



REFERENCE: 16/3/3/1/A8/74/3040/22
NEAS REFERENCE: WCP/EIA/0001129/2022
DATE OF ISSUE: 06 February 2023

The Municipal Manager
City of Cape Town: Water and Sanitation Department
4th Floor, Water Demand Management
Corner of Mike Pienaar Boulevard and Voortrekker Road
BELLVILLE
7530

Attention: Ms. I. Maisela

E-mail: Ivy.Maisela@capetown.gov.za

Dear Madam

APPLICATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) (“NEMA”) AND THE ENVIRONMENTAL IMPACT ASSESSMENT (“EIA”) REGULATIONS, 2014 (AS AMENDED): PROPOSED INSTALLATION OF A SUB-SURFACED TREATED EFFLUENT PIPELINE, EXTENDING ALONG NOOIENSFONTEIN ROAD, ALONG A WETLAND, AND THE PROPOSED INSTALLATION OF A SUB-SURFACED TREATED EFFLUENT PIPELINE, CROSSING THE CEMENT CHANNEL OF THE KUILS RIVER BY MEANS OF DIRECTIONAL DRILLING (TRENCHLESS METHOD), KUILS RIVER.

1. With reference to the above application, the competent authority hereby notifies you of its decision to **grant** Environmental Authorisation, attached herewith, together with the reasons for the decision.
2. In terms of Regulation 4 of the EIA Regulations, 2014 (as amended), you are instructed to ensure, within 14 days of the date of the Environmental Authorisation, that all registered interested and affected parties are provided with access to and reasons for the decision, and that all registered interested and affected parties are notified of their right to appeal.
3. Your attention is drawn to Chapter 2 of the Appeal Regulations, 2014 (as amended), which prescribes the procedure to be followed in the event of appeals being lodged. This procedure is summarised in the attached Environmental Authorisation.

Yours faithfully

MR. ZAAHIR TOEFY
DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 1)
DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING

CC: (1) Mr. Guillaume Nel/Christoff Dippenaar (GNEC)
(2) Ms. Maurietta Stewart (City of Cape Town)

E-mail: guillaume@gnec.co.za / christoff@gnec.co.za
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REFERENCE: 16/3/3/1/A8/74/3040/22
NEAS REFERENCE: WCP/EIA/0001129/2022
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ENVIRONMENTAL AUTHORISATION

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) ("NEMA") AND THE ENVIRONMENTAL IMPACT ASSESSMENT ("EIA") REGULATIONS, 2014 (AS AMENDED): PROPOSED INSTALLATION OF A SUB-SURFACED TREATED EFFLUENT PIPELINE, EXTENDING ALONG NOOIENSFONTEIN ROAD, ALONG A WETLAND, AND THE PROPOSED INSTALLATION OF A SUB-SURFACED TREATED EFFLUENT PIPELINE, CROSSING THE CEMENT CHANNEL OF THE KUILS RIVER BY MEANS OF DIRECTIONAL DRILLING (TRENCHLESS METHOD), KUILS RIVER.

With reference to your application for the abovementioned, find below the outcome with respect to this application.

DECISION

By virtue of the powers conferred on it by the NEMA and the EIA Regulations, 2014 (as amended), the competent authority herewith grants Environmental Authorisation to the applicant to undertake the list of activities specified in Section B below with respect to the preferred alternative as included in the Basic Assessment Report ("BAR") dated 04 October 2022.

In terms of the NEMA and the EIA Regulations, 2014 (as amended), the competent authority hereby adopts the River Maintenance Management Plan ("RMMP") and Rehabilitation Plan compiled by Guillaume Nel Environmental Consultants for the proposed maintenance or managements works to be undertaken in the watercourses.

The granting of this Environmental Authorisation (hereinafter referred to as the "Environmental Authorisation") is subject to compliance with the conditions set out in Section E below.

A. DETAILS OF THE HOLDER OF THIS ENVIRONMENTAL AUTHORISATION

City of Cape Town
Water and Sanitation Department
c/o Ms. I. Maisela
4th Floor, Water Demand Management
Corner of Mike Pienaar Boulevard and Voortrekker Road
BELLVILLE
7530

E-mail: Ivy.Maisela@capetown.gov.za

The abovementioned applicant is the holder of this Environmental Authorisation and is hereinafter referred to as "the holder".

B. LIST OF ACTIVITIES AUTHORISED

Listed Activity	Activity/Project Description
<p>Listing Notice 1 of the EIA Regulations, 2014 (as amended):</p> <p>Activity 12: <i>"The development of-</i></p> <ul style="list-style-type: none"> <i>(i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or</i> <i>(ii) infrastructure or structures with a physical footprint of 100 square metres or more;</i> <p><i>where such development occurs-</i></p> <ul style="list-style-type: none"> <i>(a) within a watercourse;</i> <i>(b) in front of a development setback; or</i> <i>(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; -</i> <p><i>excluding-</i></p> <ul style="list-style-type: none"> <i>(aa) the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour;</i> <i>(bb) where such development activities are related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies;</i> <i>(cc) activities listed in activity 14 in Listing Notice 2 of 2014 or activity 14 in Listing Notice 3 of 2014, in which case that activity applies;</i> <i>(dd) where such development occurs within an urban area;</i> <i>(ee) where such development occurs within existing roads, road reserves or railway line reserves; or</i> <i>(ff) the development of temporary infrastructure or structures where such infrastructure or structures will be removed within 6 weeks of the commencement of development and where indigenous vegetation will not be cleared".</i> 	<p>Infrastructure/structures of more than 100m² will be constructed outside an urban area within a watercourse and within 32m from the edge of a watercourse.</p>
<p>Activity 19: <i>"The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse;</i></p>	<p>The development proposal entails the removing or moving, dredging, excavation, infilling or depositing of material of more than 10m³ from the watercourse.</p>

<p><i>but excluding where such infilling, depositing, dredging, excavation, removal or moving -</i></p> <ul style="list-style-type: none"> <i>(a) will occur behind a development setback;</i> <i>(b) is for maintenance purposes undertaken in accordance with a maintenance management plan;</i> <i>(c) falls within the ambit of activity 21 in this Notice, in which case that activity applies;</i> <i>(d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or</i> <i>(e) where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies".</i> 	
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The abovementioned list is hereinafter referred to as "the listed activities".

The holder is herein authorised to undertake the following related to the listed activities:

The proposed development entails the installation of a sub-surfaced treated effluent pipeline extending along a wetland along Nooiensfontein Road, and the installation of a sub-surfaced treated effluent pipeline crossing the cement channel of the Kuils River by means of directional drilling (trenchless method), Kuils River.

Crossing 1:

- The pipeline will extend through a seep/depression wetland area via open trench installation adjacent to Nooiensfontein Road.
- The disturbance area through the wetland will be approximately 160m in length and 7m in width (open trench), with an overall disturbance area of approximately 1120m².

Crossing 2:

- The treated effluent pipeline will cross the Kuils River, situated adjacent to the Rietvlei Road Bridge, directly south of Thayser Road.
- The proposed treated effluent pipeline will cross the Kuils River at this location via trenchless directional drilling utilising a 400mm diameter pipe and 630mm diameter sleeve.
- The total length of the pipeline over this section will be approximately 84.47m with an associated subsurface disturbance of approximately 26.331m².

C. LOCATION AND SITE DESCRIPTION

The proposed sub-surfaced treated effluent pipeline will be installed adjacent to existing roads, with Crossing 1 being directly south of Nooiensfontein Road, and Crossing 2 being directly south of Thayser Road.

Crossing 1:

The surrounding land uses comprise urban areas to the north and west. The Kuils River flows along the eastern edge and an open floodplain is located to the south. A larger wetland area is located approximately 200m to the southwest (outside the construction footprint).

Crossing 2:

The proposed sub-surfaced effluent pipeline will cross the cement channel of the Kuils River directly south of Thayser Road.

The SG 21-digit codes are:

Crossing 1: Farm RE/1388: C01600000000138800000

Crossing 2: Farm RE/525: C06700130000052500000

Co-ordinates:

Crossing 1:

Starting point:

Latitude: 33° 57' 02.02" S

Longitude: 18° 40' 06.50" E

Middle point:

Latitude: 33° 57' 02.21" S

Longitude: 18° 40' 04.50" E

End point:

Latitude: 33° 57' 02.32" S

Longitude: 18° 40' 00.58" E

Crossing 2:

Starting point:

Latitude: 33° 55' 55.41" S

Longitude: 18° 40' 06.50" E

Middle point:

Latitude: 33° 57' 26.86" S

Longitude: 18° 40' 25.05" E

End point:

Latitude: 33° 55' 54.32" S

Longitude: 18° 40' 22.85" E

Refer to Annexure 1: Locality Plan and Annexure 2: Site Plan.

hereinafter referred to as "the route".

D. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER ("EAP")

Guillaume Nel Environmental Consultants ("GNEC")

c/o Mr. Guillaume Nel / Mr. Christoff Dippenaar

P.O. Box 2632

PAARL

7620

Tel.: (021) 870 1874

Fax: (021) 870 1873

E-mail: guillaume@gnec.co.za / christoff@gnec.co.za

E. CONDITIONS OF AUTHORISATION

Scope of authorisation

1. The holder is authorised to undertake the listed activities specified in Section B above in accordance with and restricted to the preferred alternative, described in the BAR dated 04 October 2022 on the site as described in Section C above.
2. Authorisation of the activities is subject to compliance with the conditions set out in this Environmental Authorisation. The holder must ensure compliance with the conditions by any person acting on his/her behalf, including an agent, sub-contractor, employee or any person rendering a service to the holder.
3. The holder must commence with, and conclude, the listed activities within the stipulated validity period which this Environmental Authorisation is granted for, or this Environmental Authorisation shall lapse and a new application for Environmental Authorisation must be submitted to the competent authority.

This Environmental Authorisation is granted for–

- (a) A period of five (**5**) years, from the date of issue, during which period the holder must commence with the authorised listed activities; and
 - (b) A period of ten (**10**) years, from the date the holder commenced with an authorised listed activity, during which period the authorised listed activities must be concluded.
4. The activities that have been authorised may only be carried out at the site described in Section C above in terms of the approved Environmental Management Programme ("EMPr").
 5. Any changes to, or deviations from the scope of the description set out in Section B and Condition 2 above must be accepted or approved, in writing, by the competent authority before such changes or deviations may be implemented. In assessing whether to grant such acceptance/approval or not, the competent authority may request such information to evaluate the significance and impacts of such changes or deviations, and it may be necessary for the holder to apply for further authorisation in terms of the applicable legislation.

Notification of authorisation and right to appeal

6. The holder of the authorisation must in writing, within 14 (fourteen) calendar days of the date of this decision –
 - 6.1 notify all registered interested and affected parties ("I&APs") of –
 - 6.1.1 the outcome of the application;
 - 6.1.2 the reasons for the decision;
 - 6.1.3 the date of the decision; and
 - 6.1.4 the date of issue of the decision;
 - 6.2 draw the attention of all registered I&APs to the fact that an appeal may be lodged against the decision in terms of the National Appeal Regulations, 2014 (as amended);

- 6.3 draw the attention of all registered I&APs to the manner in which they may access the decision; and
- 6.4 provide the registered I&APs with:
- 6.4.1 the name of the holder (entity) of this Environmental Authorisation,
 - 6.4.2 name of the responsible person for this Environmental Authorisation,
 - 6.4.3 postal address of the holder,
 - 6.4.4 telephonic and fax details of the holder,
 - 6.4.5 e-mail address, if any;
 - 6.4.6 the contact details (postal and/or physical address, contact number, facsimile and e-mail address) of the decision-maker and all registered I&APs in the event that an appeal is lodged in terms of the National Appeal Regulations, 2014 (as amended).

Commencement

7. The listed activities, including site preparation, must not commence within 20 (twenty) calendar days from the date the applicant notified the registered I&APs of this decision.
8. In the event that an appeal is lodged with the Appeal Administrator, the effect of this Environmental Authorisation is suspended until such time as the appeal is decided. In the instance where an appeal is lodged the holder may not commence with the activity, including site preparation, until such time as the appeal has been finalised and the holder is authorised to do so.

Written notice to the competent authority

9. A minimum of 7 (seven) calendar days' notice, in writing, must be given to the competent authority before commencement of construction activities. Commencement for the purpose of this condition includes site preparation.
- 9.1 The notice must make clear reference to the site details and EIA Reference number given above.
 - 9.2 The notice must also include proof of compliance with the following conditions described herein:
Conditions: 6, 7 and 14.

Management of activity

10. The draft EMPr dated 03 October 2022 (as compiled by Guillaume Nel Environmental Consultants); RMMP dated 08 June 2022 (as compiled by Guillaume Nel Environmental Consultants) and the Rehabilitation Plan (as compiled by Guillaume Nel Environmental Consultants) and submitted as part of the application for Environmental Authorisation are hereby approved and must be implemented.
11. An application for amendment to the EMPr must be submitted to the competent authority in terms of Chapter 5 of the EIA Regulations, 2014 (as amended) if any amendments are to be made to the outcomes of the EMPr, and these may only be implemented once the amended EMPr has been authorised by the competent authority.

12. The EMPr, including the RMMP and Rehabilitation Plan, must be included in all contract documentation for all phases of implementation.
13. A copy of the Environmental Authorisation and the EMPr must be kept at the site where the listed activities will be undertaken. Access to the site referred to in Section C above must be granted and, the Environmental Authorisation and EMPr must be produced to any authorised official representing the competent authority who requests to see it for the purposes of assessing and/or monitoring compliance with the conditions contained herein. The Environmental Authorisation and EMPr must also be made available for inspection by any employee or agent of the applicant who works or undertakes work at the site.

Monitoring

14. The holder must appoint a suitably experienced Environment Control Officer ("ECO"), for the duration of the construction phase to ensure compliance with the provisions of the EMPr and the conditions contained in this Environmental Authorisation.

The ECO must–

- 14.1 be appointed prior to commencement of any construction activities commencing;
- 14.2 ensure compliance with the EMPr and the conditions contained herein;
- 14.3 keep record of all activities on site; problems identified; transgressions noted, and a task schedule of tasks undertaken by the ECO;
- 14.4 remain employed until all rehabilitation measures, as required for implementation due to construction damage, are completed;
- 14.5 provide the competent authority with copies of the ECO reports within 30 days of the project being finalised; and
- 14.6 conduct two weekly site inspections during the construction phase.

Environmental audit reports

15. The holder must, for the period during which the Environmental Authorisation and EMPr remain valid -
 - 15.1 ensure that the compliance with the conditions of the Environmental Authorisation and the EMPr is audited;
 - 15.2 submit an environmental audit report four (4) months after commencement of the construction phase to the relevant competent authority;
 - 15.3 submit an environmental audit report six (6) months after completion of the construction phase to the relevant competent authority; and
 - 15.4 submit an environmental audit report every five (5) years while the Environmental Authorisation remains valid.
16. The environmental audit reports must be prepared by an independent person with expertise and must address the objectives and contain all the information set out in Appendix 7 of the EIA Regulations, 2014 (as amended).

In addition to the above, the environmental audit report, must -

- 16.1 provide verifiable findings, in a structured and systematic manner, on–
 - (a) the level of compliance with the conditions of the Environmental Authorisation and the EMPr and whether this is sufficient or not; and

- (b) the extent to which the avoidance, management and mitigation measures provided for in the EMPr achieve the objectives and outcomes of the EMPr and highlight whether this is sufficient or not;
 - 16.2 identify and assess any new impacts and risks as a result of undertaking the activity;
 - 16.3 evaluate the effectiveness of the EMPr;
 - 16.4 identify shortcomings in the EMPr;
 - 16.5 identify the need for any changes to the avoidance, management and mitigation measures provided for in the EMPr;
 - 16.6 indicate the date on which the construction work was commenced with and completed or in the case where the development is incomplete, the progress of the development and rehabilitation;
 - 16.7 include a photographic record of the site applicable to the audit; and
 - 16.8 be informed by the ECO reports.
17. The holder must, within 7 days of the submission of the environmental audit report to the competent authority, notify all potential and registered I&APs of the submission and make the report available to anyone on request and, where the holder has such a facility, be placed on a publicly accessible website.

Specific conditions

18. Surface or ground water must not be polluted due to any actions on the site. The applicable requirements with respect to relevant legislation pertaining to water must be met.
19. An integrated waste management approach, which is based on waste minimisation and incorporates reduction, recycling, re-use and disposal, where appropriate, must be employed. Any solid waste must be disposed of at a waste disposal facility licensed in terms of the applicable legislation.
20. Should any heritage remains be exposed during excavations or any actions on the site, these must immediately be reported to the Provincial Heritage Resources Authority of the Western Cape, Heritage Western Cape (in accordance with the applicable legislation). Heritage remains uncovered or disturbed during earthworks must not be further disturbed until the necessary approval has been obtained from Heritage Western Cape. Heritage remains include archaeological remains (including fossil bones and fossil shells); coins; indigenous and/or colonial ceramics; any articles of value or antiquity; marine shell heaps; stone artifacts and bone remains; structures and other built features; rock art and rock engravings; shipwrecks; and graves or unmarked human burials.

A qualified archaeologist must be contracted where necessary (at the expense of the applicant and in consultation with the relevant authority) to remove any human remains in accordance with the requirements of the relevant authority.

21. The holder of the Environmental Authorisation must, at all times, ensure that the activities comply with the Noise Regulations in terms of the relevant legislation.

General matters

1. Notwithstanding this Environmental Authorisation, the holder must comply with any other statutory requirements that may be applicable when undertaking the listed activities.
2. If the holder does not commence with the listed activities within the period referred to in Condition 3, this Environmental Authorisation shall lapse for the activities, and a new application for Environmental Authorisation must be submitted to the competent authority. If the holder wishes to extend the validity period of the Environmental Authorisation, an application for amendment in this regard must be made to the competent authority prior to the expiry date of the Environmental Authorisation.
3. The holder must submit an application for amendment of the Environmental Authorisation to the competent authority where any detail with respect to the Environmental Authorisation must be amended, added, substituted, corrected, removed or updated. If a new holder is proposed, an application for amendment in terms of Part 1 of the EIA Regulations, 2014 (as amended) must be submitted.

Please note that an amendment is not required if there is a change in the contact details of the holder. In this case, the competent authority must only be notified of such changes.

4. The manner and frequency for updating the EMPr is as follows:
Amendments to the EMPr, must be done in accordance with Regulations 35 to 37 of the EIA Regulations, 2014 (as amended) or any relevant legislation that may be applicable at the time.
5. Non-compliance with a condition of this Environmental Authorisation or EMPr may render the holder liable to criminal prosecution.

F. APPEALS

Appeals must comply with the provisions contained in the National Appeal Regulations, 2014 (as amended).

1. An appellant (if the holder of the decision) must, within 20 (twenty) calendar days from the date notification of the decision was sent to the holder by the competent authority -
 - 1.1 Submit an appeal in accordance with Regulation 4 of the National Appeal Regulations, 2014 (as amended) to the Appeal Administrator; and
 - 1.2 Submit a copy of the appeal to any registered I&APs, any Organ of State with interest in the matter and the decision-maker *i.e.*, the competent authority that issued the decision.
2. An appellant (if NOT the holder of the decision) must, within 20 (twenty) calendar days from the date the holder of the decision sent notification of the decision to the registered I&APs -

- 2.1 Submit an appeal in accordance with Regulation 4 of the National Appeal Regulations, 2014 (as amended) to the Appeal Administrator; and
 - 2.2 Submit a copy of the appeal to the holder of the decision, any registered I&AP, any Organ of State with interest in the matter and the decision-maker *i.e.*, the competent authority that issued the decision.
3. The holder of the decision (if not the appellant), the decision-maker that issued the decision, the registered I&AP and the Organ of State must submit their responding statements, if any, to the appeal authority and the appellant within 20 (twenty) calendar days from the date of receipt of the appeal submission.
 4. The appeal and the responding statement must be submitted to the address listed below:

By post: Attention: Mr. Marius Venter
Western Cape Ministry of Local Government, Environmental
Affairs and Development Planning
Private Bag X9186
CAPE TOWN
8000

By facsimile: (021) 483 4174; or

By hand: Attention: Mr. Marius Venter (Tel: 021 483 3721)
Room 809
8th Floor Utilitas Building, 1 Dorp Street, Cape Town, 8001

Note: For purposes of electronic database management, you are also requested to submit electronic copies (Microsoft Word format) of the appeal, responding statement and any supporting documents to the Appeal Authority to the address listed above and/ or via e-mail to DEADP.Appeals@westerncape.gov.za.

5. A prescribed appeal form as well as assistance regarding the appeal processes is obtainable from Appeal Authority at: Tel. (021) 483 3721, E-mail DEADP.Appeals@westerncape.gov.za or URL <http://www.westerncape.gov.za/eadp>.

G. DISCLAIMER

The Western Cape Government, the Local Authority, committees or any other public authority or organisation appointed in terms of the conditions of this environmental authorisation shall not be responsible for any damages or losses suffered by the holder, developer or his/her successor in any instance where construction or operation subsequent to construction is temporarily or permanently stopped for reasons of non-compliance with the conditions as set out herein or any other subsequent document or legal action emanating from this decision.

Your interest in the future of our environment is appreciated.

Yours faithfully

MR. ZAAHIR TOEFY
DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 1)
DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING

DATE OF DECISION: 06 FEBRUARY 2023

CC: (1) Mr. Guillaume Nel/Christoff Dippenaar (GNEC)
(2) Ms. Maurietta Stewart (City of Cape Town)

E-mail: guillaume@gnec.co.za / christoff@gnec.co.za
E-mail: maurietta.stewart@capetown.gov.za

FOR OFFICIAL USE ONLY:

EIA REFERENCE NUMBER: 16/3/3/1/A8/74/3040/22

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ANNEXURE 1: LOCALITY PLAN



Locality map of Crossing 1:

Section of the sub-surfaced treated effluent pipeline extending along Nooiensfontein Road, along a severely disturbed and degraded wetland area:



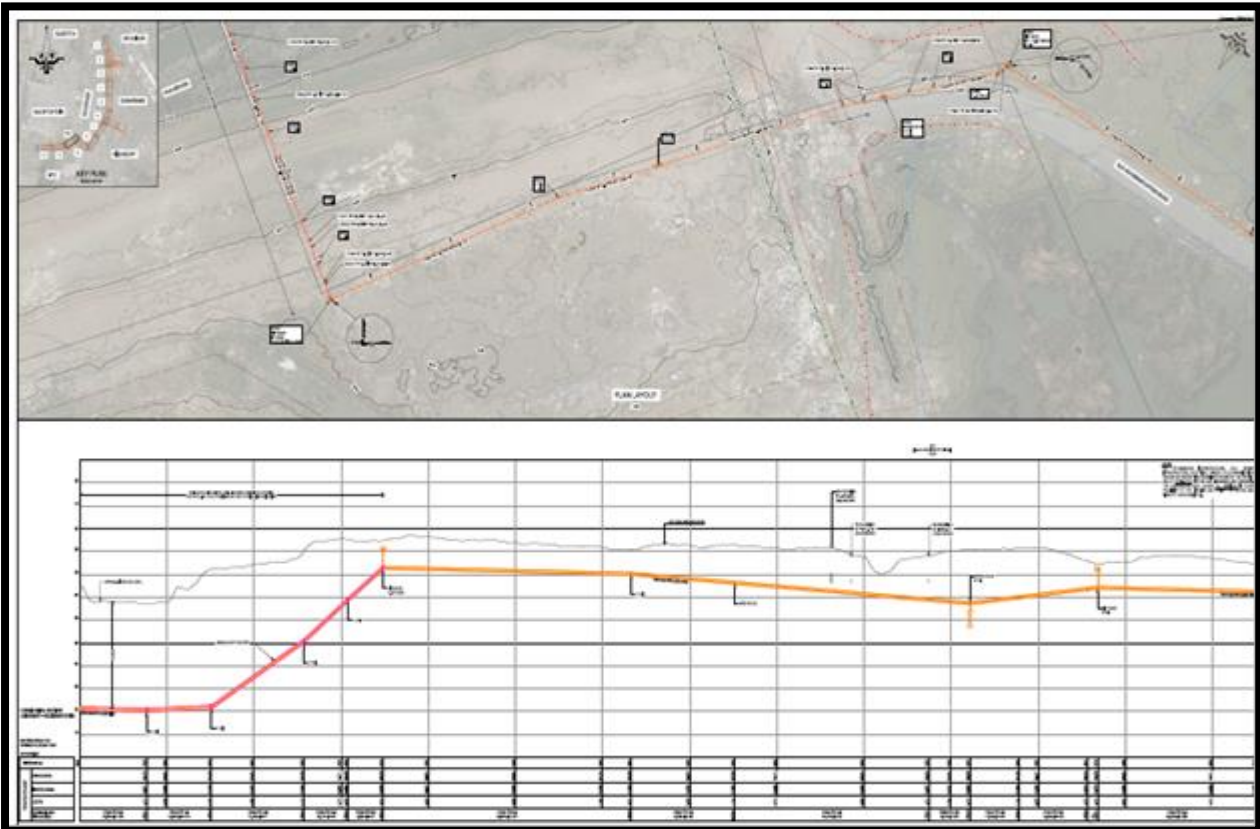
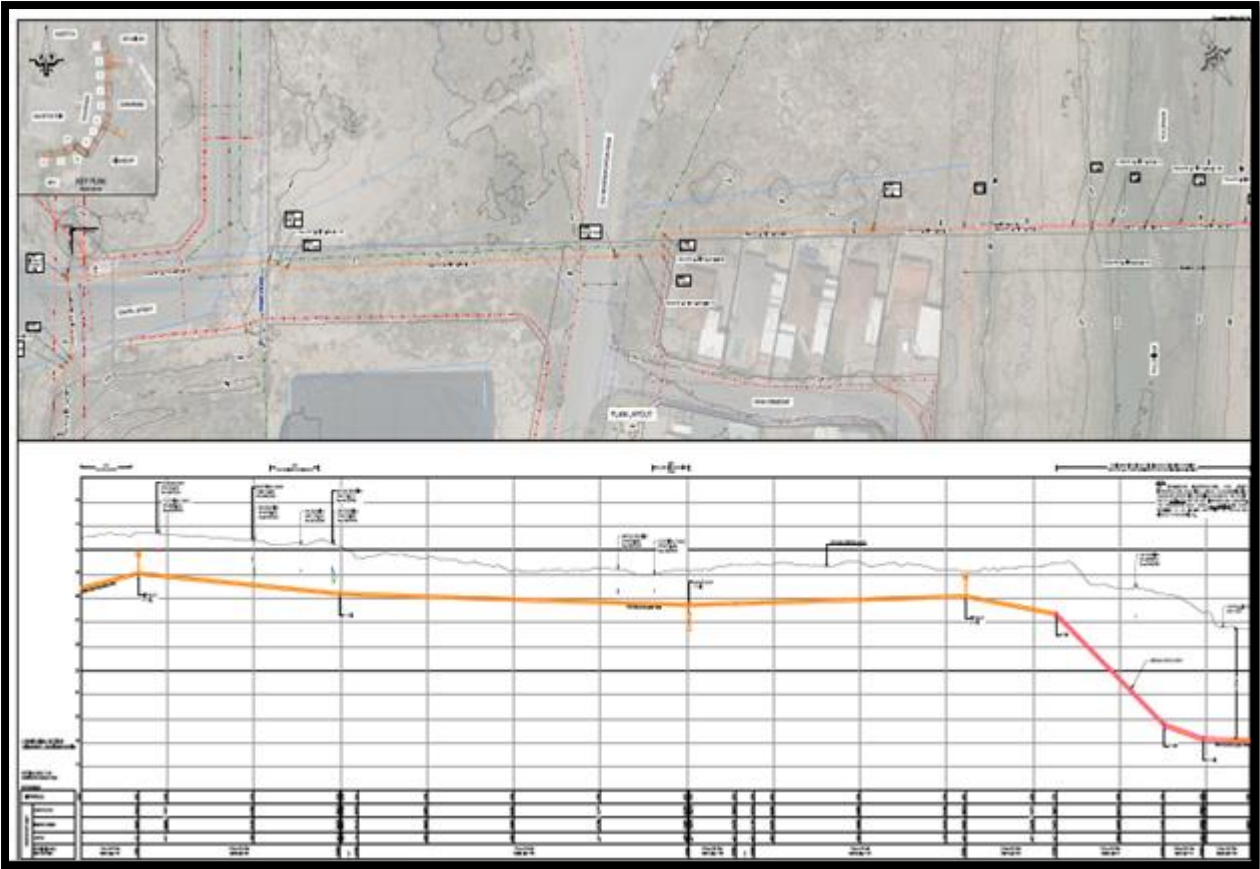
Locality map of Crossing 2:

Section of the sub-surfaced treated effluent pipeline crossing the cement channel of the Kuils River directly south of Thayer Road by means of directional drilling:

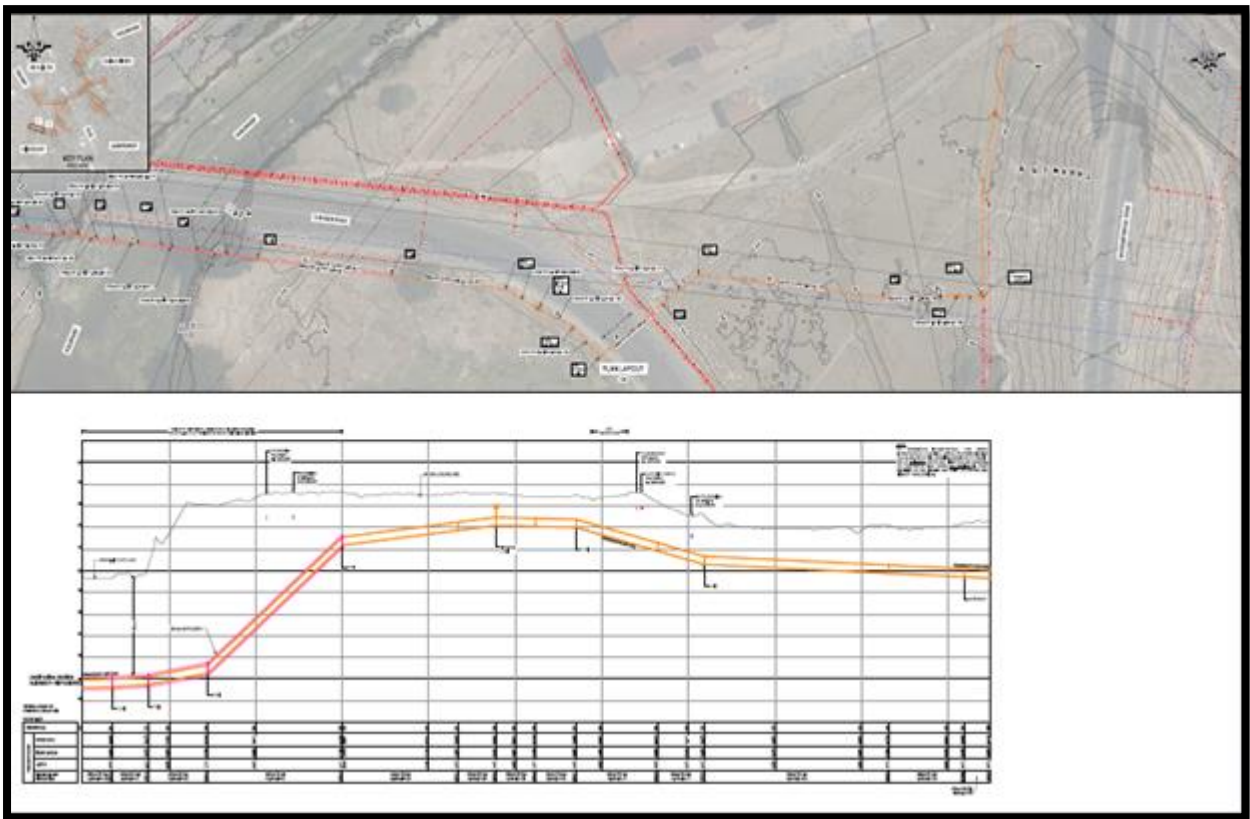


ANNEXURE 2: SITE PLAN

Crossing 1:



Crossing 2:



ANNEXURE 3: REASONS FOR THE DECISION

In reaching its decision, the competent authority, *inter alia*, considered the following:

- a) The information contained in the application form received by the competent authority via electronic mail correspondence 18 July 2022; the BAR dated and received by the competent authority via electronic mail correspondence on 04 October 2022; and the EMPr submitted together with the BAR;
- b) The objectives and requirements of relevant legislation, policies and guidelines, including section 2 of the NEMA.
- c) The comments received from I&APs and the responses provided thereon, as included in the BAR dated 04 October 2022.
- d) No site visits were conducted. The competent authority had sufficient information before it to make an informed decision without conducting a site visit.

All information presented to the competent authority was taken into account in the consideration of the application for environmental authorisation. A summary of the issues which, according to the competent authority, were the most significant reasons for the decision is set out below.

1. Public Participation

The Public Participation Process comprised of the following:

- Notice boards were placed on site on 08 June 2022;
- Background Information Documents were hand-delivered to landowners on 08 June 2022 and 15 June 2022;
- An advertisement was placed in the "Tygerburger" newspaper on 08 June 2022;
- E-mails were sent on 08 June 2022 to organs of state, State Departments and registered I&APs to announce the availability of the pre-application BAR for download from the EAP's website;
- The pre-application BAR was placed on the website of Guillaume Nel Environmental Consultants for the duration of the commenting period;
- The pre-application BAR was placed at the Kuils River Public Library on 15 June 2022;
- The pre-application BAR was made available for comment from 08 June 2022 until 11 July 2022;
- E-mails were sent on 01 August 2022 to announce the availability of the draft BAR; and
- The draft BAR was made available from 01 August 2022 until 02 September 2022.

Authorities consulted

The authorities consulted included the following:

- City of Cape Town;
- Department of Environmental Affairs and Development Planning ("DEA&DP") Directorate: Waste Management;
- DEA&DP Directorate: Pollution & Chemicals Management;
- Western Cape Department of Agriculture;
- CapeNature;
- Department of Water and Sanitation; and
- Heritage Western Cape.

The competent authority is satisfied that the Public Participation Process that was followed met the minimum legal requirements. All the comments and responses that were raised were responded to and included in the BAR.

2. Alternatives

The following design alternatives were considered:

Crossing 1: preferred design – herewith authorised:

The pipeline will extend through a seep/depression wetland area via open trench installation adjacent to Nooiensfontein Road. The disturbance area through the wetland will be approximately 160m in length and 7m in width (open trench), with an overall disturbance area of approximately 1120m².

This is the preferred alternative since the area has been severely degraded and disturbed. The construction area will be rehabilitated with endemic species after construction which will contribute to the ecological and biodiversity value of the previously disturbed seep/depression wetland. Furthermore, open trenching is also much more cost effective.

Alternative design:

In this alternative the sub-surfaced effluent pipeline will be installed via directional drilling and not open trenching. This alternative was discarded for the following reasons:

- Directional drilling is very expensive and difficult due to the alignment of the pipeline along Nooiensfontein Road; and
- Directional drilling would be difficult as the area is very uneven.

Crossing 2:

The treated effluent pipeline will cross the Kuils River, situated adjacent to the Rietvlei Road Bridge, directly south of Thayser Road. The proposed treated effluent pipeline will cross the Kuils River at this location via trenchless directional drilling utilising a 400mm diameter pipe and 630mm diameter sleeve. The total length of the pipeline over this section will be approximately 84.47m with an associated subsurface disturbance of approximately 26.331m³.

This is the preferred alternative since directional drilling will have minimal disturbance on the embankments of the Kuils River. Furthermore, directional drilling will not impact on the ecology of the watercourse and no work will be done directly within the river. There will also be no siltation within the watercourse due to construction activities.

Alternative design:

The pipeline would cross the Kuils River via open trenching and not via directional drilling (trenchless method). This alternative was discarded for the following reasons:

- Open trenching will negatively impact the stabilised embankments of the Kuils River, since the embankments will be used for access;
- Siltation will be difficult to control;
- The water will have to be diverted during the construction phase; and
- Open trenching will have a higher visual impact during the construction phase.

Preferred alternative – herewith authorised:

The preferred alternative entails the installation of a sub-surfaced treated effluent pipeline extending along a wetland along Nooiensfontein Road, and the installation of a sub-surfaced treated effluent pipeline crossing the cement channel of the Kuils River by means of directional drilling (trenchless method), Kuils River.

Crossing 1:

- The pipeline will extend through a seep/depression wetland area via open trench installation adjacent to Nooiensfontein Road.
- The disturbance area through the wetland will be approximately 160m in length and 7m in width (open trench), with an overall disturbance area of approximately 1120m².

Crossing 2:

- The treated effluent pipeline will cross the Kuils River, situated adjacent to the Rietvlei Road Bridge, directly south of Thayser Road.
- The proposed treated effluent pipeline will cross the Kuils River at this location via trenchless directional drilling utilising a 400mm diameter pipe and 630mm diameter sleeve.
- The total length of the pipeline over this section will be approximately 84.47m with an associated subsurface disturbance of approximately 26.331m².

“No-Go” Alternative:

This alternative entails maintaining the *status quo* and as such, the proposed sub-surfaced treated effluent pipeline will not be installed. This alternative was not deemed as preferred, as it will not ensure the effective distribution of treated effluent from the Bellville Waste Water Treatment Works to service the Kuils River area. The proposed development will provide for effective effluent management and distribution, which is a key factor for future development and economic growth in the areas. The benefits to the holder and creation of jobs would not be realised. The “no-go” alternative is therefore not warranted.

3. Impacts, assessment and mitigation measures

3.1 Activity Need and Desirability

The installation of the proposed sub-surfaced effluent pipeline will ensure the effective distribution of treated effluent from the Bellville Waste Water Treatment Works to service the Kuils River area. Effective effluent management is a key factor for future development and economic growth in the area and will encourage end-users to use treated effluent as an alternative water resource. The proposed development will also decrease the demand for potable water resources and will create employment opportunities during the construction phase.

3.2 Botanical impacts

The proposed sub-surfaced treated effluent pipeline will be installed adjacent to existing roads, with Crossing 1 being directly south of Nooiensfontein Road, and Crossing 2 being directly south of Thayser Road.

Crossing 1:

The surrounding land uses comprise urban areas to the north and west. The Kuils River flows along the eastern edge and an open floodplain is located south of the site. A larger wetland area is located approximately 200m to the southwest of the site (outside the construction footprint). No endemic plant species have been identified within the construction footprint and the area consists mostly of grass.

Crossing 2:

The proposed sub-surfaced effluent pipeline will cross the cement channel of the Kuils River directly south of Thayser Road. The embankment consists mainly of invasive kikuyu grass and indigenous vegetation will not be impacted on. The grass embankment is regularly mowed and maintained.

No significant impacts on botany are anticipated as a result of the development, as the route is completely transformed.

3.3 Freshwater impacts:

A Freshwater Constraints Analysis and Risk Assessment Matrix Report dated April 2022 was compiled by DDK Consulting, to assess the potential freshwater impacts associated with the proposed development.

The Kuils River and the Bottelary River (a tributary of the Kuils River) are located in close proximity to the route and will be crossed by the proposed treated effluent pipeline. A seep/depression wetland area associated with the Kuils River will also be crossed by the proposed treated effluent pipeline via open trench installation.

The Bottelary River is in a largely modified condition (Category D) whilst the Kuils River is in a seriously modified condition (Category E). Large portions of the Kuils River system are severely impacted by anthropogenic activities such as canalisation and in-channel impoundments such as dams and/or weirs, leading to habitat changes together with influenced water quality and sediment transport. The riparian zones are seriously modified (Category E), for both rivers.

The rivers have been severely impacted by anthropogenic land uses such as water abstraction, storage of water upstream in artificial farm dams and in-channel impoundments such as dams and/or weirs. The encroachment of residential land uses up to the edge of the river channels resulted in the transformation of indigenous vegetation, proliferation of alien invasive vegetation and increased erosion which negatively affects the hydrology and geomorphology of the river systems. Large portions of the Kuils River have also been canalised, causing flow, bed, and channel modifications with a subsequent decline in aquatic vegetation negatively impacting water quality and an increasing sediment load.

The Present Ecological State of the seep/depression wetland area at Crossing 1 via open trench installation has been assessed as Category F (critically modified).

Both the Kuils River and Bottelary River have a low/marginal ecological importance and sensitivity in terms of biotic criteria. Both rivers have a moderate ecological importance and sensitivity, since the rivers provide an important ecological corridor for the movement of fauna and flora in a highly developed and transformed landscape. Furthermore, the Bottelary River is a major tributary of the Kuils River, and is of significant ecological importance within the greater developed landscape.

Trenchless directional drilling will be used to install the proposed treated effluent pipeline underneath the Kuils River and Bottelary River. Minimal disturbance is anticipated to the bed and banks of the rivers. The open trench installation at Crossing 1 through the seep/depression wetland area, will be rehabilitated with suitable locally indigenous wetland vegetation, by utilising the excavated soil which will be backfilled for rehabilitation.

The mitigation measures and recommendations of the specialist have been included in the EMPr. A RMMP and Rehabilitation Plan have been compiled for maintenance or management works to be undertaken in the watercourses.

The activities associated with the installation of the proposed treated effluent pipeline at Crossings 1 and 2 pose a low risk, with the implementation of mitigation measures, on the rivers.

3.4 Cultural/Heritage impacts:

The areas where the sub-surfaced treated effluent pipeline will be installed have been previously disturbed due to the following:

- Illegal dumping and infilling;
- Illegal vehicle access;
- Livestock grazing, trampling, compaction and erosion;
- The construction of Nooiensfontein Road and Thayser Road and related car bridge; and
- The formalisation of the Kuils River into a concrete channel.

It is therefore not expected that any artefacts of historical significance will be impacted on. Structures older than sixty years have also not been identified, nor will it be impacted on.

3.5 Faunal impacts:

Since the proposed sub-surfaced treated effluent pipeline will be installed directly south of Nooiensfontein Road and directly south of Thayser road, the effluent pipeline will not impact on faunal species as the route does not support significant animal species.

Larger faunal species have not been observed within the area and the area is severely disturbed and degraded from its natural habitat. Should any species be found within the construction footprint, the species will be relocated to adjacent natural areas.

3.6 Dust, odour, visual and noise impacts

Potential dust, odour, visual and noise impacts are anticipated during the construction phase. However, no significant potential dust, odour, visual and noise impacts are anticipated as these impacts will be mitigated by the implementation of the mitigation measures included in the EMPr.

The development will result in both negative and positive impacts.

Negative Impacts:

- Potential disturbance of the watercourses and embankments;
- Potential pollution of the watercourses; and
- Potential water quality impacts.

Positive impacts:

- The proposed development will ensure the effective distribution of treated effluent from the Bellville Waste Water Treatment Works to service the Kuils River area;
- Employment opportunities will be created during the construction phase of the development; and
- The construction area will be rehabilitated with endemic species after construction which will contribute to the ecological and biodiversity value of the previously disturbed seep/depression wetland.

National Environmental Management Act Principles

The National Environmental Management Act Principles (set out in section 2 of the NEMA, which apply to the actions of all Organs of State, serve as guidelines by reference to which

any Organ of State must exercise any function when taking any decision, and which must guide the interpretation, administration and implementation of any other law concerned with the protection or management of the environment), *inter alia*, provides for:

- the effects of decisions on all aspects of the environment to be taken into account;
- the consideration, assessment and evaluation of the social, economic and environmental impacts of activities (disadvantages and benefits), and for decisions to be appropriate in the light of such consideration and assessment;
- the co-ordination and harmonisation of policies, legislation and actions relating to the environment;
- the resolving of actual or potential conflicts of interest between Organs of State through conflict resolution procedures; and
- the selection of the best practicable environmental option.

In view of the above, the NEMA principles, compliance with the conditions stipulated in this Environmental Authorisation, and compliance with the EMPr, the competent authority is satisfied that the proposed listed activities will not conflict with the general objectives of integrated environmental management stipulated in Chapter 5 of the NEMA and that any potentially detrimental environmental impacts resulting from the listed activities can be mitigated to acceptable levels.

You are reminded of your general duty of care towards the environment in terms of Section 28(1) of the NEMA which states: *"Every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is authorised by law or cannot reasonably be avoided or stopped, to minimise and rectify such pollution or degradation of the environment."*

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