

Amafa / Heritage KwaZulu – Natali
PO BOX 2685
Pietermaritzburg
3201

Your reference:

Our reference: 14675

Date: 3 August 2018

ATTENTION: BERNADET PAWANDIWA

Dear Bernadet

NORTHERN AQUEDUCT AUGMENTATION PROJECT, LOCATED WITHIN THE ETHEKWINI MUNICIPALITY: COVERING LETTER

Reference is made to the above mentioned project.

1. INTRODUCTION

The current water supply to the north eastern portion of the eThekweni Municipalities jurisdiction is via the existing Northern Aqueduct system. The Northern Aqueduct is operated by eThekweni Water and Sanitation and is a network of bulk supply pipelines that serve the eThekweni municipal area that generally lies north of the Umgeni River, south of the Ohlanga River and east of Ntuzuma.

The existing Northern Aqueduct system has reached capacity on various sections of the trunk mains as a result of growth in demand over the years. The eThekweni Municipality Water and Sanitation Department (EWS) have recognised the need to meet the predicted water demands of consumers within the north eastern portion of the eThekweni Metropolitan boundary. In order to achieve these demands, the Northern Aqueduct Augmentation project was initiated by the eThekweni Municipality Water and Sanitation (EWS) Department. **This project was authorised by the Department of Agriculture and Environmental Affairs (DAEA) in August 2012 with Amafa having commented on the application with no objections.**

The total length of the pipeline is 50km which was split into three phases.

Phase 1: Mainline, Phoenix 2 Reservoir to Umhlanga, Blackburn & Waterloo, Nyanninga Link & Phoenix 1 Reservoir Link

Phase 2: Mainline, Emachobeni – Phoenix 2 Reservoir

Phase 3: Ntuzuma to Ogunjini Pipeline, 20MI Reservoir, Pump Station and 1MI Surge Tank (approximately 20km)

Phase 1 and 2 are complete.

Phase 3 is the subject of this application as there have been some minor pipeline deviations. A significant portion of the preliminary pipeline route for Phase 3 of the NAA was proposed within Provincial, District or Local road servitudes or reserves. However, more recent discussions with the Department of Transport (DoT) indicate that future road expansion plans may be impacted by the proposed horizontal pipeline alignment, and the pipeline needs to be realigned to run outside of the road reserve in order to avoid the future road plans proposed by DoT.

The proposed pipeline will be constructed through dense rural/informal residential settlements as well as low density residential settlements and runs predominantly through Ingonyama Trust land. The realignment of the pipeline outside of the road reserve means that some unavoidable land expropriation and resettlement of residents will be required. All residents will be accommodated following the expropriation process. The realignment has been undertaken to ensure the least amount of expropriation occurs and where possible every effort has been taken to avoid this or minimise the impact.

2. PIPELINE AMENDMENT/CHANGES

In terms of the pipeline, the position of the pipeline has moved approximately 4m outside of the approved road reserve area. In some instances, the deviation is slightly greater to avoid homesteads and informal dwellings. The road reserve generally encompasses a 15m buffer from the centre of the road on either side (i.e. a 30m corridor). All specialist studies assessed a 20m buffer on either side of the road (i.e. a 40m working corridor). This larger area was assessed to avoid any later applications for an amended route. The specialist assessments, in most instances, encompass the 4m proposed deviation in which the impacts were assessed in the previous application. Refer to **"NAA Layout and Sensitivities_full route"** for a layout of the full pipeline showing the previously approved route and the amendments.

In addition to the shift in the pipeline, there are two additional changes to the route which occur in the same vicinity to each other. The first change is a 0.45km deviation to the pipeline where it cuts across a valley to tie into its original location. Secondly, the reservoir and pump station have had to be relocated approximately 500m in a north-easterly direction as the sites chosen before the detailed design was undertaken have proven to be too steep and not feasible for construction. The reservoir and amended pipeline sites have not moved significantly from the approved corridor in the existing authorisation. Refer to **"NAA Layout and Sensitivities_reservoir_route_amend"** for a layout of the proposed changes.

3. HERITAGE IMPACT ASSESSMENT

A full Heritage Assessment was undertaken in June 2011 (refer **Rpt - NAA Heritage (Umlando) - GA 19.06.2011 FINAL**). The findings from the report for Phase 3 have been tabulated below. A map identifying the heritage sites on Phase 3 has been included as **"Phase 3 heritage sites"**.

Table 1: Findings of Heritage Impact Assessment

Site	Findings	Significance	Mitigation
NAA 01	The site consists of an ephemeral scatter of Late Iron Age, or Historical Period, pottery sherds. There does not appear to be an archaeological deposit.	Low Significance	No mitigation required
NAA 02	The site consists of a scatter of pottery sherds that have been exposed by the road cutting and erosion. The pottery sherds extend for ~20m along the road cutting and consist of at least three pots. All of the pottery sherds are undecorated; however, these tend to be thicker and more weathered than those at NAA01 are. The site may date to the Early Iron Age. There is no archaeological deposit at the site.	Low Significance	No mitigation required
NAA 03	The site consists of an ephemeral scatter of stone tools. Three quartz flakes were observed in the road cutting, and more are likely to occur in the general area. The stone tools date to the late Stone Age and are in secondary context.	Low Significance	No mitigation required
NAA 04	The site consists of a circular building and circle of stones used by the Nazareth Baptist Church. The features are of a recent construction, although the area may have been used for some time.	The site is significant to those who worship at this area.	No mitigation is required since the site will not be disturbed.
NAA 05	The site is a stone cairn that is either part of field clearance or a human grave that is located on a flood plain.	The NAA will not directly affect this site as it occurs on the opposite side of the road.	The site is of low significance if it is related to field clearance. If the cairn is a human grave, then it is of high significance.

The Heritage Survey concluded that three archaeological sites on Phase 3 will be partially affected however no mitigation was required with regards to any of the sites. No red flag heritage sites were identified. eThekweni Water and Sanitation were advised to apply to Amafa KZN for a permit to damage the heritage sites. These sites are:

- Archaeological sites: NAA01, NAA02, NAA03 will be partially affected (refer “**Phase 3 heritage sites**”)

In response to the heritage specialist findings, partial destruction permits were applied for from AMAFA on the 11/10/2011 during the EIA phase.

The amended route will affect the same sites as previously authorised the route follows a similar path and has been shifted approximately 4m from where it was originally proposed.

Please advise on the way forward in terms of the requirements from AMAFA.

Yours sincerely

A handwritten signature in black ink, appearing to read "Michelle Guy".

Michelle Guy
Environmental Consultant
SiVEST Environmental Division