

**THE PERIODIC MAINTENANCE OF TRUNK ROAD 33/4 (DE RUST-KLAARSTROOM) AND TRUNK ROAD 34/2 (PRINCE ALBERT-KLAARSTROOM),
WESTERN CAPE**

DEA&DP Ref: 14/12/16/3/3/1/2226 (EA)

FORMAL ECO AUDIT REPORT

Prepared for:

Western Cape Government: Department of Transport and Public Works

Private Bag X9185

Cape Town

8000



Prepared by:

Guillaume Nel Environmental Consultants

P.O. Box 2632

Paarl

7620

Tel: 021 870 1874

Fax: 021 870 1873

Cell: 076 453 8829 / 072 157 1321

E-Mail: divan@gnec.co.za / guillaume@gnec.co.za



30 June 2023



ABBREVIATIONS

BGCMA	Breede-Gouritz Catchment Management Agency
DEA&DP	Department of Environmental Affairs and Development Planning
DFFE	Department of Forestry, Fisheries and the Environment
EA	Environmental Authorization
EAP	Environmental Assessment Practitioner
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EMP	Environmental Management Programme
ER	Engineer's representative
DEO	Designated Environmental Officer
GNEC	Guillaume Nel Environmental Consulting
I&AP	Interested and Affected Parties

INTRODUCTION

This FORMAL ECO report is distributed to the project team after the site audit was undertaken. The contractor has 3 working days after this report is distributed to provide a close out report with photographic evidence of how the findings in this report were closed out. The ECO report together with the close out report is then submitted to DEA&DP.

The ECO Report is compiled 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 environmental approvals, and to advise on environmental matters which might occur during construction activities. This ECO report incorporates the monthly environmental findings and furthermore may include corrective measures/actions which were taken by the contractor.

The proposal is to conduct fortnightly audits on the sections outside the World Heritage Site part of Meiringspoort of the contract and to conduct weekly audits when works commence within the World Heritage Site section (TR33/4 between Km 4.6 and Km 14.4) as per the EMPr.

CLOSE OUT ON FINDINGS REQUIRED

	Finding	Close Out Recommendation
1	Bitumen Bitumen remains still found at the Klaarstroom stockpile area. Access seal stone still present in side drains and next to the road in the poort	Remove all bitumen remains to be appropriately disposed.
2	Concrete Large amount of concrete remains at the culverts.	Please remove all concrete remains to be appropriately disposed.
3	Litter Remove all litter where work took place at the culverts.	Please remove all litter at culverts to be appropriately disposed.

PROJECT DESCRIPTION

The project entails the maintenance activities of Trunk Road 33/4 and Trunk Road 34/2 between De Rust and Prince Albert:

- Edge Break repairs;
- Shoulder reconstruction;
- New stone pitching side drains;
- Bitumen treated Base and asphalt repairs;
- Clear watercourse flow path;
- Repair damaged concrete spalling and cracking;
- Repair damaged concrete deck soffit;
- Reinstate previous poor concrete repairs;
- Protect Alkali-Silika Reaction (ASR) Damaged and/or weathered concrete surfaces and;
- Seal deck expansion joints

The maintenance includes the maintenance to the road surface, the remedial work to the shoulders and the remedial work to repair damaged concrete and reinstate poor concrete repairs. All of the maintenance activities are proposed within the statutory road reserve of the respective roads.

GENERAL FINDINGS DURING SITE VISIT ON THE 29TH OF JUNE 2023

Fauna

Fauna species found during the construction activities along the road verges to be disturbed needs to be relocated to a suitable receptor site (away from the construction activities). All construction workers must be informed that the intentional killing of any animal is not permitted. Poaching is illegal, any employee caught poaching will be dismissed.

Compliance:

No fauna species were seen during the audit.

Note: The contractor is advised to please educate the employees on how to move the tortoises out of the way of construction plant and off the road surface to a safe place next to the road when they are seen on the road.

No-Go areas

All areas outside the approved maintenance area are strict No-Go areas. Areas where construction will take place within watercourses must be demarcated, to limit the construction footprint within the watercourse. No construction machinery or work force is allowed in the No-Go areas.

If any material enters the watercourse, it must be removed as soon as possible.

Topsoil is also seen as a No-Go area as it is a very valuable resource for rehabilitation.

Compliance:

The contractor is advised to please limit their footprints in watercourses and areas containing natural vegetation to the absolute minimum.

Spoil areas

Please ensure that any proposed spoil areas (other than approved landfill sites) are scanned and approved by the ER and ECO prior to the commencement of spoiling. The scanning is to ensure that no environmental legislation is contravened with the spoiling of the material.

Compliance:

No spoil areas have been identified by the contractor to date.

Stockpile areas

Please ensure that any proposed stockpile areas (especially where clearance of vegetation is required) are scanned and approved by the RE prior to the commencement of clearance. The ECO can assist with the scanning of the area but does not have any authority to approve the stockpile areas. The

scanning is to ensure that no environmental legislation is contravened at the proposed stockpile areas. This includes proposed topsoil stockpile areas.

Compliance:

Three stockpile areas were received from the contractor to date. The 1st stockpile area has been cleared by the farmer in De Rust (Km0.8 next to TR88/1), and the 2nd stockpile area has been cleared by the contractor in Klaarstroom (Km23 next to the TR33/4), both areas were not screened by the ECO prior to clearing. The contractor requested a 3rd stockpile area at approximately km22 next to TR34/2, a section of the area was cleared prior to the ECO scanning the area.

The 1st stockpile area is currently being used as a camping area for the contractors' team

The 2nd stockpile area was used to stockpile seal stone.

The 3rd area was used to stockpile seal stone and for slurry batching.

All proposed stockpile areas must be sent to the ECO and ER prior to the area being used to ensure no environmental legislation is contravened.

Topsoil

Topsoil must be deemed to be the top layer of soil containing organic material, nutrients and plant/grass seed. For this reason, it is an extremely valuable resource for the rehabilitation of vegetation of disturbed areas. All topsoil should be windrowed (preferred option) or stockpiled and be reinstated after construction. Please ensure that topsoil is not contaminated with construction material. If topsoil is to be stockpiled the stockpiles may not be higher than 2m, to prevent the crushing of seeds.

Compliance:

It is important to note that all topsoil which was stripped must be treated as No-Go area and used to rehabilitate the cleared areas.

Bitumen handling area

Any bitumen handling must take place on an impermeable surface to prevent bitumen and associated chemicals from infiltrating the soil.

The entire site must be monitored for any bitumen spillages and all bitumen spillages must be disposed of at a registered Hazardous Waste Landfill site or recycled. NO bitumen spillages/remains may be spoiled on site.

Should a static bitumen tanker be required, the tanker must be parked within a bunded area with 110% the capacity of the tanker to prevent the bunded area from overflowing in the event of the tanker running empty.

Should the washing of slurry truck chutes be required, a proper impermeable sump area must be created and regularly cleaned to prevent the area from overflowing.

Compliance:

Bitumen remains were still noted next to the site camp area at Klaarstroom. All bitumen remains must please be removed.



Excess seal stone were still found next to the road within the poort. The contractor was advised to please remove the excess seal stone as soon as possible.



The contractor is requested to please confirm where bitumen remains are disposed of.

Fuel storage

If fuel is to be stored on site, the bowser and or tank will be maintained by the fuel supplier and/or contractor and is to be kept clean and leak free. The bowser is to be kept on site with a drip tray at all times or bunded to 110% if it is a large tank. Please ensure that drip trays are used during the refuelling of construction plant and placed underneath compressors, generators and stationary machinery.

Compliance:

No generators were noted during the audit.

Dust/mud

Dust suppression needs to be monitored and applied at areas where activities are currently active. Please ensure that roads under traffic surrounding the site must please be regularly cleaned to ensure that construction related sand/mud does not cause a danger to traffic.

Compliance:

The road surface under traffic, must be clean from mud/sand at all times to prevent the material being a danger to traffic. The road was clean during the audit.

Cement

Small- and large-scale cement batching must be done on mortarboards and/or on plastic sheeting that serves an impermeable surface to prevent cement water from infiltrating the soil. Please ensure that mortarboards and plastic sheeting is properly positioned to prevent any surface runoff. No cement batching may be done directly on the soil as cement water is highly alkaline and may change the pH of the soil causing decreased soil fertility. Mostly ready-mix concrete should preferably be used on site. The entire site must be monitored for any concrete spillages, all spillages must be disposed of at a registered Waste Landfill site. No concrete spillages/remains may be spoiled on site. No washing of concrete truck chutes is allowed on site without the proper impermeable sump area.

Compliance:

No batching was active during the audit.

Litter

An integrated litter management approach, which is based on waste minimization and incorporated reduction, recycling, re-use and disposal, must be implemented where appropriate.

All construction litter must be placed within a litter structure, skips or bins. The litter structures must be properly enclosed to prevent any litter from blowing around on site. Please monitor the soil around the enclosure for any excessive cement water potentially flowing into the surrounding natural vegetation.

Please ensure that empty cement bags are removed to the site camp on the day they were used. Please ensure that empty cement bags (when placed in a litter structure) is placed in black bags prior to being stored in the litter structure to prevent any cement leaching from the empty bags. Please ensure that regular chicken parades are done to remove litter.

Please try to limit the usage of danger tape and rather use colourful rope, colourful droppers or netting as demarcation method as danger tape tears very easily in windy conditions and becomes a maintenance issue.

Compliance:

The contractor was advised to please provide bins or black bags at the closures. Regular chicken parades are required to pick up litter.

Litter was seen at Km 25 at the culvert, the contractor was advised to please ensure a bin is placed on site and to dispose of the litter. **Previously reported finding.**



Proof of litter disposal is required to be forwarded to the ECO.

Rubble

An integrated rubble management approach, which is based on waste minimization and incorporated reduction, recycling, re-use and disposal, must be implemented where appropriate.

The contractor was advised to stockpile their rubble to be removed from site in a secure location to minimize the spread thereof. Any bitumen products/milled asphalt are hazardous waste and must be disposed at a registered Hazardous waste facility or reused. Concrete rubble may be disposed at a general waste facility. Please ensure that rubble is stockpiled in a secure location and removed regularly. Please forward recycling, disposal etc. proof to the ECO for record keeping.

Compliance:

Large amounts of concrete remains were found at culverts along the site, especially the Prince Albert to Klaarstroom section. All culverts should please be properly cleaned. Proof of appropriate rubble disposal is required.



All material temporary stockpiled must be removed from the poort.



Erosion and sedimentation control

Sediment traps have to be utilized during all dewatering activities or works within watercourses to prevent siltation of watercourses. Sediment traps either have to partially filter the suspended solids or allow settlement in a manageable location. Please ensure that sediment traps are being used during dewatering activities and that sediment traps are used during the works within watercourses.

Compliance:

The contractor is advised to please create sediment traps within the watercourses where maintenance is proposed to limit the spread of sediment downstream due to maintenance works.

No works took place within watercourse during the audit.

PROGRESS

Minimal works took place during the audit. A small team was busy on the concrete side drains and at the guardrails.



To date, the seal and line marking has been completed on the Prince Albert section of the project.



Within the poort section the seal has been completed and the asphalt over the bridges were completed. Side drains and joints were underway.

MAJOR AREAS OF CONCERN

The amount of concrete remains at the culverts are a concern and must be cleaned as soon as possible.

Compiled by:

Divan Opperman

for GNEC