Agency for Cultural Resource Management

Specialists in Archaeological Studies and Heritage Resource Management

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22 September, 2011

Att: Mr Winston Cloete
Bvi Consulting Engineers
P. O. Box 683
Springbok
8240

Dear Mr Cloete,

ARCHAEOLOGICAL IMPACT ASSESSMENT THE PROPOSED EKSTEENFONTEIN OXIDATION PONDS AND SEWERAGE PIPELINE, NORTHERN CAPE

1. Introduction

Bvi Consulting Engineers, on behalf of the Richtersveld Municipality commissioned the Agency for Cultural Resource Management to conduct an Archaeological Impact Assessment (AIA) for the proposed construction of oxidation ponds and a sewer pipeline at Eksteenfontein in the Richtersveld region of the Northern Cape Province (Figures 1 & 2).

The proposed project entails the following:

- Construction of sewer oxidation and evaporation ponds.
- Construction of inlet and outlet structures to convey water from one pond to another.
- Installation of security fencing around the ponds.
- Construction of a ± 1.7 km long underground sewer pipeline.
- Construction of a sewer, pump station.

The footprint area for the proposed oxidation ponds is 2.3 ha.

The proposed activities are to be located on Portion 3 of Farm Richtersveld 11, Namaqualand.

In terms of Section 38 (1) (c) of the National Heritage Resources Act 1999 (Act 25 of 1999), an AIA of the proposed development is required if the development footprint area is more than 5000 m². This is to determine if the area contains heritage sites and to take

the necessary steps to ensure that they are not damaged or destroyed during development.

In addition, Section 38 (1) (a) of the Act indicates that any person constructing a powerline, pipeline or road, or linear development exceeding 300m in length is required to notify the responsible heritage resources authority, who will advise whether an impact assessment is required before development can take place.

ACRM has been instructed to undertake a baseline study in order to locate and map archaeological sites or remains that may potentially be impacted by the proposed development, to assess the significance of the potential impacts and to propose measures to mitigate any impacts.

The AIA forms part of the Environmental Basic Assessment process that is being undertaken by independent environmental consultants, Enviro-Logic cc.

2. Terms of reference

The terms of reference for the archaeological study were to:

- Determine whether there are likely to be any archaeological resources that may be impacted by the proposed construction of the oxidation ponds, including associated infrastructure;
- To identify and map archaeological resources that may be impacted by the proposed development;
- To assess the sensitivity and conservation significance of archaeological resources affected by the proposed development;
- To assess the significance of any impacts resulting from the proposed development, and
- To identify measures to protect and maintain any valuable archaeological sites that may impacted by the proposed development

3. Description of the affected environment

An aerial photograph indicating the site layout for the proposed Eksteenfontein oxidation ponds is illustrated in Figure 3.

Eksteenfontein is a small Nama settlement located about 130 kms north east of Port Nolloth and about 110 km north of Springbok in the Northern Cape Province. The settlement is located on the edge of the Richtersveld National Park.

The proposed waste site is located about 1.5 kms north east of the village alongside (i.e. to the south of) the gravel road that leads into the Park. The proposed site is located directly adjacent the proposed Eksteenfontein Waste Site, for which and AIA has also

been done[1]. The site slopes fairly steeply toward the gravel main road and a small, dry stream bed that runs alongside the road (Figures 4 & 5). The slopes are covered in small quartz pebbles and a few outcroppings of white quartz occur in places (Figure 6). There is no natural vegetation on the proposed site. There are no significant landscape features on the proposed site and the surrounding land use is `Wilderness; (Richtersveld National Park) and marginal grazing.

The proposed 1.7 km long sewerage pipeline crosses the dry stream bed and then runs alongside a small footpath on the northern side of the road, crossing over a small hill, a small drainage channel and the village sports fields, till it reaches the outskirts of the village where it will connect to the proposed pump station (Figures 7-10). The receiving environment is characterised by sheet wash, erosion and grazing.

4. Approach to the study

The proposed 2.3 ha footprint area was searched for archaeological, remains.

The proposed pipeline route was subjected to a walk through survey.

The site visit and assessment took place on 04th August, 2011.

5. Constraints and limitations

There were no constraints or limitations associated with the study.

6. Identification of potential risks

There are no archaeological risks associated with the project.

7. Results of the study

7.1 The proposed oxidation ponds

No pre-colonial archaeological heritage was documented during the study of the proposed oxidations ponds.

No fracturing or flaking of the outcroppings of quartz was noted.

7.2 The proposed sewerage pipeline

One Early Stone Age flake (EK1) and one possible ESA chunk (EK2) were found near to a goat kraal in the proposed alignment of the pipeline route, close to the settlement (refer to Figure 11).

7.2 Significance of the archaeological remains

The remains have been rated as having low archaeological significance.

[1] Kaplan, J. 2011. Archaeological Impact Assessment the proposed Eksteenfontein Waste Site, Northern Cape Province. Report prepared for Bvi Engineers. ACRM Cape Town

8. Impact statement

The Archaeological Impact Assessment of the proposed development of oxidation ponds and a sewer pipeline at Eksteenfontein in the Northern Cape has identified no significant impacts to pre-colonial archaeological material that will need to mitigated, prior to proposed development activities.

9. Recommendations

1. The project is deemed to be viable.

2. No archaeological mitigation is required.

3. Should any unmarked human remains, or features such as buried ostrich eggshell caches be exposed or uncovered during excavations and bulk earthworks these must immediately be reported to the South African Heritage Resources Agency (Ms Mariagrazia Galimberti 021 4624502). Burials must not be disturbed until inspected by the archaeologist and will have to be removed by an archaeologist under a permit issued by SAHRA.

Yours sincerely

Jonathan Kaplan

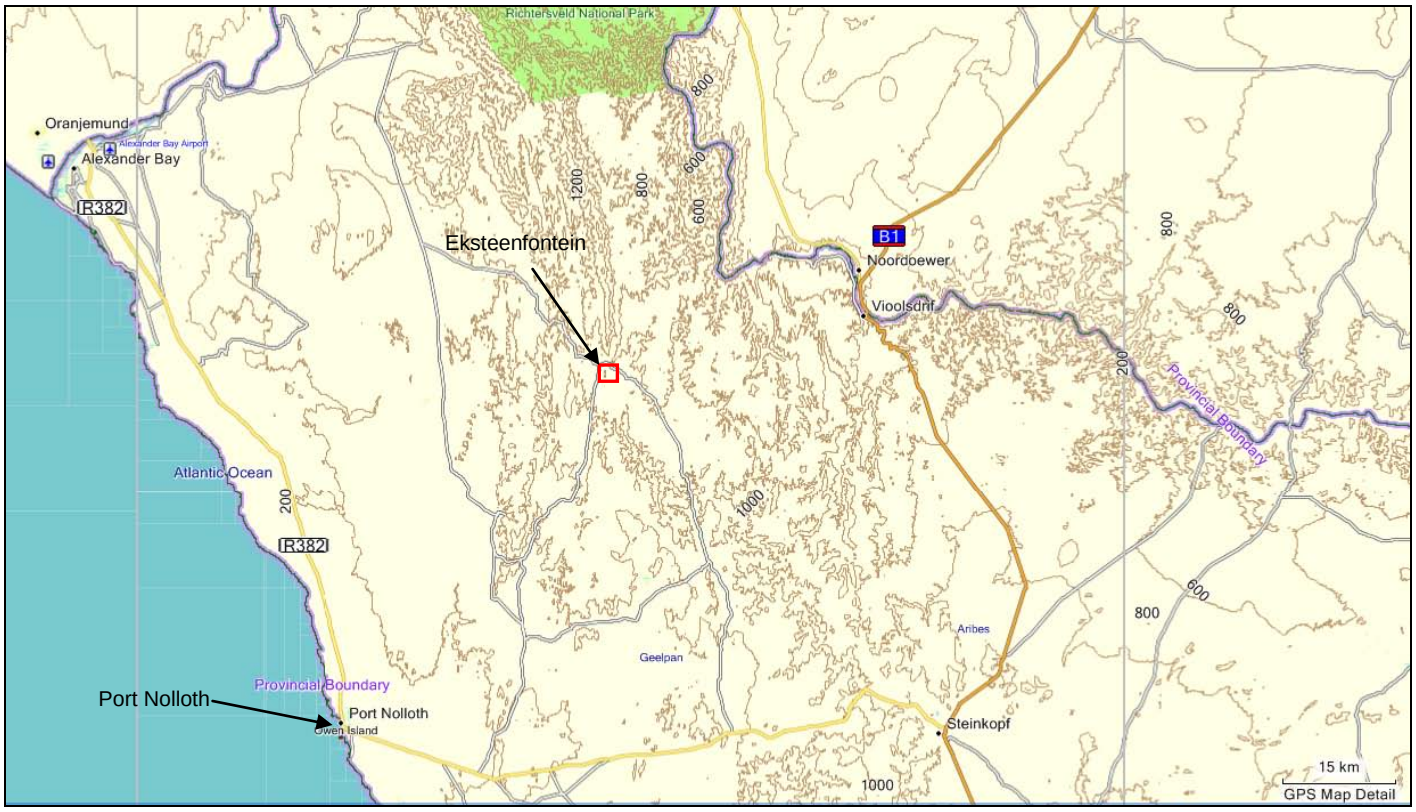

Figure 1. Locality map: Regional context

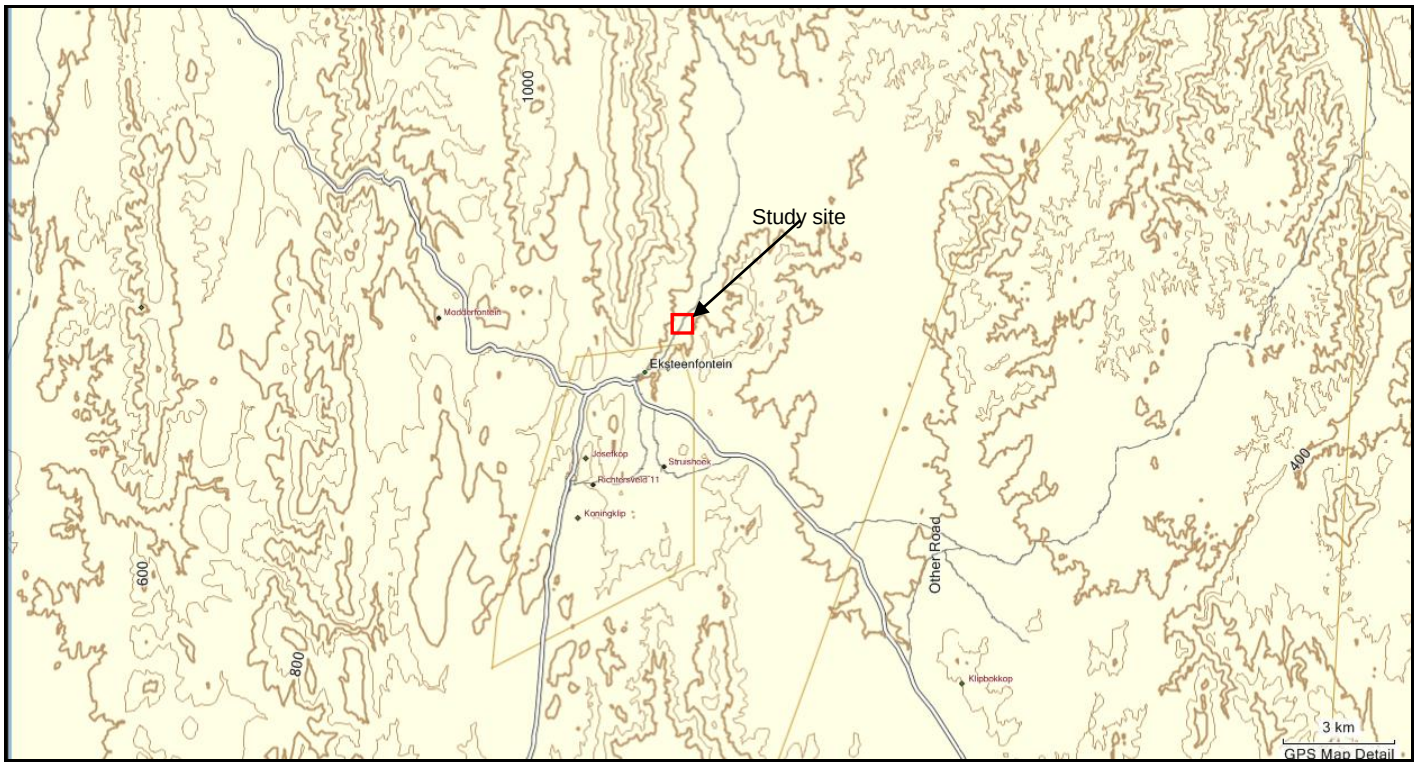

Figure 2. Locality map: Local context

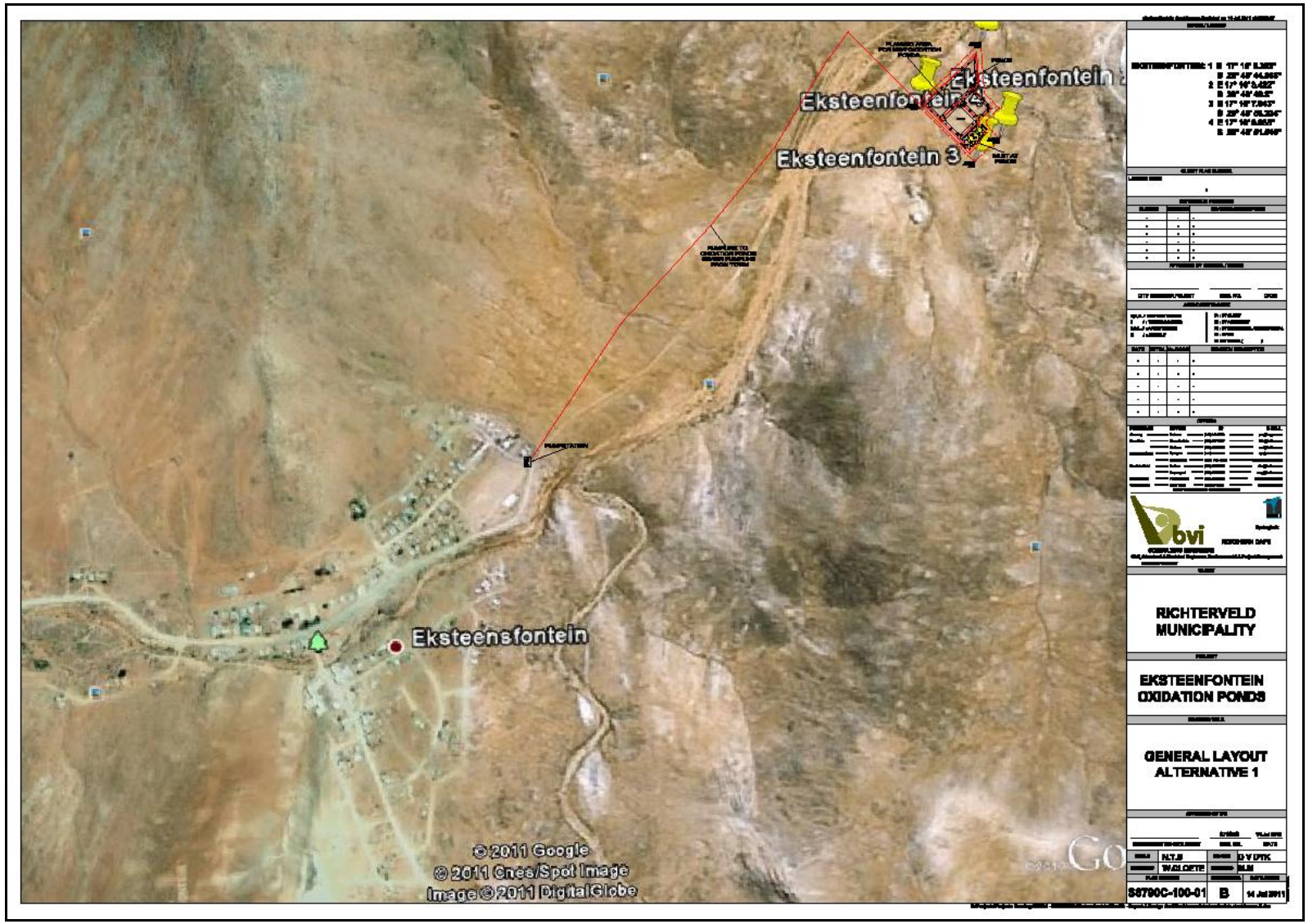

Figure 3. Layout of the proposed Eksteenfontein Oxidation Ponds and sewer pipeline

Figure 4. View of the proposed site facing north east.

Figure 5. View of the proposed site facing north west toward Eksteenfontein

Figure 6. Outcropping of quartzite on the proposed site

Figure 7. View of the proposed pipeline route facing south, from the gravel road to the site of the proposed oxidation ponds

Figure 8. View of the proposed pipeline route facing west toward the village

Figure 9. View of the proposed pipeline route facing west toward the village

Figure 10. View of the proposed pipeline route facing west toward the village

Figure 11. Approximate boundary of the proposed Eksteenfontein Oxidation Ponds (dotted blue line), and the proposed Eksteenfontein Waste Site (dotted red line)