PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT
PROPOSED DEVELOPMENT
ERF 313 AND ERF 314
JACOBSBAAI

Prepared for

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Executive summary

Conradie Goodwin and Associates requested that the Agency for Cultural Resource Management conduct a Phase 1 Archaeological Impact Assessment for a proposed housing development on Erf 313 and 314 Jacobsbaai, in Vredenburg-Saldanha Bay on the Cape West coast.

The aim of the study is to locate and map archaeological heritage sites and remains that may be negatively impacted by the planning, construction and implementation of the proposed project, to assess the significance of the potential impacts and to propose measures to mitigate against the impacts.

A thin, highly dispersed, scatter of bleached and weathered shellfish remains was located in the frontal portion of the subject property alongside Jacobsbaai Main Road. Several Later Stone Age artefacts were also documented on the archaeological site, but these are spread very thinly and unevenly over the surrounding area.

The archaeological heritage remains have been rated as having low local significance.

The impact of the proposed development on important archaeological heritage remains is likely to be low. Archaeological monitoring of earthmoving operations at Erf 312, alongside the subject property, has not located or identified any important sub-surface archaeological heritage remains.

Unmarked human burials may, however, be exposed or uncovered during earthmoving operations.

Important vertebrate fossils may also be exposed if underlying limestone deposits are intercepted during earth-moving operations.

With regard to the proposed development of Erf 313 and Erf 314 Jacobsbaai, the following recommendations are made.

- Bulk earthworks and excavations must be monitored by a professional archaeologist. Monitoring should be confined to the frontal portion of the property, alongside Jacobsbaai Main Road.

- A professional palaeontologist must be appointed to assess the possible palaeontological significance of fossiliferous material on the property, if underlying limestone deposits are intercepted during earth-moving operations.

- Should any unmarked human remains be disturbed, exposed or uncovered during excavations and earthworks for the proposed project, these should immediately be reported to the South African Heritage Resources Agency (Mrs Mary Leslie (021) 462 4502), or Heritage Western Cape (Mr N. Ndlovu (021) 483 9685). Burial remains should not be disturbed or removed until inspected by the archaeologist.

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1. INTRODUCTION

1.1 Background and brief

Conradie Goodwin and Associates, on behalf of Jacobsbaai Developers (Pty) Ltd, requested that the Agency for Cultural Resource Management conduct a Phase 1 Archaeological Impact Assessment for a proposed housing development on Erf 313 and 314 Jacobsbaai, in Vredenburg-Saldanha Bay.

The proposed rezoning and subdivision of the subject property provides for the construction of 38 residential erven, including associated infrastructure such as internal roads and services.

Erf 313 and 314 are currently zoned Small Holding.

The extent of the proposed development (nearly 4.5 ha) falls within the requirements for an archaeological impact assessment as required by Section 38 of the South African Heritage Resources Act (No. 25 of 1999).

The aim of the study is to locate and map archaeological heritage sites and remains that may be negatively impacted by the planning, construction and implementation of the proposed project, to assess the significance of the potential impacts and to propose measures to mitigate against the impacts.

2. TERMS OF REFERENCE

The terms of reference for the archaeological study were:

1. to determine whether there are likely to be any archaeological sites within the proposed site;

2. to identify any sites of archaeological significance within the proposed site;

3. to assess the sensitivity and conservation significance of archaeological sites;

4. to assess the status and significance of any impacts resulting from the proposed development; and

5. to identify mitigatory measures to protect and maintain any valuable archaeological sites that may exist within the proposed site.

3. THE STUDY SITE

A locality map is illustrated in Figure 1.

An aerial photograph of the proposed site is illustrated in Figure 2.

The subject property is located in Main Road Jacobsbaai, between F. du Bois and J. de Goede Streets (Figures 3-8). The site is relatively flat and the back (i.e. the eastern) portion is covered in thick bush and scrub. Larger open spaces occur alongside the Main Road, where the vegetation cover is much thinner. Small outcroppings of calcrete are present in the western portion of the site, while the eastern portion of the site is more, sandy. Burrowing and dune mole rat activity is extensive. There are no significant landscape features occurring on the property. Numerous piles of stacked calcrete occur in the southern portion of the proposed site. The proposed site is in a fairly degraded and modified state. The surrounding land use comprises mainly residential development, small holdings and vacant land. Jacobsbaai has seen rapid residential development in recent years and has been the subject of numerous archaeological studies.

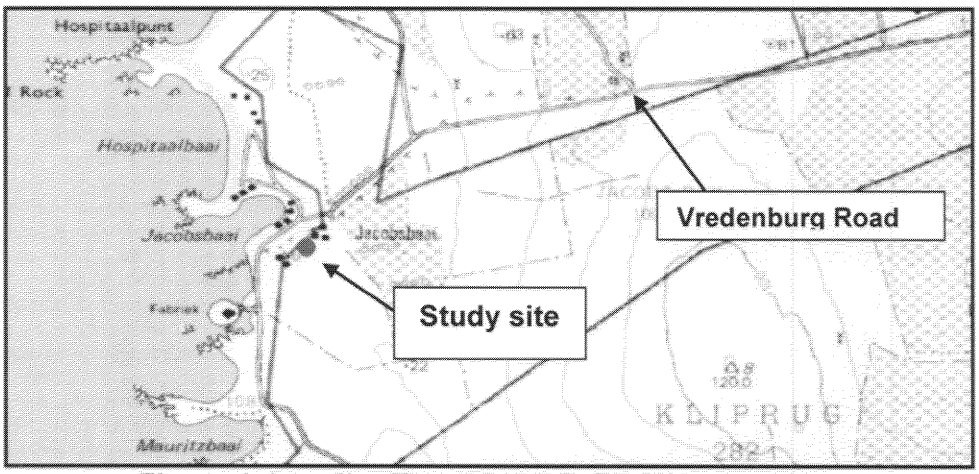

Figure 1. Locality Map (3217 DB & DD Vredenburg)

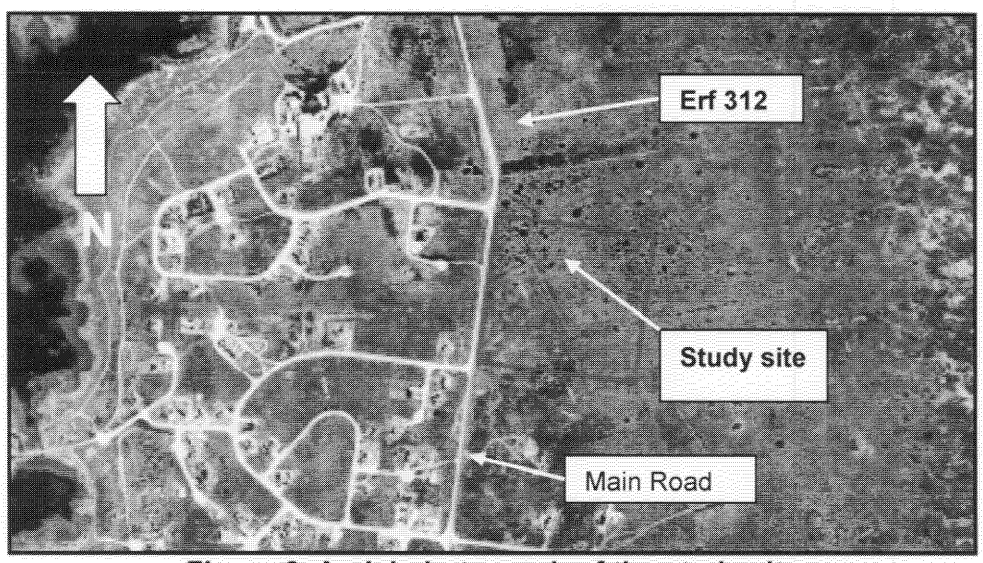

Figure 2. Aerial photograph of the study site

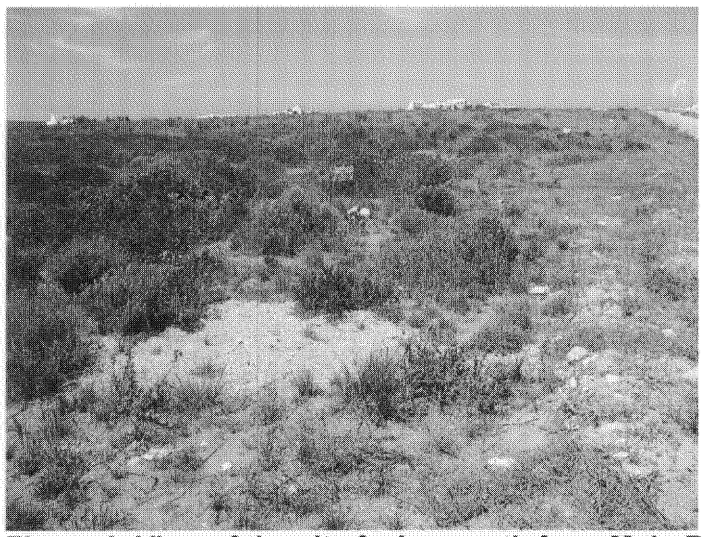

Figure 3. View of the site facing south from Main Road

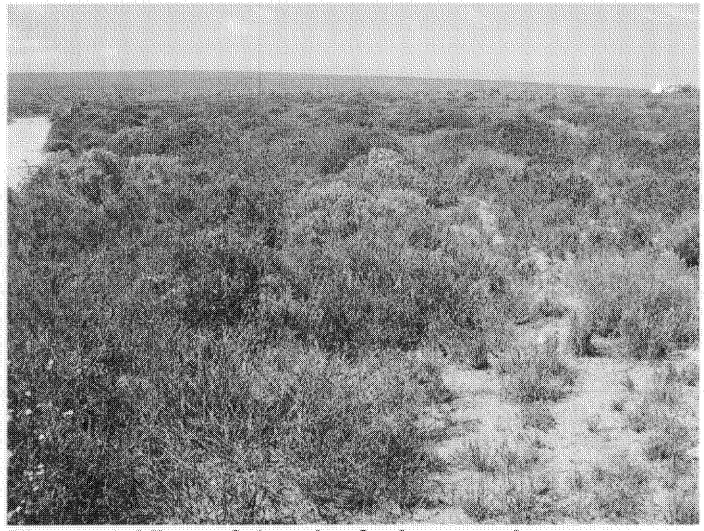

Figure 4. View of the site facing south east

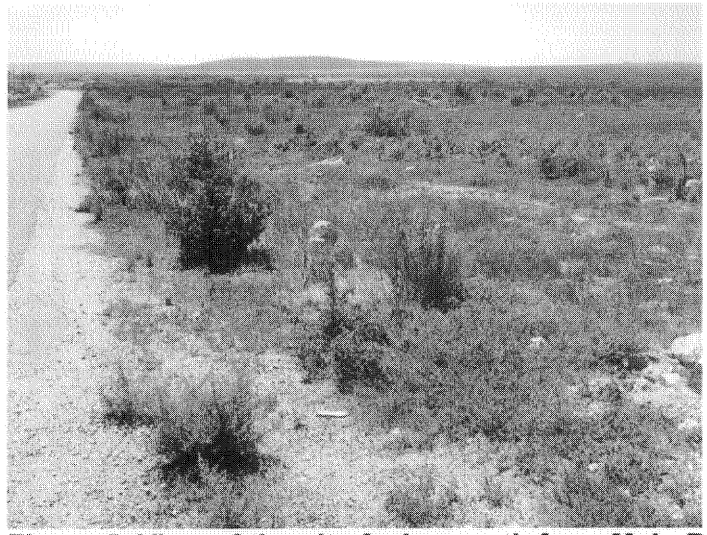

Figure 5. View of the site facing north from Main Road

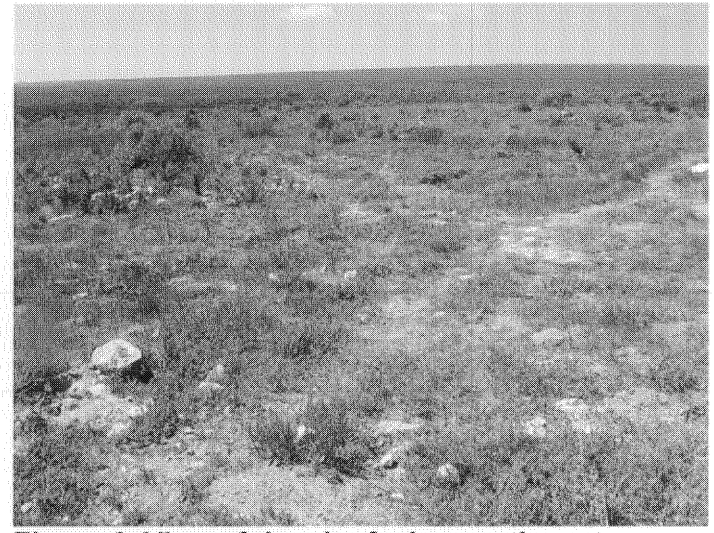

Figure 6. View of the site facing north east

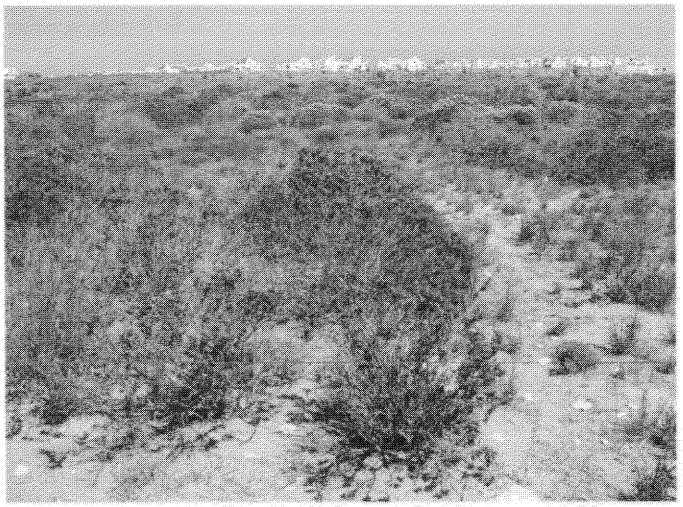

Figure 7. View of the site facing south west

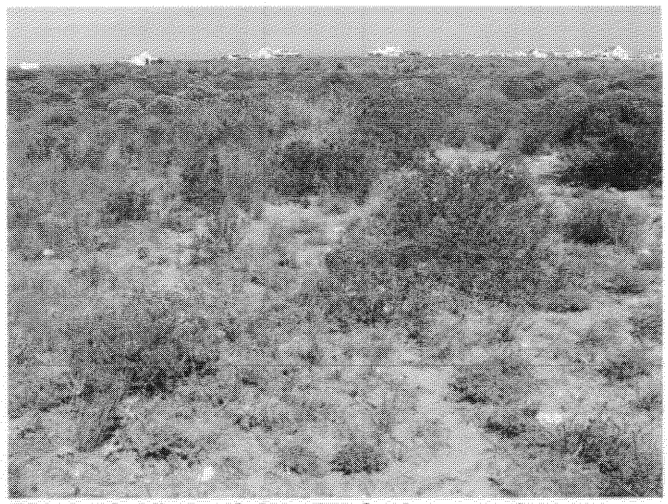

Figure 8. View of the site facing south

4. STUDY APPROACH

4.1 Method

The approach followed in the archaeological study entailed a foot survey of the proposed site.

Archaeological heritage remains were recorded and given a co-ordinate using a Garmin Gecko 201 GPS unit set on map datum wgs 84.

The site visit and assessment took place on the 21st March, 2007

A desktop study was also undertaken.

4.2 Constraints and limitations

There were no major constraints or limitations associated with the study. However, the eastern portion of the site is covered in thick veld, resulting in low archaeological visibility.

4.3 Identification of potential risks

- Unmarked human burials may be exposed or uncovered during earthmoving operations.

- Important vertebrate fossils may be exposed if underlying limestone deposits are intercepted during earth-moving operations.

4.4 Results of the desktop study

The Vredenburg Peninsula is exceptionally rich in archaeological sites (Kaplan 1993; Sadr et al 1992). Sites have been recorded at Tabakbaai, Tooth Rock, Mauritzbaai, Jacobsbaai and Swartriet (Thackeray & Cronin 1975; Parkington & Poggenpoel 1987;

Avery 1987; Kaplan 2003a, b, 2004a, 2005a, b, 2006a, b; Yates & Henshilwood n.d.). Its richness is determined largely by its unique rocky shoreline formation which was favoured by both Later Stone Age (LSA) hunter-gatherers and Khoi herders in the past, as it offered greater opportunities for the exploitation of marine foods, while the local shales and granites provided vital nutrients for domestic stock.

At Jacobsbaai, substantial concentrations of shell middens are clustered immediately inshore of the rocky shoreline. It is here that large quantities of shellfish species were stripped from the rocks, or collected at low tides, processed, and consumed by LSA hunter-gatherers.

An ancient tidal fish trap has also been reported in Mauritzbaai (Avery 1987).

A Khoisan burial was reportedly uncovered from the Jacobsbaai perlemoen factory in 2005, during the course of bulk excavations, but this has not been confirmed and no burial has been found, despite efforts to locate it.

Unfortunately, severe disturbance of archaeological sites at Jacobsbaai and Mauritzbaai has taken place over the last few years, due mainly to an increase in residential development, in the area and related physical and human pressures. The majority of the Jacobsbaai/Mauritzbaai archaeological sites have already been severely disturbed and damaged as a result of these activities.

Archaeological shovel testing in Erf 85 and Erf 86 Jacobsbaai, has shown that fairly substantial shellfish deposits, and modest amounts of bone, stone tools, ostrich eggshell and pottery occur in the shoreline area (Kaplan 2004b,c).

A single radiocarbon date of 3300 ± 50 (BP) calibrated to 1604 - 1489 BC, was obtained from a shellfish sample from Erf 6 Jacobsbaai (Kaplan 2005c). The date is the first to have been obtained from an archaeological deposit in Jacobsbaai.

It is also well established that vertebrate fossils and archaeological occurrences in the Langebaan Limestone (calcrete) formations in the Vredenburg-Saldanha Bay region are valuable sources of information on the sedimentary, chronological, palaeoenvironmental and palaeoecological context of the development of modern human behaviour during the Middle Stone Age (MSA) and perhaps even the Early Stone Age (ESA) (Avery 1997).

Middle Pleistocene occurrences and the recovery of human remains in the Langebaan Limestone deposit at Sea Harvest, in Saldanha Bay, for example, has provided some of the earliest evidence we have in the world for the human exploitation of coastal resources, more than 100 000 years ago (Grine & Klein 1993; Volman 1978).

Beside evidence of well preserved bone, ostrich eggshell, ochre and MSA stone implements, the Hoedjiespunt limestone sediments in Saldanha Bay also contains evidence of early modern human about 125 000 years ago (Berger & Parkington 1995).

200-250 000 year old vertebrate fossil remains, including a possible human humerus, have also been found by the archaeologist embedded in limestone deposits in the shoreline area at Swartriet, a few kilometers north of Jacobsbaai (Kaplan 2005b)

A 10 million year old vertebrate fossil of a Sivathere (a large, short-necked giraffe) found by a Jacobsbaai resident in a nearby borrow pit suggests that other important vertebrate fossils may occur in the limestone deposits which cap and underlie some of the large vacant properties in the Jacobsbaai area (Dave Roberts Council for Geoscience pers. comm.).

The reasons for the abundance of fossil archaeological and palaeontological remains in the Saldanha - Vredenburg area is in part related to the highly calcareous character of the aeolianites (fossil dunes) and shallow marine sediments. Bones and implements are readily preserved by the rapid carbonate cementation of the strata in which they become entombed.

5. FINDINGS

A thin, highly dispersed, scatter of bleached and weathered shellfish remains was located on loose sandy soils in the frontal portion of the property alongside Jacobsbaai Main Road (Figures 9-11). Some whole shell was found, but most of the remains are small fragile fragments. The shellfish is dominated by the Limpets, *S. argenvillei* and *C. granatina.* Some whelk was also noted. A few Later Stone Age artefacts were also documented on the archaeological site, but these are spread very thinly and unevenly over the surrounding area. They include three quartz flakes, two quartz chunks and two indurated shale flakes. No pottery or ostrich eggshell was noted. Dune mole rat activity and burrowing is quite extensive. Some excavations and diggings also occur. The receiving environment is quite degraded and the archaeological heritage remains occur in a fairly severely disturbed and modified context. A GPS co-ordinate for the site is S° 32 58 104 E° 17 53 544.

The occasional whole shell and fragment of bleached and weathered shellfish, as well as a few stone artefacts such as quartz flakes and chunks, and a small upper grindstone, were found on the remainder of the site.

The archaeological heritage remains have been rated as having low local significance.

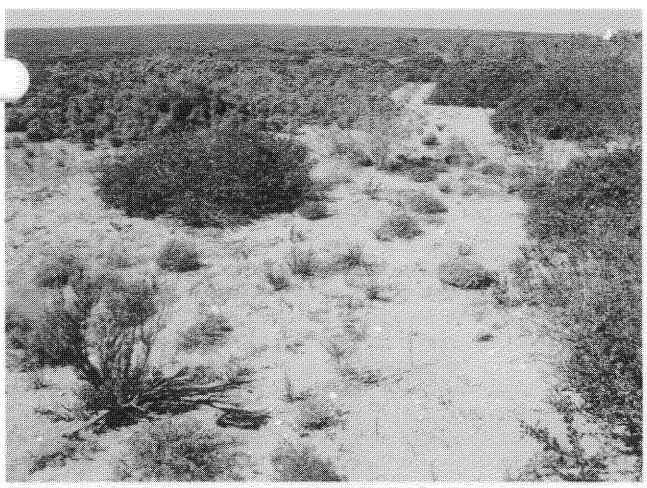

Figure 9. Dispersed shellfish fragments alongside Jacobsbaai Main Road. View facing south east

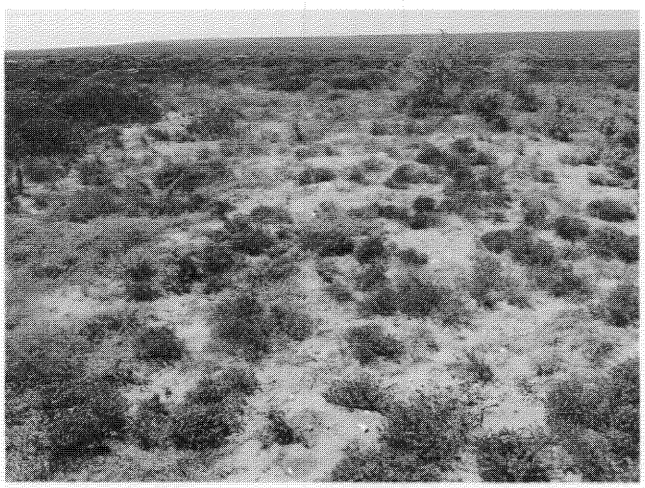

Figure 10. Dispersed shellfish fragments alongside Jacobsbaai Main Road. View facing east

Figure 11. Dispersed shellfish fragments alongside Jacobsbaai Main Road. View facing west

7. IMPACT STATEMENT

The impact of the proposed development on archaeological heritage remains is likely to be low.

Monitoring of bulk earthworks at Erf 312 alongside the subject property has not revealed or indicated the presence of any important sub-surface archaeological heritage remains (refer to Figure 2).

Bulk earthworks and excavations for services may, however, expose or uncover unmarked human burials.

Important vertebrate fossils may also be exposed if underlying limestone deposits are intercepted during earth-moving operations.

8. RECOMMENDATIONS

With regard to the proposed development of Erf 313 and Erf 314 Jacobsbaai, the following recommendations are made.

- Bulk earthworks and excavations alongside Jacobsbaai Main Road must be monitored by a professional archaeologist.

- A professional palaeontologist must be appointed to assess the possible palaeontological significance of fossiliferous material on the property, if underlying limestone deposits are intercepted during earth-moving operations.

- Should any unmarked human remains be disturbed, exposed or uncovered during excavations and earthworks for the proposed project, these should immediately be reported to the South African Heritage Resources Agency (Mrs Mary Leslie (021) 462 4502), or Heritage Western Cape (Mr N. Ndlovu (021) 483

9685). Burial remains should not be disturbed or removed until inspected by the archaeologist.

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