

**PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT
THE PROPOSED CONSTRUCTION OF A NEW WASTE
WATER TREATMENT WORKS AT PATERNOSTER
(REMAINDER OF PORTION 3 OF THE FARM BESTERSKRAAL NO. 38
AND ERF 1519)**

Prepared for

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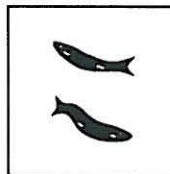
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**MAY
2009**

Executive summary

EnviroAfrica requested that the Agency for Cultural Resource Management conduct a Phase 1 Archaeological Impact Assessment for the proposed construction of a new Waste Water Treatment Works (WWTW) on the Remainder of Portion 3 of the Farm Besterskraal No. 38 and Erf 1519 in Paternoster, on the Cape West coast.

The proposed project will replace the proposed upgrading of the existing Paternoster WWTW, for which an archaeological assessment has already been conducted.

The following findings were made:

No archaeological remains were found during the study of the proposed new WWTW, including the construction of a proposed pipeline and powerline.

A few pieces of marine shellfish and several stone flakes were found in recently ploughed fields directly north of the proposed site, but these remains occur well outside the footprint of the proposed new WWTW.

The Phase 1 Archaeological Impact Assessment of the proposed construction of a new WWTW for Paternoster has therefore identified no significant impacts to pre-colonial archaeological material that will need to be mitigated prior to the proposed development activities.

Buried shell middens and unmarked human burials may, however, be exposed or uncovered during earthworks and excavations for the proposed WWTW and proposed pipeline. Significant sites are known to occur in the Paternoster area.

The following recommendations are made:

- Excavations for the proposed WWTW and the proposed pipeline must be monitored by a professional archaeologist. Should any important shell midden deposits be exposed or uncovered during earthmoving operations, some sampling, or excavations of archaeological these deposits may be required.
- Should any unmarked human remains be disturbed, exposed or uncovered during earthworks, these should immediately be reported to the archaeologist, or the South African Heritage Resources Agency (Dr A. Jerardino 021 462 4502).

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1. INTRODUCTION

EnviroAfrica, on behalf of Saldanha Bay Municipality requested that the Agency for Cultural Resource Management conduct an Archaeological Impact Assessment for the proposed construction of a new Waste Water Treatment Works (WWTW) on Remainder of Portion 3 of the Farm Besterskraal No. 38 and Erf 1519 in Paternoster, on the Cape West coast. The proposed new WWTW will replace the proposed upgrading of the **existing** Paternoster WWTW, for which an archaeological assessment has already been conducted (Kaplan 2008a) and comment from Heritage Western Cape received¹. The existing WWTW will be decommissioned and the site rehabilitated.

The current population of Paternoster is about 5000 and this is expected to increase to about 7500 in 2031. The Saldanha Bay Municipality has therefore decided to provide the town with a full waterborne sanitation system, with the sewerage treated in an Activated Sludge Wastewater Treatment Works.

A proposed 1.8 km long pipeline from the existing WWTW to the preferred new WWTW will also be constructed.

In addition, a proposed \pm 1 km long overhead powerline will be built to link with the proposed new WWTW works and will more or less follow the same route as the proposed (underground) pipeline.

The aim of the AIA is to locate and identify archaeological remains that occur on the site that may be negatively impacted by planning and construction of the proposed development, and to propose measures to mitigate against the impact.

A Notification of Intent to Develop (NID) checklist has been completed by the archaeologist and submitted to Heritage Western Cape (Belcom) for comment.

2. TERMS OF REFERENCE

The terms of reference for the study were:

- to determine whether there are likely to be any archaeological sites of significance within the proposed new WWTW site and the proposed pipeline and powerline route;
- to identify sites of archaeological significance within the proposed new WWTW site and the proposed pipeline and powerline route;
- to assess the sensitivity and conservation significance of archaeological sites potentially affected by the proposed development;
- to assess the significance of any impacts resulting from the proposed development, and
- to identify mitigatory measures to protect and maintain any valuable archaeological sites that may exist within the proposed development area.

¹ Heritage Western Cape Record of Decision dated 19 January, 2009 Ref. HMS/SALDANHA BAY/PATERNOSTER/MALMESBURY FARM 1074/WATER TREATMENT WORKS UPGRADE

3. THE STUDY SITE

A locality map is illustrated in Figure 1.

An aerial photograph of the study area is illustrated in Figure 2.

Paternoster is situated about 13 kms northwest of Vredenburg. The town is currently experiencing large-scale residential development, with several new developments already in the planning and construction stage. The existing WWTW (on municipal land) is situated alongside the gravel road to Stompneusbaai. The proposed new WWTW (S 32° 48 41.06 S 17° 54 13.05 on map datum wgs 84) is situated about 500 m east of the Paternoster/Stompneusbaai gravel road on the northern bank of the Mosselbank River and about 1.6 kms northeast of the existing WWTW. The footprint for the proposed new site is about 1.5 ha. The position of the proposed site is a slightly raised hill overlooking Paternoster to the west. It comprises old agricultural lands that have not been worked for some years (Figures 3-8). There are several large piles of calcrete lying about, while the surface area is covered with many small pieces of calcrete. The sands are soft and windblown. The remains of some remnant but eroded, wind-deflated dunes occur alongside the banks of the Mosselbank River (refer to Figures 6 & 7).

The proposed 1.8 km pipeline from the existing WWTW to the preferred new WWTW, will run through the current landowner's farm (alongside the gravel road), before discharging into the Mosselbank River.

A proposed, 1.0 km overhead powerline will also be constructed to the proposed new WWTW site.

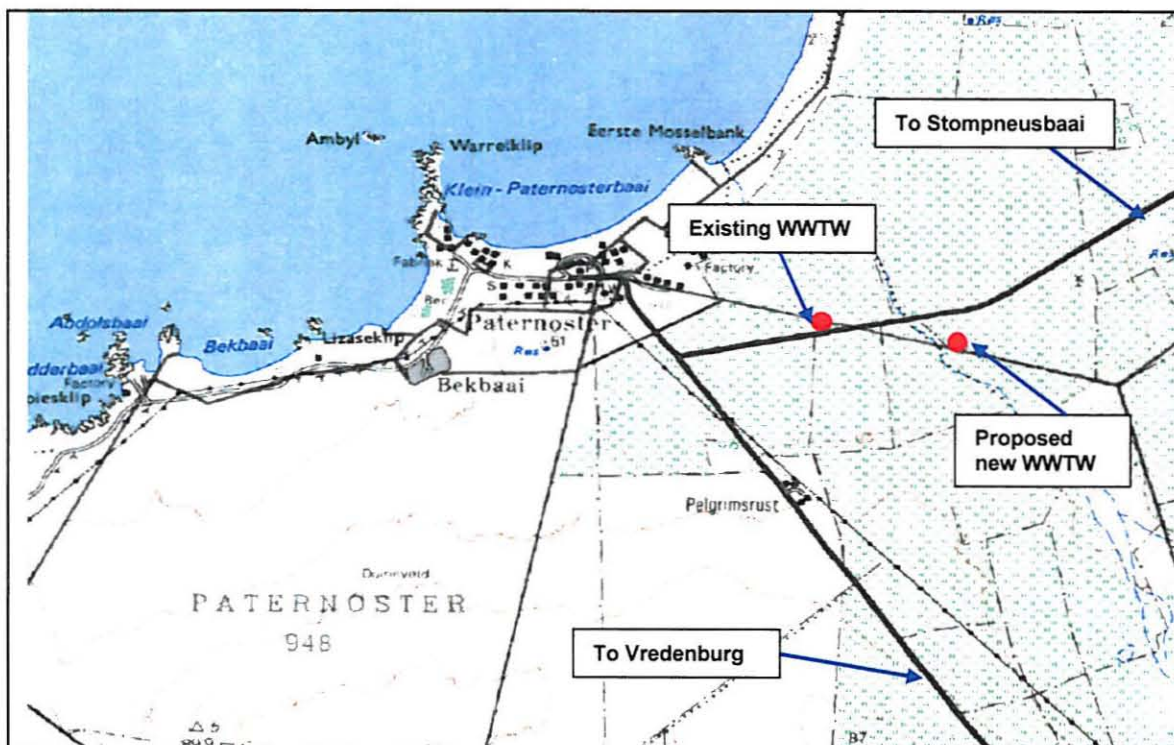


Figure 1. Locality map (3217 DB & DD Vredenburg)



Figure 2. Aerial photograph of proposed new Paternoster WWTW



Figure 3. Position of proposed new WWTW Facing south west

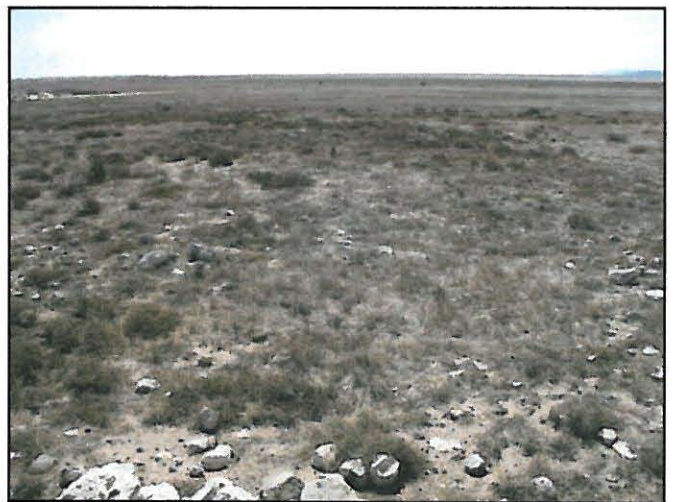


Figure 4. Position of proposed new WWTW facing west



Figure 5. Position of proposed new WWTW facing west



Figure 7. Eroded and wind deflated dunes facing west



Figure 6. Eroded and wind deflated dunes facing east



Figure 8. View of position of proposed new WWTW facing east

4. STUDY APPROACH

4.1 Method of survey

The approach followed in the archaeological study entailed a ground survey of the proposed new WWTW and associated infrastructure (pipeline and powerline).

The site visit and assessment took place on 31st of March, 2009.

A desktop study was also undertaken.

4.2 Constraints and limitations

There were no constraints or limitations associated with the archaeological study.

4.3 Identification of potential risks

The following project actions may impact negatively on archaeological heritage remains.

- Excavations for the proposed new WWTW and underground pipeline may expose or uncover buried shell middens and unmarked human remains.

4.5 Results of the desk-top study

Quite a few archaeological impact assessments have been undertaken in Paternoster in recent years, in direct response to an increase in large scale residential development in the area (Halkett & Hart 1992a,b; Halkett & Mutti 1998; Hart & Halkett 1995, 1998a,b; Kaplan 1993; 2002, 2003, 2004; 2008b, c). An archaeological study of the proposed upgrading of the existing WWTW was also recently done (Kaplan 2008a)

Many sites have been identified and recorded during the course of these surveys, a number of which have also been excavated and sampled (Hart & Halkett 1996; Halkett 1996; Kaplan 2005a, b; Nilssen 2006, 2007; Yates 1998, 2003, 2004a, b; M. Patrick 2008 pers. comm.).

Excavations and sampling of archaeological deposits in Paternoster appear to indicate that the majority of the sites date within the last 3000-4000 years and overlap the period both before and after the arrival of Khoekhoe pastoralists with domestic stock and pottery (Yates 2003).

Shovel testing on Portion 37 of the Farm Uitkomst 23 also revealed the presence of a Khoisan burial (Yates 2004a), while two more burials were uncovered during monitoring of bulk services for a residential development at Uitkomst (Dr Peter Nilssen pers. comm.). And two skeletons were recently recovered from excavations at 'Die Kom' behind the Paternoster Fish Market (Mary Patrick pers. comm. 2008), while the archaeologist knows of the remains of at least one more skeleton that has been covered over by the newly laid tar road leading down to the Fish Market.

5. FINDINGS

No archaeological remains were found on the proposed 1.5 ha WWTW site, nor in the proposed pipeline and powerline route.

No archaeological remains were found among the wind deflated sand dunes that occur alongside the northern bank of the Mosselbank River.

A few small pieces of marine shellfish (Black Mussel), several quartz chunks and one chunk of silcrete were, however, found in recently ripped fields (over the fence) north of the proposed new WWTW site. But these remains occur well outside the proposed footprint.

6. IMPACT STATEMENT

The Archaeological Impact Assessment of the proposed construction of a new WWTW and pipeline in Paternoster has identified no significant impacts to pre-colonial archaeological material that will need to be mitigated prior to the proposed development activities.

Buried shell middens and unmarked human burials may, possibly, be exposed or uncovered during earthworks and excavations for the proposed WWTW and proposed pipeline. Significant sites are known to occur in the Paternoster area, while several unmarked human burials have also been inadvertently uncovered.

7. RECOMMENDATIONS

With regard to the proposed construction of a new WWTW at Paternoster, the following recommendations are made:

- Excavations for the proposed WWTW and pipeline must be monitored by a professional archaeologist. Should shell midden deposits be exposed or uncovered during earthmoving operations, some sampling, or excavations of archaeological these deposits may be required.
- Should any unmarked human remains or graves be disturbed, exposed or uncovered during excavations for the pipeline, these should immediately be reported to the archaeologist or the South African Heritage Resources Agency (Dr A. Jerardino 021 462 4502). Burial remains should not be disturbed or removed until inspected by the archaeologist.

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