

**PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT
PROPOSED SAND MINING OPERATION ON THE FARM
GROOT DROOGTEVALLEI NO. 913 & 914
MALMESBURY**

Prepared for

NALEDI DEVELOPMENT RESTRUCTURED (PTY) LTD

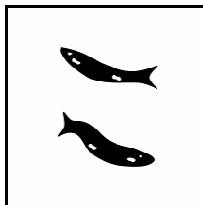
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Executive summary

An Archaeological Impact Assessment of a proposed sand mining operation on the Farm Groot Droogtevallei No. 913 and 914 situated near Malmesbury has identified no significant impacts to pre-colonial archaeological material that will need to be mitigated prior to proposed, sand mining operations.

The proposed sand mining application area comprises three parcels of land and (combined) is about 226 ha in extent. However, proposed sand mining will only take place on two of the land parcels. There is virtually no natural vegetation on the proposed sites, and it is estimated that more than 95% of the affected landholdings have already been transformed as a result of many years of agricultural activity.

The following findings were made:

- No archaeological remains were documented during the study.

The following recommendations are made:

- Should any unmarked human remains be disturbed, exposed or uncovered during sand mining operations, these should immediately be reported to the archaeologist or the South African Heritage Resources Agency (Dr A. Jerardino 021 462 4502).

The above measures must be included in the Environmental Management Plan (EMP) for the proposed project.

Table of Contents

| | Page |
|--|-------------|
| Executive summary | 1 |
| 1. INTRODUCTION | 3 |
| Background and brief | 3 |
| 2. TERMS OF REFERENCE | 3 |
| 3. THE STUDY SITE | 4 |
| 4. STUDY APPROACH | 8 |
| Method | 8 |
| Constraints and limitations | 8 |
| Identification of potential risks | 8 |
| Results of the desk top study | 8 |
| 5. LEGISLATIVE REQUIREMENTS | 9 |
| The National Heritage Resources Act | 9 |
| Archaeology (Section 35 (4)) | 9 |
| Burial grounds and graves (Section 36 (3)) | 9 |
| 6. FINDINGS | 9 |
| 7. IMPACT STATEMENT | 9 |
| 8. RECOMMENDATIONS | 9 |
| 9. REFERENCES | 10 |

1. INTRODUCTION

1.1 Background and brief

Naledi Development Restructured (Pty) Ltd on behalf of Tiptrans Resources (Pty) Ltd requested that the Agency for Cultural Resource Management conduct an Archaeological Impact Assessment for a proposed sand mining operation on the Farm Groot Droogtevallei No. 913 and 914 Malmesbury, in the Western Cape.

Proposed mining operations will entail the removal of sand at an average depth of ± 1.5 m. Available top soil will be removed prior to mining and will be stored until it can be replaced after mining. All mined areas will be rehabilitated after sand mining operations and will revert back to agricultural land.

The extent of the proposed development (226.13 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/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:

- to determine whether there are likely to be any archaeological sites of significance within the proposed sand mining sites;
- to identify and map any sites of archaeological significance within the proposed mining sites;
- to assess the sensitivity and conservation significance of archaeological sites within the proposed mining sites;
- 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 sand mining sites

3. THE STUDY SITE

A locality map is illustrated in Figure 1.

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

Groot Droogtevallei (S 33° 36 58.8 E 18° 43 10.1 on map datum wgs 84) is located alongside (i.e. west of) the R302 midway between Malmesbury and Durbanville. The proposed mining application permit includes three parcels of agricultural land (A, B and C) that have been ploughed (for wheat and grazing) over many years (Figures 3-16). Some sand mining has already taken place on parcels B and C in the past. Plough lines, drainage lines and contouring characterize all three parcels of land. The receiving environment has thus been extensively modified and altered. There is virtually no natural vegetation occurring on any of the proposed sites. Very little surface stone occurs on sites B and C while there is surface Ferricrete over much of site A. Dune mole rat burrowing is extensive over sites B and C, where the sands are fairly coarse and textured. There, are no significant landscape features on the affected lands. A large palm tree is situated just inside the western boundary of site C (refer to Figure 17), but no evidence of any building foundations or rubble was noted. The surrounding land use comprises agricultural lands.

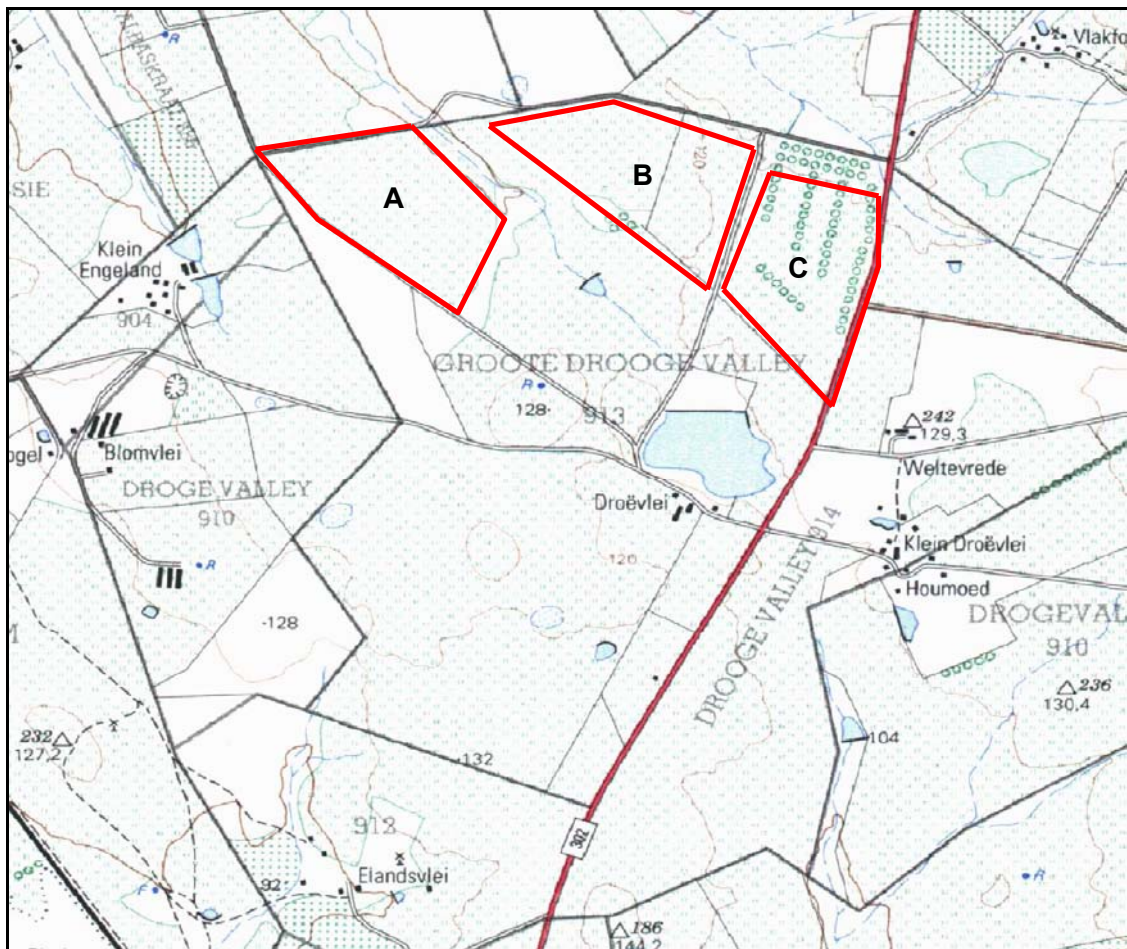


Figure 1. Locality Map (3318DA Philadelphia)



Figure 2. Aerial photograph of the study site



Figure 3. Site A. View facing north



Figure 4. Site A. View facing west



Figure 5. Site A. View facing north



Figure 8. Site A. View facing south east



Figure 6. Site A. View facing east



Figure 9. Site B. View facing west



Figure 7. Site A. View facing south east



Figure 10. Site B. View facing south west



Figure 11. Site B. View facing south east



Figure 14. Site C. View facing east



Figure 12. Site B. View facing east

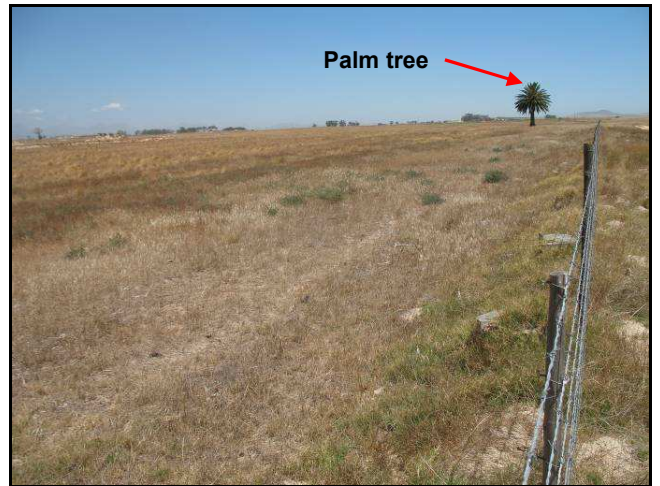


Figure 15. Site C. View facing south



Figure 13. Site C. View facing east



Figure 16. Site C. View facing west from the R304

4. STUDY APPROACH

4.1 Method

The approach followed in the archaeological study entailed a fairly detailed foot survey of Sites B (88.75 ha) and C (67.54 ha), while Site A (69.84 ha) was only scanned for archaeological remains.

It should be noted that the soil report (Lanz 2007) has indicated that Site A is not suitable for sand mining operations as clay deposits are too close to the surface.

The site visit and assessment took place on the 29th and 30th January, 2009.

A desktop study was also undertaken.

4.2 Constraints and limitations

There were no constraints or limitations associated with the study.

4.3 Identification of potential risks

There are no potential risks associated with the project.

4.4. Results of the desk top study

Studies undertaken in the Malmesbury and Durbanville area appear to indicate that the region is not an area of pre-colonial importance. This may have much to do with the fact that the region (the Swartland) has been characterised by intensive agriculture activities (mainly wheat farming) for more than 150 years and that much of the archaeological landscape has already been largely destroyed. Where areas are less disturbed or close to water sources, however, it is likely that archaeological visibility will be much higher.

Early Stone Age (ESA), Middle Stone Age (MSA) and Later Stone Age (LSA) tools have, however, been documented in the Malmesbury area (Kaplan 2004, 2006a, b, 2007a, b, c, d), while nearer to Durbanville, ESA tools, including handaxes, and a rare ESA and LSA quarry site has been found near Klipheuwel (Hart and Halkett 1998; Kaplan, 2003) and Groot Phisantekraal (Kaplan 2006c). Apart from the quarry sites, all the above tools were located in disturbed and highly transformed landscapes.

5. LEGISLATIVE REQUIREMENTS

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

The National Heritage Resources (NHR) Act requires that "...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"

The relevant sections of the Act are briefly outlined below.

5.2 Archaeology (Section 35 (4))

Section 35 (4) of the NHR stipulates that no person may, without a permit issued by HWC, destroy, damage, excavate, alter or remove from its original position, or collect, any archaeological material or object.

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

Section 36 (3) of the HHR stipulates that 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. FINDINGS

No archaeological heritage remains were documented during the search of sites A, B and C, although two ESA quartzite flakes and one large chunk/broken quartzite cobble were found in the access road between sites B and C.

No archaeological remains were found in the previously mined strips in sites B and C. These strips are characterised by homogenous sand layers, with very occasional pieces of Ferricrete.

7. IMPACT STATEMENT

The Archaeological Impact Assessment of proposed sand mining on the Farm Groot Droogtevallei near Malmesbury has identified no significant impacts to pre-colonial archaeological material that will need to be mitigated prior to proposed, mining operations.

8. RECOMMENDATIONS

With regard to proposed sand mining on the farm Groot Droogtevallei, the following recommendations are made.

- Should any unmarked human remains be disturbed, exposed or uncovered during sand mining operations, these should immediately be reported to the archaeologist or the South African Heritage Resources Agency (Dr A. Jerardino 021 462 4502).

These measures must be included in the Environmental Management Plan (EMP) for the proposed project.

9. REFERENCES

Hart, T. 1998. Phase 1 Archaeological Impact Assessment of a Portion of MR174 N1 to Klipheuwel. Report prepared for Erica van den Honert. Archaeology Contracts Office University of Cape Town

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