



EIA REFERENCE: 16/3/3/1/E2/37/1033/20
NEAS REFERENCE: WCP/EIA/0000785/2020
DATE OF ISSUE: 12 March 2021

The Director
Department of Transport and Public Works
Private Bag X9185
CAPE TOWN
8000

Attention: Ms. M. Hofmeyr

Tel.: (021) 483 5713

Email: melanie.hofmeyr@westerncape.gov.za

Dear Madam

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014, (AS AMENDED): PROPOSED REHABILITATION AND UPGRADING OF TRUNK ROAD 28 SECTION 2 (TR28/2) (R43) AND RELATED EXISTING DEGRADED STORMWATER INFRASTRUCTURE (CULVERTS), FROM KM 23.83 TO KM 43.88, BETWEEN STANFORD AND GANSBAAI

1. With reference to the above application, the Department 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 Environmental Impact Assessment 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 ("I&APs") are provided with access to and reasons for the decision, and that all registered I&APs are notified of their right to appeal.
3. Your attention is drawn to Chapter 2 of the National Appeal Regulations, 2014 (as amended), which prescribes the appeal procedure to be followed. This procedure is summarized in the attached Environmental Authorisation.

Yours faithfully

**Zaahir
Toefy**

Digitally signed
by Zaahir Toefy
Date: 2021.03.12
12:45:54 +02'00'

MR. ZAAHIR TOEFY

DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 1)

DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING

CC: (1) Mr. C. Dippenaar (GNEC)
(2) Ms. P. Aplon (Overstrand Municipality)
(3) Mr. R. le Roux (BGCMA)
(4) Mr. R. Smart (CapeNature)
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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 National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") and the Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended), the Competent Authority herewith **grants Environmental Authorisation** to the applicant to undertake the listed activities specified in Section B below with respect to the Preferred Design Alternative and future maintenance activities described in the Basic Assessment Report ("BAR"), dated November 2020.

The applicant for this Environmental Authorisation is required to comply with the conditions set out in Section E below.

A. DETAILS OF THE APPLICANT FOR THIS ENVIRONMENTAL AUTHORISATION

Department of Transport and Public Works

% Ms. M. Hofmeyr

Private Bag X9185

CAPE TOWN

8000

Tel.: (021) 483 5713

Email: melanie.hofmeyr@westerncape.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 activities	Activity/Project Description
EIA Regulations Listing Notice 1 of 2014: Activity Number 19: 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; but excluding where such infilling, depositing, dredging, excavation, removal or moving— - will occur behind a development setback; - is for maintenance purposes undertaken in accordance with a maintenance management plan; - falls within the ambit of activity 21 in this Notice, in which case that activity applies; - occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or - 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.	The proposed upgrading, replacement and future maintenance of culverts will require the infilling and movement of more than 10m³ of material within a watercourse.
EIA Regulations Listing Notice 3 of 2014: Activity Number 18: The widening of a road by more than 4 metres, or the lengthening of a road by more than 1 kilometre. i. Western Cape - Areas zoned for use as public open space or equivalent zoning; - All areas outside urban areas: - Areas containing indigenous vegetation; - Areas on the estuary side of the development setback line or in an estuarine functional zone where no such setback line has been determined; or - Inside urban areas: - Areas zoned for conservation use; or - Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority.	The proposal entails the widening of the affected section of road by more than 4m, within areas containing indigenous vegetation.

The abovementioned list is hereinafter referred to as “**the listed activities**”.

The holder is herein authorised to undertake the following alternative that includes the listed activities as it relates to the development:

The proposal entails the following:

1. Road rehabilitation and upgrade:

- The carriageways of the existing road will be widened from 3.2m to 3.7m each and 2m surfaced shoulders on each side will be added.
- The addition of concrete lined side drains.
- Upgrade the deteriorating pavement structure.
- Improve unsafe access location in terms of insufficient shoulder distance and access spacing.
- Improve the existing destination, tourism and road warning signage, and road markings.

2. Culvert upgrading at the following kilometres through:

- The construction of new apron slabs at each of the upgraded culverts as well as erosion protection (gabions/reno-mattresses).
- The construction of concrete wing-walls at the upstream side of the road.

Culvert at Km 24.088	A 450mm pipe culvert to be replaced with a 2400mm x 1200mm box culvert.
Culvert at Km 24.138	Two 1800mm pipe culverts to be replaced with two 2400mm x 1500mm box culverts.
Culvert at Km 24.198	A 600mm pipe culvert to be replaced with a 2400mm x 1200mm box culvert.
Culvert at Km 25.092	A 400mm pipe culvert to be replaced with a 600mm pipe culvert.
Culvert at Km 25.115	A 400mm pipe culvert to be replaced with a 600mm pipe culvert.
Culvert at Km 25.138	A 400mm pipe culvert to be replaced with a 600mm pipe culvert.
Culvert at Km 25.161	A 400mm pipe culvert to be replaced with a 600mm pipe culvert.
Culvert at Km 25.184	A 400mm pipe culvert to be replaced with a 600mm pipe culvert.

3. Construction of new culverts at the following kilometers:

Culvert at Km 24.112	1 x Box Culvert of 1500mm x 1500mm
Culvert at Km 24.125	1 x Box Culvert of 1500mm x 1500mm
Culvert at Km 24.163	2 x Box Culverts of 2400mm x 1500mm
Culvert at Km 24.175	1 x Box Culvert of 1500mm x 1500mm
Culvert at Km 24.188	1 x Box Culvert of 1500mm x 1500mm
Culvert at Km 25.20	1 x 600mm pipe culvert.

4. It should be noted that even though the following culvert upgrades adjacent to the Grootbos Private Nature Reserve and Walker Bay Nature Reserve do not constitute listed activities in terms of the NEMA EIA Regulations, 2014 (as amended), they form part of the project scope and the associated impacts were assessed as part of the project. These culverts do not trigger any listed activities, since there are no watercourses present at these culvert sites. :

Culvert at Km 35.025	A 1200mm pipe culvert to be replaced with a 1200mm x 900mm box culvert.
Culvert at Km 36.405	A 600mm pipe culvert to be replaced with a

	900mm x 900mm box culvert.
Culvert at KM 37.846	Two 1200mm pipe culverts to be replaced with two 1200mm x 900mm box culverts.

5. The following maintenance activities are to be conducted on the site, as described in the Maintenance Management Plan included as part of the EMPr:

- General maintenance of the culverts;
- Vegetation management;
- Erosion control measures (as described in the Maintenance Management Plan);
- Sediment management; and
- Litter and debris management.

C. SITE DESCRIPTION AND LOCATION

The listed activities will be undertaken along Trunk Road 28, between Stanford and Gansbaai, at the following co-ordinates:

Trunk Road 28 Section 2:

Start Point:

Latitude (S)	Longitude (E)
34° 26' 34.64"	19° 27' 26.82"

Middle Point:

Latitude (S)	Longitude (E)
34° 31' 27.99"	19° 25' 23.95"

End Point:

Latitude (S)	Longitude (E)
34° 35' 04.25"	19° 21' 05.88"

Storm Water Infrastructure (Culverts) upgrade:

Culvert at Km 24.088:

Latitude (S)	Longitude (E)
34° 23' 37.30"	19° 27' 24.59"

Culvert at Km. 24.112:

Latitude (S)	Longitude (E)
34° 26' 37.77"	19° 27' 23.93"

Culvert at Km. 24.125:

Latitude (S)	Longitude (E)
34° 26' 38.22"	19° 27' 23.74"

Culvert at Km 24.138:

Latitude (S)	Longitude (E)
34° 26' 38.66"	19° 27' 23.49"

Culvert at Km. 24.163:

Latitude (S)	Longitude (E)
34° 26' 39.26"	19° 27' 23.00"

Culvert at Km. 24.175:

Latitude (S)	Longitude (E)
34° 26' 39.58"	19° 27' 22.76"

Culvert at Km. 24.188:

Latitude (S)	Longitude (E)
34° 26' 39.99"	19° 27' 22.41"

Culvert at Km 24.198:

Latitude (S)	Longitude (E)
34° 26' 40.33"	19° 27' 22.25"

Culvert at Km 25.092

Latitude (S)	Longitude (E)
34° 27' 04.98"	19° 27' 03.81"

Culvert at Km 25.115:

Latitude (S)	Longitude (E)
34° 27' 05.65"	19° 27' 03.36"

Culvert at Km 25.138:

Latitude (S)	Longitude (E)
34° 27' 06.25"	19° 27' 02.90"

Culvert at Km 25.161:

Latitude (S)	Longitude (E)
34° 27' 06.89"	19° 27' 02.42"

Culvert at Km 25.184:

Latitude (S)	Longitude (E)
34° 27' 07.53"	19° 27' 01.98"

Culvert at Km 25.20

Latitude (S)	Longitude (E)
34° 27' 07.95"	19° 27' 01.57"

Culvert at Km 35.025

Latitude (S)	Longitude (E)
34° 31' 51.13"	19° 24' 47.74"

Culvert at KM 36.405

Latitude (S)	Longitude (E)
34° 32' 25.49"	19° 24' 14.33"

Culvert at KM 37.846

Latitude (S)	Longitude (E)
34° 32' 59.67"	19° 23' 41.23"

Refer to Annexure 1: Locality Map

The above is hereinafter referred to as "**the site**".

D. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

Guillaume Nel Environmental Consultants cc
% Mr. C. Dippenaar
P.O. Box 2632
PAARL
7620

Cell: 065 848 9822
Email: 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 Design Alternative and future maintenance activities in the BAR dated November 2020 at the site as described in Section C above.
2. The holder must commence with the listed activities on site within a period of **five (5) years** from the date of issue of this Environmental Authorisation.
3. The development must be concluded within **ten (10) years** from the date of commencement of the first listed activity.
4. The holder shall be responsible for ensuring 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.
5. Any changes to, or deviations from the scope of the alternative described in Section B 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 information, in order 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.

Written notice to the Competent Authority

6. Seven calendar days' notice, in writing, must be given to the Competent Authority before commencement of construction activities. The notice must:

- 6.1 make clear reference to the site details and EIA Reference number given above; and
- 6.2 include proof of compliance with the following conditions described herein:

Conditions: 6, 7, 8, 12 and 19

Notification and administration of appeal

7. The holder must in writing, within 14 (fourteen) calendar days of the date of this decision–
 - 7.1 notify all registered Interested and Affected Parties ("I&APs") of –

- 7.1.1 the outcome of the application;
 - 7.1.2 the reasons for the decision as included in Annexure 3;
 - 7.1.3 the date of the decision; and
 - 7.1.4 the date when the decision was issued.
- 7.2 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 Appeals Regulations, 2014 (as amended) detailed in Section G below;
- 7.3 draw the attention of all registered I&APs to the manner in which they may access the decision; and
- 7.4 provide the registered I&APs with:
- 7.4.1 the name of the holder (entity) of this Environmental Authorisation;
 - 7.4.2 name of the responsible person for this Environmental Authorisation;
 - 7.4.3 postal address of the holder;
 - 7.4.4 telephonic and fax details of the holder;
 - 7.4.5 e-mail address, if any, of the holder; and
 - 7.4.6 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 2014 National Appeals Regulations (as amended).
8. The listed activities, including site preparation, must not commence within 20 (twenty) calendar days from the date the applicant notifies the registered I&APs of this decision. In the event that an appeal is lodged with the Appeal Authority, the effect of this Environmental Authorisation is suspended until the appeal is decided i.e. the listed activities, including site preparation, must not commence until the appeal is decided.

Management of activity

9. The draft Environmental Management Programme ("EMPr") submitted as part of the application for Environmental Authorisation is hereby approved and must be implemented.
10. The Maintenance Management Plan ("MMP") and the Rehabilitation Plan (Addendums to the EMPr and accepted as part of the EMPr) must be implemented. Future maintenance and rehabilitation activities must be undertaken in accordance with the accepted MMP and Rehabilitation Plan.
11. The EMPr, including the MMP and the Rehabilitation Plan must be included in all contract documentation for all phases of implementation.

Monitoring

12. The holder must appoint a suitably experienced environmental control officer ("ECO"), before commencement of any construction activities to ensure compliance with the EMPr and the conditions contained herein.
13. A copy of the Environmental Authorisation, EMPr, MMP, audit reports and compliance monitoring reports must be kept at the site of the authorised activities, and must be made available to anyone on request, including a publicly accessible website.

14. The ECO must conduct weekly compliance monitoring inspections during the construction phase. Monthly Environmental Compliance Reports must be compiled and submitted to the Competent Authority for the duration of the construction phase. The final Environmental Compliance Report must be submitted to the Competent Authority within six months after construction has been complete.
15. Access to the site referred to in Section C must be granted, and the environmental reports mentioned above 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.

Auditing

16. In terms of Regulation 34 of the NEMA EIA Regulations, 2014, the holder must conduct environmental audits to determine compliance with the conditions of the Environmental Authorisation, the EMPr and the MMP. The Environmental Audit Reports must be submitted to the Competent Authority every **six (6)** months during the construction phase. The Environmental Audit Report must be prepared by an independent person that is not the ECO referred to in Condition 12 and must contain all the information required in Appendix 7 of the NEMA EIA Regulations, 2014 (as amended).

The final Environmental Audit Report must be submitted to the Competent Authority within six months after operation commenced.

The holder must, within 7 days of the submission of an environmental audit report to the Competent Authority, notify all potential and registered I&APs of the submission and make the report immediately available to anyone on request and on a publicly accessible website (where the holder has such a website).

Specific Conditions

17. Should any heritage remains be exposed during excavations or any other actions on the site, these must immediately be reported to the Provincial Heritage Resources Authority of the Western Cape, Heritage Western Cape. 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: meteorites, archaeological and/or paleontological remains (including fossil shells and trace fossils); coins; indigenous and/or colonial ceramics; any articles of value or antiquity; marine shell heaps; stone artefacts and bone remains; structures and other built features with heritage significance; rock art and rock engravings; and/or graves or unmarked human burials including grave goods and/or associated burial material.

18. A qualified archaeologist and/or palaeontologist must be contracted where necessary (at the expense of the holder) to remove any heritage remains. Heritage remains can only be disturbed by a suitably qualified heritage specialist working under a directive from the relevant heritage resources authority.
19. The necessary updated permit/license must be obtained from the Department of Environment, Forestry and Fisheries for the removal of the Milkwood trees. Proof of an updated permit/license must be provided to the Department in terms of Condition 6.2 prior to the commencement of clearing Milkwood trees.

F. 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. Non-compliance with a condition of this Environmental Authorisation or EMPr may render the holder liable to criminal prosecution.
3. If the holder does not commence with the listed activities within the period referred to in Condition 2, this Environmental Authorisation shall lapse for that activity, 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.
4. 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.

5. 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.

G. 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 on which 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 on which 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 Organs 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 Organs 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: 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 2659)
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 2659, E-mail DEADP.Appeals@westerncape.gov.za or URL <http://www.westerncape.gov.za/eadp>.

H. 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

**Zaahir
Toefy**

Digitally signed
by Zaahir Toefy
Date: 2021.03.12
12:43:51 +02'00'

MR. ZAAHIR TOEFY

DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 1)

DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING

DATE OF DECISION: 12 MARCH 2021

CC: (1) Mr. C. Dippenaar (GNEC)
(2) Ms. P. Aplon (Overstrand Municipality)
(3) Mr. R. le Roux (BGCMA)
(4) Mr. R. Smart (CapeNature)
(5) Ms. R. Volschenk (Overberg District Municipality)

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www.westerncape.gov.za
Department of Environmental Affairs and Development Planning

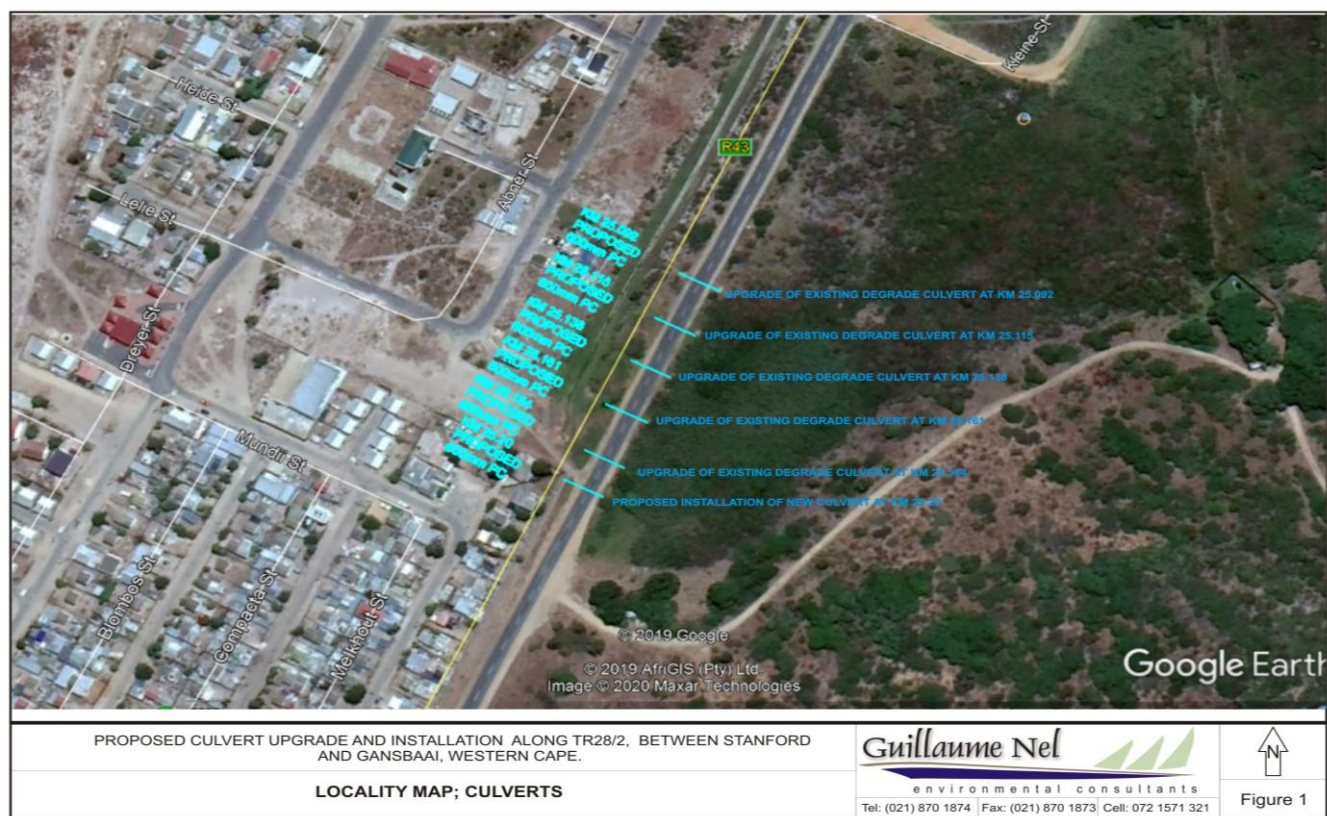


Figure 3: Location of culverts 9 to 14.



Culverts at Grootbos Private Nature Reserve
Legend

Scale: 1:18 056
Date created: March 10, 2021

Compiled with CapeFarmMapper



Western Cape Government
Agriculture

Figure 4: Location of culverts 15-17

ANNEXURE 2: REASONS FOR THE DECISION

In reaching its decision, the Competent Authority considered, amongst others, the following:

- a) The information contained in the Application Form dated 8 September 2020, the final BAR dated November 2020 and the EMPr, inclusive of an MMP and Rehabilitation Plan, submitted together with the final BAR;
- b) Relevant information contained in the Departmental information base, including the Guidelines on Public Participation and Alternatives (dated March 2013);
- c) The objectives and requirements of relevant legislation, policies and guidelines, including Section 2 of NEMA;
- d) The comments received from I&APs and responses to these, included in the BAR dated November 2020; and
- e) The balancing of negative and positive impacts and proposed mitigation measures.

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 during the consideration of the application for Environmental Authorisation. A summary of the issues that were considered to be the most significant for the decision is set out below.

1. Public Participation

The public participation process included:

- identification of and engagement with I&APs;
- fixing notice boards along the site where the listed activities are to be undertaken 23 March 2020;
- the placing of a newspaper advertisement in the 'Hermanus Times' on 26 March 2020;
- giving written notice to the owners and occupiers of land adjacent to the site where the listed activities are to be undertaken, the municipality and ward councillor, and the various Organs of State having jurisdiction in respect of any aspect of the listed activities, on 26 March 2020 and 18 and 21 September 2020; and
- making the pre-application draft BAR available to I&APs for public review from 26 March 2020 and the in-process draft BAR from 18 September 2020.

The Department is satisfied that the Public Participation Process that was followed met the minimum legal requirements and all the comments raised and responses thereto were included in the comments and response report.

Specific alternatives, management and mitigation measures have been considered in this Environmental Authorisation and EMPr to adequately address the concerns raised.

2. Alternatives

Two design alternatives (similar in nature) and the “no-go” alternative were considered and are discussed below:

Preferred Design Alternative and future maintenance activities (Herewith Authorised):

The narrow existing road cross-section of Trunk Road 28 between Stanford and Gansbaai is substandard and is to be upgraded to a Class 1 rural cross section.

This alternative entails the following:

Road rehabilitation and upgrade:

- The carriageways of the existing road will be widened from 3.2m to 3.7m each and 2m surfaced shoulders on each side will be added.
- The addition of concrete lined side drains.
- Upgrade the deteriorating pavement structure.
- Improve unsafe access location in terms of insufficient shoulder distance and access spacing.
- Improve the existing destination, tourism and road warning signage, and road markings.

Culvert upgrading at the following kilometres through:

- The construction of new apron slabs at each of the upgraded culverts as well as erosion protection (gabions/reno-mattresses).
- The construction of concrete wing-walls at the upstream side of the roads.

Culvert at Km 24.088	A 450mm pipe culvert to be replaced with a 2400mm x 1200mm box culvert.
Culvert at Km 24.138	Two 1800mm pipe culverts to be replaced with two 2400mm x 1500mm box culverts.
Culvert at Km 24.198	A 600mm pipe culvert to be replaced with a 2400mm x 1200mm box culvert.
Culvert at Km 25.092	A 400mm pipe culvert to be replaced with a 600mm pipe culvert.
Culvert at Km 25.115	A 400mm pipe culvert to be replaced with a 600mm pipe culvert.
Culvert at Km 25.138	A 400mm pipe culvert to be replaced with a 600mm pipe culvert.
Culvert at Km 25.161	A 400mm pipe culvert to be replaced with a 600mm pipe culvert.
Culvert at Km 25.184	A 400mm pipe culvert to be replaced with a 600mm pipe culvert.

Construction of new culverts at the following kilometers:

Culvert at Km 24.112	1 x Box Culvert of 1500mm x 1500mm
Culvert at Km 24.125	1 x Box Culvert of 1500mm x 1500mm
Culvert at Km 24.163	2 x Box Culverts of 2400mm x 1500mm
Culvert at Km 24.175	1 x Box Culvert of 1500mm x 1500mm
Culvert at Km 24.188	1 x Box Culvert of 1500mm x 1500mm
Culvert at Km 25.20	1 x 600mm pipe culvert.

It should be noted that even though the following culvert upgrades adjacent to the Grootbos Private Nature Reserve and Walker Bay Nature Reserve do not constitute listed activities in terms of the NEMA EIA Regulations, 2014 (as amended), they form part of the project scope and the associated impacts

were assessed as part of the project. These culverts do not trigger any listed activities, since there are no watercourses present at these culvert sites.

Culvert at Km 35.025	A 1200mm pipe culvert to be replaced with a 1200mm x 900mm box culvert.
Culvert at KM 36.405	A 600mm pipe culvert to be replaced with a 900mm x 900mm box culvert.
Culvert at KM 37.846	Two 1200mm pipe culverts replaced with two 1200mm x 900mm box culvert.

The following maintenance activities to be conducted on the site, as described in the Maintenance Management Plan included as part of the EMPr:

- General maintenance to the culverts;
- Vegetation Management;
- Erosion control measures (as described in the Maintenance Management Plan);
- Sediment Management; and
- Litter and Debris Management.

This alternative is preferred because the concrete wing-walls will ensure that the structural integrity of the road, the culvert and the embankment will be better protected against the negative structural impacts of water and erosion. Additionally, the ecological benefits provided by the additional culverts will enable faunal movement under the road.

Alternative Design:

This alternative is similar to Preferred Design Alternative, with the exception of the wing-walls that will be constructed using gabions instead of concrete.

This alternative is not preferred because even though gabion wing-walls will help groundwater movement, it poses an increased risk to the structural integrity of the road, the culverts and the embankments, since gabions are permeable and might still lead to erosion.

"No-Go" Alternative

The "no-go" option was considered and is not preferred for the following reasons:

- The road will remain unsafe for people utilizing this road;
- Erosion and degradation to the storm water infrastructure (culverts) and road will be an ongoing event;
- Loss of topsoil and endemic vegetation will continue due to erosion;
- Loss of faunal and amphibian species will persist as the existing culverts are not adequate for safe movement underneath the R43;
- The capacity to accommodate stormwater will remain inadequate due to the eroded/degraded nature and debris filled culverts; and
- Additional culverts to assist in faunal movement will not be installed.

3. Impact Assessment and Mitigation measures

3.1 Activity Need and Desirability

The section of Trunk Road 28 between Stanford and Gansbaai is used daily by motorists. The degradation of the culverts along Trunk Road 28, caused by erosion, poses a safety hazard to motorists using this road. In addition to the aforementioned, the specialist studies concluded that there is a lack of culverts at the channelled valley bottom wetland, located just south of Stanford, to promote fauna and amphibian movement. Therefore, the need to repair, upgrade and widen the road surface, as well as the upgrading of existing culverts and the construction of new culverts, was

identified. The upgrade, repair, and installation of new culverts, rehabilitation of the watercourses at the culverts, the road widening as well as the future maintenance activities associated with the development will ensure that erosion and degradation at these structures are minimised; safer utilisation of the road for motorists; more effective flow during peak storm water flow; appropriate faunal movement routes and improvement of the ecological state at the affected areas.

3.2 Biodiversity and Biophysical Impacts

According to the Botanical Impact Assessment dated March 2020 and the Botanical Statement dated 26 October 2020, compiled by Mr. P. Emms of Capensis, the vegetation within the area comprises Overberg Dune Strandveld and Agulhas Limestone Fynbos. These are ecosystems classified as least threatened and vulnerable (respectively) in terms of Section 52 of the National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004) ("NEMBA"). Approximately 70% of the area/road alignment comprises Overberg Dune Strandveld and 30% comprises Agulhas Limestone Fynbos. Eighteen Milkwood trees were recorded in the affected area. It is required to remove nine of the Milkwood trees for the road upgrade project. A licence to authorise actions and activities affecting a) indigenous trees in natural forests and/or b) protected trees, or the acquisition or disposal in any manner of such trees or their products, was issued by the Department of Environment, Forestry and Fisheries on 16 September 2020. It should be noted that the aforementioned was valid until 16 March 2021. Therefore, as a condition of approval, the holder of the EA must ensure that the current approval is either amended or that a new approval has been issued by the Department: Environment, Forestry and Fisheries, prior to the removal of the 9 trees within the road reserve. Even though the vegetation along this section of TR28 is described as being in good condition and will be removed to facilitate the proposed development, the removal of the vegetation does not constitute a listed activity in terms of the NEMA EIA Regulations 2014 (as amended) because it is a linear development. The impacts associated with the removal of vegetation were however assessed as part of this application process. Through the implementation of the specialist recommendations, the EMPr (accepted in Condition 9) and the Rehabilitation Plan (accepted as part of the EMPr in Condition 9), the impacts on vegetation will be mitigated.

According to the Freshwater Impact Assessment dated September 2020, compiled by Ms. K. Marais of FEN Consulting (Pty) Ltd, the aquatic features that were identified and assessed within the study area is a channelled valley bottom wetland located just south of Stanford. The channelled valley bottom wetland has a largely modified present ecological state and a high ecological importance and sensitivity. This is due to a breeding site of *Sclerophrys pantherina* (Western Leopard Toad) being recorded within the wetland.

It is important to note that although the risks associated with the construction works are deemed to be of a Medium significance by the specialist, the upgrades to the culverts and the construction of additional culverts within the channelled valley bottom wetland are considered a positive maintenance measure as the existing infrastructure is obstructed/insufficient for the current flow requirements. The additional culverts will create safe passage for faunal and amphibian movement under the road and as such the long-term impacts of the proposed upgrades are considered positive. Through the implementation of the specialist recommendations and the EMPr (accepted in Condition 9), impacts on watercourses will be mitigated to an acceptable level.

A Water Use Licence was issued on 20 May 2020 by the Department of Water and Sanitation for the proposed upgrading of the culverts.

An MMP has been compiled to address future maintenance activities required at the culverts within the channelled valley bottom wetland. The maintenance of the structures authorised in this Environmental Authorisation forms part of this MMP. It must be noted that the accepted maintenance activities only relate to the activities described in the MMP. Should any new activities and associated

infrastructure, not included in the MMP, require maintenance and if any of the applicable listed activities are triggered, an Environmental Authorisation must be obtained prior to the undertaking of such activities. It remains the responsibility of the proponent to determine if any other listed activities are triggered and to ensure that the necessary Environmental Authorisation is obtained.

3.3 Faunal Impacts

According to the Faunal Ecological Assessment dated September 2020, compiled by Ms. K. Marais of FEN Consulting (Pty) Ltd, a large impoundment was noted to have deep, permanent water, located approximately 125m west of the R43 crossing. A variety of emergent vegetation species were observed within the channelled valley bottom wetland. Even though the channelled valley bottom wetland is considered to be in a largely modified state due to anthropogenic modifiers, this habitat unit provides suitable habitat for various faunal species as well as creating a migratory corridor within an already urbanised environment. As recorded by Whale Coast Conservation (2020), *Sclerophrys pantherina* (Western Leopard Toad) has been recorded to utilise this system for breeding. Mammal diversity is low within the freshwater habitat, mainly due to the close proximity of the wetland to Stanford. No species of conservation concern were located for mammals, avifauna and reptiles within the study area. The largest concern for the Western Leopard Toad is the R43, which traverses the freshwater habitat, causing increased vehicle–amphibian collisions, leading to an increased mortality rate of Western Leopard Toads. Therefore, through the inclusion of the additional culverts at the channelled valley bottom wetland and the implementation of the mitigation measures included in the EMPr (accepted in Condition 9), the impacts on fauna and amphibians will be mitigated to an acceptable level.

The development will result in both negative and positive impacts.

Negative Impacts:

- The proposed development will result in loss of natural vegetation.
- Impacts on aquatic features are anticipated, however, appropriate mitigation measures and the inclusion of specialist recommendations in the approved EMPr and MMP will ensure that impacts are minimised.
- There will be an increase in noise and dust impacts during the construction phase.

Positive impacts:

- The safety of the road for motorists will be improved.
- The upgraded culverts will accommodate the peak storm water flow through the culverts more effectively.
- Through the rehabilitation at the culverts, the ecological and visual value of the areas will be improved.
- The inclusion of additional culverts in the channel valley bottom wetland will reduce the risk of fauna and amphibian-vehicle collisions by allowing for improved faunal and amphibian movement under the road.
- Temporary employment opportunities will be created during the construction phase.

4. National Environmental Management Act Principles

The NEMA 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.

5. Conclusion

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.

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