

**PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT
PROPOSED DEVELOPMENT OF A PRIVATE NATURE
RESERVE ON TYGERFONTEIN FARM NO. 564
YZERFONTEIN
SWARTLAND MUNICIPALITY**

Prepared for

COASTEC

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Executive summary

A Phase 1 Archaeological Impact Assessment (AIA) of a proposed Private Nature Reserve on a portion of the farm Tygerfontein No. 564, Yzerfontein has identified no significant impacts to pre-colonial archaeological material that will need to be mitigated prior to development activities.

A ruined building in the southern portion of the property must be assessed by a competent heritage specialist. The building is over 60 years of age and protected under the National Heritage Resources Act (No. 25 of 1999). The building may not be destroyed, altered or restored without a permit issued by Heritage Western Cape, the delegated provincial heritage authority.

1. INTRODUCTION

1.1 Background and brief

Coastec requested that the Agency for Cultural Resource Management undertake a Phase 1 Archaeological Impact Assessment (AIA) of a proposed Private Nature Reserve on a portion of the farm Tygerfontein No. 564, Yzerfontein, in the Western Cape Province.

The coastal strip of the property has already been investigated in two earlier reports, and will be the subject of a limited cluster development (Resort Zone II).

The extent of the proposed development (some 963ha) 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 archaeological assessment took place over 2 days, on the 6th and the 14th of June 2005.

An application has been made to rezone the affected property from Indeterminate to Open Space III for the purpose of the development of a Private Nature Reserve.

The aim of the study is to locate, identify and map archaeological sites/remains that may be negatively impacted by the rezoning of the affected property, and to propose measures to mitigate against the impact.

A Phase 1 AIA of the coastal portion of Tygerfontein was undertaken in 1995 by the Archaeology Contracts Office, University of Cape Town (Halkett & Hart 1995).

The Department of Archaeology, South African Museum (Avery et al 1990) also undertook an archaeological and palaeontological survey of the property.

Archaeological heritage remains were recorded in areas that had been identified for a possible resort development, and that some of the sites would 'require mitigation if development takes places in these areas' (Halkett & Hart 1995:6).

Sites were also vulnerable to secondary impacts such as the use of off-road vehicles, and pedestrian access to the beach, and if not controlled, could 'have a serious impact on archaeological sites and the coastal dune environment as a whole' (Halkett and Hart 1995:6).

The Environmental Impact Assessment (EIA) report for the proposed rezoning and development of Tygerfontein Farm takes cognizance of the presence of the archaeological heritage remains on the property, and the proposed development footprints have been adjusted so as to avoid potentially significant archaeological sites (Low 2004).

Mitigation of impacts on archaeological sites on the property is also included in the EIA report (Low 2004:22).

These essential mitigation measures will be further bolstered by the development of a detailed Construction and Operational Environment Management Plan (EMP) for the proposed project.

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 Nature Reserve;
2. to identify any sites of archaeological significance within the proposed Nature Reserve;
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 of a Nature Reserve, and
5. to identify mitigatory measures to protect and maintain any valuable archaeological sites that may exist within the proposed Nature Reserve.

In addition to the above terms of reference, ACRM was also instructed by COASTEC to relocate and provide GPS readings for each of the sites recorded by Halkett and Hart (1995), including an assessment of an old, ruined building located in the southern portion of the property.

These instructions were set out in a letter from Heritage Western Cape (HWC), the delegated Provincial Heritage Authority, to Mr B. Low of COASTEC, dated 30th May 2005 (Ref. No. C13/3/6/2/2/1/1/C5).

3. THE STUDY SITE

A locality map of the study area is illustrated in Figure 1.

A site development plan indicating the layout of the proposed development and known archaeological sites is illustrated in Figure 2. The proposed development footprints have been adjusted so as to avoid the archaeological sites.

Tygerfontein Farm is situated directly south of the town of Yzerfontein, and about 60 kms north of Cape Town. The site is part of a wide coastal plain, approximately 6 km wide and is backed inland by granite hills.

A number of distinct landforms are present, including a limestone ridge in the north, coastal dunes and cliffs, and an inland plain.

The southern portion of the farm was used occasionally for grazing of livestock but this is no longer the case.

For the purpose of this report, only the inland portion of Tygerfontein was searched for archaeological heritage remains.

The inland portion (i.e. the limestone ridge and inland plain) of the property is dominated by stable Dune Thicket vegetation on calcareous sands (Figures 3-6).



Figure 1. Site locality map (33 Yzerfontein).



Figure 3. The site facing south from the limestone ridge.



Figure 4. The site facing south east from the limestone ridge.

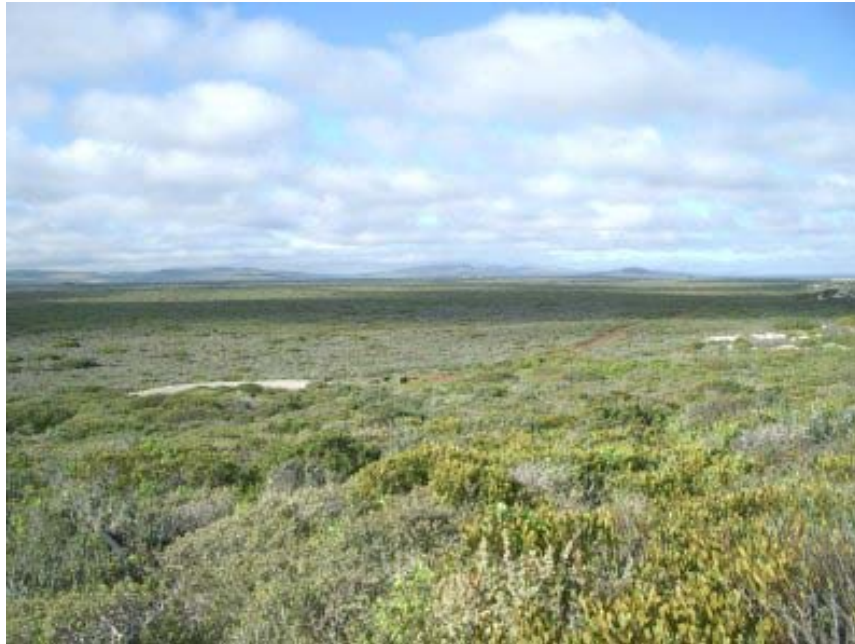


Figure 5. The site facing south-east from the water tank.



Figure 6. The site facing north toward Yzerfontein.

4. STUDY APPROACH AND DOCUMENTATION OF ARCHAEOLOGICAL SITES

4.1 Method

The approach used in the archaeological study entailed a foot survey of the inland portion of the farm Tygerfontein No. 564.

For the purpose of this study, the inland portion of the property is physically defined from the coastal portion by a two-track road and a recently constructed gravel road running along the entire length of the western boundary of the property; in essence the separation of the mobile and stable dunes on the property.

Archaeological sites recorded by Halkett and Hart (1995) were also re-located and given a GPS reading using a Garmin Gecko 201 set on map datum WGS 84.

A desktop study was also undertaken.

4.2 Archaeological background of the study area

Yzerfontein is known to contain many archaeological sites (Avery *et al* 1990; Avery 1994; Halkett & Hart 1995; Kaplan 1993, 1996, 1998, and personal observation). Its richness is determined largely by its rocky shoreline formation which was favoured by both Later Stone Age¹ (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 Yzerfontein, substantial concentrations of shell middens are clustered inshore of the rocky shoreline in the intertidal zone. 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.

Severe disturbance of archaeological sites at Yzerfontein has taken place over a number of years, due mainly to an increase in residential development in the area, and accompanying physical and human pressures.

Many of the Yzerfontein archaeological sites have been severely disturbed and damaged as a result of these activities. Sadly, some of these sites have been completely destroyed as well (personal observation).

4.3 Archaeological sites in the coastal portion of Farm Tygerfontein No. 564

As per instructions c) and d) in the HWC letter to Mr B. Low dated 30th May 2005, GPS readings, including digital photographs, of sites located by the Archaeology Contract Office are provided below (Figures 7-10).

This includes a GPS reading, assessment and photograph of the ruined building in the southern portion of the property (Figure 11). The building, although having undergone some minor restoration, is protected in terms of the National Heritage Resources Act (No 25 of 1999) 60-year-old clause. The building may not be destroyed or altered without a permit issued by the delegated provincial heritage authority, Heritage Western Cape.

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



Figure 7. Archaeological site TFN 1. GPS reading S° 33 23 736 E 18° 12 933.



Figure 8. Archaeological site TFN 2. GPS reading S° 33 23 934 E 18° 13 253.



Figure 9. Archaeological site TFN 3. GPS reading S° 33 22 860 E 18° 11 363.



Figure 10. Archaeological site TFN 4. GPS reading S° 33 22 793 E 18° 11 254.



Figure 11. Ruined building in the southern portion of the property.
GPs reading S° 33 24 000 E 18° 13 717.

Note: Of all the sites located, TFN 1 has been graded high local significance. An exceptional amount of large fossil bone (including some almost complete, articulated animal skeletons), is exposed over a wide area in the deflated basin.

5. LEGISLATIVE REQUIREMENTS

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

...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 Section 38 of the National Heritage Resources Act (No. 25 of 1999).

5.1.1 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.

5.1.2 Archaeology (Section 35 (4))

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

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

No person may, without a permit issued by the South African Heritage Resources Agency (SAHRA), 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.

6. LIMITATIONS

The receiving environment for the proposed Private Nature Reserve is dominated by impenetrable Dune Thicket vegetation, resulting in extremely low archaeological visibility (refer to Figures 3-6).

7. FINDINGS

No archaeological heritage remains were located during a search of the inland plain of the proposed Private Nature Reserve.

No remains were located on the limestone ridge in the northern portion of the property.

Other than the ruined building on the southern end of the farm, no other old buildings or conservation-worthy structures are located on the affected property.

A modern, partially-ruined prefabricated building is located near proposed cluster 2.

The current owner of the property has also built a large modern home on the farm.

8. IMPACT STATEMENT

The impact of the proposed development of a Private Nature Reserve in the inland portion of the farm Tygerfontein No. 564 on archaeological heritage remains is likely to be very low.

It is important to note that no physical development is planned within the proposed Private Nature Reserve (Low 2004).

Any proposed future development in the proposed Nature Reserve (such as additional residential units and associated activities) is, according to the National Heritage Resources Act (No. 25 of 1999), subject to a Phase 1 AIA being carried out.

9. RECOMMENDATIONS

With specific reference to the proposed development of a Private Nature Reserve in the inland portion of the Farm Tygerfontein No. 564 Yzerfontein, the following recommendations are made.

- No archaeological mitigation is required.

With regard to the archaeological sites in the coastal portion of the farm Tygerfontein No. 564, the following additional recommendations are made².

- Proposed alterations or renovations to the protected ruined building in the southern portion of the property may not be undertaken without a permit issued by Heritage Western Cape, the delegated provincial heritage authority. The building is protected under the 60 year-old clause of the NHRA. The building must first be assessed by a competent and qualified heritage specialist.
- Prospective property owners should be made aware, in the form of an official letter, of the presence of important archaeological heritage remains on the property and the need to protect sensitive and vulnerable sites.
- A proposed Environmental Management Body, under the auspices of a Homeowners Association should apply to Heritage Western Cape to become official custodians of the archaeological remains on the property and thus accept responsibility for their protection. Such an arrangement in the form of a Heritage Agreement is provided for in terms of Section 42 (1) of the National Heritage Resources Act (No. 25 of 1999), and is subject to the implementation of a Heritage Management Plan.

² Essential mitigation measures are included in the EIA report (Low 2004: 22)

- The Construction (and Operational) Environmental Management Plan for Tygerfontein (see Low 2004:38) must also detail reporting procedures to manage the discovery of any heritage remains during the Construction Phase of the proposed project. For example;
 - Should an Environmental Control Officer (ECO) be appointed, he/she must be briefed by a professional archaeologist what to look out for during the Construction Phase of the project.
 - Vegetation clearing operations, bulk earthworks and excavations for services and roads must be monitored by a professional archaeologist.
 - Should any shell midden material be exposed or uncovered during these activities, archaeological mitigation may be required. The proponent is responsible for the cost of mitigating archaeological remains.
 - Human burials or human burial remains uncovered or disturbed during bulk earthworks and excavations should not be removed until inspected by a professional archaeologist.
 - Should any human remains be exposed or uncovered during earthworks, these must immediately be reported to a professional archaeologist, and the South African Heritage Resources Agency (SAHRA)³. Burial remains should be treated sensitively at all times.

³ Ms Mary Leslie at SAHRA can be contacted on 021-462 4502 or 082 733 2611

10. REFERENCES

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