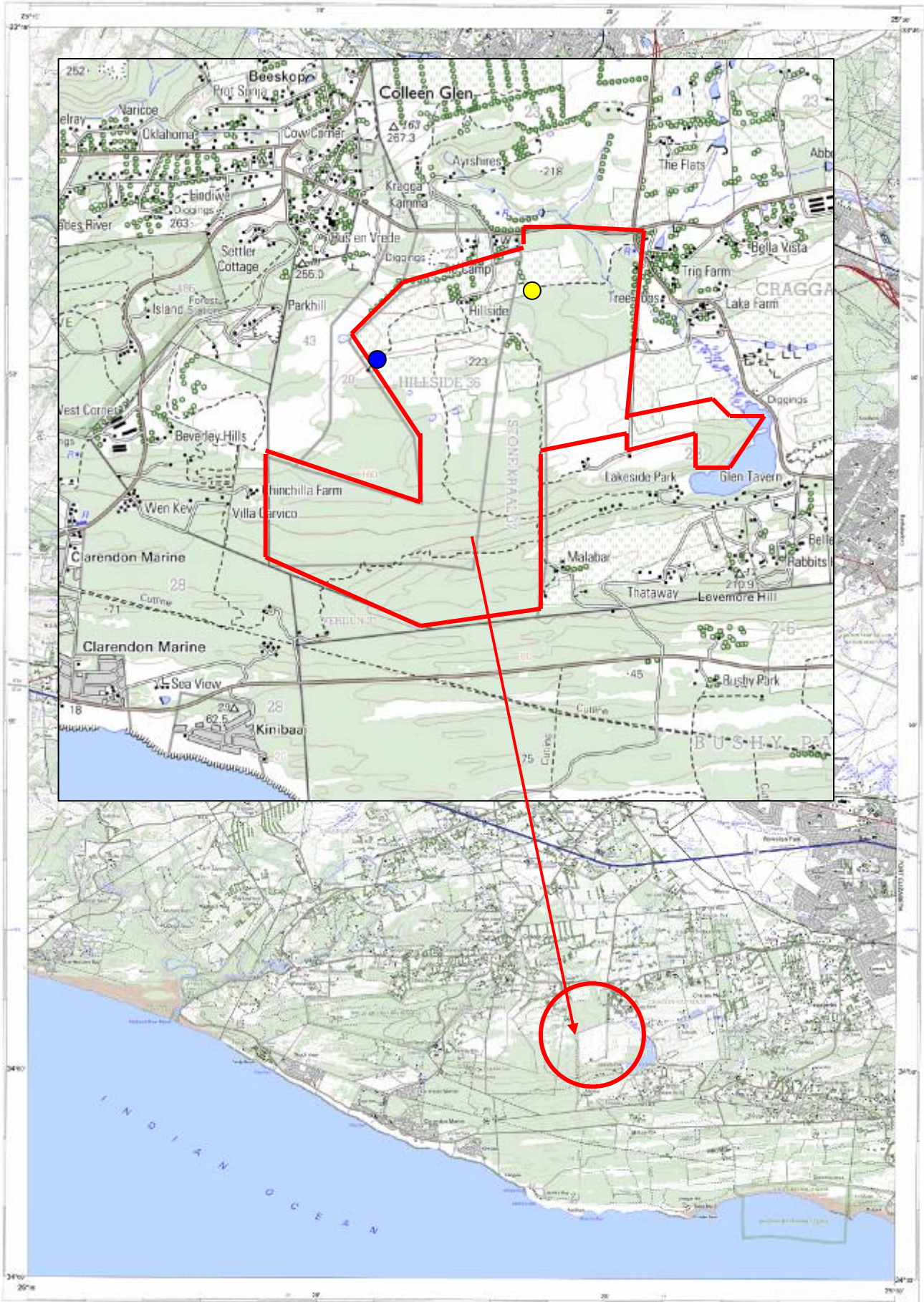
These are difficult for the layman to identify. However, large accumulations of flaked stones which do not appear to have been distributed naturally should be reported. If the stone tools are associated with bone remains, development should be halted immediately and archaeologists notified.

5. Stone features and platforms

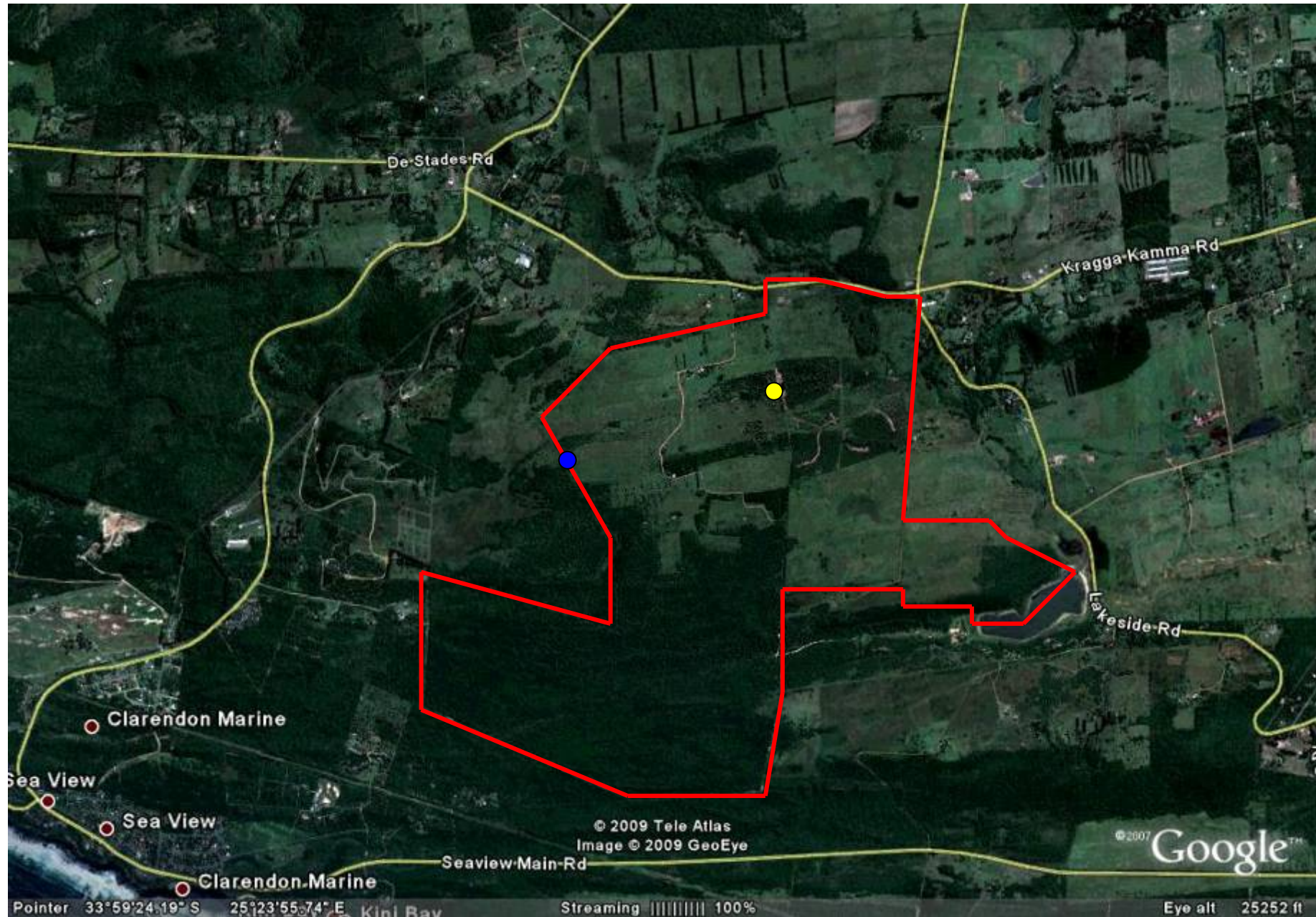
These occur in different forms and sizes, but easily identifiable. The most common are an accumulation of roughly circular fire cracked stones tightly spaced and filled in with charcoal and marine shell. They are usually 1-2 metres in diameter and may represent cooking platforms for shell fish. Others 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.



Map 1. 1:50 000 maps indicating the location of the proposed development. The blue dot marks the location of the calcrete quarry and the yellow the Later Stone Age stone tools.



Map 2. Aerial photographs indicating the location of the proposed development. The blue dot marks the location of the calcrete quarry and the Earlier and Middle Stone Age stone tools and the yellow dot the location of the Later Stone Age stone tools.