

A PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT OF THE PROPOSED DEVELOPMENT OF THE LAGUNA BAY RESORT AND VISITOR CENTRE ON A REMAINDER OF PORTION 6 OF THE FARM KABELJOUS RIVER NO. 328 JEFFREYS BAY, KOUGA LOCAL 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 impact assessment for the proposed development of the Laguna Bay resort and visitor centre on the remainder of portion 6 of the farm Kabeljous River No. 328, Jeffreys Bay, Kouga Local Municipality; 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 location of the development

The proposed Laguna development will include the construction of a resort and visitor centre adjacent to the Kabeljous Estuary near Jeffreys Bay. The property is covered by dense grass and thicket vegetation

The investigation

Thin scatters of marine shell and cultural material were observed at several locations in the open spaces between the dense vegetation. Occasional Earlier and Middle Stone Age quartzite stone tools were found towards the northern side of the property where the surface pebble/cobble gravels were exposed.

Cultural sensitivity

Research and surveys in the wider region indicate that the area along the estuary and the nearby coastline is rich in archaeological sites, despite the fact that a large number of these sites have been demolished during residential development in the past.

Recommendations

1. Based on the archaeological sensitivity of the wider area, no development should take place within 100 metres from the estuary. However, due to the dense vegetation cover the archaeological sensitivity of the property is unknown.

2. Thus it is recommended that the archaeological sensitivity of the property is established before any development starts.
3. Should the investigation prove that the proposed property is too sensitive to be developed and mitigation is no option then the development should not be allowed to proceed.
4. It is suggested that the investigation must take place in 2 stages. Further recommendations will follow after each stage/investigation.
 - 4.1. During the first stage, only the southern part of the property must be cleaned of all grass and other alien vegetation by hand, and care should be taken that the surface soil is not extensively disturbed. An archaeologist must monitor the clearing of vegetation. All sites exposed must be spade tested to establish the context.
 - 4.2. Simultaneously, the context of visible shell scatters in the thicket area must be established by spade testing with limited disturbance of the natural vegetation.
 - 4.3. If there are no sensitive sites/materials uncovered from the southern and thicket areas, the rest of the thicket vegetation may be removed by hand.
 - 4.4. If there are any sites that must be mitigated, a phase 2 archaeological investigation must be conducted to remove/sample the site(s) before development may start.
5. During the second stage, the top soil may be removed carefully by an experienced bulldozer operator in the areas where the building operations will take place. This will expose the area and make it easier to locate possible sites. An archaeologist must be on site when the scraping exercise takes place
 - 5.1. Alternatively, if the scraping method of investigation is considered too robust, a series of test pits/trenches must be excavated where the foundations of the buildings will be placed.
6. Visitors/tourists to the resort complex/visitor centre must be alerted to the importance, sensitivity, conservation and protection of the cultural heritage of the region. It is suggested that information regarding the heritage of the region be displayed in the visitor centre.

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, if required.

PROJECT INFORMATION

Status

A phase 1 archaeological impact assessment was conducted for the property during 2006. SAHRA requested an amended phase 1 archaeological report to comply with the minimum standard guidelines required since 2008. This report is part of an Environmental Impact Assessment.

The type of development

The proposed development will include of the construction of a high density 250 unit resort and visitor centre adjacent to the Kabeljous Estuary and will be approximately 18.08 hectares in extent.

The Developer

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Terms of reference

The original proposal was to conduct a Phase 1 Archaeological Impact Assessment of the proposed Laguna Bay resort and visitor centre on the remainder of portion 6 of the farm Kabeljous River No. 328, Jeffreys Bay, Kouga Local Municipality. The survey was conducted to establish the range and importance of possible exposed and *in situ* archaeological heritage features, the potential impact of the development and to make recommendations to minimize possible damage to these sites.

BRIEF ARCHAEOLOGICAL BACKGROUND

Literature/research review

The adjacent coastline between Gamtoos River and the Kabeljous River Mouth is rich in archaeological sites (Rudner 1968, Binneman 2006, 2008). Unfortunately most of the sites situated to the west towards Jeffreys Bay/Aston Bay 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 hand axes 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 (ESA) and may date between 1.5 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 blade industries. Evidence of MSA sites occur throughout the region and date between 250 000 and 30 000 years old. Fossil bone may in rare cases be associated with MSA occurrences along the coast.

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 B for a list of possible archaeological sites that maybe found in the area).

Cultural sensitivity of the Kabeljous River estuary and adjacent coastal areas

Archaeological research conducted and observations made in the region indicate that places like the Kabeljous River estuary were popular areas for the hunter-gatherers and pastoralists to live due to the wide variety of food resources within easy walking distance, i.e., shellfish along the beach, fish in the estuary and game in the nearby hills.

Research at Kabeljous River Shelter some four kilometres upstream (close to the proposed development) indicated that this part of the valley was well utilised by pre-colonial groups from 6 000 years ago (research report available on request) (Binneman 1996, 2007). Two KhoiSan skeletons were also found on the nearby New Papiessfontein farm during the past few years, indicating that such remains may also be buried on the property in question (Die Burger 27-09-2005). One of the skeletons was re-buried in 2008 by the Gamtkwa KhoiSan Tribe according to Khoi tradition (The Herald 24-03-2008). During 1983 several middens were destroyed by a bulldozer when houses were being built near the present day caravan park. These were found to be extremely rich in archaeological material (Binneman 1985, 1996, 2001, 2005). The following results were obtained from the limited research project.

1. Two of the shell middens were occupied by San hunter-gatherers and one was radiocarbon dated to 2 570 years old. Although the middens were situated along a sandy beach, the hunter-gatherers preferred to collect brown mussel from the rocky shore almost a kilometre away, rather than the white mussel which could be collected 50 metres away.
2. Two shell middens were of Khoi pastoralist origin. A similar shellfish collecting pattern was followed by the Khoi.
3. The Khoi were the first food producers in South Africa and the sheep remains recovered from the middens were radiocarbon dated to 1 560 years old - the oldest date for the presence of sheep in the Eastern Cape.

4. These middens yielded more fish remains than any other open-air shell midden along the Eastern Cape coast. The remains were mainly of mullet species and taken from the nearby estuary. The method of capture is unknown as it is known from historical records that the indigenous groups did not process nets of any kind.
5. The Kabeljous River Shelters provide a history of hunter-gatherer-fishers of the past 6000 years for the area. Several burials were also found in the shelters. The archaeological deposits are extremely important and sensitive to any disturbances.

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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, Iziko Museums and Bayworld Museum.

Relevant impact assessments:

- Binneman, J. 2005. Phase 1 archaeological and living heritage impact assessments on the farm Kabeljous River 339, Jeffrey's Bay. Prepared for Africa Geo-Environmental Services (Pty) Ltd. Arcadia.
- Binneman, J. 2006. Phase 1 archaeological heritage impact assessment for the proposed Kouga development of portions of the farms Kabeljauws River No. 322 and Papiessfontein No. 319 in Jeffreys Bay, Kouga Municipality, District of Humansdorp, Eastern Cape. Prepared for CEN Integrated Environmental Management Unit, Port Elizabeth.
- Binneman, J. 2006. 'Status report' on the rezoning of portion 242 of portion 6 of the farm Kabeljauws River No. 328, Jeffrey's Bay (Kouga Municipality), from agricultural land to residential zone ii and to develop group housing. Prepared for Gertenbach Ecological Consultations, Jeffrey's Bay.

- Binneman, J. 2008. Phase 1 archaeological heritage impact assessment for the proposed “St Francis Coastal Reserve” on portions of the remainder of the farm New Papiessfontein No. 320, Kouga Municipality, District of Humansdorp, Eastern Cape. Prepared for: Envirovision Consulting, Pretoria.
- Binneman, J. 2008. A phase 1 archaeological heritage impact assessment of the proposed rezoning and subdivision of portions 35, 36, 37 and 38 (portion of portion of 38) of the farm Kabeljauws River No. 321, Kouga Municipality, Eastern Cape Province. Prepared for CEN Integrated Environmental Management Unit, Port Elizabeth.
- Binneman, J. 2008. A phase 1 archaeological heritage impact assessment of the proposed rezoning and subdivision of portions 8, 13 and the remainder of the farm Kabeljauws River No. 328, Kouga Municipality, Eastern Cape Province. Prepared for Eedenprop (Pty) Ltd. P.O. Box 1555, Jeffreys Bay
- Binneman, J. 2009. A phase 1 archaeological heritage impact assessment of the proposed Cob Creek Estate development on portion 21 of the farm Kabeljauws River No. 321, Jeffreys Bay, Kouga Municipality, Eastern Cape Province. Prepared for CEN Integrated Environmental Management Unit, Port Elizabeth.

DESCRIPTION OF THE PROPERTY

Area surveyed

Location data

The proposed Laguna Bay resort and visitor centre development is situated on the remainder of portion 6 of the farm Kabeljous River No. 328, Jeffreys Bay, Kouga Local Municipality, Eastern Cape Province. It is located on a narrow strip of land situated between the Kabeljous River estuary and the access road to Kabeljous/Jeffrey’s Bay townships (MR 389) and the old national road (R102) (Maps 1-4).

Maps

1:50 000 – 3324DD Hankey and 3424 Humansdorp

ARCHAEOLOGICAL INVESTIGATION

Methodology and results

The investigation was conducted by two people on foot. GPS readings were taken with a Garmin and all important features were digitally recorded. Consultation was conducted with the local Gamtkwa KhoiSan community regarding the archaeological heritage of the area. The property has been disturbed in the past by development and the construction of roads and residential dwellings along the boundaries. The southern side has a gentle gradient towards the estuary and is covered by dense kikuyu grass and alien vegetation. The northern part of the property is covered with very dense, almost impenetrable, thicket with a steep slope towards the estuary (Figs 1-8). The dense vegetation made it difficult to identify archaeological sites/materials, but several thin scatters of marine shell and cultural material were observed in open spaces in the thicket. Khoi pot sherds were associated with most of the shell scatters and relatively date the sites within the past 2000 years. Occasional Earlier and Middle Stone Age tools (between 1,5 million to 30 000 years old) were observed associated with the gravel capped northern slopes. A mega shell midden is situated just north of the proposed development on the large flat area between the estuary and the old national road.



Figs 1-8. Different views of the proposed property for development. The location of the proposed development is indicated by the red arrows (top row). Note the dense vegetation that covers the property.

Classification of sites

All the sites/areas were open-air shell middens scatters and shell scatters dating from the Holocene Later Stone Age (past 10 000 years). The following rating system was used for shell occurrences/ accumulations:

1. Midden scatters: concentrations of shell fragments and whole shells with no evident depth spread over restricted or large areas.
2. Shell scatters: random spreads of mainly shell fragments (also occasional whole shells) over restricted or large areas with no evident depth.

The following field rating/significance has been assigned to the archaeological sites found on the property during the survey before testing; following SAHRA's minimum standards guidelines (see Appendix C):

- Generally Protected IVA sites. These sites should be mitigated before destruction (generally high/medium significance).
- Generally Protected IVB sites. This site should be recorded before destruction (generally Medium significance);

Note: The classifications of the sites/areas were done from the surface evidence and may change after spade testing.

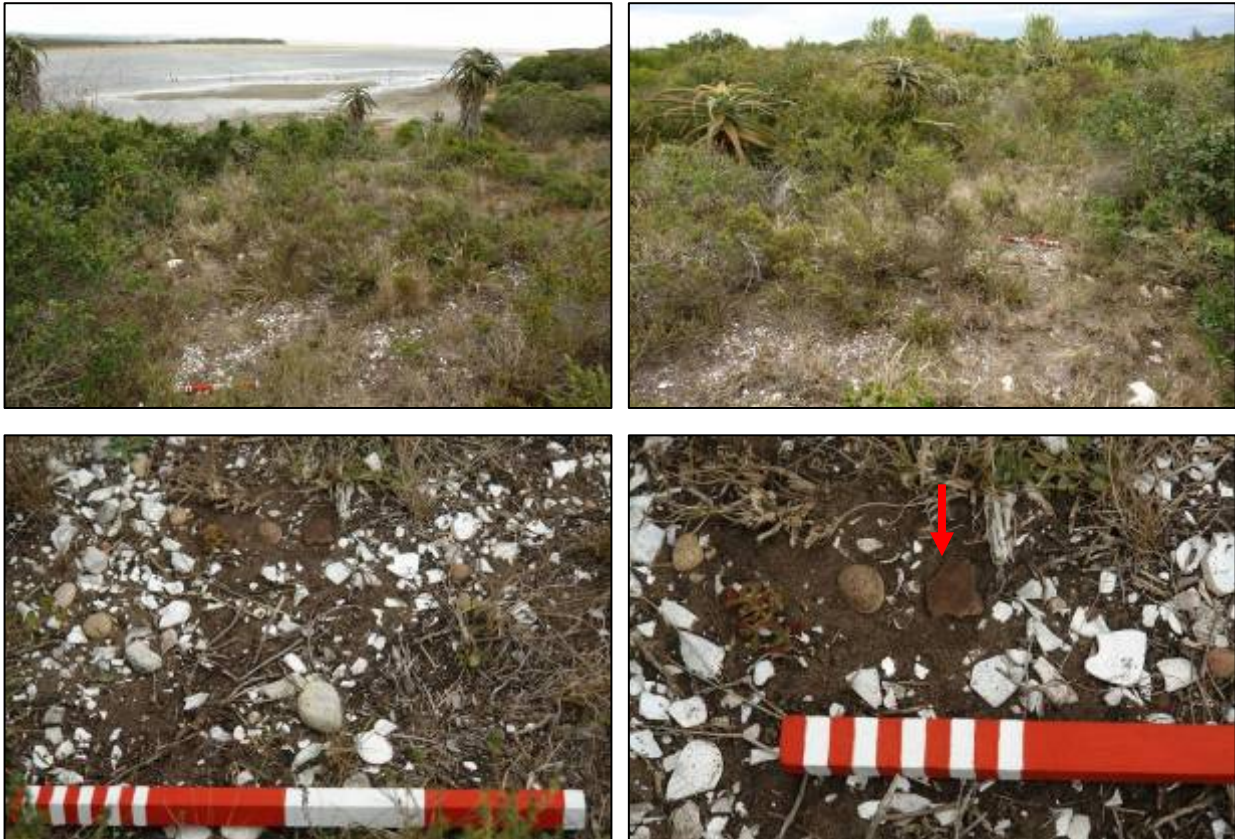
Description of the sites/areas

Site/area 1: Shell midden/shell scatter on the edge of the estuary - Maps 1-3 and Figs 9-12.

- (i). 34.00.275S; 25.55.658E
- (ii). 34.00.264S; 25.55.654E
- (iii). 34.00.271S; 25.55.647E
- (iv). 34.00.265S; 25.55.641E

- Shell midden scatter. The exact size is unknown, but is most probably part of a larger accumulation which may be covered by vegetation.
- A General Protected IVA site and generally of medium/high significance.
- Significance must first be established by testing before any recommendations/higher grading can be made.
- The site/area is situated inside the footprint and is directly under threat from the development.

The exact size of the shell midden scatter is difficult to establish because of the dense vegetation, but is spread over a large area of approximately 20 x 10 metres. The midden scatter comprised mainly of shellfish remains including *Donax serra*, *Turbo sarmaticus*, *Oxysteles sinenses*, *Dinoplax giggas*, *Scutellastra cochlear* and *S. longicosta*. The shell remains indicate that the nearby sandy beach and rocky coast (a kilometre south), were visited to collect shellfish. Presence of *S. cochlear* suggests that collecting/occupation took place during spring tide low, the only time that this shellfish can be collected. Apart from the shell remains no other food remains were observed. The cultural material observed, which included quartzite stone tools and pottery, identified the midden scatter as of Khoi origin and date younger than 2 000 years old.



Figs 9-12. Different views of site/area 1 (top row) and close-up views of the shell midden scatter and cultural material (the red arrow marks a pot fragment).

Site/area 2: Shell scatter – Maps 1-3 and Figs 13-14.

- (i). 34.00.260S; 25.55.549E
- (ii). 34.00.275S; 25.55.556E
- (iii). 34.00.284S; 25.55.557E

- Thin shell scatter. The exact size is unknown, but is most probably part of a larger accumulation, which may be covered by vegetation.
- A General Protected IVB site and generally of medium/low significance.
- Significance must first be established by testing before any recommendations/higher grading can be made.
- The site/area is situated inside the footprint and is directly under threat from the development.

The exact size of the thin shell scatter is difficult to establish because of the dense vegetation, but is spread over a large area. *Donax serra* and *Turbo sarmaticus* were two of the main shellfish species observed. The shell remains indicate that the nearby sandy beach and rocky coast (a kilometre south), were visited to collect shellfish. Apart from the shell remains no other food remains were observed. The cultural material included quartzite stone tools and pottery. The presence of pottery indicate that the shell scatter is of Khoi origin and date younger than 2 000 years old.



Figs 13-14. A view of a part of site/area 2 in an open space between the dense vegetation (left) and a close-up views of the shell scatter and cultural material (the red arrow marks a pot fragment).

Site/area 3: Thin shell scatter - Maps 1-3

- (i). 34.00.312S; 25.55.576E
- (ii). 34.00.312S; 25.55.588E

- Thin shell scatter, mainly pushed to the surface by dune moles. The exact size is unknown, but is most probably part of a larger accumulation, which may be covered by vegetation.
- A General Protected IVB site and generally of medium/low significance.
- Significance must first be established by testing before any recommendations/higher grading can be made.
- The site/area is situated inside the footprint and directly under threat from the development.

The exact size of the thin shell scatter is difficult to establish because of the dense vegetation, but shell fragments are spread over a large area pushed to the surface by dune moles. The shell scatter comprised of shellfish remains mainly of *Donax serra*, *Scutellastra longicosta* and *Turbo sarmaticus*. The shell remains indicate that the nearby sandy beach and rocky coast (a kilometre south), were visited to collect shellfish. No other food remains or cultural materials were observed and the origin of the site is unknown.

Site/area 4: Thin shell scatter - Maps 1-3

- (i). 34.00.302S; 25.55.613E
- (ii). 34.00.290S; 25.55.610E

- Thin shell scatter, mainly pushed to the surface by dune moles. The exact size is unknown, but is most probably part of a larger accumulation, which may be covered by vegetation.
- A General Protected IVB site and generally of medium/low significance.
- Significance must first be established by testing before any recommendations/higher grading can be made.
- The site/area is situated inside the footprint and is directly under threat from the development.

The exact size of the thin shell scatter is difficult to establish because of the dense vegetation, but is spread over a large area. The shell scatter comprised of shellfish remains mainly of *Donax serra*, *Turbo sarmaticus*, *Oxystele sinenses* and *Scutellastra longicosta*. Both the nearby

sandy beach and rocky coast (a kilometre south), were visited to collect shellfish. The cultural material included quartzite stone tools and pottery. No other food remains or cultural material was observed and the origin of the site is unknown.

Site/area 5: Shell midden scatter - Maps 1-3 and Figs 15-18.

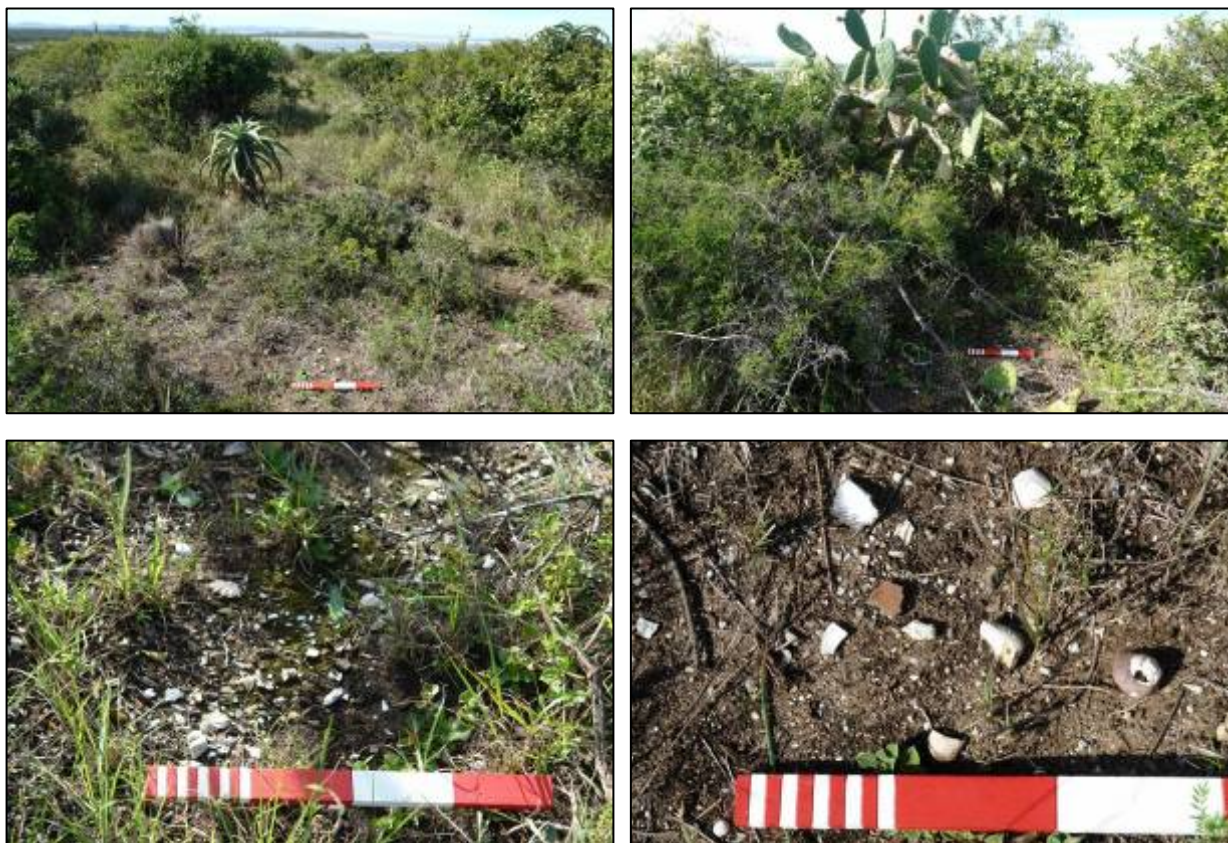
(i). 34.00.273S; 25.55.579E

(ii). 34.00.275S; 25.55.574E

(iii). 34.00.273S; 25.55.568E

- Shell midden scatter. The exact size is unknown, but is most probably part of a larger accumulation, which may be covered by vegetation.
- A General Protected IVA site and generally of medium/high significance.
- Significance must first be established by testing before any recommendations/higher grading can be made.
- The site/area is situated inside the footprint and is directly under threat from the development.

The exact size of the shell midden scatter is difficult to establish because of the dense vegetation, but is spread over a large area of approximately 10 x 10 metres. The midden scatter comprised mainly of shellfish remains of *Donax serra*, *Turbo sarmaticus*, *Oxysteles sinenses*, *Scutellastra cochlear* and *S. longicosta*. Both the nearby sandy beach and rocky coast (a kilometre south), were visited to collect shellfish. Apart from the shell remains no other food remains were observed. The cultural material present, which included quartzite stone tools and pottery, identified the midden scatter as of Khoi origin and date younger than 2 000 years old.



Figs 15-18. Different views of site/area 1 (top row) and close-up views of the shell midden scatter and cultural material (the red arrow marks a pot fragment).

Site/area 6: Shell midden scatter - Maps 1-3 and Figs 19-20.

(i). 34.00.249S; 25.55.538E

- Shell midden scatter. The exact size is unknown, but is most probably part of a larger accumulation which may be covered by vegetation.
- A General Protected IVA site and generally of medium/high significance.
- Significance must first be established by testing before any recommendations/higher grading can be made.
- The site/area is situated inside the footprint and is directly under threat from the development.

The exact size of the shell midden scatter is difficult to establish because of the dense vegetation, but is spread over a large area of approximately 10 x 10 metres. The midden scatter comprised mainly of shellfish remains of *Donax serra* and *Turbo sarmaticus*. The shell remains indicate that the nearby sandy beach and rocky coast (a kilometre south), were visited to collect shellfish. Apart from the shell remains no other food remains were observed. The cultural material present, which included quartzite stone tools and pottery, identified the midden scatter as of Khoi origin and date younger than 2 000 years old.

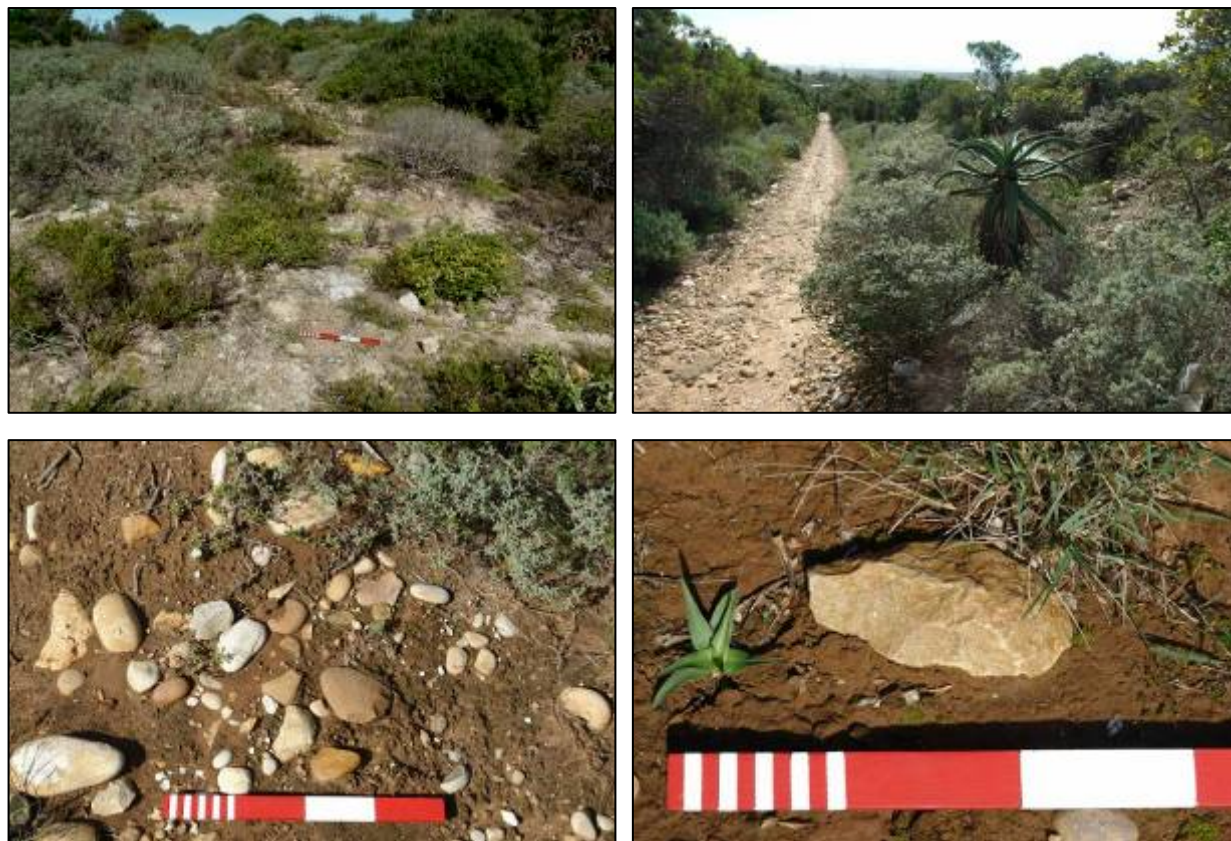


Figs 19-20. Different views of site/area 1 (top row) and close-up views of the shell midden scatter and cultural material (a pot fragment is marked by the red arrow).

Stone tools – Maps 1-3 and Figs 21-24.

- (i). 34.00.039S; 25.55.434E – Middle Stone Age stone tools
 (ii). 34.00.204S; 25.55. 501E - Middle Stone Age stone tools
 (iii). 34.00.207S; 25.55.509E - Earlier Stone Age hand axe

Middle Stone Age (and possibly Earlier Stone Age) stone tools were observed towards the northern side of the property where the beach gravels (overlying calcrete) were exposed. Only one isolated ESA hand axe was observed. These stone tools are in secondary context and of low cultural significance.

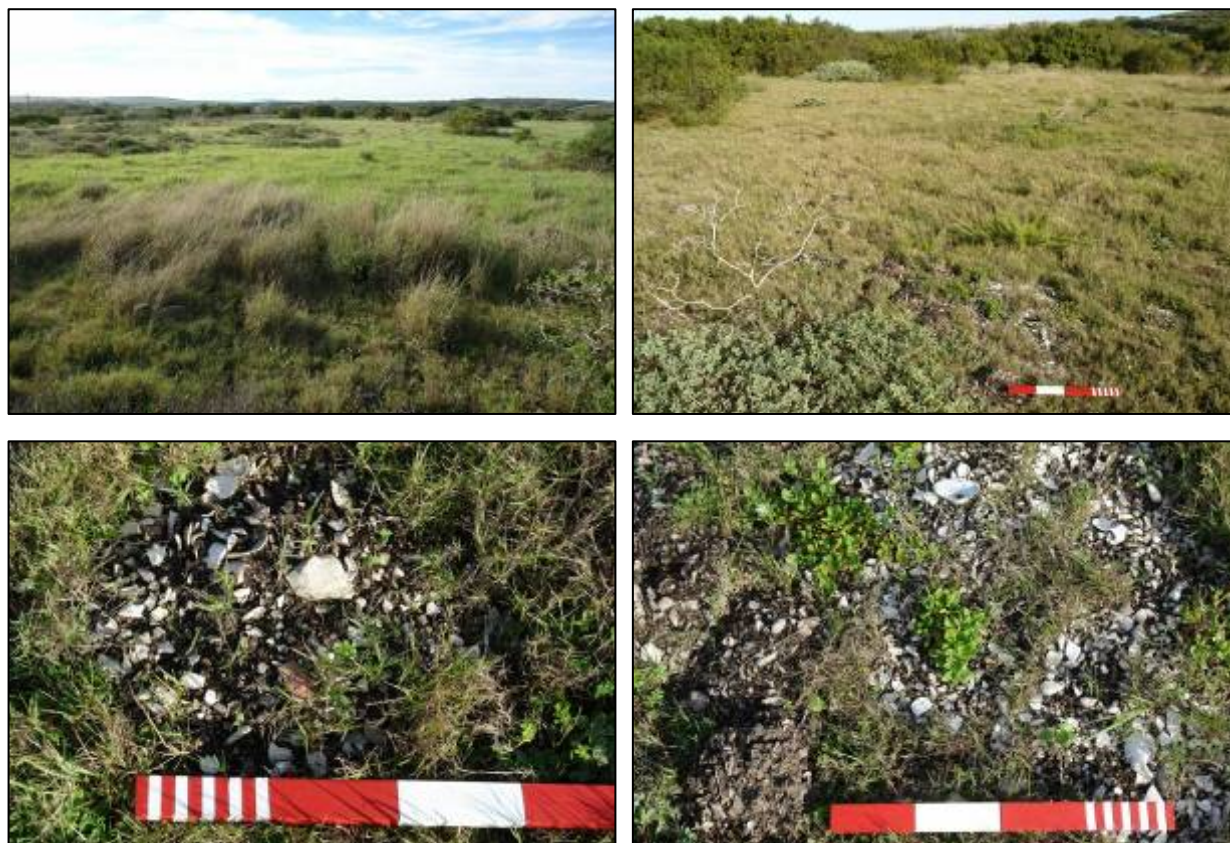


Figs 21-24. Exposed calcrete and beach gravels towards the northern part of the property (top row), an example of Middle Stone Age stone tools found in these gravels (bottom left) and an isolated Earlier Stone Age hand axe observed close to the track (bottom right).

Mega shell midden (outside the property, but close to the northern boundary of the property) – Maps 1-2 and Figs 25-28.

- (i). 33.59.741S; 25.55.540E – north
- (ii). 33.59.839S; 25.55.544E – south

A second sensitive area was identified during the survey, but falls outside the property boundaries. A mega shell midden is situated just north of the proposed development on the large flat area between the estuary and the old national road. A full spectrum of the shellfish species found along the rocky and sandy coasts, stone tools, pottery and bone remains are distributed over a large area of some 200 x 50 metres. The presence of Khoi pottery date the shell midden younger than 2000 years old, but there may also be older hunter-gatherer-fisher deposits. There may be more shell middens in this area of the western bank of the estuary stretching southwards towards the sea, but the dense grass cover made any proper investigation impossible. The proposed development may have an indirect impact on this mega midden.



Figs 25-28. Different views of mega midden (top row) and close-up views of the shell midden material and cultural material pushed to the surface by dune moles (bottom row).

DISCUSSION

The archaeological sites observed were mainly thin scatters of fragmented shell and cultural material such as quartzite stone tools and pot sherds. The size and possible depth of the sites were difficult to establish due to the dense vegetation and many more may be covered by soil. The presence of pot sherds on most of the sites suggest Khoi occupation dating within the past 2000 years. The oldest radiocarbon date for the occupation of Khoi herders with sheep in the Eastern Cape dates to 1 560 years old and comes from a destroyed site approximately (one kilometre south of the proposed development).

The proposed development is located in an extremely sensitive area and the survey confirmed that the property would appear to be rich in archaeological sites. These sites also represent the last remaining KhoiSan heritage sites left west of the Kabeljous River. During 1983 heritage sites of national and provincial importance were destroyed close to this property. It is possible that similar remains may be buried under the topsoil. All possible measures must be taken to protect and preserve such heritage resources.

Archaeological heritage resources are non-renewable and are also protected by the South African National Heritage Resources Act (NHRA) 25 of 1999. The main concern is to protect and conserve the sites and their contents. 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 visitors to the development complex of the importance of the archaeological heritage of the area, should the project proceed.

Therefore the archaeological sensitivity must be established before any development starts. If the investigation proves that the area is too sensitive to be developed, i.e. in case of a cultural landscape and mitigation is not an option, then the proposed development must not be allowed to proceed.

RECOMMENDATIONS

1. Based on the archaeological sensitivity of the wider area (for example the mega shell midden along the northern boundary of the property and the 1983 data), no development should take place within 100 metres from the estuary.
 - However, due to the dense vegetation it is difficult to establish the archaeological sensitivity of the property.
2. It is thus recommended that no development of the property starts before the archaeological sensitivity of the property has been established.
3. Should the investigation prove that the proposed property is too sensitive to be developed and mitigation is no option then the development should not be allowed to proceed.
4. It is suggested that the investigation must take place in 2 stages.

Stage 1

- 4.1. At first, only the southern part of the property may be cleared of the dense kikuyu grass and other alien vegetation. This must be done by hand, rather than mechanically, and care should be taken that the surface soil is not extensively disturbed. An archaeologist must to monitor the clearing of the vegetation.
 - If any archaeological sites/materials are exposed, the context of deposits must be established by spade testing. Permits must be obtained from SAHRA before testing takes place. Reports must be compiled and further recommendations must be provided.

Note: The reason for stage 1 is, that if the southern area covered with alien vegetation is too sensitive to be developed and SAHRA rejects the project, then the rest of the property remains relatively undamaged.

- 4.2. Simultaneously, the context of visible shell scatters in the thicket area must be established by spade testing with limited disturbance of the natural vegetation. Permits must be obtained from SAHRA before testing takes place. Reports must be compiled and further recommendations must be provided.
- 4.3. If there are no sensitive sites/materials uncovered from the southern and thicket areas, the rest of the thicket vegetation may be removed by hand as in 4.2 above.
 - If sites/materials are observed, then these must be spade tested with permits from SAHRA and reports must be compiled and further recommendations must be provided.

4.4. If there are any sites that must be mitigated, a phase 2 archaeological investigation must be conducted to remove/sample the site(s) before development may start, with permits from SAHRA, reports must be compiled and further recommendations must be provided.

Note: The recommendations will be assessed by SAHRA and the final decision rests with them.

Stage 2

5. After the completion of stage 1 and possible mitigation, it is assumed that the levelling of the property will start to prepare the site for the construction of the buildings. As there may be sites that are covered by soil, it is recommended that the top soil be removed carefully by an experienced bulldozer operator in the areas where the building operations will take place. This will expose the area and make it easier to locate possible sites. It will be quicker and relatively less expensive for the client.

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

- During and after the surface scraping exercise, the area will be investigated again. Should any archaeological sites/materials be exposed, then further recommendations will follow.

5.1. Alternatively, if the scraping method of investigation is considered too robust, then a series of test pits/trenches must be excavated where the foundations of the buildings will be placed, and where other general disturbances of the surface will take place. Investigations must be conducted with permits from SAHRA, reports must be compiled and further recommendations must be provided.

Recommendations 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 must be trained as a monitor to be on site to report to the foreman when archaeological sites are found. Should any further archaeological remains be encountered, the work should be stopped to contact the nearest archaeologist to investigate the finds (See Appendix B for a list of possible archaeological sites that maybe found in the area). Recommendations will follow after the investigation and may include:
- A phase 2 mitigation process to systematically excavate and remove the archaeological deposits before construction of the development continues.

Note: Important site(s) may be declared national and/or provincial heritage site(s) by SAHRA and may not be demolished, but must be protected and preserved.

6. The proposed development will have an impact on cultural resources in the surrounding areas. Important archaeological sites and materials are in walking distance and residents will no doubt visit or ‘discover’ these through their recreational activities. Against this background it is suggested that information regarding the heritage of the region be displayed in the visitor centre.

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) (see Appendix A) 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 (AIA’s) 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: brief legislative requirements

Parts of sections 35(4), 36(3) and 38(1) (8) of the National Heritage Resources Act 25 of 1999 apply:

Archaeology, palaeontology and meteorites

35 (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;*
- (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.*

Burial grounds and graves

36. (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.*

Heritage resources management

38. (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, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;*
 - (b) *the construction of a bridge or similar structure exceeding 50m in length;*
 - (c) *any development or other activity which will change the character of the site –*
 - (i) *exceeding 5000m² 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 000m² 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.*

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

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.

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.

Fossil bone

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

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.

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.

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.

APPENDIX C: FIELD RATING OF THE SITES (to comply with section 38 of the National Heritage Resources Act).

National: This site is considered to be of Field Rating/Grade I significance and should be nominated as such (mention should be made of any relevant international ranking);

Provincial: This site is considered to be of Field Rating/Grade II significance and should be nominated as such;

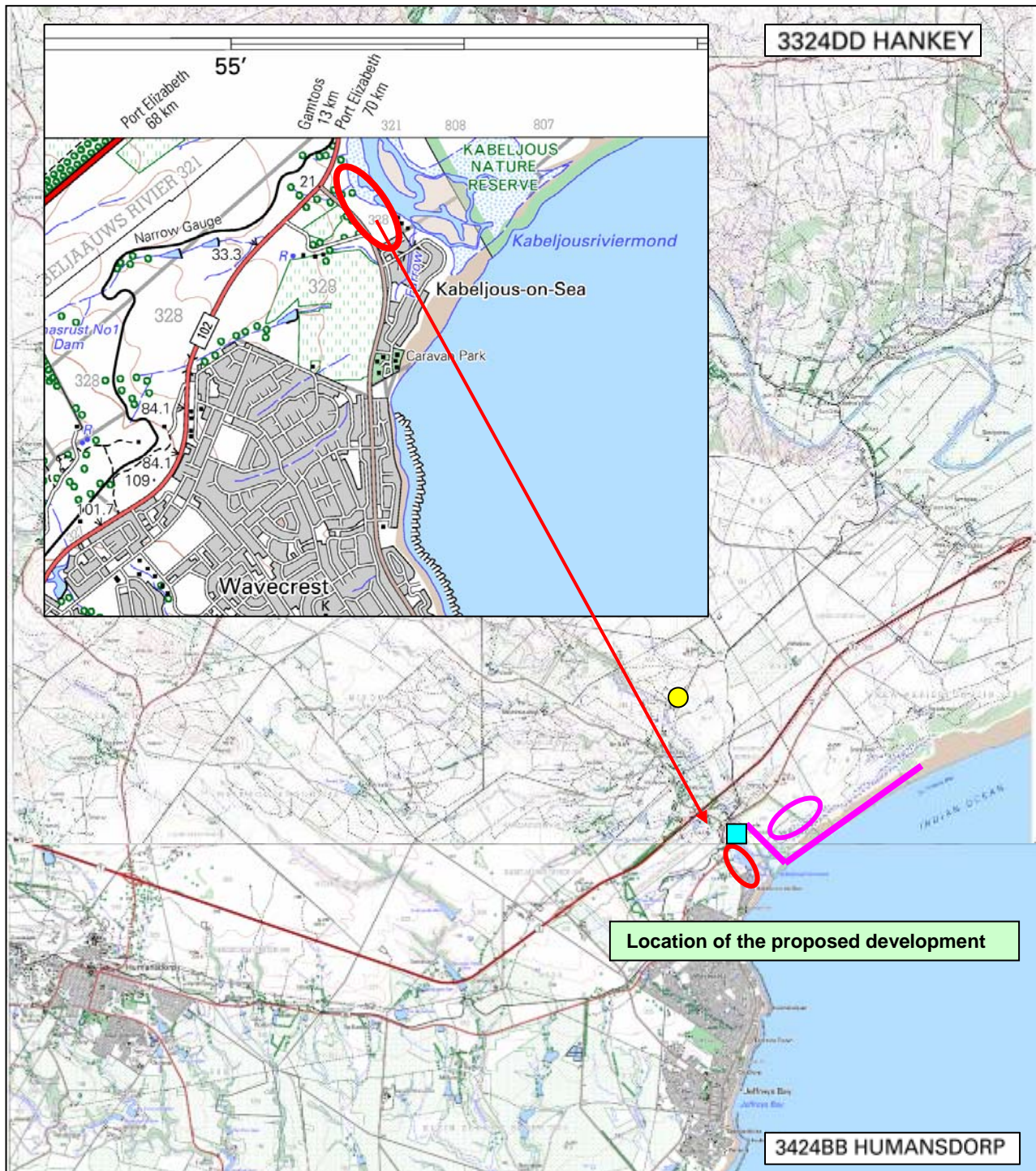
Local: This site is of Field Rating/Grade IIIA significance. The site should be retained as a heritage register site (High significance) and so mitigation as part of the development process is not advised.

Local: This site is of Field Rating/Grade IIIB significance. It could be mitigated and (part) retained as a heritage register site (High significance);

Generally Protected A (Field Rating IV A): This site should be mitigated before destruction (generally High/Medium significance);

Generally Protected B (Field Rating IV B): This site should be recorded before destruction (generally Medium significance);

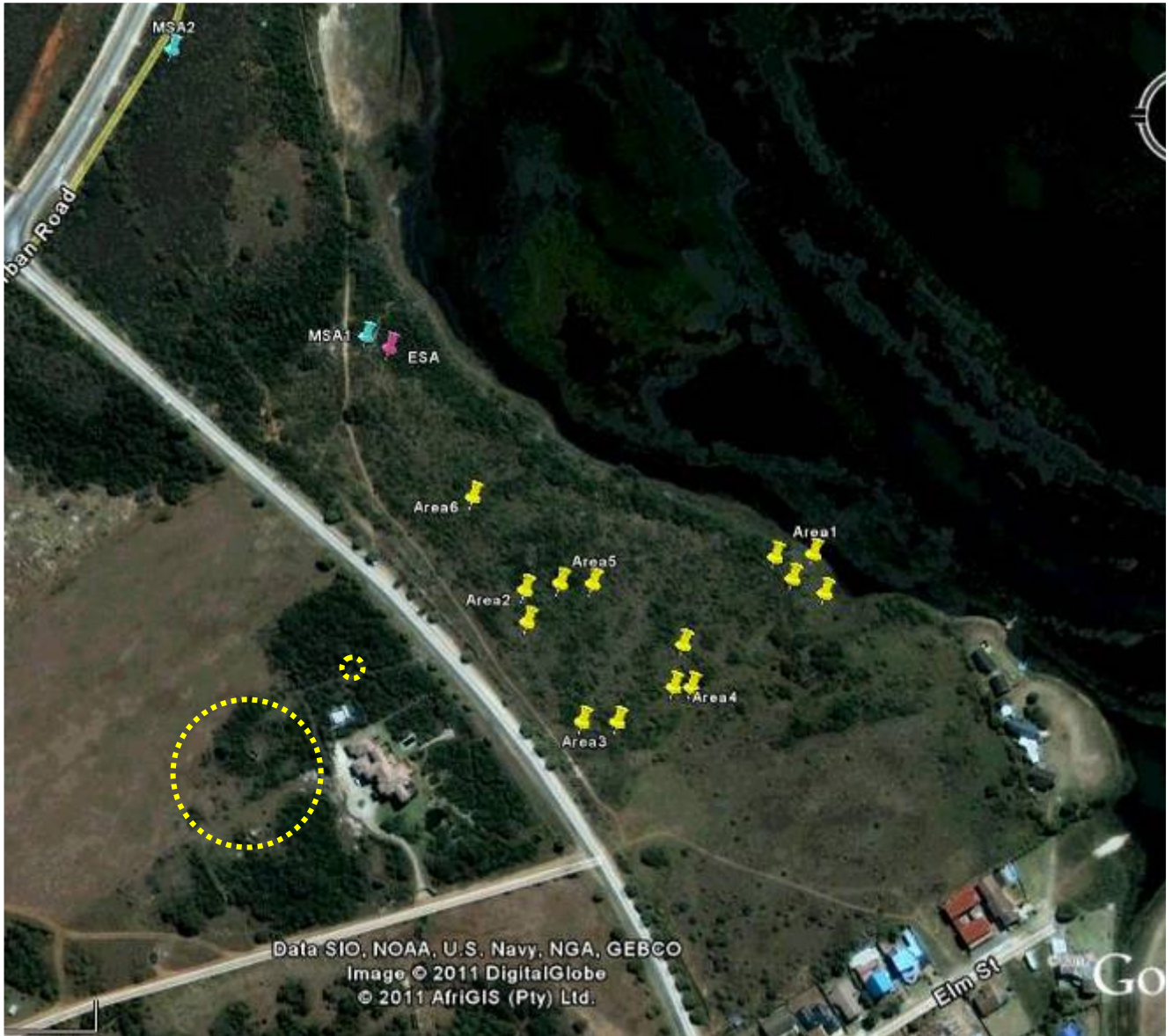
Generally Protected C (Field Rating IV C): This site has been sufficiently recorded (in the Phase 1). It requires no further recording before destruction (generally Low significance).



Map 1. 1:50 000 maps indicating the location of the property (red oval) and the location of Kabeljous River Shelter (yellow dot). The light blue block marks the mega shell midden and the pink lines the archaeological sites east of the estuary.



Map 2. Aerial views indicating the location of the property (red lines) and the archaeological sites observed. The light blue block marks the mega shell midden, the yellow dot the Kabeljous Shelters, the yellow circle the 1983 destroyed sites and the pink lines mark archaeological sites east of the estuary.



Map 3. An aerial view of the property and the archaeological sites observed. Sites were also observed adjacent to the property in the areas marked by the yellow broken circles during pervious investigations of the area.



Map 4. Layout of the proposed development (Map courtesy of Coastal & Environmental Services).