

Archaeological Impact Assessment

Title: Proposed Residential Development on ERF 7426 - Langebaan.

Proposed development on open private land on the urban edge, adjacent to existing housing, to provide 94 residential, 2 business, 3 open space and 3 road erven occupying 13.09 ha.

Author of this report:

Prof H.J. Deacon Archaeologist, 49 Van Riebeeck Street, Stellenbosch 7600.

Tel/Fax 021 887 1540, Cell 082 682 7300, Email: hjdeacon@iafrica.co.za

Commissioned by

Cape Lowlands Environmental Services. Mr M Duckitt, PO Box 70, Darling 7345.

Tel: 022 492 3435, Fax: 088 022 492 3435, Cell: 082 468 3956. mduckitt@cles.co.za

Owner & Developer

Dormell Properties Pty Ltd, Contact: Mr JC Coetsee, PO Box 1223, Vredenburg 7380.

Tel: 022 772 17400, Fax: 022 772 1524, Cell: 082 464 7637, mw.charl@mweb.co.za

Municipal jurisdiction

Saldanha Bay 'B' Municipality. Contact Mr Daan Visser, PB X12, Saldanha 7395.

Tel: 022 701 7051, Fax: 022 715 1518. Email: daanv@saldanhabay.co.za

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FIG. 1. Location (S33 23 25.4; E18 59 34.7) inland of Langebaan Lagoon.

Executive Summary

A survey of the archaeological resources on Erf 7426 was conducted. A shell midden with an extent of approximately 100 m by 50 m was identified. It is recommended that this area be excluded from development and that the track running through it be closed to vehicles. A stone pillar on the northwest side of the property is conservation worthy.

Background Information

The property is a parcel of vacant land that lies inland of the Langebaan Lagoon (Fig.1). It is situated south east of the junction of the road leading from Club Mykonos and the Langebaan-Saldanha road. This is the northern edge of the urban development of Langebaan that is undergoing extensive development (Fig. 2).

This report is part of a Basic Assessment Activity. Rezoning is required.

Archaeological Background

The Langebaan Lagoon and Saldanha Bay are coastal areas associated with known archaeological and Plio-Pleistocene-Holocene palaeontological sites. Shell middens can be expected on the coast and as much as 5 km inland. The palaeontological sites are restricted to areas of deeper sedimentary deposits, which exclude the granite outcrops.

The West Coast National Park that includes lagoon-edge and granite hill habitats is in the immediate area of the proposed development. In 1997 I directed the survey of the archaeological resources in park for the National Parks Board and the finding was that the overall density of sites was relatively low and the few occurrences were linked to proximity to the coast. The Club Mykonos development on the lagoon-edge required an impact assessment because of midden materials there on the lagoon-edge.

At Oliphantskop there is a thin mantle of colluvial deposits over Precambrian granite. This context rules out palaeontological occurrences but not Holocene shell middens.

Description of the property

The property, part of the original Oliphantskop farm, is adjacent to but excludes any of the buildings of the farmstead (Fig. 2). Granite has been mined on the western side fronting the Langebaan-Saldanha road where there has been considerable disturbance with dumps of crushed rock.

The ground rises steadily from the flats along the northern boundary to the relatively flat top of the Oliphantskop, a granite koppie on the south side of the property. There are rock outcrops on the upper part of the slope leading to the top of the koppie.

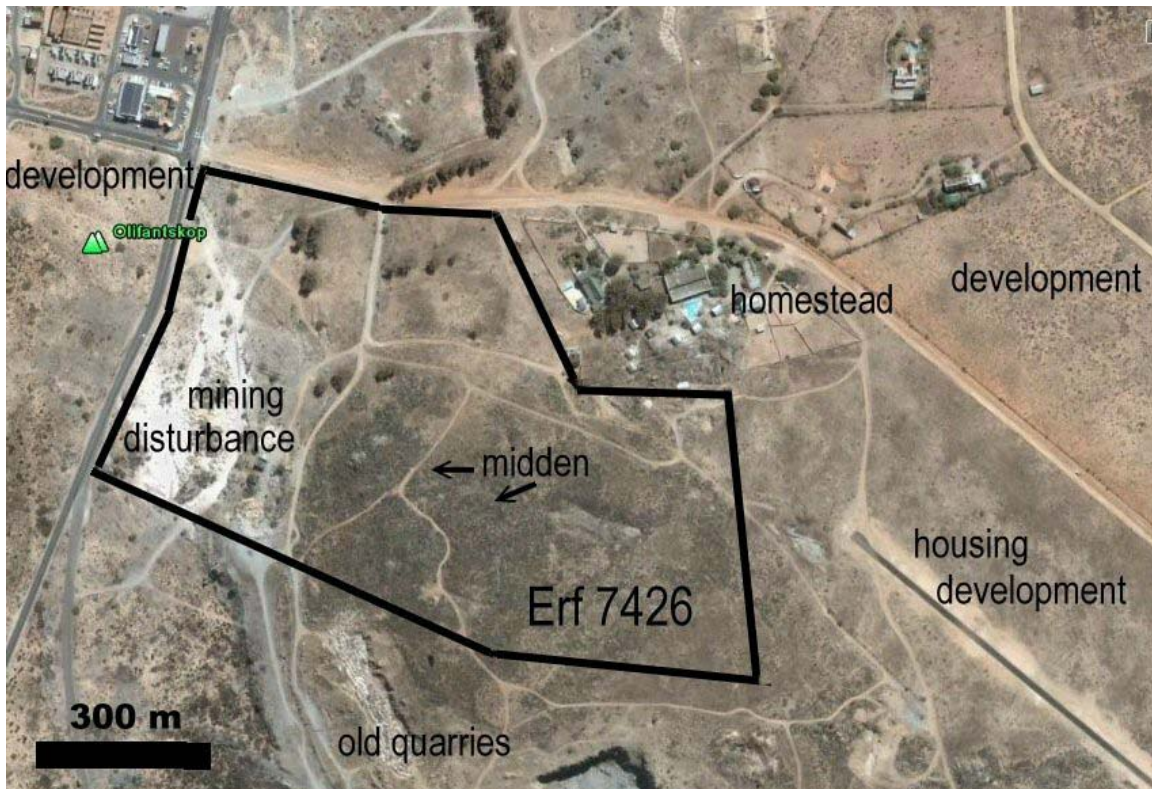


FIG. 2. The property lies east of the Langebaan-Saldanha road and south and west of the Olifantskop homestead. Mining disturbance is evident on the satellite image on the western margin. The upland koppie area is botanically sensitive and midden material occurs in below the crest of the koppie.

The botanical assessment has identified areas of high (6.05 ha), low-moderate (0.19) and low sensitivity (8.6 ha) (Fig. 3). Taking into account the presence rare and endangered species in this area of Saldanha Granite Strandveld, the recommendation is that the granite outcrops and the koppie area that are botanically sensitive and conservation worthy should not be impacted by development.

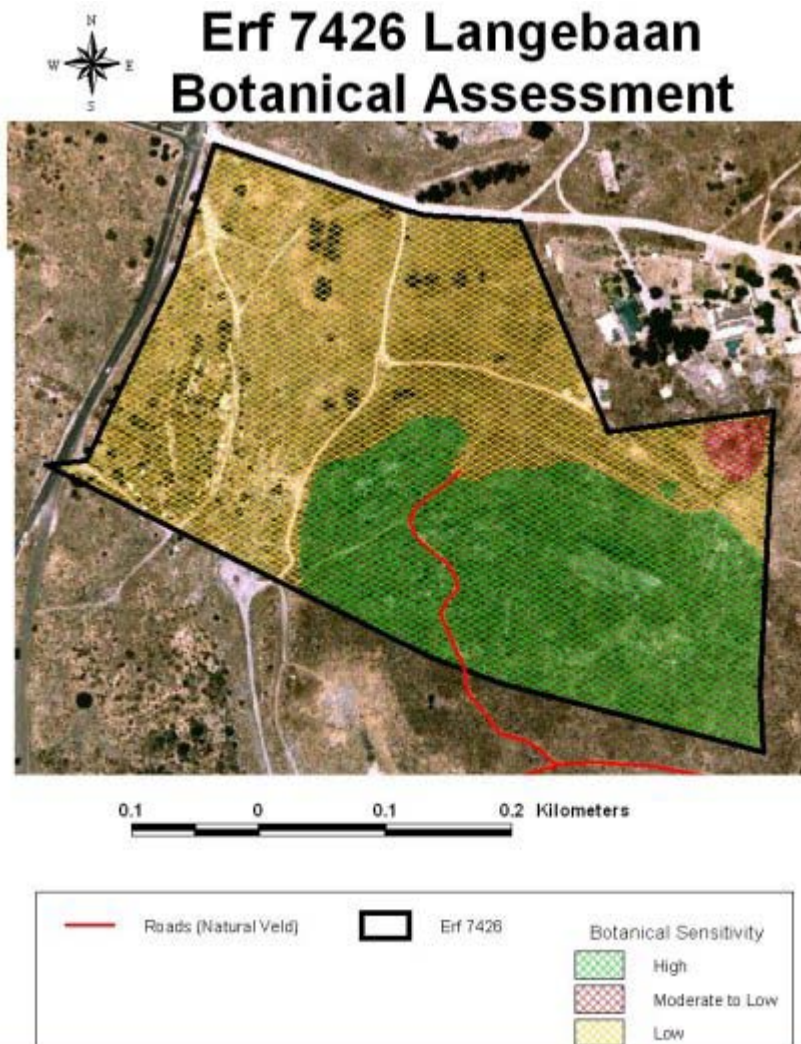


FIG. 3. Plan of areas with different grades of botanical sensitivity. The recommendation following from the botanical assessment is that high sensitivity area be managed as a reserve and excluded from development.

Methodology

Two days were spent in surveying the property over two visits. A random walk approach was used in the different terrain types represented. A large number of observations were recorded as GPS waypoints in mapping the extent of the midden occurrence. Exposures are moderate but dune mole disturbances provided an indication of the presence of subsurface marine shell.

Observations and Results

The most important observation is the occurrence of a midden composed of marine shell located in a sheltered position below the crest of the koppie. It is exposed in the section of the track marked in red on the botanical assessment map (Fig. 3). The track cuts through the midden. West of the track granite outcrops limit the occurrence but there is a significant extension to the east below the crest of the hill. The extent of the midden has been mapped by plotting shell brought to the surface in molehills. The plot shows the distribution of shell is an area some 100 m by 50 m (Fig. 4). Developments providing better subsurface exposures may extend this area.

Nowhere does the shell scatter appear to be thickly developed. In the section along the track it appears to be some centimetres thick. The shell is comminuted and weathered and the whole shell is that of more robust patellid species, with *P. argenvillei* prominent (Fig. 5). A silcrete flake was the only stone artefact observed and occurred in the section along the track (Fig. 6).

There is a stone pillar (Fig. 7) on the north- western portion of the erf that matches four similar entrance posts at the homestead. The owner stated his intention is to retain this and incorporate it into layout of roads in the proposed development.

Sources of Risk and Statement of Significance

The midden occurrence is located in a particular sheltered terrain position on the northern flank of the koppie. As this type of terrain position does not occur elsewhere on the property the risk of there being other midden occurrences is considered low. Mapping of the midden occurrence was done on surface indications and there remains a possibility that in places the scatter of shell may extend beyond that shown in Fig. 4.

Any midden occurrence is significant. There is a recommendation to create a private nature reserve to preserve the unique vegetation and there is the opportunity to include the midden area within the reserve.

The stone pillar is an old structure and is significant.

Recommended Mitigations

No development or development infrastructure should impact on the area covered by shell midden.

The track that runs through mapped midden area should be closed to vehicles. The tracks should be rehabilitated to prevent erosion. The track is vulnerable to erosion.

All development on the property should be monitored for the presence of marine shell and if encountered halted and reported to HWC.

It is recommended that the shell midden area be included in the reserve proposed for the vegetation.

The stone pillar on the north-west of the property should be retained in place and conserved.

Further, it is recommended that should any excavations by chance uncover buried palaeontological or archaeological materials including human remains that Heritage Western Cape is notified (Senior Administrator, Heritage Resource Management Services, HWC, Private Bag X9067, Cape Town 8000, Tel:021 483 9743, Fax:021 483 9842, Ltyali@pwc.gov.za). Features like burials for example can occur in unpredictable locations.

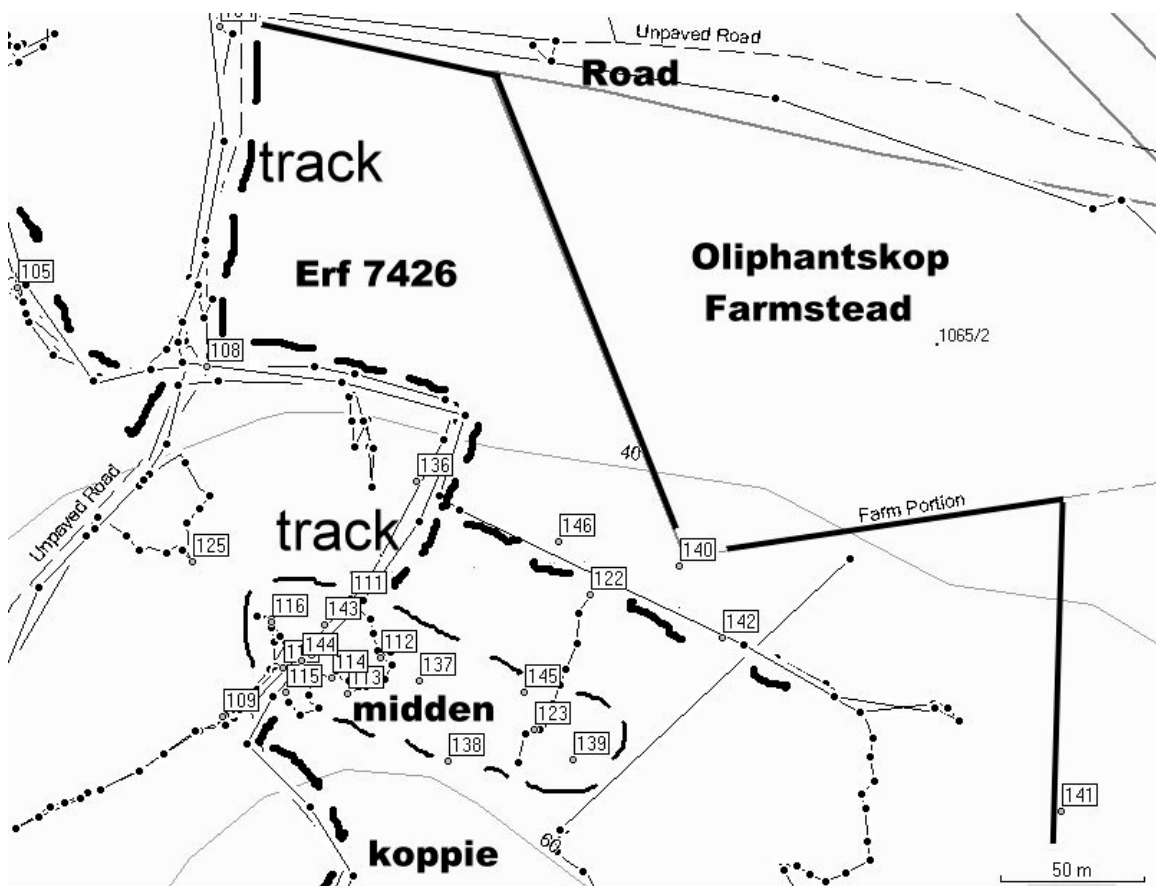


Figure 4. The midden area is some 100 m by 50 m and is in a sheltered position below the crest of the koppie. A track runs through the area and should be closed to vehicles.



Figure 5. Mole disturbances bring comminuted shell and whole specimens of more robust species to the surface allowing mapping of the extent of the midden.



Figure 6. Silcrete flake and comminuted shell exposed on the edge of the track through the midden.



Figure 7. Stone pillar on the northwest of the property that should be conserved.