

AN ARCHAEOLOGICAL IMPACT ASSESSMENT OF PROPOSED MODIFICATIONS AT THE WASTE WATER TREATMENT WORKS ON THE REMAINDER OF FARM 241, PIKETBERG

Magisterial district: Piketberg
(Bergrivier Municipality)

Assessment conducted in terms of
Section 38 (8) of the National Heritage Resources Act (Act 25 of 1999)

Prepared for

Aurecon

November 2009



Report by

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1. INTRODUCTION

The Archaeology Contracts Office was appointed by Aurecon to conduct a specialist heritage investigation (archaeology) on the proposed upgrading of the Piketberg Wastewater Treatment Works (WWTW) in Piketberg. This report will accompany a Notification of Intent to Develop (NID) application to Heritage Western Cape (HWC).

The site is situated north east of the town of Piketberg, between the N7 National Road and the municipal dump (Figure 1).

The envisaged project is to increase, in three phases, the capacity of the existing WWTW to more than three times the current capacity. To this end, the existing infrastructure needs to be replaced and refurbished (Phase 1), and the works need to be upgraded and additional facilities and infrastructure constructed (Phases 2 and 3). Additional to that, a new access road to the facility will be necessary to avoid the municipal dump area (Figure 2).

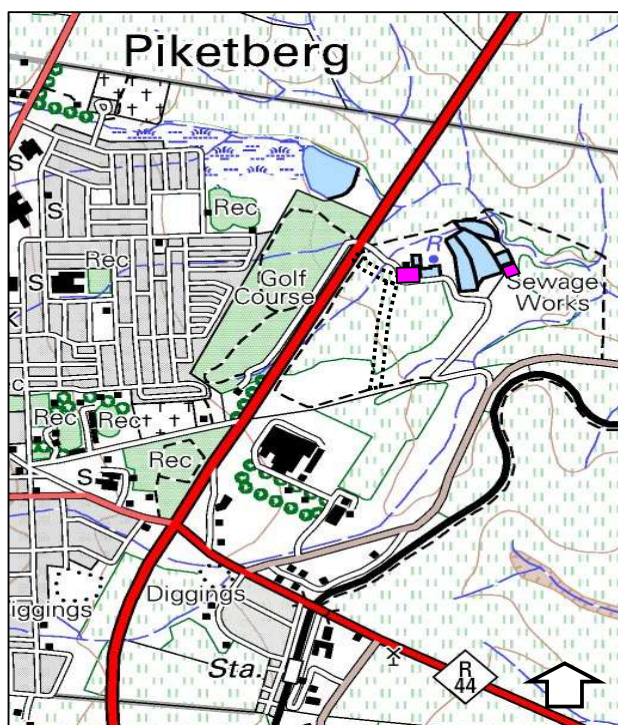


Figure 1: Location of the Piketberg WWTW (existing facility in blue, proposed modification sites in pink, new access road alternatives indicated by double dotted lines alt 1 -short, alt 2 the longer)¹.

2. TERMS OF REFERENCE

The Terms of Reference for this specialist heritage investigation would be as follows:

- Undertake a Phase 1 archaeological assessment of the proposed WWTW development site, in accordance with the requirements of Section 38(3) of the National Heritage Resources Act (Act 25 of 1999), which would include:
 - Conducting a detailed investigation to identify all archaeological, cultural and historic sites in the affected area;

¹ Director General surveys and Mapping. 3218DD Piketberg

- Document (GPS coordinates and map) all sites, objects and structures identified within the vicinity of the project site.
- Compile a report which would include:
 - Identification of possible archaeological, cultural and historic sites within the proposed project site;
 - Evaluation of the potential impacts of construction, operation and maintenance of the proposed development on archaeological, cultural and historical resources, in terms of the scale of impact (local, regional, national), magnitude of impact (low, medium or high) and the duration of the impact;
 - Recommendation of mitigation measures to ameliorate any negative impacts on areas of archaeological, cultural or historical importance; and
 - Compile the Notification of Intent to Develop form and supporting documentation, as required by Heritage Western Cape, and attend the BELCOM meeting to present the finding of your investigation (if required).

3. DESCRIPTION OF THE RECEIVING ENVIRONMENT

The existing WWTW, lies to the east of Piketberg and is close to the N7. Virtually surrounded by largely open agricultural land used for the production of wheat, it is only on the south east side where land use is different consisting of the municipal refuse dump/landfill. In general, the site slopes away from the N7 towards the east although to the north east across the N7 is the Piketberg golf course. The old wheat field to the south of the WWTW is degraded and large open pits and soil dumps are present on the southern edge. It is through this field that one of the proposed road alignments would pass. Existing farm tracks as well as the current access to the WWTW cross the area. Some wetland areas have been identified in the southern half of the field (Figure 2) and would not be impacted by any proposed activities. There are no buildings or structures apart from those of the WWTW.

4. RESULTS

The site was visited on 28 October 2009 by D. Halkett and L. Schietecatte of the ACO. The areas within the existing WWTW were searched on foot (Figure 3). Overall, visibility was good, but no archaeological material was identified. The future secondary settling tank is planned in an area which is now under a manicured lawn within the existing site. The future biological reactor is planned under the current driveway. The soil in this driveway has been disturbed. West of these is an anaerobic dam planned in an area which is now vacant. Although the area is open ground, it was also used as a dumping area for the soil excavated during the construction of the extant processing tanks of the facility. The site for the future maturation river is situated immediately adjacent to the municipal dump. It is used as passage for informal access to the dump and soil dumps and refuse covers a lot of the site. Surface visibility here was very poor, but is unlikely to affect our overall observations.

The alternatives for the new road were searched via a combination of walking and driving. Surface visibility was excellent. Proposed routes are situated in previously ploughed agricultural land and plough marks are still visible. Alternative 1 meets up with the N7 National Road at a roadside lay-by, shaded by line of blue-gum trees. Just north of the proposed Alternative 1 access, is an exiting old road which going between the trees. Such tree lines form important visual elements on the landscape and no trees should be removed to accommodate a new access road.

No surface archaeological material was identified, nor was anything seen in mole heaps or burrows.

Since no archaeological sites were encountered during the site survey, no impact would occur during construction or operational phases of the facility.

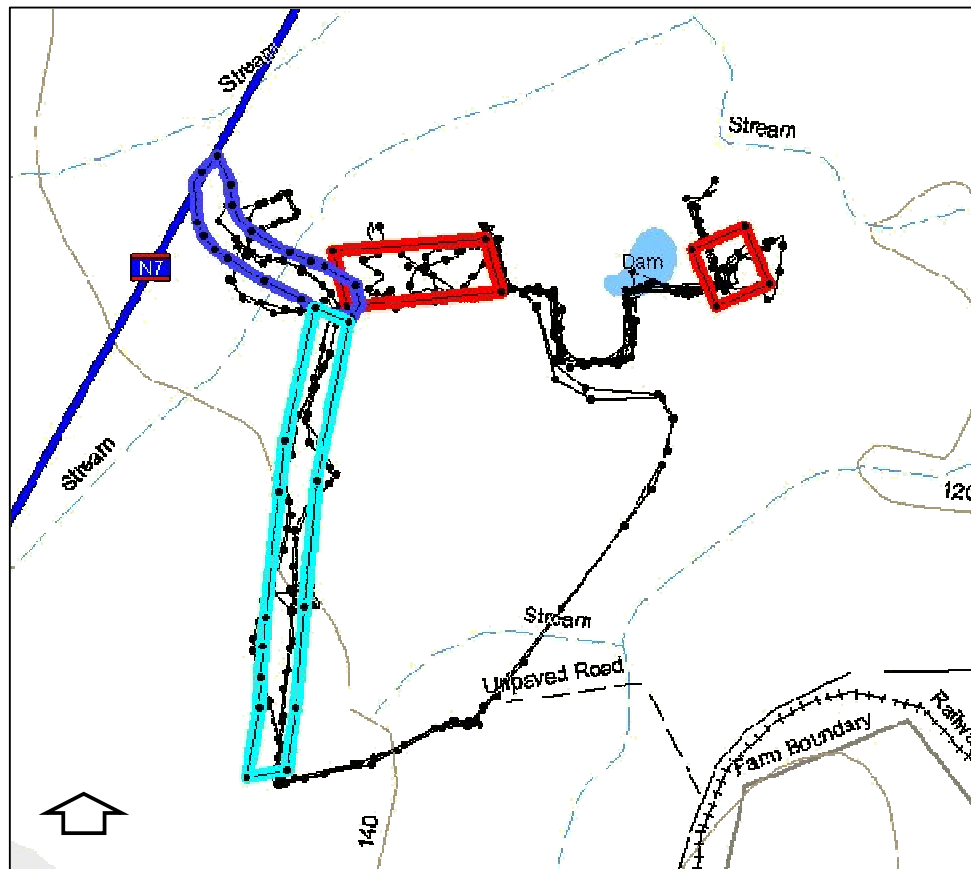


Figure 3: Walk/drive tracks (black lines), WWTW proposed features (red), road alignment - alt 2 (turquoise), road alignment - alt 1 dark blue.

5. CONCLUSIONS AND RECOMMENDATIONS

The Piketberg WWTW needs to be upgraded by upgrading existing facilities and expanding capacity by addition of new infrastructure. In addition, to the proposed new processing facilities at the plant, a new access road is proposed to bypass the municipal landfill site, which is in the process of being closed down. All the land areas affected by proposed modifications were inspected and no archaeological material was found. No significant heritage elements were identified. The only element of some importance was the tree line along the N7 at the point where the proposed new access road (Alternative 1) would be situated.

In terms of the archaeological findings, there would be no impact from the proposed activities at either the WWTW or from either of the proposed alternative access road alignments.

In terms of broader heritage issues, if road Alternative 1 is selected, no blue gum trees should be removed from the existing N7 lay-by in creating access. Neither one of the proposed alternatives is favoured over the other. Visual impacts would be minimal.

In our opinion, no further heritage intervention is requested for the envisaged upgrading and expanding of the Piketberg WWTW facility. However, in the unlikely event that any archaeological material is uncovered during construction, the heritage authorities would need to be contacted

6. PHOTOGRAPHS



(l) Some existing facilities at the existing WWTW (r) One of the proposed new components will be on highly degraded land adjacent to the municipal landfill.



A view along the proposed alt 2 road alignment towards the WWTW marked by the grouping of trees at center. Landfill site can be seen at extreme right, while the access for road alt 1 is amongst the trees at extreme left.



A detailed view of the proposed access point for road alt 1, with N7 to immediate left and seen in the distance.