

**PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT
PORTION 2 OF FARM MEEUWEKLIP NO. 293
LANGEBAAN
CAPE WEST COAST**

Prepared for

BCD TOWN AND REGIONAL PLANNERS

By

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**SEPTEMBER
2004**

Executive summary

BCD Town and Regional Planners requested that the Agency for Cultural Resource Management undertake a Phase 1 Archaeological Impact Assessment of Portion 2 of the Farm Meeuweklip No. 293, Langebaan, on the Cape West Coast.

...any development or other activity which will change the character of a site exceeding 5 000m², or the rezoning or change of land use of a site exceeding 10 000 m², requires an archaeological impact assessment in terms of the National Heritage Resources Act (No. 25 of 1999).

The proposed rezoning and subdivision of the affected property is for the purpose of a residential development.

The aim of the study is to locate and map archaeological sites 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.

The extent of the property is about 65 ha.

The approach followed in the study entailed undertaking a detailed baseline survey of Portion 2 of the Farm Meeuweklip No. 293, Langebaan.

A desktop study was also undertaken.

Other than a few fragments of shellfish remains associated with granite outcroppings on the property, the archaeological heritage study has identified no significant impacts to pre-colonial archaeological material that will need to be mitigated prior to development activities. The receiving environment is not considered to be archaeologically sensitive, vulnerable or threatened.

The impact of the proposed project on surface archaeological remains is likely to be low.

Human burials and fossil remains may, however, be uncovered or exposed during earthworks. It is well established that vertebrate fossils and archaeological occurrences occur in the Langebaan Limestone (calcrete) formations and associated deposits in the Saldanha Bay/Langebaan area.

The archaeological impact assessment of Portion 2 of the Farm Meeuweklip No. 293, Langebaan, has rated the potential impacts to archaeological material as being low provided that:

- An appropriate specialist is contracted to inspect excavations for possible archaeological and palaeontological fossil remains during the construction phase of the project, if excavations penetrate underlying calcrete/limestone and associated deposits.
- Should any human remains be disturbed, exposed or uncovered during earthworks, these should immediately be reported to the South African Heritage Resources Agency (Mrs Mary Leslie @ 021 462 4502).

1. INTRODUCTION

1.1 Background and brief

BCD Town and Regional Planners requested the Agency for Cultural Resource Management to undertake a Phase 1 Archaeological Impact Assessment (AIA) of Portion 2 of the Farm Meeuweklip No. 293, Langebaan on the Cape West Coast.

...any development or other activity which will change the character of a site exceeding 5 000m², or the rezoning or change of land use of a site exceeding 10 000 m², requires an archaeological impact assessment in terms of the National Heritage Resources Act (No. 25 of 1999).

The proposed rezoning and subdivision of the property is for the purpose of a residential development.

The aim of the study is to locate, identify and map archaeological remains that may be negatively impacted by the planning, construction and implementation of the proposed project, and to propose measures to mitigate against the impact.

2. TERMS OF REFERENCE

The terms of reference for the archaeological study were:

- to determine whether there are likely to be any archaeological sites of significance within the proposed site;
- to identify and map any sites of archaeological significance within the proposed site;
- to assess the sensitivity and conservation significance of archaeological sites within the proposed site;
- to assess the status and significance of any impacts resulting from the proposed development, and
- to identify mitigatory measures to protect and maintain any valuable archaeological sites that may exist within the proposed site

3. THE STUDY SITE

A site locality map is illustrated in Figure 1.

An aerial photograph of the affected property is illustrated in Figure 2.

The large, vacant property is located within the residential precinct of the town of Langebaan, on the Cape West Coast (Figures 3-7). The effected property is surrounded by rapidly expanding residential development. The site comprises old agricultural lands and is currently used for grazing and bee keeping. A number of small footpaths and two-wheel track/roads cut across the road. A drainage line in the central portion of the site is also visible. Granite outcrops are located in the central and southern portion of the site (Figures 8-10).). Dune mole rat activity is extensive on the site.

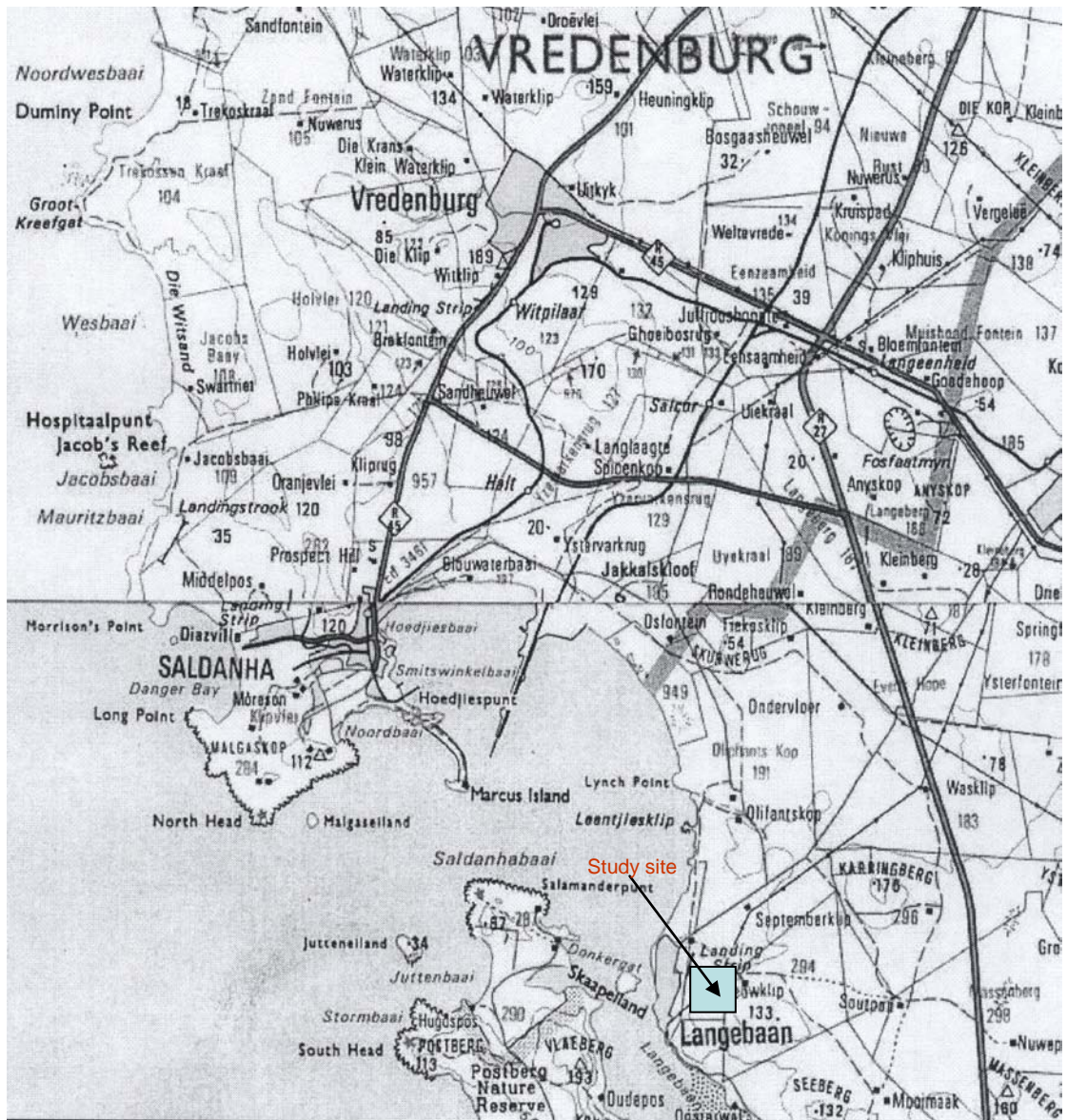


Figure 1. Archaeological study Portion 2 of Farm Meeuweklip No. 293 Langebaan. Site locality map.

Figure 2. Archaeological study Portion 2 of Farm Meeuweklip No. 293 Langebaan.
Aerial photograph of the site.



Figure 3. Archaeological study Portion 2 of Farm Meeuweklip No. 293 Langebaan.
Site facing south.



Figure 5. Archaeological study Portion 2 of Farm Meeuweklip No. 293 Langebaan.
Site facing west.



Figure 4. Archaeological study Portion 2 of Farm Meeuweklip No. 293 Langebaan.
Site facing south.



Figure 6. Archaeological study Portion 2 of Farm Meeuweklip No. 293 Langebaan.
Site facing north.



Figure 7. Archaeological study Portion 2 of Farm Meeuweklip No. 293 Langebaan.
Site facing north.



Figure 8. Archaeological study Portion 2 of Farm Meeuweklip No. 293 Langebaan.
Rock outcrops.



Figure 9. Archaeological study Portion 2 of Farm Meeuweklip No. 293 Langebaan.
Rock outcrops.



Figure 10. Archaeological study Portion 2 of Farm Meeuweklip No. 293
Langebaan. Rock outcrops.

A modern (ruined) animal drinking trough is located in the north-western portion of the property.

4. APPROACH TO THE STUDY

The approach used in the archaeological study entailed a systematic foot survey of the property.

Particular attention was paid to searching the area around the granite outcroppings, known locations for precolonial herder sites (Sadr et al 1992).

A desktop study was also undertaken.

5. A BRIEF OVERVIEW OF THE ARCHAEOLOGICAL SIGNIFICANCE OF LANGEBAAN

Archaeological visibility in Langebaan is extremely high (Kaplan 1993). More than 40 sites have been recorded between Lentjiesklip 1 and Lynch Point (Hart & Halkett 1992; Kaplan 1999; Parkington & Poggenpoel 1987). Excavations have shown that the rocky shoreline at Lentjiesklip and Lynch Point acted as a foci that attracted Later Stone Age¹ (LSA) people as they offered greater opportunities for the exploitation of marine foods particularly shellfish (Hart 1991; Kaplan 2000).

The archaeology suggests that the pattern of occupation of the Langebaan area involved people locating themselves at the coast where large quantities of shellfish was consumed, as well as seals, fish, bird, tortoise and small antelope. Evidence also suggests that LSA people may have been scheduling their visits to collect lower tidal zone shellfish such as limpets and Perlemoen (Hart 1991).

Excavations at Lentjiesklip 4 (Parkington et al 1988) and Lentjiesklip 2 (Hart 1991) show that some of the sites in the region date to between 4000 and 1800 years ago (Hart 1991), some of which have been found buried up to three metres below the sand body. The domestic and material cultural items generated from these and other excavations, indicate a wide range of human responses to opportunities and needs over time.

A human burial was also uncovered during excavation of a service trench at Lentjiesklip 2 (Hart 1991).

It is also well established that vertebrate fossils and archaeological occurrences in the Langebaan Limestone (calcrete) formations and associated deposits in the Saldanha Bay area, are extremely valuable sources of information on the sedimentary, chronological, palaeoenvironmental and palaeoecological context of the development of modern human behaviour during the Middle Stone Age² (MSA) and perhaps even the Early Stone Age³ (ESA) (Avery 1997).

More recently, 120 000-year-old fossil footprints were discovered in ancient fossil dunes at Kraalbaai on the western shores of the Langebaan Lagoon (Roberts 1996), among the oldest modern human footprints in the world.

¹ A term referring to the final 20 000 years of precolonial history in southern Africa

² A term referring to the period between 200 000 and 20 000 years ago.

³ A term referring to the period between 2 million and 200 000 years ago.

Middle Pleistocene occurrences and the recovery of human remains in the Langebaan Limestone deposit at Sea Harvest, in Saldanha Bay, has also 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).

The younger Mid Pleistocene (~ 250 000 years) Elandsfontein site near Langebaan, a hominid butchery site where ESA and MSA artefacts are found, is also associated with a large and diverse fossil fauna. The partial skull of 'Saldanha Man', probably an archaic form of *Homo sapiens*, was also discovered at this locality (Singer & Wymer 1968).

With regard to ancient fossil sites, The Varswater quarry near Langebaanweg has yielded Mio-Pliocene (~ 5 million years) fossils of great diversity and quantity (Hendey 1982). Earthworks at the Saldanha Steel Project also exposed rare and previously unknown crocodylian and other fossil remains from the Miocene Period, from deposits underlying calcareous formations during excavations for descaling pits (Roberts 1997a).

Several fossil hyena lairs have also provided glimpses of past Pleistocene (1.6 million – 200 000 years) faunas, including herbivores and carnivores, at Hoedjiespunt and Sea Harvest, and Besans Klip in Vredenburg (Roberts 1997a). An EIA for the proposed Alpha Saldanha Cement Project in Saldanha Bay also revealed the presence of an unusual Mid-Miocene (~ 11-12 million years) fauna, including the shell of a giant extinct ostrich like bird (Roberts 1997b).

The reasons for the abundance of fossil archaeological and palaeontological remains in the Saldanha - Langebaan 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.

6. LEGISLATIVE REQUIREMENTS

6.1 The National Heritage Resources Act (Act No. 25 of 1999)

6.1.1 Structures (Section 34 (1))

No person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the South African Heritage Resources Agency (SAHRA), or Heritage Western Cape.

6.1.2 Archaeology (Section 35 (4))

No person may, without a permit issued by the SAHRA or Heritage Western Cape, destroy, damage, excavate, alter or remove from its original position, or collect, any archaeological material or object.

6.1.3 Burial grounds and graves (Section 36 (3))

No person may, without a permit issued by SAHRA or Heritage Western Cape, destroy, damage, alter, exhume or 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.

7. RESULTS OF THE IMPACT ASSESSMENT

No archaeological heritage remains were located during the baseline study of Portion 2 of the Farm Meeuweklip No. 293, Langebaan

Fragments (probably modern) of Black Mussel (Choromytilus meridionalis) and some White Mussel (Dona serra) were found among some of the granite outcrops in the central portion of the site. Some of the White Mussel shows clear sign of seagull predation. Two wind-blasted and fragile limpets (Patella argenvillei) were found on the unconsolidated soft sands during a walk through of the site.

No cultural remains such as stone tools, ostrich eggshell, or pottery were located during the study.

No shellfish remains were found associated with extensive dune mole rat activity on the site, which would otherwise suggest the presence of buried shellfish remains.

It is interesting to note that a study of the nearby Langebaan Golf Estate also failed to locate any coherent archaeological sites, other than a few dispersed stone tools and some fragments of shell (Kaplan 2002).

However, archaeological monitoring of deep excavation trenches at Langebaan Golf Estate revealed the presence of ancient Early Pleistocene fauna, with extinct species and giant forms of Brown Mussel (perna perna) (Dr Dave Roberts, Council for Geoscience, pers. comm.).

8. IMPACT STATEMENT

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

The probability of locating significant surface archaeological remains during implementation of the project is also likely to be low.

Human burials may, however, be exposed or uncovered during earthworks and excavations.

Fossil archaeological and palaeontological remains may also be exposed in possible underlying calcrete/limestone deposits, during bulk excavations.

9. RECOMMENDATIONS

The archaeological impact assessment of Portion 2 of the Farm Meeuweklip No. 293, Langebaan, has rated the potential impacts to archaeological material as being low provided that:

- An appropriate specialist is contracted to inspect excavations for possible fossil archaeological and palaeontological remains during the construction phase of the project, if excavations penetrate underlying calcrete/limestone and associated deposits.
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