

Proposed Road in Compartment C 19b of the Garcia Plantation, MTO Forestry  
(Pty) Ltd, Riversdale, Western Cape Province.

**ARCHAEOLOGICAL IMPACT ASSESSMENT**  
based on foot survey

**FINAL REPORT**

**Prepared For:**

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April 2005

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## **Executive Summary**

A foot survey conducted at the site of a proposed road (gravel vehicle track) in compartment C 19b, Garcia Plantation, Riversdale revealed that archaeological resources are highly unlikely to occur in the immediate vicinity of the proposed road. Table Mountain Sandstone (TMS) blocks and rocks were visible in some parts of the study area and this suggests that a great deal of the depositional environment is void of any significant depth of sediments that may contain archaeological remains. While the main limitation to the study was the lack of visibility of the ground surface due to complete vegetation, shrub and forest-“litter” cover, inspection of cleared areas and road cuttings in the immediate surroundings showed no trace of archaeological materials. Due to the lack of archaeological resources in the study area, it is recommended that no archaeological mitigation is required. The construction of the proposed road, therefore, will have no foreseeable negative impact on archaeological resources. Since no archaeological traces were found during this study, there is no need to obtain permits from Heritage Western Cape.

In the unlikely event that archaeological materials are discovered during construction of the road, the contractor(s) must inform Heritage Western Cape. That human remains originating from pre-colonial times will be unearthed during earthmoving activities is unlikely, but in this event, Mrs. Mary Leslie at the South African Heritage Resources Agency must be contacted immediately.

## 1. Introduction

### 1.1 Background

Ms Desireé du Preez of Ecosense established that the Environmental Impact Assessment for construction of a road in the Garcia Plantation near Riversdale required an Archaeological Impact Assessment (AIA). To this end, the Mossel Bay Archaeology Project: Cultural Resources Management (MAPCRM CC) was appointed to undertake the necessary work.

### 1.2. Purpose and Scope of the Study

The objectives of this study include the following:

- To assess the study area for traces of archaeological materials;
- To identify mitigatory options – where applicable - to minimize potential negative impacts; and
- To make recommendations for archaeological mitigation.

Terms of Reference (ToR):

- a) Arrange to meet Mr. Barry Joubert (of MTO Forestry (Pty) Ltd, Garcia Plantation, PO Box 87, Riversdale, 6670, Tel: 028 713 2558, Cell: 082 376 7751, [Garcia@rvd.dorea.co.za](mailto:Garcia@rvd.dorea.co.za) Fax: 028 713 3533) in Riversdale to be taken to the study area.
- b) Conduct a foot survey of the area demarcated for the location of the proposed road in order to identify archaeological materials within the demarcated area and the immediate surroundings.
- c) Assess the impact of the proposed road on archaeological materials.
- d) Recommend mitigation measures where necessary.
- e) Prepare and submit a report to Ms Desireé du Preez of Ecosense that meets standards required by Heritage Western Cape in terms of the National Heritage Resources Act, No. 25 of 1999.

### 1.3 Study Area

The study area is approximately 20km north west of Riversdale at the start of the foothills of the Swartberg mountain range that separates the undulating coastal plain from the Great Karroo to the north (Figures 1 & 2). The location of the proposed road - in compartment C 19b in the Garcia Plantation - is in a pine plantation/forest containing trees of some 15 years old. The pine forest also includes dense brush and undergrowth and for the most part, the forest floor is covered in a variable depth of pine needles averaging some 5cm in thickness.

Access to the area – accompanied by a forestry official - is via a 5km stretch of tar road (R323) leading north from the town of Riversdale, after which the second gravel road to the left is used for some 12km. The last stretch of this road that was used runs along the southern edge of the Korinte-Vetdam where another gravel road to the right is taken at the southwesterly extent of the dam. The latter road – not mapped - is followed clockwise around the dam for some 2.5km where it is exited to the left onto a single vehicle track near the northern extent of the dam. A final right turn onto another single vehicle track takes one to the edge of compartment C 19b and the site of the proposed road.

## **1.4 Approach to the Study**

No archaeological occurrences or structures in excess of 60 years are known to exist in the immediate vicinity of the study area and therefore no reports were consulted and no archival and/or historic research was conducted.

Mr. Joubert was contacted and met near Riversdale from where he took the author to the demarcated area for the proposed road. The author and Mr. Joubert walked the demarcated alignment of the road. The ground surface of the area was inspected, but due to low to zero visibility of the ground, the search within the demarcated area was abandoned (Plates 1 & 2). Nearby clearings and road cuttings were inspected for any traces of archaeology.

GPS readings of the proposed road alignment and studied area were taken with a handheld instrument (Garmin Etrex Summit) using the Map Datum WGS 84 and a photographic record of the study area was made. Complete records of these are available on request.

## **2. Description of the Affected Environment**

Archaeological heritage resources differ in a fundamental and crucial way from most other environmental resources; they are entirely irreplaceable and not renewable. Rapid and widespread development is a serious threat to such resources. Unless long-term conservation, mitigation and management plans are put in place, the archaeological heritage resources of the affected environment are in grave danger of being lost forever.

A basic description of the study area and access to it are given in section 1.3 above. While blocks and rocks of TMS were seen protruding through dense brush, undergrowth and a variably thick layer of pine needles, no archaeological materials were visible due to near total cover of the ground surface. A scrape through the layer of pine needles revealed very dark brown to black, humic soil. The soil has notably higher silt than sand content, suggesting a predominantly sedimentary rather than aeolian depositional environment. Due to acidity associated with TMS and pine trees, it is unlikely that non-fossil archaeological remains of organic origin could survive in this depositional context. No built structures were seen in the area and Mr. Joubert, resident and working in the area for 14 years, is not aware of any structures in or near the study area.

## **3. Results of Foot Survey**

After walking the length of the proposed road – some 600m – and covering an area of approximately 13 000m<sup>2</sup> no archaeological traces were identified (see Figure 2). Further inspection of clearings and vehicle track cuttings revealed no evidence of an archaeological nature in the study area or immediate surroundings. If stone tools and/or other non-organic archaeological remains are present in the area, they occur in such low frequencies to be of negligible scientific or conservation-status value. It is suggested – as described in section 2 above – that organic remains are unlikely to preserve in this acidic depositional context.

## **4. Sources of Risk, Impact Identification and Assessment**

The proposed road in compartment C 19b, Garcia Plantation will include earth movement activities. Such activities will impact negatively on archaeological materials if they were present. The area earmarked for the road, however, contains no obvious archaeological or historic remains that are protected by the National Heritage Resources Act, No. 25 of 1999. Based on the above, this assessment concludes that no archaeological mitigation is required and that the proposed construction of a road will not impact negatively on archaeological resources.

Table 1 summarizes the impacts of the proposed road on archaeological heritage resources.

**Table 1. Impact on and Loss of Archaeological Heritage Resources**

	<b>Without Mitigation</b>	<b>Assuming Mitigation</b>
<b>Extent</b>	none	none
<b>Duration</b>	none	none
<b>Intensity</b>	none	none
<b>Probability</b>	low to none	low to none
<b>Significance</b>	low to none	low to none
<b>Status</b>	none	none
<b>Confidence</b>	high	high

## 5. Recommended Mitigation Measures

As no archaeological traces were identified in the study area, it is recommended that no mitigation measures are required for the area of the proposed road.

## 6. Recommendations

From an archaeological and heritage/historic perspective, there is no evidence to suggest that any recommendations for mitigation are required. However, in the unlikely event that archaeological or historic remains are unearthed, the contractor(s) should inform Heritage Western Cape. Additionally, unmarked human burials may occur anywhere in the landscape and are often exposed during earthmoving activities. Human remains are protected by law and, if older than 60 years, are dealt with by the State Archaeologist at the South African Heritage Resources Agency (Mrs. Mary Leslie who can be reached at 021 462 4502).

## Acknowledgements

I thank Mr. Barry Joubert of MTO Forestry (Pty) Ltd, Garcia Plantation for taking me to the location of the study area.

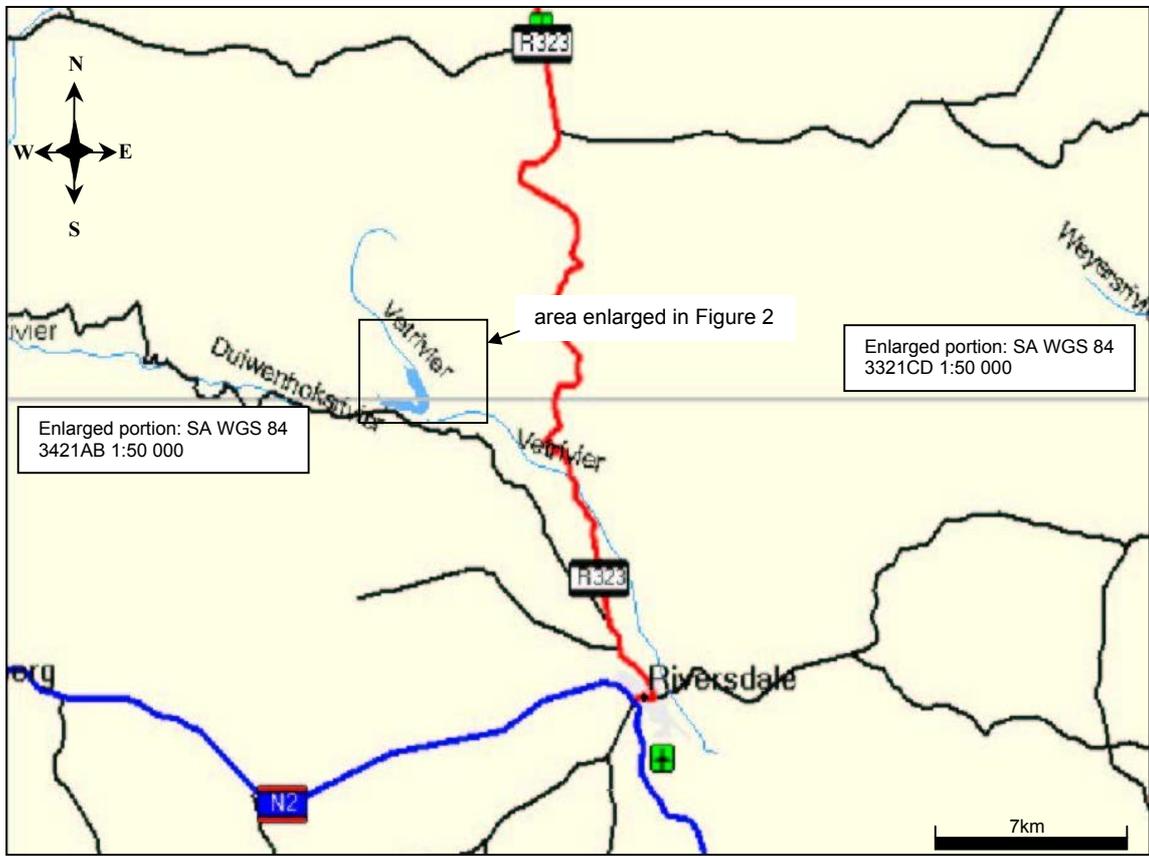


Figure 1. Map showing the general location of the study area relative to Riversdale in the Western Cape Province. The framed area is enlarged in Figure 2.

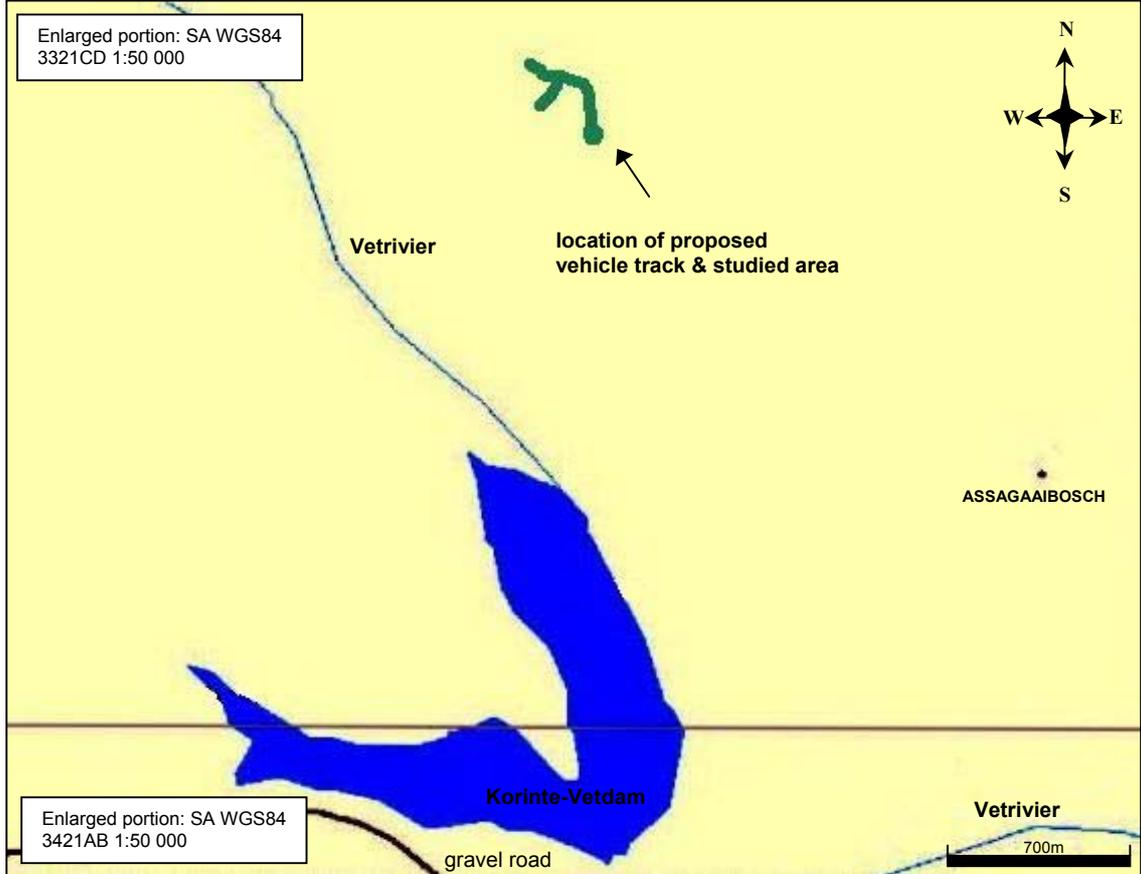


Figure 2. Enlarged area showing the location of the proposed road and the studied area.



Plate 1. The study area; showing pine plantation and dense undergrowth.



Plate 2. Ground surface; showing complete cover by vegetation and forest debris.