

PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT REPORT

a) **Title:** **Wellington Quarry**

Proposed mining area situated on **Erf 34 (Rem), Magisterial Distract of Wellington, Western Cape Province.**

Applicant for Mining Right: Western Cape Provincial Administration, Department of Transport and Public Works, Roads and Infrastructure Branch

Appointed Contractor: Haw and Inglis (Pty) Ltd

b) Author of this report

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c) Commissioned by

Site Plan Consulting (Mr David Cotton)

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Email: general@siteplan.co.za

d) Dated

31 May 2006

B) Executive Summary

The study was to assess the archaeological impact of the proposed mining of terrace gravels of the Berg River on the property. There are no cultural remains other than stone artefacts present. Earlier Stone Age artefacts in low frequencies occur in the soil zone over and not in the gravels. This means that any human settlement post-dates the formation of the terrace gravels. Extensive disturbance of the surface of the gravels in constructing retaining walls and ponds for the sewerage works reduces the risk of mining uncovering occurrences of stone artefacts in meaningful context. The significance is rate as low. Conditions in these deposits are not favourable for the preservation of bone and no palaeontological finds are anticipated. No mitigation is recommended.

D) Background Information on the Project

The brief from Site Plan Consulting was to carry out an archaeological impact assessment as part of an EIA on the property described below. The Western Cape Provincial Administration has made application for a Mining Right in accordance with Section 106 of the MPRDA (2002).

E) Background to the archaeological history

Earlier Stone Age activities were focussed in the valleys of rivers like the Berg as shown in the report of F. Malan (1939) on occurrences in ploughed fields in the adjacent Wagenmakers Valley. Most of the artefacts illustrated by Malan were of the Earlier Stone Age but he also illustrated some Middle Stone Age examples. He described the artefacts as being associated with water worn gravels the base of the soil horizon but was unable to discover any 'simple stratigraphy' to separate typologically different aged artefacts. His observations suggest colluviation and bioturbation have made the context primarily geological rather than archaeological. In the absence of clear stratigraphy or organic preservation any associations of extremely ancient Stone Age artefacts would be difficult to interpret.

From Malan's survey it was anticipated that stone artefacts of primarily Earlier Stone Age and possibly Middle Stone Age would occur on the property. Such artefacts occur widely in the region.

F) Description of Property

Details of the area surveyed

The property, comprising a portion of Erf 34 Rem is in the Wellington District, Western Cape Province. It adjoins the municipal waste disposal site on the south west side of the town and is adjacent to the Berg River and the railway line, south of the R44. The total area is 18.55 ha. It shown on the 1:50 000 sheets 3318DB & 3319CA (Fig 1&2) with the full co-ordinates. A central location of the proposed mining area is 33°39.945 S; 18°58.856 E (WGS84).

Methodology

The survey conducted on 24 May from 09h30–16h00 by a one-person team. Access is good. The area was traversed on foot with special attention paid to exposures of gravels and the degree of surface disturbance. Surface disturbance is important because it is in the surficial soil layer that the artefacts occur.

There are a number of exposures in retaining ponds and levees to do with the use of the area for waste disposal. Bulldozed concrete blocks and tree stumps in the proposed mining right area indicate formerly there were structures on the property and this has led to further surface disturbance. There are no standing structures on the property. Abandoned pond areas are vegetated and visibility is low but it can be assumed the surface of these areas has been levelled. The degree of surface disturbance is high.

G) Description of Occurrences and Exposures (Sites)

The demarcated mining right area is a perched terrace of the Berg River above the present flood plain (Fig. 2). There are numerous exposures on the margins of retaining ponds and pits within the area (Fig. 3) and in

the surrounds. Below a thin surficial humic soil, pebble and cobble gravels in an oxidized matrix are exposed to a depth of several metres. Examination of sections through the main body of the gravels shows the *in situ* gravels do not include any cultural material and pre-date any human settlement. The oxidation of the gravel matrix and acidity of the ground waters militate against the preservation of any palaeontological remains.

The survey showed there are stone artefacts in the landscape. Where any context is evident the association is with the surface horizon. All the artefacts seen relate to the Earlier Stone Age which means the terrace gravels themselves are older than 0.5 million years. A single hand axe (Fig. 4) is the only formal tool recorded and the other artefacts were flakes and cores. The frequency is low and no localized concentrations were noted. In a situation like this close to a river with cobbles available as a source of raw materials a scatter of artefacts from knapping activities is to be expected.

Sources of Risk

The mining of the main gravel bed does not pose a problem because they do not contain cultural materials. The risk lies in mining disturbing surface areas where the top soil-gravel contact zone (Fig. 5) is preserved, as there are stone artefacts in this zone. Mining will destroy any artefacts in that zone. Assessment of risk depends on the possibility of mining activities destroying archaeologically meaningful associations of artefacts rather than individual artefacts. The ground slopes towards the river and natural surface wash will have reduced the probability of retention of archaeological context. Added to this there is a high degree of surface disturbance in the mining rights area. The conclusion is that although the proposed mining activities will uncover stone artefacts the risk that these will be in associations that carry interpretable information is considered low.

H) Description of Finds

The patinated small hand axe (95x55x 40 mm), was recorded on the surface at 33°39.858'S; 18°58.889'E, close to a retaining pond (Fig. 4). Other isolated artefacts were noted in the general mining area and surrounds but no concentration that would merit recording or sampling.

J-K) Statement of Significance and Field Rating

Generally low significance.

L) Recommended Mitigations

None are recommended other than should any excavations in the course of development by chance uncover buried palaeontological or archaeological remains including human remains that Heritage Western Cape is notified (Mr Ndukuyakhe Ndlovu, Senior Heritage Officer – Archaeologist, Private Bag X9067, Cape Town, 8000, Tel: 021 483 9685, Fax: 021 483 9842, nndlovu@pgwc.gov.za).

M) Conclusions

The survey of the property bordering the Berg River revealed a low frequency of stone artefacts and no palaeontological remains. The development is unlikely to have a significant impact on such resources. No mitigation in respect of such resources is recommended.

N) Bibliography

Malan, F. 1939. The Stellenbosch industry in the Wagenmakers Vallei. Transactions of the Royal Society of South Africa, Volume XXVII – Part 3: 241-285.



Figure 1. Location (A3 copy supplied)

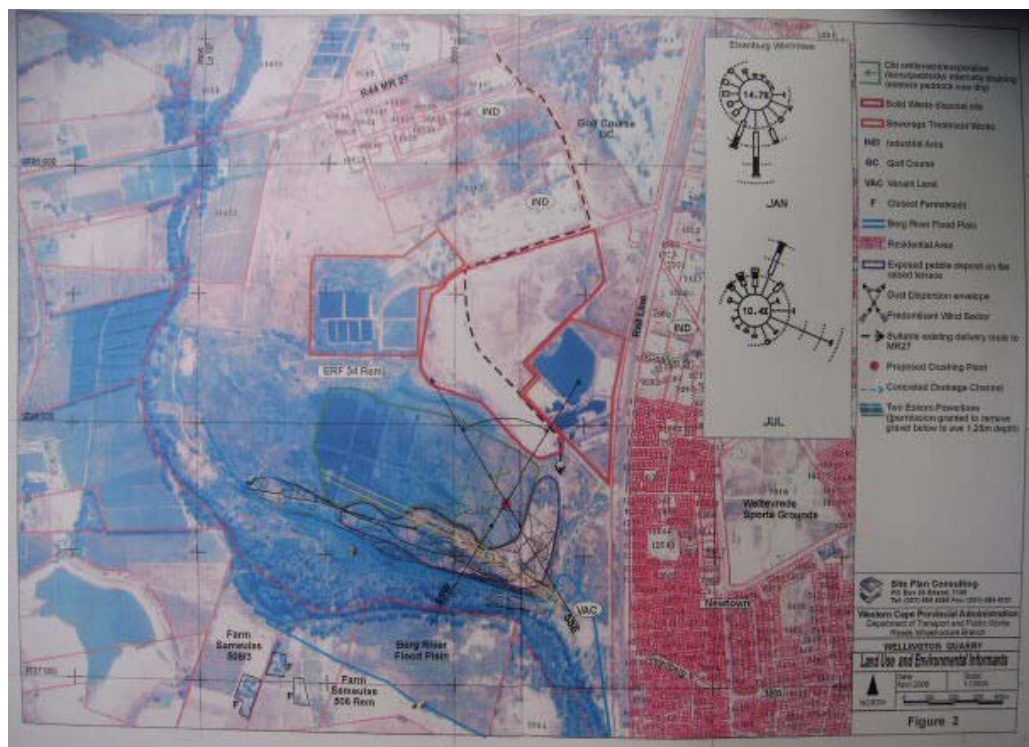


Figure 2. Land use and environmental informants (A3 copy supplied)



Figure 3. Exposure of culturally sterile rubified terrace gravels in a water retention pond adjacent the Berg River.



Figure 4. Hand axe artefact –note the ridges marking the flake scars indicating that it is an artefact. Dimensions 95x55x40 mm, patinated, 33°39.858' S ; 18°58.889' E.



Figure 5. Exposure of gravels with concrete blocks from demolished structure at top of the profile. The top soil zone associated with any artefacts is very thin.