THE DEVELOPMENT OF A REGIONAL STORMWATER POND AND ASSOCIATED INFRASTRUCTURE ON UNREGISTERED ERF 2001, ERF 1991 AND WITHIN A PORTION OF THE ROAD RESERVE OF DARWIN ROAD, FISANTEKRAAL

DEA&DP Ref: 16/3/3/1/A5/31/2048/21

DEA&DP Ref Amended: 16/3/3/5/A5/31/2034/23

FORMAL ECO AUDIT REPORT

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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	**Cement remains** Cement remains were seen on site	The contractor is advised to please remove the cement remains
2	**Demarcation of development** The entire construction area was not demarcated	The contractor should please demarcate the entire construction footprint.
3	**Fuel storage** A generator was seen on site without a drip tray	The contractor should please supply the generator with a drip tray

PROJECT DESCRIPTION

The development will entail the following:

- The enlargement of a channel (i.e. channel 1) located along the existing outlet channel of the temporary pond to convey peak unattenuated 1:100 year flow from the contributing catchments to a new box culvert. The new box culvert will allow the water to flow from channel 1 into channel 2. Channel 2 will discharge the water into the forebay of the regional pond.
- The regional stormwater pond will have a 2.9m deep permanent pool, which includes an aquatic bench, to attenuate runoff for 1:5 year to 1:50 year storm events. A 1.4m wide and 0.2m deep vegetated strip will be developed around the stormwater pond to form a perimeter and will provide some ecological services including pollutant removal, erosion control and conveyance and temporary storage of water. The total volume of the proposed stormwater pond will be approximately 4193.2m3.
- The stormwater pond will have an outlet structure of approximately 3.38m wide, approximately 3.33m long and approximately 1.99m high. The outlet structure will have a flap to prevent water from the river entering the stormwater pond.
- A box culvert, approximately 1.2m wide and approximately 1.2m high will be developed to allow water to be discharged into the gabion spillway/basin.
- The gabion stilling basin with a 10m wide overflow will be developed and will be provided at the 1:50 year flood level of the Mosselbank River. No formal works downstream of the stilling basin will occur;

The total footprint of the proposed development and associated infrastructure will be approximately 6500m² in extent.

GENERAL FINDINGS DURING SITE VISIT ON THE 22ND OF MAY 2024

Site documentation

Method Statements:

All the required method statements have been sent to the ECO.

Proof must please be sent to the ECO with regards to Condition 10 of the EA: The EMPr must be included in all contract documentation for all phases of implementation.

The following has been placed in an Environmental File on site:

- Environmental Authorisation
- Environmental Management Plan
- Method Statements
- Complaints register
- ECO reports

Please also take note of Condition 14 of the EA which states that in terms of Regulation 34 of the NEMA EIA Regulations, 2014 (as amended), the holder must conduct environmental audits to determine compliance with the conditions of the Environmental Authorisation and the EMPr and submit Environmental Audit Reports to the Competent Authority.

The Environmental Audit Report must be prepared by an independent person, with the relevant environmental auditing expertise and must contain all the information required in Appendix 7 of the NEMA EIA Regulations, 2014 (as amended).

14.1. The holder must undertake an environmental audit within three (3) months of the commencement of the development activities and submit the Environmental Audit Report to the Competent Authority one (1) month after the completion of the undertaking of the environmental audit.

Quotes have been requested for the audit, and will be sent to the project team once received.

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.

The construction area has been clearly demarcated during the audit on the one side, thank you for that.

The contractor is advised to please ensure that the entire working area is demarcated especially near the stream, and that no construction may be done within these areas.

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**:*

No additional stockpile areas were noted during the audit, some stockpiles were present in the construction footprint of the old regional pond.

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**:*

A topsoil stockpile was seen behind an old fence line of the new pond, the contractor is advised to please demarcate the topsoil stockpile.

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**:*

A toilet was seen in the site camp, the contractor should please ensure that the toilet is fastened to the ground as per the EMPr.

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:

A bowser was seen on site, a drip tray was placed underneath the bowser and is sufficient.

A generator was seen on site, the contractor is advised to please ensure that all generators are supplied with a drip tray.

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 access roads to the site, the contractor was busy with dust suppression during the audit, thank you for that.

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:

Cement batching was active during the audit, the batching was done on a mortarboard thank you for that. In another area some cement remains were noted, the contractor is advised to please remove the cement remains from site and around the mortarboard.

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:

No litter was seen on site.

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:

No rubble was seen on site except for the old fencing around the old pond, the contractor advised that some of it will be used to reinstate places of the fence and the rest will be disposed of.

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 took place during the audit.

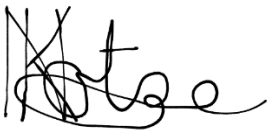
PROGRESS

The levelling for the new pond was underway during the audit, the contractor was also almost finished at the old pond with the filling and levelling of the pond.

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:



Nica Kotze

for GNEC