

**A LETTER OF RECOMMENDATION (WITH CONDITIONS) FOR THE EXEMPTION
OF A FULL PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT FOR THE
PROPOSED LITTLE FISH EMBEDDED SMALL HYDRO PROJECT IN THE BLUE
CRANE ROUTE LOCAL MUNICIPALITY OF THE EASTERN CAPE PROVINCE**

Prepared for: CEN Integrated Environmental Management Unit
36 River Road
Walmer
Port Elizabeth
6070
Tel.: 041 5812983/5817811
Fax.: 041 5812983
Cell.: 0829221645
Contact person: Ms Lucille Beherns
Email: Lucille.beherns@gmail.com

Compiled by: Dr Johan Binneman and Mr Kobus Reichert
On behalf of: Eastern Cape Heritage Consultants
P.O. Box 689
Jeffreys Bay
6330
Tel: 042 2960399
Cell: 0728006322
Email: kobusreichert@yahoo.com
jfbinneman@gmail.com

Date: July 2016

PROJECT INFORMATION

The type of development

The proposed Little Fish Embedded Small Hydro Project includes the construction of a small hydro power station to generate approximately 3.1MW from hydro power. Water from the canal will be channelled over a distance of approximately 1 kilometre in an unlined channel and a pipeline to the proposed turbine power house on the embankment of the Little Fish River. From there the water will be discharged into the river. A power line of approximately 5 kilometres will be required to connect the small hydro power station to the Eskom grid, but this was not part of the investigation.

Applicant

Navitas Power Equipment (Navitas)

Consultant

CEN Integrated Environmental Management Unit
36 River Road
Walmer
Port Elizabeth, 6070
Tel.: 041 5812983/5817811
Fax.: 041 5812983
Cell.: 0829221645
Contact person: Ms Lucille Beherns
Email: lucille.beherns@gmail.com

Purpose of the study

The purpose of the study was to conduct a Phase 1 Archaeological Impact Assessment (AIA) of the proposed construction of a hydro power station on Portion 1 of the farm Langverwacht No. 131, Farm No. 437 and Portion 32 of the farm Doornkraal No. 117 in the Blue Crane Route Local Municipality of the Eastern Cape Province, to establish;

- the range and importance of possible exposed and *in situ* archaeological sites, features and materials,
- the potential impact of the development on these resources and,
- to make recommendations to minimize possible damage to these resources.

Site and location

The site for the proposed construction of the Little Fish Embedded Small Hydro is located within the 1:50 000 topographic reference map 3225DC Niekerksberg (Map 1). The development will take place on Portion 1 of the farm Langverwacht No. 131, Farm No. 437 and Portion 32 of the farm Doornkraal No. 117 in the Blue Crane Route Local Municipality of the Eastern Cape Province (Maps 1-2) (General GPS reading: 32.48.55,22S, 25.37.45,57E). The site is situated approximately 12 kilometres southeast of Somerset East and adjacent (southeast) to the Little Fish River. The water will be channeled from the canal slightly uphill from where it will follow the contours of the hill in a westerly direction and then downwards again in a northwesterly direction towards the turbine and Little Fish River (Map 2). The terrain is a typically Karroo shrub land and dense bush along the river (Figure 1).

ARCHAEOLOGICAL INVESTIGATION

Methodology and findings

The specialist accompanied the consultants and project manager to the site who pointed out the layout of the proposed development. The investigation of the site was conducted on foot by an archaeologist. GPS readings were taken with a Garmin and all important features were digitally recorded. Google aerial image and literature studies were conducted of the area prior to the investigation. In general the archaeological visibility was good over most of the area investigated except for along the river where dense bush made it difficult to locate sites/materials (Figure 1). No archaeological sites/materials were observed and in general it would appear unlikely that any archaeological remains of significance will be found *in situ* or exposed during the development. There are no known graves or buildings older than 60 years on the site. The development may proceed as planned.



Figure 1. General views of the proposed site for the construction of the Little Fish Embedded Small Hydro.

DISCUSSION AND CONDITIONS

The site for the proposed construction of the Little Fish Embedded Small Hydro is of low cultural significance, but will take place close to the Little Fish River in an area where one would expect to find fresh water shell middens. These are important archaeological sites and special care must be taken that these sites are not destroyed during development. Although it would seem unlikely that any significant archaeological sites/materials will be exposed during the development, there is always a possibility that human remains and/or other archaeological such as freshwater shell middens and historical material may be uncovered during the development. Should such material be exposed during construction, all work must cease in the immediate area and it must be reported to the archaeologist at the Albany Museum in Grahamstown (Tel: 046 6222312) or to the Eastern Cape Provincial Heritage Resources Authority (Tel: 043 6422811), so that a systematic and professional investigation can be undertaken. Sufficient time should be allowed to investigate and to remove/collect such material. Recommendations will follow from the investigation (See appendix B for a list of possible archaeological sites that maybe found in the area).

LETTER OF RECOMMENDATION

It is recommended that the proposed construction of the Little Fish Embedded Small Hydro on Portion 1 of the farm Langverwacht No. 131, Farm No. 437 and Portion 32 of the farm Doornkraal No. 117 in the Blue Crane Route Local Municipality of the Eastern Cape Province, is exempted from a full Phase 1 Archaeological Heritage Impact Assessment. The proposed area for development is of low cultural sensitivity and it is unlikely that any significant archaeological remains will be found on the property. The proposed development may proceed as planned.

Note that this letter of recommendation only exempts the proposed development from a full Phase 1 Archaeological Heritage Impact Assessment, but not for other heritage impact assessments. It must also be clear that this letter of recommendation for exemption of a full Phase 1 archaeological heritage impact assessment will be assessed by the relevant heritage resources authority. The final decision rests with the heritage resources authority, which should issue a permit or a formal letter of permission for the destruction of any cultural sites.

The National Heritage Resources Act (Act No. 25 of 1999, section 35) (see Appendix A) requires a full Heritage Impact Assessment (HIA) in order that all heritage resources, that is, all places or objects of aesthetics, architectural, historic, scientific, social, spiritual linguistic or technological value or significance are protected. Thus any assessment should make provision for the protection of all these heritage components, including archaeology, shipwrecks, battlefields, graves, and structures older than 60 years, living heritage, historical settlements, landscapes, geological sites, palaeontological sites and objects.

GENERAL REMARKS AND CONDITIONS

It must be emphasized that this letter of recommendation for exemption of a full Phase 1 archaeological heritage impact assessment is based on the visibility of archaeological sites/material and may not therefore, reflect the true state of affairs. Sites and material may be covered by soil and vegetation and will only be located once this has been removed. In the unlikely event of such finds being uncovered, (during any phase of construction work), it must be reported to the archaeologist at the Albany Museum (Tel. 046 6222312) or to the Eastern Cape Provincial Heritage Resources Authority (Tel. 043 6422811) immediately. The developer must finance the costs should additional studies be required as outlined above. The *onus* is also on

the developer to ensure that this agreement is honoured in accordance with the National Heritage Act No. 25 of 1999. The consultant is responsible to forward this report to the relevant Heritage Authority for assessment, unless alternative arrangements have been made with the specialist to submit the report.

APPENDIX A: brief legislative requirements

Parts of sections 35(4), 36(3) and 38(1) (8) of the National Heritage Resources Act 25 of 1999 apply:

Archaeology, palaeontology and meteorites

35 (4) *No person may, without a permit issued by the responsible heritage resources authority—*

- (a) destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;*
- (b) destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;*
- (d) bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment which assist in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.*

Burial grounds and graves

36. (3) (a) *No person may, without a permit issued by SAHRA or a provincial heritage resources authority—*

- (a) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;*
- (b) destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or*
- (c) bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation equipment, or any equipment which assists in the detection or recovery of metals.*

Heritage resources management

38. (1) *Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorized as –*

- (a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;*
- (b) the construction of a bridge or similar structure exceeding 50m in length;*
- (c) any development or other activity which will change the character of the site –*
 - (i) exceeding 5000m² in extent, or*
 - (ii) involving three or more erven or subdivisions thereof; or*
 - (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or*
 - (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA, or a provincial resources authority;*

- (d) the re-zoning of a site exceeding 10 000m² in extent; or*
- (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must as the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.*

APPENDIX B: IDENTIFICATION OF ARCHAEOLOGICAL FEATURES AND MATERIAL FROM INLAND AREAS: guidelines and procedures for developers

Human Skeletal material

Human remains, whether the complete remains of an individual buried during the past, or scattered human remains resulting from disturbance of the grave, should be reported. In general human remains are buried in a flexed position on their side, but are also found buried in a sitting position with a flat stone capping. Developers are requested to be on alert for the possibility of uncovering such remains.

Freshwater mussel middens

Freshwater mussels are found in the muddy banks of rivers and streams and were collected by people in the past as a food resource. Freshwater mussel shell middens are accumulations of mussel shell and are usually found close to rivers and streams. These shell middens frequently contain stone tools, pottery, bone, and occasionally human remains. Shell middens may be of various sizes and depths, but an accumulation which exceeds 1 m² in extent, should be reported to an archaeologist.

Large stone cairns

They come in different forms and sizes, but are easy to identify. The most common are roughly circular stone walls (mostly collapsed) and may represent stock enclosures, remains of wind breaks or cooking shelters. Others consist of large piles of stones of different sizes and heights and are known as *isisivane*. They are usually near river and mountain crossings. Their purpose and meaning is not fully understood, however, some are thought to represent burial cairns while others may have symbolic value.

Stone artefacts

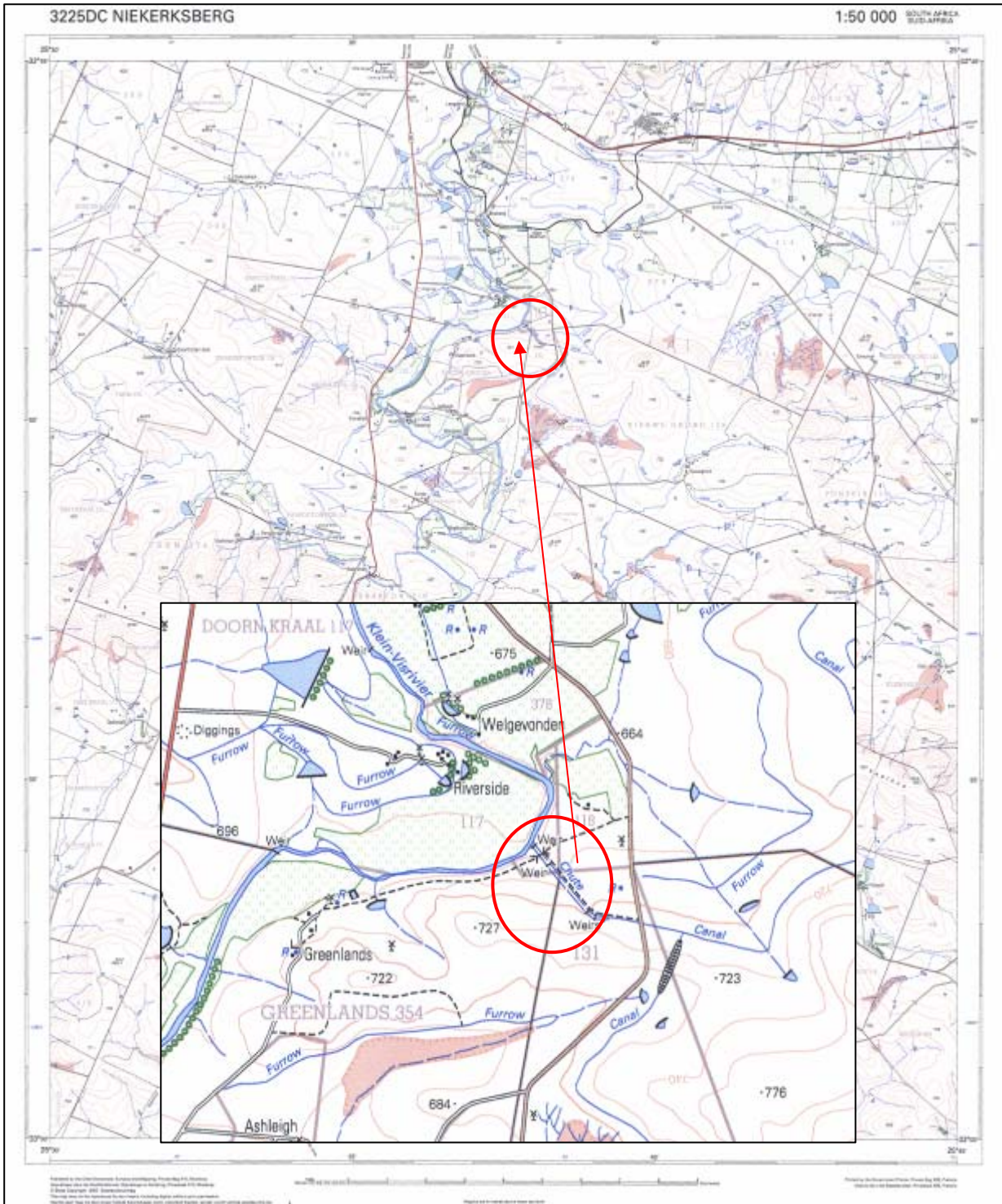
These are difficult for the layman to identify. However, large accumulations of flaked stones which do not appear to have been distributed naturally should be reported. If the stone tools are associated with bone remains, development should be halted immediately and archaeologists notified.

Fossil bone

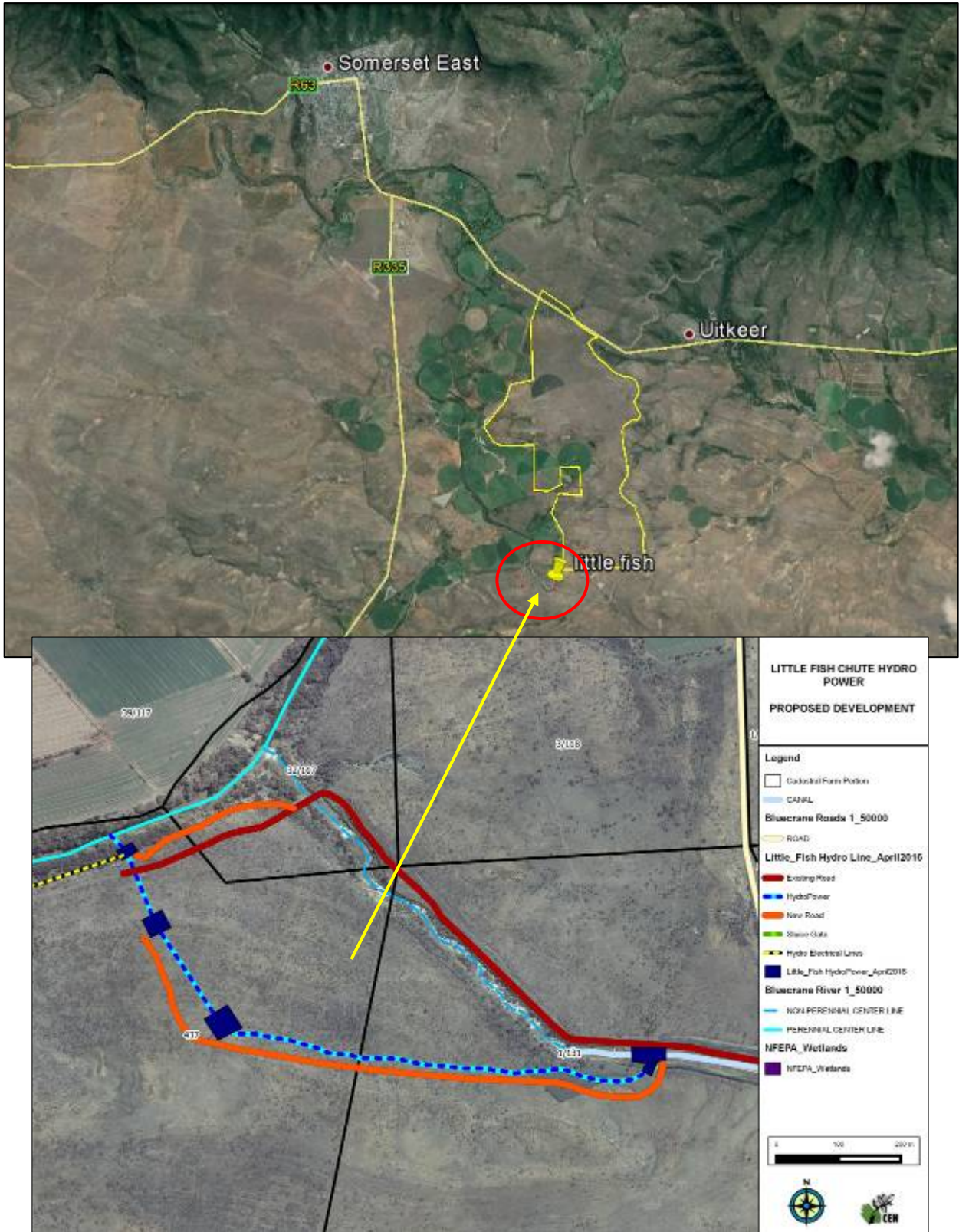
Fossil bones may be found embedded in geological deposits. Any concentrations of bones, whether fossilized or not, should be reported.

Historical artefacts or features

These are easy to identify and include foundations of buildings or other construction features and items from domestic and military activities.



Map 1. 1:50 000 Maps indicating the location of the proposed Little Fish Embedded Small Hydro Project (marked by the red circles).



Map 2. Aerial images indicating the location of the proposed Little Fish Embedded Small Hydro Project (insert images courtesy CEN Integrated Environmental Management Unit).