

**THE PERIODIC MAINTENANCE OF TRUNK ROAD 16/8 AND TRUNK ROAD 16/9
BETWEEN MURRAYSBURG AND THE NORTHERN CAPE BORDER**

DEA&DP Ref: 16/3/3/1/C3/13/0015/23

Contract No: C1213

FORMAL ECO AUDIT REPORT

Prepared for:

Western Cape Government: Department of Infrastructure

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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
EMPr.....	Environmental Management Programme
ER	Employer's representative
DEO	Designated Environmental Officer
GNEC	Guillaume Nel Environmental Consulting
I&AP	Interested and Affected Parties

INTRODUCTION

This Environmental Control Officer (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 rectified, if required.

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.

CLOSE OUT ON FINDINGS REQUIRED

	Finding	Close Out Recommendation
1.	Bitumen handling area Asphalt remains noted at the stockpile areas.	All asphalt remains must please be removed from all stockpile areas.
2.	Erosion and sedimentation control Removal of the temporary bypass required.	The contractor was advised to please remove the temporary bypass out of the watercourse as soon as possible to prevent any loss of material into the watercourse.

PROJECT DESCRIPTION

The Western Cape Government: Department of Infrastructure is undertaking routine maintenance of Trunk Road 16/8 (TR16/8) and Trunk Road 16/9 (TR16/9) between the settlement of Murraysburg and the Northern Cape border. The maintenance will mainly take place within the existing road reserves from 43.48km to 48.12km of TR 16/8, and 0.00km to 42.05km of TR 16/9. Maintenance on TR16/8 entails work on one bridge, two major culverts and four culvert structures. Works on TR16/9 entails work on four bridges and approximately 31 culvert structures.

Although the contract is a periodic maintenance contract, new infrastructure is proposed at existing structures, mostly erosion protection works hence the environmental authorisation granted.

In general, the work entails the inter alia:

- Reseal deck and seal exposed concrete shoulder at bridges;
- Install asphaltic plug joints at piers and abutments at bridges;
- Roll-over joints with glass grid at abutments ends / approach slab;
- Erosion protection works at piers / embankments;
- Concrete repairs to balustrades and apply cementitious protective coating;
- The construction of new concrete headwalls at culverts on inlet and outlets where no headwalls are present or where headwalls require reconstruction;
- The construction of new concrete wingwalls at culverts on inlet and outlet where no wingwalls are present or where wingwalls require reconstruction;
- The construction of new concrete apron slabs and cut off walls at culverts on inlet and outlet where no apron slabs are present or where apron slabs or cut off walls require reconstruction;
- The construction of new concrete culvert floor where no culvert floor is present, but required, or reconstruction of existing culvert floors;
- Installation of erosion protection works at culverts on inlet and outlet where required which include concrete, rip-rap, reno-mattresses, gabions and stone pitching;
- Shaping of existing embankments where erosion has occurred to reinstate prior to erosion;
- Sediment removal to ensure hydraulic functioning;
- Vegetation removal.

GENERAL FINDINGS DURING SITE VISIT ON THE 30TH OF JANUARY 2025

Environmental File

According to condition 13 of the approved Environmental Authorisation (EA), a copy of the EA, Environmental Management Programme (EMPr), ECO reports, audit reports and compliance monitoring reports must be kept at the contractor's site office during the construction phase.

Compliance:

The contractor was advised to please compile an environmental file with a copy of the EA, EMPr, ECO reports, waste disposal slips, induction registers etc.

The file is available at the site office.

No-Go areas

All areas outside the approved development 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:

All areas outside the development footprint must be seen as No-Go areas, especially at the structures.

Demarcation is required at the bottom of the bridges where no fence is present.

The contractor was advised to please limit the footprint at the two approaches to the proposed bypass, stockpiles were noted within the vegetation along the fence. Only the footprint of the approach road is authorised and not any additional vegetation clearance.



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 sites 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 ER and ECO prior to the commencement of clearance. The scanning is to ensure that no environmental legislation is contravened at the proposed stockpile areas. This includes proposed topsoil stockpile areas.

Compliance:

The following stockpile areas have been identified by the contractor.

Stockpile Area No.	Comment	ECO Recommendation
1.	Stockpile Area 1 (next to Municipal yard) An area previously disturbed with limited vegetation available was identified for the 1st stockpile area. The area was not in use during the audit, but will be used during the surfacing of the road.	The area is ideal due the proximity as well as due to the area being previously disturbed.

	 	A permission letter, must please be send to the ECO for record keeping, and happy letter, after completion of the works, is required from property owner.
2.	Stockpile Area 2 at approx. km 11.8 on TR16/9 (Stockpile area 3 as part of EIA process) An existing cleared area used a rest area within the road reserve. The area is used to stockpile surfacing stone and will be used for the pre-coating of the stone.	The area is ideal due the proximity as well as due to the area being previously disturbed and within the road reserve.

	 	
3.	Stockpile Area 3 at approx. km 46.4 on TR16/8 (Stockpile area 2 as part of EIA process) An existing cleared area used a rest area and stockpile area of the maintenance teams, within the road reserve. The area will be used to stockpile surfacing stone and will be used for the pre-coating of the stone.	The area is ideal due the proximity as well as due to the area being previously disturbed and within the road reserve.



The contractor is advised to please inform the ER and ECO of potential stockpile areas prior to the start of using the area.

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:

Topsoil was windrowed next to the road shoulder, which is sufficient, and will be spread again after the edge break repairs.

Toilets

Please ensure that the construction site is equipped with a sufficient number of toilets for the number of workers on site. At least 1 chemical toilet per 15 workers is required no more than 150m away from the construction activities. All chemical toilets have to be properly secured to prevent the toilet from falling over in windy conditions.

Compliance:

No toilets were noted near the works.

Note:

The contractor is reminded to please ensure that a sufficient number of toilets is available and in close proximity of where work takes place.

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 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:

No bitumen static was noted on site.

All asphalt remains must please be removed from all stockpile areas.



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 banded 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 diesel storage tanks or bowzers 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 contractor is advised to please regularly clean the road surface, if required, impacted by construction works, to prevent sand, mud on the road being a danger to traffic.

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 cement batching was noted during the audit.

The contractor should please take care during the concrete works at the watercourse areas to prevent any concrete spills into the watercourses.

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.

Please forward recycling, disposal etc. proof to the ECO for record keeping.

Compliance:

Litter should please be removed on a continues basis.

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:

The contractor confirmed the excess surface stone next to the road are stockpiled prior to removal and given to farmers who requested the material to be used on their roads. The contractor was advised to please obtain consent/happy letters from the farmers, the contractor was furthermore advised to please add km numbers to the letters so there is record of where the material went to.

The contractor was advised to please ensure that the rubble is disposed appropriately if not reused.

Please forward rubble disposal receipts to the ER and ECO for record keeping.

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:

No dewatering or works took place in a watercourse during the audit.

The contractor was advised to please remove the temporary bypass out of the watercourse as soon as possible to prevent any loss of material into the watercourse.

The contractor was advised to please provide a sediment trap downstream of the temporary bypass if the bypass will be built during flowing water, this is to minimize sediment deposit downstream of the temporary bypass.

A Part 1 Amendment was authorised by DEA&DP to amend the condition in the Environmental Authorisation that the temporary bypass must be constructed and removed between April and July. Due to the high rainfall during the winter season the temporary bypass could not have been built and must be built during spring to complete the contract. The Part 1 Amendment was granted on the 25th of September 2024, the works will commence after the 20day appeal period which end on the 15th of October 2024.

PROGRESS

The surfacing of the two roads as part of the contract has been completed.



Erosion protection works have been completed at a few culverts and bridges.

CONCLUSION

The contractor is herewith requested to please submit a close out report with photographic evidence of rectification for each of the abovementioned findings, if required, within 3 working days from the date of this report or indicate what measures are being done to rectify the findings.

Compiled by:



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