Agency for Cultural Resource Management

Specialists in Archaeological Studies and Heritage Resource Management

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Att: Ms Emily Twycross
Arcus Gibb
14 Kloof Street
Cape Town
8000

Dear Ms Twycross,

ARCHAEOLOGICAL IMPACT ASSESSMENT THE PROPOSED GROOT DRAKENSTEIN SEWER, WESTERN CAPE

1. Introduction

Arcus Gibb requested, on behalf of the Cape Winelands District Municipality, that the Agency for Cultural Resource Management conduct an Archaeological Impact Assessment (AIA) for the proposed Groot Drakenstein Sewer, near Franschoek in the Western Cape (Figures 1 & 2).

Sewerage generated by the Meerlust residential community is currently stored in septic tanks and collected by truck for disposal. This is an expensive process and there is also the potential risk of overflowing and pollution. The Cape Winelands District Municipality is therefore proposing to construct a ± 5.8 km long gravity sewer to transport sewerage from Meerlust, to the Pearl Valley Waste Water Treatment Works. Various farms adjacent to the Berg River will also be able to connect to the sewer line for their own domestic use.

The project will entail excavating a trench approximately 1 m wide and about 3.5 m deep and will follow mainly road reserves, edges of fields and gravel farm roads and tracks.

A Notification of Intent to Develop (NID) submitted in terms of Section 38 (1) of the National Heritage Resources Act (Act 29 of 1999) has been completed by Heritage Consultant Bridget O'Donoghue and submitted to Heritage Western Cape Impact Assessment Review Committee (IARCom) for comment. An AIA was recommended.

2. Legal framework

Section 38 (1) (a) of the National Heritage Resources Act (No 25 of 1999) specifically indicates that any person constructing a powerline, pipeline or road, or similar linear development or barrier exceeding 300m in length is required to notify the responsible heritage resources authority, who will in turn advise whether an impact assessment report is needed before development can take place.

3. Terms of reference

The terms of reference for the archaeological study were:

- To determine whether there are likely to be any archaeological sites or remains that will be affected by the proposed construction of the gravity sewer and associated infrastructure;

- To assess the status and significance of any archaeological impacts resulting from the proposed development, and

- To identify measures to protect and maintain any valuable archaeological sites that may exist in the proposed development areas

4. Description of the affected environment

The proposed route for the gravity sewer begins on the Meerlust property (Erf 1006/1), located just north of the junction of the R45 to Franschoek and R310 to Stellenbosch. The route then continues in a north westerly direction passing through the following properties: Erf 982 (Elkana), Erf 904 (Bienne Donne), Erf 946/5 (Langerust), Erf 1223 (Niewe Sion), Erf 1224/2 (Watervliet 2), Erf 1224/3 (Watervliet 3) and Erf 913 (Berg River Farms).

En route the sewer will cross the Berg River to a pump station from where the sewerage will be pumped through a rising main of approximately 600 m into an existing manhole on Erf 826/1. There it will join an existing sewer which will transport the sewerage via gravity to the Pearly Valley Waste Treatment Works.

About 3 kms of the proposed sewer will be located in the road reserve alongside the Bien Donne Road. The remainder of the sewer will be constructed in existing gravel farm roads and tracks, before crossing the Berg River on the farm BRF Trading 913. The predominant land use of the surrounding properties is agriculture (wine grapes, vegetables and fruit). The route also crosses a small section of horse paddocks on the Farm Watervliet 2.

The route for the proposed sewer constitutes a severely transformed and degraded environment.

For ease of presentation, photographs of the proposed route are grouped in Figures 3-21).

5. Approach to the study

An archaeological assessment of the proposed activity was undertaken on the 31 August, 2011. This entailed a walk through survey of the most of the route, from the Meerlust residential community, till the pump station on the Berg River on the farm BRF Trading 913 (Figure 22).

A track path of the archaeological survey was also created (refer to Figure 22).

The Berg River Farms across the river were not searched, as these properties have previously been surveyed by the archaeologist (Kaplan 2004) and comprise vineyards in the floodplain and some alien vegetation infested farmlands.

A desk top study was also done.

5.1 Results of the desk top study

Early Stone Age (ESA) tools are quite ubiquitous in the Winelands Region between Paarl and Franschoek and have been documented in a variety of different contexts (Kaplan 2010, 2006, 2005a, b, c, 2004b, 2003a, b, 2002a, b, c, 1998).

ESA tools were first discovered on terraces above the Eerste River in Stellenbosch (Peringuey 1902, 1911). Among these was an artefact type of great antiquity recognised as an early handaxe. For many years after this, the ESA of South Africa was referred to as the `Stellenbosch Culture' until the term was re-defined in the 1960s (Goodwin & Van Riet Lowe 1929).

Today the ESA is divided into the `Olduwan' period, which is up to 1.7 million years old. This industry is associated with the oldest and most simple human-made artefacts. This was followed by the `Acheulean' Tradition, a more developed stone artefact industry, characterised by the presence of specific types of stone tools such as handaxes, choppers and cleavers.

Acheulean sites have been recorded throughout South Africa and are especially associated with pans, river terraces, streams, and certain types of rock outcrops. Acheulean tools are also commonly found on mountain slopes, and in degraded areas such as slope washes, cuttings, excavations, colluvian gravels, vineyards, ploughed fields and alongside road reserves.

Despite the disturbed context in which they occur, they do indicate the widespread distribution of these ancient artefacts in southern Africa, which have also been documented by this archaeologist in Stellenbosch, Paarl, Wellington, and further afield.

6. Results of the archaeological study

Only three single archaeological occurrences were documented along the proposed sewer route (Table 1).

One quartzite chunk (DKS1) was found alongside the gravel track on the Meerlust farm. Here the terrain is very, degraded and has also recently been burnt. Dumping of domestic refuse and building rubble is widespread (refer to Figures 3 and 4)

One ESA quartzite flaked cobble (DKS2) and one ESA quartzite flake (DKS3) was found in the road reserve (RHS) alongside the Bien Donne Road (Figures A & B).

Name of Site		Lat/Long	Finds
DKS1		S33 51.431 E18 58.705	Chunk
DKS2		S33 51.303 E18 58.649	ESA flaked cobble
DKS3		S33 51.275 E18 58.663	ESA flake

Table 1. Spreadsheet of waypoints and description of archaeological finds

Figure A. DKS2 Scale is in cm

Figure B. DKS3 Scale is in cm

6.1 Significance of the archaeological remains

The small numbers isolated and disturbed context in which they were found means that the remains have been rated as having low archaeological significance.

7. Impact statement

The study has identified no significant impacts to pre-colonial archaeological material that will need to be mitigated prior to proposed, construction work commencing.

The affected environment is not a sensitive or threatened archaeological landscape.

8. Recommendations

With regard to the proposed construction of the Groot Drakenstein Sewer, the following recommendations are made:

- No archaeological mitigation is required
- No further studies are required
- The project is deemed to be viable

Yours sincerely

Jonathan Kaplan

9. References

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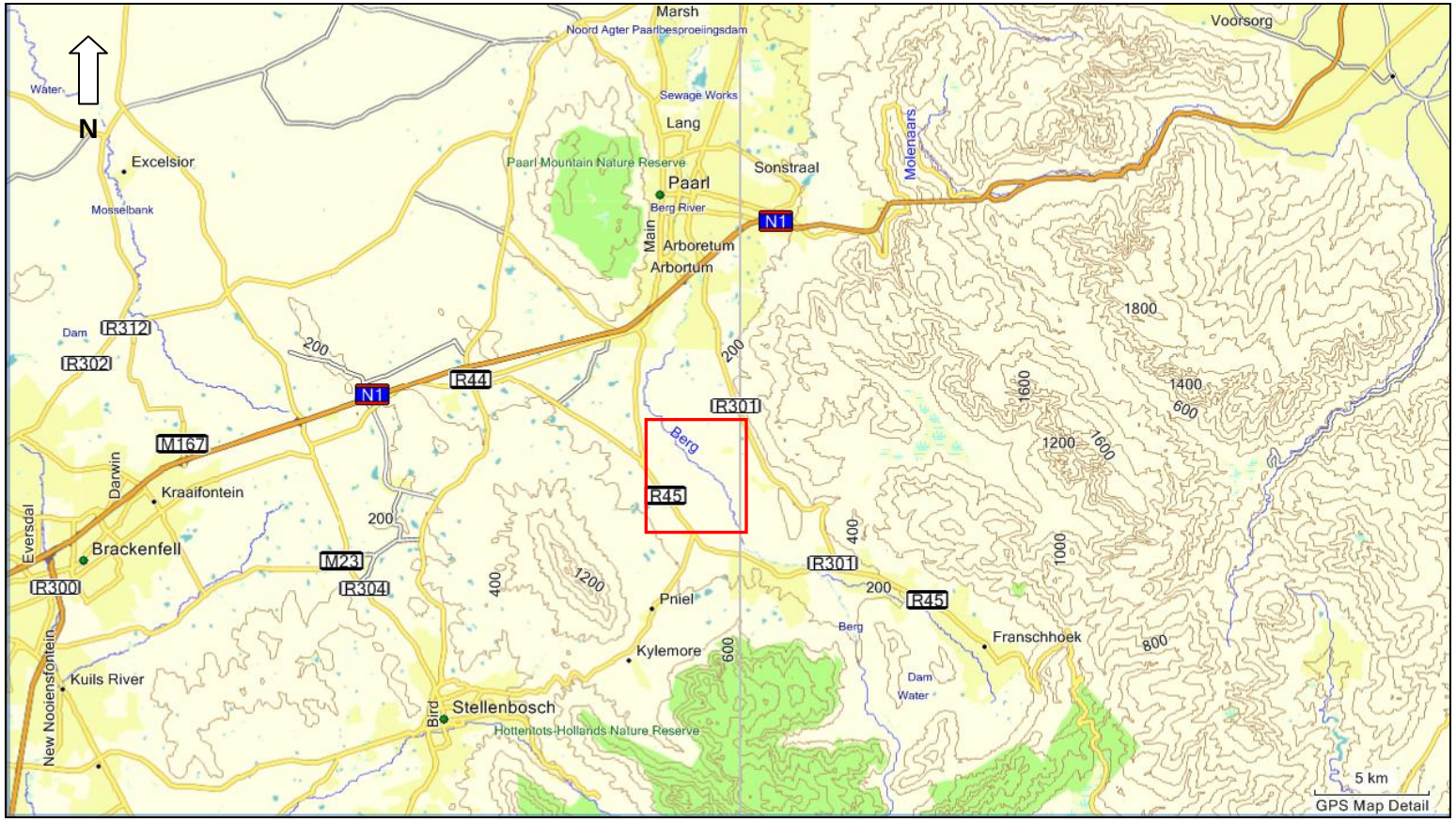

Figure 1. Locality Map

Figure 2. Proposed layout for Drakenstein Sewer Pipeline (in red)

Figure 3. From north from Meerlust residential community.

Figure 4. View south from Bien Donne Road to Meerlust residential community.

Figure 5. View east alongside Bien Donne Road.

Figure 6. View east alongside Bien Donne Road.

Figure 7. View east alongside Bien Donne Road.

Figure 8. View east alongside Bien Donne Road.

Figure 9. View east alongside Bien Donne Road

Figure 10. View north alongside Bien Donne Road

Figure 11. View north alongside Bien Donne Road

Figure 12. View north alongside Bien Donne Road

Figure 13. View north alongside Bien Donne Road.

Figure 16. View north – Farm Niewe Sion.

Figure 14. View north – Farm Langerust 946

Figure 17. View north – Farm Watervliet 1224/3

Figure 15. View north – Farm Niewe Sion 223

Figure 18. View north – Farm Watervliet 1224/3

Figure 19. View north – Farm Watervliet 1224/3

Figure 20. View north – Farm Watervliet 1224/2

Figure 21. Pump station on the farm BRF Trading 913

Figure 25. Waypoints of archaeological finds and track paths