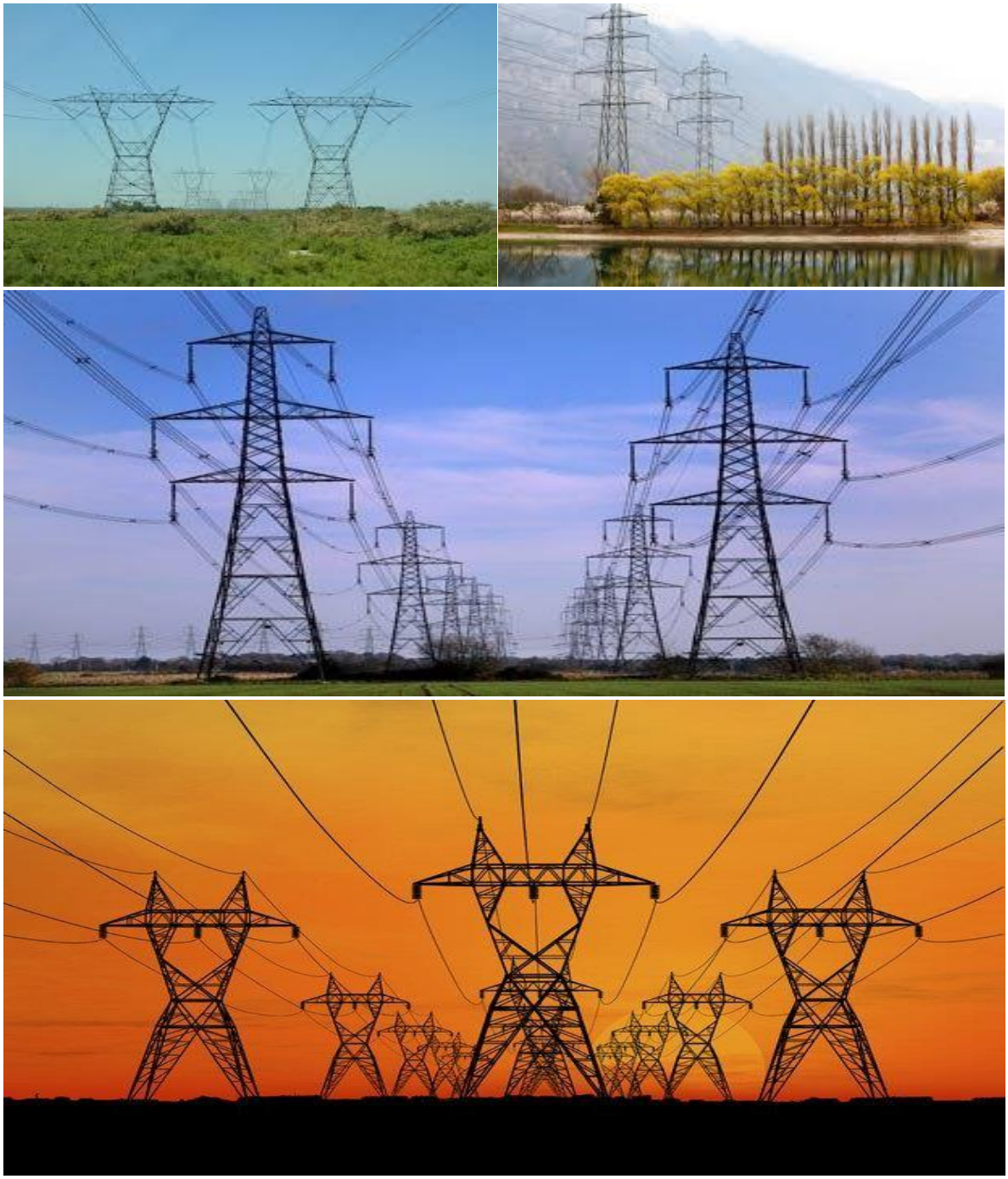
APPENDIX 1

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



environmental affairs

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Environmental Affairs
REPUBLIC OF SOUTH AFRICA

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INTRODUCTION

1. Background

The National Environmental Management Act 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 EIA Regulations, 2014, 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 for overhead electricity transmission and distribution infrastructure, 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 actions which can commonly and repeatedly be used for the avoidance, management and mitigation of impacts and risks associated with the development or expansion for o overhead electricity transmission and distribution infrastructure. 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 overhead electricity transmission and distribution infrastructure requiring EA in terms of the

National Environmental Management Act, 1998 (Act No. 107 of 1998), i.e. with a capacity of 33 kilovolts or more. This generic EMPr applies to activities requiring EA, mainly activity 11 and 47 of the Environmental Impact Assessment Regulations Listing Notice 1 of 2014 and activity 9 of the Environmental Impact Assessment Regulations Listing Notice 2 of 2014, 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 actions required for the avoidance, management and mitigation of impacts and risks associated with the development or expansion overhead electricity transmission and distribution infrastructure, 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. 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 and **does not** need approval. 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 authorisation process, the applicant(s)/proponent(s) or the EAP on behalf of the applicant (s)/proponent (s) must make the location of the document known to the potential registered interested and affected parties. Should the potential registered interested and affected parties not have access to electronic media, the applicant(s) or the EAP must make a hard copy available at a public location.
	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 actions are legally binding. The preliminary infrastructure layout must be finalized to inform final EMPr that is to be submitted with BAR or EIAR before

			commencement, ensuring that all impact management outcomes and actions have been either pre-approved or approved in terms of Part C. This section **must be** submitted to the CA as part of the BAR or EIAR, for consideration of, and decision on, the application for EA. The information submitted for EA will be considered to be incomplete should a signed copy of Part B: section 2 not be submitted. Once approved, this Section forms part of the EMPr for the site 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 actions not included in the pre-approved generic EMPr to manage impacts, these specific impact management outcomes and actions must be included in this section. These specific environmental attributes must be referenced spatially and impact management outcomes and actions must be provided. These specific impact management outcomes and actions must be presented in the format of the pre-approved EMPr template (Part B: section 1)

			If Part C is applicable to the site, it **is required** to be submitted as part of 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 applies only **to additional** impact management outcomes and 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.** This section will **not be required** should the site contain no specific environmental sensitivities or attributes.
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 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 actions

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

- Amendment of the impact management outcomes – in line with regulation 37 of the EIA Regulation, 2014
- Amendment of the impact management actions – in line with regulation 36 of the EIA Regulations, 2014.

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 applicants name and contact details, the site information which includes coordinates of the corridor in which the proposed overhead electricity transmission and distribution 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 or an applicant in the case of exemption 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. Once the web based screening tool identified in regulation 16(1)(v) of the EIA Regulations, 2014 is available, the sensitivity map must be prepared from this system. The map is to indicate areas/features of sensitivity based on the findings of the assessment and illustrated according to four tiers, Very High, High, Medium or Low. The sensitivity map shall also identify the nature of each sensitive feature e.g. raptor nest, threatened plant species, archaeological site, etc. Sensitivity maps shall identify features both within the planned working area and any known sensitive features in the surrounding landscape. The overhead transmission and distribution profile shall be illustrated at an appropriate resolution to enable fine scale interrogation. It is recommended that <20 km of overhead transmission and distribution length is illustrated per page in A3 landscape format. Where considered appropriate, photographs of sensitive features in the context of tower positions shall be used.

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 'generic EMPr' in Section 1 and understands that the impact management outcomes and actions are legally binding.

(i) 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 amendment of the EA in terms of regulations 29 or 31 of the EIA Regulations, 2014. The information submitted 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 site and the EMPr becomes legally binding to the new EA holder once the amendment process has been concluded.

PART A – GENERAL INFORMATION

1. DEFINITIONS

In these EMPr any word or expression to which a meaning has been assigned in the NEMA or EIA 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;

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.

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;

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 shall cover 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.

Hazardous Substances 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;

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
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)
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.

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

Function	Roles 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). An independent 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 environmental authorization (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); – 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 works, 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. <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; – Will issue all non-compliances to contractors; and – Ratify the Monthly Environmental Report.
Environmental Control Officer (ECO)	<u>Role</u> The ECO should be employed by the developer for the duration of the project. 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 Implementing Agent and potential and Registered Interested &Affected Partie's (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; – 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; – Issuing of site instructions to the Contractor for corrective actions required; – 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 and/or sub-contractors;

	– 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 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) and its sub-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; – Acting as Developer's Environmental Representative on site and work together with the ECO and contractor; – Audit carried out by an independent auditor/consultant.
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 management actions contained in the EMPr will be implemented during the development or expansion for overhead electricity transmission and distribution infrastructure activities. <u>Responsibilities</u> – 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 (or sub-contractors) 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)	<u>Role</u> 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, labourers, the Environmental Control Officer and the public. As a minimum the cEO shall meet the following criteria:

	The cEO ensures that all Sub-contractors working under the Contractor abide by the requirements of the generic EMPr. The Contractor is answerable to the Project Manager for all environmental issues associated with the project. <u>Responsibilities</u> – 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; – 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 overhead electricity transmission and distribution 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. At 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 will be the responsibility of the ECOs and 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 (in terms of NEMA EIA regulation) 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 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, 2014.

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 shall 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 ensure that the contractors perform in accordance with these method statements. Completed and authorised method statements 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, management outcomes and 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. All areas before, during and post rehabilitation; and
13. 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 ECOs 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 will be undertaken by the ECO. The findings and outcomes of these audits will be recorded in the EMPr file. The environmental audits and associated reports must be conducted and submitted to the CA at intervals as indicated in the EA.

The ECOs must prepare a monthly EAR. The report will be tabled 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 in terms of NEMA. 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 Final environmental audits

On final completion of the entire activity, the ECOs are required to prepare a final EAR. The report is to be submitted to the CA for acceptance and approval. The environmental report must comply with Appendix 7 of the EIA Regulations, 2014.

- Details of the independent person who prepared the report;
- Details of the expertise of independent person that compiled the report;
- A declaration that the independent auditor is independent in a form as may be specified by the CA;
- An indication of the scope of, and the purpose for which, the environmental audit report was prepared;
- A description of the methodology adopted in preparing the environmental audit report;
- An indication of the ability of the EMPr, and where applicable, the closure plan to-

- Sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity on an on-going basis;
- Sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the closure of the facility; and
- Ensure compliance with the provisions of EA, EMPr, and where applicable, the closure plan;

- A description of any assumptions made, and any uncertainties or gaps in knowledge;
- A description of any consultation process that was undertaken during the course of carrying out the EAR;
- A summary and copies of any comments that were received during any consultation process; and
- Any other information requested by the CA.

Submission of the final EAR to the CA will indicate the end of the entire activity.

PART B: SECTION 1: Pre-approved generic EMPr template

5. IMPACT MANAGEMENT OUTCOMES AND ACTIONS

This section provides a pre-approved generic EMPr template with activities that are common to the development of overhead electricity transmission and distribution infrastructure. There are 30 doings identified for the development or expansion of overhead electricity transmission and distribution infrastructure, and for each doing a set of prescribed impact management outcomes and associated management actions have been identified. Holders of EAs are responsible to ensure the implementation of these controls for all projects as a minimum requirement for mitigating the impact of activities identified for the development or expansion of overhead electricity transmission and distribution infrastructure.

The template provided below is to be completed by providing the information under each headings for each environmental 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 Mitigation 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;	ECO and cEO	Environmental Induction training; Toolbox talks; other pertinent training aids.	Initially prior to construction commencing ECO to induct Construction Management and cEO, and thereafter repeated for all new employees and yearly. Toolbox talks to be presented weekly.	ECO	Monthly	Signed induction and toolbox talk, or training registers.

– The Contractor must erect and maintain information posters at key locations on site; – Environmental awareness training should 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; i) Sanitation procedures; and j) 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.						

5.2 Site Establishment development

Impact management outcome: Impacts on the environment are minimised when developing new infrastructure and the development footprint are kept to demarcated development area.						
Impact Mitigation 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	Contractor	Method Statement compilation and communication of	Prior to construction.	ECO	Monthly	Signed Method Statements; signed proof of

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 assessment or site walk through;		Method Statements to employees. Use of EIA and Specialist Studies to locate site camps.				communication register; Liaison with ECO regarding site camp placement.

– Sites should 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.						

5.3 No go Areas

Impact management outcome: Access to No go areas prevented.						
Impact Mitigation Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance

– Identification of No-Go 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 fence around the perimeter of any No-Go area; – Fencing of No-Go areas is to be undertaken in accordance with **Section *5.5: Fencing and gate installation***; and – Unauthorised access and development related activity inside No-Go areas is prohibited.	ECO and cEO	Method Statement compilation and use of sensitivity maps	Prior construction	ECO	Monthly	Photographic evidence and liason with DEO.

5.4 Access roads

Impact management outcome: Minimise impact to the environment through the planned and restricted movement of vehicles on site.						
Impact Mitigation Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Access to the servitude and tower positions must be negotiated with the relevant landowner and must fall within the assessed and authorised area; – An access agreement must be formalized and signed by the DPM, Contractor and landowner before commencing with the activities;	Contractor	Implementation of mitigation measures.	Ongoing	ECO	Monthly	Signed access agreements and maintenance of access roads.

– The access roads to tower positions must be signposted after access has been negotiated and before the commencement of the activities – 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; – In circumstances where private roads must be used, the condition of the said roads must be recorded in accordance with **section 6.9: *photographic record*;** prior to use and the condition thereof agreed by the						

landowner, the DPM, and the contractor; – 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. As far as possible, access roads must follow the contours in hilly areas, as opposed to winding down steep slopes; – Access is to be established by vehicles passing over the same track on natural ground, multiple tracks are not permitted. Access roads must only be developed where necessary at watercourses, on steep slopes or where boulders prohibit vehicular traffic; and						

– Upon completion of development, only roads as indicated by the DPM must be closed.						

5.5 Fencing and Gate Installation

Impact management outcome: To minimise impact to the environment and ensure safe and controlled access to the site through the erection of fencing and gates where required.						
Impact Mitigation 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 defined Working Area, where possible;	Contractor and Applicant	Implementation of the mitigation measures	Ongoing	ECO	Monthly	Site observation; public complaints register

– 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; – 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 overhead transmission and distribution electricity infrastructure development activities; – Fencing must be erected around the camp, batching plants, hazardous storage areas, and all designated no-go areas, where applicable;						

– 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; – The contractor must ensure that all fence uprights are appropriately removed, ensuring that no uprights are cut at ground level but rather removed completely.						

5.6 Water Supply Management

Impact management outcome: Undertake responsible water usage.						
Impact Mitigation 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; – Should water abstraction be required and the necessary authorisation from DWS and permission from the landowner has been received, the	Contractor and Applicant	Application to DWS where applicable. Implementation of mitigation measures	Construction	ECO	Monthly	Proof of water source used; submission of above proof to DWS.

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.						

5.7 Storm and waste water management

Impact management outcome: Impacts to the environment caused by storm water and wastewater discharges during construction are avoided.						
Impact Mitigation Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Appropriate pollution control facilities necessary to prevent discharge of water containing polluting matter or visible	Contractor	Employ methods to prevent water pollution	Construction	ECO	Weekly	Inspection of areas where construction takes place near watercourses.

suspended materials into water courses or water bodies must be designed and implemented; – 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.						

5.8 Solid waste Management

Impact management outcome: Wastes are appropriately stored, handled and safely disposed of at a recognised waste facility.						
Impact Mitigation Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of 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;	Contractor	Following good waste management practices outlined in approved method Statement	Construction	ECO	Weekly	Waste Safe disposal slips; Service Level Agreements

– 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; – Staff must be trained in waste segregation; – Bins must be emptied regularly; – General waste produced onsite must be disposed of at recognised 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.						

5.9 Protection of watercourses

Impact management outcome: Pollution and contamination of the watercourse environment and erosion are prevented.						
Impact Mitigation 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;	Contractor	Method statements; Stormwater Management Plan;	Construction	ECO	Weekly	Method Statement compliance

– 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; – Development of permanent watercourse crossing must only be undertaken where no alternative access to tower position is available; – When working in or near any watercourse or wetland, the following environmental controls and consideration must be taken: a) a) River levels during the period of construction;						

b) During the execution of the Works, appropriate measures to prevent pollution and contamination of the riverine environment must be implemented e.g. including ensuring that construction equipment is well maintained; c) 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						

d) Appropriate rehabilitation and re-vegetation measures for the riverbanks must be implemented timeously. In this regard, the banks should be appropriately and incrementally stabilised as soon as development allows.						

5.10 Vegetation clearing

Impact management outcome: Vegetation clearing is restricted to the authorised development footprint of the proposed infrastructure.						
Impact Mitigation Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– 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	Contractor And Applicant	Specialist recommendations; Method statement; Search and Rescue Plan; Alien vegetation removal Plan (approved	Pre-Construction and Construction and Operation	ECO	Pre-Construction and weekly during construction	Compliance to method statements and Search and Rescue Plan; Alien vegetation removal Plan. approved plans 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 Report must confirm that all identified – species have been rescued and replanted; – ▫ Trees felled due to construction must be monitored and listed – in the Audit Environmental Report; – ▫ Rivers and watercourses must be kept clear of felled trees, – vegetation cuttings and debris;		plans and strategies used by NTCSA), site awareness				strategies used by NTCSA)

– 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; – All protected species and sensitive vegetation not removed must be clearly marked and such areas fenced off if required in accordance with No-Go procedure in **Section 5.3: No-Go areas**. When working in or near any watercourse or wetland, the following environmental controls and consideration shall be taken. **Servitude:**						

– Vegetation that does not grow high enough to cause interference with overhead transmission and distribution infrastructures, or cause a fire hazard to any plantation, should not be cut or trimmed unless it is growing in the road access area, and then only at the discretion of the Project Manager; – Where clearing for access purposes is essential, the maximum width to be cleared within the servitude must be in accordance to the specifications – Alien invasive vegetation should be removed according to a plan (in line with relevant municipal and provincial procedures, guidelines and recommendations) and disposed of at a recognised waste disposal facility; – Vegetation should be trimmed where it is likely to intrude on the minimum						

vegetation clearance distance (MVCD) or will intrude on this distance before the next scheduled clearance. MVCD is determined from SANS 10280; – Debris resulting from clearing and pruning must be disposed of at a recognised waste disposal facility, unless the landowners wish to retain the cut vegetation; – In the case of the development of new overhead transmission and distribution infrastructures, a one metre "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: minimise disturbance to fauna.						
Impact Mitigation 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	Contractor	Method statement and adherence to exclusion/no-go zones, site awareness	Contractor	ECO	Weekly	Public complaints register; adherence to exclusion/no-go zones and method statements

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; – Nesting sites on existing parallel lines must documented; – Special recommendations of the avian specialist must be adhered to at all times to prevent unnecessary disturbance of birds; – Bird guards and diverters must be installed on the new line as per the recommendations of the specialist; – No poaching must be tolerated under any circumstances. All animal dens in close proximity to						

the works areas must be marked as No-Go areas.						

5.12 Protection of heritage resources

Impact management outcome: impact to heritage resources is minimised.						
Impact Mitigation 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: No-Go areas**;	Contractor/ Paleontologist/ Archaeologist	Implement chance finds procedure immediately upon uncovering heritage	Pre Construction And Construction Phase	dEO/ECO Paleontologist/ Archaeologist	Fortnight and as when required	Chance finding records

– 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 archaeological, palaeontological and historical material are uncovered. Such material, if exposed, must be reported to the nearest museum, archaeologist/ palaeontologist (or the South African Police Services), so that a systematic and professional investigation can be undertaken. Sufficient time should be allowed to remove/collect such material before development recommences.		material Training in chance finds for all employees				

5.13 safety of the public

Impact management outcome: all precautions are taken where possible to minimise the risk of injury, harm or complaints.						
Impact Mitigation 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;	Contractor	Method Statement; Heritage management plan	Pre-construction and construction	ECO	Weekly and daily for zones highlighted by Heritage Specialist where potsherds were found.	Monitoring of construction areas, adherence to management plan if chance finds found.

– Adequate protective measures must be implemented to prevent unauthorised access to and climbing of partly constructed towers and 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.						

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 Mitigation 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;	Contractor	Service level agreement with Service provider; Method statement; site awareness	Construction	ECO	Monthly	Service level agreement with Service provider, proof of safe disposal of waste.

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; f) Toilets are serviced regularly and the ECO must inspect toilets to ensure compliance to health standards; – A copy of the waste disposal certificates must be maintained.						

5.15 Prevention of disease

Management outcome: All necessary precautions linked to the spread of disease are taken.						
Impact Mitigation Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Undertake environmentally friendly pest control in the camp area; – Ensure that the workforce is sensitised 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	Contractor	Method statement, awareness training.	Construction	ECO	Monthly	Method statement, proof of awareness training.

available to both construction workers and local community, where applicable; – Free condoms will 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.						

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 Mitigation 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 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**).	Contractor	Environmental Emergency Response Action Plan	Construction	ECO	Weekly	Adherence/ compliance to ERAP

5.17 Hazardous Substances

Impact management outcome: safe storage, handling, use and disposal of hazardous substances.						
Impact Mitigation 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 minimised and non-hazardous and non-toxic alternatives substituted where possible; – All hazardous substances will be stored in suitable containers as defined in the Method Statement; – Containers will be clearly marked to indicate contents, quantities and safety requirements;	Contractor	Method Statement, OHS requirements; adequate and responsible use and storage of Hazardous Substances, Hazardous Substances storage register.	Construction	ECO	Weekly	Hazardous Substance Storage Register, MSDS, Method Statement

– All storage areas will be bunded. The bunded area will be of sufficient capacity to contain a spill / leak from the stored containers; – An Alphabetical Hazardous Chemical Substance (HCS) control sheet will be drawn up and kept up to date on a continuous basis; – All hazardous chemicals that will be used on site will have Material Safety Data Sheets (MSDS); – All employees working with HCS will 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 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 shall 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; – 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 wastewater management and 5.8 for solid waste management.**						

5.18 Workshop, equipment maintenance and storage

Impact management outcome: Soil, surface water and groundwater contamination is minimized.		
Impact Mitigation 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;	Contractor	Method Statement, OHS requirements; Hazardous Substances storage register, vehicle daily checklist, vehicle service register.	Construction	ECO	Weekly	Method Statement, Hazardous Substances storage register, vehicle daily checklist, vehicle service register.

– 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; – Water drainage from the workshop must be contained and managed in accordance Section **5.7: Wastewater management.**						

5.19 Batching Plants

Impact management outcome: Minimise spillages and contamination of soil, surface water and groundwater.		
Impact Mitigation 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 (such as on boards and/or within a bunded area with an impermeable surface) or make a hard surface and remove when done; – Concrete mixing areas must be fitted with a containment facility for the collection of cement laden water. This facility must be impervious 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;	Contractor	Method Statement	Construction	ECO	Weekly	Compliance to mitigation and method statement

– Hardened concrete from the washout facility or concrete mixer can either be reused or disposed of at an appropriate licenced 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.**						

5.20 Dust emissions

Impact management outcome: dust prevention measures are applied to minimise the generation of dust.						
Impact Mitigation 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 revegetated or stabilised as soon as is practically possible;	Contractor	Method Statement, Vehicle Speed limit, dust suppression.	Construction	ECO	Monthly	Site observations, dust suppression register.

– 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 will 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 40km/h along dust roads or 20km/h						

when traversing unconsolidated and non-vegetated areas; – Appropriate dust suppression measures must be used when dust generation is unavoidable, e.g. dampening with water; particularly during prolonged periods of dry weather in summer. Such measures must also include the use of temporary stabilising measures (e.g. chemical soil binders, straw, brush packs, chipping); – Straw stabilisation must be applied at a rate of one bale/10m^2 and harrowed into the top 100 mm of top material, for all completed earthworks; – For significant areas of excavation or exposed ground, spray water or wet areas using trucks to minimise the spread of dust.						

5.21 Blasting

Impact management outcome: impact to the environment is minimised through a safe blasting practice.						
Impact Mitigation 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.	Contractor	Relevant legislation and regulation.	Construction	ECO	Monthly	Public complaints register; proof of registration of blasting contractor.

5.22 Noise

Management outcome: To prevent unnecessary noise to the environment by ensuring that noise from development activity is mitigated.						
Impact Mitigation Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Operating hours as determined by the environmental authorisation are adhered to during the development phase. Where not defined, development must be limited to daylight hours.	Contractor	Restriction of site hours to working hours Monday to Friday	Construction	ECO	Monthly	Public Complaints Register.

5.23 Fire prevention

Impact management outcome: Prevention of uncontrollable fires.						
Impact Mitigation 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	Contractor	Emergency Response Action Plan; Method Statement	Construction	ECO	Monthly	Public complaints register; compliance to ERAP

awareness training and displayed at a central location on site; – Two way swop of contact details between ECO and FPA.						

5.24 Stockpiling and stockpile areas

Impact management outcome: To reduce erosion and sedimentation as a result of stockpiling						
Impact Mitigation 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, wetlands and water bodies; – All stockpiled material must be maintained and kept clear of weeds	Contractor	Method statement	Construction	ECO	Monthly	Method Statement and site observations

and alien vegetation growth by undertaking regular weeding and control methods; – Stockpiles must not exceed 2 m in height; – During periods of strong winds and heavy rain, the stockpiles should be covered with appropriate material (e.g. cloth, tarpaulin etc.); – Where possible, sandbags (or similar) should be placed at the bases of the stockpiled material in order to prevent erosion of the material.						

5.25 Finalising tower positions

Impact management outcome: No environmental degradation occurs as a result of the survey and pegging operations.		
Impact Mitigation Actions	Implementation	Monitoring

	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– No vegetation clearing must occur during survey and pegging operations; – No new access roads must be developed to facilitate access for survey and pegging purposes; – Project manager, botanical specialist and contractor to agree on final tower positions based on survey within assessed and approved areas; – The surveyor is to demarcate (peg) access roads/tracks in consultation with ECO. No deviations will be allowed without the prior written consent from the ECO.	NTCSA/Eskom Distribution	Findings of the EIA Specialist Studies	Pre-Construction	ECO	Once-off	Final pegging of tower positions.

5.26 Installation of foundations

Impact management outcome: No environmental degradation occurs as a result of the survey and pegging operations.						
Impact Mitigation Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Batching of cement to be undertaken in accordance with **Section 5.19 : Batching;** – Residual cement must be disposed of in accordance with **Section 5.8: Solid Waste Management.**	Contractor	Method Statement and Engineering Drawings	Construction	ECO	Weekly	Adherence to method statements

5.27 Assembly and erecting towers

Impact management outcome: No environmental degradation occurs as a result of assembly and erecting of towers.

Impact Mitigation Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Prior to erection, assembled towers and tower sections must be stored on elevated surface (suggest wooden blocks) to minimise damage to the underlying vegetation; – In sensitive areas, tower assembly must take place off-site or away from sensitive positions; – The crane used for tower assembly must be operated in a manner which minimises impact to the environment; – The number of crane trips to each site must be minimised; – Wheeled cranes must be utilised in preference to tracked cranes; – Consideration must be given to erecting towers by helicopter or by hand where it is	Contractor	Method Statement	Construction	ECO	Weekly	Site Observation

warranted to limit the extent of environmental impact; – Access to tower positions to be undertaken in accordance with access requirements in specified in **Section 8.4: Access Roads;** – ▫ Vegetation clearance to be undertaken in accordance with general vegetation clearance requirements specified in **Section 8.10: Vegetation clearing;** – No levelling at tower sites must be permitted unless approved by the Development Project Manager or Developer Site Supervisor; – Topsoil must be removed separately and stored for later use during rehabilitation of such tower sites; – Topsoil must be stored in heaps not higher than 1m to prevent destruction of the seed bank within the topsoil; – Excavated slopes must be no greater that 1:3, but where this is unavoidable, appropriate						

measures must be undertaken to stabilise the slopes; – Fly rock from blasting activity must be minimised and any pieces greater than 150 mm falling beyond the Working Area, must be collected and removed; – Only existing disturbed areas are utilised as spoil areas; – Drainage is provided to control groundwater exit gradient with the spill areas such that migration of fines is kept to a minimum; – Surface water runoff is appropriately channeled through or around spoil areas; – During backfilling operations, care must be taken not to dump the topsoil at the bottom of the foundation and then put spoil on top of that; – The surface of the spoil is appropriately rehabilitated in accordance with the requirements specified in **Section 5.29: Landscaping and rehabilitation**;						

– The retained topsoil must be spread evenly over areas to be rehabilitated and suitably compacted to effect revegetation of such areas to prevent erosion as soon as construction activities on the site is complete. Spreading of topsoil must not be undertaken at the beginning of the dry season.						

5.28 Stringing

Impact management outcome: No environmental degradation occurs as a result of stringing						
Impact Mitigation Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Where possible, previously disturbed areas must be used for the siting of winch and tensioner stations. In all other instances,	Contractor	Method statement,	Construction	ECO	Weekly	Site Observation

the siting of the winch and tensioner must avoid No-Go areas and other sensitive areas – The winch and tensioner station must be equipped with drip trays in order to contain any fuel, hydraulic fuel or oil spills and leaks; – Refueling of the winch and tensioner stations must be undertaken in accordance with **Section 5.17: Hazardous substances**; – In the case of the development of overhead transmission and distribution infrastructure, a one metre "trace-line" may be cut through the vegetation for stringing purposes only and no vehicle access must be cleared along "trace-lines". Vegetation clearing must be undertaken by hand, using chainsaws and handheld implements, with vegetation being cut off at ground level. No tracked or wheeled mechanised equipment must be used;		adherence to exclusion zones				

– Alternative methods of stringing which limit impact to the environment must always be considered e.g. by hand or by using a helicopter; – Where the stringing operation crosses a public or private road or railway line, the necessary scaffolding/protection measures must be installed to facilitate access. If, for any reason, such access has to be closed for any period(s) during development, the persons affected must be given reasonable notice, in writing; – No services (electrical distribution lines, telephone lines, roads, railways lines, pipelines fences etc.) must be damaged because of stringing operations. Where disruption to services is unavoidable, persons affected must be given reasonable notice, in writing; – Where stringing operations cross cultivated land, damage to crops is restricted to the						

minimum required to conduct stringing operations, and reasonable notice (10 workdays minimum), in writing, must be provided to the landowner; – Necessary scaffolding protection measures must be installed to prevent damage to the structures supporting certain high value agricultural areas such as vineyards, orchards, nurseries.						

5.29 Temporary closure of site

Impact management outcome: Minimise the risk of environmental impact during periods of site closure greater than five days.						
Impact Mitigation Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance

– Bunds must be emptied (where applicable); – 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.;	Contractor	Landowner Agreements, Issues and Complaints Register.	Construction	ECO	Monthly	Landowner Agreement, Issues and Complaints Register

– Structures vulnerable to high winds must be secured; – Wind and dust mitigation must be implemented; – Cement and materials stores must have been secured; – Toilets must have been emptied and secured; – Refuse bins must have been emptied and secured; – Drip trays must have been emptied and secured.						

5.30 Landscaping and rehabilitation

Impact management outcome: No environmental degradation occurs as a result of the survey and pegging operations.						
Impact Mitigation 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 will be disposed to a registered waste site and certificates of disposal provided; – All slopes in excess of 2% (1:50) must be contoured in accordance with the Conservation of Agricultural Resources Act, No 43 of 1983; – All slopes in excess of 12% (1:8.3) must be terraced in accordance with the Conservation of Agricultural Resources Act, No 43 of 1983; – Berms that have been created should have a slope of 1:4 and be replanted with indigenous species and grasses; – Where new access roads have crossed cultivated farmlands, that lands must be rehabilitated by ripping to a minimum depth of 600 mm;	Contractor	Method Statements, Erosion protection, alien eradication plan.	Construction	ECO	Monthly	Adequately revegetated work areas, no erosion or invasive plant species.

– Rehabilitation of tower sites and access roads outside of farmland; – Indigenous species will be used for replanting; – Stockpiled topsoil must be used for rehabilitation (refer to Section **5.23: Stockpiling and stockpiled areas**); – Stockpiled topsoil will 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 project 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 as per the instruction from the ECO; – 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; – Where required, re-vegetation 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 grow in the area feasible to grow;						

d) Root systems must have a binding effect on the soil; e) The final product should not cause an ecological imbalance in the area						

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 regulation 26 (h) of the Environmental Impact Assessment Regulations, 2014.

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:

Name of Applicant	Eskom Distribution: Cape Cluster
Applicant Representative	Ms Namhla Dondi
Postal Address	PO Box 222, Brackenfell, 7561
Physical Address	Eskom Road, Protea Heights, Brackenfell, 7561
Telephone No	0219152801

7.1.2 Details and expertise of the EAP:

Name of Company	Ufefe Development Consultants (Pty) Ltd
Lead EAP	Mr Caiphus Mukwevho
Contact Number	0822694524
E-mail Address	caiphusm@ufefe.co.za
Office Address	16 Shaw Avenue The Reeds Centurion 0157
Qualifications	- B. Environmental Sciences - B. Honours Ecology and Resources Management
Professional Registration and Registration number	EAPASA (Registered EAP- 2019/618)
Years of Experience	8 Years

7.1.3 Project name:

THE 132kV D/C BOSKLOOF-LAINSBURG LINE REPAIRS, WITHIN BREEDE VALLEY LOCAL MUNICIPALITY OF CAPEWINELADS DISTRICT AND LAINGSBURG LOCAL MUNICIPALITY OF CENTRAL KAROO DISTRICT, WESTERN CAPE PROVINCE

7.1.4 Description of the project:

ESKOM: Distribution proposes to repair 132KV Line between Boskloof and Laingsburg. The project will also include replacement of current Lattice Towers with Monopole Towers:

- Restore the section of the double circuit 132kV Boskloof-Laingsburg power line Lattice towers by constructing new Monopole towers on the same servitude and line route to normalize the supply.
- Install 10kA OPGW between towers T270 and T278, connect to the newly installed joint boxes.
- Replace the damaged earth peak on T278 (1LAI-TOU 178).
- Decommission and remove existing temporary wood pole structures from the site.

The entire powerline covers a distance of 143.6km in length.

7.1.5 Project location:

The table below provides the details of the location on which the proposed line repairs traverse.

Table 2: Location Details

Farm Name	Portion No	SG 21 Code
Oude Wagendrift 362	0	C08500000000036200000
	6	C08500000000036200000
Bernheim 899	RE	C08500000000089900000
	2	C08500000000089900002
De nonna 341	1	C08500000000034100001
	4	C08500000000034100004
	6	C08500000000034100006
Patrys Kloof 330	0	C08500000000033000000
Keeroms 1	RE	C05000000000000100000
	1	C05000000000000100001
Witkwaters Kloof 3	0	C05000000000000300000
Witvlakte 175	RE	C08500000000017500000
Farm 761	RE	C0850000000001740000

	2	C0850000000001740002
Stinkfontein 172	RE	C0850000000017200000
Stinkfonteins Berg 140	RE	C0850000000014700000
Helpmekaar 148	9	C0850000000014800009
Ratelbosch 149	1	C0850000000014900001
Skulpiesklip 151	RE	C0850000000015100000
Nouwgat 157	2	C0850000000015700002
Farm 740	0	C0850000000074000000
Vredefort 34	RE	C0850000000003400000
Zeekoe Gat 32	RE	C0850000000003200000
Slang Rivier 21	1	C0850000000002100001
Farm 262	0	C0850030000026200000
Farm 771	0	C0850000000077100000
Quaree Kloof 12	RE	C0850000000001200000
Quarrie Kloof 155	0	C0430000000015500000
Farm 156	0	C0430000000015600000
Farm 157	0	C0430000000015700000
Tweeside 151	RE	C0430000000015100000
Besten Weg 150	RE	C0430000000015000000
	1	C0430000000015000001
Matjesfontein 148	8	C0430000000014800008
Grootwater 270	RE	C0430000000027000000
Farm 282	RE	C0430000000028200000
Paarde fontein 44	3	C0430000000014400003
Baviaans Krants 104	6	C0430000000029000006
Farm 1115	0	C0430010000111500000

Location of substations is as follows:

Table 3: Location of Sub stations

Substation	Central Coordinates	
	Longitude	Latitude
Boskloof Substation	19°33'7.21"E	33°37'49.53"S
Quarry Traction Substation	20°11'19.37"E	33°15'58.67"S
Pietermeinties Traction Substation	20°25'19.24"E	33°15'2.87"S
Laingsburg Substation	20°52'14.78"E	33°11'35.66"S

7.16 Preliminary technical specification of the overhead transmission and distribution:

Final Tower Positions

The Boskloof to Laingsburg 132KV D/C Line was established over 60 years ago, the Generic EMPr is prepared for the Line Repair of 8 Towers that were affected by strong winds in 2024.

Refer to Part C for EMPr mitigation tables.

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. Once the web-based screening tool identified in regulation 16(1) (v) of the Environmental Impact Assessment Regulations, 2014 is available, the sensitivity map must be prepared from this system. The map is to indicate areas/features of sensitivity based on the findings of the assessment and illustrated according to four tiers, Very High, High, Medium or Low. The sensitivity map shall also identify the nature of each sensitive feature e.g. raptor nest, threatened plant species, archaeological site, etc. Sensitivity maps shall identify features both within the planned working area and any known sensitive features in the surrounding landscape. The overhead transmission and distribution profile shall be illustrated at an appropriate resolution to enable fine scale interrogation. It is recommended that <20 km of overhead transmission and distribution length is illustrated per page in A3 landscape format. Where considered appropriate, photographs of sensitive features in the context of tower positions shall be used.

The submission of application and reports for authorised line were submitted prior to the promulgation of the Government Notice as such the Environmental Screening Tool was not used in the EMPr submitted to the Department for decision making.

Sensitivity maps were generated using the GIS data available and the input from the various Specialist Studies and are included below (as per the submission of this EMPr with the Final EIA Report). The EMPr was not approved through the EIA process, and the EA stipulated that the final tower positions would need to be included for the EMPr to be approved by the Department.

Since the Screening Tool is available and in effect upon the submission of the Final EMPr, inclusive of the final tower positions, the sensitivity maps from the Screening Report are also included in Figure 1 to Figure 8 below.

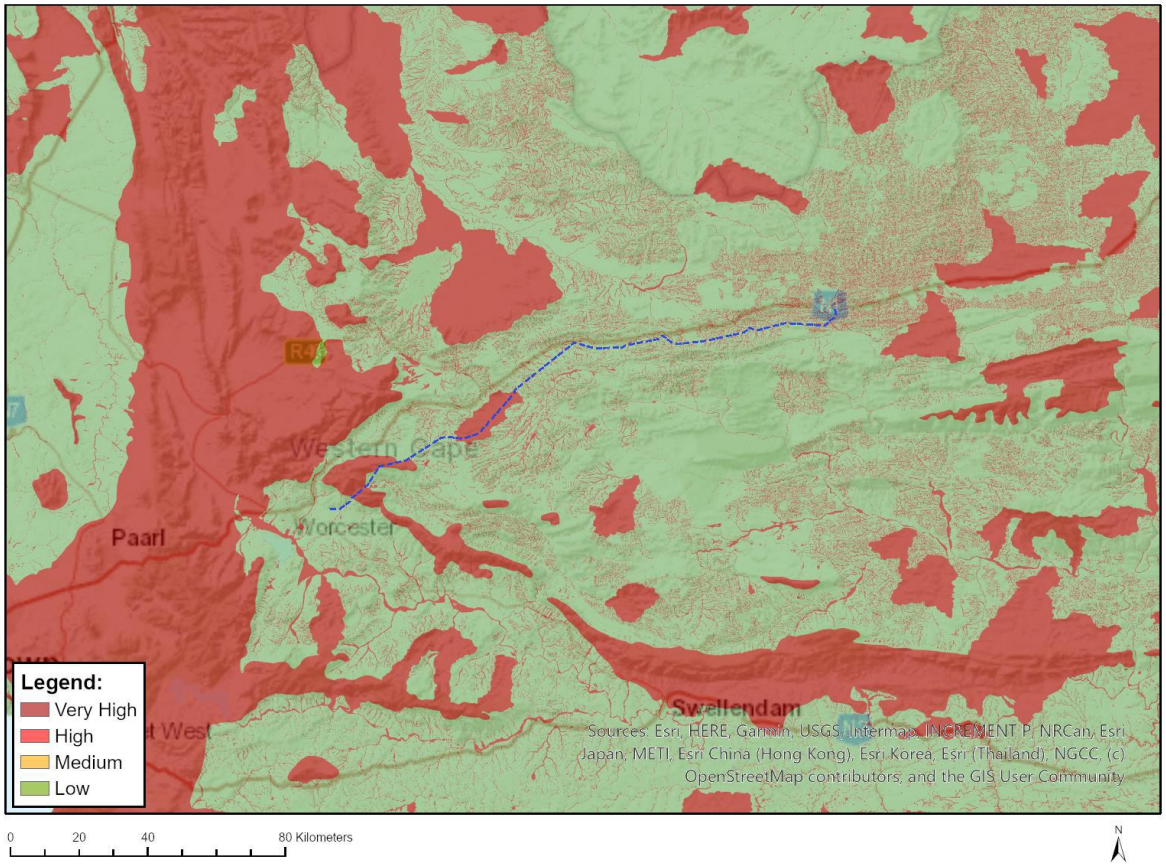


Figure 1: Aquatic biodiversity theme, DFFE screening tool

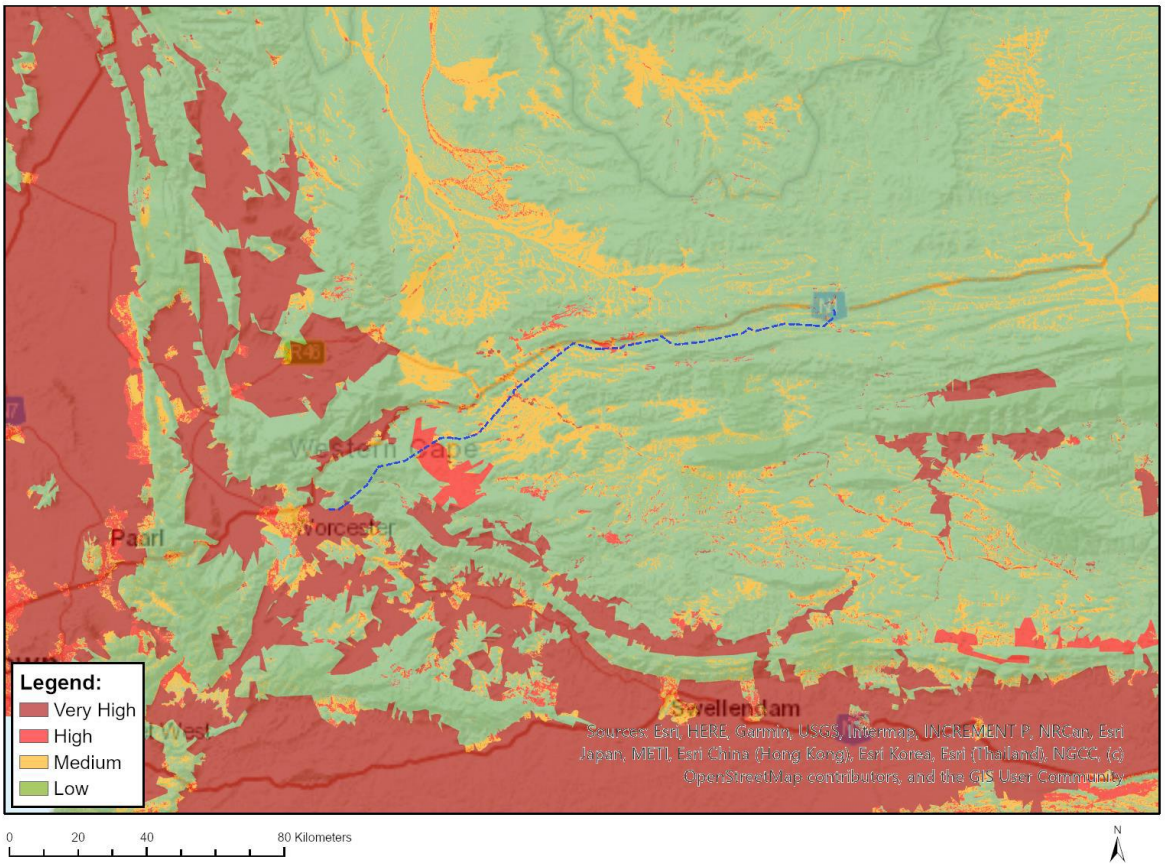


Figure 2: Agricultural theme, DFFE Screening tool

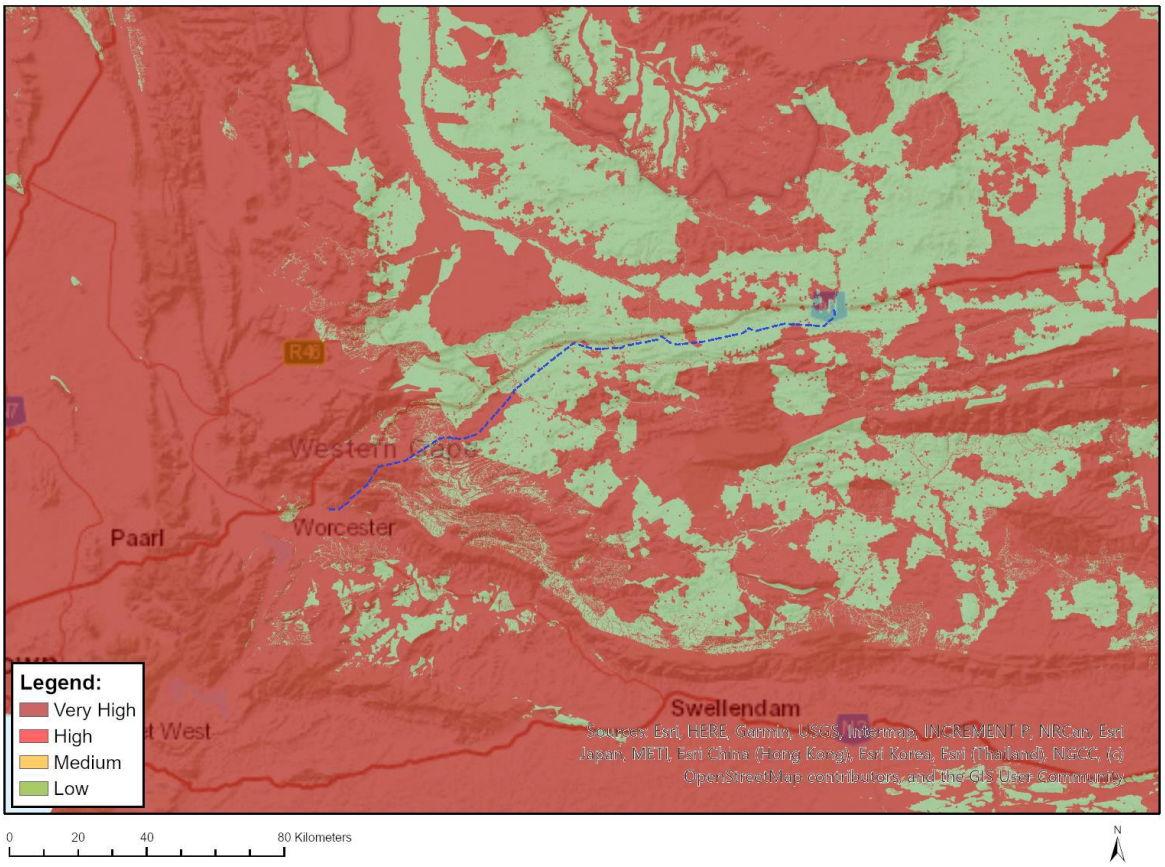


Figure 3: Terrestrial Biodiversity theme, DFEE Screening tool

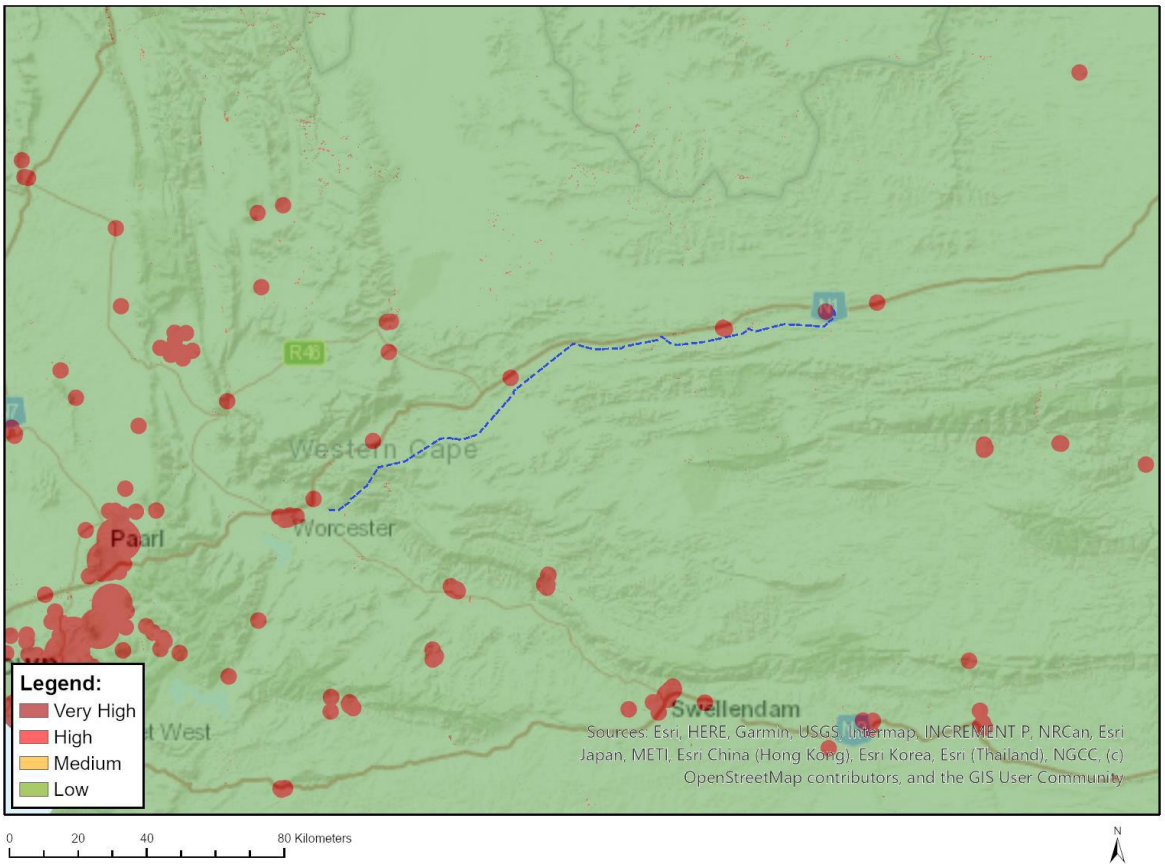


Figure 4: Archaeology and Cultural Heritage theme, DFFE Screening tool

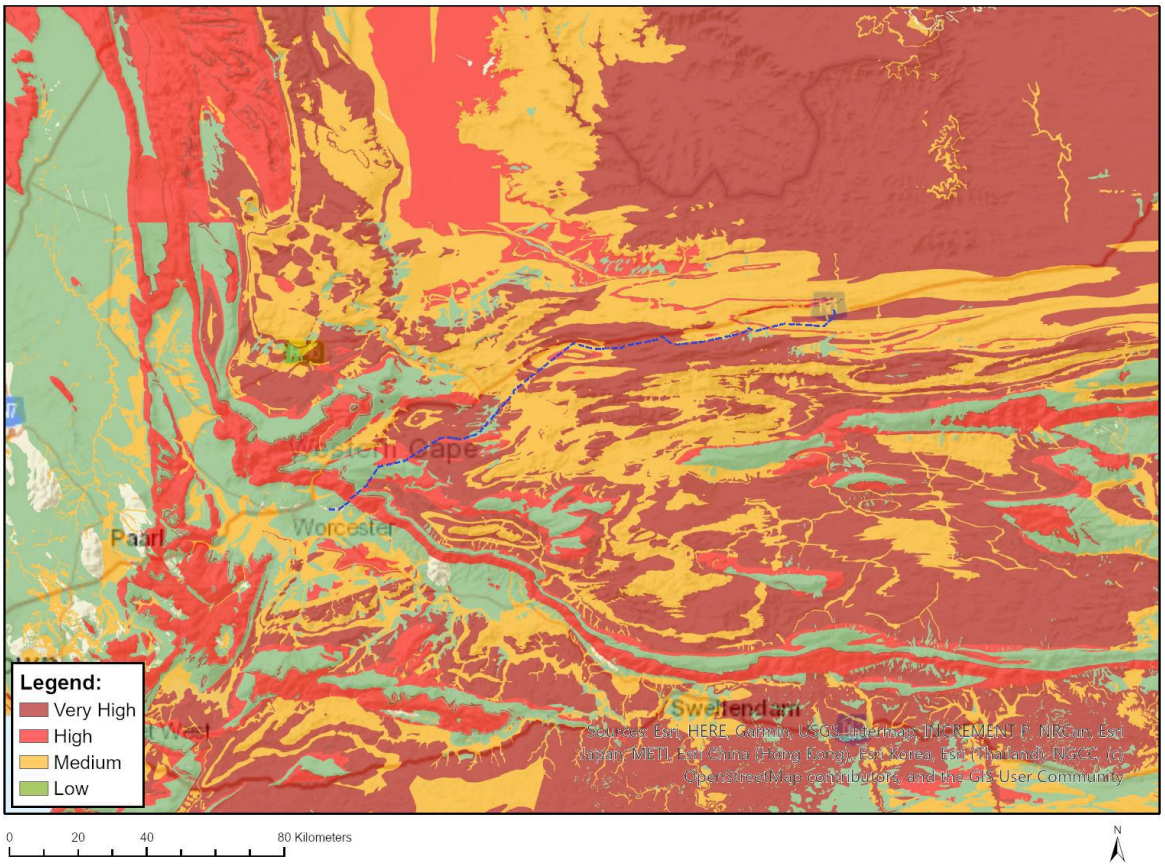


Figure 5: Palaeontology theme, DFFE Screening tool

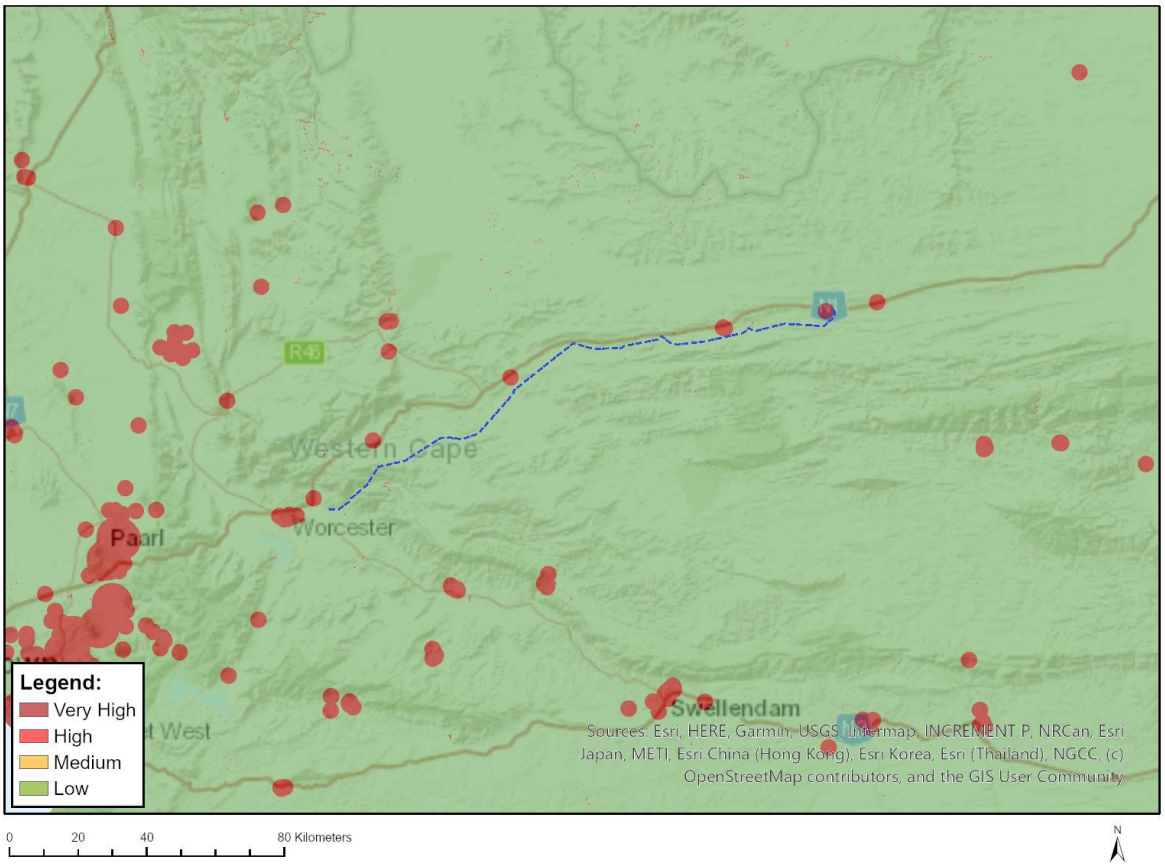


Figure 6: Cultural and Heritage theme, DFFE Screening tool

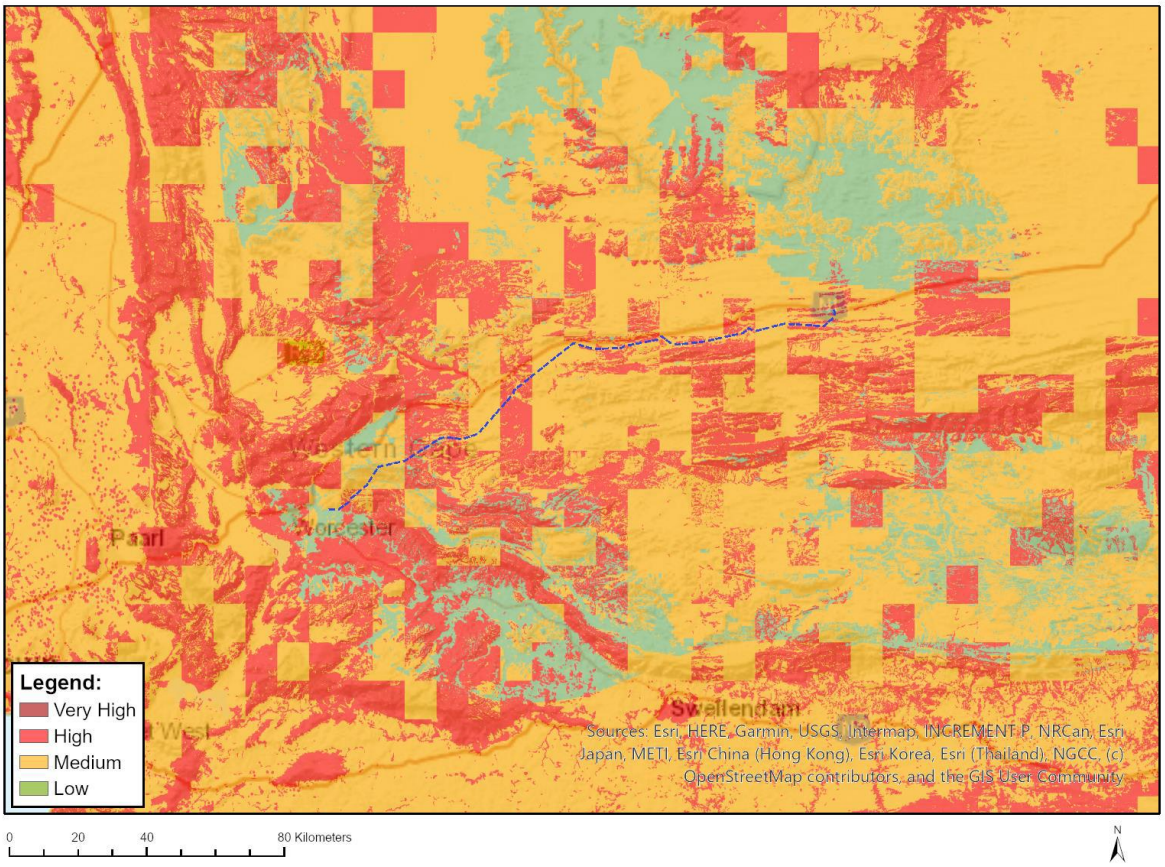


Figure 7: Animal theme, DFFE Screening tool

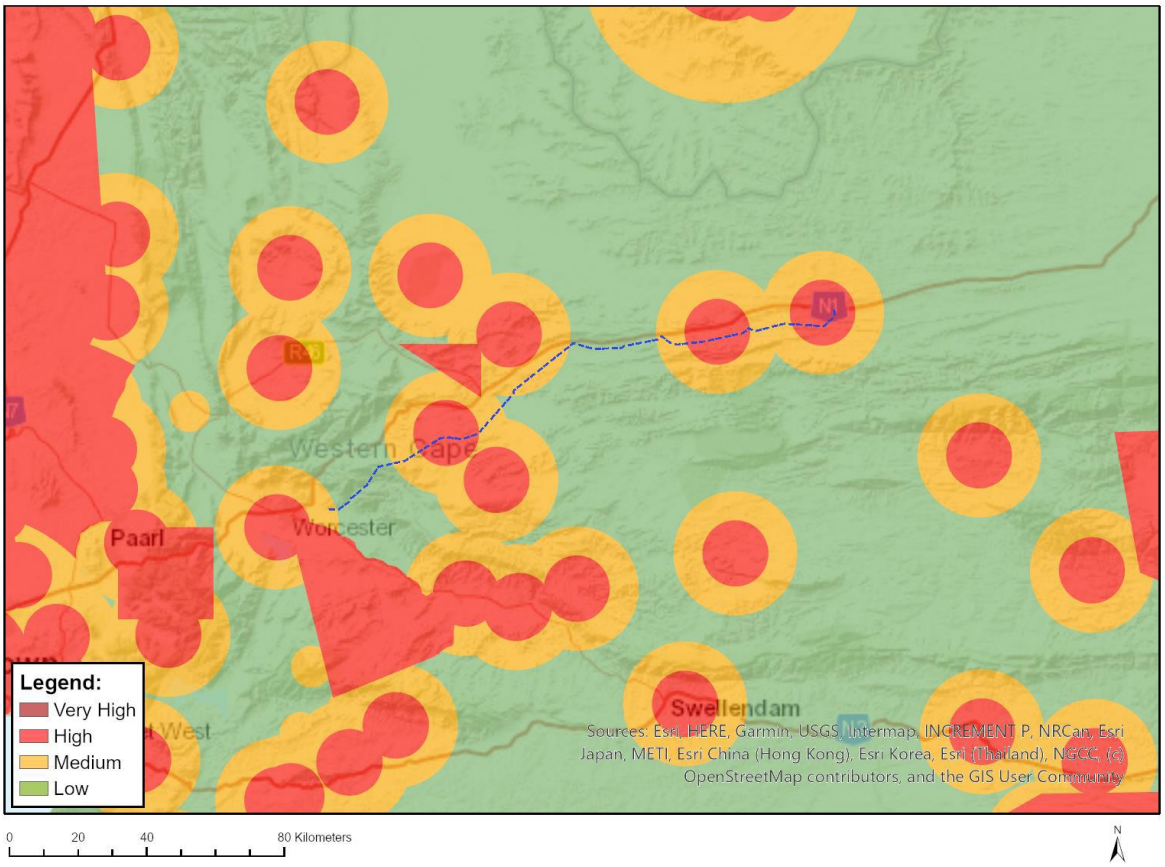
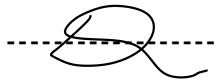


Figure 8: Civil aviation theme, DFFE Screening tool

7.3 Sub-section 3: Declaration

The proponent or applicant or holder of EA affirms that they will abide and comply with the prescribed impact management outcomes and actions as stipulated in part B: section 1 of the generic EMPr and have the understanding that the impact management outcomes and actions are legally binding.

Signature Proponent/applicant/ holder of EA Date:



29 August 2025

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

Should the EA be transferred, Part B: Section 2 must be completed by the new applicant and submitted with the application for amendment of the EA in terms of regulations 29 or 31 of the Environmental Impact Assessment Regulations, 2014. The information submitted for an amendment to an environmental authorization 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 actions must be included in this section. These specific management controls must be referenced spatially and must include impact management outcomes and actions. The management controls including impact management outcomes and actions must be presented in the format of the pre-approved generic EMPr template. This applies only to additional impact management outcomes and actions that are necessary.

If Part C is applicable to the site, it is required to be submitted to the CA for approval prior to commencement of the activity. 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.

Impact management outcome: The resource quality (flow, water quality, habitat and aquatic biota) of watercourses (rivers and their tributaries, natural channels, drainage lines, wetlands) are protected and incur minimal negative impact.						
Impact Management measures	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
- All towers located within watercourses or within the buffer zones should ideally be relocated to outside of the watercourse or buffer zones as per the Freshwater Assessment. If these towers cannot be moved and is required to be within the watercourse, then the towers should be moved to the periphery of the watercourse to avoid the preferential flow path of the system. In addition, suitable mitigation measures will be applicable and erosion control measures (e.g., geotextile sheets, gabion mattresses or erosion berms) are to be implemented.	DPM, DSS, Contractor & cEO	Maps of towers located within watercourses or their associated buffer zones Method Statement for managing stormwater Inspections of watercourse encroachments Rehabilitation Method Statement to include	Pre-construction & construction phases	dEO & ECO	Monthly	- Approved method statement - Approved Fire Management Plan - Pre-construction survey report - Permits available - Visual inspections (photographic records)

- Construction of towers that are to be placed within the watercourses should be limited to the drier winter periods in order to lower the impact of construction activities to these watercourses. - Implement a rehabilitation plan. Cleared areas must be rehabilitated and stabilised to avoid impacts to adjacent wetland and buffer areas. - Do not situate any laydown areas within any wetlands or buffer areas. - Ablution facilities to be located at least 50m away from watercourses. - Promptly remove all alien and invasive plant species that may emerge during construction. - Reduce the disturbance footprint and the unnecessary clearing		watercourses affected by the development				- Proof of training - Visible Signage Barricading

of vegetation when traversing the identified watercourses. - Make use of existing access routes as much as possible. Any new access routes must not encroach into watercourses. - Mixing of concrete must under no circumstances take place in any watercourse and buffers. - Mixing of concrete should be done on an impermeable surface. - No machinery is allowed to park within any watercourse and buffer zones. - Limit soil disturbance. - Clearly demarcate construction footprint and limit activities to only these areas. - Minimize unnecessary clearing of vegetation beyond the tower						

footprint and transmission line corridor. - Lightly till any disturbed soil around tower footprint to avoid soil compaction. - All excess construction materials should be appropriately removed and disposed. - Make use of drip trays for all construction equipment and machinery to avoid spillages. - All spillages should be contained, removed and rehabilitated accordingly. - Clearing of wetland vegetation underneath the powerline should be in line with the Eskom Environmental Procedure - Avoid using herbicides and diesel to treat vegetation within the						

watercourses and buffers (opt for mechanical removal).						

Impact management outcome: The resource quality (flow, water quality, habitat and aquatic biota) of watercourses (rivers and their tributaries, natural channels, drainage lines, wetlands) are protected and incur minimal negative impact.						
Impact Management measures	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
- Remove the pylons from highly sensitive habitats to less sensitive (e.g., wetlands and ridges). - Restrict all clearing of vegetation to the planned footprint area. Clearing of vegetation should be minimized and avoided where possible, maintaining vegetation amongst infrastructure where feasible.	DPM, DSS, Contractor & cEO	Maps of towers located within watercourses or their associated buffer zones Method Statement for managing stormwater	Pre-construction & construction phases	dEO & ECO	Monthly	- Approved method statement - Approved Fire Management Plan - Pre-construction survey report

Clearing between pylons should be avoided. - Servitudes must be maintained as a two-track with indigenous vegetation and a wide road must not be cleared between pylons during operation. - Visibly demarcate all development footprint areas, to avoid the unnecessary disturbance / clearance of areas that will not be developed. This will facilitate rehabilitation of the area. - Where possible, existing access routes must be prioritised for project access routes. Existing walking paths may also be considered for project access routes. - Areas that are denuded during construction and that will not be developed need to be re-vegetated		Inspections of watercourse encroachments Rehabilitation Method Statement to include watercourses affected by the development				- Permits available - Visual inspections (photographic records) - Proof of training - Visible Signage Barricading

with indigenous vegetation to prevent erosion during wind events. - Any woody material removed can be shredded and used in conjunction with the topsoil to augment soil moisture and prevent further erosion. - Rehabilitation of the disturbed areas that will not be developed must be made a priority. Topsoil must also be utilised, and any disturbed area must be re-vegetated with plant and grass species which are endemic to this vegetation type. - Erosion control and alien invasive management plan must be implemented from the onset of the construction phase. - Visibly demarcate construction areas to prevent movement of staff or any individual into the surrounding						

environments. Signs must be put up to enforce this. - All personnel must undergo environmental induction with regards to avifauna and in particular awareness about not harming, collecting, or hunting terrestrial species (e.g., guineafowl and francolin), and owls, which are often persecuted out of superstition. Signs must be put up to enforce this. - The duration of the construction should be kept to a minimum to avoid disturbing avifauna. - All construction and maintenance motor vehicle operators must undergo an environmental induction that includes instruction on the need to comply with speed limit, to respect all forms of wildlife. Speed						

limits must be enforced to ensure that road killings and erosion is limited. - Schedule or limit (where feasible) activities during least sensitive periods, to avoid migration, nesting and breeding seasons (May – _August) - All project activities must be undertaken with appropriate noise mitigation measures to avoid disturbance to avifauna population in the region. Noise should be limited at night and during dusk and dawn to avoid disturbing roosting birds. - All areas to be developed must be walked through prior to any activity to ensure no new nests or avifauna species are found in the area. Should any Species of Conservation Concern be found and not move out of the area, or their nest be found in the area a						

suitably qualified specialist must be consulted to advise on the correct actions to be taken. - The design of the proposed transmission line must be of a type or similar structure as endorsed by the Eskom-EWT Strategic Partnership on Birds and Energy, considering the mitigation guidelines recommended by Birdlife South Africa (Jenkins et al., 2017). Bird diverters or spirals must be added to the transmission line to reduce fatalities in Very High and High sensitivity areas. - Infrastructure should be consolidated where possible in order to minimise the amount of ground and air space used. - All the parts of the infrastructure must be nest proofed						

and anti-perch devices placed on areas that can lead to electrocution. - Any exposed parts must be covered (insulated) to reduce electrocution risk.						

Impact management outcome: The resource quality (flow, water quality, habitat and aquatic biota) of watercourses (rivers and their tributaries, natural channels, drainage lines, wetlands) are protected and incur minimal negative impact.						
Impact Management measures	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
- Areas of indigenous vegetation, even secondary communities outside of the direct project footprint, should under no circumstances be fragmented or disturbed further.	Contractor & cEO	- Method Statement for managing fires	Pre-construction, construction and	dEO & ECO	Monthly	- Approved method statement - Approved Fire Management Plan

- Clearing of vegetation should be minimized and avoided where possible. - No loss of high sensitivity areas should be permitted. - Pre-construction environmental induction for all construction staff on site to ensure that basic environmental principles are adhered to. This includes awareness as to conservation and importance of protected trees, medicinal plants, no littering, appropriate handling of pollution and chemical spills, avoiding fire hazards, remaining within demarcated construction areas etc. - It is recommended that areas to be developed be specifically demarcated so that during the construction phase, only the demarcated areas be impacted upon. - Existing access routes, especially roads must be made use of. - All laydown, chemical toilets etc. should be restricted to medium/low sensitivity areas. Any materials may not be stored for extended		- Pre-construction survey - Apply for permits Training	operational phases			- Pre-construction survey report - Permits available - Visual inspections (photographic records) - Proof of training - Visible Signage - Barricading

periods of time and must be removed from the project area once the construction phase has been concluded. No permanent construction phase structures should be permitted. Construction buildings should preferably be prefabricated or constructed of re-usable/recyclable outside of the designated project areas. - The construction activities should be set up in such a way that the area of exposed soil is minimised during times of the year when the potential for erosion is high, e.g. during the summer when intense rainstorms are common. - Areas that are denuded during construction need to be re-vegetated with indigenous vegetation to prevent erosion during flood and wind events. This will also reduce the likelihood of encroachment by alien invasive plant species.						

- All livestock must always be kept out of the project area, especially areas that have been recently revegetated. - 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-fueling and servicing of equipment is to take place in demarcated areas outside of the project area. - It should be made an offence for any staff to take/ bring any plant species into/out of any portion of the project area. No into/taken from the project area, to prevent the spread of exotic or invasive species or the illegal collection of plants. - Any individual of the protected plants that are present needs a relocation or destruction permit for any individual that may be removed or destroyed due to the development. - High visibility flags must be placed near any threatened/protected plants to avoid any damage or destruction of these specimens. If any of these plants are threatened, their seeds must be harvested and propagated to replace any individuals lost in the construction process.						

- Noise must be kept to an absolute minimum during the evenings and at night to minimize all possible disturbances to amphibian species and nocturnal mammals. - Undertake regular monitoring to detect alien invasions early so that they can be controlled. - Monitor surfaces for erosion, repair and/or upgrade, where necessary. - Outside lighting should be designed and limited to minimize impacts on fauna. - All construction and maintenance motor vehicle operators should undergo an environmental induction that includes instruction on the need to comply with speed limits, to respect all forms of wildlife. Speed limits must still be enforced to ensure that road killings and erosion is limited. - The areas to be developed must be specifically demarcated to prevent movement of staff or any individual into the surrounding						

environments, No trapping, killing, or poisoning of any wildlife is to be allowed. - All areas to be developed must be walked through prior to any activity to ensure no nests or fauna species are found in the area. Should any Species of Conservation Concern not move out of the area, or their nest be found in the area a suitably qualified specialist must be consulted to advise on the correct actions to be taken. - Vehicles and construction workers should under no circumstances be allowed outside the construction site to prevent impact on the surrounding vegetation. - Prevent contamination of natural areas. - Avoid translocating stockpiles of topsoil from one place to another in order to avoid translocating soil seed banks of alien species. - Any holes/deep excavations must be dug and planted in a progressive manner and should not be left open overnight must be covered						

temporarily to ensure no small fauna species fall in. - Ensure that cables and connections are insulated successfully to reduce electrocution risk. - Any exposed parts must be covered (insulated) to reduce electrocution risk. - Use environmentally friendly cleaning and dust suppressant products. - Fencing mitigations (as relevant): Wildlife-permeable fencing with holes large enough for mongoose and other smaller mammals should be installed every 50 m along the fence if any are to be used (with a size of 30 x 20 cm), the holes must not be placed in the fence where it is next to a major road as this will increase road killings in the area. - Areas that are denuded during construction need to be re-vegetated with indigenous vegetation to prevent erosion.						

- Before the clearance of vegetation, all protected plants and trees found around a Tower construction footprint should be flagged or marked (e.g. danger tape) for rescue and relocation with the supervision of the qualified ECO. - Vegetation should be stripped / removed in a phased manner. Where possible, store vegetation for re-planting. - The soils must be removed in such a way that they can be easily reinstated in the reverse order. - Topsoil stockpiles must be clearly demarcated as no-go areas. - Proliferation of alien and invasive species is expected within the disturbed areas and they should be eradicated and controlled to prevent further spread. - Avoid translocating stockpiles of topsoil from one place to another in order to avoid translocating soil seed banks of alien species.						

- The plant material to be used to seed the affected areas during the rehabilitation process should be similar to the vegetation type species found in the surrounding construction footprint area. This should be done with the consultation of a qualified ecologist who should advise on the suitable seed mix to match the surrounding vegetation type species. The seed mix should include the dominant succulent herbs found on site such as *Boophone disticha*, *Hypoxis hemerocallidea* and several Aloe species found on site (as relevant to the locations to be rehabilitated). - Ensure that the topsoil to be used for rehabilitation purposes is free of alien invasive plants. Erosion control measures must be in place after the rehabilitation process has taken place in order to avoid seed mix to be washed off during rainy seasons.						

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.

To be prepared by the Contractor once appointed, and placed as an addendum to this EMPr.