

Agency for Cultural Resource Management

Specialists in Archaeological Studies and Heritage Resource Management

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Att: Mr Bernard de Wit
EnviroAfrica
P. O. Box 5367
Helderberg
7135

Dear Mr de Wit

ARCHAEOLOGICAL IMPACT ASSESSMENT PROPOSED GROUND WATER BOREHOLES AND PIPELINE ELANDS BAY, CAPE WEST COAST

1. Introduction and brief

EnviroAfrica, on behalf of the Clanwilliam Municipality requested that the Agency for Cultural Resource Management conduct an Archaeological Impact Assessment of three boreholes and an underground water pipeline in Elands Bay on the Cape West, in the Western Cape Province (Figure 1).

Elands Bay is currently experiencing water quality problems and the situation is now regarded as an emergency because the water quality has deteriorated outside of the permissible standards and represents a health risk to the town's population and surrounding farms.

Four production boreholes have been drilled on the farm Waaihoek (Figure 2), of which three (OD00525, OD00526 and OD00528) were considered to have good enough yields and water quality to be included in a well field for the town.

A service road will also have to be constructed to the boreholes, but an existing farm road will be upgraded and used for this purpose.

An underground water pipeline connecting the three boreholes will be located alongside the existing Waaihoek farm boundary fence, until the Elands Bay – Redelinghuys tar road. Thereafter, the pipeline will be situated in the road reserve (north of the road), till the water purification plant near the entrance to the town of Elands Bay. The proposed water pipeline is about 4 km long.

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 Notification of Intent to develop (NID) checklist has also been completed by the archaeologist and submitted to Heritage Western Cape (Belcom) for comment.

2. Terms of reference

The Terms of Reference for the archaeological assessment were to:

- Identify and map heritage resources in the vicinity of the proposed three boreholes and along the proposed pipeline route;
- Determine the importance of heritage resources in the vicinity of the proposed boreholes and along the proposed pipeline route;
- Determine and assess the potential impacts of the proposed project on the heritage resources, and
- Recommend mitigation measures to minimise impacts associated with the proposed project.

3. Approach to the study

The proposed three boreholes (i.e. OD00525, OD00526 and OD00528) and surrounding areas and the proposed pipeline route were searched for archaeological heritage remains. The search was done mainly on foot, while a portion of the route alongside the Elands Bay – Redelinghuys road was driven.

The site visit and assessment took place on 7th April, 2008.

4. The study site

The town of Elands Bay is situated on the Cape West Coast, about 225 kms north of Cape Town. It is a region of great archaeological importance, with large numbers of rock art sites and shelters occurring among the steep rocky cliffs overlooking the Verlorenvlei. The sandy Sandveld area between the coast and the mountains also support large numbers of scatters of pottery and stone tools in wind deflated sand basins, as well as small caves and shelters among the sandstone kopjes¹. More than thirty years of archaeological research has been undertaken in the Elands Bay area and a vast body of knowledge on the history of the indigenous San people has been generated.

¹ Kaplan, J. 1993. The state of archaeological information in the coastal zone from the Orange Rive to Ponta do Ouro. Report prepared for the Department of Environmental Affairs and Tourism. Agency for Cultural Resource Management

5. Findings

5.1 Proposed boreholes

No archaeological heritage remains were located during an investigation of the proposed three boreholes. Each of the three boreholes is located alongside areas that have been cleared and prepared for central pivot farming and the receiving and surrounding environment is therefore already quite disturbed and modified, characterised by soft, loose, sands (Figures 3-5).

5.2 Proposed pipeline

As indicated, the proposed pipeline route will run alongside the Waaihoek fence line and a Telkom servitude all the way to the Elands Bay – Redelinghuys road (Figures 6-13).

The following findings were made:

A very thin and dispersed scatter of stone tools was documented in soft, disturbed and trampled sands about 6 m from the fence line and alongside the Telkom servitude, about 120 m from the Elands Bay – Redelinghuys road (Figure 14 and refer to Figure 2). The tools comprise mainly quartz flakes (including one snapped quartz utilised blade), chips and chunks, two flaked chunks, and one small round core. One utilised quartz crystal flake was also found. A small, grey coloured silcrete convex scraper was also counted. A GPS reading for the site is S° 32 19 08.0 E° 18 24 37.0 on map datum wgs 84.

The occasional quartz flake and chunk was also noted lying about on soft sands west of the Telkom servitude, closer to the tar road.

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

Several scatters of shellfish were also documented in the pipeline route alongside the Elands Bay – Redelinghuys road (refer to Figure 2).

A: A thin scatter of marine shellfish, comprising mainly Black Mussel (Choromytilus meridionalis) fragments and some limpet species and a few small whole whelk was documented in a narrow strip between the fence line and the road, in soft, loose, sandy deposits about 10 m from the signboard indicating the Lamberts Bay intersection (Figures 15 and 16). Most of the shellfish is quite weathered and bleached. Three quartz flakes, a small quartz core and several quartz chunks and chips were counted. Some burnt bone was noted. The site is very disturbed and degraded, however, as a result of road construction activities. Glass, plastic, rusted metal bits and road metal are also scattered about. Dune mole rat activity is extensive. No in-situ shell lenses were noted in the box cutting, but some dispersed and scattered shell was noted. A GPS reading for the site is S° 32 19 49.0 E° 18 23 34.0. It is interesting to note that a thin and dispersed scatter of bleached and weathered shellfish fragments, including quartz and silcrete stone flakes and chunks, a possible grindstone fragment and one large piece of burnished pottery, was found in the disturbed fields directly alongside the fence line. This material is very clearly associated with the finds described above.

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

B: A dispersed scatter of bleached and weathered shellfish, dominated by limpets (mainly *Scutellastra argenvillei*), including a few large whole shells and small fragments of, Black Mussel was documented in soft, loose, white sands, in a narrow strip between the fence line and the Elands Bay – Redelinghuys road (Figure 17). Dune mole rat activity is extensive all along the road reserve. Relatively large amounts of road metal and gravel are also scattered about. No cultural material such as stone artefacts was found. No in-situ shell lenses or even displaced shellfish was noted in the cutting alongside the fence line. A few scattered bits of shellfish were noted in the disturbed fields alongside the road, however. A GPS reading for the site is S° 32 18 45.5 E° 18 23 20.3.

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

6. Impact statement

The impact of the proposed project on important pre-colonial archaeological remains is likely to be **low**.

Buried archaeological sites and unmarked human burials may, however, be exposed or uncovered during excavations for the proposed pipeline

7. Recommendations

With regard to the proposed Elands Bay borehole and pipeline project, the following recommendations are made:

- Excavations for the proposed pipeline must be monitored by a professional archaeologist.
- Should any unmarked human burials be uncovered during excavations for the proposed pipeline, these must be immediately reported to the archaeologist. Burials should not be removed until inspected by the archaeologist and must be treated sensitively at all times.

Yours sincerely

A handwritten signature in black ink, appearing to be 'JK' followed by a long horizontal stroke.

Jonathan Kaplan

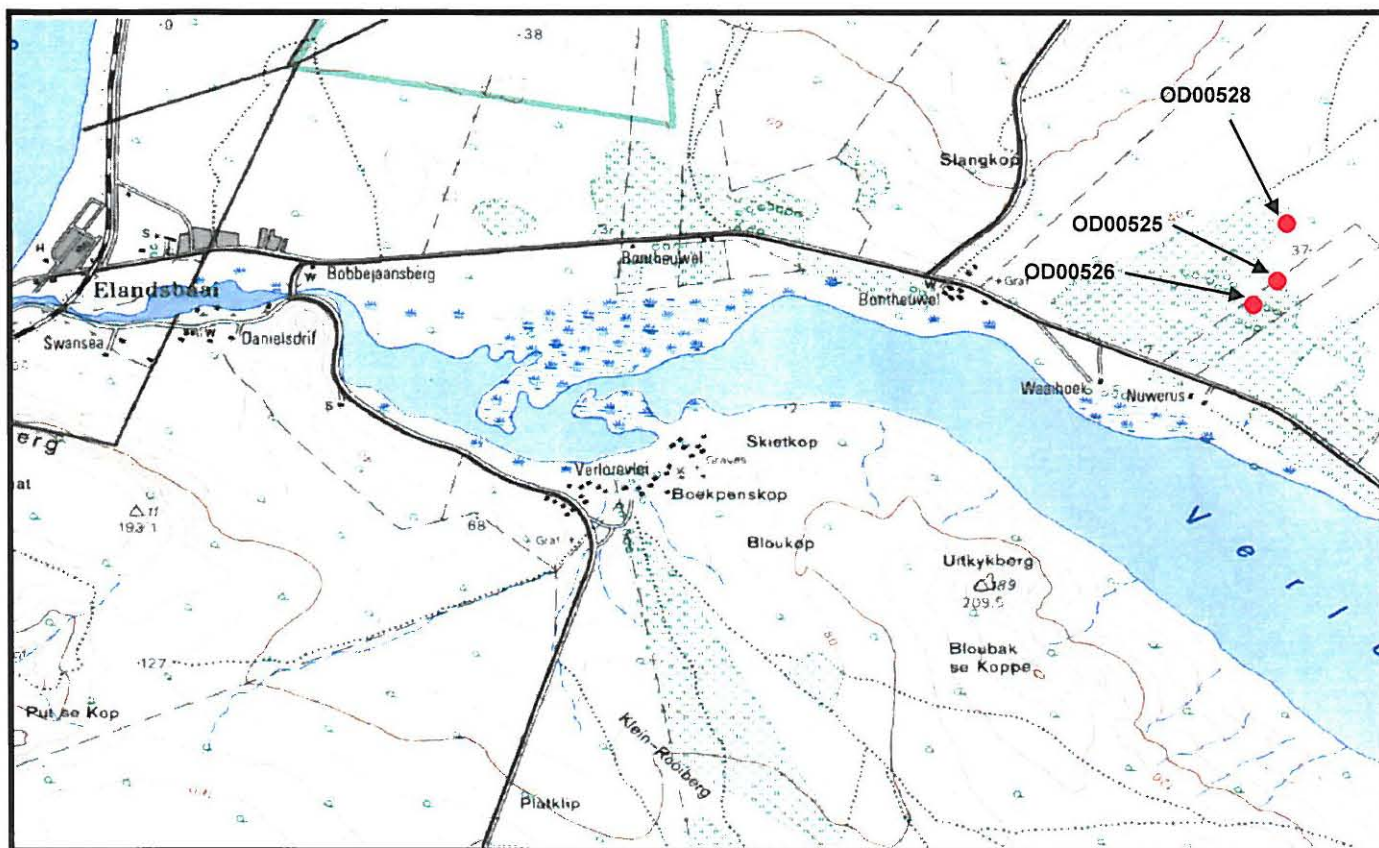


Figure 1. Locality Map (3218 AD Elands Bay) and proposed new boreholes on the farm Waaihoek



Figure 2. Aerial photograph indicating the proposed 3 boreholes (blue teardrops) and the proposed pipeline route



Figure 3. Borehole OD00528 View facing north west



Figure 6. Pipeline route view facing west



Figure 4. Borehole OD00525 View facing south west



Figure 7. Pipeline route view facing west



Figure 5. Borehole OD00526. View facing south west



Figure 8. Pipeline route view facing west



Figure 9. Pipeline route view facing south



Figure 12. Pipeline route view facing west



Figure 10. Pipeline route view facing west



Figure 13. Pipeline route view facing west. Arrow indicated water purification plant



Figure 11. Pipeline route view facing west



Figure 14. Scatter of stone tools in Telkom servitude



Figure 15. Scatter of shellfish (A) alongside tar road



Figure 16. Scatter of shellfish (A) alongside tar road



Figure 17. Scatter of shellfish (B) alongside tar road