

**THE REHABILITATION AND UPGRADING OF TRUNK ROAD 28 SECTION 2
(TR28/2)(R43) AND RELATED EXISTING DEGRADED STORMWATER
INFRASTRUCTURE (CULVERTS), FROM KM23.83 TO KM43.88, BETWEEN
STANFORD AND GANSBAAI, WESTERN CAPE**

DEA&DP Ref: 16/3/3/1/E2/37/1033/20

FORMAL ECO AUDIT REPORT

Prepared for:

Western Cape Government: Department of Infrastructure

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**Western Cape
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ABBREVIATIONS

DEA&DP	Department of Environmental Affairs and Development Planning
DWS.....	Department of Water Affairs and Sanitation
EA	Environmental Authorization
EAP	Environmental Assessment Practitioner
ECO.....	Environmental Control Officer
EIA	Environmental Impact Assessment
EMP	Environmental Management Programme
DEO	Designated Environmental Officer
GNEC	Guillaume Nel Environmental Consulting
I&AP	Interested and Affected Parties
RE.....	Resident Engineer
WCDM.....	West Coast District Municipality

INTRODUCTION

This Formal ECO report is distributed to the DEA&DP, Overstrand Municipality and the Project Team on a monthly basis in order to ensure continuous improvement with regards to environmental related matters. The aim is furthermore, to increase the contractor's compliance rating in terms of the approved project EMP. This Formal report depicts the environmental findings during the site visit and may include corrective measures / actions which were taken by the contractor.

PROJECT DESCRIPTION

Guillaume Nel Environmental Consultants (GNEC) was appointed by EFG Engineers (Pty) Ltd that has been appointed by Western Cape Government (WCG), Department of Transport and Public Works: Roads Branch, for the proposed rehabilitation/upgrading of Trunk Road 28 Section 2 (TR28/2) and the proposed upgrade of the existing degraded storm water infrastructure (culverts) along the road within the road reserve, between Stanford and Gansbaai from Km 23.83 to Km 43.88.

Road rehabilitation and upgrade:

- Proposed road rehabilitation and upgrade will remain mostly within the previously disturbed 30m road reserve;
- The narrow existing road cross-section is substandard and is to be upgraded to a Class 1 rural cross section. The lanes will be widened from 3.2 m to 3.7 m each and 2 m surfaced shoulders will be added to the carriageway;
- Ensure compliance to the 100 km/h design speed guidelines;
- Allow passing opportunities along the road. (High accident risk currently);
- Upgrade of deteriorating pavement structure;
- Improve unsafe access locations in terms of insufficient shoulder sight distances and access spacing;
- Improving the existing destination, tourism and road warning signage and road markings; and
- Concrete lined side drains.

The existing road reserve along TR28/2 varies from 25m to 30m while the proclaimed road reserve is 30 m. It is therefore recommended to expropriate along the study section as required in order to take up the 30 m proclaimed width. The proposed horizontal road alignment follows the existing horizontal road alignment as far as possible in order to minimise expropriation. Proposed improvements to the vertical alignment will result in further expropriation due to deep cut and high fill. The affected land owners were informed of the proposed expropriation and their inputs were taken into account with the preliminary design.

FINDINGS IN TERMS OF THE APPROVED EMPr DURING THE SITE VISIT ON THE 1ST OF APRIL 2025

Requirement Please refer to approved EMPr for detailed requirements	ECO comments and/or recommendation	Compliance
		Compliant
		Partial-Compliant
		Non-Compliant
		Require Confirmation
		Premature
		Not Auditable
PRE-CONSTRUCTION (PLANNING) PHASE EMPr		
Public Liaison	Public information boards have been erected on site, and at the site camp. The name and contact number of the ECO is included on the boards.	Compliant
Traffic Impact	A specific area for delivery vehicles has been specified at the stockpile areas and the site camp. Stop and go systems are implemented on site in line with the Municipality rules and signs.	Compliant
Project contract and programme	The EMPr has been included in the tender documentation and proof of this has been sent to the ECO. A copy of the EMPr has been placed in the site file, thank you for that.	Compliant

Site demarcation and development	• The road has been fenced to date. Fencing was on going during the audit. • The works on the culverts has been completed and fenced. • The declaration of understanding has been signed by all relevant parties.	Compliant
Emergencies, non-compliance and communication	Method statements have been provided on the following: • Emergency spills procedures for the contamination of soils from spills and fire. • Handling & storage of oils and chemicals • Cement and concrete batching, which includes the storage, washing & disposal of cement, packaging, tools and plant. • Diesel tanks and refuelling procedures • Crew camps and construction lay down areas • Workshop maintenance and cleaning of plant	Compliant
Flora	A search and rescue have been conducted for all geophytes on site within the road reserve. Seed collection has been done on site. The entire search and rescue process was overseen by a qualified Horticulturist and the species have been placed in a nursery on the Hemel and Aarde Valley. The species collected will be kept in the nursery until replanting can commence, some of the species have been planted back on site. The planting of the species is done according to the Rehabilitation Plan, and will continue until the project has ended. <u>According to the Botanical report:</u>	Compliant

	• The natural habitat has been avoided on site and all no go areas have been fenced. • The alien invasive species are removed from site seasonally. • No species not found on the project will be used, and the dominant species occurring within each habitat will be replicated. • Topsoil is windrowed next to the road on the areas where construction is active.	
Fauna	A fauna specialist was consulted about the Western Leopard toads and when to work in that area. Additional culverts have been installed in the affected areas. An induction has been done with all workers on site. Alien vegetation has been cleared at the culverts by May every year so the toadlets can have safe passage. The barriers for the fauna have not been installed as yet. <i>It is very important that barriers should be erected on both sides of the R43 to guide the toads to the culverts and pipes under the road. These barriers need to be only about 0.5 meters high, should be impervious for the frogs and steep enough so that they cannot get over them. The entrances to the pipes and culverts should have a very gradual gradient to allow both adult and juvenile toads to enter easily.</i>	Compliant
Topsoil	Topsoil for the road is windrowed next to the road, and the topsoil for the access roads have been placed on the stockpile areas, the contractor is advised that the topsoil of each road to be placed back on the old road as soon as the new road is done. The topsoil stockpiles on the stockpile areas have been demarcated but needs to be reinstated and monitored.	Compliant

CONSTRUCTION PHASE EMPr		
Stockpiles	Topsoil for the road is windrowed next to the road, and the topsoil for the access roads have been placed on the stockpile areas, the contractor is advised that the topsoil of each road to be placed back on the old road as soon as the new road is done. The topsoil stockpiles on the stockpile areas have been demarcated but needs to be reinstated and monitored. The topsoil should please be placed back on the old roads as rehabilitation.	Partial Compliant
Materials	Sea sand is not used for mixing of cement or in filling. All materials left over after construction should please be removed.	Compliant
Oil and Chemicals	Two bulk fuel tankers were observed in the site camp, the tanks have an impermeable bunded area. No generators were seen on site during the audit. A spill kit was placed on site. The contractor should please ensure that the bitumen remains are removed from site and that the bitumen tanks are placed in a bunded area. Some remains were noted next to the road and the 2nd stockpile area and should please be disposed of.	Partial Compliant



Cement

Batching remains were seen during the audit, the batching was done next to the road directly on the ground, the contractor is advised that no batching may be done directly on the ground and should use an impermeable area. The remains should please be removed.



Partial Compliant

		
Dangerous and toxic materials	No hazardous chemicals were observed on site.	Not auditable
Bulk storage of fuels and oils	No dangerous chemicals are kept on site, and the bulk fuel tank has been placed in a bunded area and the bowser had a drip tray during the audit.	Not auditable
Use of dangerous and toxic materials	Firefighting equipment and an oil spill kit have been placed on site. An incident reporting system should be setup on site and placed in the file on site. All staff should receive some sort of fire training, a signed sheet should please be provided to the ECO. No spills had been recorded or reported on site.	Compliant

Eating areas and camp followers	An eating area was provided on site. No litter was seen in the site camp or eating area.	Compliant
Toilets	Sufficient toilets were observed on site for the number of workers on site.	Compliant
Waste management	Bins should be placed at the stockpile areas.	Compliant
Dust	No excessive dust was observed during the audit, as it was a calm day. Dust suppression is done regularly on the access roads.	Compliant
Workshop equipment, maintenance and storage	Ensure that senior and relevant staff are trained in cleaning up oil spillages using oil spill kits and provide evidence of training to the ECO and Auditor. No spillages were observed in the site camp/workshop area during the audit.	Compliant
Noise	No excessive noise was heard during the audit, and construction is only active during working hours.	Compliant
Crew camps	No staff is accommodated on site. The contractors camp is situated inside the site boundaries.	Compliant
Fires	A method statement for Fires has been received to date and firefighting equipment was seen on site.	Compliant

Erosion and sedimentation

No major erosion runnels or sedimentation was observed at any of the working areas.
Erosion protection was installed on the steep slopes.



Compliant

		
Fauna	No fauna was observed during the audit.	Compliant
Flora	Rehabilitation is on going on site. The rehabilitation of the next approved slopes and cuttings will commence from the 17th of March 2025 daily. Contractor to please send updates on the areas ready for planting.	Require on going confirmation
Visual Impact	The rubble and litter are removed from site every two weeks.	Compliant
Crime, safety and security	Emergency numbers and procedures have been displayed on site.	Compliant

	As far as the ECO is aware the nearest emergency service provider has not been contacted by the contractor as yet to find out the capacity and magnitude of accidents it can handle.	
OPERATIONAL PHASE EMP		
Waste management	All litter and rubble should be removed before the contractor leaves the site.	Not Auditable
Monitoring of structural integrity of the culverts	It is recommended that vegetation within 5 m of the road reserve be maintained and cut back by hand to prevent overgrowth of the culvert and obstruction; Existing access roads must be used for monitoring purposes. No indiscriminate movement of vehicles is allowed as this would result in the compaction of soils and potential loss of wetland habitat; Hot spots for the build-up of debris and excess sediment must be identified and when necessary, debris/excess sediment must be removed by hand to prevent future flooding and potential damage to infrastructure. The CVBW must be monitored for AIP encroachment (specifically Acacia cyclops already recorded within the CVBW) and all alien vegetation/weeds must be removed according to a suitable alien vegetation control plan. Annual follow up should be undertaken to all watercourses for at least 3 years post construction; and	Premature

	Any erosion or gully formation must be identified on an ongoing basis and re-profiled and revegetated accordingly.	
Rehabilitation process	Depending on the gradient of certain areas, horizontal stabilization by means of biodegradable sausages or soil savers will have to be considered. This will help with embankment stabilization and minimize and prevent erosion while the plants is stabilizing. This has been done already.  Disturbed area needs to be rehabilitated by means of planting and hydro seeding these areas with the searched and rescued endemic plants and seeds. Please refer to the rehabilitation report attached.	Premature

	Rehabilitation by means of planting should be undertaken in the beginning of the rainy season to ensure that the rehabilitated area receive enough water. Should rehabilitation be done in summer, the area will have to be watered at least once a week.	
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FINDINGS IN TERMS OF THE GRANTED ENVIRONMENTAL AUTHORISATION DURING THE SITE VISIT ON THE 1ST OF APRIL 2025

EA Condition No.	Description of each Condition	Comments on Compliance
		Compliant
		Partial-Compliant
		Non-Compliant
		Require Confirmation
		Premature
		Not Auditable
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.	Note
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.	Compliant Construction commenced on the 15 th of August 2022. Please refer to Addendum 2 for the Notification of Commencement.

		The EA was approved on the 12 th of March 2021. Please refer to Addendum 1 for the EA.
3	The development must be concluded within 10 years from the date of commencement of the listed activities.	Compliant Construction commenced on the 15th of August 2022. Please refer to Addendum 2 for the Notification of Commencement. The EA was approved on the 12th of March 2021. Please refer to Addendum 1 for the EA.
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.	Noted The holder to take note of this condition.
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	Noted No changes or deviations from the scope has been noted.

	of such changes or deviations, and it may be necessary for the holder to apply for further authorisation in terms of the applicable legislation.	
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.	Partial Compliant A letter of commencement was submitted to the Competent Authority on the 25th of July 2022 that construction will commence on the 15th of August 2022. The letter did not refer to the EA Conditions and is partial compliant. Proof of compliance: Condition 6: The I&APs were notified of the EA on the 15th of March 2021 after the EA was approved on the 12th of March 2021. Please refer to Addendum 6 for the EA notification letter.

		Condition 7: The holder notified the I&APs. Please refer to Addendum 6. Condition 8: The listed activities did not commence within 20 days of the EA being approved. Condition 12: Guillaume Nel Environmental Consultants have been appointed before construction on site commenced. Condition 19: The relevant permits for the Milkwood Trees have been submitted and approved before construction. Please refer to Addendum 2 for the letter of commencement.
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;	Compliant The I&APs were notified of the EA on the 15th of March 2021 after the EA

	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: 7.4.2 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).	was approved on the 12th of March 2021. Please refer to Addendum 6 for the EA notification letter.
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	Compliant The listed activities, including site preparation did not commence within

	suspended until the appeal is decided i.e. the listed activities, including site preparation, must not commence until the appeal is decided.	20 calendar days from the date the applicant notified the I&AP's.
9	The draft Environmental Management Programme ("EMPr") submitted as part of the application for Environmental Authorisation is hereby approved and must be implemented.	Compliant The EMPr is implemented on site. Please refer to Addendum 2 for the EMPr.
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.	Compliant The MMP and the Rehabilitation Plan is being implemented on site.
11	The EMPr, including the MMP and the Rehabilitation Plan must be included in all contract documentation for all phases of implementation.	Compliant The holder supplied proof of the EMPr, MMP, and Rehabilitation Plan within the contract documentation.

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.	Compliant Guillaume Nel Environmental Consultants have been appointed as ECO on the site. Christoff Dippenaar was the ECO for the site, and Nica Kotze is now the ECO for the site.
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.	Compliant The Environmental File on site had copies of the EA, EMPr, MMP, audit reports and External audits on site.
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.	Compliant The ECO conducts fortnightly compliance monitoring inspections, and fortnightly reports are distributed. Monthly audit reports are submitted to DEA&DP.
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	Compliant

	Authority who requests to see it for the purposes of assessing and/or monitoring compliance with the conditions contained herein.	Access to the site referred to in Section C is available. The Environmental Reports are accessible to the Competent Authority.
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).	Require confirmation The first Environmental Audit was conducted on the 10th of May 2023, 9 months after construction commenced. The next audit should have been conducted in August 2023, and then again in February 2024. The External audit was done in June 2024 and should be done again. Quotes will be obtained and distributed. Please refer to the Environmental Audit in Addendum 5.
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	Compliant

	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.	No heritage remains have been exposed during excavation or any other actions on site.
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.	Noted
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.	Compliant The Milkwood Trees on TR28 Section has received permits before commencement of activities on site.

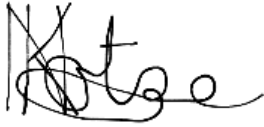
PROGRESS

The contractor was almost completed with the road construction, the last few works are on going.



MAJOR AREAS OF CONCERN

No major areas of concern were found during the audit other than the general findings above.



Compiled by:

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PRINCIPLES OF THE EMP WHICH WERE AUDITED

The EMP was compiled using the following concepts and implementation requirements so that the higher principles of sustainable development are realised: The EMP can therefore be seen as a flexible and responsive document.

- ✚ Continuous improvement. The project proponent (or implementing organisation) must be committed to review and to continually improve environmental management, with the objective of improving overall environmental performance.
- ✚ Broad level of commitment. A broad level of commitment will be required from all levels of management as well as the workforce in order for the development and implementation of this EMP to be successful and effective.
- ✚ Flexible and responsive. The implementation of the EMP must be responsive to new and changing circumstances, i.e. rapid short-term responses to problems or incidents. The EMP is a dynamic “living” document and thus regular planned review and revision of the EMP must be carried out.
- ✚ Integration across operations. This EMP is integrated across existing line functions and operational units such as health, safety, and environmental departments in a company/project. This is done to change the redundant mindset of seeing environmental management as a single domain unit.
- ✚ Legislation. It is understood that any development project during its construction phase is a dynamic activity within a dynamic environment. The Developer, Engineer, Contractor, and sub-contractor must therefore be aware that certain activities conducted during construction may require further licensing or environmental approval, e.g. river or stream diversions, bulk fuel storage, waste disposal, etc. The Contractor must consult the RE, EO and ECO on a regular basis in this regard