

Agency for Cultural Resource Management

Specialists in Archaeological Studies and Heritage Resource Management

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24 October 2011

Att: Mr Bernard de Wit
EnviroAfrica cc
PO Box 5367
Helderberg, 7135

Dear Mr de Wit,

ARCHAEOLOGICAL SCOPING THE PROPOSED CONSTRUCTION OF A NEW WATER PIPELINE BETWEEN ROOIWINKEL AND NABABEEP, NORTHERN CAPE

1. Introduction

EnviroAfrica, on behalf of Bvi Consulting Engineers, requested that the Agency for Cultural Resource Management conduct an Archaeological Scoping assessment for the proposed construction of (a new) water supply pipeline between Rooiwinkel (near Okiep) and NababEEP (Nama Khoi Municipality) in the Namaqualand region of the Northern Cape Province (Figure 1).

The pipeline between Okiep, Rooiwinkel and NababEEP is part of a larger, extensive distribution network of pipelines that distributes water from the Orange River, and supplies potable water to numerous small towns in the region, including Steinkopf, Bulletrap, NababEEP, Okiep, Carolousberg, Concordia and Springbok. The approximately 200 kms of steel and asbestos pipes have an average age of about 38 years, and most of the distribution pipes are currently in need of urgent repair and replacement as a result of frequent breakages and leakages.

The existing water supply pipeline between Okiep and NababEEP was installed in 1973 and its condition has deteriorated rapidly since 1992. The proposed project entails the replacement of the aging pipeline between Rooiwinkel and NababEEP (Figure 2). The distance of the pipeline is about 11 kms. In addition, a new concrete reservoir will be built near NababEEP that will supply the town with potable water.

The current water supply pipeline is located alongside the historic copper railway line between Rooiwinkel and NababEEP. In the early 1850s copper was discovered at Okiep near Springbok and was initially shipped from Hondeklip Bay to Cape Town. Later, in 1855, the Cape Copper Company built a jetty at Port Nolloth and transported their copper ore from Okiep to Port Nolloth initially by mule trucks, but in 1869 the Cape Copper Company began construction on a railway line and in 1894 the first locomotive 'Clara' was used to transport the ore to the coast. The railway line between Okiep and NababEEP was built as part of this network of railway lines used to transport the ore to the coast.

The railway line between Okiep and Nababeep was discontinued in the 1940s and the railway lines removed sometime in the 1950s and used in the construction of Eskom powerlines in region (Mr Christian Carstens Bvi Consulting Engineers pers. comm.). In that time the railway line has fallen into disrepair.

On behalf of the Nama Khoi Municipality, Bvi Consulting Engineers are proposing to lay the new water supply pipeline between Rooiwinkel and Nababeep, directly on top of the old copper railway line. No physical alteration of the railway line will take place however, as the pipes will be laid on pre-cast concrete plinths that will be placed on top of the line.

2. Approach to the study

The proposed 11 km pipeline route between Rooiwinkel and Nababeep was assessed on foot and by means of a 4 x 4 vehicle.

The assessment took place on 04 August, 2011.

Photographs of the old railway line and the proposed pipeline route are illustrated in Figures 3-11.

The ± 200 m² footprint area of the proposed concrete reservoir is illustrated in Figure 10.

3. Findings

No pre-colonial archaeological remains were documented during the Scoping Impact assessment of the proposed pipeline between Rooiwinkel and Nababeep.

No archaeological remains were found in the footprint area of the proposed concrete reservoir, which is an old abandoned borrow pit.

While most of the historic copper railway line has fallen into disrepair and ruin (refer to Figures 3-6), smaller sections of the line are still intact and could be 're-used'. Of particular interest for historical archaeology is the presence of four stone built bridge crossings. Apart from Bridge Crossing 1 (S 29 34.135 E 17 50.382) which has almost collapsed (refer to Figures 12-14), the remaining Bridge Crossings 3 (S 29 34.762 E 17 49.546), and 4 (S 29 35.288 E 17 49.432 on map datum wgs 84) are well preserved and in very good condition (refer to Figures 15-19). Bridge Crossing 2, unfortunately, was not visited due to time constraints. The stone built bridges are quite intricate and have been built using a combination of dry packed shale and sandstone and rough daga (or cement).

The locomotive 'Clara' final 'resting place' is at the Nababeep Museum (refer to Figures 20-22).

4. Heritage legislation

The applicant is reminded that the National Heritage Resources Act (Act No. 25 of 1999) protects a variety of heritage resources including archaeological, palaeontological, and historical material (including ruins) more than 100 years old (Section 35) and non-ruined structures older than 60 years (Section 34). Landscapes with cultural significance are also protected.

It is an offence to damage, destroy or alter any historical features (including ruins and non-ruined structures) without a permit issued by the Provincial Heritage Resources Authority of the Northern Cape.

5. Conclusion

Indications are that the proposed project is viable, but extreme care must be taken to protect the integrity of the historic railway line and particularly the Bridge Crossings.

The proposed project does present opportunities in order for this to be achieved.

6. Recommendations

With regard to the proposed construction of a water supply pipeline between Rooiwinkel and Nababeep and the proposal to lay the new pipeline on top of the historic copper railway line (by means of pre-cast concrete plinths), the following recommendations are made:

1. The heritage practitioner supports the proposal with the following proviso.
 - 1.1 A detailed recording (photographic and technical) of all the Bridge Crossings must be made by a suitably qualified heritage practitioner.
 - 1.2 A more detailed account of the history of the railway line between Okiep and Nababeep must be done.
 - 1.3 Bvi Consulting Engineers have indicated their willingness to help to rebuild Bridge Crossing 1, in consultation with a specialist heritage consultant.
 - 1.4 No ruins, structures or features older than 60 years may be destroyed, altered, or renovated without a permit issued by Heritage Northern Cape.
 - 1.5 A copy of this report must be submitted to the South African Heritage Resources Agency in Cape Town (Att Ms M. Galimberti PO Box 4367, Cape Town, 8000), and Northern Cape Heritage (Att Mr J. Sinthumule Private Bag X5004, Kimberley, 8300. Phone 053 807 4710 e-mail jsinthumule@ncpg.gov.za).

Yours sincerely



Jonathan Kaplan

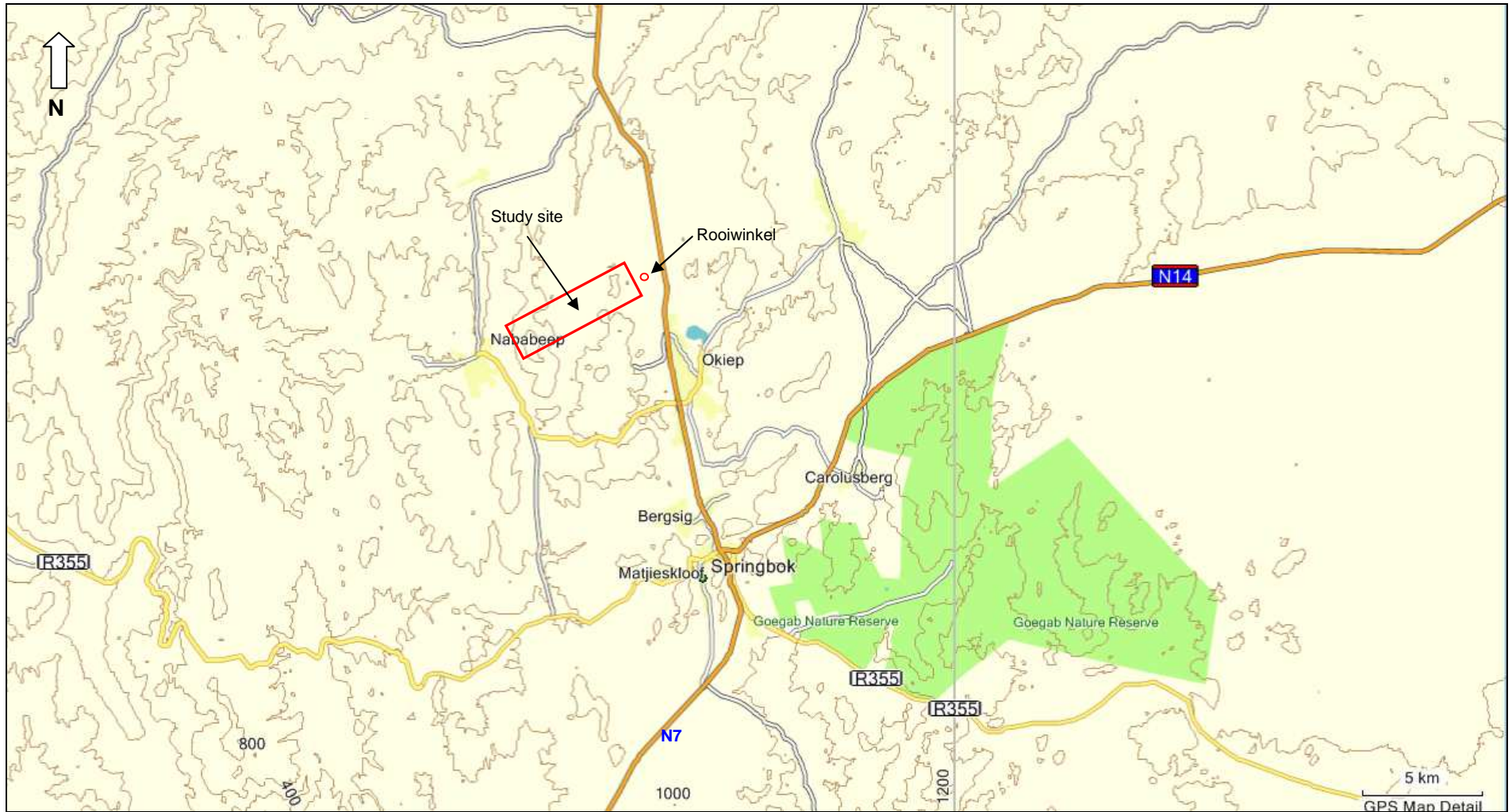


Figure 1. Locality map



Figure 2. Aerial photograph of the proposed pipeline from Rooiwinkel to Nababeep



Figure 3. Remains of the railway line at Rooiwinkel



Figure 6. View of the railway line (alongside the road)



Figure 4. Remains of the railway line near Rooiwinkel



Figure 7. View of the proposed pipeline route facing west



Figure 5. View of the railway line facing west



Figure 8. View of the proposed pipeline route facing west



Figure 9. View of the proposed pipeline outside Nababeep



Figure 12. Bridge Crossing 1



Figure 10. Footprint area of the proposed reservoir



Figure 13. Bridge Crossing 1



Figure 11. View of the proposed pipeline route from the reservoir to Nababeep in the background



Figure 14. Bridge Crossing 1 (collapsed)



Figure 15. Bridge Crossing 3.



Figure 18. Bridge Crossing 4.



Figure 16. Bridge Crossing 3.



Figure 19. Bridge Crossing 4.



Figure 17. Bridge Crossing 3.

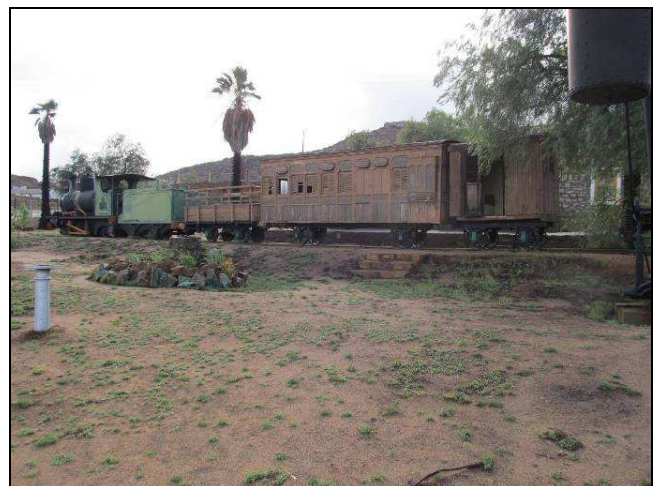


Figure 20. 'Clara' - NababEEP Museum



Figure 21. `Clara' – NababEEP Museum



Figure 22. `Clara' – NababEEP Museum