



Environmental, Health & Safety Consulting

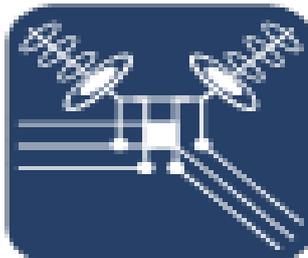
*"Changing the world for a sustainable living"*

**ECO- ENVIRONMENTAL COMPLIANCE AUDIT REPORT  
FOR  
CONSTRUCTION PHASE FOR DINALEDI - MADIBENG SUBSTATION 132 KV  
8km POWERLINE IN MADIBENG MUNICIPALITY**

DEA REF: 14/12/16/3/3/1/1442

June 2017

AUDIT REPORT **NO 3**



<b>PREPARED FOR:</b>	<b>ENVIRONMENTAL AUDIT COMPILED BY:</b>
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## **DECLARATION OF INDEPENDENCE**

**In terms of Chapter 5 of the National Environmental Management Act of 1998 specialists involved in Impact Assessment processes must declare their independence**

**I, Charlotte Maphaha as authorised ECO representative for MuTingati Environmental Consulting, I do hereby declare that neither MuTingati Environmental nor myself have any interest / business, personal, financial or other interest in the proposed development apart from fair remuneration for the work appointed for specifically as independent Environmental Control Officer for the above listed projects in Eskom NWOU.**

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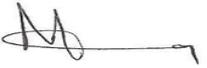
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PHOTO PLATE DINALEDI

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## Acronyms

- EMPr** Environmental Management Programme
- DEA** Department of Environmental Affairs
- DWS** Department of Water Affairs and Sanitation
- ECO** Environmental Control Officer
- EO** Environmental Officer
- ELO** Environmental Liaison Officer
- MC** Main Contractor
- OHSA** Occupational Health & Safety Act
- PPE** Personal Protective Equipment
- EA** Environmental Authorisation
- WUL** Water Use License
- DAFF** Department of Agriculture, Forestry and Fisheries
- SAHRA** South African Heritage Resources Agency

## 1. INTRODUCTION

MuTingati Environmental Consulting was appointed by Trans- Africa Projects herewith referred to as “TAP” on behalf of Eskom North West Operating Unit (NWOU) to conduct an independent environmental compliance audit as a requirement in terms of Environmental Authorisation (EA) approved for the above Eskom proposed power line. The report must be submitted monthly to Department of Environmental Affairs (DEA).

### DEFINING ENVIRONMENTAL AUDITING

The International Standards Organisation (ISO) defines an environmental audit as a

‘systematic, documented verification process of objectively obtaining and evaluating audit evidence (verifiable information, records or statements of fact) to determine whether specified environmental activities, events, conditions, management systems, or information about these matters conform with audit criteria (policies, practices, procedures or requirements against which the auditor compares collected audit evidence about the subject matter), and communicating the results of this process to the client (organisation commissioning the audit).’

It is important to note that a requirement of an environmental audit is that evidence must be verified by supporting documents, if this is not the case, then the process is a review, survey or assessment. Unlike monitoring, audit is a methodical examination (including tests, checks, and confirmation) of environmental procedures and practices with the view of verifying whether they comply with internal policies, accepted practices and legal requirements.

In this case both the Environmental Authorization (EA) and the EMPr for Dinaledi powerline construction projects have been approved by the Department of Environmental Affairs. There is stipulated condition in the EA, EMPr that must be adhered to during the construction phase of the projects.

This report intends to provide information in the form of audits demonstrating the EA and EMPr compliance of the project and also avoid, where possible, negative impacts on project-affected ecosystems and communities. Where impacts are unavoidable, they should be reduced, mitigated, and/or compensated for appropriately as per the EMPr specifications compiled for the project. The report contains the narrative on the status quo of the environmental compliance on site observed during the inspection as well as a checklist with a compliance score.

The following were assessed during the visit:

- Site construction camp including site storage for materials, storage for oil fuel, storage for general waste , Essential services (ablutions and drinking water facilities).
- Site construction power line.

## 2. SITE LOCALITY AND ACTIVITY DESCRIPTION

DINALEDI-MADIBENG 132KV 8km power line is situated east of Brits and to the north east of the Brits Industrial area. Elandsrand residential area is situated to the west of the project area. The power line route will traverse several properties east of Brits towards the Dinaledi MTS (Main Transmission Substation) in Madibeng Local Municipality, Bojanala District Municipality in the North West Province.

The project entail “the construction of 2 x 8km 132kV Twin Bersfort power lines from the existing Dinaledi MTS Substation to the new proposed Madibeng Substation”.

## 3. AUDIT METHODOLOGY

The first stage of the environmental audit is to determine the audit objectives, audit criteria followed by the scope of the audit.

In order to address the requirements of both Eskom and the Competent Authority, a Checklist has been prepared to discuss the findings on each of the specific areas within the construction site servitude of Dinaledi power line. Environmental specifications included in the audit checklist were based on the Environmental Management Programme (EMPr), Environmental Authorisation (EA), relevant environmental regulatory and policy including Eskom’s Environmental Specifications applicable to the project as well as interviews with workers.

The checklist consists of a rating column and a compliance status report, which will indicate or reflect the level of compliance of the project to the EMPr and EA and other applicable legislation.

The rating column is ranked from 0 - 3, where:

- 0- Will imply that non-compliant with the requirements of the EMPr, EA by the contractor.
- 1- Will imply that the Contractor has partially complied and are aware but has not fully complied with the EMPr, and is effectively making efforts to improve and remediate the situation.
- 2- Will imply that contractor has complied with all EMPr requirements (and specifications and to the satisfaction of the ECO).
- 3- Mean that the Contractor has fully complied with all EMPr , EA requirements.

The compliance status reports will generally show the number of compliances and non-compliances per audit. The status report will also indicate the number of conformances versus non-conformances of the audit for the site. Please note that the audit process will classify activities/sections as N/A if the activity has not commenced or could not be determined by the auditors at the time this audit was undertaken.

The audit will also rate and consider some specifications as Work in progress (WIP). WIP will in this audit refer to an activity that has been started as an attempt by the Contractor to effectively curb, mitigate or address a particular environmental issue but had not fully completed by the time of the audit. All WIP’s will not be scored/rated for the purposes of this audit.

This report intends to provide information demonstrating the EMPr compliance of the project; the report contains the narrative on the status quo of the health, safety and environmental compliance on site during the inspection. For the purposes of this audit, the description of the scoring methodology in terms of the overall.

The Checklist is compiled in accordance with EMPr & EA and specifies that the different aspects of the construction phase should be scored as follows:

Description	Scores	%Percentage rating
Non-compliant	0	< 50%
Partial compliant	1	>50<90%
Compliant	2	>90%
Full compliance	3	>100%

The percentage compliance rating can further be explained as follows:

- ❖ 01% - 40% - indicates bad environmental practice;
- ❖ 41% - 60% - indicates fair environmental practice;
- ❖ 61% - 80% - indicates good environmental practice; and
- ❖ 81% -100%- Indicates best environmental practice.

#### **Compliance status scores**

- ❖ Total aspects are the sum of all the environmental aspects (compliances, non-compliances, WIP and N/A) that are listed in the checklist.
- ❖ Total Score obtained would include the sum of compliances and non-compliances that were audited during the time of the audit.
- ❖ Total Potential Score is the sum of the total possible score (all compliances).

## **4. AUDIT OBJECTIVES**

The aim of this independent compliance audit is to review the construction activities or processes, document the potential areas of non-compliance, and determine potential improvements that can be made to ensure compliance with approved EA and the EMPr compiled for the project and also avoid, where possible, negative impacts on project-affected ecosystems and communities. Where impacts are unavoidable, they should be reduced, mitigated, and/or compensated for appropriately as per the EMPr specifications compiled for the project.

Furthermore, the audit report will identify and assess any new impacts and risks as a result of undertaking the activity.

## 5. AUDIT SCOPE

The scope of this audit was to assess the construction stage of the Dinaledi – Madibeng power line against the conditions and requirements of both the EA and EMPr.

The construction has now fully commenced. The official month of commencement of construction activities was April 2017 as advised by the contractor. The site inspections took place on the 26 of June 2017.

The following were undertaken during the audits:

- ❖ Camp construction [Inspection
- ❖ Active Construction site inspection.

## 6. PROJECT ACTIVITIES AND TASK UNDERTAKEN BY ECO DURING AUDITS

### 6.1 The main construction activities:

The main activities of the day on site was the excavation of trenches for the installation of the poles

### 6.2 Tasks undertaken by ECO during the inspection audits:

The following activities were undertaken:

- ❖ Assess construction camp / offices (this includes storage areas for material, storage for oil, storage for solid waste and Ablution facilities).
- ❖ Assess construction activities for power line.

The inspection audit criteria and documents required for the successful audit completion were based on the checklist compiled and attached in this report as Appendix A. This checklist will be used as an audit tool. Information provided during the audit was verified on site. This report formally presents the results of the audit conducted and will be used for decision making and any necessary corrective actions.

The audit report will include relevant supporting information such as photographs of the site where possible.

## 7. AUDIT ATTENDANCE REGISTER ROLES AND RESPONSIBILITIES

The site inspections took place respectively on 26 June 2017 at 15:10 with the team as follows:

Name	Position	Company/ organisation
Nyeleti Princess Manyike	EAP	MuTingati Environmental for Trans-Africa Project ( TAP)
Charlotte Maphaha	ECO	MuTingati Environmental for Trans-Africa Project ( TAP)
Tshepo Tlhogane	Site supervisor and SHE - ( absent )	Katshesa Engineering (Not Present)

## 8. PREVIOUS FINDINGS PROGRESS REPORT

Below is the progress of findings of the inspection review taken place on the 26 June 2017 result will be interpreted as follows:

**Green** > will imply Closed; and

**Red** > will imply still pending,

All pending need to be closed by the date indicated in the table below

**TABLE A: previous findings progress status**

ITEM	FINDING DESCRIPTION	ACTION REQUIRED	RESPONSIBLE PARTY	CLOSED	IF NOT CLOSED WHEN
01	No ablution facilities at construction site	Allocate toilets	Contractor	X Toilet available	
02	Toilet tissue not provide toilet tissue		Contractor	X Tissue still not provided for workers	13 July audit

## 9. NEW ISSUES / FINDINGS ARRISED AND COMMENTS

➤ **No drip trays underneath stationary truck**

It was observed that a PVC plastic was used as spill traps instead of designed spill traps and it is not acceptable as it cannot prevent oil from spilling onto the ground It is recommended that designed spill traps are used underneath the truck to ensure and prevent spills oil/ petrol onto the ground

➤ **Waste management**

Waste is not handled accordingly, bins allocated for hazardous waste and paper are used to store waste food and the bins have odour, meaning waste is not collected and disposed off regularly.

It is recommended that waste be handled and stored in their temporary bins according to the allocation, and waste should be collected and disposed off regularly according to their disposal site.

➤ **Other comments:**

The toilet at the camp does not have toilet paper and no water is provided for washing hands after using toilet. This practise is totally discouraged for health and safety of workers. It is

recommended that a 20L container tap be provided to wash hands and put an empty bucket underneath in order contain waste water and to avoid water runoff and creating unfavourable conditions at site offices. Such waste water collected can be recycled and used to suppress dust at the site camp and the surrounding area.

Improvement on diesel tank storage will be required, currently the heavy duty is layed on a flat ground, the potential risk is that should leakages or spill occur, it will run freely onto the ground and contaminate the soil. It is advised to dig enough size fit for the diesel, excavate 500m down and fill with soil about 300m before laying the heavy duty, this will prevent any possible spill that may occur to contaminate the soil. Should spills occur and penetrate the 300m soil under the plastic, remove the affected soil and fill again. Such contaminated soil removed should be disposed of at hazardous waste licensed site.

Animals (cattle) were identified during the inspection. Animals should be taken care of during the construction of the power line, Speed limit must be adhered to and all trenches need to be properly cordoned to prevent animal's animal injuries

Though it is during dry season now, weeds as well as alien plant should be monitored and taken care of around the site camp. The camp is being managed effectively in terms of the conditions stipulated in the EMPr and EA so far. The general housekeeping at site camp was good no weeds and no littering were noticed during this inspection.

**Table 2: Observations and recommendations**

Item	Area	Activities for the day	Findings	Picture evidence if applicable	Recommendations	Closure date
1.	Site camp	N/A	Waste is not handled accordingly. All three bins contain food waste ( bins marked paper, hazardous, food waste)	1,2	Waste be handled and stored in their temporary bins according to the allocation.	07/07/17
2.	Site camp	N/A	PVC plastic was used as spill traps instead of designed spill traps underneath stationary truck at the construction site.	See photo plate on page 3	Designed spill traps should be used underneath the truck to ensure and prevent spills oil/ petrol onto the ground.	07/07/17

Appendix A & B attached checklist confirm the above compliance of the EMPr and EA with scores allocated as indicated above

## 10. CONCLUSION

Environmental audits help in assuring the accuracy and relevance of environmental monitoring. A requirement of an environmental audit is that evidence must be verified by supporting documents and environmental auditing is defined as a methodical examination (including tests, checks, and confirmation) of environmental procedures and practices with the view of verifying whether they comply with internal policies, accepted practices and legal requirements.

The environmental audit of this project used two main tools: a checklist and site verification through interviews and observations.

There was excellent improvement on documents EMS file including maintenance of hazardous substances on site camp which were major findings previously. The environmental management of the project scored 95% (177/186) with **total compliance score 84% with 156 FULL compliances** (see compliant status table B). 100% EA Compliance. This score indicates a good compliance status to the requirements of the EMPr and EA.

Waste management practice for both hazardous and general waste need to be improved It is recommended that improvement on toilets at both construction site and camp regarding toilet tissue be attended in order to maintain the well compliant status The contractor must continue to aim to maintain the good environmental record of compliance by ensuring that construction activities conducted are in compliance to the EMPr and EA at all the times. The recommendations provided in this report and EMP, EA will assist the contractor to ensure they retain and improve the good environmental management standards and therefore must be adhered to.

**Table 2: Compliance Status Report (June 2017):**

Eskom: Dinaledi- Madibeng 132 kV power lines	EMPr	
	Compliances	156
	Partial Compliances	3
	Non compliances	0
	Could not be determined	1
*Total aspects audited (excl. N/A, & WIP)		
*Total Score Obtained (compliances + partial compliance)		186
*Total Potential Score (= to sum of all compliances excl. N/A & WIP)		177
<b>TOTAL</b>		<b>95.%</b>

## Photo plate of Dinaledi powerline

Photo:1 bins for ( paper, Hazardous, general)



Photo 2,3,4 containing mixed wastes of food plastic waste etc



Photo 5,6 illustrate plastic to contain diesel / oil spills



Photo7: Animals to be taken care



Photo8 Trenches and concrete slab for poles



APPENDIX A:

**Table 1. Environmental Management Programme (EMPr) AUDIT CHECKLIST**

<b>Project name</b>	<b>DINALEDI-MADIBENG 2x8km 132KV POWERLINE</b>
<b>DEA ref</b>	<b>14/12/16/3/3/1/1442</b>
<b>EO</b>	<b>Aron Senyolo</b>
<b>ECO</b>	<b>Charlotte Maphaha</b>
<b>Site Supervisor &amp; SHE rep</b>	<b>Tshepo Tlhogane</b>
<b>Audit Date</b>	<b>25 June 2017</b>

Item	Environmental aspect	Responsible person	Score rating	Observation	Remark
1.	<b>SITE CONSTRUCTION CAMP ESTABLISHMENT</b>				
2.1	General housekeeping condition be kept good littering and stockpiling of material must be avoided.	Contractor EO	1,5	Waste not handled accordingly ( all bins used to store food waste)	Comply with EMP with regard to waste
		<b>score</b>	<b>1,5/3</b>		
		<b>%</b>	<b>95.8%</b>		
2.	<b>SAFETY / FIRES</b>				
3.1	Areas of no entry demarcated with danger tapes	Contractor	3	Trenches for poles cordoned	Monitor the trenches and avoid animals like cows to felling in the ditches
3.2	Signs of fire activities on site camp	Contractor	3	None at camp	
3.3	Adequate fire extinguisher installed around perimeters and site office the fire extinguisher service maintenance up to date	Contractor	3	two more fire extinguishers were purchased and allocated to the areas were required	Excellent
3.4	Spill kit available	Contractor	3		
3.5	Gas and liquid fuels not to	Contractor	N/A	NONE IDENTIFIED	

	be stored in the same storage area				
3.6	Emergency drills conducted	Contractor	3	Plan in place produced	Drills to be conducted as per plan
		<b>Score</b>	<b>15/15</b>		
		<b>%</b>	<b>100%</b>		
3.	<b>SEWAGE TREATMENT</b>				
4.1	Ablution facilities available. Toilet adequate for both male and female( 1 per 15 people )		1.5	X 2 Site camp toilet has no toilet papers. No toilet at site construction.	Toilet must be provided at site construction. all toilet must be supplied with toilet papers
4.2	Chemical toilet supplied serviced regularly		1,5	Only one disposal certificate is available	It was indicated that waste is collected weekly contract need to be verified about delivery of toilet at camp.
4.3	Waste manifest , Waste transportation licence available	Contractor	3	Only one disposal certificate is available. the contractor was not aware he should request certificate initially	Waste disposal certificate should be issued at all times. Certificate should be filed and made available when requested.

		<b>score</b>	<b>6/9</b>		
		<b>%</b>	<b>67%</b>		
<b>4.</b>	<b>SOLID WASTE MANAGEMENT</b>				
5.1	general surrounding and housekeeping condition	Contractor	3	The site camp clean and tidy , no weed and/ or alien plants	
5.2	Waste storage bins available and labelled accordingly and demarcated	Contractor	2	waste bins available and labelled but not used accordingly. Waste food was observed in hazardous and paper bins.	Waste should be dumped/ stored at the bins according to what they are allocated for.
5.3	Refuse stored in appropriate scavenger proof containment vessels		3	Fulfilled	
5.4	Pest control management		N/A		
		<b>score</b>	<b>8/9</b>		
		<b>%</b>	<b>89%</b>		
<b>5.</b>	<b>PORTABLE WATER</b>				
6.1	Drinking water should be made available at convenient locations	Contractor	2.	Water is been supplied by 2x25 litre gallons daily for drinking and washing hands. However no water is taken to the toilet for washing hands	Water must be reserved for washing hands also. See comment on report regarding this.
		<b>Score</b>	<b>2/3</b>		

			%	67%		
<b>6.</b>	<b>NOISE POLLUTION</b>					
7.1	All employees must be given the necessary ear protection gear if the noise levels exceed 70dB.	Contractor	N/A	No heavy machines and no blasting at this stage	Ear plugs must be provided all the time when heavy machines are used and blasting taking place.	
7.2	Interested & Affected Parties must be informed about impending excessive noise. Generators and pumps must be housed in casings to help reduce any noises in operation.	Contractor	N/A	No excessive noise presently is happening at site	Comply to EMP with regard.	
7.3	Generators and pumps must be housed in casings to help reduce any noises in operation	Contractor	N/A	No generators		
		<b>score</b>	N/A			
		<b>%</b>	N/A			
<b>7.</b>	<b>ACCESS ROADS</b>					
<b>1.1</b>	Use existing access roads at all times, should temporary roads be required such road the road should be	Contractor	3	Site camp and construction access road good.	Rehabilitation will be monitored upon completion.	

	rehabilitated upon completion of construction period, the contractor must ensure that the access roads are returned to a state no worse than prior to construction commencing.				
1.2	Drivers must strictly stick to speed limit.	Contractor	3	Speed limit 40km/h	Adhere at all times
1.3	Signage and safety precaution measures visible on roads	Contractor	2	Safety signs visible	Refer to other comments for signage improvement.
1.4	Dust control measures be placed to reduce air pollution caused during construction dust suppression methods such as water spraying. Water used for this purpose must be in quantities that will not result in the generation of run-off water spray every 2 to 3 hours	Contractor	N/A	Not necessary at site camp	
		<b>Score</b>	<b>8/9</b>		
		<b>%</b>	<b>89%</b>		
<b>GROUND WATER MANAGEMENT</b>					
9.1	Prevent pollution of ground water by construction activities	Contractor, EO	3	Diesel tank placed on pvc heavy lining to contain spills	
9.2	Spills NOT to be hosed down into surrounding natural environment.	Contractor, EO	N/A	None spill occurred	Adhere

9.3	Spillages of oils and other fuels on the ground not to be cleaned using hosing method.	Contractor, EO	N/A	None occurred	Adhere
9.4	Contaminated soils by oil spillages are to be scraped or excavated to the depth of not less 300mm below the contamination saturation mark and be disposed at permitted landfill site.	Contractor, EO	N/A		Adhere
9.5	Grey water must be controlled. Disposal facilities must be maintained. Wash water can be used to irrigate lawns. Hazardous waste water must be taken to the licensed waste disposal site that deals with the kind of waste	Contractor, EO	N/A	It was advised and is encouraged in the report to reuse waste water after washing hands at toilet	Encourage recycling where possible
9.6	Maintenance and repairs should be done off site if not a designated area with concrete slab and bund wall must be used No repair work shall be done on the ground surface	Contractor	3	No evidence of maintenance happening at camp	
		<b>score</b>	<b>6/6</b>		
		<b>%</b>	<b>100</b>		
11.	<b>SURFACE AND STORM WATER MANAGEMENT</b>				
10.1	Abstraction of water for domestic use must be restricted		N/A	Water is purchased locally	
10.2	Reduce the number of stream crossing		N/A		
10.3	A drainage diversion system to be installed to divert runoff from areas of potential pollution e.g.: vehicle		N/A		

	maintenance area, chemical and fuel storage.				
10.4	Rainwater containing pollutants is to not run off into natural areas and in the river.		N/A		
10.5	Avoid or limit soil erosion.		3	No erosion signs at present	Close excavation in accordingly to avoid erosions
		<b>score</b>	<b>3/3</b>		
		<b>%</b>	<b>100%</b>		
12.	<b>SOIL AND EROSION MANAGEMENT</b>				
11.1	Contractors must use existing roads to minimise more tracks	Contractor, EO	3	Adhered	
11.2	Stock pile of top soil should be done in designated areas only	Contractor, EO	N/A	None at camp	
11.3	During construction of the substation and power lines, soil must not be stockpiled on drainage lines or near watercourses	Contractor, EO	N/A	Adhered	
11.4	Top soil and subsoil to be stored separately	Contractor, EO	3	Fulfilled	
11.5	Top soil should not exceed 2m height and slopes	Contractor, EO	3	Fulfilled	
11.6	Stock piles to be utilised for rehabilitation within one year to prevent	Contractor, EO	N/A	Not at this stage	

	the leaching nutrients				
11.7	All erosion damage to be repaired as soon as possible	Contractor, EO	N/A	No signs of erosion	
11.8	Avoid contamination of soil with oil, grease, diesel, petrol, waste or any other foreign matter, which may impact on the capability of the soil as a growth medium.	Contractor, EO	3	Diesel tank placed PVC lining to avoid contamination of soil	See comments in the report diesel tank and laying of heavy duty plastic
11.9	Vehicle and machinery inspection checklist to be developed to avoid leakages and spillages on soil	Contractor EO			Work in progress.
		<b>Score</b>	<b>12/12</b>		
		<b>%</b>	<b>100%</b>		
<b>13.</b>	<b>EXCAVATION TRENCHING BACK FILL &amp; LEVELLING</b>				
12.1	Excavations must be marked with a red tape to demarcate the area.	Contractor, EO	3	Fulfilled. Trenches demarcated	
12.2	Open and close excavation same day, where possible	Contractor, EO	N/A		Ensure animals are safe
12.3	Excavations must not stand longer than 14 days	Contractor, EO	N/A		Ensure animals are safe
12.4	Deficiency of backfill material will not be made up by excavation within the remainder of the development area or private properties. Where backfill material is deficient, it must be made up by importation from an approved borrow pit	Contractor, EO	3	Soil material important from a licenced borrow pit	

12.5	During long holidays all open excavation must be temporarily closed for safety purpose	Contractor, EO	N/A	N/A at this stage	
		<b>Score</b>	<b>6/6</b>		
		<b>%</b>	<b>100</b>		
14.	<b>HAZARDOUS SUBSTANCES ,SPILLS MANAGEMENT</b>				
13.1	Petroleum, chemical, hazardous waste to be stored in well maintained containers.	Contractor, EO	3	Fulfilled Diesel tank and plastic lining	
13.2	MSDS Storage of Hazardous substances and handling should be clearly indicated and MSDS always available		2	Diesel is used MSDS not verified	MSDS for diesel be made available
13.3	Storage of hazardous substances to be under strict control	Contractor, EO	N/A	No hazardous storage	
13.4	Spill kit to be available at all times and emergency drills be conducted every three months	Contractor, EO	3	spill kit available	
13.5	Drip trays and lined earth bunds must be provided underneath vehicles and equipment to contain any spills of material such as fuel and oil during dispensing and refuelling.	Contractor, EO	2	Heavy PVC plastic lining is used as drip trays underneath the stationary truck.	Place drip tray underneath the truck.
13.6	Temporary fuel storage tanks and transfer areas to be located on an impervious surface adequately bunded	Contractor, EO	3	PVC plastic lining in place	Improve laying of plastic lining. See report

	to contain accidental spills				
		<b>score</b>	<b>13/15</b>		
		<b>%</b>	<b>87%</b>	Improve	
15.	<b>FLORA AND FAUNA PROTECTION</b>				
14.1	Anti-Bird collision devices: Placement of pylons must be positioned to minimise impacts on birds. Bird flight diverters and perches and according avifauna recommendations	Contractor	N/A	At this stage not applicable	
14.2	Community plant Vegetation and animal identified and measures in place	Contractor, EO	3	Adhering to speed limit	Protect animals from open ditches and from being killed or injured by vehicles.
14.3	<ul style="list-style-type: none"> <li>Avoid injury to death and trapping of wild animals by reducing speed of construction vehicles.</li> <li>Trenches must be inspected daily to monitor for trapped animals</li> </ul>	Contractor	3	Trenches are checked. No animals were reported killed	Reduce speed further if animals are seen
14.4	No fire wood will be collected on site and surrounding vicinity		N/A		
14.5	Emergence alien/invasive species and weeds controlled	ECO, EO and Contractor	N/A	None at this stage	Remove any weeds and alien plant identified
		<b>Score</b>	<b>6/6</b>		
		<b>%</b>	<b>100</b>		
16.	<b>NO GO AREAS/ SENSITIVE AREAS</b>				

15.1	No Go areas demarcated	Contractor	3	Trenches and Marula trees demarcated	
15.2	Confirm absence of Red Data Species / archaeological sites and artefacts	EO, ECO Contractor	N/A	Graves were identified however the graves were approximately 1km outside the servitude line and will not be disturbed.	Adhere to EMPR regarding Heritage impact
15.3	Permit of removal of indigenous plants within the vicinity must be obtained if applicable	EO, Contractor	N/A	The Marula tree identified will not be disturbed or requires removal.	
15.4	All protected species occurring within the footprint should be clearly marked for the duration of the construction phase, and should remain intact and undisturbed.	Contractor, EO	N/A	None identified	
15.5	Other Specialists reports, HIA, ecology avifauna and Anti – collision	EO, Contractor	3	Botanical walk through report on site	Ensure all recommendations are fulfilled.
15.6	The contractor must attend a site inspection with the ECO to be orientated with the sensitive aspects of the site and take cognizance of the boundaries of the construction area. The ECO must point out any site-specific aspects of importance on the site;	ECO, Contractor	3	Eskom EO conducted the walk through in addition Botanical study was conducted	Botany report to be kept at site
		<b>Score</b>	<b>9/9</b>		
		<b>%</b>	<b>100%</b>		
<b>17.</b>	<b>COMMUNICATIONS WITH STAKEHOLDERS / I&amp;AP</b>				
16.1	Evidence of Communication with land owners.	Contractor	3	Communication Log book	
16.2	Evidence of public and or liaison with I&AP or	Contractor	3	Register / log book,	

	stakeholder engagement.				
16.3	Induction Training including toolbox talks conducted	EO, ELO	3	EO presented training register in place	All topics presented to be filed , refresher training encouraged
		<b>score</b>	<b>9/9</b>		
		<b>%</b>	<b>100%</b>		
<b>18. INCIDENT ACCIDENT REPORTING</b>					
17.1	Incident accidents reported in time log sheet and remediation measures mitigated	ELO/ Contractor, EO	3	No incident but incident log sheet in place	Record incident all the time
		<b>score</b>	<b>3/3</b>		
		<b>%</b>	<b>100%</b>		
<b>19. CONTRACTOR PARTICIPATION IN AUDIT</b>					
18.1	The contractor must form part of the audit inspection and participate fully in the audit	Contractor	2	Complied ; The contract was NOT present during the entire audit	
		<b>Score</b>	<b>2/3</b>		
		<b>%</b>	<b>90%</b>		
<b>20. REHABILITATION N/A</b>					
18.1	Upon completion of project, remove all temporary structures, materials, waste, and facilities.				
18.2	Identify suitable indigenous plant for rehabilitation				

	process				
18.3	Cutting of poles and steel structures recommended, poles are to be uprooted				
18.4	Disturbed and open areas must be rehabilitated and re-vegetated as soon as possible upon construction completion and must be rehabilitated such that the surrounding areas are returned to a state no worse than prior to construction commencing				
Score / percentage			N/A		

## APPENDIX B

**Table 2: Environmental Authorisation checklist compliant**

Rating Scale				
Legal aspect	Action required	Compliant status	Audit findings / and comments	Rating
<b>EA 30 - Final Walkthrough</b>	A botanical specialist must be commissioned to perform final walkthrough of the site to assist in identifying the final route alignment. To also identify threatened or protected species that occur on the alignment that will require removal and rescue.	Compliant	Botanical study conducted available at site	3
<b>EA 29 - Bird Anti-Collision devices</b>	Bird Anti-Collision devices must be installed onto specific sections of the line with input from the Avifauna specialist.	N/A at this stage		

<b>EA 31- Exotic plant</b>	No exotic plant must be used during rehabilitation. Only indigenous plant must be utilised	N/A at this stage		
<b>EA 32 - Tree Permits &amp; Departmental permits</b>	Before the clearing of the site, permits must be obtained from DAFF for the removal of indigenous, protected and endangered plants and animals	No removal of protected tree was identified		
<b>EA 33 _ Waste management plan</b>	An integrated waste management plan must be implemented based on waste minimization and must incorporate reduction , recycling reuse and disposal method	Compliant	Contractor EMP also emphasised waste management	3
<b>EA 34 - Solid Waste Management</b>	Any solid waste, which will not be recycled must be disposed at a licensed landfill. Copies of all waste disposal certificates must be kept on site.	Eskom to collect recyclable		
<b>EA 35 – EA EMP and Audits reports specialist reports</b>	Copy of EA , EMP and audits repots must be available at site and must be authorized to anyone requesting it.	compliant	EA, EMP at site	3
<b>EA 36- Authorities not held responsible</b>	All relevant authorities( national, provincial and local ) shall not be held responsible for any damage or loss by holder of authorization suffered were construction operations is temporarily, or permanently stopped due to non- compliance .			

<b>EA 35 – Environmental Authorisation and EMPr kept on site</b>	A copy of the Environmental Authorisation and approved EMPr must be kept on site at all times.	compliant	No document at site	3
<b>EA 39 - Communication with the Department</b>	The holder of the authorisation must notify the Director: Integrated Environmental Authorisations and the Director: Compliance Monitoring of the Department in writing within 48 hrs if any condition that cannot be adhered to.		It is assumed that all recommendation will be complied by contractor since no notification was submitted.	
<b>EA 13, 18 EMP</b>	EMP to be complied by the contractor, such EMP can be updated or amended if so required and the updated EMP must be approved department		Contractor adhering	3
<b>Appeals</b>	Appeals must be submitted in writing to: Mr Z Hassam Director: Appeals and Legal Review, of this Department at the above mentioned addresses or fax number. Mr Hassam can also be contacted at: Tel: 012-310-3271 Email: AppealsDirectorate@environment.dov.za		No appeals to date. And appeal period has lapsed.	
<b>EA 9, 10, 11. Notification of I&amp; AP</b>	The holder of the authorization must notify the I&AP of the authorization approval within 14 days of receiving of approved EA , the notice should comply with EA10, the notice should be published	Compliant	Public advert in place	3

5	<b>Commencement of activity</b>	The authorised activity/ies shall not commence within twenty (20) days of the date of signature of the authorisation. Further, please note that the Minister may, on receipt of appeals against the authorisation or conditions thereof suspend the authorisation pending the outcome of the appeals procedure.	Compliant	Commenced in April 2017	3
		Any change of The holder of the authorisation must notify the competent authority of any alienation, transfer and change of ownership rights on the property on which the activity is to take place.	N/A		
		An appeal under section 43 of the National Environmental Management Act (NEMA), Act No.107 of 1998 (as amended), does not suspend an environmental authorisation or exemption, or any provisions or conditions attached thereto, or any directive, unless the Minister, MEC or delegated organ of state directs otherwise		Appeal period has lapsed. It is assumed that not appeal was made	

	<p>Should you be notified by the Minister of a suspension of the environmental authorisation pending appeal procedures, you may not commence with the activity until such time that the Minister allows you to commence with such an activity in writing.</p>		To date no suspension letter received.	
<p><b>EA- 19 Monitoring -- Appointment of ECO Monitoring</b></p>	<p>The holder of the authorisation must appoint an experienced independent Environmental control. Officer (ECO) for the construction phase of the development that will have the responsibility to ensure that the mitigation/rehabilitation measures and recommendations refer in this environmental authorisation are implemented and to ensure compliance with the provisions of the approved EMPr. The ECO must be appointed before commencement of any authorised activities.</p> <ul style="list-style-type: none"> <li>- Once appointed, the name and contact details of the ECO must be submitted to the</li> </ul> <p>Director: Compliance Monitoring of the Department.</p> <ul style="list-style-type: none"> <li>- The ECO must keep record of all</li> </ul>	Complied	<p>ECO Nyeleti Manyike and Charlotte Maphaha (MuTingati EHS)</p> <p>Proof in place</p>	3

	<p>activities on site, problems identified, transgressions noted and a task schedule of tasks undertaken by the ECO.</p> <ul style="list-style-type: none"> <li>- The ECO must remain employed until all rehabilitation measures, as required for</li> </ul> <p>Implementation due to construction damage, are completed and the site is ready for operation.</p>		Monitoring / review reports in place	
<p><b>EA, 20,21, 22, 23, 24, 25</b> <b>Recording and reporting to the Department</b></p>	<p>All documentation e.g. audit/monitoring/compliance reports and notifications, required to be submitted to the Department in terms of this authorisation, must be submitted to the Director: Compliance Monitoring of the Department.</p>		To be submitted on 15/07/2017	
	<p>The holder of the authorisation must submit an environmental audit report to the Department within 30 days of completion of the construction phase (i.e. within 30 days of site handover) and within 30 days of completion of rehabilitation activities.</p>		N/A at this stage	
	<p>The environmental audit report must indicate the date of the audit, the name of the auditor and the</p> <p>Outcome of the audit in terms of compliance</p>		N/A at this stage	

	with the environmental authorisation conditions as well as the requirements of an approved EMPr.			
	Records relating to monitoring and auditing must be kept on site and made available for inspection to any relevant and competent authority in respect of this development.		N/A at this stage	
<b>Notification to authorities</b>	Not less than fourteen (14) days written notice must be given to the Department that the commencement for the purposes of this condition includes site prep notice must include a date on which it is anticipated that the activity will commence, as well as a reference number. This notification period may coincide with the notice of intent to appeal period.		N/A at this stage	
<b>Operation of the activity</b>	Not less than fourteen (14) days written notice must be given to the Department that the activity operational phase will commence.		N/A at this stage	
<b>Site closure and decommissioning</b>	Should the activity ever cease or become redundant, the holder of the authorisation must undertake the required actions as prescribed by legislation at the time and comply with all relevant legal requirements administered by any relevant and competent		N/A at this stage	

	authority at that time.			
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