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CaseID: 264

Date: Tuesday August 07, 2012

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## Final Comment

### In terms of section 38(4) of the National Heritage Resources Act (Act 25 of 1999)

Attention: Dr Norbert Klages  
Arcus GIBB  
P.O. Box 63703  
Greenacres  
6057

### Upgrade of N6, section 4 between Queenstown and Jamestown, Eastern Cape Province

Ms van Ryneveld, K., April 2012. Penhoek pass - Upgrade of the N6-4 (km52-km66.2), between Queenstown and Jamestown, Eastern Cape, South Africa.

Almond, J., May 2012. Rehabilitation of National Route 6, Section 4, to the south of and along Penhoek Pass between Queenstown and Jamestown, Eastern Cape

#### INTRODUCTION

SANRAL is proposing the upgrade of the 14.2km of section 4 of the N6 between Queenstown and Jamestown. The project will entail the lengthening of the climbing lane from the bottom to the top of Penhoek pass, including widening of the road by approximately 5m. The stormwater system is also needs to be upgraded and the 450mm pipes will therefore be replaced.

The project also entails the assessment of one borrow pit and one hard quarry which will be exploited to extract material for construction.

Both an archaeologist and a palaeontologist assessed the area in order to identify heritage resources that may be put at risk by the road upgrade process.

#### ARCHAEOLOGY

The archaeologist consulted previous archaeological literature published for the area and undertook a field survey. Ms van Ryneveld identified three sites of cultural significance along the road alignment and two sites at the borrow pit. Three sites are dated to the Stone Age, whereas two are dated to the colonial period.

The Stone Age site along the road alignment is quite extensive and located along 600m on the border between Farm Hazelmere/Hans Donsies Kraal 182 and the road reserve. The site is of low density and spread across a narrow strip around two small wetlands. Six exposures between 9 and 25m<sup>2</sup> were recorded. According to the archaeologist, besides a few scattered artefacts in the road reserve, the rest of the site will not be impacted.

The second site identified by the archaeologist is a farmstead on Farm Valschfontein 180. This is most likely dated to the second half of the Nineteenth century and as such is protected by the National



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Heritage Resources Act. The site is situated about 300m from the road reserve, therefore it is expected that there will be no impact from the road upgrade.

A third heritage site, also dating to the Mid Nineteenth Century, is a shelter recorded on Drooge Fontein 155. It is located only 60m from the current road reserve and it borders the old pass road. The structure is created by the closing of a natural rock shelter with a double stone wall and it is expected that it was used as camp for the prisoners who constructed the original pass.

The site identified in the borrow pit is dated to the Stone Age and is located on Remainder of Farm 180 Valschfontein. The Middle Stone Age material is widespread over the property and the archaeologist identified seven locations where the concentration of the artefacts increases. Their sizes vary between 5 and 30m<sup>2</sup> and the density is generally quite low, between one and three artefacts per m<sup>2</sup>. Most of the artefacts were flakes made of rough-grained dolerite. Because of the poor raw material chosen for their production, the technological level of these tools is low. Moreover, since no deposit was identified in the already excavated areas of the borrow pit, it is expected that the artefacts distribution is limited to the surface.

Ms van Ryneveld identified another Stone Age site located about 600m from the borrow pit. This site is more significant than the previous one, since the raw material is of higher quality and, as a result, the technological quality is higher. Given its distance from both the borrow pit and the road upgrade works, the site is not expected to be impacted upon.

#### PALAEONTOLOGY

Geologically, the Molteno Formation underlies the foot of the Penhoek Pass, whereas the Elliot Formation underlies the slopes of the escarpment. Both belong to the Stormberg Group, of the Karoo Supergroup. They are intruded by the igneous Karoo Dolerite Suite and mantled by Late Caenozoic alluvia and colluvia.

Because of its origin, the Dolerite Karoo Suite is unfossiliferous, whereas the Late Caenozoic superficial deposits may contain some fossil biota, such as mammal bones, teeth and horn cores, non-marine molluscs, ostrich egg shells, trace fossils and plant remains. However, no fossils had been previously identified in the area and no fossils were identified during this survey. The Molteno and the Elliot Formations are generally very rich in terms of faunal, floral and trace fossil material, as expected from the Karoo Supergroup.

Despite the richness of these formations in other areas, at Penhoek Pass only vague horizontal burrows in sandstone beds were identified.

#### Decision:

After considering the information provided, SAHRA recommends that:

Since most of the Stone Age site on Hazelmere/Hans Donsies Kraal 182 is already protected by the fence around the property, no further mitigation measures are requested. However, the developer or the archaeologist should inform the property owner of the presence of the site and ensure that he/she is aware of the importance of the site.

Considering the close proximity to the road reserve of the 19th Century shelter along Penhoek Pass, it is recommended that the shelter is clearly demarcated during construction in order to avoid accidental or intentional damage to the site. A sign explaining its origin and importance should also be erected.

Since the horizontal burrows identified by the palaeontologist are of low significance, no further mitigation is requested.

If any evidence of archaeological sites or remains (e.g., remnants of stone-made structures, indigenous



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ceramics, bones, stone artefacts, ostrich eggshell fragments, marine shell and charcoal/ash concentrations), unmarked human burials, fossils or other categories of heritage resources are found during the upgrade activities or the mining of the borrow pits, the Eastern Cape Provincial Heritage Resources Authority (Mr Sello Mokhanya, Tel: 043 642 2811 and [smokhanya@ecphra.org.za](mailto:smokhanya@ecphra.org.za)) must be alerted immediately. A professional archaeologist or palaeontologist, according to the nature of the findings, must be contacted as soon as possible to inspect the newly discovered heritage resources. If these prove to be of archaeological or palaeontological significance, a Phase 2 rescue operation might be necessary.

Should you have any further queries, please contact the designated official using the case number quoted above in the case header.

Yours faithfully

Mariagrazia Galimberti  
Heritage Officer: Archaeology  
South African Heritage Resources Agency

Colette Scheermeyer  
SAHRA Head Archaeologist  
South African Heritage Resources Agency

#### ADMIN:

#### Terms & Conditions:

1. This approval does not exonerate the applicant from obtaining local authority approval or any other necessary approval for proposed work.
2. If any heritage resources, including graves or human remains, are encountered they must be reported to SAHRA immediately.
3. SAHRA reserves the right to request additional information as required.



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