AN ARCHAEOLOGICAL ASSESSMENT OF THREE PROPOSED FARM DAM LOCATIONS IN THE CITRUSDAL DISTRICT

Prepared for

Ninham Shand (Pty) Ltd

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Prepared by

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1. INTRODUCTION

The Archaeology Contracts Office was asked to assess the impacts on archaeological material of three farm dams in the Citrusdal area. We met with the landowner who accompanied us to the three sites and pointed out the locations of the dams. Since there were slight discrepancies between the supplied mapping information and that pointed out by the landowner, the survey was broadened to encompass both the locations indicated on maps, and those indicated by the landowner. As the footprints of the dams are relatively small, extending the survey did not provide any problems. The locations of the three sites known as Maanbergskloof, Tienrivieren, and Groenvlei, are shown in Figure 1, relative to the town of Citrusdal.

2. METHOD

The footprints of the dams, as well as a wider area around them, were searched on foot. The wider area is where collateral damage associated with the construction, is likely to occur. The locations of archaeological material were established with a hand held GPS receiver using the WGS84 datum. Representative collections of artefacts were made (when present) and photographed before being redistributed to where they were originally found.

3. FINDINGS

3.1 Maanbergskloof Dam

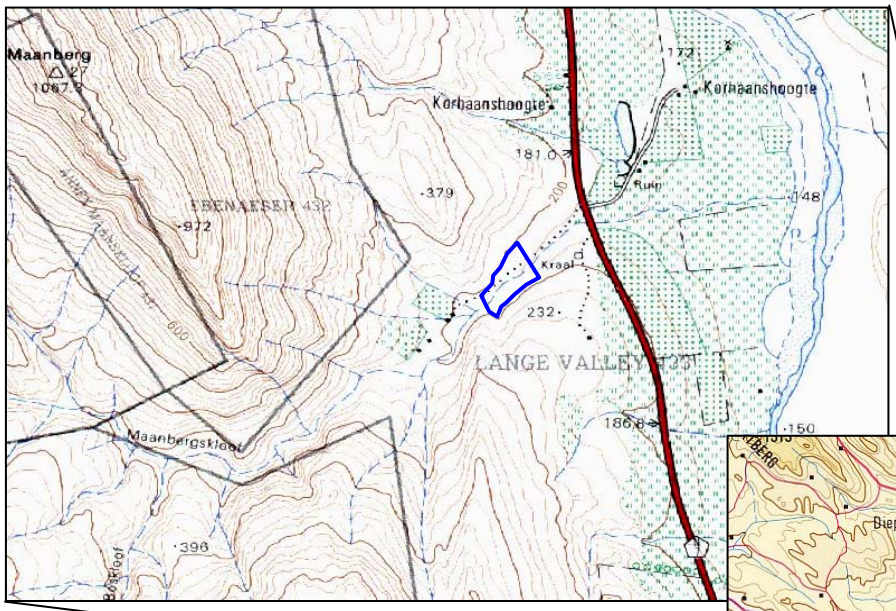
3.1.1 Description of the dam

This is the most formal of the three dams, and would consist of a wall erected across the path of the Maanbergskloof stream. The height of the wall is proposed to be 192 meters above sea level, and will result in water pushing back some 500 meters from the wall when full. Information on the dam was provided on plan 4886 CT 12A: Plan and Cross Sections.


Plate 1

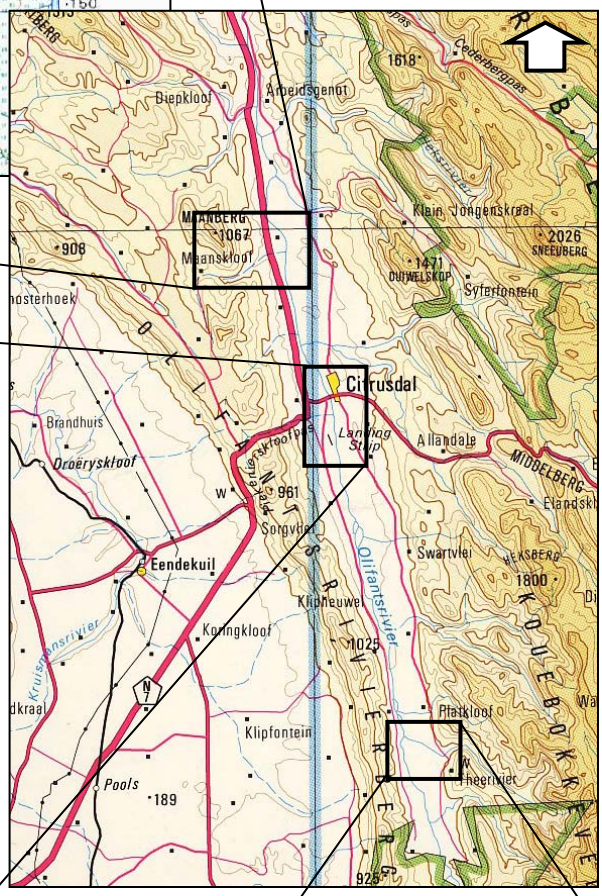
3.1.2 Description of the site

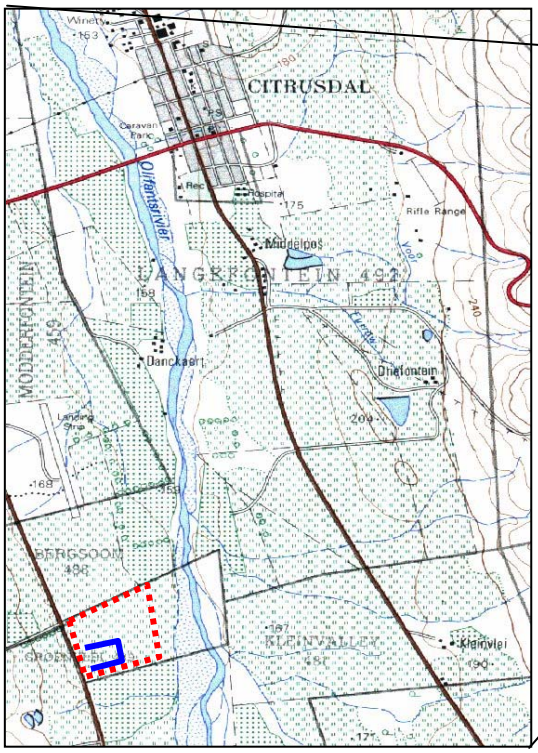
The site of the wall is shown in Plate 1. The north west side of the kloof at the site of the wall consists of cleared land. No vegetation was present at the time of the survey and thus visibility was very good. Most loose rock has been removed from the field and piles of it were found on a flat area in the river bed.



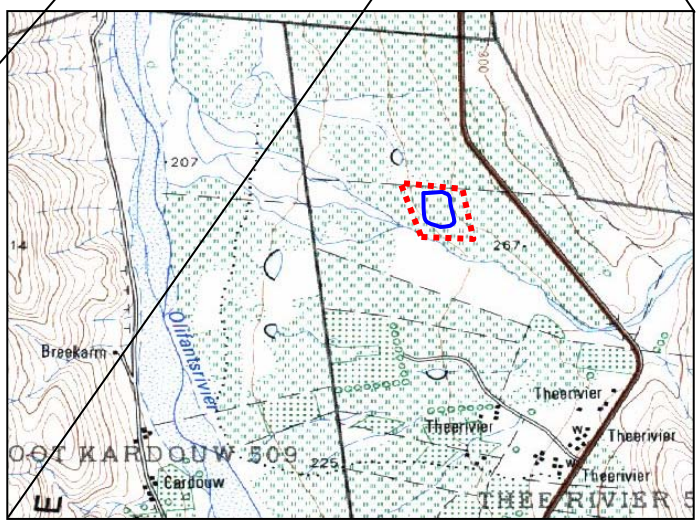
Maanbergskloof Dam

1





Groenvlei Dam



Tienrivieren Dam

Map extracts from:

3218DB Eendekuil
3219CA Citrusdal
3219CC Keerom

(Mapping information supplied by
Chief Directorate: Surveys and Mapping.
Website: w3sli.wcape.gov.za)

The river bed is infested by alien vegetation, primarily black wattle with some oak and poplar trees also present. The latter 2 species relate to the old settlement that is found further up the kloof. The south east bank is steeper with numerous low rock bands running diagonally up the slope. No rock shelters or overhangs were observed. The slope is covered by undisturbed fynbos vegetation.

3.1.3 Archaeological observations

No archaeology was observed within the area of the dam. It is worth noting however, that an old settlement exists further up the kloof beyond the orchard. This is marked by a line of tall palm trees and consists of a dilapidated house of which only a part of the front facade survives, and a smaller two roomed outbuilding that is in better repair and has a corrugated iron roof. The main house would appear to date to the 18th or early 19th century.

3.1.4 Mitigation

No mitigation is required provided that the wall height or position remains as indicated on the plans.

3.2 Groenvlei Dam

3.2.1 Description of the dam

This dam is not located on a stream, but will store water pumped from the Olifants river. There will be earth walls on three sides with the open side being adjacent to the tar road on the west side. The size and location of the dam on the maps provided by Ninham Shand differed somewhat from the size and position indicated by the landowner. As a result a bigger area was investigated to cover all bases. We do not have information on the wall height or on the precise dimensions.


Plate 2

3.2.2 Description of the site

The site is on ploughed agricultural land, sloping gently from west to east, or in other words, from the tar road down to the Olifants River. There was a very light vegetation cover at the time of the survey making ground visibility very good.

3.2.3 Archaeological observations

No archaeological material was observed.

3.2.4 Mitigation

No mitigation is required.

3.3 Tienrivieren Dam

3.3.1 Description of the dam

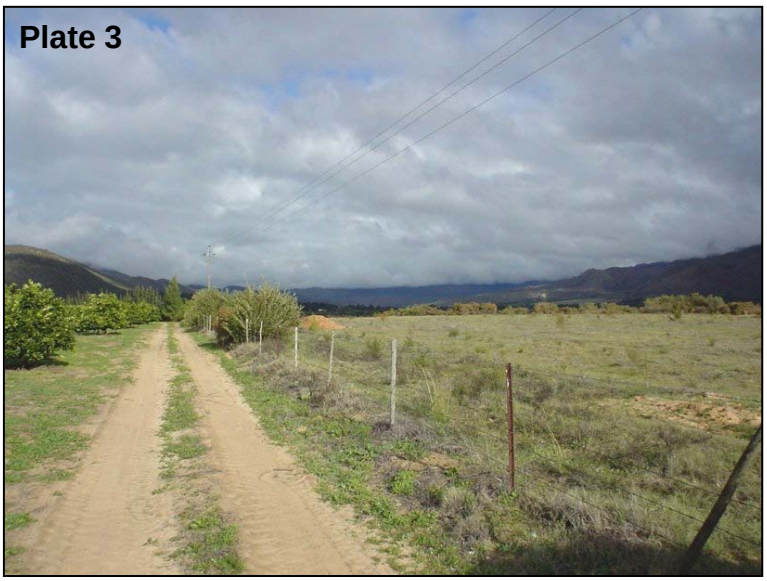
This dam is similar to Groenvlei in that it will store water pumped from elsewhere. An existing shallow quarry will be enlarged to form a dam completely surrounded by an earth wall. The top of the wall is proposed to be at 54 meters above sea level.

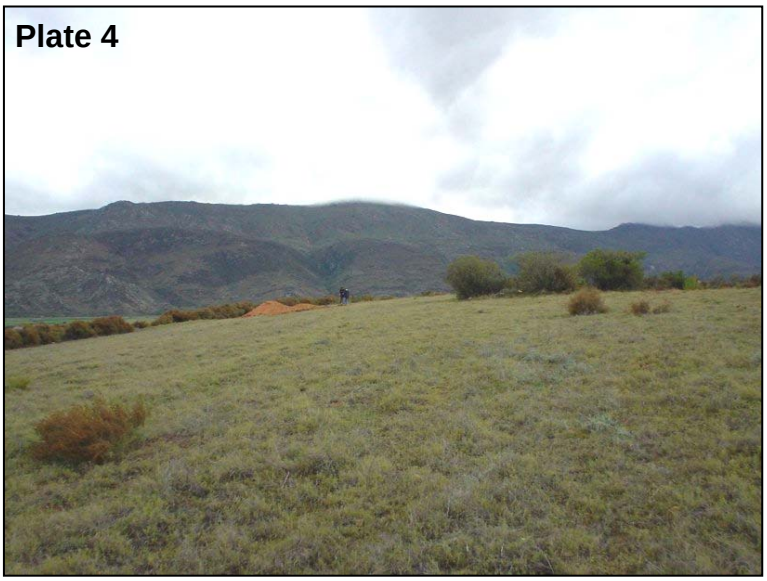
3.3.2 Description of the site

The dam will be located on a small gently sloping platform of land between existing orange orchards and the Olifants River . Views of the site are shown in Plates 3 (looking south) and 4 (looking north west). The site has previously been used for agriculture and has been ploughed. A section of the field surrounding the small quarry is very rocky and has been left untouched. Bushy fynbos grows here at present and can be seen in both Plates 3 and 4. Both the quarry and a number of geo-technical test holes indicate the presence of ferruginous gravels close to the surface.

3.3.3 Archaeological observations

The rocky outcrop in the vegetated area was also a source of raw material for Early Stone Age (ESA)[1] people who left behind many artefacts which are today scattered around the area of the quarry. We noticed that artefacts were particularly prevalent on the south and south west edges of the quarry. A selection of artefacts was photographed at the site (but not collected) and is shown in Plate 5.





Scale: 20 cm

[1] A broad term referring to the period of time between 1.5 and 0.2 million years

The material consists of formal and informal artefacts on sandstone. Handaxes (classic large and small types) are numerous, as are cores and flakes. Cleavers are also found. Cortex present on some items indicate the use of river cobbles as a source of raw material. Handaxes are produced on both large flakes and on cobbles. The presence of a number of small hand axes such as those shown in Plate 6, may suggest that the collection dates from the later part of the Acheulian.[2] One of the classic, large handaxe specimens is shown in Figure 7.

3.3.4 Mitigation

There is some indication of spatial integrity of the site. The artefacts seem to occur in a relatively small, defined area. We believe that material should be collected from a measured area and analysed and recorded in the field. Thereafter, it should be left at the site in a position that will not be directly impacted by the dam itself, or related construction activities. This proposed mitigation should be subject to approval by the permit committee of Heritage Western Cape.

4. RECOMMENDATIONS

- The construction of the Tienrivieren Dam will impact archaeological material. The mitigation of the site can however be easily dealt with by analysing and recording a sample of the artefactual material at the site and then moving it away from the dam site. This suggestion will need to be ratified by Heritage Western Cape.

- Another option to mitigate the impact of the Tienrivieren Dam is to move it further to the north so that the rocky area containing the artefacts is avoided.

- The Groenvlei dam does not require any archaeological mitigation

- The Maanbergskloof Dam does not require any mitigation based on the information that was supplied by Ninham Shand. If the position, or height of the wall of the dam should change, in any way that will cause the stored water to push back further than indicated, then mitigation of the old settlement will have to be undertaken.

[2] The name given to the stone industry in which handaxes are common formal tools - probably dating to 0.8 - 0.2 Kya.

5. INVESTIGATION TEAM

Fieldwork	Dave Halkett Tim Hart Jayson Orton
Report	Dave Halkett