
Amendment to an Approved Water Use License
Emergency erosion management and realignment of the approved
Themba lethu sewerline to accommodate informal human
settlement.

BACKGROUND INFORMATION DOCUMENT

Prepared For:

CapeEAPrac (Pty) Ltd on behalf of the George Municipality

By:

Confluent Environmental (Pty) Ltd

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1 BACKGROUND

The Water Use License Application (WULA) is for the proposed realignment of an approved bulk sewerline in Thembaletu, George (Figure 1). The original alignment was approved by Water Use License number 16/K30C/CI/2723 in December 2014. The original Environmental Authorisation is reference number 16/3/1/1/D2/50/0060/12 which was issued in March 2014. The proposed realignment is for sections on Erf 5006 and Portion 50/197 in Thembaletu.

In addition to the proposed realignment, emergency work to repair erosion and stabilise the constructed sewerline at a watercourse crossing on Portion 58/197 Sand Kraal (aka Tylora Farm) has been undertaken in terms of Section 20 of the National Water Act. Permission to undertake this work was granted by the Breede-Olifants Catchment Management Agency (BOCMA). Subsequent to completion of this work, the engineer has now recommended additional support to the watercourse in the form of the following interventions:

- Protect the stream bed below the sewer line crossing in the form of a reno mattress.
- Formalise informal stormwater entering the stream from the east and west which is causing erosion of the banks and jeopardising the sewer line stability.
- Protect the emergency overflow of the stream on constructed sewer line crossing with a reno mattress.

The above interventions represent new infrastructure proposed but are considered essential in supporting the already approved sewer line. As the area is actively eroding and under continuous pressure due to informal settlement, it is necessary to include these measures in the amendment of the existing Water Use License (Appendix 1).

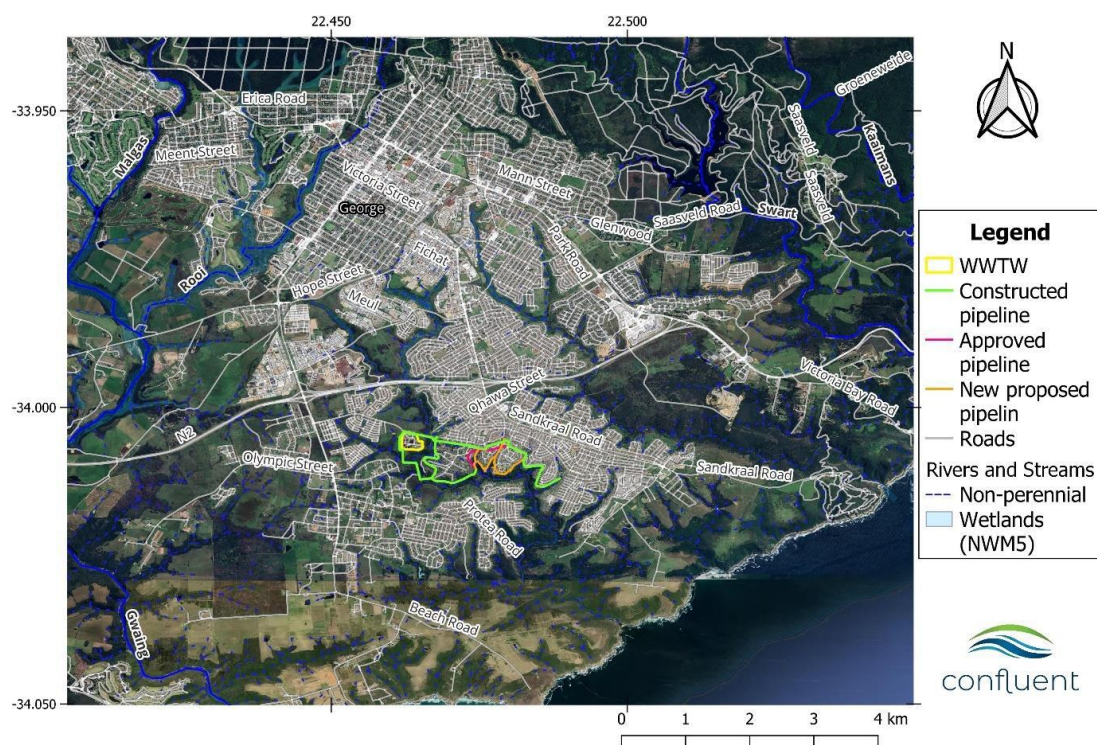


Figure 1.: Alignment of the existing and proposed realignment of the bulk sewer line in Thembaletu, George

The original authorisation approved 6 river crossings and 10 tributary crossings (Appendix 1). A section of the original alignment needs to be moved to accommodate the informal expansion of human settlement since the original approval (Figure 7 and Figure 10). The realignment needs to run below the new human settlement to maintain gravity flow and eventually service these areas once / if formalised in the future (Appendix 2). The realignment places the pipeline closer to three tributaries of the Skaapkop River which are indicated and numbered in Figure 2. These tributaries were crossed in the original layout but are now crossed further downstream (Appendix 1).

The scope of work for this report is guided by the legislative requirements of the National Environmental Management Act (NEMA) and the National Water Act (NWA).

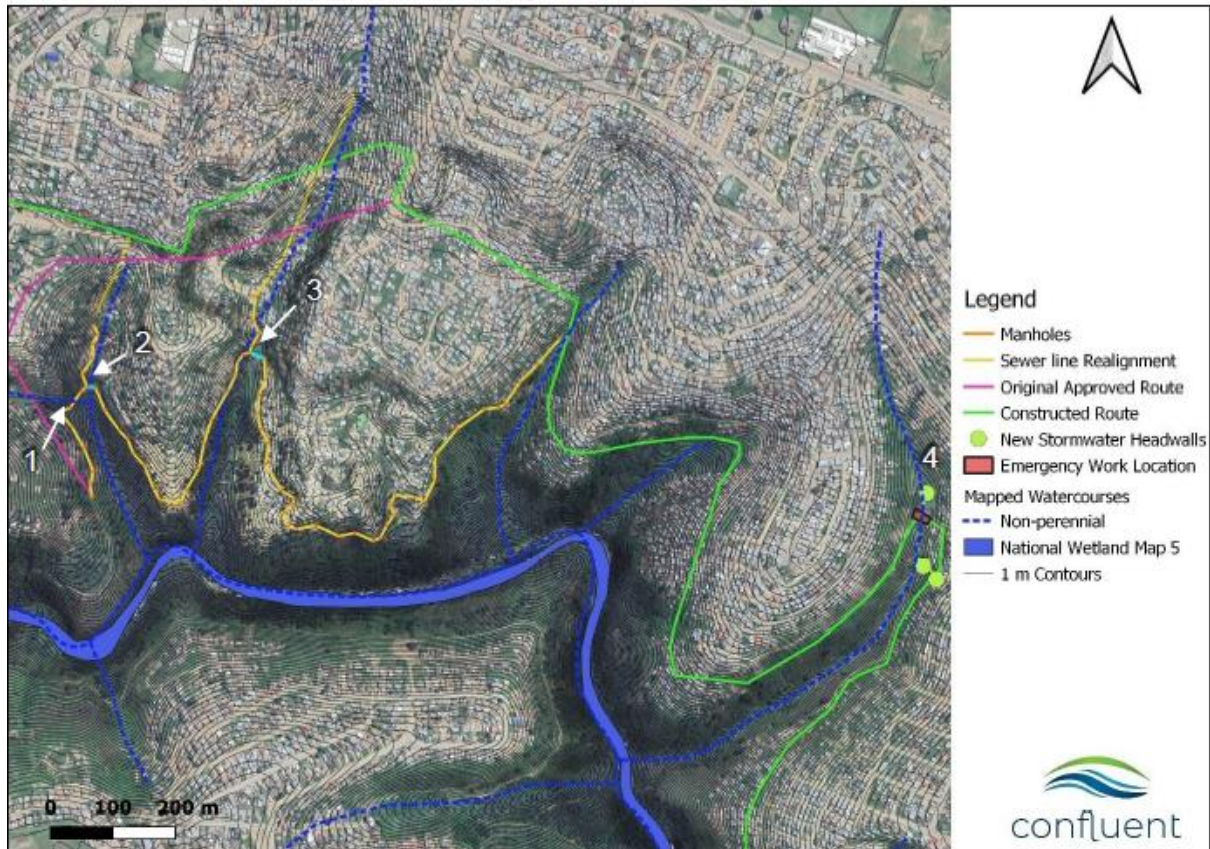


Figure 2: Original approved sewerline (pink) and proposed realignment (orange) moved towards the Skaapkop River showing crossings at tributaries (1-3) moved south. The new alignment ties into the approved and already constructed pipeline (green)

WATER USES

Based on the project layout and proposed plans, the following water uses have been identified:

Section 21 (c): Impeding or diverting the flow of water in a watercourse

Section 21 (i): Altering the bed, banks, course or characteristics of a watercourse

LEVEL OF AUTHORISATION REQUIRED

According to Section 21 (c) and (i) of the NWA, any water use activities that do occur within the regulated area of a watercourse must be assessed using the DWS Risk Assessment Matrix (GN4167) to determine the impact of construction and operational activities on the flow, water quality, habitat and biotic characteristics of the watercourse.

Low Risk activities require a General Authorisation (GA), while Medium or High Risk activities require a Water Use License (WUL).

In this particular case, the majority of the water uses have been previously assessed and approved in an existing WUL and the proposal is to amend the license with the additional / alternate water uses presented in the Aquatic report. The fact that a WUL was originally required means that the inherent risk in undertaking this work is considered Moderate to High and would require an impact assessment and a Water Use License Application (Appendix 1).

CONCLUSIONS

The realignment of the sewer line includes the same number of crossings of the same watercourses as the approved route, just further downstream. Watercourses affected by the proposed sewer line realignment as well as emergency work to the constructed sewer line are all in relatively poor environmental state and would benefit from the formalisation of wastewater management in the area.

The sewer line is a vital basic service to the residents of Thembalethu, as well as critical to reducing flows of untreated sewage and sullage into natural watercourses.

It is recommended that this work be approved and expedited given the benefits to society and the environment.

TECHNICAL REPORTS

| Document | Author |
|-------------------------------|--------------------------------------------------|
| Aquatic Specialist Report | Confluent Environmental; Dr Jackie Dabrowski |
| Civil Engineering Report | Lukhozi Consulting Engineers: Koenraad Potgieter |
| Environmental Management Plan | CapeEAPrac: Francois Byleveld |

RELEVANT CONTACTS

Any queries related to the water uses or WULA can be directed to Sonia Jordaan at Confluent, (email: sonia@confluent.co.za).

APPENDIXES

Appendix 1 - Aquatic Specialist Report; Confluent Environmental