DRAFT ENVIRONMENTAL MANAGEMENT PROGRAMME FOR THE

THE PROPOSED HIGHVELD NORTH-WEST AND LOWVELD STRENGTHENING PROJECT: EQUIPPING OF EXISTING BORUTHO AND SILIMELA SUBSTATIONS AND DEVELOPMENT OF BORUTHO-SILIMELA 150KM 400KV TRANSMISSION LINE AND ASSOCIATED INFRASTRUCTURE, WITHIN THE CAPRICORN, SEKHUKHUNE AND WATERBERG DISTRICT MUNICIPALITIES, LIMPOPO PROVINCE

DFFE Ref No.: 14/12/16/3/3/1/2979

August 2024

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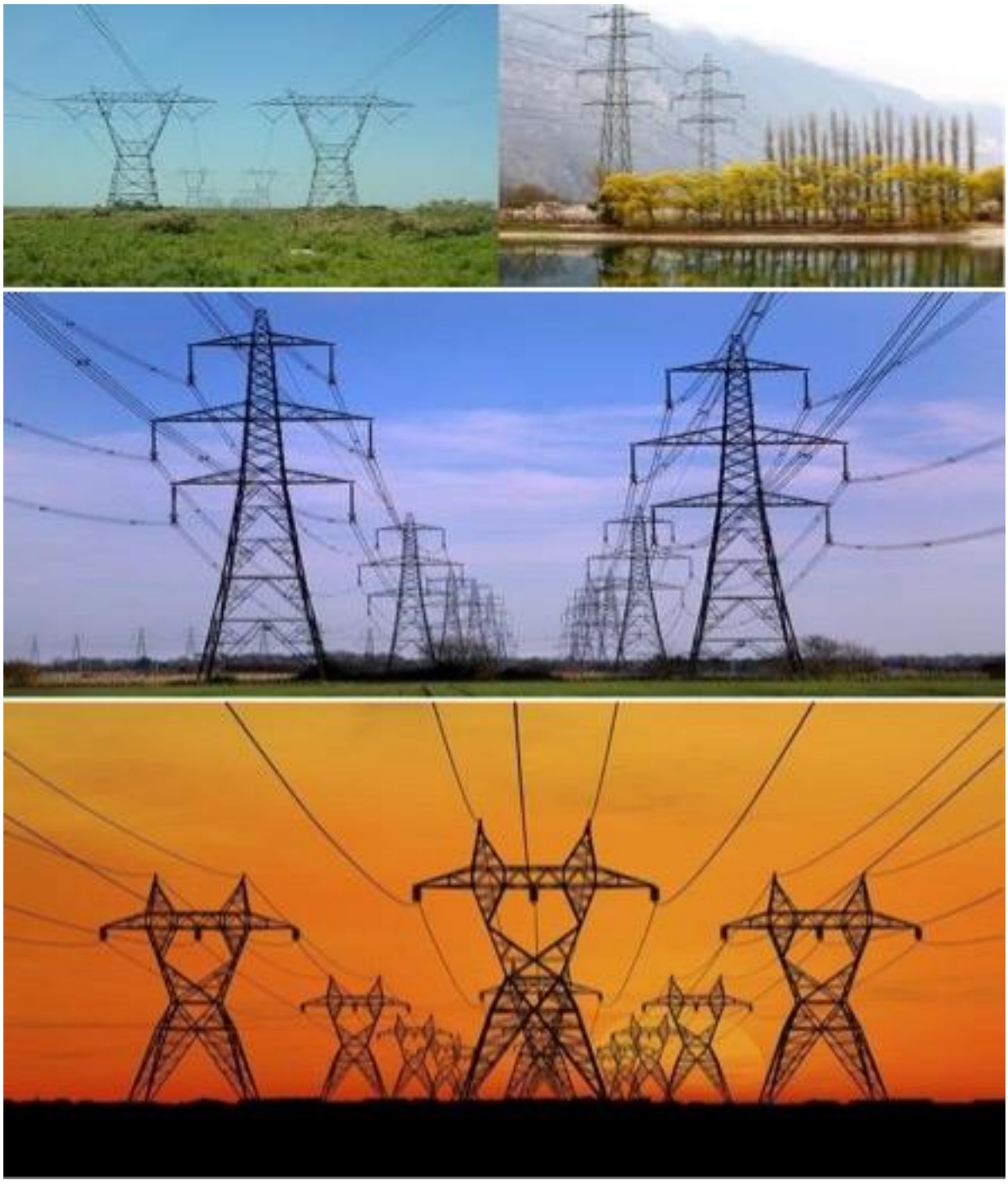
GENERIC ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr) FOR THE DEVELOPMENT AND EXPANSION OF FOR OVERHEAD ELECTRICITY TRANSMISSION AND DISTRIBUTION OF ELECTRICITY



environmental affairs
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Environmental Affairs
REPUBLIC OF SOUTH AFRICA

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INTRODUCTION

1. Background

The National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) requires that an environmental management programme (EMPr) be submitted where an environmental impact assessment (EIA) has been identified as the environmental instrument to be utilised as the basis for a decision on an application for environmental authorisation (EA). The content of an EMPr must either contain the information set out in Appendix 4 of the Environmental Impact Assessment Regulations, 2014, as amended (EIA Regulations) or must be a generic EMPr relevant to an application as identified and gazetted by the Minister in a government notice. Once the Minister has identified, through a government notice that a generic EMPr is relevant to an application for EA, that generic EMPr must be applied by all parties involved in the EA process, including but not limited to the applicant and the competent authority (CA).

2. Purpose

This document constitutes a generic EMPr relevant to applications for the development or expansion of substation infrastructure for the transmission and distribution of electricity, and all listed and specified activities necessary for the realisation of such infrastructure.

3. Objective

The objective of this generic EMPr is to prescribe and pre-approve generally accepted impact management outcomes and impact management actions, which can commonly and repeatedly be used for the avoidance, management and mitigation of impacts and risks associated with the development or expansion of substation infrastructure for the transmission and distribution of electricity. The use of a generic EMPr is intended to reduce the need to prepare and review individual EMPrs for applications of a similar nature.

4. Scope

The scope of this generic EMPr applies to the development or expansion of substation infrastructure for the transmission and distribution of electricity requiring EA in terms of NEMA. This generic EMPr applies to activities requiring EA, mainly activity 11 and 47 of the Environmental Impact Assessment Regulations Listing Notice 1 of 2014, as amended, and activity 9 of the Environmental Impact Assessment Regulations Listing Notice 2 of 2014, as amended, and all associated listed or specified activities necessary for the realization of such infrastructure.

5. Structure of this document

This document is structured in three parts with an Appendix as indicated in the table below:

Part	Section	Heading	Content
A		Provides general guidance and information and is **not legally binding**	Definitions, acronyms, roles & responsibilities and documentation and reporting.
B	1	Pre-approved generic EMPr template	Contains generally accepted impact management outcomes and impact management actions required for the avoidance, management and mitigation of impacts and risks associated with the

Part	Section	Heading	Content
			development or expansion of substation infrastructure for the transmission and distribution of electricity, which are presented in the form of a template that has been pre-approved. The template in this section is to be completed by the contractor, with each completed page signed and dated by the holder of the EA prior to commencement of the activity. Where an impact management outcome is not relevant, the words “not applicable” can be inserted in the template under the “responsible persons” column. Once completed and signed, the template represents the EMPr for the activity approved by the CA and is legally binding. The template **is not required** to be submitted to the CA as once the generic EMPr is gazetted for implementation, it has been approved by the CA. To allow interested and affected parties access to the pre-approved EMPr template for consideration through the decision-making process, the EAP on behalf of the applicant /proponent must make the hard copy of this EMPr available at a public location and where the applicant has a website, the EMPr should also be made available on such publicly accessible website.
	2	Site specific information	Contains preliminary infrastructure layout and a declaration that the applicant/holder of the EA will comply with the pre-approved generic EMPr template contained in Part B: Section 1 and understands that the impact management outcomes and impact management actions are **legally binding**. The preliminary infrastructure layout must be finalized to inform the final EMPr that is to be submitted with the basic assessment report (BAR) or environmental impact assessment report (EIAR), ensuring that all impact management outcomes and impact management actions have been either pre-approved or approved in terms of Part C. This section **must be** submitted to the CA together with the final BAR or EIAR. The information submitted to the CA will be considered to be incomplete should a signed copy of Part B: section 2 not be submitted. Once approved, this Section

Part	Section	Heading	Content
			forms part of the EMPr for the development and is legally binding.
C		Site specific sensitivities/ attributes	If any specific environmental sensitivities/ attributes are present on the site which require site specific impact management outcomes and impact management actions, not included in the pre-approved generic EMPr, to manage impacts, these specific impact management outcomes and impact management actions must be included in this section. These specific environmental attributes must be referenced spatially and impact management outcomes and impact management actions must be provided. These specific impact management outcomes and impact management actions must be presented in the format of the pre-approved EMPr template (Part B: section 1) This section will not be required should the site contain no specific environmental sensitivities or attributes. However, if Part C is applicable to the site, it **is required** to be submitted together with the BAR or EIAR, for consideration of, and decision on, the application for EA. The information in this section must be prepared by an EAP and must contain his/her name and expertise including a curriculum vitae. Once approved, Part C forms part of the EMPr for the site and is legally binding. This section applies only **to additional** impact management outcomes and impact management actions that are necessary for the avoidance, management and mitigation of impacts and risks associated with the specific development or expansion and which are not already included in Part B: section 1.
Appendix 1			Contains the method statements to be prepared prior to commencement of the activity. The method statements are **not required** to be submitted to the competent authority.

6. Completion of Part B: section 1: the pre-approved generic EMPr template

The template is to be completed prior to commencement of the activity, by providing the following information for each environmental impact management action:

- For implementation
  - a 'responsible person',

- a method for implementation,
- a timeframe for implementation

- For monitoring
  - a responsible person
  - frequency
  - evidence of compliance.

The completed template must be signed and dated by the holder of the EA prior to commencement of the activity. The method statements prepared and agreed to by the holder of the EA must be appended to the template as Appendix 1. Each method statement must be signed and dated on each page by the holder of the EA. This template once signed and dated is legally binding. The holder of the EA will remain responsible for its implementation.

7. Amendments of the impact management outcomes and impact management actions

Once the activity has commenced, a holder of an EA may make amendments to the impact management outcomes and impact management actions in the following manner:

- Amendment of the impact management outcomes: in line with the process contemplated in Regulation 37 of the EIA Regulations; and
- Amendment of the impact management actions: in line with the process contemplated in Regulation 36 of the EIA Regulations.

8. Documents to be submitted as part of part B: section 2 site specific information and declaration

Part B: Section 2 has three distinct sub-sections. The first and third sub-sections are in a template format. Sub-section two requires a map to be produced.

Sub-section 1 contains the project name, the applicant's name and contact details, the site information, which includes coordinates of the property or farm in which the proposed substation infrastructure is proposed as well as the 21-digit Surveyor General code of each cadastral land parcel and, where available, the farm name.

Sub-section 2 is to be prepared by an EAP and must contain his/her name and expertise including a curriculum vitae. This sub-section must include a map of the site sensitivity overlaid with the preliminary infrastructure layout using the national web based environmental screening tool, when available for compulsory use at: https://screening.environment.gov.za/screeningtool. The sensitivity map shall identify the nature of each sensitive feature e.g. threatened plant species, archaeological site, etc. Sensitivity maps shall identify features both within the planned working area and any known sensitive features and within 50 m from the development footprint.

Sub-section 3 is the declaration that the applicant (s)/proponent (s) or holder of the EA in the case of a change of ownership must complete which confirms that the applicant/EA holder will comply with the pre-approved 'generic EMPr' template in Section 1 and understands that the impact management outcomes and impact management actions are legally binding.

a) Amendments to Part B: Section 2 – site specific information and declaration

Should the EA be transferred, Part B: Section 2 must be completed by the new applicant/proponent and submitted with the application for an amendment of the EA in terms of regulations 29 or 31 of the EIA Regulations, whichever applies. The information submitted as part of such an application for an amendment to an EA will be considered to be incomplete should a signed copy of Part B: Section 2

not be submitted. Once approved, Part B: Section 2 forms part of the EMPr for the development and the EMPr becomes legally binding to the new EA holder.

PART A – GENERAL INFORMATION

1. DEFINITIONS

In this EMPr any word or expression to which a meaning has been assigned in the NEMA or EIA Regulations has that meaning, and unless the context requires otherwise –

"clearing" means the clearing and removal of vegetation, whether partially or in whole, including trees and shrubs, as specified;

"construction camp" is the area designated for key construction infrastructure and services, including but not limited to offices, overnight vehicle parking areas, stores, the workshop, stockpile and lay down areas, hazardous storage areas (including fuels), the batching plant (if one is located at the construction camp), designated access routes, equipment cleaning areas and the placement of staff accommodation, cooking and ablution facilities, waste and wastewater management;

"contractor" - The Contractor has overall responsibility for ensuring that all work, activities, and actions linked to the delivery of the contract, are in line with the Environmental Management Programme and that Method Statements are implemented as described.

"**hazardous substance**" is a substance governed by the Hazardous Substances Act, 1973 (Act No. 15 of 1973) as well as the Hazardous Chemical and Substances Regulations, 1995;

"method statement" means a written submission by the Contractor to the Project Manager in response to this EMPr or a request by the Project Manager and ECO. The method statement must set out the equipment, materials, labour and method(s) the Contractor proposes using to carry out an activity identified by the Project Manager when requesting the Method Statement. This must be done in such detail that the Project Manager and ECO is able to assess whether the Contractor's proposal is in accordance with this specification and/or will produce results in accordance with this specification;

The method statement must cover as a minimum applicable details with regard to:

(i) Construction procedures;
(ii) Plant, materials and equipment to be used;
(iii) Transporting the equipment to and from site;
(iv) How the plant/ material/ equipment will be moved while on site;
(v) How and where the plant/ material/ equipment will be stored;
(vi) The containment (or action to be taken if containment is not possible) of leaks or spills of any liquid or material that may occur;
(vii) Timing and location of activities;
(viii) Compliance/ non-compliance; and
(ix) Any other information deemed necessary by the Project Manager.

"slope" means the inclination of a surface expressed as one unit of rise or fall for so many horizontal units;

"solid waste" means all solid waste, including construction debris, hazardous waste, excess cement/ concrete, wrapping materials, timber, cans, drums, wire, nails, food and domestic waste (e.g. plastic packets and wrappers);

"spoil" means excavated material which is unsuitable for use as material in the construction works or is material which is surplus to the requirements of the construction works;

"topsoil" means a varying depth (up to 300 mm) of the soil profile irrespective of the fertility, appearance, structure, agricultural potential, fertility and composition of the soil;

"works" means the works to be executed in terms of the Contract

2. ACRONYMS and ABBREVIATIONS

CA	Competent Authority
cEO	Contractors Environmental Officer
dEO	Developer Environmental Officer
DPM	Developer Project Manager
DSS	Developer Site Supervisor
EAR	Environmental Audit Report
ECA	Environmental Conservation Act No. 73 of 1989
ECO	Environmental Control Officer
EA	Environmental Authorisation
EIA	Environmental Impact Assessment
ERAP	Emergency Response Action Plan
EMPr	Environmental Management Programme Report
EAP	Environmental Assessment Practitioner
FPA	Fire Protection Agency
HCS	Hazardous chemical Substance
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)
NEMBA	National Environmental Management: Biodiversity Act ,2004 (Act No. 10 of 2004)
NEMWA	National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)
MSDS	Material Safety Data Sheet
RI&AP's	Registered Interested and affected parties

3. ROLES AND RESPONSIBILITIES FOR ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr) IMPLEMENTATION

The effective implementation of this generic EMPr is dependent on established and clear roles, responsibilities and reporting lines within an institutional framework. This section of the EMPr gives guidance to the various environmental roles and reporting lines, however, project specific requirements will ultimately determine the need for the appointment of specific person(s) to undertake specific roles and or responsibilities. As such, it must be noted that in the event that no specific person, for example, an environmental control officer (ECO) is appointed, the holder of the EA remains responsible for ensuring that the duties indicated in this document for action by the ECO are undertaken.

Table 1: *Guide to roles and responsibilities for implementation of an EMPr*

Responsible Person(s)	**Role and Responsibilities**
Developer's Project Manager (DPM)	Role The Project Developer is accountable for ensuring compliance with the EMPr and any conditions of approval from the competent authority (CA). Where required, an environmental control officer (ECO) must be contracted by the Project Developer to objectively monitor the implementation of the EMPr according to relevant environmental legislation, and the conditions of the environmental authorisation (EA). The Project Developer is further responsible for providing and giving mandate to enable the ECO to perform responsibilities, and he must ensure that the ECO is integrated as part of the project team while remaining independent. Responsibilities - Be fully conversant with the conditions of the EA; - Ensure that all stipulations within the EMPr are communicated and adhered to by the Developer and its Contractor(s); - Issuing of site instructions to the Contractor for corrective actions required; - Monitor the implementation of the EMPr throughout the project by means of site inspections and meetings. Overall management of the project and EMPr implementation; and - Ensure that periodic environmental performance audits are undertaken on the project implementation.
Developer Site Supervisor (DSS)	Role The DSS reports directly to the DPM, oversees site work, liaises with the contractor(s) and the ECO. The DSS is responsible for the day-to-day implementation of the EMPr and for ensuring the compliance of all contractors with the conditions and requirements stipulated in the EMPr.

Responsible Person(s)	Role and Responsibilities
	<u>Responsibilities</u> - Ensure that all contractors identify a contractor's Environmental Officer (cEO); - Must be fully conversant with the conditions of the EA. Oversees site works, liaison with Contractor, DPM and ECO; - Must ensure that all landowners have the relevant contact details of the site staff, ECO and cEO; - Issuing of site instructions to the Contractor for corrective actions required; - Will issue all non-compliances to contractors; and - Ratify the Monthly Environmental Report.
Environmental Control Officer (ECO)	<u>Role</u> The ECO should have appropriate training and experience in the implementation of environmental management specifications. The primary role of the ECO is to act as an independent quality controller and monitoring agent regarding all environmental concerns and associated environmental impacts. In this respect, the ECO is to conduct periodic site inspections, attend regular site meetings, pre-empt problems and suggest mitigation and be available to advise on incidental issues that arise. The ECO is also required to conduct compliance audits, verifying the monitoring reports submitted by the cEO. The ECO provides feedback to the DSS and Project Manager regarding all environmental matters. The Contractor, cEO and dEO are answerable to the Environmental Control Officer for non-compliance with the Performance Specifications as set out in the EA and EMPr. The ECO provides feedback to the DSS and Project Manager, who in turn reports back to the Contractor and potential and Registered Interested &Affected Parties' (RI&AP's), as required. Issues of non-compliance raised by the ECO must be taken up by the Project Manager and resolved with the Contractor as per the conditions of his contract. Decisions regarding environmental procedures, specifications and requirements which have a cost implication (i.e. those that are deemed to be a variation, not allowed for in the Performance Specification) must be endorsed by the Project Manager. The ECO must also, as specified by the EA, report to the relevant CA as and when required. <u>Responsibilities</u> The responsibilities of the ECO will include the following: - Be aware of the findings and conclusions of all EA related to the development; - Be familiar with the recommendations and mitigation measures of this EMPr;

Responsible Person(s)	Role and Responsibilities
	- Be conversant with relevant environmental legislation, policies and procedures, and ensure compliance with them; - Undertake regular and comprehensive site inspections / audits of the construction site according to the generic EMPr and applicable licenses in order to monitor compliance as required; - Educate the construction team about the management measures contained in the EMPr and environmental licenses; - Compilation and administration of an environmental monitoring plan to ensure that the environmental management measures are implemented and are effective; - Monitoring the performance of the Contractors and ensuring compliance with the EMPr and associated Method Statements; - In consultation with the Developer Site Supervisor order the removal of person(s) and/or equipment which are in contravention of the specifications of the EMPr and/or environmental licenses; - Liaison between the DPM, Contractors, authorities and other lead stakeholders on all environmental concerns; - Compile a regular environmental audit report highlighting any non-compliance issues as well as satisfactory or exceptional compliance with the EMPr; - Validating the regular site inspection reports, which are to be prepared by the contractor Environmental Officer (cEO); - Checking the cEO's record of environmental incidents (spills, impacts, legal transgressions etc.) as well as corrective and preventive actions taken; - Checking the cEO's public complaints register in which all complaints are recorded, as well as action taken; - Assisting in the resolution of conflicts; - Facilitate training for all personnel on the site – this may range from carrying out the training, to reviewing the training programmes of the Contractor; - In case of non-compliances, the ECO must first communicate this to the Senior Site Supervisor, who has the power to ensure this matter is addressed. Should no action or insufficient action be taken, the ECO may report this matter to the authorities as non-compliance; - Maintenance, update and review of the EMPr; - Communication of all modifications to the EMPr to the relevant stakeholders.
developer Environmental Officer (dEO)	<u>Role</u> The dEOs will report to the Project Manager and are responsible for implementation of the EMPr, environmental

Responsible Person(s)	Role and Responsibilities
	monitoring and reporting, providing environmental input to the Project Manager and Contractor's Manager, liaising with contractors and the landowners as well as a range of environmental coordination responsibilities. <u>Responsibilities</u> - Be fully conversant with the EMPr; - Be familiar with the recommendations and mitigation measures of this EMPr, and implement these measures; - Ensure that all stipulations within the EMPr are communicated and adhered to by the Employees, Contractor(s); - Confine the development site to the demarcated area; - Conduct environmental internal audits with regards to EMPr and authorisation compliance (on CEO); - Assist the contractors in addressing environmental challenges on site; - Assist in incident management: - Reporting environmental incidents to developer and ensuring that corrective action is taken, and lessons learnt shared; - Assist the contractor in investigating environmental incidents and compile investigation reports; - Follow-up on pre-warnings, defects, non-conformance reports; - Measure and communicate environmental performance to the Contractor; - Conduct environmental awareness training on site together with ECO and CEO; - Ensure that the necessary legal permits and / or licenses are in place and up to date; and - Acting as Developer's Environmental Representative on site and working together with the ECO and contractor.
Contractor	<u>Role</u> The Contractor appoints the cEO and has overall responsibility for ensuring that all work, activities, and actions linked to the delivery of the contract are in line with the EMPr and that Method Statements are implemented as described. External contractors must ensure compliance with this EMPr while performing the onsite activities as per their contract with the Project Developer. The contractors are required, where specified, to provide Method Statements setting out in detail how the impact management actions contained in the EMPr will be implemented during the development or expansion of substation infrastructure for the transmission and distribution of electricity activities.

Responsible Person(s)	Role and Responsibilities
	Responsibilities - project delivery and quality control for the development services as per appointment; - employ a suitably qualified person to monitor and report to the Project Developer's appointed person on the daily activities on-site during the construction period; - ensure that safe, environmentally acceptable working methods and practices are implemented and that equipment is properly operated and maintained, to facilitate proper access and enable any operation to be carried out safely; - attend on site meeting(s) prior to the commencement of activities to confirm the procedure and designated activity zones; - ensure that contractors' staff repair, at their own cost, any environmental damage as a result of a contravention of the specifications contained in EMPr, to the satisfaction of the ECO.
contractor Environmental Officer (cEO)	Role Each Contractor affected by the EMPr should appoint a CEO, who is responsible for the on-site implementation of the EMPr (or relevant sections of the EMPr). The Contractor's representative can be the site agent; site engineer; a dedicated environmental officer; or an independent consultant. The Contractor must ensure that the Contractor's Representative is suitably qualified to perform the necessary tasks and is appointed at a level such that she/he can interact effectively with other site Contractors, laborer's, the Environmental Control Officer and the public. As a minimum the CEO shall meet the following criteria: Responsibilities - Be on site throughout the duration of the project and be dedicated to the project; - Ensure all their staff are aware of the environmental requirements, conditions and constraints with respect to all of their activities on site; - Implementing the environmental conditions, guidelines and requirements as stipulated within the EA, EMPr and Method Statements; - Attend the Environmental Site Meeting; - Undertaking corrective actions where non-compliances are registered within the stipulated timeframes; - Report back formally on the completion of corrective actions; - Assist the ECO in maintaining all the site documentation; - Prepare the site inspection reports and corrective action reports for submission to the ECO;

Responsible Person(s)	Role and Responsibilities
	- Assist the ECO with the preparing of the monthly report; and - Where more than one Contractor is undertaking work on site, each company appointed as a Contractor will appoint a CEO representing that company.

4. ENVIRONMENTAL DOCUMENTATION REPORTING AND COMPLIANCE

To ensure accountable and demonstrated implementation of the EMPr, a number of reporting systems, documentation controls and compliance mechanisms must be in place for all substation infrastructure projects as a minimum requirement.

4.1 Document control/Filing system

The holder of the EA is solely responsible for the upkeep and management of the EMPr file. As a minimum, all documentation detailed below will be stored in the EMPr file. A hard copy of all documentation shall be filed, while an electronic copy may be kept where relevant. A duplicate file will be maintained in the office of the DSS (where applicable). This duplicate file must remain current and up-to-date. The filing system must be updated and relevant documents added as required. The EMPr file must be made available at all times on request by the CA or other relevant authorities. The EMPr file will form part of any environmental audits undertaken as prescribed in the EIA Regulations.

4.2 Documentation to be available

At the outset of the project the following preliminary list of documents shall be placed in the filing system and be accessible at all times:

- Full copy of the signed EA from the CA in terms of NEMA, granting approval for the development or expansion;
- Copy of the generic and site specific EMPr as well as any amendments thereof;
- Copy of declaration of implementing generic EMPr and subsequent approval of site specific EMPr and amendments thereof;
- All method statements;
- Completed environmental checklists;
- Minutes and attendance register of environmental site meetings;
- An up-to-date environmental incident log;
- A copy of all instructions or directives issued;
- A copy of all corrective actions signed off. The corrective actions must be filed in such a way that a clear reference is made to the non-compliance record;
- Complaints register.

4.3 Weekly Environmental Checklist

The ECOs are required to complete a Weekly Environmental Checklist, the format of which is to be agreed prior to commencement of the activity. The ECOs are required to sign and date the checklist, retain a copy in the EMPr file and submit a copy of the completed checklist to the DSS on a weekly basis.

The checklists will form the basis for the Monthly Environmental Reports. Copies of all completed checklists will be attached as Annexures to the Environmental Audit Report as required in terms of the EIA Regulations.

4.4 Environmental site meetings

Minutes of the environmental site meetings shall be kept. The minutes must include an attendance register and will be attached to the Monthly Report that is distributed to attendees. Each set of minutes must clearly record “Matters for Attention” that will be reviewed at the next meeting.

4.5 Required Method Statements

The method statement will be done in such detail that the ECOs are enabled to assess whether the contractor's proposal is in accordance with the EMPr.

The method statement must cover applicable details with regard to:

- development procedures;
- materials and equipment to be used;
- getting the equipment to and from site;
- how the equipment/ material will be moved while on site;
- how and where material will be stored;
- the containment (or action to be taken if containment is not possible) of leaks or spills of any liquid or material that may occur;
- timing and location of activities;
- compliance/ non-compliance with the EMPr; and
- any other information deemed necessary by the ECOs.

Unless indicated otherwise by the Project Manager, the Contractor shall provide the following method statements to the Project Manager no less than 14 days prior to the commencement date of the activity:

- Site establishment – Camps, Lay-down or storage areas, satellite camps, infrastructure;
- Batch plants;
- Workshop or plant servicing;
- Handling, transport and storage of Hazardous Chemical Substance’s;
- Vegetation management – Protected, clearing, aliens, felling;
- Access management – Roads, gates, crossings etc.;
- Fire plan;
- Waste management – transport, storage, segregation, classification, disposal (all waste streams);
- Social interaction – complaints management, compensation claims, access to properties etc.;
- Water – use (source, abstraction and disposal), access and all related information, crossings and mitigation;
- Emergency preparedness – Spills, training, other environmental emergencies;
- Dust and noise management methodologies;
- Fauna interaction and risk management – only if the risk was identified – wildlife interaction especially on game farms; and
- Heritage and palaeontology management.

The ECOs shall monitor and ensure that the contractors perform in accordance with these method statements. Completed and agreed method statements between the holder of the EA and the contractor shall be captured in Appendix 1.

4.6 Environmental Incident Log (Diary)

The ECOs are required to maintain an up-to-date and current Environmental Incident Log (environmental diary). The Environmental Incident Log is a means to record all environmental incidents and/or all non-compliance notice would not be issued. An environmental incident is defined as:

- Any deviation from the listed impact management actions (listed in this EMPr) that may be addressed immediately by the ECOs. (For example a contractor's staff member littering or a drip tray that has not been emptied);
- Any environmental impact resulting from an action or activity by a contractor in contravention of the environmental stipulations and guidelines listed in the EMPr which as a single event would have a minor impact but which if cumulative and continuous would have a significant effect (for example no toilet paper available in the ablutions for an afternoon); and
- General environmental information such as road kills or injured wildlife.

The ECOs are to record all environmental incidents in the Environmental Incident Log. All incidents regardless of severity must be reported to the Developer. The Log is to be kept in the EMPr file and at a minimum the following will be recorded for each environmental incident:

- The date and time of the incident;
- Description of the incident;
- The name of the Contractor responsible;
- The incident must be listed as significant or minor;
- If the incident is listed as significant, a non-compliance notice must be issued, and recorded in the log;
- Remedial or corrective action taken to mitigate the incident; and
- Record of repeat minor offences by the same contractor or staff member.

The Environmental Incident Log will be captured in the EAR.

4.7 Non-compliance

A non-compliance notice will be issued to the responsible contractor by the ECOs via the DSS or Project Manager. The non-compliance notice will be issued in writing; a copy filed in the EMPr file and will at a minimum include the following:

- Time and date of the non-compliance;
- Name of the contractor responsible;
- Nature and description of the non-compliance;
- Recommended / required corrective action; and
- Date by which the corrective action to be completed.
- The contractors shall act immediately when a notice of non-compliance is received and correct whatever is the cause for the issuing of the notice. Complaints received regarding activities on the development site pertaining to the environment shall be recorded in a dedicated register and the response noted with the date and action taken. The ECO should be made aware of any complaints. Any non-compliance with the agreed procedures of the EMPr is a transgression of the various statutes and laws that define the manner by which the environment is managed. Failure to redress the cause shall be reported to the relevant CA for them to deal with the transgression, as it deems fit. The contractor is deemed not to have complied with the EMPr if, inter alia, There is a deviation from the

environmental conditions, impact management outcomes and impact management actions activities, as approved in generic and site specific EMPr as relevant as set out in the EMPr, which deviation has, or may cause, an environmental impact.

4.8 Corrective action records

For each non-compliance notice issued, a documented corrective action must be recorded. On receiving a non-compliance notice from the DSS, the contractor's cEO will ensure that the corrective actions required take place within the stipulated timeframe. On completion of the corrective action the cEO is to issue a Corrective Action Report in writing to the ECOs. If satisfied that the corrective action has been completed, the ECOs are to sign-off on the Corrective Action Report, and attach the report to the non-compliance notice in the EMPr file. A corrective action is considered complete once the report has signed off by the ECOs.

4.9 Photographic record

A digital photographic record will be kept. The photographic record will be used to show before, during and post rehabilitation evidence of the project as well used in cases of damages claims if they arise. Each image must be dated and a brief description note attached.

The Contractor shall:

1. Allow the ECOs access to take photographs of all areas, activities and actions.

The ECOs shall keep an electronic database of photographic records which will include:

1. Pictures of all areas designated as work areas, camp areas, development sites and storage areas taken before these areas are set up;
2. All bunding and fencing;
3. Road conditions and road verges;
4. Condition of all farm fences;
5. Topsoil storage areas;
6. All areas to be cordoned off during construction;
7. Waste management sites;
8. Ablution facilities (inside and out);
9. Any non-conformances deemed to be "significant";
10. All completed corrective actions for non-compliances;
11. All required signage;
12. Photographic recordings of incidents;
13. All areas before, during and post rehabilitation; and
14. Include relevant photographs in the Final Environmental Audit Report.

4.10 Complaints register

The ECOs shall keep a current and up-to-date complaints register. The complaints register is to be a record of all complaints received from communities, stakeholders and individuals. The Complaints Record shall:

1. Record the name and contact details of the complainant;
2. Record the time and date of the complaint;
3. Contain a detailed description of the complaint;

4. Where relevant and appropriate, contain photographic evidence of the complaint or damage (ECOs to take relevant photographs); and
5. Contain a copy of the ECOs written response to each complaint received and keep a record of any further correspondence with the complainant. The ECO's written response will include a description of any corrective action to be taken and must be signed by the Contractor, ECO and affected party. Where a damage claim is issued by the complainant, the ECOs shall respond as described in (**section 4.11**) below.

4.11 Claims for damages

In the event that a Claim for Damages is submitted by a community, landowner or individual, the ECOs shall:

1. Record the full detail of the complaint as described in (**section 4.10**) above;
2. The DPM will evaluate the claim and associated damage and submit the evaluation to the Senior Site Representative for approval;
3. Following consideration by the DPM, the claim is to be resolved and settled immediately, or the reason for not accepting the claim communicated in writing to the claimant. Should the claimant not accept this, the ECO shall, in writing report the incident to the Developer's negotiator and legal department; and
4. A formal record of the response by the ECOs to the claimant as well as the rectification of the method of making payments not amount will be recorded in the EMPr file.

4.12 Interactions with affected parties

Open, transparent and good relations with affected landowners, communities and regional staff are an essential aspect to the successful management and mitigation of environmental impacts.

The ECOs shall:

1. Ensure that all queries, complaints and claims are dealt within an agreed timeframe;
2. Ensure that any or all agreements are documented, signed by all parties and a record of the agreement kept in the EMPr file;
3. Ensure that a complaints telephone numbers are made available to all landowners and affected parties; and
4. Ensure that contact with affected parties is courteous at all times.

4.13 Environmental audits

Internal environmental audits of the activity and implementation of the EMPr must be undertaken. The findings and outcomes included in the EMPr file and submitted to the CA at intervals as indicated in the EA.

The ECOs must prepare a monthly EAR. The report will be abled as the key point on the agenda of the Environmental Site Meeting. The Report is submitted for acceptance at the meeting and the final report will be circulated to the Project Manager and filed in the EMPr file. At a frequency determined by the EA, the ECOs shall submit the monthly reports to the CA. At a minimum the monthly report is to cover the following:

- Weekly Environmental Checklists;
- Deviations and non-compliances with the checklists;
- Non-compliances issued;

- Completed and reported corrective actions;
- Environmental Monitoring;
- General environmental findings and actions; and
- Minutes of the Bi-monthly Environmental Site Meetings.

4.14 External Environmental Auditing

Environmental audits must be undertaken by an independent environmental consultant to ensure compliance of all aspects of the Environmental Authorization and EMPr.
External Environmental auditing is to take place annually from construction through to decommissioning and including rehabilitation by a qualified external environmental consultant. Compliance with the conditions of the EA as well as the EMPr are to be audited during this time. An external Audit Report is to be compiled by the Environmental Consultant. This report is to be submitted to the Competent Authority within three months from the completion of the on-site audit.

4.15 EMPr Amendments and Instructions

No EMPr amendments shall be allowed without the approval of the DFFE. Amendments may be possible, following discussions with the relevant ECO or environmental consultant, who may propose EMPr amendments on behalf of the developer or issue EMPr instructions, corrective actions, remediation or rehabilitation. These correction actions must be completed within the specified timeframes.

4.16 Final environmental audits

On final completion of the rehabilitation and/or requirements of the EA a final EAR is to be prepared and submitted to the CA. The EAR must comply with Appendix 7 of the EIA Regulations.

PART B: SECTION 1: PRE-APPROVED GENERIC EMPR TEMPLATE

5. IMPACT MANAGEMENT OUTCOMES AND IMPACT MANAGEMENT ACTIONS

This section provides a pre-approved generic EMPr template with aspects that are common to the development of substation infrastructure for the transmission and distribution of electricity. There is a list of aspects identified for the development or expansion of substation infrastructure for the transmission and distribution of electricity, and for each aspect a set of prescribed impact management outcomes and associated impact management actions have been identified. Holders of EAs are responsible to ensure the implementation of these outcomes and actions for all projects as a minimum requirement, in order to mitigate the impact of such aspects identified for the development or expansion of substation infrastructure for the transmission and distribution of electricity.

The template provided below is to be completed by providing the information under each heading for each environmental impact management action.

The completed template must be signed and dated on each page by both the contractor and the holder of the EA prior to commencement of the activity. The method statements prepared and agreed to by the holder of the EA must be appended to the template as Appendix 1. Each method statement must also be duly signed and dated on each page by the contactor and the holder of the EA. This

template, once signed and dated, is legally binding. The holder of the EA will remain responsible for its implementation.

5.1 Environmental awareness training

Impact management outcome: All onsite staff are aware and understands the individual responsibilities in terms of this EMPr.						
Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– All staff must receive environmental awareness training prior to commencement of the activities; – The Contractor must allow for sufficient sessions to train all personnel with no more than 20 personnel attending each course; – Refresher environmental awareness training is available as and when required; – All staff are aware of the conditions and controls linked to the EA and within the EMPr and made aware of their individual roles and responsibilities in achieving compliance with the EA and EMPr; – The Contractor must erect and maintain information posters at key locations on site, and the posters must include the following information as a minimum: a) Safety notifications; and b) No littering. – Environmental awareness training must include as a minimum the following: a) Description of significant environmental impacts, actual or potential, related to their work activities; b) Mitigation measures to be implemented when carrying out specific activities; c) Emergency preparedness and response procedures; d) Emergency procedures; e) Procedures to be followed when working near or within sensitive areas; f) Wastewater management procedures; g) Water usage and conservation; h) Solid waste management procedures;	cEO/ dEO/ ECO/Contractors	• Hold environmental awareness training workshops • Scheduling of sufficient sessions through consultation with the ECO / cEO / dEO • Hold refresher environmental awareness training workshops • Hold training Workshops and ensure that the EA and EMPr is readily available • Develop and place appropriate posters at key locations • Develop environmental	• Pre-Construction/Construction	dEO ECO	Weekly	• Attendance register and training minutes / notes for the record • Attendance register and training minutes / notes for the record Photographic record • Environment al awareness training material requirements checklist and the training register which must indicate the language of the training • Completed and up to date filing system with proof of training

i) Sanitation procedures; j) Fire prevention; and k) Disease prevention. – A record of all environmental awareness training courses undertaken as part of the EMPr must be available; – Educate workers on the dangers of open and/or unattended fires; – A staff attendance register of all staff to have received environmental awareness training must be available. – Course material must be available and presented in appropriate languages that all staff can understand.		awareness training material which covers the minimum requirements • Filing system including all proof of training (i.e. attendance register and training minutes / notes for the record)				• Employee interviews • Contents of induction presentation and toolbox talks • Poster displays.

5.2 Site Establishment development

Impact management outcome: Impacts on the environment are minimised during site establishment and the development footprint are kept to demarcated development area.

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– A method statement must be provided by the contractor prior to any onsite activity that includes the layout of the construction camp in the form of a plan showing the location of key infrastructure and services (where applicable), including but not limited to offices, overnight vehicle parking areas, stores, the workshop, stockpile and lay down areas, hazardous materials storage areas (including fuels), the batching plant (if one is located at the construction camp), designated access routes, equipment cleaning areas and the placement of staff accommodation, cooking and ablution facilities, waste and wastewater management; – Location of camps must be within approved area to ensure that the site does not impact on sensitive areas identified in the environmental	Contractor	• Method statement with layout plan of the construction camp / laydown area. • Place site outside of the sensitive areas and within previously disturbed areas identified in the BA Report. • Design and	Pre-Construction	dEO ECO	Once-off prior to construction	• Availability of the method statement which complies with the minimum requirement listed • Availability of a layout and sensitivity map indicating avoidance of

assessment or site walk through; – Sites must be located where possible on previously disturbed areas; – The camp must be fenced in accordance with ***Section 5.5: Fencing and gate installation***; and – The use of existing accommodation for contractor staff, where possible, is encouraged.		implementation of fencing as per requirements of Section 5.5 of this EMPr.				sensitive area. • The camp is fenced in accordance with Section 5.5 of this EMPr.

5.3 Access restricted areas

Impact management outcome: Access to restricted areas prevented.

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Identification of access restricted areas is to be informed by the environmental assessment, site walk through and any additional areas identified during development; – Erect, demarcate and maintain a temporary barrier with clear signage around the perimeter of any access restricted area, colour coding could be used if appropriate; and – Unauthorised access and development related activity inside access restricted areas is prohibited.	cEO/ dEO/ ECO/Contractors	• Spatially demarcate access restricted areas informed by the BA Report • Erect appropriate temporary barriers around access restricted areas. • Erect appropriate temporary barriers around access restricted areas and provide clear signage of restricted status.	Prior to site establishment	dEO ECO	Monthly and as and when required	• Access restricted areas are identified and provided in a spatial format. • Access restricted areas are closed-off through temporary barriers and barriers are maintained to a sufficient standard. • Photographi

						c evidence and notes of compliance that no unauthorised access or activities has taken place within the access restricted areas.

5.4 Access roads

Impact management outcome: Minimise impact to the environment through the planned and restricted movement of vehicles on site.

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– An access agreement must be formalised and signed by the DPM, Contractor and landowner before commencing with the activities; – All private roads used for access to the servitude must be maintained and upon completion of the works, be left in at least the original condition; – All contractors must be made aware of all these access routes; – Any access route deviation from that in the written agreement must be closed and re-vegetated immediately, at the contractor's expense; – Maximum use of both existing servitudes and existing roads must be made to minimize further disturbance through the development of new roads; – In circumstances where private roads must be used, the condition of the said roads must be recorded in accordance with ***section 4.9: photographic record***; prior to use and the condition thereof agreed by	DPM, Contractor	• Develop access agreements with the affected landowners. Ensure that agreements are approved and signed. • Undertake maintenance activities on private roads used for construction as	Pre-construction and Construction	dEO ECO	Weekly	• Access roads used as agreed • Availability of approved and signed negotiations. • Photographic record and proof of the road conditions agreed upon

the landowner, the DPM, and the contractor; – Access roads in flattish areas must follow fence lines and tree belts to avoid fragmentation of vegetated areas or croplands; and – Access roads must only be developed on a pre-planned and approved roads.		degradation takes place. • Develop a map illustrating all access routes associated with the project and present and provide the map to all contractors. • All access routes developed that are not in-line with the access route agreements must be closed and rehabilitated to the pre- disturbance state. • Existing access routes to be used must be specified and the development of new roads must be avoided as far as possible. • Record the conditions of private roads to be used (prior to use) as per requirements of section 4.9 and agree on the required condition of the roads with				with the relevant parties. • Implementation of the approved layout.

		the landowner, • DPM and contractor. • Design access roads to follow fence lines and avoid vegetated areas. • Construction of access roads only on pre-planned and approved access roads.				

5.5 Fencing and Gate installation

Impact management outcome: Minimise impact on the environment and ensure safe and controlled access to the site through the erection of fencing and gates where required.

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Use existing gates provided to gain access to all parts of the area authorised for development, where possible; – Existing and new gates to be recorded and documented in accordance with **section *4.9: photographic record***; – All gates must be fitted with locks and be kept locked at all times during the development phase, unless otherwise agreed with the landowner; – At points where the line crosses a fence in which there is no suitable gate within the extent of the line servitude, on the instruction of the DPM, a gate must be installed at the approval of the landowner;	DSS/ cEO/ Contractor	• Identify and inform all relevant staff of the existing gates to be used • Existing and new gates will be recorded and documented as per the	During Construction	dEO ECO	Weekly	• Existing gates are utilized on a frequent basis and only limited new access gates are developed

– Care must be taken that the gates must be so erected that there is a gap of no more than 100 mm between the bottom of the gate and the ground; – Where gates are installed in jackal proof fencing, a suitable reinforced concrete sill must be provided beneath the gate; – Original tension must be maintained in the fence wires; – All gates installed in electrified fencing must be re-electrified; – All demarcation fencing and barriers must be maintained in good working order for the duration of the development activities; – Fencing must be erected around the camp, batching plants, hazardous storage areas, and all designated access restricted areas, where applicable; – Any temporary fencing to restrict the movement of life-stock must only be erected with the permission of the landowner. – All fencing must be developed of high-quality material bearing the SABS mark; – The use of razor wire as fencing must be avoided; – Fenced areas with gate access must remain locked after hours, during weekends and on holidays if staff is away from site. Site security will be required at all times; – On completion of the development phase all temporary fences are to be removed; and The contractor must ensure that all fence uprights are appropriately removed, ensuring that no uprights are cut at ground level but rather removed **completely**.		requirements of section 4.9 • Ensure all relevant gates are fitted with locks and are always locked • Install new gates where required with the approval of the affected landowner. • Install gates in a manner so that there is a gap of no more than 100, between the bottom of the gate and the ground • Maintain original tension of fences through required activities • Electrify gates installed in electrified fencing • Undertake maintenance activities on fences and barriers. • Fence construction				• Photographic record of the existing and new gates as per the requirements of section 4.9 • All gates are locked and no complaints from landowners are received in this regard • New gates installed as per requirement • Gates installed in electrified fencing is electrified • Written approval to be provided by the dEO • Use of high quality materials for fencing approved by SABS

		camps, batching plants, hazardous storage areas and access restricted areas. Avoid sensitive flora. • Obtain written approval from the relevant landowner where temporary fencing is required to restrict livestock movement. • Make use of high quality materials approved by SABS. • Razor wire must not be sourced or used for the erection of fencing Ensure fenced areas are locked as required through the implementation of a formalized process. Appoint a				• Fences erected do not make use of razor wire • No temporary fences associated with the project is present following the completion of the construction phase.

		security company				

5.6 Water Supply Management

Impact management outcome: Undertake responsible water usage**.**						
Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– All abstraction points or bore holes must be registered with the DWS and suitable water meters installed to ensure that the abstracted volumes are measured on a daily basis; – The Contractor must ensure the following: a. The vehicle abstracting water from a river does not enter or cross it and does not operate from within the river; b. No damage occurs to the riverbed or banks and that the abstraction of water does not entail stream diversion activities; and c. All reasonable measures to limit pollution or sedimentation of the downstream watercourse are implemented. – Ensure water conservation is being practiced by: a. Minimising water use during cleaning of equipment; b. Undertaking regular audits of water systems; and c. Including a discussion on water usage and conservation during environmental awareness training. d. The use of grey water is encouraged.	DSS/ cEO/ Contractor	Implement the required water conservation measures throughout onsite construction processes	During Construction	dEO ECO	Monthly, and as and when required	Successful implementati-on of water conservation

5.7 Storm and wastewater management

Impact management outcome: Impacts to the environment caused by storm water and wastewater discharges during construction are avoided.

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Runoff from the cement/ concrete batching areas must be strictly controlled, and contaminated water must be collected, stored and either treated or disposed of off-site, at a location approved by the project manager; – All spillage of oil onto concrete surfaces must be controlled by the use of an approved absorbent material and the used absorbent material disposed of at an appropriate waste disposal facility; – Natural storm water runoff not contaminated during the development and clean water can be discharged directly to watercourses and water bodies, subject to the Project Manager's approval and support by the ECO; – Water that has been contaminated with suspended solids, such as soils and silt, may be released into watercourses or water bodies only once all suspended solids have been removed from the water by settling out these solids in settlement ponds. The release of settled water back into the environment must be subject to the Project Manager's approval and support by the ECO.	DSS cE0	• Installation and maintenance of silt traps. • Use of absor- bent materials at concrete mix- ing areas. • Disposal of con- taminated water at suitable facility.	Ongoing	dEO ECO	Weekly	• Waste disposal records. • No evidence of soil and water contaminatio n. • Silt trap maintained and in use. • No evidence of water contaminatio n from sources on site.

5.8 Solid and hazardous waste management

Impact management outcome: Wastes are appropriately stored, handled and safely disposed of at a recognised waste facility**.**

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of

	person	implementation	implementation	person		compliance
– All measures regarding waste management must be undertaken using an integrated waste management approach; – Sufficient, covered waste collection bins (scavenger and weatherproof) must be provided; – A suitably positioned and clearly demarcated waste collection site must be identified and provided; – The waste collection site must be maintained in a clean and orderly manner; – Waste must be segregated into separate bins and clearly marked for each waste type for recycling and safe disposal; – Staff must be trained in waste segregation; – Bins must be emptied regularly; – General waste produced onsite must be disposed of at registered waste disposal sites/ recycling company; – Hazardous waste must be disposed of at a registered waste disposal site; – Certificates of safe disposal for general, hazardous and recycled waste must be maintained.	DSS/ cEO/ Contractor	• Segregated disposal bins • All waste containers have lids • Waste contractor appointed • Daily to weekly site clean-ups	Ongoing	dEO ECO	Weekly	• Contract with waste contractor • Safe disposal certificates • Employee knowledge and practice of waste segregation • No overflowing bins on site

5.9 Protection of watercourses and estuaries

Impact management outcome: Pollution and contamination of the watercourse environment and or estuary erosion are prevented.

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– All watercourses must be protected from direct or indirect spills of pollutants such as solid waste, sewage, cement, oils, fuels, chemicals, aggregate tailings, wash and contaminated water or organic material resulting from the Contractor's activities;	DSS cEO	• Spill control kits available on site and operators trained to use them	Ongoing	dEO ECO	Weekly	• Spills controlled • Evidence of operators rained in spill

– In the event of a spill, prompt action must be taken to clear the polluted or affected areas; – Where possible, no development equipment must traverse any seasonal or permanent wetland – No return flow into the estuaries must be allowed and no disturbance of the Estuarine functional Zone should occur; – Development of permanent watercourse or estuary crossing must only be undertaken where no alternative access to tower position is available; – There must not be any impact on the long term morphological dynamics of watercourses or estuaries; – Existing crossing points must be favored over the creation of new crossings (including temporary access) – When working in or near any watercourse or estuary, the following environmental controls and consideration must be taken: l) Water levels during the period of construction; m) No altering of the bed, banks, course or characteristics of a watercourse n) During the execution of the works, appropriate measures to prevent pollution and contamination of the riparian environment must be implemented e.g. including ensuring that construction equipment is well maintained; o) Where earthwork is being undertaken in close proximity to any watercourse, slopes must be stabilised using suitable materials, i.e. sandbags or geotextile fabric, to prevent sand and rock from entering the channel; and p) Appropriate rehabilitation and re-vegetation measures for the watercourse banks must be implemented timeously. In this regard, the banks should be appropriately and incrementally stabilised as soon as development allows.		• Spills cleaned promptly to prevent water contamination • Designated and limited crossing points for watercourses • Watercourses to be off-limits for construction				prevention • No evidence of water contamination from site activities • Watercourse crossing points maintained and respected

5.10 Vegetation clearing

Impact management outcome: Vegetation clearing is restricted to the authorised development footprint of the proposed infrastructure.		
Impact Management Actions	**Implementation**	**Monitoring**

	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
General: – Indigenous vegetation which does not interfere with the development must be left undisturbed; – Protected or endangered species may occur on or near the development site. Special care should be taken not to damage such species; – Search, rescue and replanting of all protected and endangered species likely to be damaged during project development must be identified by the relevant specialist and completed prior to any development or clearing; – Permits for removal must be obtained from the relevant CA prior to the cutting or clearing of the affected species, and they must be filed; – The Environmental Audit Report must confirm that all identified species have been rescued and replanted and that the location of replanting is compliant with conditions of approvals; – Trees felled due to construction must be documented and form part of the Environmental Audit Report; – Rivers and watercourses must be kept clear of felled trees, vegetation cuttings and debris; – Only a registered pest control operator may apply herbicides on a commercial basis and commercial application must be carried out under the supervision of a registered pest control operator, supervision of a registered pest control operator or is appropriately trained; – A daily register must be kept of all relevant details of herbicide usage; – No herbicides must be used in estuaries; – All protected species and sensitive vegetation not removed must be clearly marked and such areas fenced off in accordance to ***Section 5.3: Access restricted areas***. Alien invasive vegetation must be removed and disposed of at a recognized licensed waste management facility. – Debris resulting from clearing and pruning must be disposed of at a recognized waste disposal facility, unless the landowners wish to retain the cut vegetation; – In the case of the development of new overhead transmission and	DSS/ cEO/ Contractor	• Areas of natural vegetation not to be disturbed clearly demarcated and protected • Wood removed from the site provided to communities • Plant rescue plan submitted and implemented • On-site area for transplanted species of conservation concern and medicinal plants	Prior to site establishment	dEO ECO	Weekly and as and when required	• No unnecessary clearance of indigenous vegetation is undertaken • Transplanted rare and medicinal plants • Permits for transplanting protected species • Community access to wood removed from the site • No access to protected areas of the site • No evidence of introduction of alien plants • Alien plants controlled • Demarcation and fencing is undertaken in line with the requirements of section 5.3

distribution infrastructures, a one meter “trace-line” must be cut through the vegetation for stringing purposes only and no vehicle access must be cleared along the ”trace-line”. Alternative methods of stringing which limit impact to the environment must always be considered.						

5.11 Protection of fauna

Impact management outcome: Disturbance to fauna is minimised.						
Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– No interference with livestock must occur without the landowner’s written consent and with the landowner or a person representing the landowner being present; – The breeding sites of raptors and other wild birds species must be taken into consideration during the planning of the development programme; – Breeding sites must be kept intact and disturbance to breeding birds must be avoided. Special care must be taken where nestlings or fledglings are present; – Special recommendations of the avian specialist must be adhered to at all times to prevent unnecessary disturbance of birds; – No poaching must be tolerated under any circumstances. All animal dens in close proximity to the works areas must be marked as Access restricted areas; – No deliberate or intentional killing of fauna is allowed; – In areas where snakes are abundant, snake deterrents to be deployed on the pylons to prevent snakes climbing up, being electrocuted and causing power outages; and – No Threatened or Protected species (ToPs) and/or protected fauna as listed according NEMBA (Act No. 10 of 2004), and relevant provincial ordinances may be removed and/or relocated without appropriate	dEO / cEO/ Contractor	• Areas of natural • vegetation that provide habitat for animals not to be disturbed clearly demarcated and protected • Implementation of training to • prohibit hunting	Through Construction	dEO ECO	Weekly	• Written consent provided by the landowner and proof of representation of the landowner during interference • The planning and development programme includes the consideration of breeding sites for wild bird species • Photographic record of intact breeding sites • Photographic record of compliance and

authorisations/permits.						successful implementation of the recommend ed measures • No instances of poaching is reported • Photographic record of the implementation and maintenance of snake deterrents • Permits for removal and / relocation must be kept on file and be readily available

5.12 Protection of heritage resources

Impact management outcome: Impact to heritage resources is minimised.						
Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Identify, demarcate and prevent impact to all known sensitive heritage features on site in accordance with the No-Go procedure in ***Section 5.3: Access restricted areas***; – Carry out general monitoring of excavations for potential fossils, artefacts and material of heritage importance; – All work must cease immediately, if any human remains and/or other	dEO / cEO/ Contractor	• Implement chance finds • procedure immediately upon uncovering	Through construction	dEO ECO	Weekly	• Proof of avoidance of sensitive heritage features through details of avoidance

archaeological, paleontological and historical material are uncovered. Such material, if exposed, must be reported to the nearest museum, archaeologist/ paleontologist (or the South African Police Services), so that a systematic and professional investigation can be undertaken. Sufficient time must be allowed to remove/collect such material before development recommences.		heritage material • Training in chance finds for all employees				and photographic records • Proof of appointment of a suitably qualified specialist and photographic record of the required monitoring by the specialist • Proof of work ceased and the required procedures followed in cases where material is discovered.

5.13 Safety of the public

Impact management outcome: All precautions are taken to minimise the risk of injury, harm or complaints.

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Identify fire hazards, demarcate and restrict public access to these areas as well as notify the local authority of any potential threats e.g. large brush stockpiles, fuels etc.; – All unattended open excavations must be adequately fenced or demarcated; – Adequate protective measures must be implemented to prevent unauthorised access to and climbing of partly constructed towers and	DSS/ cEO/ Contractors	• Maintain access control • Site hazards are clearly demarcated • Barriers at deep excavations	Throughout construction	dEO ECO	Weekly	• Access control is effective – no unauthorised access obtained • Site hazards

protective scaffolding; – Ensure structures vulnerable to high winds are secured; – Maintain an incidents and complaints register in which all incidents or complaints involving the public are logged.		• Incidents and complaints register accessible at site entrance				signage installed and maintained • Excavations fenced

5.14 Sanitation

Impact management outcome: Clean and well-maintained toilet facilities are available to all staff in an effort to minimise the risk of disease and impact to the environment.

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Mobile chemical toilets are installed onsite if no other ablution facilities are available; – The use of ablution facilities and or mobile toilets must be used at all times and no indiscriminate use of the veld for the purposes of ablutions must be permitted under any circumstances; – Where mobile chemical toilets are required, the following must be ensured: a) Toilets are located no closer than 100 m to any watercourse or water body; b) Toilets are secured to the ground to prevent them from toppling due to wind or any other cause; c) No spillage occurs when the toilets are cleaned or emptied and the contents are managed in accordance with the EMPr; d) Toilets have an external closing mechanism and are closed and secured from the outside when not in use to prevent toilet paper from being blown out; e) Toilets are emptied before long weekends and workers holidays, and must be locked after working hours;	Contractor in consultation with the cEO	• Sufficient toilets provided for the number of employees • Mobile chemical toilets must be placed appropriately and in areas that avoid environmental sensitivities • Mobile chemical toilets must be placed appropriately and in areas that avoid environmental	Throughout construction	dEO ECO	Weekly	• Mobile toilets are installed and avoid environment al sensitivities • No evidence on non-compliance identified • Certificates for waste disposal from the licensed waste disposal facility

f) Toilets are serviced regularly and the ECO must inspect toilets to ensure compliance to health standards; and – A copy of the waste disposal certificates must be maintained.		sensitivities Environmental Awareness Training and the consequences of not adhering to the requirement. • The installation of the toilets by the Contractor must be as per the listed requirements • Certificates obtained from the licensed waste disposal facility with the emptying of the toilets must be kept on file				

5.15 Prevention of disease

Impact Management outcome: All necessary precautions linked to the spread of disease are taken.						
Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of

	person	implementation	implementation	person		compliance
– Undertake environmentally-friendly pest control in the camp area; – Ensure that the workforce is sensitized to the effects of sexually transmitted diseases, especially HIV AIDS; – The Contractor must ensure that information posters on AIDS are displayed in the Contractor Camp area; – Information and education relating to sexually transmitted diseases to be made available to both construction workers and local community, where applicable; – Free condoms must be made available to all staff on site at central points; – Medical support must be made available; – Provide access to Voluntary HIV Testing and Counselling Services.	DSS/ cEO/ Cotractors	• Environmentally friendly pest control methods employed • Hand sanitizer available at site entry points and eating areas • Covid temperature and symptom screening for all entries to site. • Implement isolation and testing protocol for any employees suspected of having Covid.	Throughout construction	dEO ECO	Weekly	• Pest control methods are owl-friendly and scavenger friendly • Records of toolbox talks with regards to STDs and Covid • Condoms available in toilets • Posters re STDs and Covid are displayed • Records of Covid screening

5.16 Emergency procedures

Impact management outcome: Emergency procedures are in place to enable a rapid and effective response to all types of environmental emergencies.

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Compile an Emergency Response Action Plan (ERAP) prior to the commencement of the proposed project; – The Emergency Plan must deal with accidents, potential spillages and	Contractor in consultation	• Develop an Emergency Preparedness,	Throughout construction	dEO ECO	Weekly	• Emergency Preparedness , Response and

fires in line with relevant legislation; – All staff must be made aware of emergency procedures as part of environmental awareness training; – The relevant local authority must be made aware of a fire as soon as it starts; – In the event of emergency necessary mitigation measures to contain the spill or leak must be implemented (see ***Hazardous Substances section 5.17***).	with the ECO	Response and Fire Management Plan specific to the project • Develop an Emergency Preparedness, Response and Fire Management Plan specific to the project which covers accidents, potential spillages and fires • Develop environmental awareness training material which covers the relevant emergency procedures • Develop and include a procedure in the Emergency Preparedness, Response and Fire Management Plan for the event of a fire and the procedure to be followed for informing the local authority • Implement the required mitigation				Fire Management Plan compiled • Emergency Preparedness, Response and Fire Management Plan includes required specifications • Environment al awareness training material requirements checklist • The local authority was informed as per the relevant procedure set out in the Emergency Preparedness , Response and Fire Management Plan • The mitigation measures included under Section 5.17 have been adhered to

		measures in the event of a spill or leak as per the requirements of Section 5.17.				

5.17 Hazardous substances

Impact management outcome: Safe storage, handling, use and disposal of hazardous substances.

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– The use and storage of hazardous substances to be minimized and non-hazardous and non-toxic alternatives substituted where possible; – All hazardous substances must be stored in suitable containers as defined in the Method Statement; – Containers must be clearly marked to indicate contents, quantities and safety requirements; – All storage areas must be bunded. The bunded area must be of sufficient capacity to contain a spill / leak from the stored containers; – Bunded areas to be suitably lined with a SABS approved liner; – An Alphabetical Hazardous Chemical Substance (HCS) control sheet must be drawn up and kept up to date on a continuous basis; – All hazardous chemicals that will be used on site must have Material Safety Data Sheets (MSDS); – All employees working with HCS must be trained in the safe use of the substance and according to the safety data sheet; – Employees handling hazardous substances / materials must be aware of the potential impacts and follow appropriate safety measures. Appropriate	DSS/ cEO/ Construction	• Hazardous chemical store aligned with relevant legal requirements. • Bulk chemical containers bunded to 110%. • Hazardous chemicals control sheet maintained. • Legally compliant signage for all chemical hazards.	Throughout construction	dEO ECO	Weekly	• MSDSs for all hazardous chemicals available. • Bunding for bulk containers in good condition. • Training records and knowledge of employees. • Hazardous chemicals control sheet for all

personal protective equipment must be made available; – The Contractor must ensure that diesel and other liquid fuel, oil and hydraulic fluid is stored in appropriate storage tanks or in bowsers; – The tanks/ bowsers must be situated on a smooth impermeable surface (concrete) with a permanent bund. The impermeable lining must extend to the crest of the bund and the volume inside the bund must be 130% of the total capacity of all the storage tanks/ bowsers (110% statutory requirement plus an allowance for rainfall); – The floor of the bund must be sloped, draining to an oil separator; – Provision must be made for refueling at the storage area by protecting the soil with an impermeable groundcover. Where dispensing equipment is used, a drip tray must be used to ensure small spills are contained; – All empty externally dirty drums must be stored on a drip tray or within a bunded area; – No unauthorised access into the hazardous substances storage areas must be permitted; – No smoking must be allowed within the vicinity of the hazardous storage areas; – Adequate fire-fighting equipment must be made available at all hazardous storage areas; – Where refueling away from the dedicated refueling station is required, a mobile refueling unit must be used. Appropriate ground protection such as drip trays must be used; – An appropriately sized spill kit kept onsite relevant to the scale of the activity/s involving the use of hazardous substance must be available at all times; – The responsible operator must have the required training to make use of the spill kit in emergency situations; – An appropriate number of spill kits must be available and must be located in all areas where activities are being undertaken; – In the event of a spill, contaminated soil must be collected in containers and stored in a central location and disposed of according to the National Environmental Management: Waste Act 59 of 2008. Refer to ***Section 5.7*** for procedures concerning ***storm and waste water management*** and **5*.8*** for ***solid and hazardous waste management.***						chemicals on site. • All chemical containers labelled. • No evidence of leakages or spills . • Response / clean-up records available for all spillages • Evidence. of spill response training and spill response drills. • Spill kits available at risk areas and maintained.

5.18 Workshop, equipment maintenance and storage

Impact management outcome: Soil, surface water and groundwater contamination is minimised.

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Where possible and practical all maintenance of vehicles and equipment must take place in the workshop area; – During servicing of vehicles or equipment, especially where emergency repairs are effected outside the workshop area, a suitable drip tray must be used to prevent spills onto the soil. The relevant local authority must be made aware of a fire as soon as it starts; – Leaking equipment must be repaired immediately or be removed from site to facilitate repair; – Workshop areas must be monitored for oil and fuel spills; – Appropriately sized spill kit kept onsite relevant to the scale of the activity taking place must be available; – The workshop area must have a bunded concrete slab that is sloped to facilitate runoff into a collection sump or suitable oil / water separator where maintenance work on vehicles and equipment can be performed; and – Water drainage from the workshop must be contained and managed in accordance Section ***5.7: Storm and wastewater management***.	DSS cEO	• Dedicated vehicle servicing facility with impermeable floor. • Drip trays • Spill kits	Throughout construction	dEO ECO	Weekly	• Drip trays used when needed. • No evidence of oil and fuel spillages . • Training records and knowledge of employees with regards to vehicle maintenance. • Response / cleanup records available for all spillages • Vehicles are well-maintained and do not show evidence of leakages

5.19 Batching plants

Impact management outcome: Minimise spillages and contamination of soil, surface water and groundwater**.**

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Concrete mixing must be carried out on an impermeable surface; – Batching plants areas must be fitted with a containment facility for the collection of cement laden water. – Dirty water from the batching plant must be contained to prevent soil and groundwater contamination – Bagged cement must be stored in an appropriate facility and at least 10 m away from any water courses, gullies and drains; – A washout facility must be provided for washing of concrete associated equipment. Water used for washing must be restricted; – Hardened concrete from the washout facility or concrete mixer can either be reused or disposed of at an appropriate licensed disposal facility; – Empty cement bags must be secured with adequate binding material if these will be temporarily stored on site; – Sand and aggregates containing cement must be kept damp to prevent the generation of dust (Refer to ***Section 5.20: Dust emissions***) – Any excess sand, stone and cement must be removed or reused from site on completion of construction period and disposed at a registered disposal facility; – Temporary fencing must be erected around batching plants in accordance with Section ***5.5: Fencing and gate installation***.	DSS cEO	• Dust suppression methods as directed by the ECO and cEO • Separate topsoil and subsoil during site clearance and stockpile separately • Spread topsoil on the surface after final shaping • Adherence to speed limits by vehicles • Straw stabilization for completed earthworks	Throughout construction	dEO ECO	Weekly	• No evidence of excessive dust generation due to construction • Dust control measures implemented • Vehicles do not speed on site

5.20 Dust emissions

Impact management outcome: Dust prevention measures are applied to minimise the generation of dust.

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Take all reasonable measures to minimise the generation of dust as a result of project development activities to the satisfaction of the ECO; – Removal of vegetation must be avoided until such time as soil stripping is required and similarly exposed surfaces must be re- vegetated or stabilised as soon as is practically possible; – Excavation, handling and transport of erodible materials must be avoided under high wind conditions or when a visible dust plume is present; – During high wind conditions, the ECO must evaluate the situation and make recommendations as to whether dust-damping measures are adequate, or whether working will cease altogether until the wind speed drops to an acceptable level; – Where possible, soil stockpiles must be located in sheltered areas where they are not exposed to the erosive effects of the wind; – Where erosion of stockpiles becomes a problem, erosion control measures must be implemented at the discretion of the ECO; – Vehicle speeds must not exceed 40 km/h along dust roads or 20 km/h when traversing unconsolidated and non-vegetated areas; – Straw stabilisation must be applied at a rate of one bale/10 m² and harrowed into the top 100 mm of top material, for all completed earthworks; – For significant areas of excavation or exposed ground, dust suppression measures must be used to minimise the spread of dust.	DSS cEO	• Dust suppression methods as directed by the ECO and cEO • Separate topsoil and subsoil during site clearance and stockpile separately • Spread topsoil on the surface after final shaping • Adherence to speed limits by vehicles • Straw stabilization for completed earthworks	Throughout construction	dEO ECO	Weekly	• No evidence of excessive dust generation due to construction • Dust control measures implemented • Vehicles do not speed on site

5.21 Blasting

Impact management outcome: Impact to the environment is minimised through a safe blasting practice.		
Impact Management Actions	**Implementation**	**Monitoring**

	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Any blasting activity must be conducted by a suitably licensed blasting contractor; and – Notification of surrounding landowners, emergency services site personnel of blasting activity 24 hours prior to such activity taking place on Site.	DSS cEO	• Method statement by blasting contractor • Use only low impact blasting methods e.g. blasting blankets, micro-charges covering with soil • Inform surrounding communities about planned Blasting Activities	Throughout construction	dEO ECO	Weekly	• No evidence of damage from flyrock • No complaints from neighbouring residents about blasting noise or flyrock

5.22 Noise

Impact Management outcome: Prevent unnecessary noise to the environment by ensuring that noise from development activity is mitigated.						
Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– The Contractor must keep noise level within acceptable limits, Restrict the use of sound amplification equipment for communication and emergency only; – All vehicles and machinery must be fitted with appropriate silencing technology and must be properly maintained; – Any complaints received by the Contractor regarding noise must be	DSS cEO	• Work only during daylight hours • Maintain vehicles in good condition • Staff code of conduct	Throughout construction	dEO ECO	Weekly	• Records of staff code of conduct training • Staff knowledge of code of

recorded and communicated. Where possible or applicable, provide transport to and from the site on a daily basis for construction workers; – Develop a Code of Conduct for the construction phase in terms of behaviour of construction staff. Operating hours as determined by the environmental authorisation are adhered to during the development phase. Where not defined, it must be ensured that development activities must still meet the impact management outcome related to noise management.		developed and communicated				conduct and evidence in their behaviour • No evidence of noise complaints in complaints register

5.23 Fire prevention

Impact management outcome: Prevention of uncontrollable fires.						
Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Designate smoking areas where the fire hazard could be regarded as insignificant; – Firefighting equipment must be available on all vehicles located on site; – The local Fire Protection Agency (FPA) must be informed of construction activities; – Contact numbers for the FPA and emergency services must be communicated in environmental awareness training and displayed at a central location on site; – Two way swop of contact details between ECO and FPA.	DSS cEO	• Designated smoking areas • Services fire-fighting equipment • Emergency numbers for Fire Protection Association displayed	Throughout construction	dEO ECO	Weekly	• Pressure gauges on extinguishers indicate it is • Servicing records for extinguishers show it has been serviced in the past year • Records of fire-fighting training and drills

						• Emergency numbers for Fire Protection • Association displayed

5.24 Stockpiling and stockpile areas

Impact management outcome: Reduce erosion and sedimentation as a result of stockpiling.						
Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– All material that is excavated during the project development phase (either during piling (if required) or earthworks) must be stored appropriately on site in order to minimise impacts to watercourses, watercourses and water bodies; – All stockpiled material must be maintained and kept clear of weeds and alien vegetation growth by undertaking regular weeding and control methods; – Topsoil stockpiles must not exceed 2 m in height; – During periods of strong winds and heavy rain, the stockpiles must be covered with appropriate material (e.g. cloth, tarpaulin etc.); and – Where possible, sandbags (or similar) must be placed at the bases of the stockpiled material in order to prevent erosion of the material.	DSS cEO	• Soil stockpiles maintained and protected to prevent erosion • Covering materials placed on stockpiles to prevent erosion when necessary	Throughout construction	ECO	Weekly	• Excavated material is not stored within sensitive environmental areas • Stockpiled material is maintained sufficiently and is clear of weeds and alien vegetation • Topsoil stockpiles do not exceed 2m in height • Contractor to

						• provide proof of availability of appropriate material to cover stockpiles when required • Contractor to provide proof of availability of sandbags to prevent erosion of stockpiled materials

5.25 Civil works

Impact management outcome: Impact to the environment minimised during civil works to create the substation terrace.

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Where terracing is required, topsoil must be collected and retained for the purpose of re-use later to rehabilitate disturbed areas not covered by yard stone; – Areas to be rehabilitated include terrace embankments and areas outside the high voltage yards; – Where required, all sloped areas must be stabilised to ensure proper rehabilitation is effected and erosion is controlled;	DSS cEO	• Collection and safe storage of topsoil for later use in rehabilitation phase • Regard areas that do not house infrastructure as requiring	During construction	dEO ECO	Weekly	• Visual inspection of topsoil stockpiles for later use • Visual inspection of rehabilitation implementation to ensure

– These areas can be stabilised using design structures or vegetation as specified in the design to prevent erosion of embankments. The contract design specifications must be adhered to and implemented strictly; – Rehabilitation of the disturbed areas must be managed in accordance with ***Section 5.35: Landscaping and rehabilitation***; – All excess spoil generated during terracing activities must be disposed of in an appropriate manner and at a recognised landfill site; and – Spoil can however be used for landscaping purposes and must be covered with a layer of 150 mm topsoil for rehabilitation purposes.		rehabilitation and apply rehabilitation measures to these regions • If required stabilise soil using recognised methods to ensure proper rehabilitation and erosion control • Review and ensure that all rehabilitation measures are implemented in accordance with the requirements of Section 5.35 • Dispose of all excess spoil using appropriate means and at recognised landfill sites. Keep written registers of the disposal conducted • Where spoil is utilised for landscaping purposes implement 150m topsoil layer on top following shaping and compaction to promote rehabilitation • Produce walkdown assessment report that documents				these areas are being rehabilitated • Visual inspection of stabilised soil regions and descriptions of staff of stabilisation method used • Visual inspection of rehabilitation conducted and the degree of conformance with the requirements set out in Section 35.5 of this report • Evidence of disposal slips as applicable kept in the site environmental file • Spoil material used in landscaping is suitably covered with a later of topsoil at least 150mm

		walkdown findings and agreed positions of pylons.				deep

5.26 Excavation of foundation, cable trenching and drainage systems

Impact management outcome: No environmental degradation occurs as a result of excavation of foundation, cable trenching and drainage systems.

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– All excess spoil generated during foundation excavation must be disposed of in an appropriate manner and at a licensed landfill site, if not used for backfilling purposes; – Spoil can however be used for landscaping purposes and must be covered with a layer of 150 mm topsoil for rehabilitation purposes; – Management of equipment for excavation purposes must be undertaken in accordance with ***Section 5.18: Workshop, equipment maintenance and storage***; and – Hazardous substances spills from equipment must be managed in accordance with ***Section 5.17: Hazardous substances***. – Batching of cement to be undertaken in accordance with ***Section 5.19 : Batching plants;*** – Residual cement must be disposed of in accordance with ***Section 5.8: Solid and hazardous waste management.***	DSS cEO	• Use a licensed waste disposal facility for the disposal of excess spoil. • Spoil used for landscaping must be applied as per the listed requirements. • Undertake the management of equipment for excavation as per the requirements of section 5.18. • Undertake the management of hazardous substances spills	During construction	ECO	Once-off	• Certificates obtained for the disposal of excess spoil at a licensed waste disposal facility • Photographic record of spoil used for landscaping purposes as well as feedback from the contractor • Management

		from equipment as per the requirements of section 5.17.				of equipment is undertaken in line with the requirements of section 5.18 • Management of hazardous substances spills from equipment is undertaken in line with the requirements of section 5.17

5.27 Installation of equipment (circuit breakers, current Transformers, Isolators, Insulators, surge arresters, voltage transformers, earth switches)

Impact management outcome: No environmental degradation occurs as a result of installation of equipment.

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Management of dust must be conducted in accordance with Section ***5. 20: Dust emissions***; – Management of equipment used for installation must be conducted in accordance with Section ***5.18: Workshop, equipment maintenance and storage***; – Management hazardous substances and any associated spills must be	DSS cE0	• Undertake the management of dust as per the requirements of section 5.20 • Undertake the management of	During construction	ECO	Monthly	• No evidence of excessive dust generation due to construction • Dust control

conducted in accordance with Section ***5.17: Hazardous substances***; and – Residual solid waste must be recycled or disposed of in accordance with ***Section 5.8: Solid waste and hazardous management***.		equipment used for installation as per the requirements of section 5.18 • Undertake the management of hazardous substances and any associated spills as per the requirements of section 5.17 • Undertake the disposal of residual solid waste as per the requirements of section 5.8				measures implemented • Vehicles do not speed on site • Management of equipment is undertaken in line with the requirements of section 5.18 • Management of hazardous substances spills from equipment is undertaken in line with the requirements of section 5.17

5.28 Steelwork Assembly and Erection

Impact management outcome: No environmental degradation occurs as a result of steelwork assembly and erection.

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– During assembly, care must be taken to ensure that no wasted/unused materials are left on site e.g. bolts and nuts – Emergency repairs due to breakages of equipment must be managed	DSS cE0	• Develop and implement procedures for	During construction	ECO	Monthly	• Implement procedures put in place

in accordance with ***Section 5. 18: Workshop, equipment maintenance and storage*** and ***Section 5.16: Emergency procedures***.		ensuring that no waste/unused materials are left on site. • Undertake the management of equipment used for emergency repairs due to breakages as per the requirements of section 5.18 and 5.16.				and proof thereof from the contractor. • Management of emergency repairs is undertaken in line with the requirements of section 5.18 and 5.16.

5.29 Cabling and Stringing

Impact management outcome: No environmental degradation occurs as a result of stringing.						
Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Residual solid waste (off cuts etc.) shall be recycled or disposed of in accordance with **Section *6.8: Solid waste and hazardous Management***; – Management of equipment used for installation shall be conducted in accordance with **Section 5*.18: Workshop, equipment maintenance and storage***; – Management hazardous substances and any associated spills shall be conducted in accordance with ***Section 5.17: Hazardous substances***.	DSS cEO	• Undertake the disposal of residual solid waste as per the requirements of section 5.8. • Undertake the management of equipment used for installation as per the requirements of	During construction	ECO	Monthly	• The disposal of residual solid waste is undertaken in line with section 5.8. • Management of equipment is undertaken in line with

		section 5.18 • Undertake the management of hazardous substances and any associated spills as per the requirements of section 5.17				the requirements of section 5.18 • Management of hazardous substances spills from equipment is undertaken in line with the requirements of section 5.17

5.30 Testing and Commissioning (all equipment testing, earthing system, system integration)

Impact management outcome: No environmental degradation occurs as a result of Testing and Commissioning.						
Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Residual solid waste must be recycled or disposed of in accordance with ***Section 5.8: Solid waste and hazardous management***.	cE0	Undertake the disposal of residential solid waste as per the requirements of section 5.8.	Construction	**ECO**	**Monthly**	• The disposal of residual solid waste is undertaken in line with section 5.8.

5.31 Socio-economic

Impact management outcome: enhanced socio-economic development.						
Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Develop and implement communication strategies to facilitate public participation; – Develop and implement a collaborative and constructive approach to conflict resolution as part of the external stakeholder engagement process; – Sustain continuous communication and liaison with neighboring owners and residents – Create work and training opportunities for local stakeholders; and – Where feasible, no workers, with the exception of security personnel, must be permitted to stay over-night on the site. This would reduce the risk to local farmers.	dEO / cEO	• Identify and implement appropriate strategies for communication with the communities through consideration of the community needs • Development and implement a Grievance Mechanism which considers the community needs and provides procedures for conflict resolution • Development and implement a Grievance Mechanism which provides procedures for communication / liaison with neighbouring	Pre-construction & Construction	ECO	Monthly	• Communication is undertaken as per the identified strategies and no complaints are submitted regarding communication in line with the requirements of the Grievance Mechanism. • No complaints on conflict resolution is submitted by the community • The “locals first” policy is considered in terms of the employment and training opportunities.

		landowners and residents • Develop and implement a "locals first" policy for the provision of employment opportunities				

5.32 Temporary closure of site

Impact management outcome: Minimise the risk of environmental impact during periods of site closure greater than five days.

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Bunds must be emptied (where applicable) and need to be undertaken in accordance with the impact management actions included in ***sections 5.17: Hazardous substances and 5.18: Workshop, equipment maintenance and storage***; – Hazardous storage areas must be well ventilated; – Fire extinguishers must be serviced and accessible. Service records to be filed and audited at last service; – Emergency and contact details displayed must be displayed; – Security personnel must be briefed and have the facilities to contact or be contacted by relevant management and emergency personnel; – Night hazards such as reflectors, lighting, traffic signage etc. must have been checked; – Fire hazards identified and the local authority must have been notified of any potential threats e.g. large brush stockpiles, fuels etc.; – Structures vulnerable to high winds must be secured; – Wind and dust mitigation must be implemented; – Cement and materials stores must have been secured;	cE0	• Regular emptying of the bunds must be undertaken. This must be undertaken as per the requirements listed in sections 5.17 and 5.18 . • Install appropriate ventilation in all hazardous storage areas • Ensure fire extinguishers are serviced, as required and are easily accessible with appropriate signage indicating	Construction Phase	**ECO**	Prior to site closure	• Bunds are emptied as per the requirements listed under sections 5.17 and 5.18 • Effective ventilation is installed in hazardous storage areas • Signage placed indicating location of fire

– Toilets must have been emptied and secured; – Refuse bins must have been emptied and secured; – Drip trays must have been emptied and secured.		the location. Ensure service records and kept up to date and filed • Place emergency and contact details which are readily available and easily accessible • Hold a workshop with all security personnel to provide a brief of the project and security requirements. Provide facilities in order to contact management and emergency personnel • Regular checks of night hazards must be undertaken • Identify any potential fire hazards and notify the relevant local authority • Ensure structures vulnerable to wind are secure prior to site closure • Implement wind and dust mitigation prior to site closure • Ensure cement and material stores are secure				extinguishers and service records • Photographic proof of contact details on display • Proof of the workshop held must be kept on file by the contractor. • Proof of checks of night hazards must be provided by the contractor • Proof of notification of the fire hazards to the local authority must be provided by the Contractor • Structures vulnerable to wind are secured prior to site closure • Wind and dust mitigation is

		prior to site closure • Ensure refuse bins are emptied and secured prior to site closure •				implemented prior to site closure • Toilets are emptied and secured prior to site closure • Refuse bins are emptied and secured prior to site closure • Drip trays are emptied and secured prior to site closure

5.33 Dismantling of old equipment

Impact management outcome: Impact to the environment to be minimised during the dismantling, storage and disposal of old equipment commissioning.

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– All old equipment removed during the project must be stored in such a way as to prevent pollution of the environment; – Oil containing equipment must be stored to prevent leaking or be stored on drip trays; – All scrap steel must be stacked neatly and any disused and broken insulators must be stored in containers; – Once material has been scrapped and the contract has been placed for removal, the disposal Contractor must ensure that any equipment	cE0	• Design and implement procedures for removal of old equipment to prevent environmental pollution • Design and	During Construction	**ECO**	**Monthly**	• Implementation of procedures put in place and proof thereof from the contractor. • Scrap steel

containing pollution causing substances is dismantled and transported in such a way as to prevent spillage and pollution of the environment; – The Contractor must also be equipped to contain and clean up any pollution causing spills; and – Disposal of unusable material must be at a licensed waste disposal site.		implement procedures for storing oil containing equipment to prevent leaking. • Ensure that scrap steel is stacked neatly and broken/disused insulators are stored in containers. • Design and implement procedures to ensure that any equipment containing pollution causing substances is dismantled and transported in such a way as to prevent spillage and pollution of the environment • Design and Implement procedures that ensures that any pollution causing spills are contained and cleaned up. • Ensure that unusable material is disposed of at a licensed waste disposal site				must be stacked neatly and broken/disuse d insulators are stored in containers. • Implementation of procedures to ensure any equipment containing pollution causing substances is dismantled and transported in such a way as to prevent spillage and pollution of the environment and proof to be provided by Contractor. • Implementation of procedures that ensures that any pollution causing spills are contained and cleaned up and proof

						provided by Contractor. • Unusable material must be disposed of at a licensed waste disposal site.

5.34 Landscaping and rehabilitation

Impact management outcome: Areas disturbed during the development phase are returned to a state that approximates the original condition.

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– All areas disturbed by construction activities must be subject to landscaping and rehabilitation; All spoil and waste must be disposed of to a registered waste site; – All slopes must be assessed for contouring, and to contour only when the need is identified in accordance with the Conservation of Agricultural Resources Act, No 43 of 1983 – All slopes must be assessed for terracing, and to terrace only when the need is identified in accordance with the Conservation of Agricultural Resources Act, No 43 of 1983; – Berms that have been created must have a slope of 1:4 and be replanted with indigenous species and grasses that approximates the original condition; – Where new access roads have crossed cultivated farmlands, that lands must be rehabilitated by ripping which must be agreed to by the holder of the EA and the landowners; – Rehabilitation of access roads outside of farmland;	DSS cEO	• Develop and implement a rehabilitation plan for the rehabilitation of all disturbed areas. Dispose of all spoil and waste at a licensed waste disposal facility • Assess all slopes and determine whether contouring is required • Assess all slopes and determine whether terracing	Throughout construction	dEO ECO	Weekly	• Rehabilitation of the disturbed areas is undertaken as per the rehabilitation plan. All certificates of waste disposal at licensed facilities are available. • All slopes are assessed and

– Indigenous species must be used for with species and/grasses to where it compliments or approximates the original condition; – Stockpiled topsoil must be used for rehabilitation (refer to ***Section 5.24: Stockpiling and stockpiled areas***); – Stockpiled topsoil must be evenly spread so as to facilitate seeding and minimise loss of soil due to erosion; – Before placing topsoil, all visible weeds from the placement area and from the topsoil must be removed; – Subsoil must be ripped before topsoil is placed; – The rehabilitation must be timed so that rehabilitation can take place at the optimal time for vegetation establishment; – Where impacted through construction related activity, all sloped areas must be stabilised to ensure proper rehabilitation is effected and erosion is controlled; – Sloped areas stabilised using design structures or vegetation as specified in the design to prevent erosion of embankments. The contract design specifications must be adhered to and implemented strictly; – Spoil can be used for backfilling or landscaping as long as it is covered by a minimum of 150 mm of topsoil. – Where required, re-vegetation including hydro-seeding can be enhanced using a vegetation seed mixture as described below. A mixture of seed can be used provided the mixture is carefully selected to ensure the following: a) Annual and perennial plants are chosen; b) Pioneer species are included; c) Species chosen must be indigenous to the area with the seeds used coming from the area; d) Root systems must have a binding effect on the soil; and e) The final product must not cause an ecological imbalance in the area.		is required • Ensure all berms have a slope of 1:4 and is replanted with indigenous species and grasses • Make use of indigenous species for rehabilitation • Ensure stockpiled topsoil is used as per the requirements listed under section 5.24 • Ensure that topsoil is spread evenly • Remove all visible weeds from placement area and topsoil before spreading the topsoil • Undertake the ripping of subsoil prior to the spreading of topsoil • Plan the timeframe for rehabilitation in order to undertake vegetation planting during the optimal time for vegetation establishment • All disturbed slope areas must be				contoured as required • All slopes are assessed and terraced as required. • All berms have a slope of 1:4 and is replanted with indigenous species and grasses • Indigenous species are used for rehabilitation • Stockpiled topsoil is used as per the requirements listed under section 5.24 • No weeds are visible in the placement area or the topsoil • Subsoil is ripped before topsoil is placed • Rehabilitation is undertaken during the

		stabilised • Stabilise slopes as per the design specifications • Spoil used for landscaping must be applied as per the listed requirements • Make use of a suitable vegetation seed mixture should enhancement be required				optimal time • Disturbed slopes are stabilised sufficiently • Photographic record of spoil used for landscaping purposes as well as feedback from the contractor • Use of a suitable vegetation seed mixture if required • Signage placed indicating location of fire extinguishers and service records • Photographic proof of contact details on display • Proof of the workshop held must be kept on file by the contractor. • Proof of

						checks of night hazards must be provided by the contractor • Proof of notification of the fire hazards to the local authority must be provided by the Contractor • Structures vulnerable to wind are secured prior to site closure • Wind and dust mitigation is implemented prior to site closure • Cement and material stores are secured prior to site closure • Toilets are emptied and secured prior to site closure • Refuse bins are

						emptied and secured prior to site closure • Drip trays are emptied and secured prior to site closure

6 ACCESS TO THE GENERIC EMPr

Once completed and signed, to allow the public access to the generic EMPr, the holder of the EA must make the EMPr available to the public in accordance with the requirements of Regulation 26(h) of the EIA Regulations.

PART B: SECTION 2

7 SITE SPECIFIC INFORMATION AND DECLARATION

7.1 Sub-section 1: contact details and description of the project

7.1.1 Details of the applicant: National Transmission Company of South Africa (NTCSA), a subsidiary of Eskom Holdings SOC Limited
Name of applicant: Mrs Madinare Mukhuba

Tel No: 011 516 7350

Fax No: n/a

Postal Address: PO Box 1091, 2000

Physical Address: 1 Maxwell Drive, Megawatt Park, Sunninghill, Sandton, 2157

7.1.2 Details and expertise of the EAP: NTC Group (Pty) Ltd
Name of EAP: Ms Rendani Rasivhetshele

Tel No: 011 462 2022/ 073 22 8882

Fax No: N/A

E-mail address: Tebogo@ntcgroup.co.za/ projects@ntcgroup.co.za

Rendani Rasivhetshele is a Professional Environmental Assessment Practitioner (Reg.EAP) registered with the Environmental Assessment Practitioners Association of South Africa (EAPASA: 2019/1729). She has conducted various environmental assessments for residential developments, commercial developments, recreational parks, industrial upgrades, dam rehabilitation, bulk services, and recently renewable energy projects (solar and wind). Further to her environmental assessment experience, Rendani also has experience as an Environmental Control Officer (ECO) in factories that manufacture construction materials (cements, asphalt, and metal casting). She has also been widely exposed to the associated project management in her trade and developed skills such as stakeholder engagement, which includes but not limited to, site inspections, planning and liaising with clients, environmental specialists, built environment consultants, statutory bodies, and competent authorities.

7.1.3 Project name:
The proposed Highveld North-West and Lowveld Strengthening Project: Extension of the Borutho and Silimela Substations and development of the Borutho-Silimela 150km 400 kV transmission line and associated infrastructure located in the Ephraim Mogale, Modimolle-Mookgophong and Mogalakwena Local municipalities which fall within the jurisdiction of the Sekhukhune and Waterberg District Municipalities, Limpopo Province.

7.1.4 Description of the project:
NTCSA is proposing to construct the 400kV powerline that is approximately 150 kilometres in length. The proposed power line is located between the existing Borutho Substation on farm

Gillimberg 861 in Mokopane and runs south to the existing Silimela Substation on farm Loskop Noord 12, near Marble Hall within the Lepelle-Nkumpi, Mogalakwena, Modimolle-Mookgophong and Ephriam Mogale Local Municipalities, Limpopo Province. The purpose of the construction of the powerlines is to connect power stations and substations in transmitting large amounts of electric power at a very high voltage without loss. Powerlines, therefore, play a very crucial role in providing electricity. NTCSA network has reached capacity and cannot handle anticipated future demand, the proposed power line's construction is now required. Thus, to fortify the supply network in the area and thereby meet future demand driven by mines and rural development in the area, Eskom intends to reinforce the current network by building a 400kV 150km power line and related substation works.

The scope of work entails:

- Equip 1 x 400kV feeder bay at Borutho Substation for Silimela Line 1.
- Equip 1 x 400kV feeder bay at Silimela Substation for Borutho Line 1.
- Build approximately 150km 400kV line from Borutho Substation to Silimela Substation, with associated extensions at the terminal substations.

The powerline study route/area is 250m wide and the servitude within the route will not be more than 90m wide.

It is important to note that Silimela and Borutho substations have already been approved for construction under other Environmental Authorisations and as such, exist. Therefore, the proposed expansion works entail accommodation of 1 x 400kV feeder bay for Silimela Line 1 and 1 x 400kV feeder bay for Borutho Line 1. There will be no expansion of the existing terrace or substation boundaries.

Summary of the details and dimensions of the proposed project and the associated infrastructure.

Infrastructure	Footprint and dimensions
Powerline development footprint	• Powerline route is approximately ~150km in extent.
Corridor	• A 250m wide route was assessed.
Servitude negotiations	• A servitude of not more than 90m is being negotiated with the landowners. This servitude is within the afore mentioned 250m wide route. The reason for studying a wider route is to ensure that should it be necessary to move any section of the powerline from the 90m servitude, there would be room for this.
Capacity of on-site facility	• 400kV
Tower types	• It is NTCSA's policy to not restrict themselves to a specific tower typology during the environmental assessment phase as the site conditions may

	necessitate a deviation at implementation stage.). Towers for the proposed powerline would be between 29m and 40m in height. In general, the type of towers to be used would consider weight, the area (e.g. topography characteristic), height, costs and erection time. Refer to **Figure 1** for the various tower types.
Tower Positions	• The tower positions will only be firmed up during the detail designs. At this stage we cannot provide locations for the temporary laydown areas for the towers.
Height of the pylon	• Optimal tower sizes and positions will be identified and verified using a ground survey (in terms of the Environmental Management Programme - EMPr requirements).
Clearance distance	• The proposed minimum vertical clearance to buildings, poles and structures not forming part of the powerline is 10.4m. Farming activities can be practiced under the powerline, provided that safe working clearances and building restrictions are adhered to; • The proposed minimum vertical clearance to any fixed structure that does not form part of the powerline is 3.8m from the edge of the servitude; • The proposed minimum distance of a 400kV powerline structure from a proclaimed public road is between 60 and 120m (according to the road type), from the centre of the structure to the centre of the road servitude. The minimum distance between any part of a tree or shrub and any bare phase conductor of a 400kV powerline must be 10m; and • The minimum safe distance required the edge of a domestic house is ±18m plus 12.5 m from the centre of the powerline.
Foundation	• The choice of foundation is influenced by the type of terrain encountered and the underlying geotechnical conditions. The actual size and type

	of foundation to be installed will depend on the soil bearing capacity (actual sub-soil conditions). Strain structures require more extensive foundations for support than in-line suspension structures, which contribute to the cost of the construction of the powerline. Foundations may be mechanically excavated where access to the tower position is readily available. The same usually applies to the pouring of concrete required for the setting of the foundations.
Insulators	• Composite insulators are used to connect the conductors to the towers. Glass and porcelain have previously been used to connect the conductors for many years and are the most common. These products are, however, heavy and susceptible to breakage by vandals and contamination by pollution. Composite insulators have a glass-fibre core with silicon sheds for insulation. Composite insulators are lightweight and resistant to both vandalism and pollution. Composite (Long rod type) insulators with silicone-based weather shed material will be used for strain assemblies. Composite horizontal line post insulators will be used for the intermediate structures and on the jumper supports.
Laydown Areas	• Storage areas that will be used as a temporary laydown for the substation scope at Silimela Substation – Dimensions: 150m x 30m. • Storage yard that will be used as a temporary laydown area for the substation for the Substatio. Dimension: 30m x 10m.

7.1.5 Project location:

Province	Limpopo Province	
District Municipality	Greater Sekhukhune, Capricorn, and Waterberg District Municipalities	
Local Municipality/ies	Lepelle-Nkumpi, Mogalakwena, Modimolle-Mookgopong and Ephraim Mogale Local Municipality	
Ward numbers	Lepelle-Nkumpi Ward 9 Mogalakwena Ward12, 13,16,18,20 and 32 Modimolle-Mookgopong Ward14 Ephraim Mogale Ward 5	
Nearest Town	Zebediela, Ga-Mashashane, Ga-Mapela, Mokopane, Ga-Taueatswala, Mokerong, Mookgophong, Modimolle, Marble Hall, Manapsane, and Moganyaka.	
Current Zoning	Agriculture	
Current Land Use	The land in question comprises of more than ten properties, and while certain portions remain fallow, other sections are actively utilized for agriculture.	
Access Roads	The project area can be accessed via the following roads: N11, N1, R519, R33, and various tertiary roads surrounding the area.	
Affected Properties: Farm name(s), number(s), portion numbers and SG 21 Digit Code (s)	Portion 0 of Farm Gillimberg 861 LR	T0LR00000000086100000
	Portion 7 of Farm Gillimberg 861 LR	T0LR00000000086100007
	Portion 8 of Farm Gillimberg 861 LR	T0LR00000000086100008
	Portion 9 of Farm Gillimberg 861 LR	T0LR00000000086100009
	Portion 10 of Farm Gillimberg 861 LR	T0LR00000000086100010
	Portion 3 of Farm Uitloop 3 KS	T0KS00000000000300021
	Portion 3 of Farm Uitloop 3 KS	T0KS00000000000300039
	Portion 33 of Farm Piet Potgietersrust Town and Townlands 4 KS	T0KS00000000004400033
	Portion 35 of Farm Piet Potgietersrust Town and Townlands 4 KS	T0KS00000000004400035
	Portion 36 of Farm Piet Potgietersrust Town and Townlands 4 KS	T0KS00000000004400036

	Portion 39 of Farm Piet Potgietersrust Town and Townlands 4 KS	T0KS00000000004400039
	Portion 40 of Farm Piet Potgietersrust Town and Townlands 4 KS	T0KS00000000004400040
	Portion 44 of Farm Piet Potgietersrust Town and Townlands 4 KS	T0KS00000000004400044
	Portion 43 of Farm Piet Potgietersrust Town and Townlands 4 KS	T0KS00000000004400043
	Portion 80 of Farm Piet Potgietersrust Town and Townlands 4 KS	T0KS00000000004400080
	Portion 6 Farm Oorlogsfontein 45 KS	T0KS00000000004500006
	Portion 88 Farm Oorlogsfontein 45 KS	T0KS00000000004500088
	Portion 89 Farm Oorlogsfontein 45 KS	T0KS00000000004500089
	Portion 94 Farm Oorlogsfontein 45 KS	T0KS00000000004500094
	Portion 96 Farm Oorlogsfontein 45 KS	T0KS00000000004500096
	Portion 152 Farm Oorlogsfontein 45 KS	T0KS00000000004500152
	Portion 0 of Farm Rooipoort 46 KS	T0KS00000000004600000
	Portion 1 of Farm Rooipoort 46 KS	T0KS00000000004600001
	Portion 5 of Farm Rooipoort 46 KS	T0KS00000000004600005
	Portion 9 of Farm Rooipoort 46 KS	T0KS00000000004600009
	Portion 19 of Farm Rooipoort 46 KS	T0KS00000000004600019
	Portion 20 of Farm Rooipoort 46 KS	T0KS00000000004600020
	Portion 0 Farm 1046 KS	T0KR00000000033300000
	Portion 1 Farm 1046 KS	T0KR00000000033300001
	Portion 2 Farm 1046 KS	T0KR00000000033300002
	Portion 4 Farm 1046 KS	T0KR00000000033300004
	Portion 7 Farm 1046 KS	T0KR00000000033300007
	Portion 0 Farm Platdoorns 333 KR	T0KR00000000033300000

	Portion 1 Farm Hartebeestfontein 355 KR	T0KR00000000054300001
	Portion 2 Farm Hartebeestfontein 355 KR	T0KR00000000054300002
	Portion 4 Farm Hartebeestfontein 355 KR	T0KR00000000054300004
	Portion 0 Farm Derdekraalpoort 543 KR	T0KR00000000054300000
	Portion 0 Farm Klaver Valley 542 KR	T0KR00000000054200000
	Portion 0 Farm Vlaklaagte 544 KR	T0KR00000000054400000
	Portion 1 Farm Vlaklaagte 544 KR	T0KR00000000054400001
	Portion 2 Farm Vlaklaagte 544 KR	T0KR00000000054400002
	Portion 1 Farm Geluksfontein 547 KR	T0KR00000000054700001
	Portion 11 Farm Geluksfontein 547 KR	T0KR00000000054700011
	Portion 4 Farm De Hoop 617 KS	T0KS00000000061700004
	Portion 0 Farm Klipgat 618 KS	T0KS00000000061800000
	Portion 3 Farm Klipgat 618 KS	T0KS00000000061800003
	Portion 0 Farm Hendriksrust 621 KS	T0KS00000000062100000
	Portion 0 Farm Conterberg 665 KS	T0KS00000000066500000
	Portion 7 Farm Conterberg 665 KS	T0KS00000000066500007
	Portion 9 Farm Conterberg 665 KS	T0KS00000000066500009
	Portion 18 Farm Conterberg 665 KS	T0KS00000000066500018
	Portion 23 Farm Conterberg 665 KS	T0KS00000000066500023
	Portion 0 Farm Weltevrede 670 KS	T0KS00000000067000000
	Portion 2 Farm Doornpan 694 KS	T0KS00000000069400002
	Portion 3 Farm Doornpan 694 KS	T0KS00000000069400003
	Portion 0 Farm OnverwachT 698 KS	T0KS00000000069800000
	Portion 0 Farm 996 KS	T0KS00000000099600000
	Portion 5 Farm Haringbult 699 KS	T0KS00000000069900005

	Portion 6 Farm Haringbult 699 KS	T0KS00000000069900006
	Portion 0 Farm Dronkfontein 724 KS	T0KS00000000072400000
	Portion 1 Farm Dronkfontein 724 KS	T0KS00000000072400001
	Portion 4 Farm Claremont 734 KS	T0KS00000000073400004
	Portion 5 Farm Claremont 734 KS	T0KS00000000073400005
	Portion 7 Farm Claremont 734 KS	T0KS00000000073400007
	Portion 8 Farm Claremont 734 KS	T0KS00000000073400008
	Portion 0 Farm Rhenosterfontein 731	T0KS00000000073100000
	Portion 1 Farm Mapochsgronde 733	T0JS00000000073300001
	Portion 2 Farm Mapochsgronde 733	T0JS00000000073300002
	Portion 0 Farm Gruysbank 5 JS	T0JS00000000000500000
	Portion 191 Farm Loskop Noord 12 JS	T0JS00000000001200191
	Portion 206 Farm Loskop Noord 12 JS	T0JS00000000001200206
	Portion 281 Farm Loskop Noord 12 JS	T0JS00000000001200281
	Portion 282 Farm Loskop Noord 12 JS	T0JS00000000001200282
	Portion 351 Farm Loskop Noord 12 JS	T0JS00000000001200351
	Portion 630 Farm Loskop Noord 12 JS	T0JS00000000001200630
	Portion 638 Farm Loskop Noord 12 JS	T0JS00000000001200638
	Portion 640 Farm Loskop Noord 12 JS	T0JS00000000001200640
	Portion 642 Farm Loskop Noord 12 JS	T0JS00000000001200642
	Portion 643 Farm Loskop Noord 12 JS	T0JS00000000001200643
	Portion 686 Farm Loskop Noord 12 JS	T0JS00000000001200686
	Portion 782 Farm Loskop Noord 12 JS	T0JS00000000001200782
	Portion 783 Farm Loskop Noord 12 JS	T0JS00000000001200783
	Portion 784 Farm Loskop Noord 12 JS	T0JS00000000001200784
	Portion 785 Farm Loskop Noord 12 JS	T0JS00000000001200785

	Portion 786 Farm Loskop Noord 12 JS	T0JS00000000001200786
	Portion 787 Farm Loskop Noord 12 JS	T0JS00000000001200787
	Portion 788 Farm Loskop Noord 12 JS	T0JS00000000001200795
	Portion 795 Farm Loskop Noord 12 JS	T0JS00000000001200975
	Portion 1050 Farm Loskop Noord 12 JS	T0JS00000000001201050
	Portion 1107 Farm Loskop Noord 12 JS	T0JS00000000001201107
	Portion 1083 Farm Loskop Noord 12 JS	T0JS00000000001201083
	Portion 1085 Farm Loskop Noord 12 JS	T0JS00000000001201085
	Portion 1208 Farm Loskop Noord 12 JS	T0JS00000000001201208
	Portion 04 Farm Kleinklipput 11 JS	T0JS00000000001100004
	Portion 05 Farm Kleinklipput 11 JS	T0JS00000000001100005
	Portions 2 of Farm Gegund 332 KR	T0KR00000000033200002
	Portion 4 of Farm Gegund 332 KR	T0KR00000000033200004
	Portion 0 of Farm Doelen 327 KR	T0KR00000000032700000
	Portion 8 of the Farm Blinkwater 331 KR	T0KR00000000033100008
Co-ordinates: **Start Point 1** **Middle Point 2** **End Point 3**	23° 54’11.44” S; 28° 58’38.38 “E 24° 31’21.87” S; 28° 57’43.26” E 25° 05’09.01” S; 29° 17’52.40” E	
Borutho Substation corner co-ordinates	A: 23°54'1.56"S; 28°58'29.57"E B: 23°54'10.55"S; 28°58'27.00"E C: 23°54'13.39"S; 28°58'41.51"E E: 23°54'4.61"S; 28°58'43.60"E	
Silimela Substation corner co-ordinates	A: 25° 5'8.00"S; 25° 5'8.00"S	

	B: 25° 5'16.95"S; 29°17'48.88"E C: 25° 5'13.14"S; 29°17'58.29"E D: 25° 5'4.24"S; 29°17'53.56"E

7.2 Sub-section 2: Development footprint site map

This sub-section must include a map of the site sensitivity overlaid with the preliminary infrastructure layout. The sensitivity map must be prepared from the national web based environmental screening tool, when available for compulsory use at: https://screening.environment.gov.za/screeningtool. The sensitivity map shall identify the nature of each sensitive feature e.g. threatened plant species, archaeological site, etc. Sensitivity maps shall identify features both within the planned working area and any known sensitive features within 50 m from the development footprint.

Figure 1:Map of Relative Agriculture Theme Sensitivity

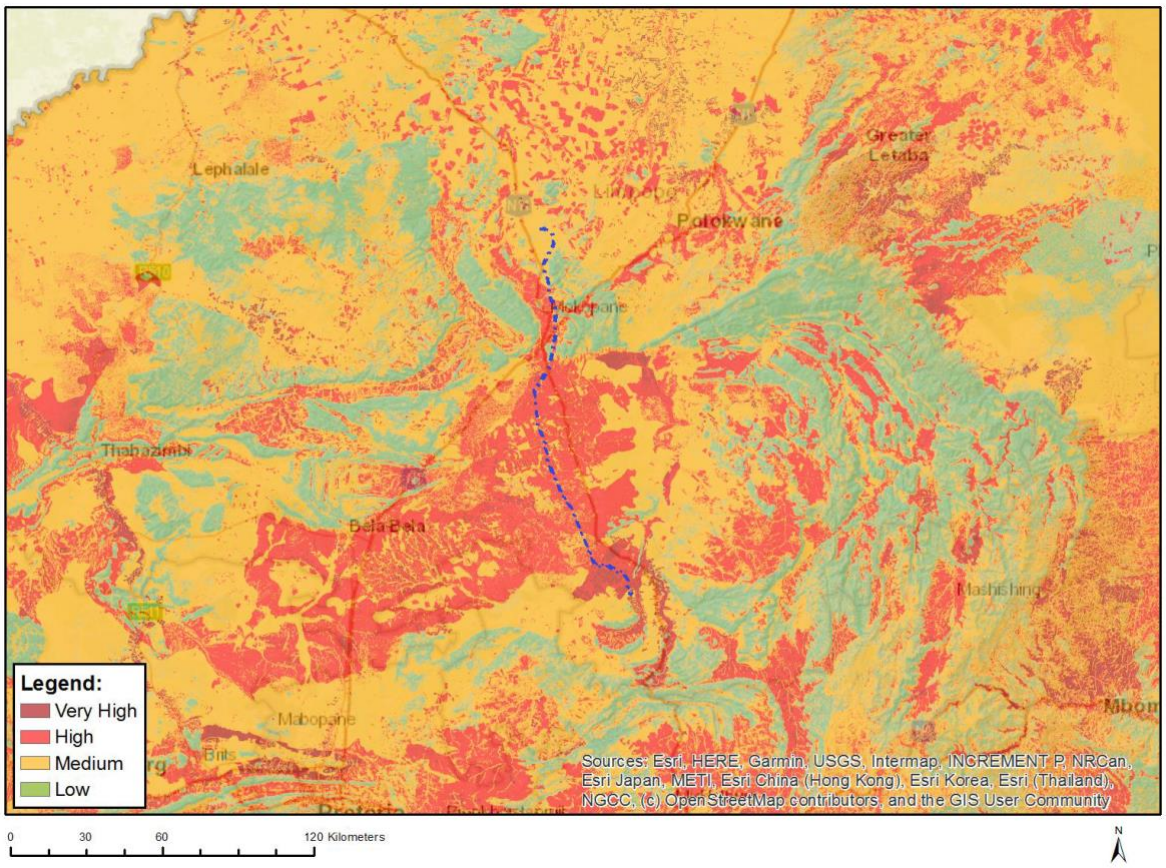

Figure 2: Map of Relative Animal Species Theme Sensitivity

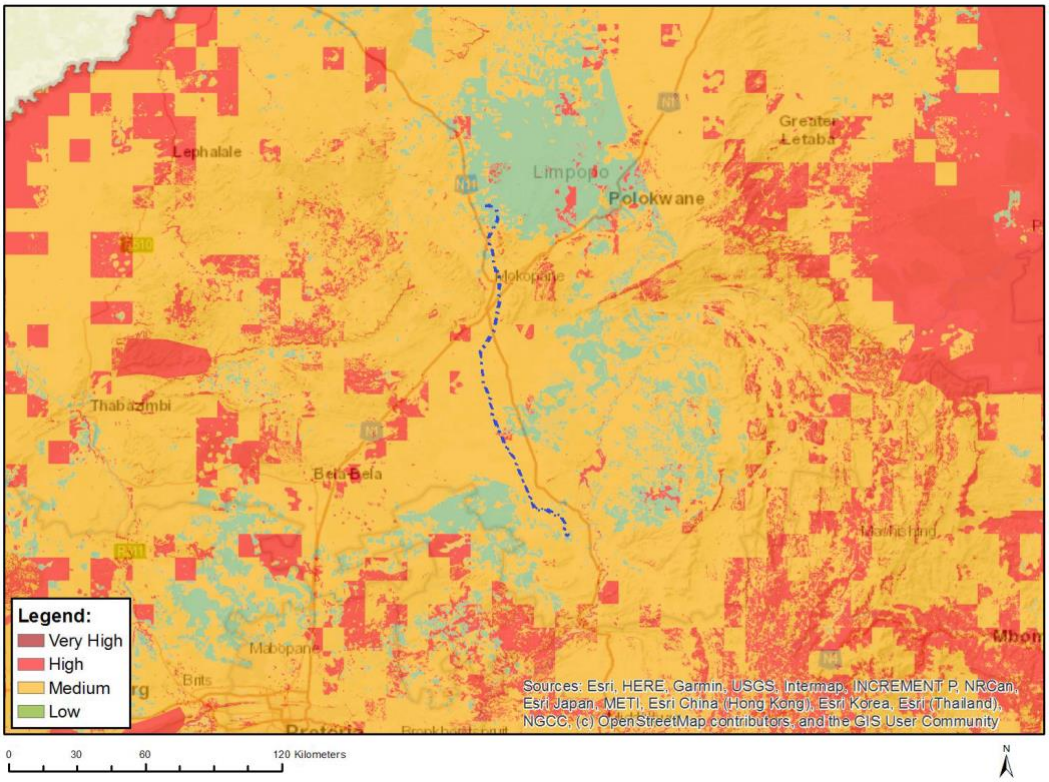

Figure 3: Map of Relative Aquatic Biodiversity Theme Sensitivity

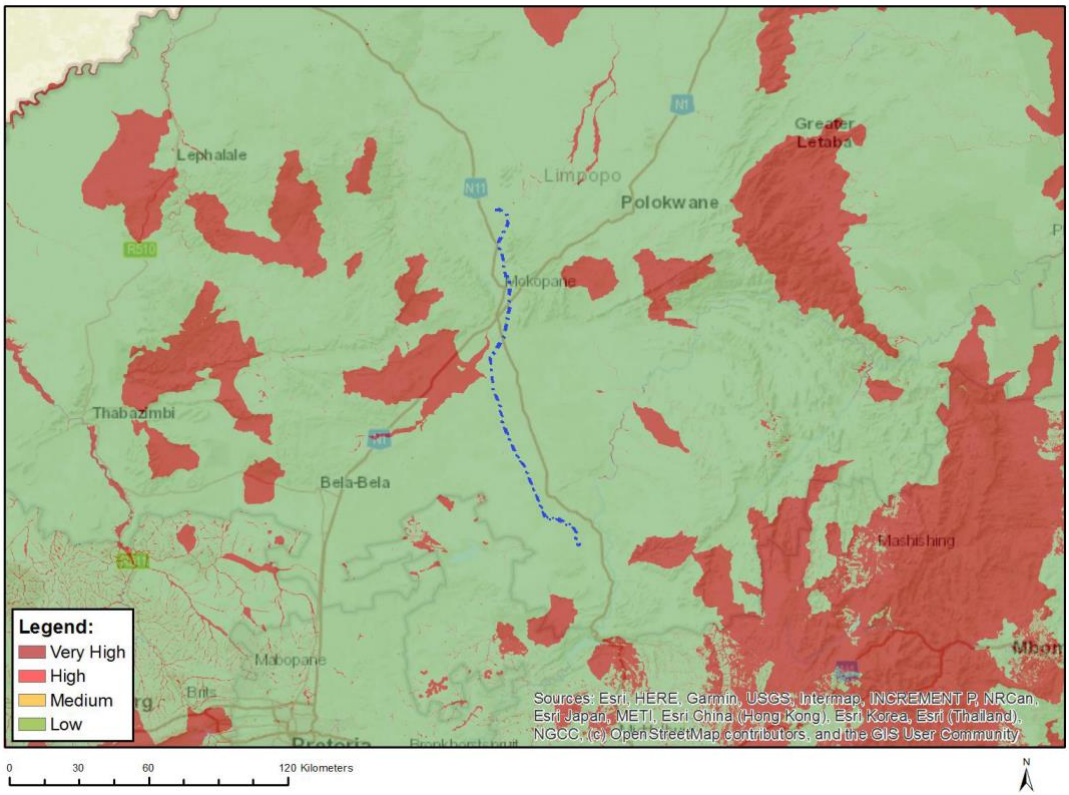

Figure 4: Map of Relative Archaeological And Cultural Heritage Theme Sensitivity

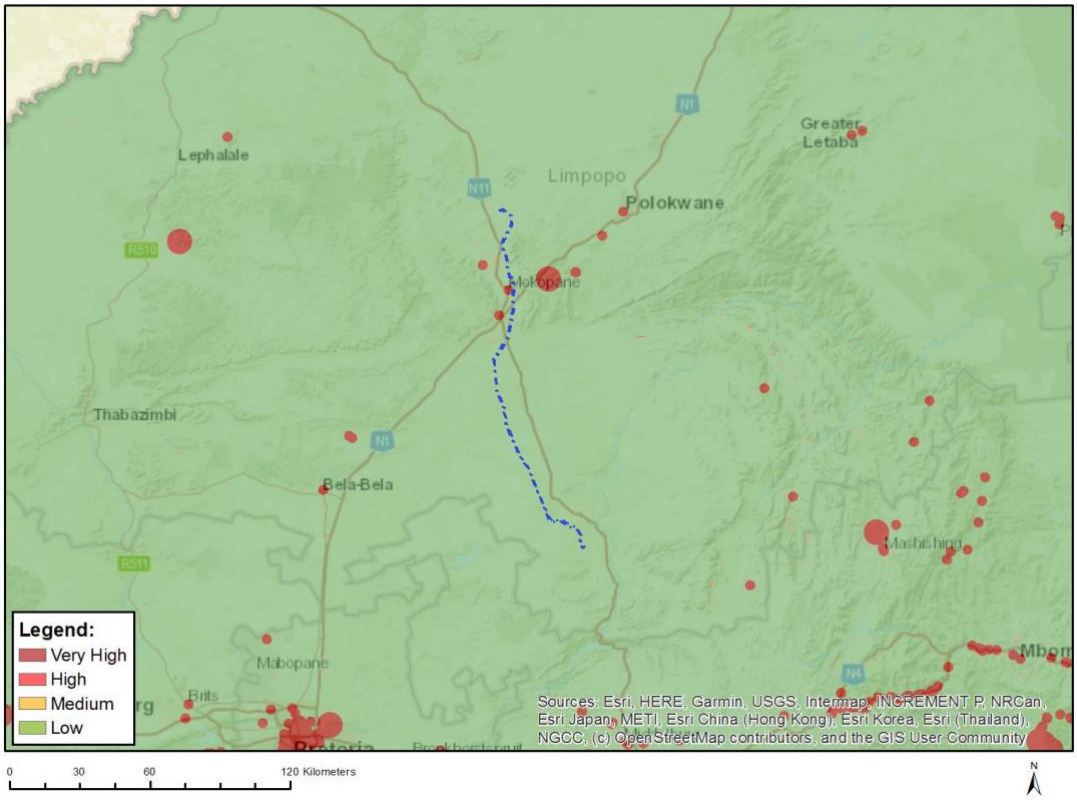

Figure 5: Map of Relative Civil Aviation Theme Sensitivity

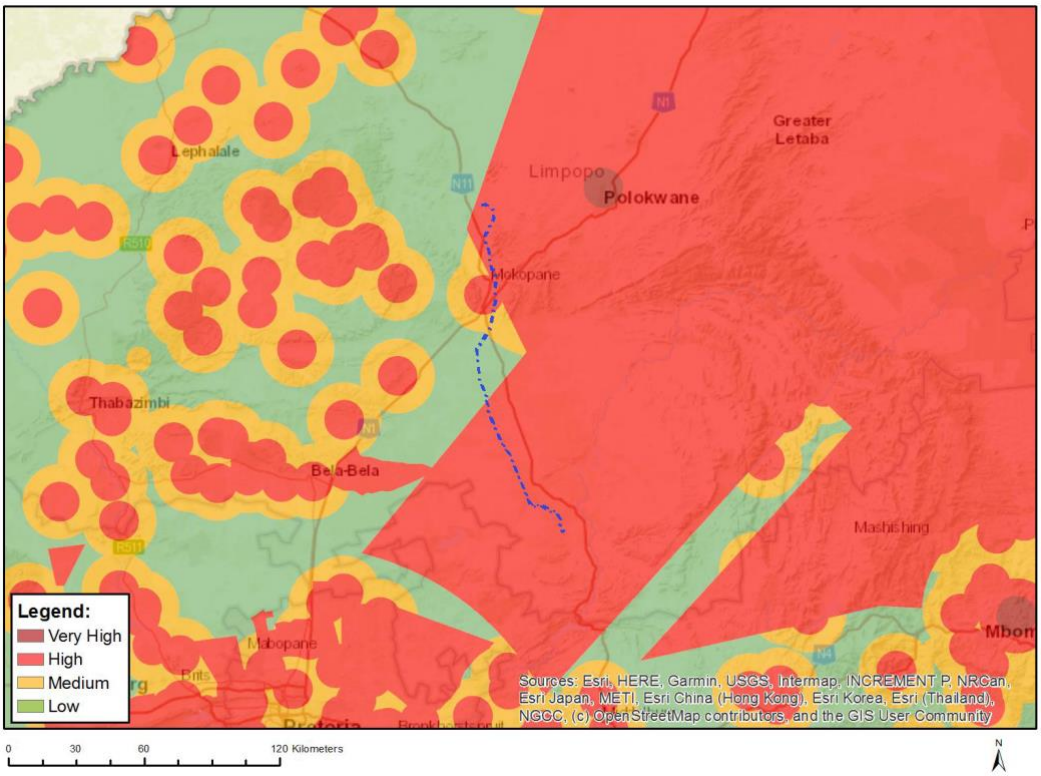

Figure 6: Map Of Relative Defence Theme Sensitivity

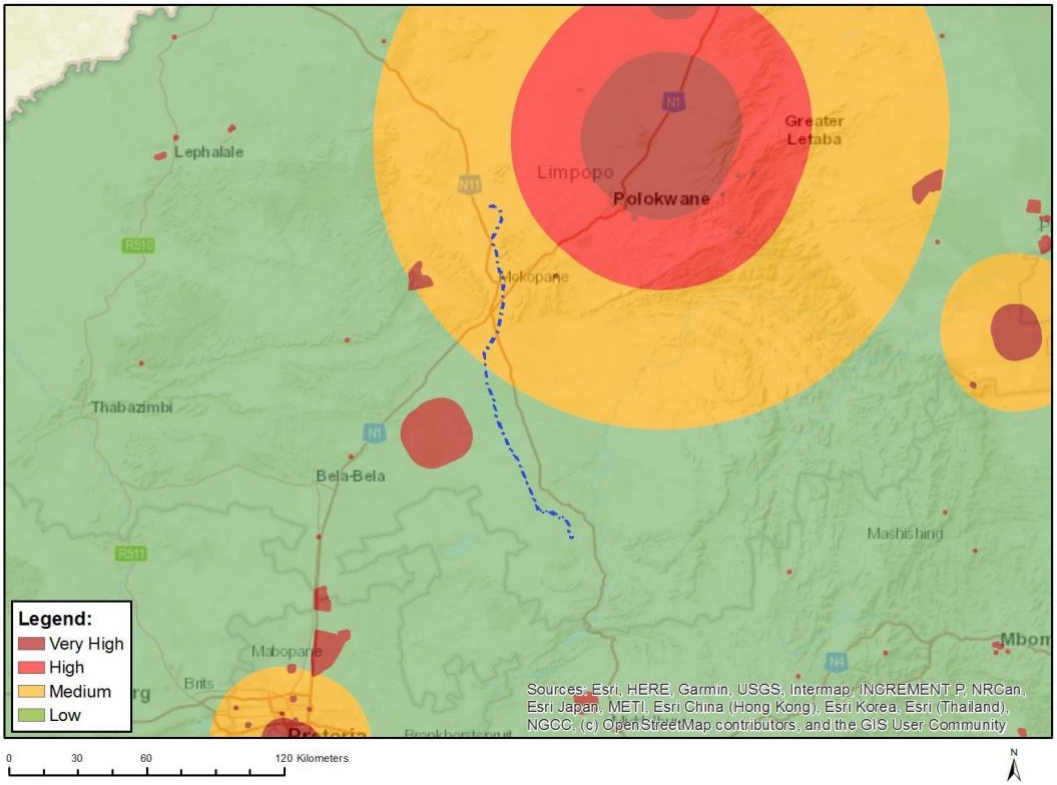

Figure 7: Map of Relative Paleontology Theme Sensitivity

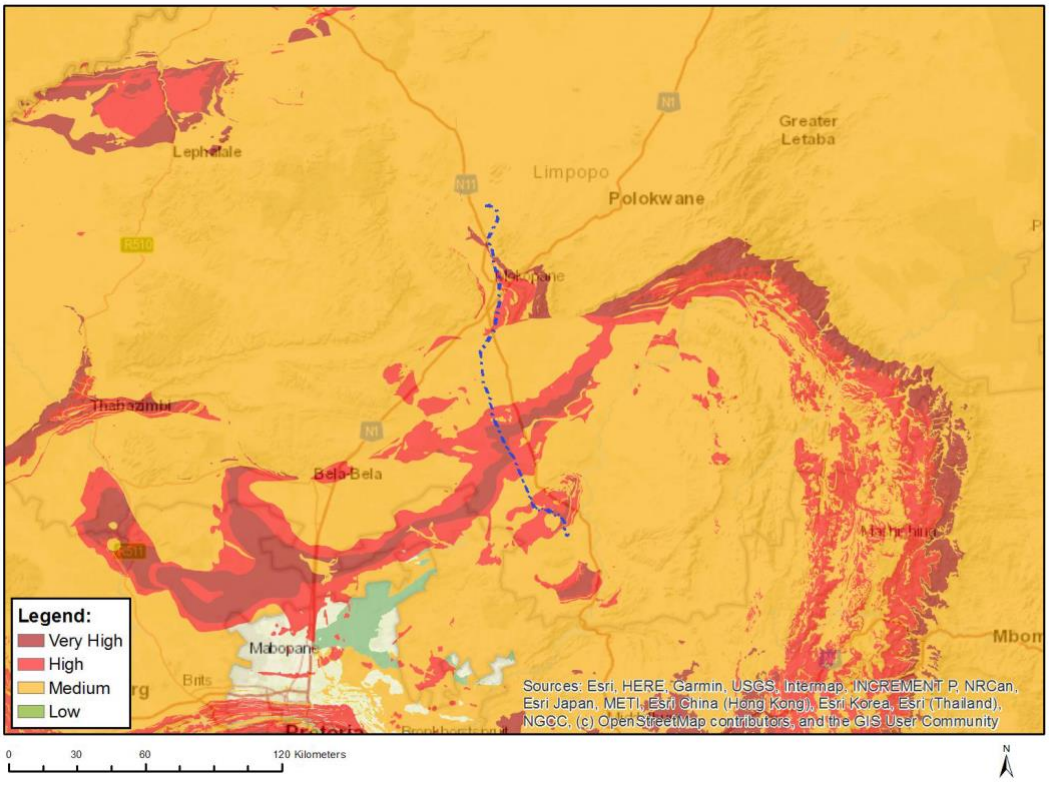

Figure 8: Map Of Relative Plant Species Theme Sensitivity

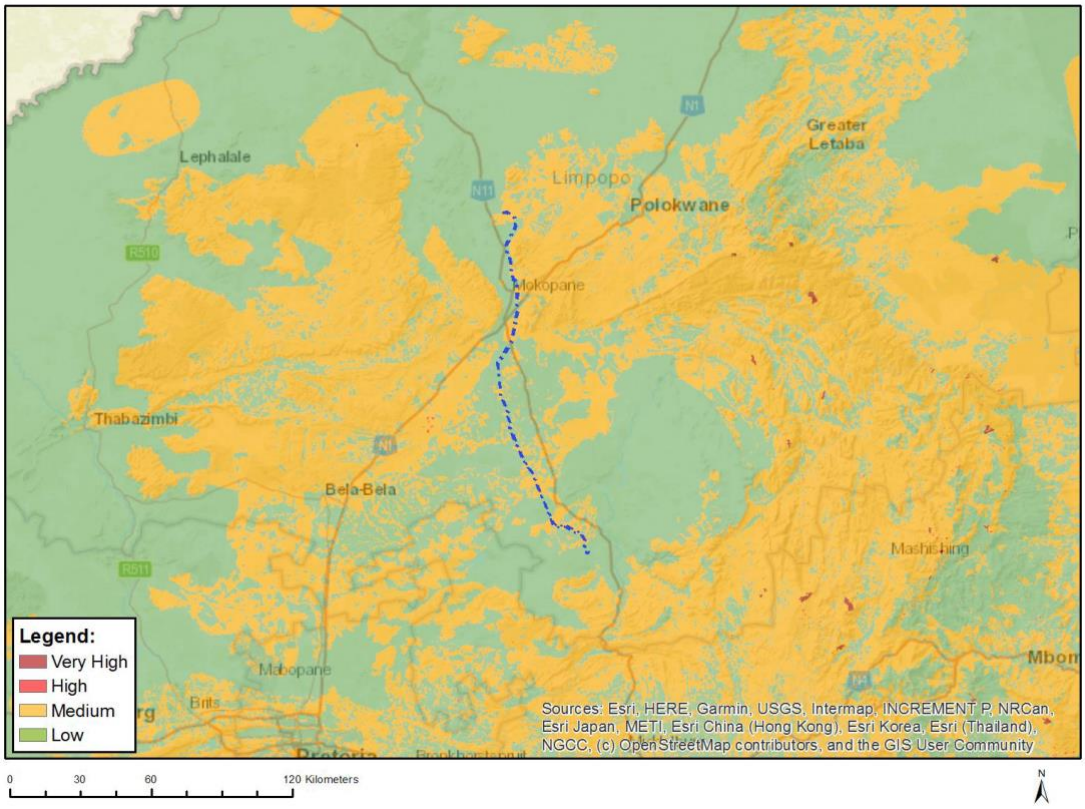

Figure 9: Map of Relative Terrestrial Biodiversity Theme Sensitivity

7.3 Sub-section 3: Declaration

The proponent/applicant or holder of the EA affirms that he/she will abide and comply with the prescribed impact management outcomes and impact management actions as stipulated in part B: section 1 of the generic EMPr and have the understanding that the impact management outcomes and impact management actions are legally binding. The proponent/applicant or holder of the EA affirms that he/she will provide written notice to the CA 14 day prior to the date on which the activity will commence of commencement of construction to facilitate compliance inspections.

Signature Proponent/applicant/ holder of EA Date:

---------- 05/08/2024

7.4 Sub-section 4: amendments to site specific information (Part B; section 2)

Should the EA be transferred to a new holder, Part B: Section 2 must be completed by the new holder and submitted with the application for an amendment of the EA in terms of Regulations 29 or 31 of the EIA Regulations, whichever applies. The information submitted for an amendment to an environmental authorisation will be considered to be incomplete should a signed copy of Part B: Section 2 not be submitted. Once approved, Part B: Section 2 forms part of the EMPr for the development and the EMPr becomes legally binding to the new EA holder.

PART C

8 SITE SPECIFIC ENVIRONMENTAL ATTRIBUTES

If any specific environmental sensitivities/attributes are present on the site which require more specific impact management outcomes and actions, not included in the pre-approved generic EMPr template, to manage impacts, those impact management outcomes and impact management actions must be included in this section. These specific management controls must be referenced spatially, and must include impact management outcomes and impact management actions. The management controls including impact management outcomes and impact management actions must be presented in the format of the pre-approved generic EMPr template. This applies only to additional impact management outcomes and impact management actions that are necessary.

If Part C is applicable to the development as authorised in the EA, it is required to be submitted to the CA together with the BAR or EIAR, for consideration of, and decision on, the application for EA. The information in this section must be prepared by an EAP and the name and expertise of the EAP, including the curriculum vitae are to be included. Once approved, Part C forms part of the EMPr for the site and is legally binding.

This section will **not be required** should the site contain no specific environmental sensitivities or attributes.

This section includes is a table of impact management outcomes and associated impact management actions based on specialist assessments for the development. The Holder of the EA is responsible to ensure the implementation of these outcomes and actions. These additional actions are required to mitigate the impacts identified for the development of the transmission and distribution infrastructure. The table below is to be completed by providing the information under each heading for each environmental impact management action. The procedure for completing the table below must be done according to the instructions provided in Part B: Section 5.

Impact management outcome: Wetlands
Impact Management Actions
– No activities, which require a water use authorization, must be allowed to encroach into a water resource without a water use authorization being in place from the Department of Water and Sanitation. – An environmental induction for all construction staff on site must be put in place to ensure that basic environmental principles are adhered to. This includes topics such as avoiding fire hazards, no littering, appropriate handling of pollution and chemical spills, minimizing wildlife interactions, remaining within demarcated construction areas, avoidance of no-go areas and sensitive habitats (i.e. wetlands), etc. – A hydrocarbon spill management plan must be put in place to ensure that any spills are effectively managed. The Contractor shall be in possession of an emergency spill kit that must always be complete and available on site. Drip trays or any form of oil absorbent material must be placed underneath vehicles/machinery and equipment when not in use. No servicing of equipment on site unless necessary. All contaminated soil / yard stone shall be treated in situ or removed and be placed in containers. Appropriately contain any generator diesel storage tanks, machinery spills (e.g. accidental spills of hydrocarbons oils, diesel etc.) in such a way as to prevent them leaking and entering the environment. Construction activities and vehicles could cause spillages of lubricants, fuels and waste material potentially negatively affecting the functioning of the ecosystem. All vehicles and equipment must be maintained, and all re-fuelling and servicing of equipment is to take place in demarcated areas outside of the project area. – All construction materials including fuels and oil should be stored in demarcated areas that are contained within berms / bunds to avoid spread of any contamination / leaks. Washing and cleaning of equipment should also be done in berms or bunds, to trap any cement / hazardous substances and prevent excessive soil erosion. Mechanical plant and bowsers must not be refuelled or serviced within or directly adjacent to any channel. It is therefore suggested that all construction camps, lay down areas, batching plants or areas and any stores should be located more than 50 m from any demarcated watercourses. – No construction may take place within the wetlands or 100m GN704 Zone of Regulation. Additionally, the wetlands and 100m GN704 Zone of Regulation must be demarcated as a no-go area. – No stockpiles are to be permitted within the 100m GN704 Zone of Regulation. – Exposed soil and stockpiles must be protected from wind by covering with a suitable geotextile such as hessian sheeting and ensure no stockpiles are higher than 2m. – Dust suppression measures must be implemented throughout construction to prevent excessive dust which may smother wetland vegetation. – A site-specific rehabilitation plan, including an alien invasive plant (AIP) management plan, must be compiled and implemented. AIPs should be removed by hand and no machinery should be allowed in the wetlands.

– All works within the regulated area of a watercourse or 500m from a wetland boundary are suitably authorised under the National Water Act (No. 36 of 1998), as relevant and applicable, prior to the commencement of construction.

Impact management outcome: Minimise disturbance to flora and fauna
Impact Management Actions
– There are several individuals of protected Marula trees (Sclerocarya birrea) within Witvinger and Potgietersrus Nature Reserve. Due to the presence of protected tree species, a walkthrough is recommended for this area, to ensure that trees are avoided for construction of the line. Where avoidance is inevitable, relevant tree permits should be obtained. – The proponent must be committed to a conservation approach of practice and the actual footprint of disturbance must be kept to a minimum. – As much of the natural environment must be conserved, there should be minimal vegetation clearing. – Relocation of important species, identification and demarcation of specimens and sub habitats not to be disturbed will have to be done beforehand by a specialist. – Important species (flora) that will be threatened by the development must be relocated to safer habitats by suitable specialists. – Preventative erosion control measures to be put in place. – Conduct alien invasive species monitoring on an annual basis. – The proponent must be committed to a conservation approach of practice and the actual footprint of disturbance must be kept to a minimum. – Relocation of important species, identification and demarcation of specimens and sub habitats not to be disturbed will have to be done beforehand by a specialist. – Important species (fauna) that will be threatened by the development must be relocated to safer habitats by suitable specialists. – Preventative erosion control measures to be put in place. – Implement mitigation controls during the construction phase as specified in the mitigation requirements. Monitor and report on their effectiveness. – Implement mitigation controls during the operational phase as specified in the mitigation. Monitor and report on their effectiveness. – Monitoring of implementation of mitigation controls, along with reporting, should be undertaken at least quarterly throughout the construction phase, and bi-annually during the operational phase. Monitoring, at the minimum, should consist of a quarterly monitoring of the development area; – As much of the natural habitat as possible should be preserved during construction and operation to lessen the operational impacts and to reduce the irreversibility of impacts. – Effective restoration of the natural habitats that were intact before the development should be implemented and reported on after decommissioning.

Impact management outcome: Minimise disturbance to avifauna

Impact Management Actions
– Implement mitigation controls during the construction phase as specified in the mitigation requirements. Monitor and report on their effectiveness. – Implement mitigation controls during the operational phase as specified in the mitigation. Monitor and report on their effectiveness. – Monitoring of implementation of mitigation controls, along with reporting, should be undertaken at least quarterly throughout the construction phase, and bi-annually during the operational phase. Monitoring, at the minimum, should consist of a quarterly monitoring of the powerline area for evidence of collisions and electrocution risks. – Preserve as much of the natural habitat as possible during construction and operation to lessen the operational impacts and to reduce the irreversibility of impacts. – Effective restoration of the natural habitats that were intact before the development should be implemented and reported on after decommissioning.

Impact management outcome: Soil and Agriculture
Impact Management Actions
– Only remove vegetation prior to construction in an area. – Park vehicles and equipment in designated parking areas to prevent vegetation disturbance of additional areas. – Monitor the area to determine whether there is any erosion and rehabilitated eroded areas directly after detection. – High level maintenance must be undertaken on all vehicles and transmission infrastructure; – Impermeable and bunded surfaces must be used for storage tanks and to park vehicles on; – Site surface water and wash water must be contained and treated before reuse or discharge – from site; and – Spills of fuel and lubricants from vehicles and equipment must be contained using a drip tray with plastic sheeting filled with adsorbent material. – Placement of infrastructure outside of crop boundaries- especially in irrigated or citrus lands

Impact management outcome: Visual & Civil Aviation
Impact Management Actions

- Vegetative Screens: Utilise existing vegetation or plant new native species around the construction site for visual screening, where required.
- Controlled Construction Zones: Limit construction to specific areas at a time to reduce overall visual impact, where possible.
- Dust Management: Implement effective dust suppression techniques to minimise visual and environmental impacts of dust.
- Rapid Revegetation: Prioritise swift revegetation in disturbed areas to restore visual aesthetics post-construction.
- Community Engagement: Maintain open communication with local communities about construction activities and mitigation measures.
- Limit Night-time Activities: Reduce night-time construction to minimize light pollution and visual disturbance.
- Strategic Siting: Prioritise the placement of construction infrastructure in areas less visible from major residential zones, where possible.
- Visual Screening: Employ temporary visual barriers, such as strategic placement of construction material, to reduce visibility from residential areas.
- Community Engagement: Maintain open communication with local communities, particularly those in areas close to the Transmission Line path, such as settlements within the Capricorn, Waterberg, and Greater Sekhukhune Districts. It is crucial to inform these communities about construction activities, expected visual changes, and the duration of the project, ensuring transparency and addressing concerns proactively.
- Limiting Construction Visibility: Schedule visually intrusive activities during times of lower residential activity, if possible.
- Dust Control Measures: Implement dust suppression techniques to reduce the visual impact of dust generated by construction activities.
- Rapid Remediation: Prioritise rapid remediation and clean-up of construction areas to reduce the duration of visual impact.
- Windbreaks: Erect temporary windbreaks or barriers at key points around the construction site to control the spread of dust.
- Vehicle Speed Limits: Enforce speed limits for construction vehicles to minimize dust disturbances.
- Machinery Maintenance: Ensure regular maintenance of construction machinery to reduce noise and vibrations.
- Community Communication: Proactively communicate with nearby residents about construction schedules and particularly disruptive activities, allowing for better community preparedness and adaptation.
- Monitoring: Regularly monitor dust levels and noise to ensure compliance with mitigation measures and make adjustments as necessary.
- Community Involvement: Engage local communities in discussions about the grid connection infrastructure's design and layout to encourage a sense of involvement and address concerns.
- Visual Simulations: Provide visual simulations to the community during the planning phase to offer a preview of the expected visual changes. Gather feedback to adjust designs where feasible.
- Civil Aviation Authority Obstacle Approval processes per CA139.27 will need to be complied with, and amended aerodrome operating procedures will need to be implemented in before the commencement of construction activities.

Impact management outcome: Palaeontological resources

Impact Management Actions

- A Fossil Chance Find Protocol must be implemented at the commencement and for the during of construction. The responsible person / ECO must look out for fossils and the Protocol must be implemented should fossils be encountered.
- The following procedure is required if fossils are seen on the surface and when excavations commence:
- When excavations begin the rocks must be given a cursory inspection by the environmental officer or designated person. Any fossiliferous material (plants, insects, bone, trace

fossils) should be put aside in a suitably protected place. This way the project activities will not be interrupted; – Photographs of similar fossil plants must be provided to the developer to assist in recognizing the fossil plants in the shales and mudstones; – Photographs of the putative fossils can be sent to the palaeontologist for a preliminary assessment; – If there is any possible fossil material found by the developer/environmental officer/ ECO /miners then the qualified palaeontologist sub-contracted for this project, should visit the site to inspect the selected material and check the dumps where feasible; – Fossil plants or vertebrates that are considered to be of good quality or scientific interest by the palaeontologist must be removed, catalogued and housed in a suitable institution where they can be made available for further study. Before the fossils are removed from the site a SAHRA permit must be obtained. Annual reports must be submitted to SAHRA as required by the relevant permits; – If no good fossil material is recovered then no site inspections by the palaeontologist will not be necessary. A final report by the palaeontologist must be sent to SAHRA once the project has been completed and only if there are fossils; – If no fossils are found and the excavations have finished then no further monitoring is required.

Impact management outcome: Archaeological resources
Impact Management Actions
– The archaeologist must review the positions of the required infrastructure once these have been determined, to ensure that they will not impact on any recorded heritage resources; – In the event of anything unusual being encountered, SAHRA must be consulted immediately so that mitigatory action can be determined and be implemented if necessary. Such mitigation is at the cost of the developer, while time delays and diversion of machinery/plant may be necessary until mitigation in the form of conservation or archaeological sampling is completed; and – Should any human remains be encountered at any stage during the construction or earthworks associated with the project, work in the vicinity must cease, the remains must be left in situ but made secure and the project archaeologist and SAHRA must be notified immediately so that mitigatory action can be determined and be implemented.

9. RECOMMENDED FREQUENCY FOR THE MONITORING AND AUDITING OF THE EMPR

9.1 Environmental Compliance Monitoring and Reporting of the EMPr

- The holder of the authorisation must appoint an Environmental Control Officer (ECO) for the construction and rehabilitation/post-construction monitoring phases of the development. The ECO will have the responsibility of ensuring that the mitigation / rehabilitation measures and recommendations referred to in the environmental authorisation (EA) are implemented, and to ensure compliance with the provisions of the approved EMPr.

- Environmental audits must be undertaken by an independent environmental consultant who will act as the Environmental Control Officer; or what is deemed necessary by the ECO during times of heavy earth works and vegetation clearing, in order to ensure compliance of all aspects of the EMPr.

- It is recommended that the ECO conduct the audit on a monthly basis or on a daily or weekly basis, depending on the work being undertaken, from the start of the construction phase until one month after rehabilitation/post-construction is complete.

- The results of the audit undertaken by the ECO must be displayed in a monitoring / compliance report and submitted to the Developer's Project Manager; Developer Site Supervisor; Contractors; and any other parties involved in the construction and rehabilitation/post-construction phase of the development.

9.2 External Environmental Audit Reporting of the EMPr

- External Environmental auditing based on the ECO compliance reports is to take place by an independent environmental consultant. It is recommended that auditing takes place every 6 months from the start of the construction phase and a final external audit should take place within one month after rehabilitation/post-construction is complete.

- The appointed auditor is to have relevant environmental auditing expertise and must be able to provide verifiable findings in a structured and systematic manner. The independence and expertise of the auditor must be documented in the audit report.

- Each audit report must be submitted to the Director: Compliance Monitoring of the Department at Directorcompliance@environment.gov.za; the ECO; Developer's Project Manager; Developer Site Supervisor; Contractors; and any other parties involved in the construction and rehabilitation/post-construction phase of the development once complete.

9.3 EMPr Amendments and Instructions

No EMPr amendments shall be allowed without the approval of the DFFE. Amendments may be possible, following discussions with the relevant ECO or environmental consultant, who may propose EMPr amendments on behalf of the developer or issue EMPr instructions, corrective actions, remediation or rehabilitation. These correction actions must be completed within the specified timeframes.

10 SITE SPECIFIC ENVIRONMENTAL SENSITIVITIES/ATTRIBUTES

10.1 Chance Fossil Find Protocol

Monitoring Programme for Palaeontology – to commence once the excavations and associated activities begin.

1. The following procedure is only required if fossils are seen on the surface and when excavations commence.
2. When excavations begin the rocks and must be given a cursory inspection by the environmental officer or designated person. Any fossiliferous material (plants, insects, bone, trace fossils) should be put aside in a suitably protected place. This way the project activities will not be interrupted.
3. Photographs of similar fossil plants must be provided to the developer to assist in recognizing the fossil plants in the shales and mudstones. This information will be built into the EMPr's training and awareness plan and procedures.
4. Photographs of the putative fossils can be sent to the palaeontologist for a preliminary assessment.
5. If there is any possible fossil material found by the developer/environmental officer, the qualified palaeontologist sub-contracted for this project should visit the site to inspect the selected material and check the dumps where feasible.
6. Fossil plants or vertebrates that are considered to be of good quality or scientific interest by the palaeontologist must be removed, catalogued and housed in a suitable institution where they can be made available for further study. Before the fossils are removed from the site a SAHRA permit must be obtained. Annual reports must be submitted to SAHRA as required by the relevant permits.
7. If no good fossil material is recovered then no site inspections by the palaeontologist will be necessary. A final report by the palaeontologist must be sent to SAHRA once the project has been completed and only if there are fossils.
8. If no fossils are found and the excavations have finished then no further monitoring is required.

Examples of fossils from the Malmani Subgroup and Irrigassie Formation

Figure 10: Photographs of stromatolites as seen in the field, from the Malmani Subgroup.

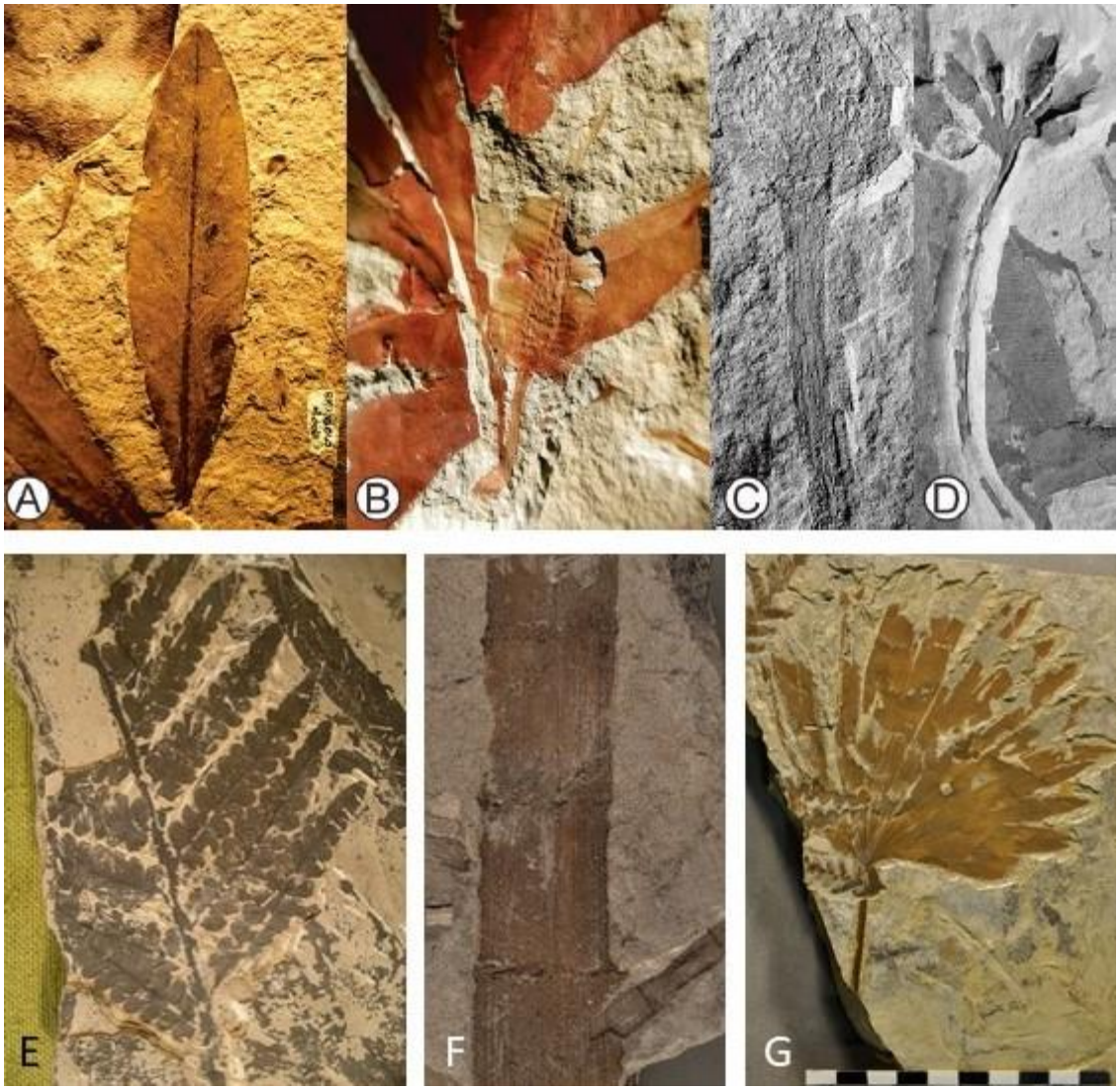

Figure 11: Photographs of fossil plants of the *Glossopteris* flora that could occur in the Irrigassie Formation.

APPENDIX 1: METHOD STATEMENTS

To be prepared by the contractor prior to commencement of the activity. The method statements are **not required** to be submitted to the CA.

APPENDIX 2: SITE SPECIFIC APPENDICES

- EAP Curriculum Vitae
- Figure 1: Site Locality Map
- Figure 2 (a-f): Environmental Sensitivity Map
- DFFE Screening Tool Report