

# ***HERITAGE IMPACT ASSESSMENT***

## **PROPOSED CULTIVATION OF ROOIBOS TEA ON FARM 951 ZONDERWATERKRAAL, NEAR NIEUWOUDTVILLE HANTAM MUNICIPALITY, NORTHERN CAPE**

Assessment conducted under Section 38 (3) of the National Heritage  
Resource Act (No. 25 of 1999)

Prepared for

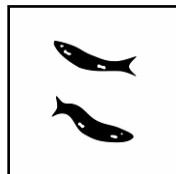
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## **EXECUTIVE SUMMARY**

### **1. Introduction**

ACRM was instructed by Footprint Environmental Services to conduct a Heritage Impact Assessment (HIA) for the proposed development of 21 ha of new Rooibos tea fields on Farm 951 Zonderwaterkraal (Hantam Municipality) near Nieuwoudtville in the Northern Cape Province.

The proposed tea fields will be located on deep sandy soils on a sloping plateau about 1.2 kms east of the Dooring River and about 50 kms south of Nieuwoudtville. Access to the farm is via Moedveloer, a gravel road that eventually connects with the R364 to Calvinia / Clanwilliam.

The establishment of the new fields entails the clearance of natural vegetation, firstly by brush cutting. 10m wide strips of vegetation are retained between the cultivated fields to serve as a refuge for beneficial insects and to provide wind breaks to prevent erosion. Cleared vegetation will either be removed from the fields and ploughed back into the soils, or moved to adjacent fields where it will decompose naturally.

### **2. Aim of the HIA**

The overall purpose of the HIA is to assess the sensitivity of archaeological resources in the proposed new fields, to determine the potential impacts on such resources, and to avoid and/or minimise such impacts by means of management and/or mitigation measures.

According to consulting palaeontologist, Dr John Almond, the proposed development site / Farm 951 'are underlain by fluvial sandstones of the Rietvlei Formation (uppermost Table Mountain Group) that are of low palaeontological sensitivity'.

### **3. Results of the HIA**

A site assessment was undertaken on the 01 September 2016, in which the following observations were made:

One broken Later Stone Age silcrete flake of *low* (Grade 3C) significance was recorded during the study.

### **4. Conclusion**

The proposed activity will not impact on significant archaeological heritage.

No settlement sites or evidence of human occupation were found during the baseline study.

Indications are that, in terms of archaeological heritage, the proposed new fields are not a sensitive landscape.

The impact significance of the proposed development on archaeological heritage is therefore assessed as LOW.

## **5. Recommendations**

1. No archaeological mitigation is required.
2. If any other unmarked human remains, or ostrich eggshell caches, for example, are exposed or uncovered during excavations these must immediately be reported to Heritage Western Cape (Att: Ms Natasha Higgitt 021 462 4509), or the contracted archaeologist (Jonathan Kaplan 082 321 0172).
3. The above recommendations must be incorporated into the Environmental Management Plan (EMP) for the proposed development.

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## 1. INTRODUCTION

ACRM was instructed by Footprint Environmental Services, on behalf of Mr G Koopman to conduct a Heritage Impact Assessment (HIA) for the proposed cultivation of new Rooibos tea fields on Farm 951 Zonderwaterkraal (Hantam Municipality), near Nieuwoudtville in the Northern Cape Province (Figures 1 & 2).

The proposed tea fields will be located on deep sandy soils on a sloping plateau about 1.2 kms east of the Doring River and about 50 kms south of Nieuwoudtville. Access to the farm is via Moedveloer, a gravel road that eventually connects with the R364 to Calvinia / Clanwilliam.

The applicant intends to expand the current Rooibos tea production potential on Farm 951 by developing an additional 21 ha of new tea fields. A limited amount of Rooibos is currently grown on the farm.

Footprint Environmental Consultants is the appointed independent Environmental Assessment Practitioner (EAP) responsible for facilitating the assessment process.

## 2. THE DEVELOPMENT PROPOSAL

Two new tea fields (A & B) are planned, of which field A (18ha) is the largest (Figure 3). The establishment of the new field lands entails the clearance of natural vegetation, firstly by brush cutting. 10m wide strips of vegetation are retained between the cultivated fields to serve as a refuge for beneficial insects and to provide wind breaks to prevent erosion. Cleared vegetation will either be removed from the fields and ploughed back into the soils, or moved to adjacent fields where it will decompose naturally.

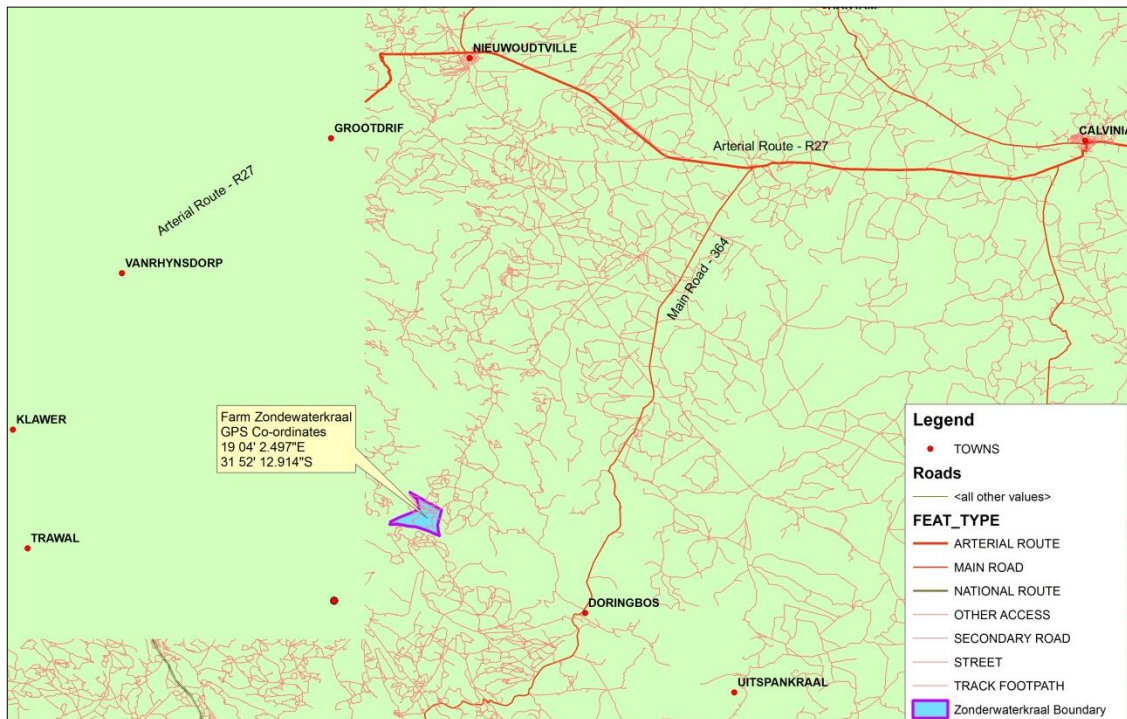


Figure 1. Locality map, Farm 951/0 Zonderwaterkraal.

Heritage Impact Assessment, proposed Rooibos tea fields, Farm 951, near Nieuwoudtville

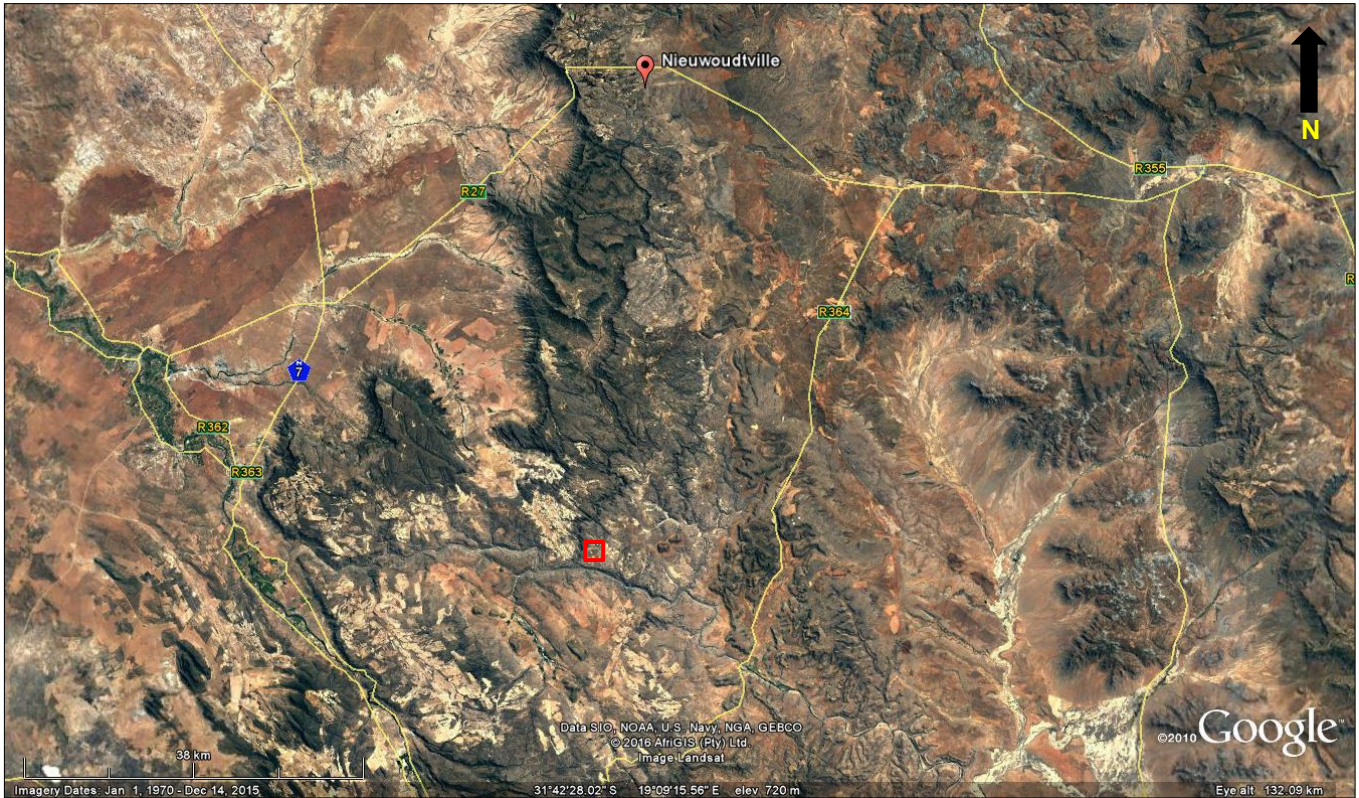


Figure 2. Google map indicating the location of the proposed new Rooibos tea fields on Farm 951/0, Nieuwoudtville. Red polygon indicates the location of the study site



Figure 3. Zonderwaterkraal development: Proposed layout of new Rooibos tea fields (A & B)

### **3. HERITAGE LEGISLATION**

The National Heritage Resources Act (NHRA No. 25 of 1999) protects archaeological and palaeontological sites and materials, as well as graves/cemeteries, battlefield sites and buildings, structures and features over 60 years old. The South African Heritage Resources Agency (SAHRA) administers this legislation nationally, with Heritage Resources Agencies acting at provincial level. According to the Act (Sect. 35), it is an offence to destroy, damage, excavate, alter or remove from its original place, or collect, any archaeological, palaeontological and historical material or object, without a permit issued by the SAHRA or applicable Provincial Heritage Resources Agency, viz. Heritage Western Cape (HWC).

Notification of SAHRA is required for proposed developments exceeding certain dimensions (Sect. 38), upon which they will decide whether or not the development must be assessed for heritage impacts (an HIA) that may include an assessment of archaeological (a AIA) or palaeontological heritage (a PIA).

### **4. TERMS OF REFERENCE**

The terms of reference for the study were to:

- Determine whether there are likely to be any important archaeological resources that may be impacted by the proposed development;
- Indicate any constraints that would need to be taken into account in considering the development proposal;
- Identify possible `No-Go` areas, and
- Recommend mitigation action

### **5. DESCRIPTION OF THE RECEIVING ENVIRONMENT**

Zonderwaterkraal is located about 50 kms south of Niewoudtville. The farm is accessed via the Moedveloer road, which eventually connects with the R364 to Calvinia / Clanwilliam. The proposed new fields are located on deep, light-yellow coloured sandy soils on a sloping plateau about 1.2 kms east of the Dooring River. The affected fields slope slightly to the south, south / west, and are covered in a mix of Restio grasses, shrubs and large, mature Protea trees (Field A) with open patches of loose sandy soils. There are no significant landscape features on the proposed development sites, although a small outcropping of sandstone occurs in the northeastern portion of Field A, alongside existing fields of Rooibos tea (Figures 4-8). There is very little surface stone in the affected fields.

Surrounding land use comprises existing tea fields, and vast tracts of vacant agricultural land.



Figure 4. Proposed new Rooibos tea fields (Field A), Farm 951. View facing south west



Figure 5. Proposed new Rooibos tea fields (Field A), Farm 951. View facing west





Figure 6. Proposed new Rooibos tea fields (Field A), Farm 951. View facing south west



Figure 7. Proposed new Rooibos tea fields (Field B), Farm 951. View facing south



Figure 8. Proposed new Rooibos tea fields (Field B), Farm 951. View facing north

## **6. STUDY APPROACH**

### **6.1 Method**

The purpose of the HIA is to assess the sensitivity of archaeological resources in the study area, to determine the potential impacts on such resources, and to avoid and/or minimize such impacts by means of management and/or mitigation measures

The significance of archaeological resources was assessed in terms of their content and context. Attributes considered in determining significance include artefact and/or ecofact types, rarity of finds, exceptional items, organic preservation, potential for future research, density of finds and the context in which archaeological traces occur.

The field assessment was undertaken by ACRM on 01 September 2016. The position of identified archaeological resources, were plotted using a hand held GPS unit set on the map datum wgs 84.

A track path of the survey was also captured. A literature survey was carried out to assess the heritage context surrounding the proposed development site.

According to consulting palaeontologist, Dr John Almond (email correspondence dated 21 November 2015), the proposed development site / Farm 951 `is underlain by fluvial sandstones of the Rietvlei Formation (uppermost Table Mountain Group) that are of low palaeontological sensitivity`.

### **6.3 Constraints and limitations**

While vegetation cover was sometimes quite thick on the ground, there were no constraints or limitations associated with the study. Mobility over the site was fairly easy.

### **6.4 Identification of potential risks**

The results of the study indicate there are no archaeological risks associated with the proposed development of new Rooibos tea fields.

## **7. ARCHAEOLOGICAL HERITAGE**

In terms of archaeological heritage, the Nieuwoudtville area has not been very well documented, although one or two selective surveys have been undertaken. A few studies are listed on the SAHRIS website but these do not have any bearing on the current study. Numerous surveys have been undertaken near Loeriesfontein by this archaeologist and others, but the town is located more than 50kms north of the town.

An large number of rock art sites, including a few small artefact scatters occur at the Oorlogskloof Nature Reserve (Webley & Orton 2012, & personnel observation) a few kilometers outside Nieuwoudtville, alongside the R27 just before one enters the village, while rock art sites also occur on the Farms Paapkuilsfontein and Sewefontein about 25kms south of the town (personnel observation). Dispersed scatters of Later Stone Age remains, and isolated Middle Stone Age implements have also been found by this archaeologist at Sewefontein.

Hollmann (1993) did a survey of rock paintings in the Koebee River Valley, a tributary of the Doorn River, located to the south of Oorlogskloof, near Nieuwoudtville, while Humphreys *et al* (1991) have described rock art sites to the east of the Koebee River. At Oorlogskloof, Hollmann (1993) describes paintings of eland hartebeest, fat-tailed sheep scratches, palettes and handprints. Amschwand (2009) describes stone walling in the Onder Bokkeveld “which may indicate the presence of pastoralists”, as well as pottery and rock art considered to be of Khoekhoen origin.

According to Webley and Orton (2012), Khoisan presence in the ‘Onder Bokkeveld’ in the 1720s and 1730s discouraged early colonial settlement. In 1739 a Boer commando attacked Captain Jantje Klipheuwel’s farm in the Bokkeveld. At least 13 Khoisan were killed during this raid. The place was subsequently named “Oorlogskloof” – a name it retains to this day. The commando continued to scour the Bokkeveld for any further kraals. A kraal was later attacked near Doorn River and 17 Khoisan were killed. These tactics eventually put an end to an independent Khoisan existence in the Bokkeveld. The trekboers later moved into the Onder Bokkeveld and by 1770s the Bokkeveld was completely settled by white colonists (Webley & Orton 2012; Penn 2005).

## 8. FINDINGS

One broken silcrete flake (Site 661 GPS reading 31°52'5.04"S 19° 3'11.04"E), was located in Field A, while no archaeological heritage was encountered in Field B (Figure 9).

No graves or typical grave markers were found.

Grading of the archaeological resources: *low* (Grade 3C)



Figure 9. Google satellite map of the proposed Rooibos fields (A & B) on Farm 951. Blue lines are track paths. Note the surrounding tea fields

## 9. CONCLUSION

The proposed activity (i. e. cultivation of new Rooibos tea fields) is not likely to impact on significant archaeological heritage.

No settlement sites or evidence of human occupation were found during the study of the affected landholdings.

Indications are that, in terms of archaeological heritage, the proposed new fields are not a sensitive landscape.

The impact significance of the proposed development on important archaeological heritage is therefore assessed as LOW.

## **10. RECOMMENDATIONS**

With regard to the proposed development of new Rooibos tea fields on Farm 951 Zonderwaterkraal near Nieuwoudtville, the following recommendations are made:

1. No mitigation is required prior to development activities commencing.
2. If any other unmarked human remains, or ostrich eggshell caches, for example, are exposed or uncovered during excavations these must immediately be reported to Heritage Western Cape (Att: Ms Natasha Higgitt 021 462 4509), or the contracted archaeologist (Jonathan Kaplan 082 321 0172).
3. The above recommendations must be incorporated into the Environmental Management Plan (EMP) for the proposed development

## 11. REFERENCES

Amschwand, N. 2009. A short history of the Onder-Bokkeveld. Aquaknowledge: Cape Town.

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