



eThembeni Cultural Heritage

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Heritage Scoping Report

Proposed Colwyn Drive Sewer Pipeline with Supporting Infrastructure Sheffield Beach, KwaDukuza LM, KwaZulu-Natal.

Project Area and Project description¹

Sembcorp Siza Water wishes to construct a connecting sewer line that will service residences lying between Christmas Bay in the north and the Hugh Dent pump station in the south of Sheffield Beach. Sheffield Beach is a residential suburb of Salt Rock, with properties lying primarily along the coastal road of Colwyn Drive. Due to significant development along Colwyn Drive, as well as increased development inland of this area, primarily in the form of residential estates, Sembcorp Siza Water has identified the need to ensure the safe collection and transfer of sewerage to its regional treatment works at Tinley Manor. To this end, a sewer pipeline and supporting pumpstation is to be established in and along Colwyn Drive. The establishment of the sewer line requires the undertaking of a Basic Assessment in terms of NEMA² and a WULA³ in terms of the National Water Act, 36 of 1998.

Presently, an existing sewerage sump has been established at Christmas Bay and this will be incorporated into the proposed new sewer line. The 2 kilometres of 200mm diameter sewer line will lie primarily within or adjacent to the existing Colwyn Drive road servitude and at its closest, approximately 40m from the high water mark of the sea. The sewer pipeline will require the excavation of a trench to a variable depth of between 1.5 to 2m below natural ground level, with a working width during construction of approximately 4m. The 200mm PVC pipe will be placed within the trench, atop a bedding of sand, before being backfilled. The proposed pump station near the Sheffield Beach parking, will see an excavation of approximately 200 m³ of material and the establishment of a 2.2m high brick and mortar structure to house the pump and other facilities. The newly established sewer line will link with the existing Villa Royal pump station and sewer, which serves the Hugh Dent main sump and pump station, from where sewerage is transferred to the Tinley Manor treatment works (see Figures 1 & 2).

¹ Information provided by Client, **Sustainable Development Projects:** Background Information Document for Basic Assessment Process – see SAHRIS Case File

² National Environmental Management Act, Act 107 of 1998 as amended

³ Water Use Licence Application



Figure 1 Colwyn Drive Sewer Line: Christmas Bay to Villa Royal



Figure 2 Aerial View Sewer Line Route



Figure 3 Existing Christmas Bay Pump Station



Figure 4 Views of Colwyn Drive: the proposed sewer line will be excavated within the existing road reserve



Figure 5 Location of proposed second pump station at Sheffield Beach Public Parking

Observations

eThembeni staff conducted a site visit and assessment of the route alignment on 10 December 2017.

The general area comprises sugar cane farms where the parent farm boundaries have been registered since the late 19th C. Subsequent coast-side residential subdivisions have been incorporated under municipal administration since the mid-20th C. Colwyn Drive traverses the steeply sloped first primary frontal dune, landward of the coastline; with the principle drainage lines draining eastwards to the high water mark. The frontal dune vegetation comprises wind-clipped primary coastal forest and scrub that has been substantially modified by residential development and formalized gardens.

Given the excess of fifty years of transformation of the dune-front landscape no primary context archaeology was expected. Archaeologically, the observed pattern of Late Iron Age settlement along this coastal littoral is one of hilltop settlements^{4,5}; in this instance the dune front that Colwyn Drive traverses was eschewed, due to both steepness and the dense and closed canopy forest coverage that would have previously prevailed.

Whilst the Palaeosensitivity Map indicates high sensitivity (orange) the proposed sewer alignment is unlikely to impact on the deep subsurface potentially fossil-bearing lithology. Bedrock comprises the Maputaland Group of calcarenite, clayey sands, limestone and conglomerates overlain by grey and red dune sands of the Berea Formation. The latter are the parent material from which the Pleistocene aeolian primary dunes (Berea Red Sands) are derived⁶. It is on these deeply weathered dune sands that Colwyn Drive is located. Anticipated excavation depths during laying of the pipeline and construction of the new pump station will not exceed 2.5 m and thus would have no impact on the deeper underlying bedrock.

No impact on heritage resources⁷ is anticipated in the implementation of the proposed sewerline.

Recommendations

Accordingly, we request that Amafa authorise the proposed development to proceed with no further heritage resource mitigation, suffice their standard requirements in the event of chance finds being exposed during construction activities.

In this regard, please can you notify us timeously via the loaded SAHRIS case file as to the decision of Amafa.

Yours sincerely



Len van Schalkwyk.

Principle Investigator.

⁴ (Tinley Manor North and South Banks, Brettenwood Coastal Estate, Simbithi Coastal Estate, Zulu Lami Estate *et al.* Early Iron Age (EIA) site residues are also recorded at the Zimbali Coastal Estate, Shrimp Lane Midden at Salt Rock and the N2/MR445 Interchange (Ballito).

⁵ KZN Museum Archaeological Data Base

⁶ http://www.geoscience.org.za/images/Maps/DataFile/rsa_1m_shape_layer-font_tar.zip

⁷ As defined in Section 3(2) of the NHRA, Act 25 of 1999.