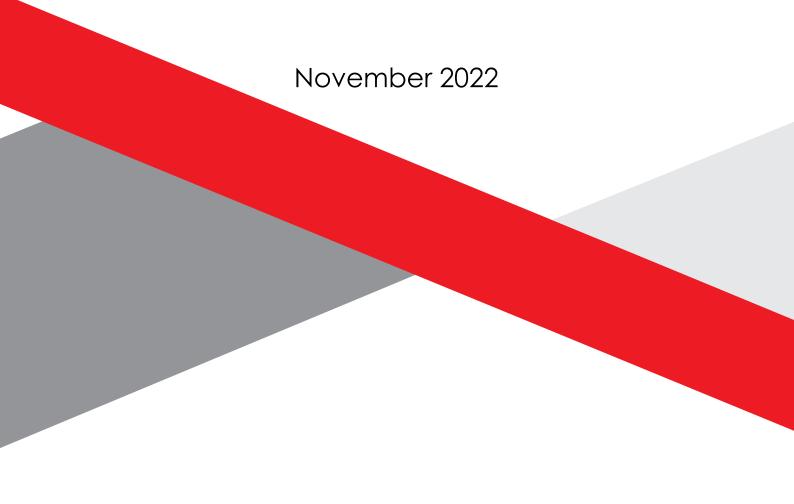
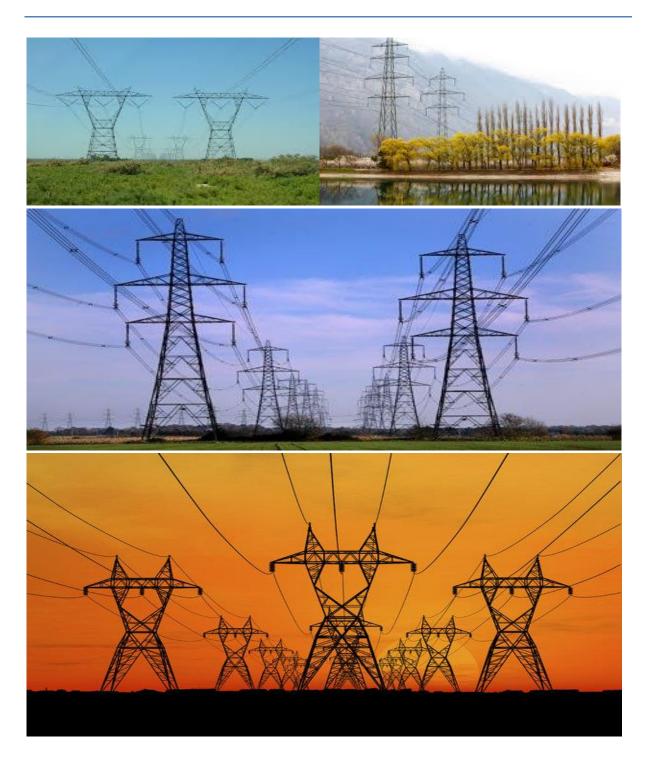
# SCSC SOLAR PV FACILITY AND ASSOCIATED INFRASTRUCTURE, LIMPOPO PROVINCE & NORTH WEST PROVINCE

Environmental Management Programme for the 33kV power lines associated with the SCSCSolar PV Facility and Associated Infrastructure



# APPENDIX 1 GENERIC ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr) FOR THE DEVELOPMENT AND EXPANSION FOR OVERHEAD ELECTRICITY TRANSMISSION AND DISTRIBUTION INFRASTRUCTURE





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#### **INTRODUCTION**

# 1. Background

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

# 2. Purpose

This document constitutes a generic EMPr relevant to applications for the development or expansion of 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 impact management actions, which can commonly and repeatedly be used for the avoidance, management and mitigation of impacts and risks associated with the development or expansion of 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 of overhead electricity transmission and distribution infrastructure requiring EA in terms of NEMA, 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, as amended, and activity 9 of the Environmental Impact Assessment Regulations Listing Notice 2 of 2014, as amended, and all associated listed or specified activities necessary for the realisation 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
run	Section	nedding	Comem
A		Provides general guidance and information and is <b>not legally binding</b>	Definitions, acronyms, roles & responsibilities and documentation and reporting.
В	1	Pre-approved generic EMPr template	Contains generally accepted impact management outcomes and impact management actions required for the avoidance, management and mitigation of impacts and risks associated with the development or expansion of 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.  Where an impact management outcome is not relevant, the words "not applicable" can be inserted in the template under the "responsible persons" column.
			Once completed and signed, the template represents the EMPr for the activity approved by the CA and is legally binding. The template is not required to be submitted to the CA as once the generic EMPr is gazetted for implementation, it has been approved by the CA.  To allow interested and affected parties access to the pre-approved EMPr template for consideration through the decision-making process, the EAP on behalf of the applicant /proponent must make the hard copy of this EMPr available at a public location and where the applicant has a website, the EMPr should also be made available on such publicly accessible website.
	2	Site specific information	Contains preliminary infrastructure layout and a declaration that the applicant/holder of the EA

Part	Section	Heading	Content
			will comply with the pre-approved generic EMPr template contained in <u>Part B: Section 1</u> , and understands that the impact management outcomes and impact management actions are <b>legally binding</b> . The preliminary infrastructure layout must be finalized to inform the final EMPr that is to be submitted with the basic assessment report (BAR) or environmental impact assessment report (EIAR), ensuring that all impact management outcomes and actions have been either pre-approved or approved in terms of <u>Part C.</u>
			This section <b>must be</b> submitted to the CA together with the final BAR or EIAR. The information submitted to the CA will be considered to be incomplete should a signed copy of <u>Part B: section 2</u> not be submitted. Once approved, this Section forms part of the EMPr for the development and is legally binding.
С		Site specific sensitivities/ attributes	If any specific environmental sensitivities/ attributes are present on the site which require site specific impact management outcomes and impact management actions, not included in the pre-approved generic EMPr, to manage impacts, these specific impact management outcomes and impact management actions must be included in this section. These specific environmental attributes must be referenced spatially and impact management outcomes and impact management outcomes and impact management actions must be provided. These specific impact management outcomes and impact management actions must be presented in the format of the preapproved EMPr template (Part B: section 1)
			This section will not be required should the site contain no specific environmental sensitivities or attributes. However, if <u>Part C</u> is applicable to the site, it <b>is required</b> to be submitted together with the BAR or EIAR, for consideration of, and decision on, the application for EA. The information in this section must be prepared by an EAP, and must contain his/her name and

Part	Section	Heading	Content
			expertise including a curriculum vitae. Once approved, Part C forms part of the EMPr for the site and is legally binding.
			This section applies only <b>to additional</b> impact management outcomes and impact management actions that are necessary for the avoidance, management and mitigation of impacts and risks associated with the specific development or expansion and which are not already included in <u>Part B: section 1</u> .
Appe	endix 1		Contains the method statements to be prepared prior to commencement of the activity. The method statements are <b>not required</b> to be submitted to the competent authority.

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

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

- For implementation
  - a 'responsible person',
  - a method for implementation,
  - a timeframe for implementation
- For monitoring
  - a responsible person
  - frequency
  - evidence of compliance.

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

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

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

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

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

<u>Part B: Section 2</u> 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.

<u>Sub-section 1</u> contains the project name, the applicant's 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 and must contain his/her name and expertise including a curriculum vitae. This sub-section must include a map of the site sensitivity overlaid with the preliminary infrastructure layout using the national web based environmental when available for screening tool, compulsory https://screening.environment.gov.za/screeningtool. The sensitivity map shall identify the nature of each sensitive feature e.g. raptor nest, threatened plant species, archaeological site, etc. Sensitivity maps must identify features both within the planned working area and any known sensitive features in the surrounding landscape within 50m from the development footprint. The overhead transmission and distribution profile must 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 must be used.

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

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

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

#### **PART A - GENERAL INFORMATION**

#### 1. **DEFINITIONS**

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

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

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

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

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

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

The method statement must cover applicable details with regard to:

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

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

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

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

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

# 2. ACRONYMS and ABBREVIATIONS

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

<sup>&</sup>quot;works" means the works to be executed in terms of the Contract

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

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

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

Responsible Person (s)	Role and Responsibilities
Developer's Project Manager	<u>Role</u>
(DPM)	The Project Developer is accountable for ensuring compliance with the EMPr and any conditions of approval from the competent authority (CA). Where required, an environmental control officer (ECO) must be contracted by the Project Developer to objectively monitor the implementation of the EMPr according to relevant environmental legislation, and the conditions of the environmental authorisation (EA). The Project Developer is further responsible for providing and giving mandate to enable the ECO to perform responsibilities, and he must ensure that the ECO is integrated as part of the project team while remaining independent.
	<ul> <li>Responsibilities</li> <li>Be fully conversant with the conditions of the EA;</li> <li>Ensure that all stipulations within the EMPr are communicated and adhered to by the Developer and its Contractor(s);</li> <li>Issuing of site instructions to the Contractor for corrective actions required;</li> <li>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</li> <li>Ensure that periodic environmental performance audits are undertaken on the project implementation.</li> </ul>
Developer Site Supervisor (DSS)	<u>Role</u>

Responsible Person (s)	Role and Responsibilities
Environmental Control Officer (ECO)	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.  Responsibilities  - Ensure that all contractors identify a contractor's Environmental Officer (cEO);  - Must be fully conversant with the conditions of the EA. Oversees site works, liaison with Contractor, DPM and ECO;  - Must ensure that all landowners have the relevant contact details of the site staff, ECO and cEO;  - Issuing of site instructions to the Contractor for corrective actions required;  - Will issue all non-compliances to contractors; and  - Ratify the Monthly Environmental Report.  Role  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 and dEO. The ECO provides feedback to the DSS and Project Manager regarding all environmental matters. The Contractor, cEO and dEO are answerable to the Environmental Control Officer for non- compliance with the Performance Specifications as set out in the EA and EMPr.  The ECO provides feedback to the DSS and Project Manager, who in turn reports back to the Contractor and potential and Registered Interested &Affected Parties (RI&APs), 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

Responsible Person (s)	Role and Responsibilities
Responsible Person (s)	Role and Responsibilities  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.  Responsibilities  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;  - Compile a regular environmental audit report highlighting any non-compliance issues as well as satisfactory or exceptional compliance with the EMPr;
	<ul> <li>Validating the regular site inspection reports, which are to be prepared by the contractor Environmental Officer (cEO);</li> <li>Checking the cEO's record of environmental incidents (spills, impacts, legal transgressions etc) as well as corrective and preventive actions taken;</li> </ul>

Responsible Person (s)	Role and Responsibilities		
Responsible reison (s)	<ul> <li>Checking the cEO's public complaints register in which all complaints are recorded, as well as action taken;</li> <li>Assisting in the resolution of conflicts;</li> <li>Facilitate training for all personnel on the site – this may range from carrying out the training, to reviewing the training programmes of the Contractor;</li> <li>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;</li> </ul>		
	<ul> <li>Maintenance, update and review of the EMPr;</li> <li>Communication of all modifications to the EMPr to the relevant stakeholders.</li> </ul>		
developer Environmental Officer (dEO)	Role  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.		
	<ul> <li>Responsibilities</li> <li>Be fully conversant with the EMPr;</li> <li>Be familiar with the recommendations and mitigation measures of this EMPr, and implement these measures;</li> <li>Ensure that all stipulations within the EMPr are communicated and adhered to by the Employees, Contractor(s);</li> <li>Confine the development site to the demarcated area;</li> <li>Conduct environmental internal audits with regards to EMPr and authorisation compliance (on cEO);</li> <li>Assist the contractors in addressing environmental challenges on site;</li> <li>Assist in incident management:</li> <li>Reporting environmental incidents to developer and ensuring that corrective action is taken, and lessons learnt shared;</li> </ul>		

Responsible Person (s)	Role and Responsibilities
	- Assist the contractor in investigating environmental incidents and compile investigation reports;
	<ul> <li>Follow-up on pre-warnings, defects, non-conformance reports;</li> </ul>
	<ul> <li>Measure and communicate environmental performance to the Contractor;</li> </ul>
	<ul> <li>Conduct environmental awareness training on site together with ECO and cEO;</li> </ul>
	<ul> <li>Ensure that the necessary legal permits and / or licenses are in place and up to date;</li> </ul>
	- Acting as Developer's Environmental Representative on site and work together with the ECO
	and contractor;
Contractor	Role Role
	The Contractor appoints the cEO and has overall responsibility for ensuring that all work, activities, and actions linked to the delivery of the contract are in line with the EMPr and that Method Statements are implemented as described. External contractors must ensure compliance with this EMPr while performing the onsite activities as per their contract with the Project Developer. The contractors are required, where specified, to provide Method Statements setting out in detail how the impact management actions contained in the EMPr will be implemented during the development or expansion for overhead electricity transmission and distribution infrastructure activities.
	Responsibilities Responsibilities
	- project delivery and quality control for the development services as per appointment;
	- employ a suitably qualified person to monitor and report to the Project Developer's appointed
	person on the daily activities on-site during the construction period;
	- ensure that safe, environmentally acceptable working methods and practices are
	implemented and that equipment is properly operated and maintained, to facilitate proper
	access and enable any operation to be carried out safely;
	<ul> <li>attend on site meeting(s) prior to the commencement of activities to confirm the procedure and designated activity zones;</li> </ul>
	- ensure that contractors' staff repair, at their own cost, any environmental damage as a result
	of a contravention of the specifications contained in EMPr, to the satisfaction of the ECO.

Responsible Person (s)	Role and Responsibilities
contractor Environmental Officer	<u>Role</u>
(cEO)	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:
	<ul> <li>Responsibilities</li> <li>Be on site throughout the duration of the project and be dedicated to the project;</li> <li>Ensure all their staff are aware of the environmental requirements, conditions and constraints with respect to all of their activities on site;</li> <li>Implementing the environmental conditions, guidelines and requirements as stipulated within the EA, EMPr and Method Statements;</li> <li>Attend the Environmental Site Meeting;</li> <li>Undertaking corrective actions where non-compliances are registered within the stipulated timeframes;</li> <li>Report back formally on the completion of corrective actions;</li> <li>Assist the ECO in maintaining all the site documentation;</li> </ul>
	<ul> <li>Assist the ECO in maining all the site accordenation,</li> <li>Prepare the site inspection reports and corrective action reports for submission to the ECO;</li> <li>Assist the ECO with the preparing of the monthly report; and</li> </ul>
	<ul> <li>Where more than one Contractor is undertaking work on site, each company appointed as a Contractor will appoint a cEO representing that company.</li> </ul>

#### 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 must remain current and up-to-date. The filing system must be updated and relevant documents added as required. The EMPr file must be made available at all times on request by the CA or other relevant authorities. The EMPr file will form part of any environmental audits undertaken as prescribed in the EIA Regulations.

#### 4.2 Documentation to be available

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

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

# 4.3 Weekly Environmental Checklist

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

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

#### 4.4 Environmental site meetings

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

# 4.5 Required Method Statements

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

The method statement must cover applicable details with regard to:

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

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

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

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

# 4.6 Environmental Incident Log (Diary)

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

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

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

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

The Environmental Incident Log will be captured in the EAR.

#### 4.7 Non-compliance

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

- Time and date of the non-compliance;
- Name of the contractor responsible;
- Nature and description of the non-compliance;
- Recommended / required corrective action; and
- Date by which the corrective action to be completed.

• The contractors shall act immediately when a notice of non-compliance is received and correct whatever is the cause for the issuing of the notice. Complaints received regarding activities on the development site pertaining to the environment shall be recorded in a dedicated register and the response noted with the date and action taken. The ECO should be made aware of any complaints. Any non-compliance with the agreed procedures of the EMPr is a transgression of the various statutes and laws that define the manner by which the environment is managed. Failure to redress the cause shall be reported to the relevant CA for them to deal with the transgression, as it deems fit. The contractor is deemed not to have complied with the EMPr if, inter alia, There is a deviation from the environmental conditions, impact management outcomes and impact management actions, as approved in generic and site specific EMPr as relevant as set out in the EMPr, which deviation has, or may cause, an environmental impact.

### 4.8 Corrective action records

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

### 4.9 Photographic record

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

#### The Contractor shall:

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

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

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

- 12. Photographic recordings of incidents;
- 13. All areas before, during and post rehabilitation; and
- 14. Include relevant photographs in the Final Environmental Audit Report.

# 4.10 Complaints register

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

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

# 4.11 Claims for damages

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

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

#### 4.12 Interactions with affected parties

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

#### The ECOs shall:

1. Ensure that all queries, complaints and claims are dealt within an agreed timeframe;

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

#### 4.13 Environmental audits

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

An Environmental Audit Report must be prepared monthly. 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. 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 rehabilitation and/or requirements of the EA a final EAR is to be prepared and submitted to the CA. The EAR must comply with Appendix 7 of the EIA Regulations.

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

#### 5. IMPACT MANAGEMENT OUTCOMES AND IMPACT MANAGEMENT ACTIONS

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

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

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

# 5.1 Environmental awareness training

Impact management outcome: All onsite staff are aware and understand the individual responsibilities in terms of this EMPr.

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
- All staff must receive environmental awareness training	ECO/cEO/dEO	Hold	Pre-construction	ECO	Prior to	Attendance
prior to commencement of the activities;		environmental	Construction	dEO	commencemen	register and
		awareness	and Operations		t of construction.	training minutes
		training				/ notes for the
		workshops				record
The Contractor must allow for sufficient sessions to train	Contractor	Scheduling of	Pre-construction	ECO	Prior to	Attendance
all personnel with no more than 20 personnel attending		sufficient	Construction	dEO	commencemen	register and
each course;		sessions through			t of construction.	training minutes
		consultation with				/ notes for the
		the ECO / cEO /				record
		dEO				
- Refresher environmental awareness training is	cEO / dEO in	Hold refresher	During the	ECO	Prior to	Attendance
available as and when required;	consultation with	environmental	construction	dEO	commencemen	register and
	the ECO	awareness	phase		t of construction.	training minutes
		training				/ notes for the
		workshops				record
All staff are aware of the conditions and controls linked	cEO / dEO	Hold training	During the	ECO	Prior to	Attendance
to the EA and within the EMPr and made aware of their		workshops and	construction	dEO	commencemen	register and
individual roles and responsibilities in achieving		ensure that the	phase		t of construction.	training minutes
compliance with the EA and EMPr;		EA and EMPr is				/ notes for the
		readily available				record

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
- The Contractor must erect and maintain information	Contractor	Develop and	Pre-construction	ECO	Monthly	Photographic
posters at key locations on site, and the posters must		place	Construction	dEO		record
include the following information as a minimum:		appropriate		cEO		
a) Safety notifications; and		posters at key				
b) No littering.		locations				
– Environmental awareness training must include as a	cEO / dEO in	Develop	Pre-construction	ECO	Prior to the	Environmental
minimum the following:	consultation with	environmental	Construction	dEO	commencemen	awareness
a) Description of significant environmental impacts,	the ECO	awareness			t of the	training material
actual or potential, related to their work activities;		training material			environmental	requirements
b) Mitigation measures to be implemented when		which covers the			awareness	checklist
carrying out specific activities;		minimum			training	
c) Emergency preparedness and response		requirements				
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;						
j) Fire prevention; and						
k) Disease prevention.						
<ul> <li>A record of all environmental awareness training</li> </ul>	ECO/cEO/dEO	Filing system	During the	ECO	Monthly	Completed and
courses undertaken as part of the EMPr must be		including all	construction	dEO	,	up to date filing
available;		proof of training	phase			system with
		(i.e. attendance				proof of training
		register and				
		training minutes				
		/ notes for the				
		record)				

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
- Educate workers on the dangers of open and/or	cEO / dEO in	Develop	Pre-construction	ECO	Prior to the	Environmental
unattended fires;	consultation with	environmental	Construction	dEO	commencemen	awareness
	the ECO	awareness			t of the	training material
		training material			environmental	requirements
		which covers the			awareness	checklist
		dangers of open			training	
		and/or				
		unattended fire				
A staff attendance register of all staff to have received	ECO/cEO/dEO	Filing system	During the	ECO	Prior to	Completed and
environmental awareness training must be available.		including all	construction	dEO	commencemen	up to date filing
		proof of training	phase		t of construction.	system inclusive
		(i.e. attendance				of all
		register)				attendance
						registers
- Course material must be available and presented in	ECO/cEO/dEO	Develop	During the	ECO	Prior to	Environmental
appropriate languages that all staff can understand.		environmental	construction	dEO	commencemen	awareness
		awareness	phase		t of construction.	training material
		training material				requirements
		in the required				checklist and
		languages.				the training
		Training material				register which
		must by readily				must indicate
		available to all				the language of
		staff				the training

# 5.2 Site Establishment development

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

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

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
		sensitive areas				sensitivity map
		and within				indicating
		previously				avoidance of
		disturbed areas				sensitive areas
		identified in the				and placement
		BA Report				within disturbed
						areas
- The camp must be fenced in accordance with <b>Section</b>	DPM	Design and	Pre-construction	ECO	Once, prior to	The camp is
5.5: Fencing and gate installation; and		implementation	& Construction	dEO	construction	fenced in
		of fencing as			and once during	accordance
		per the			the construction	with Section 5.5
		requirements of			of the fencing	of this EMPr
		Section 5.5 of				
		this EMPr				
- The use of existing accommodation for contractor	DPM	Identify existing	Pre-construction	ECO	Once, prior to	Contractor staff
staff, where possible, is encouraged.		accommodatio	& Construction	dEO	construction	are
		n for contactor				accommodate
		staff				d in existing
						accommodatio
						n

# 5.3 Access restricted areas

**Impact management outcome:** Access to restricted areas prevented.

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
- Identification of access restricted areas is to be	dEO / cEO in	Spatially	Pre-construction	ECO	Once, prior to	Access
informed by the environmental assessment, site walk	consultation with	demarcate			construction	restricted areas
through and any additional areas identified during	the ECO	access restricted				are identified
development;		areas informed				and provided in
		by the BA Report				a spatial format
- Erect, demarcate and maintain a temporary barrier	dEO / cEO in	Erect	At the	ECO	Prior to	Access
with clear signage around the perimeter of any access	consultation with	appropriate	commencement		commencemen	restricted areas
restricted area, colour coding could be used if	the ECO	temporary	and for the		t of construction	are closed-off
appropriate; and		barriers around	duration of the			through
		access restricted	construction			temporary
		areas	phase			barriers and
						barriers are
						maintained to a
						sufficient
						standard
- Unauthorised access and development related	Contractor /	Erect	During the	ECO	Monthly, and as	Photographic
activity inside access restricted areas is prohibited.	dEO / cEO	appropriate	construction		and when	evidence and
		temporary	phase		required	notes of
		barriers around				compliance that
		access restricted				no unauthorised
		areas and				access or
		provide clear				activities has
		signage of				taken place
		restricted status				within the

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
						access restricted
						areas

# 5.4 Access roads

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

Impact Management Actions	Implementation	Implementation				
	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;		Undertake negotiations for access to the servitude and tower positions with landowners affected by the power line	Pre-construction Construction Operation	dEO	Ongoing throughout construction and operation	Proof of negotiations with affected landowners and requirements for access to the servitude and tower positions in the form of written and signed agreements
An access agreement must be formalised and signed by the DPM, Contractor and landowner before commencing with the activities;		Develop access agreements with the affected landowners. Ensure that	Pre-construction	dEO ECO	Once, prior to construction	Availability of approved and signed negotiations

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
		agreements are				
		approved and				
		signed				
- The access roads to tower positions must be	Contractor	Develop and	Pre-construction	cEO / ECO	Once, prior to	Photographic
signposted after access has been negotiated and		install signs to			construction	record of
before the commencement of the activities;		indicate access				signposted
						access roads
						and GPS co-
						ordinates of
						where these are
						placed
<ul> <li>All private roads used for access to the servitude must</li> </ul>	Contractor	Undertake	During the	cEO / ECO	Monthly	Photographic
be maintained and upon completion of the works, be		maintenance	construction			record of the
left in at least the original condition		activities on	phase			pre-construction
		private roads				condition and
		used for				degradation of
		construction as				roads, and
		degradation				records of the
		takes place				implementation
						and
						effectiveness of
						maintenance
						activities
All contractors must be made aware of all the access	dEO / cEO	Develop a map	Pre-construction	ECO	Once, prior to	Access routes
routes.		illustrating all	Construction		construction	map readily
		access routes				available
		associated with				
		the project and				
		present and				

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
		provide the map				
		to all contractors				
- Any access route deviation from that in the written	Contractor	All access routes	Construction	cEO ECO	Monthly	Photographic
agreement must be closed and re-vegetated		developed that	and			record of the
immediately, at the contractor's expense;		are not in-line	Rehabilitation			closure of
		with the access				access roads
		route				and re-
		agreements				vegetation
		must be closed				
		and re-				
		habilitated to				
		the pre-				
		disturbance				
		state				
Maximum use of both existing servitudes and existing	Contractor	Existing access	Construction	cEO	Bi-Weekly	Implementation
roads must be made to minimise further disturbance		routes to be	and operation	Operation and		of the approved
through the development of new roads;		used must be		maintenance		layout
		specified and		team		
		the				
		development of				
		new roads must				
		be avoided as				
		far as possible				
- In circumstances where private roads must be used,	dEO / cEO	Record the	During the	ECO	Prior to the use of	Photographic
the condition of the said roads must be recorded in		conditions of	construction		private roads	record and
accordance with section 4.9: photographic record;		private roads to	phase			proof of the road
prior to use and the condition thereof agreed by the		be used (prior to				conditions
landowner, the DPM, and the contractor;		use) as per the				agreed upon
		requirements of				with the relevant
		section 4.9 and				parties

Impact Management Actions	Implementation	Implementation				
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
Access roads in flattish areas must follow fence lines	DPM and	agree on the required condition of the roads with the landowner, DPM and contractor Design access	Pre-construction	ECO	Once during the	Implementation
and tree belts to avoid fragmentation of vegetated areas or croplands;		roads to follow fence lines and avoid vegetated areas	Tre-consilection		design and once prior to construction	of the approved layout
Access roads must only be developed on pre-planned and approved roads.	Contractor	Construction of access roads only on preplanned and approved access roads	During the construction phase	ECO once during the design dEO	Once during the design and weekly during the construction of access roads	Implementation of the approved layout

# 5.5 Fencing and Gate installation

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

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
Use existing gates provided to gain access to all parts of the area authorised for development, where possible;	Contractor	Identify and inform all relevant staff of the existing gates to be used	Pre-construction & Construction	dEO	Monthly	Existing gates are utilised on a frequent basis and only limited new access gates are developed
<ul> <li>Existing and new gates to be recorded and documented in accordance with section 4.9: photographic record;</li> </ul>	ECO	Existing and new gates will be recorded and documented as per the requirements of section 4.9	During the construction phase	ECO	Once, when the construction of all new gates have been completed	Photographic record of the existing and new gates as per the requirements of section 4.9
All gates must be fitted with locks and be kept locked at all times during the development phase, unless otherwise agreed with the landowner;	Contractor	Ensure all relevant gates are fitted with locks and are always locked	Construction and Operation	ECO monthly, Operation and maintenance team and cEO	Bi-weekly (every second week)	All gates are locked and no complaints from landowners are received in this regard
<ul> <li>At points where the line crosses an existing fence in which there is no suitable gate within the extent of the</li> </ul>	dEO	Install new gates where required with the	During the construction phase	ECO	Once, prior to construction and during the	New gates are installed where

Impact Management Actions	Implementation	1		Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
line servitude, on the instruction of the DPM, a gate must be installed at the approval of the landowner;		approval of the affected landowner	·		construction phase, as and when required	the power line crosses fences
<ul> <li>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;</li> </ul>	Contractor	Install gates in a manner so that there is a gap of no more than 100mm between the bottom of the gate and the ground	During the construction phase	cEO	Once, during the erection of the gates during the construction phase	New gates installed as per the requirement
<ul> <li>Where gates are installed in jackal proof fencing, a suitable reinforced concrete sill must be provided beneath the gate;</li> </ul>	Contractor	Implement a reinforced concrete sill beneath gates installed for jackal proofing	During the construction phase	cEO	Once, during the erection of the gates during the construction phase	New gates installed as per the requirement
Original tension must be maintained in the fence wires;	Contractor	Maintain original tension of fences through required activities	During the construction phase	ECO	Monthly	No tension reduction on fence wires
<ul> <li>All gates installed in electrified fencing must be re- electrified;</li> </ul>	Contractor	Electrify gates installed in electrified fencing	During the construction phase	ECO	Once, during the erection of the gates during the construction phase	Gates installed in electrified fencing is electrified

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
<ul> <li>All demarcation fencing and barriers must be maintained in good working order for the duration of overhead transmission and distribution electricity infrastructure development activities;</li> <li>Fencing must be erected around the camp, batching plants, hazardous storage areas, and all designated access restricted areas, where appropriate and would not cause harm to the sensitive flora;</li> </ul>	Contractor	Undertake maintenance activities on fences and barriers  Fence construction camps, batching plants, hazardous storage areas and access restricted areas. Avoid sensitive	During the construction phase  During the construction phase	ECO	Monthly  Once during the erection of fencing	Photographic record of maintained fences and barriers Photographic record of fences erected
Any temporary fencing to restrict the movement of livestock must only be erected with the permission of the landowner.	dEO/ cEO Contractor	flora  Obtain written approval from the relevant landowner where temporary fencing is required to restrict livestock movement	During the construction phase	ECO	To be monitored as temporary fencing is required	Written approval to be provided by the dEO
All fencing must be developed of high quality material bearing the SABS mark;	Contractor	Make use of high quality materials approved by SABS	During the construction phase	cEO	To be monitored as fencing is erected during the construction phase	Use of high quality materials for fencing approved by SABS

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
The use of razor wire as fencing must be avoided as far as possible;	Contractor	Razor wire must not be sourced or used for the erection of fencing	During the construction phase	ECO	To be monitored as fencing is erected during the construction phase	Fences erected do not make use of razor wire
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;	DSS and Contractor	Ensure fenced areas are locked as required through the implementation of a formalised process.  Appoint a security company	During the construction phase	DPM and Contractor	DPM and Contractor	Fences are locked and no complaints from landowners are received. A security company is appointed
On completion of the development phase all temporary fences are to be removed;	Contractor	Removal of all temporary fences	At the end of the Construction Phase	ECO dEO	Once, following the completion of the construction phase	No temporary fences associated with the project is present following the completion of the construction phase
<ul> <li>The contractor must ensure that all fence uprights are appropriately removed, ensuring that no uprights are cut at ground level but rather removed completely.</li> </ul>	Contractor	Appropriate removal of all fence uprights	At the end of the Construction Phase	ECO dEO	Once, following the completion of the construction phase	No fence uprights associated with the project is present following the

Impact Management Actions	Implementation /			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
						completion of
						the construction
						phase

# 5.6 Water Supply Management

Impact management outcome: Undertake responsible water usage.

Impact Management Actions	Implementation		Monitoring	Monitoring			
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence o	of
	person	implementation	implementation	person		compliance	
<ul> <li>All abstraction points or boreholes must be registered</li> </ul>	Not applicable - v	water will not be ab	stracted from Borel	noles			
with the DWS and suitable water meters installed to							
ensure that the abstracted volumes are measured on							
a daily basis;							
The Contractor must ensure the following:	Not applicable - v	water will not be ab	stracted from a rive	er			
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 river bed 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.							

Impact Management Actions	Implementation			Monitoring			
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of	
	person	implementation	implementation	person		compliance	
<ul> <li>Ensure water conservation is being practiced by:</li> </ul>	Contractor /	Implement the	During the	ECO	Monthly, and as	Successful	
a. Minimising water use during cleaning of equipment;	dEO / cEO in	required water	construction		and when	implementation	
b. Undertaking regular audits of water systems; and	consultation with	conservation	phase		required	of water	
c. Including a discussion on water usage and	the ECO	measures				conservation	
conservation during environmental awareness		throughout on-					
training.		site construction					
d. The use of grey water is encouraged.		processes					

# 5.7 Storm and waste water management

Impact management outcome: Impacts to the environment	onment caused by stormwater and wastewater disc	narges during construction are avoided.
Impact Management Actions	Implementation	Monitoring

	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul> <li>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;</li> </ul>	Contractor	Implement measures for the control and management of runoff	During the construction phase	cEO	Bi-Weekly	No mismanagement of runoff or contaminated water due to the temporary concrete batching plant
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;	Contractor and cEO	Obtain approved absorbent material and make use of licensed waste disposal facilities for disposal of oil	During the Construction Phase	ECO	Monthly	Availability of approved absorbent material at the construction site and proof of disposal of oil at licensed disposal facilities
Natural stormwater 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;	DPM in consultation with the ECO	Consultation between the DPM and the ECO to determine if water can be discharged directly into water bodies (where present). The necessary water quality testing must be	During the construction phase	ECO	As and when the need arises to discharge natural stormwater runoff and clean water	Proof of consultation between the DPM and ECO and the outcomes thereof to be provided. Proof of water quality testing and the results thereof.

undertaken prior		
to discharge		

## 5.8 Solid and hazardous waste management

Impact management outcome: Waste is appropriately stored, handled and safely disposed of at a recognised waste facility.

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
<ul> <li>All measures regarding waste management must be</li> </ul>	Contractor	Develop and	During the	ECO	Monthly	Implementation
undertaken using an integrated waste management		implement a	construction			of the waste
approach;		waste	phase			management
		management				plan and proof
		plan				of waste
						management
						through proof of
						responsible
						disposal
- Sufficient, covered waste collection bins (scavenger	Contractor	Provision of	During the	cEO	Bi-Weekly	Appropriate
and weatherproof) must be provided;		appropriate	construction			waste collection
		waste collection	phase			bins are
		bins strategically				available
		placed				throughout the
		throughout the				site
		site				
<ul> <li>A suitably positioned and clearly demarcated waste</li> </ul>	DPM and	Identify an	Design and	ECO	Once, prior to	A waste
collection site must be identified and provided;	Contractor	appropriate	Construction		the	collection site is
		location for the	Phase			appropriately

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
	person	waste collection site which must be clearly demarcated through signage and temporary fencing		person	commencemen t of construction	placed and demarcated
The waste collection site must be maintained in a clean and orderly manner;	Contractor	Regular collection of waste and maintenance of the area must be undertaken as per the waste requirements for the project during construction	During the Construction Phase	cEO	Bi-Weekly	The waste collection site is maintained and clean
Waste must be segregated into separate bins and clearly marked for each waste type for recycling and safe disposal;	Contractor	Provide separate and marked bins for the different waste types associated with the construction phase	During the Construction Phase	CEO	Bi-Weekly	Separate waste bins are available on site and waste generated is separated into the relevant bins
Staff must be trained in waste segregation;	cEO / dEO in consultation with the ECO	Include waste segregation as part of the environmental	Pre-construction Construction	ECO	Monthly, and as and when required	Environmental awareness training material

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
		awareness training material.				requirements checklist
Bins must be emptied regularly;	Contractor	Bins must be emptied before reaching total capacity and on a regular basis as required for the project	During the construction phase	ECO	Monthly	No mismanagemen t of bins.
General waste produced onsite must be disposed of at registered waste disposal sites/ recycling company;	Contractor	Disposal of general waste at licensed waste disposal facilities must be undertaken as per the waste management plan	During the construction phase	ECO	Monthly	Disposal certificates of disposal at licensed facilities to be provided
Hazardous waste must be disposed of at a registered waste disposal site;	Contractor	Disposal of hazardous waste at licensed waste disposal facilities must be undertaken as per the waste management plan	During the construction phase	ECO	Monthly	Disposal certificates of disposal at licensed facilities to be provided
Certificates of safe disposal for general, hazardous and recycled waste must be maintained.	Contractor	Obtain certificates for	During the construction phase	ECO	Monthly	Disposal certificates of disposal at

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
		safe disposal of				licensed facilities
		waste				to be provided
						and filed as part
						of the filing
						system

#### 5.9 Protection of watercourses

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

Impact Management Actions	Implementation	on		Monitoring	Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	r Responsible person	Frequency	Evidence of compliance	
<ul> <li>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;</li> </ul>	Contractor	Contractor to undertake activities which can cause spills of pollutants outside of watercourses	During the construction phase	e cEO	Weekly	No incidents reported of spillage of pollutants into watercourses	
In the event of a spill, prompt action must be taken to clear the polluted or affected areas;	Contractor and cEO	Develop a management plan or process for implementation should a spill take place	During the construction phase	e cEO	Weekly	Feedback must be provided by the contractor in terms of how the spill was	

Impact Management Actions	Implementation	n	Monitoring	Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
- Where possible, no development equipment must traverse any seasonal or permanent wetland	cEO and Contractor	Ensure layout has been informed by the environmental sensitivities as determined by the Environmental Impact Assessment specialist studies	Construction Phase	ECO	Once off review that the layout used is the approved one	handled and photographi c evidence of the feedback must be provided and kept on record  Confirm no development equipment traverses any seasonal or permanent wetland as per the authorised layout by reviewing the as-built designs (once-off confirmation).
<ul> <li>No return flow into the estuaries must be allowed and no disturbance of the Estuarine functional Zone should occur;</li> </ul>	Not applicable	e – no estuaries are loc	cated within the Study	/ Area.		
<ul> <li>Development of permanent watercourse or estuary crossing must only be undertaken where no alternative access to tower position is available;</li> </ul>	Not applicable are anticipated	e. Substation is located d.	d outside of watercou	rses and no wetl	and and water	course crossings

Impact Management Actions	Implementatio	n		Monitoring			
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of	
	person	implementation	implementation	person	<del></del>	compliance	
– There must not be any impact on the long term	DPM, cEO	Develop a	During the	ECO, dEO	For all	No incidents	
morphological dynamics of watercourses or estuaries;		management plan	construction and		phases of	reported of	
		or process for	operation phase		the project	spillage of	
		implementation			life cycle	pollutants	
		should a spill take			(i.e.	into	
		place within a			constructio	watercourses	
		watercourse and			n,		
		ensure continuous			operation,		
		monitoring			decommissi		
					oning)		
Existing crossing points must be favored over the creation	DPM, cEO	Develop a	During the pre-	ECO, dEO	During the	Existing	
of new crossings (including temporary access)		management plan	construction and		constructio	crossing	
		or process for	construction		n phase of	points utilised	
		implementation	phase		the project.	as opposed	
		should a spill take				to new ones	
		place within a				created and	
		watercourse and				no incidents	
		ensure continuous				reported of	
		monitoring				spillage of	
						pollutants	
						into	
						watercourses	
When working in or near any watercourse or estuary, the	Contractor	Activities	During the	ECO	Monthly,	No	
following environmental controls and consideration must		undertaken near	construction		and as and	degradation	
be taken:		watercourses must	phase		when	of the	
a) Water levels during the period of construction;		be in-line with and			required	watercourses	
No altering of the bed, banks, course or characteristics		consider the				and no	
of a watercourse		specified				incidents of	
b) During the execution of the works, appropriate		environmental				destruction	
measures to prevent pollution and contamination of the		controls				reported	
riparian environment must be implemented e.g.							

Impact Management Actions	Implementatio	n		Monitoring	Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of	
	person	implementation	implementation	person		compliance	
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 watercourse banks 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 Management Actions	Implementation			Monitoring				
	Responsible	Method	of	Timeframe for	Responsible	Frequency	Evidence	of
	person	implementation	1	implementation	person		compliance	
General:								

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
<ul> <li>Indigenous vegetation which does not interfere with the development must be left undisturbed;</li> </ul>	cEO and contractor	Demarcate areas of indigenous vegetation to be avoided before	Construction and operation (i.e. for maintenance purposes)	ECO monthly, Operation and maintenance team weekly	Weekly, and as and when required	No unnecessary clearance of indigenous vegetation is undertaken
		clearance is undertaken	1000100000			
<ul> <li>Protected or endangered species may occur on or near the development site. Special care should be taken not to damage such species;</li> </ul>	Contractor	Demarcate areas containing protected or endangered species to be avoided by construction activities	During the Construction Phase	ECO monthly and Operation and maintenance team weekly	Weekly, and as and when required	No clearance of protected or endangered species other than those permitted to be removed
<ul> <li>Search, rescue and replanting of all protected and endangered species likely to be damaged during project development must be identified by the relevant specialist and completed prior to any development or clearing;</li> </ul>	Relevant specialist in consultation with the Contractor	Develop and implement a Plant Search and Rescue Plan	Pre-construction & Construction	cEO	Weekly, and as and when required	Implementation of the Plant Search and Rescue Plan and photographic evidence and notes of the implementation of the plan
<ul> <li>Permits for removal must be obtained from the Department of Environment, Forestry and Fisheries (DEFF) prior to the cutting or clearing of the affected species, and they must be filed; and from the Department of Agriculture, Environmental Affairs, Rural Development and Land Reform for protected plants</li> </ul>	DPM	Undertake the permitting process in order to obtain the relevant permits for the removal	Pre-construction	ECO	Once, prior to the commencement of the construction phase and	DALRRD and NWDEDECT permits on file

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
		of protected species. Permits must be kept on file			removal of the protected species	
The Environmental Audit Report must confirm that all identified species have been rescued and replanted and that the location of replanting is compliant with conditions of approvals;	ECO	Ensure that the audit report indicates all species rescued and replanted and provides feedback in terms of compliance with the conditions of permits for replanting	During the Construction Phase and following the completion of the Construction Phase	ECO	Once off or as and when required	ECO confirmed rescued and replanted programme implemented correctly.
Trees felled due to construction must be documented and form part of the Environmental Audit Report;	ECO	Ensure that the audit report documents the details of trees felled	During the Construction Phase and following the completion of the Construction Phase	ECO	Once off or as and when required	ECO confirms documentation of trees felled
<ul> <li>Rivers and watercourses must be kept clear of felled trees, vegetation cuttings and debris;</li> </ul>	Not Applicable – C	Grid Connection Infr	astructure is not loca	ated within rivers	or watercourses	
<ul> <li>Only a registered pest control operator may apply herbicides on a commercial basis and commercial application must be carried out under the supervision</li> </ul>	DPM qnd Contractor	A suitably qualified pest control operator	Construction and Operation	ECO	As and when the use of herbicides is required	Only registered pest control operators must be appointed

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
of a registered pest control operator that is		must be				and proof of
appropriately trained;		appointed				their registration
						must be
						provided
A daily register must be kept of all relevant details of	Contractor	Develop a daily	During the	ECO	Monthly	Daily register
herbicide usage;		register for the	construction			provided by the
		documentation	phase			pest control
		of the details of				operator
		herbicide usage				
- All protected species and sensitive vegetation not		Spatially	During the	ECO	Once, during the	Demarcation
removed must be clearly marked and such areas		demarcate	construction		undertaking of	and fencing is
fenced off in accordance to <b>Section 5.3</b> : <b>Access</b>	the cEO	protected	phase		the demarcation	undertaken in-
restricted areas.		species and			of the areas and	line with the
		sensitive			the erection of	requirements of
		vegetation and			the fencing	section 5.3
		implement				
		appropriate				
		fencing where				
		required as per				
0 - 1 - 1 -		section 5.3				
Servitude:	Ct : :	-	Ct	1500	A 4 = in Hali	A :
Vegetation that does not grow high enough to cause	Contractor in	Identify areas of	Construction	ECO	Monthly	An indication of
interference with overhead transmission and	consultation with	vegetation not	and Operation	Operation and		the areas where
distribution infrastructures, or cause a fire hazard to any	the DPM	to be trimmed.		maintenance		vegetation has
plantation, must not be cut or trimmed unless it is				team		not been
growing in the road access area, and then only at the						trimmed or
discretion of the Project Manager;						where
						vegetation has
						been removed
						from access

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
						roads must be provided.
Where clearing for access purposes is essential, the maximum width to be cleared within the servitude must be in accordance to distance as agreed between the landowner and the EA holder;	Contractor	Clearing for access must be undertaken as per the requirements provided by the landowner and the EA holder	During the construction phase	ECO	Monthly, and as and when required	Proof must be provided that only agreed upon areas have been cleared
Alien invasive vegetation must 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;	Contractor	Undertake removal of alien invasive vegetation in accordance with the relevant guideline relevant and ensure the vegetation is disposed of at a licensed waste disposal facility	Construction and Operation	ECO Operation and maintenance team	Monthly, and as and when required	Proof must be provided that alien invasive vegetation has been cleared in accordance to the relevant guideline and that the vegetation was disposed of at a licensed waste disposal facility
<ul> <li>Vegetation must 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;</li> </ul>	Contractor	Develop a procedure for the trimming of vegetation in terms of the	Construction and operation	ECO Operation and maintenance team	Monthly, and as and when required	Proof must be provided that vegetation is trimmed in accordance

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
		listed requirements				with the listed requirements
<ul> <li>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;</li> </ul>		Dispose of the debris in accordance with the waste management plan	Construction and operation	ECO Operation and maintenance team	Monthly, and as and when required	Proof must be provided that the debris has been disposed of at a licensed waste disposal facility
<ul> <li>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 that limit impact to the environment must always be considered.</li> </ul>		Develop a procedure for the cutting of vegetation for stringing purposes	Pre-construction & Construction	ECO	Once, prior to the commencement of construction	Proof of implementation of the procedure for the cutting of vegetation for stringing purposes

#### 5.11 Protection of fauna

Impact management outcome: Minimise disturbance to fauna and avifauna.

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
No interference with livestock must occur without the landowner's written consent and with the landowner or a person representing the landowner being present;	dEO / cEO Contractor	Develop a procedure for dealing with livestock within the affected properties	Pre-construction and during the construction phase	ECO	Once, prior to the commencemen t of construction and as and when required during the construction	Written consent provided by the landowner and proof of representation of the landowner during
The breeding sites of raptors and other wild bird species must be taken into consideration during the planning of the development programme;	dEO / cEO in consultation with the Contractor	Ensure that the planning and development programme considers breeding sites for wild bird species	Pre-construction & Construction	ECO	phase Once, prior to the commencemen t of construction and as and when required	interference  The planning and development programme includes the consideration of breeding sites for wild bird species
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;	dEO / cEO in consultation with the Contractor	Avoid breeding sites and ensure that special care is taken in the presence of nestlings and fledglings	During the Construction Phase Operation Phase	ECO monthly, cEO and Operation and maintenance team weekly	Weekly, and as an when required during the construction. Monthly, and as and when required during operation	Photographic record of intact breeding sites
<ul> <li>Nesting sites on existing parallel lines must be documented;</li> </ul>	dEO / cEO in consultation with the ECO	Walk-downs of the existing lines located parallel to the project must be	During the Construction Phase Operation Phase	ECO Operation and maintenance team	Quarterly, and as and when required	Details of walk- downs undertaken must be noted and kept on file and

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
		undertaken and				photographic
		nests and the				records of
		details thereof				nesting sites must
		documented				be kept
<ul> <li>Special recommendations of the avian specialist must</li> </ul>	dEO / cEO in	All mitigation	During the	ECO	Monthly during	Photographic
be adhered to at all times to prevent unnecessary	consultation with	measures	Construction	Operation and	construction	record of
disturbance of birds;	the Contractor	recommended	Phase	maintenance	and monthly	compliance and
		by the avifauna	Operation Phase	team	during operation	successful
		specialist must				implementation
		be implemented				of the
						recommended
						measures
Bird guards and diverters must be installed on the new	dEO / cEO in	Recommendati	During the	ECO	Monthly, and as	Photographic
line as per the recommendations of the specialist;	consultation with	ons made by the	Construction	Operation and	and when	record of
	the Contractor	specialist for the	Phase	maintenance	required	implementation
		installation of	Operation Phase	team		and
		bird guards and				maintenance of
		diverters must be				bird guards and
		adhered to and				diverters
		implemented as				
		appropriate.				
		Bird guards and				
		diverters must be				
		maintained				
- No poaching must be tolerated under any	dEO / cEO in	All site staff must	During the	ECO	Monthly, and as	No instances of
circumstances. All animal dens in close proximity to the	consultation with	be informed of	Construction		and when	poaching is
works areas must be marked as Access restricted	the Contractor	this requirement	Phase		required	reported
areas;		during the				
		Environmental				
		Awareness				

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
		Training and the				
		consequences				
		of not adhering				
		to the				
		requirement.				
		These areas must				
		be demarcated				
		as Access				
		Restricted Areas				
<ul> <li>No deliberate or intentional killing of fauna is allowed;</li> </ul>	dEO / cEO in	All site staff must	During the	ECO	Monthly, and as	No instances of
	consultation with	be informed of	Construction		and when	deliberate or
	the Contractor	this requirement	Phase		required	intentional killing
		during the				is reported
		Environmental				
		Awareness				
		Training and the				
		consequences				
		of not adhering				
		to the				
		requirement.				
		These areas must				
		be demarcated				
		as Access				
		Restricted Areas				
- In areas where snakes are abundant, snake deterrents	dEO / cEO in	Implement and	During the	ECO	Once, during the	Photographic
are to be deployed on the pylons to prevent snakes	consultation with	maintain snake	Construction	Operation and	construction of	record of the
climbing up, being electrocuted and causing power	the Contractor	deterrents on	Phase	maintenance	the pylons and	implementation
outages; and		pylons in areas	Operation Phase	team	as and when	and
		where snakes			required.	maintenance of
		are abundant				snake deterrents

Impact Management Actions	Implementation			Monitoring			
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of	
	person	implementation	implementation	person		compliance	
					Monthly during		
					operation		
- No Threatened or Protected species (ToPs) and/or	DPM in	Undertake a	Pre-construction	ECO	Once, prior to	Permits for	
protected fauna as listed according NEMBA (Act No.	consultation with	permitting			the	removal	
10 of 2004) and relevant provincial ordinances may be	the dEO	process to			commencemen	and/relocation	
removed and/or relocated without appropriate		obtain the			t of construction	must be kept on	
authorisations/permits.		required permits			and as and	file and be	
					when required	readily available	

## 5.12 Protection of heritage resources

**Impact management outcome:** Minimise impact to heritage resources.

Impact Management Actions	Implementation			Monitoring			
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of	
	person	implementation	implementation	person		compliance	
<ul> <li>Identify, demarcate and prevent impact to all known</li> </ul>	DPM and a	Spatially identify	Pre-construction	ECO	Once, prior to	Proof of	
sensitive heritage features on site in accordance with	suitably qualified	and demarcate			the	avoidance of	
the No-Go procedure in Section 5.3: Access restricted	specialist	areas of			commencemen	sensitive	
areas;		heritage			t of construction	heritage	
	dEO / cEO in	significance as				features through	
	consultation with	per the Heritage				details of	
	the Contractor	Impact				avoidance and	
	and ECO	Assessment and				photographic	
		the Heritage				records	
		Walk-through					

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
		Report and as				
		per the				
		requirements of				
		section 5.3				
- Carry out general monitoring of excavations for	dEO (in	Ensure	During the	ECO	Monthly, or as	Environmental
potential fossils, artefacts and material of heritage	consultation with	construction	Construction		required	awareness
importance;	specialists if/as	staff are	Phase			training includes
	required).	adequately				measures
		informed (via				relating to
		environmental				monitoring for
		awareness				chance finds
		training) to carry				
		out monitoring				
		of excavations				
		for fossils,				
		artefacts and				
		important				
		heritage				
		material				
– All work must cease immediately, if any human	dEO / cEO in	Develop and	During the	ECO	As and when	Proof of work
remains and/or other archaeological,	consultation with	implement	Construction		required	ceased and the
palaeontological and historical material are	the Contractor	procedures for	Phase			required
uncovered. Such material, if exposed, must be	and ECO	situations where				procedures
reported to the nearest museum, archaeologist/		human remains,				followed in
palaeontologist (or the South African Police Services),		archaeological,				cases where
so that a systematic and professional investigation can		palaeontolgoic				material is
be undertaken. Sufficient time must be allowed to		al or historical				discovered.
remove/collect such material before development		material are				
recommences.		uncovered				

# 5.13 Safety of the public

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

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
- Identify fire hazards, demarcate and restrict public	cEO in	Develop an	Pre-construction	cEO	Once, prior to	Compliance
access to these areas as well as notify the local	consultation with	Emergency	Construction		the	with the
authority of any potential threats e.g. large brush	the Contractor	Preparedness,			commencemen	Emergency
stockpiles, fuels etc.;		Response and			t of construction	Preparedness,
		Fire			and weekly	Response and
		Management			during the	Fire
		Plan specific to			construction	Management
		the project			phase	Plan
- All unattended open excavations must be adequately	Contractor	Ensure that all	During the	cEO	Weekly	Excavations are
fenced or demarcated;		excavations	Construction			fenced where
		undertaken is	Phase			required and
		fenced and				photographic
		demarcated				proof can be
		within a				provided
		reasonable				
		timeframe and				
		in instances				
		where				
		excavations will				
		be open for				
		long-periods of				
		time				
Adequate protective measures must be implemented	Contractor	All staff must be	During the	ECO	Monthly, and as	No incidents of
to prevent unauthorised access to and climbing of		easily	construction		and when	unauthorised
partly constructed towers and protective scaffolding;		identifiable and	phase		required	

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
		the climbing of towers and scaffolding must only be undertaken by authorised personnel as managed by the Contractor				climbing is reported
Ensure structures vulnerable to high winds are secured;	Contractor	Ensure that sufficient stabilisation measures are implemented to secure structures vulnerable to high winds	During the construction phase	cEO	Monthly, and as and when required	No incidents of unstable structures due to high winds is reported
Maintain an incidents and complaints register in which all incidents or complaints involving the public are logged.	CEO	Compile and regularly update as incidents and complaints are submitted from the public and indicate the actions taken to resolve the complaint	During the construction phase	ECO	Monthly, and as and when required	The incidents and complaints register is complete and provides all the required details

# 5.14 Sanitation

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

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
Mobile chemical toilets are installed onsite if no other ablution facilities are available;	Contractor	Mobile chemical toilets must be placed appropriately and in areas that avoid environmental sensitivities	During the Construction Phase	cEO	Bi-Weekly	Mobile toilets are installed and avoid environmental sensitivities
- 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;	Contractor in consultation with the cEO	All site staff must be informed of this requirement during the Environmental Awareness Training and the consequences of not adhering to the requirement.	Pe-construction & Construction	ECO	Monthly, and as and when required	No evidence of non-compliance identified
<ul> <li>Where mobile chemical toilets are required, the following must be ensured:</li> <li>a) Toilets are located no closer than 100 m to any watercourse or water body;</li> </ul>	Contractor in consultation with the cEO	The installation of the toilets by the Contractor must be as per	During the Construction Phase	cEO	Weekly	No evidence of non-compliance identified

Impact	Management Actions	Implementation			Monitoring			
		Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance	
b) c) d) e)	Toilets are secured to the ground to prevent them from toppling due to wind or any other cause; No spillage occurs when the toilets are cleaned or emptied and the contents are managed in accordance with the EMPr;  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;  Toilets are emptied before long weekends and workers holidays, and must be locked after working hours;  Toilets are serviced regularly and the ECO must inspect toilets to ensure compliance to health standards;		the listed requirements					
	opy of the waste disposal certificates must be ntained.	Contractor	Certificates obtained from the licensed waste disposal facility with the emptying of the toilets must be kept on file	During the Construction Phase	ECO	Monthly, and as and when required	Certificates for waste disposal from the licensed waste disposal facility available on site	

## 5.15 Prevention of disease

Impact Management outcome: All necessary precautions linked to the spread of disease are taken.

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
- Undertake environmentally friendly pest control in the	Contractor	Only	During the	ECO	As and when	Contractor to
camp area;		environmentally-	Construction		pest control is	provide proof of
		friendly pest	Phase		required for the	pest control
		control must be			project	used being
		used, when				environmentally-
		required				friendly
Ensure that the workforce is sensitised to the effects of	cEO /	The effects of	Pre-construction	ECO	Once, prior to	Environmental
sexually transmitted diseases, especially HIV/ AIDS;	Contractor in	sexually	& Construction		the	awareness
	consultation with	transmitted			commencemen	training material
	the ECO	diseases and			t of construction	requirements
		HIV/ AIDS must			and monthly	checklist
		be covered in			during	
		the			construction	
		Environmental				
		Awareness				
		Training				
The Contractor must ensure that information posters on	Contractor	Develop and	During the	cEO	Prior to	Photographic
HIV/ AIDS are displayed in the Contractor Camp area;		place	Construction		commencemen	evidence of
		information	Phase		t of construction	poster
		posters on HIV/				placement
		AIDS				
- Information and education relating to sexually	cEO /	Information and	Pre-construction	ECO	Monthly	Environmental
transmitted diseases to be made available to both	Contractor in	education of	& Construction			awareness
		sexually				training material

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
construction workers and local community, where	consultation with	transmitted				requirements
applicable;	the ECO	diseases must be				checklist
		covered in the				
		Environmental				
		Awareness				
		Training.				
- Free condoms must be made available to all staff on	Contractor	Placement of	During the	ECO	Monthly	Proof of
site at central points;		free condoms in	Construction			placement of
		mobile toilets	Phase			free condoms by
		and at the				the contractor
		construction				to be provided
		camps				
<ul> <li>Medical support must be made available;</li> </ul>	dEO / cEO in	Ensure that	Construction	ECO	Monthly	Check the
	consultation with	designated	and Operations			availability of first
	the Contractor	personnel with				aid trained
		first aid training				personnel and
		are available on				medical kits
		site and that first				(including if
		aid kits to				these are
		provide medical				complete in
		support is readily				terms of
D : 1		available	5	500		supplies)
- Provide access to Voluntary HIV Testing and	Contractor	Compile a HIV	During the	ECO	Quarterly, and	Voluntary testing
Counselling Services.		testing schedule	Construction		as and when	schedules and
		and provide	Phase		required	proof of
		counselling				counselling
		services where				(where
		required				undertaken)

## 5.16 Emergency procedures

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

Impact Management Actions	Implementation			Monitoring			
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance	
Compile an Emergency Response Action Plan (ERAP) prior to the commencement of the proposed project;	Contractor	Develop an Emergency Preparedness, Response and Fire Management Plan specific to the project	Pre-construction	ECO	Once, prior to the commencemen t of construction	Emergency Preparedness, Response and Fire Management Plan compiled	
The Emergency Plan must deal with accidents, potential spillages and fires in line with relevant legislation;	Contractor	Develop an Emergency Preparedness, Response and Fire Management Plan specific to the project which covers accidents, potential spillages and fires	Pre-construction	ECO	Once, prior to the commencemen t of construction	Emergency Preparedness, Response and Fire Management Plan includes required specifications	
<ul> <li>All staff must be made aware of emergency procedures as part of environmental awareness</li> </ul>	cEO / dEO in consultation with	Develop environmental	Pre-construction	ECO	Prior to the commencemen	Environmental awareness	
training;	the ECO	awareness			t of the	training material	

Impact Management Actions	Management Actions Implementation			Monitoring			
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance	
		training material which covers the relevant emergency procedures			environmental awareness training	requirements checklist	
The relevant local authority must be made aware of a fire as soon as it starts;	Contractor in consultation with the ECO	Develop and include a procedure in the Emergency Preparedness, Response and Fire Management Plan for the event of a fire and the procedure to be followed for informing the local authority	Construction	ECO	As and when a fire occurs	The local authority was informed as per the relevant procedure set out in the Emergency Preparedness, Response and Fire Management Plan	
<ul> <li>In the event of emergency, necessary mitigation measures to contain the spill or leak must be implemented (see Hazardous Substances section 5.17).</li> </ul>	Contractor	Implement the required mitigation measures in the event of a spill or leak as per the requirements of Section 5.17.	Construction and Operations	ECO	As and when a spill or leak occurs	The mitigation measures included under Section 5.17 have been adhered to	

#### 5.17 Hazardous substances

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

Impact Management Actions	Implementation			Monitoring			
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of	
	person	implementation	implementation	person		compliance	
- The use and storage of hazardous substances to be	cEO in	Develop a	Pre-construction	ECO	Once, prior to	Contractor to	
minimised and non-hazardous and non-toxic	consultation with	strategy of how	& Construction		the	provide	
alternatives substituted where possible;	the Contractor	hazardous			commencemen	evidence of	
		substances can			t of construction	substances used	
		be and should			and monthly	for proof of	
		be minimised			during the	compliance	
					construction		
					phase		
- All hazardous substances must be stored in suitable	Contractor	Develop a	Pre-construction	ECO	Once, prior to	Photographic	
containers as defined in the Method Statement;		Method	& Construction		the	proof that	
		Statement for			commencemen	hazardous	
		the storage of			t of construction	substances are	
		hazardous			and monthly	stored in suitable	
		substances in			during the	containers as	
		suitable			construction	per the	
		containers			phase	requirements of	
						the relevant	
						Method	
						Statements	
- Containers must be clearly marked to indicate	Contractor	Where	During the	ECO	Monthly	Photographic	
contents, quantities and safety requirements;		hazardous waste	Construction			proof that	
		is stored these	Phase			containers are	
		must be clearly				marked as per	
		marked				the requirements	

Impact Management Actions	Implementation			Monitoring			
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of	
	person	implementation	implementation	person		compliance	
		indicating the					
		required details					
		of the contents					
- All storage areas must be bunded. The bunded area	Contractor	Ensure that	During the	ECO	Monthly during	Photographic	
must be of sufficient capacity to contain a spill / leak		storage areas	Construction		the Construction	proof that	
from the stored containers;		are sufficiently	Phase		Phase	storage areas	
		bunded which				are bunded and	
		are of sufficient				proof that the	
		capacity to				bund areas are	
		contain a spill /				of sufficient	
		leak from the				capacity to	
		stored				contain a spill /	
		containers				leak from the	
						stored	
						containers	
- Bunded areas to be suitably lined with a SABS	Contractor	Ensure that	During the	ECO	Once, during the	Photographic	
approved liner;		bunded storage	Construction		Construction	proof that	
		areas are	Phase		Phase	bunded storage	
		suitably lined				areas are	
						suitably lined	
– An Alphabetical Hazardous Chemical Substance	cEO /	Compile and	During the	ECO	Monthly, and as	Complete and	
(HCS) control sheet must be drawn up and kept up to	Contractor	update an	Construction		and when	up to date	
date on a continuous basis;		Alphabetical	Phase		required	control sheet	
		Hazardous				provided by the	
		Chemical				Contractor	
		Substance (HCS)					
		control sheet					
		specific to the					
		project					

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
<ul> <li>All hazardous chemicals that will be used on site must have Material Safety Data Sheets (MSDS);</li> </ul>	cEO / Contractor	Keep a record of all hazardous	During the Construction	ECO	Monthly, and as and when	Record of hazardous
		chemicals and	Phase		required	chemicals and
		the respective MSDS			·	the respective MSDS
<ul> <li>All employees working with HCS must be trained in the</li> </ul>	cEO /	Provide training	Pre-construction	ECO	Once, prior to	Record of
safe use of the substance and according to the safety	Contractor	for personnel			the	training
data sheet;		working with			commencemen	provided to
		HCS			t of construction	personnel
					and as and	working with
					when required	HCS
<ul> <li>Employees handling hazardous substances / materials</li> </ul>	cEO /	Develop	Pre-construction	ECO	Prior to the	Environmental
must be aware of the potential impacts and follow	Contractor	environmental	& Construction		commencemen	awareness
appropriate safety measures. Appropriate personal		awareness			t of the	training material
protective equipment must be made available;		training material			environmental	requirements
		which covers the			awareness	checklist and all
		relevant impacts			training and	relevant
		and safety			monthly during	personnel have
		measures.			the construction	undergone
					phase for	appropriate
		Provide			personal	training and
		appropriate			protective	have access to
		training and			equipment	personal
		personal				protective
		protective				equipment
		equipment for				
		the relevant				
		personnel				
		handling				
		hazardous				

Impact Management Actions	Implementation			Monitoring			
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance	
		substances and materials					
The Contractor must ensure that diesel and other liquid fuel, oil and hydraulic fluid is stored in appropriate storage tanks or in bowsers;	Contractor	Appropriate storage facilities must be constructed or obtained for the storing of diesel, other liquid fuel, oil and hydraulic fluid	During the Construction Phase	ECO	Monthly, and as and when required	Storage tanks for the project are appropriate and no incidents are reported in this regard	
<ul> <li>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);</li> </ul>	Contractor	Appropriate storage facilities must be constructed or obtained for tanks as per the requirements listed	During the Construction Phase	ECO	Monthly, and as and when required	Storage areas for the tanks/ bowsers for the project are appropriate and no incidents are reported in this regard	
The floor of the bund must be sloped, draining to an oil separator;	Contractor	Appropriate storage facilities must be constructed as per the requirements listed	During the Construction Phase	ECO	Once, during construction	Bunded storage areas are constructed according to the requirements	

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
<ul> <li>Provision must be made for refuelling 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;</li> </ul>	Contractor	Appropriately constructed refuelling facility must be developed as per the requirements.  Drip trays must	During the Construction Phase	ECO cEO	Monthly Weekly	Soils at the refuelling facility are protected as required and drip trays are provided and used
		be provided for use				
<ul> <li>All empty externally dirty drums must be stored on a drip tray or within a bunded area;</li> </ul>	Contractor	Ensure that empty dirty drums are stored appropriately as per the requirements	During the Construction Phase	ECO cEO	Monthly Weekly	Drip trays or bunded areas are used for the storage of dirty drums
<ul> <li>No unauthorised access into the hazardous substances storage areas must be permitted;</li> </ul>	Contractor	Ensure through the implementation of procedures that no unauthorised access is undertaken into the storage areas	During the Construction Phase	ECO	Monthly	Proof of the implementation of the relevant procedure must be provided by the contractor
<ul> <li>No smoking must be allowed within the vicinity of the hazardous storage areas;</li> </ul>	Contractor	Inform all employees of the requirement and develop	During the Construction Phase	ECO cEO	Monthly Weekly	Photographic record of the signage placed

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
Adequate fire-fighting equipment must be made available at all hazardous storage areas;	Contractor	implementation  and place relevant signage in the relevant areas  Hazardous storage areas must be fitted with adequate fire-fighting	During the Construction Phase	ECO	Monthly	must be provided  Adequate fire-fighting equipment is available and has been
- Where refuelling away from the dedicated refuelling station is required, a mobile refuelling unit must be used. Appropriate ground protection such as drip trays must be used;	Contractor	equipment  Provide a mobile refuelling unit as well as suitable ground protection, where required	During the Construction Phase	ECO	Monthly, and as and when required	A mobile refuelling unit and suitable ground protection is available for use
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;		Provide an appropriate spill kit for the project for the use of hazardous substances	During the Construction Phase	ECO	Monthly, and as and when required	Appropriate spill kits are available for use
<ul> <li>The responsible operator must have the required training to make use of the spill kit in emergency situations;</li> </ul>	cEO and Contractor	Provide training on the use of spill kits to the relevant employees	Pre-construction	ECO	Once, prior to the commencemen t of construction	Proof of training to be provided by the contractor

Impact Management Actions	Implementation	Implementation				
	Responsible	Method of		Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
<ul> <li>An appropriate number of spill kits must be available and must be located in all areas where activities are being undertaken;</li> </ul>	cEO and Contractor	Provide an appropriate number of spill kits in relevant areas	During the Construction Phase	ECO	Monthly	Proof of appropriate number of spill kits in appropriate areas to be provided by the
						contractor
<ul> <li>In the event of a spill, contaminated soil must be collected in containers and stored in a central location and disposed of according to the National Environmental Management: Waste Act 59 of 2008. Refer to Section 5.7 for procedures concerning storm and waste water management and 5.8 for solid and hazardous waste management.</li> </ul>	cEO and Contractor	Storage and disposal of contaminated soil must be in accordance with the National Environmental Management: Waste Act and sections 5.7 and 5.8 of this EMPr	During the Construction Phase	ECO	Monthly, and as and when required	Proof of storage and disposal in terms of the National Environmental Management: Waste Act must be provided.  Certificates of disposal at licensed waste disposal facilities must be provided

## 5.18 Workshop, equipment maintenance and storage

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

Impact Management Actions	Implementation			Monitoring			
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of	
	person	implementation	implementation	person		compliance	
- Where possible and practical all maintenance of	Contractor	Demarcate	During the	ECO	Monthly	A dedicated	
vehicles and equipment must take place in the		specific areas for	Construction			area for the	
workshop area;		the	Phase			maintenance of	
		maintenance of				vehicles and	
		vehicles and				machinery is	
		equipment				used.	
- During servicing of vehicles or equipment, especially	Contractor	Ensure that a	During the	ECO	Monthly	Contractor to	
where emergency repairs are effected outside the		drip tray is	Construction			provide	
workshop area, a suitable drip tray must be used to		available for an	Phase			evidence of drip	
prevent spills onto the soil.		emergency				tray use for	
		repairs required				emergency	
						repairs	
- Leaking equipment must be repaired immediately or	Contractor	Ensure that	During the	ECO	Monthly	Contractor to	
be removed from site to facilitate repair;		where leaking	Construction			provide details	
		equipment is	Phase			of equipment	
		identified it is				repaired or	
		repaired				removed from	
		immediately or				site	
		removed from					
		site for repairs					
- Workshop areas must be monitored for oil and fuel	cEO	Undertake	During the	ECO	Monthly	Register of	
spills;		regular	Construction			inspection	
		inspections of	Phase				
		the workshop					

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
	•	areas for oil and				
		fuel spills and				
		keep an				
		updated register				
		of inspection on				
		site				
<ul> <li>Appropriately sized spill kit kept onsite relevant to the</li> </ul>	Contractor	Provide an	During the	ECO	Monthly, and as	Appropriate spill
scale of the activity taking place must be available;		appropriate spill	Construction		and when	kits are available
		kit for the project	Phase		required	for use
The workshop area must have a bunded concrete slab	Contractor	Ensure that the	During the	ECO	Once, during the	Workshop area is
that is sloped to facilitate runoff into a collection sump		workshop area is	Construction		Construction	bunded in
or suitable oil / water separator where maintenance		sufficiently	Phase		Phase and as	accordance
work on vehicles and equipment can be performed;		bunded in			and when	with the required
		accordance			required	specification
		with the required				
		specification				
<ul> <li>Water drainage from the workshop must be contained</li> </ul>	Contractor	Ensure that	During the	ECO	Monthly	Workshop
and managed in accordance with Section 5.7: storm		water drainage	Construction			drainage is
and waste water management.		from workshop	Phase			managed in
		area is				accordance
		managed as per				with the
		the requirements				requirements
		of section 5.7				

# 5.19 Batching plants

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

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul> <li>Concrete mixing must be carried out on an impermeable surface;</li> </ul>	Contractor	Provide impermeable surface for the mixing of concrete	During the Construction Phase	cEO	Weekly	No concrete mixing is undertaken on open ground
Batching plants areas must be fitted with a containment facility for the collection of cement laden water.	Contractor	Implement measures for the control and management of cement laden water	During the construction phase	CEO	Weekly	No mismanagemen t of laden water due to the temporary concrete batching plant
Dirty water from the batching plant must be contained to prevent soil and groundwater contamination	Contractor	Implement measures for the control and management of dirty water to prevent soil and groundwater contamination	During the construction phase	cEO	Weekly	No mismanagemen t of dirty water due to the temporary concrete batching plant and no/minimal soil and groundwater contamination

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
Bagged cement must be stored in an appropriate facility and at least 10 m away from any water courses, gullies and drains;	Contractor	Demarcate and provide a storage area for bagged cement in-line with the listed requirements	During the Construction Phase	CEO	Weekly	Photographic proof of bagged cement stored within the demarcated area
A washout facility must be provided for washing of concrete associated equipment. Water used for washing must be restricted;	Contractor	Provide a washout facility for the washing of associated equipment. Enforce limitations on water use for washing of equipment	During the Construction Phase	CEO	Weekly	No cement laden water is released into the environment. Only minimal water is used for washing
Hardened concrete from the washout facility or concrete mixer can either be reused or disposed of at an appropriate licensed disposal facility;	Contractor	Make use of hardened concrete where possible or dispose of concrete in a suitable manner	During the Construction Phase	ECO	Monthly	Certificates of disposal of concrete at licensed waste disposal facility
<ul> <li>Empty cement bags must be secured with adequate binding material if these will be temporarily stored on site;</li> </ul>	Contractor	Bind empty cement bags and temporarily store it in an appropriate area on site	During the Construction Phase	ECO	Monthly	Proof of binding of empty cement bags and storage in an appropriate are on site to be

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
	poison.	прополения		poison.		provided by the Contractor
<ul> <li>Sand and aggregates containing cement must be kept damp to prevent the generation of dust (Refer to Section 5.20: Dust emissions)</li> </ul>	Contractor	Ensure that sand and aggregates are kept damp or otherwise protected from dust generation	During the Construction Phase	ECO	Monthly	Proof of damping (or alternative dust suppression) of sand and aggregates must be provided by the Contractor
<ul> <li>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;</li> </ul>	Contractor	Ensure that all excess sand, stone and cement is removed or reused	At the completion of the Construction Phase	ECO	Once, with the completion of construction	Certificates for the disposal of sand, stone and cement at licensed waste disposal facilities or proof of reuse must be provided
<ul> <li>Temporary fencing must be erected around batching plants in accordance with Section 5.5: Fencing and gate installation.</li> </ul>	Contractor	Erect Temporary fencing	During the construction phase	cEO	Weekly	Temporary fencing around batching plants

#### 5.20 Dust emissions

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

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul> <li>Take all reasonable measures to minimise the generation of dust as a result of project development activities to the satisfaction of the ECO;</li> </ul>	Contractor	Apply appropriate dust suppressant	During the Construction Phase	CEO	Weekly	Contractor to provide proof of use of appropriate dust suppressants
<ul> <li>Removal of vegetation must be avoided until such time as soil stripping is required and similarly exposed surfaces must be re-vegetated or stabilised as soon as is practically possible;</li> </ul>	Contractor	Proper planning for vegetation removal must be undertaken as well as for the associated rehabilitation	During the Construction Phase and Rehabilitation	CEO	Weekly	Plan for implementation must be provided by the Contractor
Excavation, handling and transport of erodible materials must be avoided under high wind conditions or when a visible dust plume is present;	Contractor	Ensure that specific limitations are placed on the transport and handling of erodible materials during high wind conditions or when a visible	During the Construction Phase	CEO	Bi-weekly (every second week)	No complaints submitted in this regard

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
		dust plume is present				
<ul> <li>During high wind conditions, the ECO must evaluate the situation and make recommendations as to whether dust-damping measures are adequate, or whether working will cease altogether until the wind speed drops to an acceptable level;</li> </ul>	ECO	ECO to provide adequate recommendations	During the Construction Phase	Not Applicable		
<ul> <li>Where possible, soil stockpiles must be located in sheltered areas where they are not exposed to the erosive effects of the wind;</li> </ul>	Contractor	Place soil stockpiles in areas less affected by wind	During the Construction Phase	cEO and	Bi-weekly (every second week)  Monthly	Soil stockpiles are not exposed to wind and have not been eroded
Where erosion of stockpiles becomes a problem, erosion control measures must be implemented at the discretion of the ECO;	Contractor in consultation with the ECO	Contractor to implement erosion control measures as recommended and agreed with the ECO	During the Construction Phase	cEO	Weekly, until erosion is no longer a problem	Recommendati ons made by the ECO have been implemented by the Contractor
Vehicle speeds must not exceed 40 km/h along dust roads or 20 km/h when traversing unconsolidated and non-vegetated areas;	cEO / dEO / contractor	Inform all drivers of speed limits and place appropriate signage along the relevant roads	During the Construction Phase Operation Phase	ECO Operation and Maintenance team	Monthly	No complaints from community members are submitted

Impact Management Actions	Implementation			Monitoring			
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of	
	person	implementation	implementation	person		compliance	
- Straw stabilisation must be applied at a rate of one	Contractor	Ensure that straw	During the	ECO	Monthly	Photographic	
bale/10 m² and harrowed into the top 100 mm of top		stabilisation is	Construction			record of all	
material, for all completed earthworks;		undertaken as	Phase			straw	
		per the listed				stabilisation	
		requirements				undertaken	
<ul> <li>For significant areas of excavation or exposed ground,</li> </ul>	Contractor	Appropriate dust	During the	cEO	Weekly	Photographic	
dust suppression measures must be used to minimise		suppressant	Construction			record of	
the spread of dust.		measures are	Phase			measures being	
		implemented				implemented	
						and the results	
						thereof	

## 5.21 Blasting

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

Impact Management Actions	Implementation			Monitoring			
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence	of
	person	implementation	implementation	person		compliance	
<ul> <li>Any blasting activity must be conducted by a suitably licensed blasting contractor; and</li> </ul>	Not Applicable						
- Notification of surrounding landowners, emergency	cEO / dEO /	Ensure all	Pre-Construction	ECO/EO	Once off, before	ECO/EO	to
services site personnel of blasting activity 24 hours prior	contractor	responsible	Phase		blasting	confirm	all
to such activity taking place on Site.		personnel have			activities	necessary	
		been notified of			commence.	personnel ha	ve
		blasting				been notifie	ed.
		activities 24				Notification	

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
		hours in				records to be
		advance and				provided.
		keep records of				
		notifications.				

#### 5.22 Noise

Impact Management outcome: Unnecessary noise is prevented by ensuring that noise from construction activities is mitigated.

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
- The Contractor must keep noise level within	Contractor	Ensure that noise	During the	ECO	Monthly, and as	No complaints
acceptable limits. Restrict the use of sound		limits do not	Construction		and when	registered in this
amplification equipment for communication and		exceed	Phase		required	regard. No
emergency only;		acceptable				amplification
		limits and avoid				equipment is
		the use of				used.
		amplification				
		communication				
- All vehicles and machinery must be fitted with	Contractor	Provide and	During the	ECO	Monthly, and as	No complaints
appropriate silencing technology and must be		implement	Construction		and when	registered in this
properly maintained;		silencing	Phase		required	regard.
		technology				Silencing
						technology is
						utilised.

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul> <li>Any complaints received by the Contractor regarding noise must be recorded and communicated. Where possible or applicable, provide transport to and from the site on a daily basis for construction workers;</li> </ul>	CEO	Update complaints register. Provide daily transport to and from site for employees	During the Construction Phase	ECO	Monthly, and as and when required	Complaints register provided by the cEO and proof of transportation services provided
<ul> <li>Develop a Code of Conduct for the construction phase in terms of behaviour of construction staff.</li> <li>Operating hours as determined by the environmental authorisation are adhered to during the development phase. Where not defined, it must be ensured that development activities must still meet the impact management outcome related to noise management.</li> </ul>	Not Applicable - included in the EP		is not enforceable	- environmental s	afety and protection	on is contractually

# 5.23 Fire prevention

Impact management outcome: Prevention of uncontrollable fires.

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
Designate smoking areas where the fire hazard could be regarded as insignificant;	С	Identify and demarcate through signage designated smoking areas	Pre-construction & Construction	ECO	Monthly	Photographic record of designated smoking area
Firefighting equipment must be available on all vehicles located on site;	cEO / dEO in consultation with the Contractor	Provide all vehicles with firefighting equipment	Construction	ECO	Monthly	All vehicles are fitted with firefighting equipment and the details thereof are provided by the CEO
The local Fire Protection Agency (FPA) must be informed of construction activities;  Contact purely are far the EDA and a regreen according.	cEO in consultation with the ECO	Undertake formal consultation to inform the local FPA of the associated construction activities	Pre-construction	ECO	Once, during the commencemen t of the Construction Phase	Proof of consultation with the FPA
<ul> <li>Contact numbers for the FPA and emergency services must be communicated in environmental awareness training and displayed at a central location on site;</li> </ul>	dEO / cEO / Contractor in	Develop environmental awareness	Pre-construction & Construction	ECO	Prior to the commencemen t of the	Environmental awareness training material

Impact Management Actions	Implementation			Monitoring	Monitoring			
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of		
	person	implementation	implementation	person		compliance		
	consultation with	training material			environmental	requirements		
	the ECO	which covers the			awareness	checklist and		
		contact			training and	photographic		
		numbers for the			once during the	record of		
		FPA and			construction	contact		
		emergency			phase	numbers on		
		services.				display		
		Place the						
		contact						
		numbers for the						
		FPA and						
		emergency						
		services at a						
		visible and						
		central location						
- Two-way swop of contact details between ECO and	ECO	Consultation	Pre-construction	Not Applicable				
FPA.		between the						
		ECO and FPA to						
		exchange						
		contact details						

# 5.24 Stockpiling and stockpile areas

**Impact management outcome:** Erosion and sedimentation as a result of stockpiling are reduced.

Impact Management Actions	Implementation			Monitoring			
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of	
	person	implementation	implementation	person		compliance	
– All material that is excavated during the project	Contractor	Identify and	Pre-construction	ECO	Monthly	Excavated	
development phase (either during piling (if required) or		demarcate an	& Construction			material is not	
earthworks) must be stored appropriately on site in		appropriate				stored within	
order to minimise impacts to watercourses, wetlands		location for the				sensitive	
and water bodies;		storage of				environmental	
		excavated				areas	
		materials					
<ul> <li>All stockpiled material must be maintained and kept</li> </ul>	Contractor	Implement	During the	cEO	Bi-weekly (every	Stockpiled	
clear of weeds and alien vegetation growth by		appropriate and	Construction		second month)	material is	
undertaking regular weeding and control methods;		sufficient	Phase			maintained	
		maintenance on		ECO	Monthly	sufficiently and is	
		stockpiled				clear of weeds	
		material				and alien	
ı		regularly				vegetation	
<ul> <li>Topsoil stockpiles must not exceed 2 m in height;</li> </ul>	Contractor	Enforce	During the	cEO	Bi-weekly (every	Topsoil stockpiles	
ı		limitations for the	Construction		second month)	do not exceed	
ı		height of topsoil	Phase			2m in height	
		stockpiles		ECO	Monthly		
- During periods of strong winds and heavy rain, the	Contractor	Appropriate	During the	ECO	Monthly	Contractor to	
stockpiles must be covered with appropriate material		material must be	Construction			provide proof of	
(e.g. cloth, tarpaulin etc.);		provided in	Phase			availability of	
		order to cover				appropriate	
		stockpiles when				material to	
		required					

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
						cover stockpiles
						when required
- Where possible, sandbags (or similar) must be placed	Contractor	Sandbags must	During the	ECO	Monthly	Contractor to
at the bases of the stockpiled material in order to		be provided in	Construction			provide proof of
prevent erosion of the material.		order to prevent	Phase			availability of
		erosion of				sandbags to
		stockpiled				prevent erosion
		materials				of stockpiled
						materials

## 5.25 Finalising tower positions

**Impact management outcome:** No environmental degradation occurs as a result of the survey and pegging operations.

Impact Management Actions	Implementation			Monitoring			
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of	
	person	implementation	implementation	person		compliance	
<ul> <li>No vegetation clearing must occur during survey and</li> </ul>	Contractor	Implement	Pre-	cEO	Bi-Weekly	Contractor to	
pegging operations;		restrictions in	construction			provide	
		terms of				photographic	
		vegetation				proof that no	
		clearing during				vegetation has	
		the survey and				been cleared	
		pegging					
		operations					
<ul> <li>No new access roads must be developed to facilitate</li> </ul>	Contractor	Restrict the	Pre-	cEO	Bi-Weekly	Contractor to	
access for survey and pegging purposes;		development of	construction			provide	

Impact Management Actions	Implementation			Monitoring			
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of	
	person	implementation	implementation	person		compliance	
		new access				photographic	
		roads for survey				proof that no	
		and pegging				new roads have	
		purposes				been	
						developed	
<ul> <li>Project manager, botanical specialist and contractor</li> </ul>	DPM, Suitably	Undertake	Pre-	ECO	Once the final	Provision of final	
to agree on final tower positions based on survey within	Qualified	consultation	construction		tower positions	tower positions	
assessed and approved areas;	Specialist and	between the			have been	to the ECO	
	Contractor	relevant			finalised and		
		responsible			agreed upon		
		people and					
		finalise the tower					
		positions for the					
		power line					
- The surveyor is to demarcate (peg) access	Surveyor in	Undertake	Pre-	cEO	Weekly	Consultation	
roads/tracks in consultation with ECO. No deviations	consultation with	consultation	construction			with the ECO	
will be allowed without the prior written consent from	the ECO	between the				regarding the	
the ECO.		surveyor and the				distribution of	
		ECO				pegs.	

#### 5.26 Excavation and Installation of foundations

Impact management outcome: No environmental degradation occurs as a result of excavation or installation of foundations.

Impact Management Actions	Implementation			Monitoring			
	Responsible	Method of		Responsible	Frequency	Evidence of	
	person	implementation	implementation	person		compliance	
- All excess spoil generated during foundation	Contractor	Use a licensed	During the	ECO	Monthly	Certificates	
excavation must be disposed of in an appropriate		waste disposal	Construction			obtained for the	
manner and at a recognised disposal site, if not used		facility for the	Phase			disposal of	
for backfilling purposes;		disposal of				excess spoil at a	
		excess spoil				licensed waste	
						disposal facility	
<ul> <li>Spoil can however be used for landscaping purposes</li> </ul>	Contractor	Spoil used for	Construction	ECO	Monthly	Photographic	
and must be covered with a layer of 150 mm topsoil for		landscaping	and			record of spoil	
rehabilitation purposes;		must be applied	Rehabilitation			used for	
		as per the listed				landscaping	
		requirements				purposes as well	
						as feedback	
						from the	
						contractor	
<ul> <li>Management of equipment for excavation purposes</li> </ul>	Contractor	Undertake the	During the	ECO	Monthly	Management of	
must be undertaken in accordance with Section 5.18:		management of	Construction			equipment is	
Workshop equipment maintenance and storage; and		equipment for	Phase			undertaken in	
		excavation as				line with the	
		per the				requirements of	
		requirements of				section 5.18	
		section 5.18					
- Hazardous substances spills from equipment must be	Contractor	Undertake the	During the	ECO	Monthly	Management of	
managed in accordance with Section 5.17: Hazardous		management of	Construction			hazardous	
substances.		hazardous	Phase			substances spills	

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
		substances spills				from equipment
		from equipment				is undertaken in
		as per the				line with the
		requirements of				requirements of
		section 5.17				section 5.17
Batching of cement to be undertaken in accordance	Contractor	Ensure correct	During the	cEO	Weekly	Measures in
with Section 5.19: Batching plants;		batching of	construction			place to ensure
		cement	phase			the batching of
						cement is done
						in accordance
						with Section
						5.19: Batching
						plants
- Residual cement must be disposed of in accordance	Contractor	Undertake the	During the	ECO	Monthly	The disposal of
with Section 5.8: Solid and hazardous waste		disposal of	Construction			residual cement
management.		residual cement	Phase			is undertaken in
		as per the				line with section
		requirements of				5.8.
		section 5.8				

# 5.27 Assembly and erecting towers

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

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul> <li>Prior to erection, assembled towers and tower sections must be stored on elevated surfaces (suggest wooden blocks) to minimise damage to the underlying vegetation;</li> </ul>	Contractor	Provide the necessary materials for the elevated surface, where towers are to be placed on indigenous vegetation	During the Construction Phase	CEO	Weekly	Implementation of elevated surface and photographic record thereof
<ul> <li>In sensitive areas, tower assembly must take place off- site or away from sensitive positions;</li> </ul>	Contractor in consultation with the cEO and the ECO	Identify sensitive areas to be avoided by tower assembly and ensure that the areas are not infringed upon	Pre-construction & Construction	cEO	Weekly	Tower assembly is undertaken outside of sensitive areas
The crane used for tower assembly must be operated in a manner which minimises impact to the environment;	Contractor in consultation with the cEO and the ECO	Ensure that no impact to the environment is imposed during the operation of the crane	Pre-construction & Construction	CEO	Weekly	No environmental damages incurred as a result of the crane.

Impact Management Actions	Implementation	Implementation			Monitoring			
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance		
The number of crane trips to each site must be minimised;	Contractor in consultation with the cEO and the ECO	Ensure that the utilisation of the crane is maximised when on site.	Pre-construction & Construction	CEO	Weekly	Few crane trips to each site observed.		
<ul> <li>Wheeled cranes must be utilised in preference to tracked cranes. However, Rocky terrain may require tracked cranes in the project site.</li> </ul>	Contractor	Ensure wheeled cranes are utilised, where practical.	Pre-construction & Construction	cEO	Weekly	Wheeled cranes observed on site.		
<ul> <li>Consideration must be given to erecting towers by helicopter or by hand where it is warranted to limit the extent of environmental impact;</li> </ul>	Contractor	Contractor to undertake erecting of towers in an environmentally acceptable manner	During the Construction Phase	ECO	Monthly	No unacceptable environmental impacts occur with the erecting of the towers		
<ul> <li>Access to tower positions to be undertaken in accordance with access requirements specified in Section 5.4: Access Roads;</li> </ul>	Contractor	Undertake access to tower positions as per the requirements of section 5.4	During the Construction Phase	ECO	Monthly	Access to tower positions are undertaken as per the requirements of section 5.4		
<ul> <li>Vegetation clearance to be undertaken in accordance with general vegetation clearance requirements specified in Section 5.10: Vegetation clearing;</li> </ul>	Contractor	Undertake vegetation clearance as per the requirements of section 5.10	During the Construction Phase	CEO	Weekly	Vegetation clearance is undertaken as per the requirements of section 5.10		

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul> <li>No levelling at tower sites must be permitted unless approved by the Development Project Manager or Developer Site Supervisor;</li> </ul>	Contractor in consultation with the DPM and DSS	Written permission for levelling at tower sites, if required, must be obtained from the DPM and DSS prior to the undertaking of any levelling activities	During the Construction Phase	ECO	Monthly, and as and when required	Written permission from the DPM and DSS provided to the Contractor
Topsoil must be removed separately from subsoil material and stored for later use during rehabilitation of such tower sites;	Contractor	Implement appropriate measures to ensure that topsoil is removed from subsoil material	Construction and Rehabilitation	cEO	Weekly, and as and when required	Proof of appropriate measures implemented must be provided by the Contractor
<ul> <li>Topsoil must be stored in heaps not higher than 2m to prevent destruction of the seed bank within the topsoil;</li> </ul>	Contractor	Implement the listed requirements for the storage of topsoil	During the Construction Phase	cEO	Weekly	Topsoil is stored as per the listed requirements
<ul> <li>Excavated slopes must be no greater that 1:3, but where this is unavoidable, appropriate measures must be undertaken to stabilise the slopes;</li> </ul>	Contractor	Implement the listed requirements for the excavation of slopes	During the Construction Phase	cEO	Weekly	Excavation of slopes is undertaken as per the listed requirements

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
- Fly rock from blasting activity must be minimised and	cEO / dEO /	Ensure all pieces	Pre-Construction	ECO/EO	During blasting	ECO/EO to
any pieces greater than 150 mm falling beyond the	contractor	greater than 150	Phase		activities	confirm
Working Area, must be collected and removed;		mm falling				necessary
		beyond the				measures have
		Working Area,				been
		are collected				undertaken to
		and removed				minimise fly rock
		and implement				from blasting
		measures to try				activity and that
		and minimise fly				no pieces
		rock from				greater than 150
		blasting activity				mm are beyond
						the working
						area.
- Only existing disturbed areas are utilised as spoil areas;	Contractor in	Identify,	Pre-construction	cEO	Weekly	Only identified
	consultation with	demarcate and	& Construction			disturbed areas
	the ECO	use existing				are used as spoil
		disturbed areas				areas
		for spoil areas				
- Drainage is provided to control groundwater exit	Not Applicable					
gradient with the spill areas such that migration of fines						
is kept to a minimum;						
- Surface water runoff is appropriately channelled	DPM and	Design and	Pre-construction	ECO	Once, during the	Implementation
through or around spoil areas;	Contractor	implement	& Construction		construction of	of surface runoff
		appropriate			the surface	measures
		surface runoff			runoff measures	through and/or
		measures for				around spoil
		spoil areas				areas

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
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;	Contractor	Develop and implement backfilling procedures which ensures that topsoil is not placed at the bottom of foundations.	Pre-construction & Construction	CEO	Weekly	Backfilling operations are undertaken as per the procedures developed
The surface of the spoil is appropriately rehabilitated in accordance with the requirements specified in Section 5.29: Landscaping and rehabilitation;	Contractor	Rehabilitation of the surface spoil must be undertaken in accordance with the requirements of section 5.29	Rehabilitation	CEO	Weekly	Rehabilitation of the surface spoil is undertaken as per the requirements of section 5.29
- The retained topsoil must be spread evenly over areas to be rehabilitated and suitably compacted to effect re-vegetation of such areas to prevent erosion as soon as construction activities on the site is complete. Spreading of topsoil must not be undertaken, where possible, at the beginning of the dry season.	Contractor	Ensure that topsoil is spread evenly and compacted appropriately. This must be undertaken outside of the start of the dry season, where possible	Rehabilitation	CEO	Weekly	Proof that topsoil has been spread evenly and compacted correctly must be provided by the Contractor/cEO. Proof that the activities were undertaken outside of the start of the dry

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
						season (or
						motivation as to
						why this was not
						possible) must
						be provided by
						the Contractor

# 5.28 Stringing

**Impact management outcome:** No environmental degradation occurs as a result of stringing.

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
- Where possible, previously disturbed areas must be	Contractor in	Identify and	Pre-construction	cEO	Weekly	Winch and
used for the siting of winch and tensioner stations. In all	consultation with	demarcate	& Construction			tensioner
other instances, the siting of the winch and tensioner	the ECO	areas				stations are
must avoid Access restricted areas and other sensitive		appropriate for				located are
areas;		the siting of				located outside
		winch and				of identified
		tensioner				sensitive areas
		stations which				
		does not infringe				
		on access				
		restricted areas				
		or				

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
		environmentally				
		sensitive areas				
- The winch and tensioner station must be equipped	Contractor	Provide sufficient	During the	cEO	Weekly	Sufficient drip
with drip trays in order to contain any fuel, hydraulic		drip trays	Construction			trays are
fuel or oil spills and leaks;			Phase			available for the
						winch and
						tensioner
						stations and no
Refuelling of the winch and tensioner stations must be	Contractor	The refuelling of	During the	ECO	Monthly	spills occur The refuelling of
undertaken in accordance with <b>Section 5.17</b> :	Confidence	winch and	Construction	ECO	NOTITILY	winch and
Hazardous substances;		tensioner	Phase			tensioner
Trazaraos sobstances,		stations must be	111030			stations is
		undertaken as				undertaken as
		per the				per the
		requirements of				requirements of
		section 5.17				section 5.17
- In the case of the development of overhead	Contractor	Develop and	Pre-construction	ECO and cEO	Once, prior to	Implementation
transmission and distribution infrastructure, a one metre		implement	& Construction	weekly during	the	of the
"trace-line" may be cut through the vegetation for		procedures for		stringing	commencemen	procedures put
stringing purposes only and no vehicle access must be		implementation			t of construction	in place and
cleared along "trace-lines". Vegetation clearing must		for vegetation			and weekly	proof thereof
be undertaken by hand, using chainsaws and		clearing during			during stringing	from the
handheld implements, with vegetation being cut off at		stringing in line with the				Contractor
ground level. No tracked or wheeled mechanised equipment must be used;		specification.				
equipment must be used,		specification.				

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
<ul> <li>Alternative methods of stringing which limit impact to the environment must always be considered e.g. by hand or by using a helicopter;</li> </ul>	Contractor	Identify and implement the stringing method with the least environmental impact	During the Construction Phase	CEO	Weekly	Implementation of identified method of stringing with the least environmental impact
<ul> <li>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;</li> </ul>	Contractor	Identify prior to construction areas where protection measures will be required during stringing. Where access is to be restricted timeous written notice must be provided to the affected parties	Pre-construction & Construction	ECO	Monthly, and as and when required	Proof of implementation of protection measures and proof of written notice to affected parties must be provided by the Contractor
<ul> <li>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;</li> </ul>	Contractor in consultation with the cEO, DPM and dEO	Avoid the damaging or disturbance of existing services. Where services will be disrupted timeous notice must be provided to the affected parties	During the Construction Phase	ECO	Monthly, and as and when required	No disruption of services occurs. Where disruption occurs proof of written notice to affected parties must be provided by the Contractor

Impact Management Actions	Implementation			Monitoring			
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence	of
	person	implementation	implementation	person		compliance	
- Where stringing operations cross cultivated land,	DPM	Develop	Construction	dEO	As and when	Availability	of
damage to crops is restricted to the minimum required	Contractor	adequate		ECO	required	proof	of
to conduct stringing operations, and reasonable		communication				communicat	ion
notice (10 work days minimum), in writing, must be		channels with				with	the
provided to the landowner;		the affected				landowners.	
		landowners.					
- Necessary scaffolding protection measures must be	Not Applicable –	Project Site covers	Moderately Low"	to "Moderate" area	as of agricultural va	lue. No vineyo	ards,
installed to prevent damage to the structures	orchards or nurser	ies are within the pr	oject area.				
supporting certain high value agricultural areas such							
as vineyards, orchards, nurseries.							

#### 5.29 Socio-economic

Impact management outcome: Socio-economic development is enhanced.

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
<ul> <li>Develop and implement communication strategies to</li> </ul>	dEO / cEO	Identify and	Pre-construction	ECO	Once, prior to	Communication
facilitate public participation;		implement	& Construction		the	is undertaken as
		appropriate			commencemen	per the
		strategies for			t of construction	identified
		communication			and monthly	strategies and
		with the			during the	no complaints
		communities			construction	are submitted
		through				

Impact Management Actions	Implementation			Monitoring			
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of	
	person	implementation	implementation	person		compliance	
		consideration of				regarding	
		the community				communication	
		needs					
- Develop and implement a collaborative and	Contractor	Development	Pre-construction	ECO	Once, prior to	Conflict	
constructive approach to conflict resolution as part of		and implement	& Construction		the	resolution is	
the external stakeholder engagement process;		a Grievance			commencemen	undertaken in	
		Mechanism			t of construction	line with the	
		which considers			and monthly	requirements of	
		the community			during the	the Grievance	
		needs and			construction	Mechanism. No	
		provides			phase	complaints on	
		procedures for				conflict	
		conflict				resolution is	
		resolution				submitted by the	
						community	
- Sustain continuous communication and liaison with	Contractor	Development	Pre-construction	ECO	Once, prior to	Communication	
neighbouring owners and residents		and implement	& Construction		the	/ liaison with	
		a Grievance			commencemen	neighbouring	
		Mechanism that			t of construction	landowners and	
		provides			and monthly	residents are	
		procedures for			during the	undertaken in	
		communication			construction	line with the	
		/ liaison with			phase	requirements of	
		neighbouring				the Grievance	
		landowners and				Mechanism. No	
		residents				complaints on	
						communication	
						with	
						neighbouring	
						landowners and	

Impact Management Actions	Implementation			Monitoring			
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of	
	person	implementation	implementation	person		compliance	
						residents is	
						submitted	
- Create work and training opportunities for local	Contractor	Develop and	Pre-construction	ECO	Once, prior to	The "locals first"	
stakeholders; and		implement a	& Construction		the	policy is	
		"locals first"			commencemen	considered in	
		policy for the			t of construction	terms of the	
		provision of			and monthly	employment	
		employment			during the	and training	
		opportunities			construction	opportunities	
					phase		
- Where feasible, no workers, with the exception of	Not Applicable -	No on-site housing i	s envisaged with do	aily commute to ar	nd from site expect	ed of construction	
security personnel, must be permitted to stay over-	staff.						
night on the site. This would reduce the risk to local							
farmers.							

# 5.30 Temporary closure of site

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

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
- Bunds must be emptied (where applicable) and need	Contractor	Regular	During the	ECO	Prior to site	Bunds are
to be undertaken in accordance with the impact		emptying of the	Construction		closure for more	emptied as per
management actions included in sections 5.17:		bunds must be	Phase		than 05 days	the requirements
management of hazardous substances and 5.18		undertaken. This				listed under
workshop, equipment maintenance and storage;		must be				

Impact Management Actions	Implementation			Monitoring			
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of	
	person	implementation	implementation	person		compliance	
		undertaken as				sections 5.17	
		per the				and 5.18	
		requirements					
		listed in sections					
		5.17 and 5.18					
<ul> <li>Hazardous storage areas must be well ventilated;</li> </ul>	Contractor	Install	During the	ECO	Prior to site	Effective	
		appropriate	construction		closure for more	ventilation is	
		ventilation in all	phase		than 05 days	installed in	
		hazardous				hazardous	
		storage areas				storage areas	
- Fire extinguishers must be serviced and accessible.	Contractor /	Ensure fire	During the	ECO	Prior to site	Signage placed	
Service records to be filed and audited at last service;	cEO	extinguishers are	Construction		closure for more	indicating	
		serviced, as	Phase		than 05 days	location of fire	
		required and are				extinguishers	
		easily accessible				and service	
		with appropriate				records	
		signage					
		indicating					
		location. Ensure					
		service records					
		are kept up to					
		date and filed					
Emergency and contact details must be displayed;	Contractor /	Place	During the	ECO	Prior to site	Photographic	
	cEO	emergency and	Construction		closure for more	proof of contact	
		contact details	Phase		than 05 days	details on	
		which are				display	
		readily available					
		and easily					
		accessible					

Impact Management Actions	Implementation			Monitoring		
	Responsible	Method of	Timeframe for	Responsible	Frequency	Evidence of
	person	implementation	implementation	person		compliance
Security personnel must be briefed and have the facilities to contact or be contacted by relevant management and emergency personnel;	Contractor in consultation with the ECO	Hold a workshop with all security personnel to provide a brief of the project and security requirements.  Provide facilities in order to contact management and emergency personnel	Pre-construction & construction	ECO	Prior to site closure for more than 05 days	Proof of the workshop held must be kept on file by the contractor.
<ul> <li>Night hazards such as reflectors, lighting, traffic signage etc. must have been checked;</li> </ul>	Contractor	Regular checks of night hazards must be undertaken	During the Construction Phase	ECO	Prior to site closure for more than 05 days	Proof of checks of night hazards must be provided by the contractor
Fire hazards identified and the local authority must have been notified of any potential threats e.g. large brush stockpiles, fuels etc.;	CEO / Contractor in consultation with the ECO	Identify any potential fire hazards and notify the relevant local authority	During the Construction Phase	ECO	Prior to site closure for more than 05 days	Proof of notification of the fire hazards to the local authority must be provided by the Contractor
Structures vulnerable to high winds must be secured;	Contractor	Ensure structures vulnerable to wind are secure prior to site closure	During the Construction Phase	ECO	Prior to site closure for more than 05 days	Structures vulnerable to wind are secured prior to site closure

Impact Management Actions	Implementation			Monitoring			
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance	
Wind and dust mitigation must be implemented;	Contractor	Implement wind and dust mitigation prior to site closure	During the Construction Phase	ECO	Prior to site closure for more than 05 days	Wind and dust mitigation is implemented prior to site closure	
Cement and materials stores must have been secured;	Contractor	Ensure cement and material stores are secured prior to site closure	During the Construction Phase	ECO	Prior to site closure for more than 05 days	Cement and material stores are secured prior to site closure	
Toilets must have been emptied and secured;	Contractor	Ensure toilets are emptied and secured prior to site closure	During the Construction Phase	ECO	Prior to site closure for more than 05 days	Toilets are emptied and secured prior to site closure	
Refuse bins must have been emptied and secured;	Contractor	Ensure refuse bins are emptied and secured prior to site closure	During the Construction Phase	ECO	Prior to site closure for more than 05 days	refuse bins are emptied and secured prior to site closure	
Drip trays must have been emptied and secured.	Contractor	Ensure drip trays are emptied and secured prior to site closure	During the Construction Phase	ECO	Prior to site closure for more than 05 days	Drip trays are emptied and secured prior to site closure	

## 5.31 Landscaping and rehabilitation

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

Impact Management Actions	Implementation			Monitoring			
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance	
All areas disturbed by construction activities must be subject to landscaping and rehabilitation; All spoil and waste must be disposed to a registered waste site and certificates of disposal provided;	Contractor	Develop and implement a rehabilitation plan for the rehabilitation of all disturbed areas.  Dispose of all spoil and waste at a licensed waste disposal facility	Pre-construction & Rehabilitation	cEO	As and when required.	Rehabilitation of the disturbed areas is undertaken as per the rehabilitation plan. All certificates of waste disposal at licensed facilities are available.	
<ul> <li>All slopes must be assessed for contouring, and to contour only when the need is identified in accordance with the Conservation of Agricultural Resources Act, No 43 of 1983</li> </ul>	Contractor in consultation with the ECO	Assess all slopes and determine whether contouring is required	Rehabilitation	cEO	As and when required.	All slopes are assessed and contoured as required	
<ul> <li>All slopes must be assessed for terracing, and to terrace only when the need is identified in accordance with the Conservation of Agricultural Resources Act, No 43 of 1983;</li> </ul>	Contractor in consultation with the ECO	Assess all slopes and determine whether terracing is required	Rehabilitation	cEO	As and when required.	All slopes are assessed and terraced as required	

Impact Management Actions	Implementation			Monitoring			
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance	
Berms that have been created must have a slope of 1:4 and be replanted with indigenous species and grasses that approximates the original condition;	Contractor	Ensure all berms have a slope of 1:4 and is replanted with indigenous species and grasses	Rehabilitation	cEO	As and when required.	All berms have a slope of 1:4 and is replanted with indigenous species and grasses	
<ul> <li>Where new access roads have crossed cultivated farmlands, that lands must be rehabilitated by ripping which must be agreed to by the holder of the EA and the landowners;</li> </ul>	Not applicable						
<ul> <li>Rehabilitation of tower sites and access roads outside of farmland;</li> </ul>	Not applicable						
<ul> <li>Indigenous species must be used for with species and/grasses to where it compliments or approximates the original condition;</li> </ul>	Contractor	Make use of indigenous species for rehabilitation	Rehabilitation	CEO	As and when required.	Indigenous species are used for rehabilitation	
Stockpiled topsoil must be used for rehabilitation (refer to Section 5.24: Stockpiling and stockpiled areas);	Contractor	Ensure stockpiled topsoil is used as per the requirements listed under section 5.24	Rehabilitation	cEO	Bi-Weekly	Stockpiled topsoil is used as per the requirements listed under section 5.24	
<ul> <li>Stockpiled topsoil must be evenly spread so as to facilitate seeding and minimise loss of soil due to erosion;</li> </ul>	Contractor	Ensure that topsoil is spread evenly	Rehabilitation	cEO	Bi-Weekly	Topsoil is spread evenly	

Impact Management Actions	Implementation			Monitoring			
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance	
Before placing topsoil, all visible weeds from the placement area and from the topsoil must be removed;	Contractor	Remove all visible weeds from placement area and topsoil before spreading the topsoil	Rehabilitation	cEO	Bi-Weekly	No weeds are visible in the placement area or the topsoil	
Subsoil must be ripped before topsoil is placed;	Contractor	Undertake the ripping of subsoil prior to the spreading of topsoil	Rehabilitation	cEO	Bi-Weekly	Subsoil is ripped before topsoil is placed	
The rehabilitation must be timed so that rehabilitation can take place at the optimal time for vegetation establishment;	Contractor	Plan the timeframe for rehabilitation in order to undertake vegetation planting during the optimal time for vegetation establishment	Rehabilitation	ECO	At the start of rehabilitation to confirm correct timeframe	Rehabilitation is undertaken during the optimal time	
<ul> <li>Where impacted through construction related activity, all sloped areas must be stabilised to ensure proper rehabilitation is effected and erosion is controlled;</li> </ul>	Contractor	All disturbed slope areas must be stabilised	Rehabilitation	cEO	Bi-Weekly	Disturbed slopes are stabilised sufficiently	
<ul> <li>Sloped areas stabilised using design structures or vegetation as specified in the design to prevent erosion of embankments. The contract design</li> </ul>	Contractor	Stabilise slopes as per the design specifications	Pre-construction & Rehabilitation	cEO	Bi-Weekly	Slopes are stabilised as per the design specifications	

Impact Management Actions	ment Actions Implementation		Monitoring			
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
specifications must be adhered to and implemented strictly;						
Spoil can be used for backfilling or landscaping as long as it is covered by a minimum of 150 mm of topsoil.	Contractor	Spoil used for landscaping must be applied as per the listed requirements	Rehabilitation	cEO	Bi-Weekly	Photographic record of spoil used for landscaping purposes as well as feedback from the contractor
<ul> <li>Where required, re-vegetation including hydroseeding 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: <ul> <li>a) Annual and perennial plants are chosen;</li> <li>b) Pioneer species are included;</li> <li>c) Species chosen must be indigenous to the area with the seeds used coming from the area;</li> <li>d) Root systems must have a binding effect on the soil;</li> <li>e) The final product must not cause an ecological imbalance in the area</li> </ul> </li></ul>	specialist	Make use of a suitable vegetation seed mixture should enhancement be required	Rehabilitation	ECO	As and when required	Use of a suitable vegetation seed mixture if required

### 6 ACCESS TO THE GENERIC EMPr

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

#### PART B: SECTION 2

### 7 SITE SPECIFIC INFORMATION AND DECLARATION

### 7.1.1. Details of the Applicant:

Applicant Name	Main Street 1887 Proprietary Limited
Contact Person	Xolile Loyiso Percival Mazabane
Physical Address	140 Yusuf Dodoo, Wilkoppies, Klerksdorp, North West 2507
Postal Address	32A Jellicoe Avenue, 3rd Floor, Oxford Corner, Rosebank
Telephone <sup>1</sup>	

### 7.1.2. Details and Expertise of Environmental Assessment Practitioner (EAP)

EAP Name	Nkhensani Masondo	
EAP Qualifications	BSocSci Environmental Analysis and Management	
Professional Affiliation/Registration	Registered EAP with the Environmental Assessment Practitioners Association of South Africa (EAPASA 2020/1385)	
Physical Address	First Floor, Block 2 5 Woodlands Drive Office Park Cnr Woodlands Drive & Western Service Road Woodmead 2191	
Telephone	(011) 656 3237	
Fax	086 684 0547	
Cell	066 334 7166	
Email Address	nkhensani@savannahsa.com	

### 7.1.3. Project Details

**Project Name**: Grid Connection Infrastructure associated with the SCSCSolar PV Facility, Limpopo Province and North West Province.

 $<sup>^{\</sup>mathrm{1}}$  Contact details not disclosed in accordance with the requirements of POPIA

### 7.1.4. Project Description

The development of the SCSC Solar PV Facility, including a Battery Energy Storage System (BESS). Infrastructure associated with the solar PV facility will include:

- » 100MW Solar PV array comprising PV modules and mounting structures.
- » Inverters and transformers.
- » Cabling between the project components.
- » Battery Energy Storage System (BESS).
- » On-site facility substation and power lines between the solar PV facility and the Mine and Eskom substation.
- » Site offices, Security office, operations and control, and maintenance and storage laydown areas.
- » Access roads, internal distribution roads
- » Grid connection solution within a 200m wide corridor to consist of the following:
- The power generated by the solar PV facility will be transferred to the three step up transformers at the on-site/plant substation. Power will then be delivered from each stepup transformer as follows:
  - \* two 6.6 km, 33 kV transmission lines to the Mortimer substation with four step down transformers (33/ 6.6kV; 10 MVA),
  - \* two 4.7 km, 33 kV transmission lines to the Fridge substation with two step down transformers (33/6.6kV; 10 MVA),
  - \* two 2.9 km, 33 kV transmission lines to the Ivan substation with three step down transformers (33/11kV; 10 MVA)
  - \* One 132kV transmission line to the south west area of the project site where a new substation (to be assessed through separate Environmental Impact Assessment (EIA) processes) for the furnace proposed to be built

#### 7.1.5. Project Location

The development of the SCSC solar photovoltaic (PV) facility and associated infrastructure on a site located approximately 6.5km west of the town of Northam within the Thabazimbi Local Municipality and the Waterberg District Municipality in the Limpopo Province. The proposed grid connection route for the SCSC PV facility extends into the North West Province within the Moses Kotane Local Municipality and the Bojanala Platinum District Municipality.

#### Solar PV:

» Portion 4 of Farm Grootkuil 409 - TOKQ0000000040900000

#### Grid connection:

- » Portion 3 of Farm Grootkuil 409 TOKQ0000000040900000
- » Portion 4 of Farm Grootkuil 409 TOKQ0000000040900000
- » Portion 5 of Farm Grootkuil 409 TOKQ0000000040900000
- » Portion 0 of Farm Spitskop 410 TOKQ0000000041000000
- » Portion 0 of Farm Turfbult 404 TOKQ0000000040400000
- » Portion 1 of Farm Zwartklip 405 TOKQ0000000040500000

#### » Portion 2 of Farm Zwartklip 405 - TOKQ0000000040500000

An additional 100MW PV facility to be known as SBPM PV is being considered adjacent to the project site within Portion 4 of the Farm Grootkuil 409 and is being assessed through a separate Environmental Impact Assessment (EIA) process. The SCSC and SBPM grid connection infrastructure will share a 200m wide corridor as indicated in the figures below.

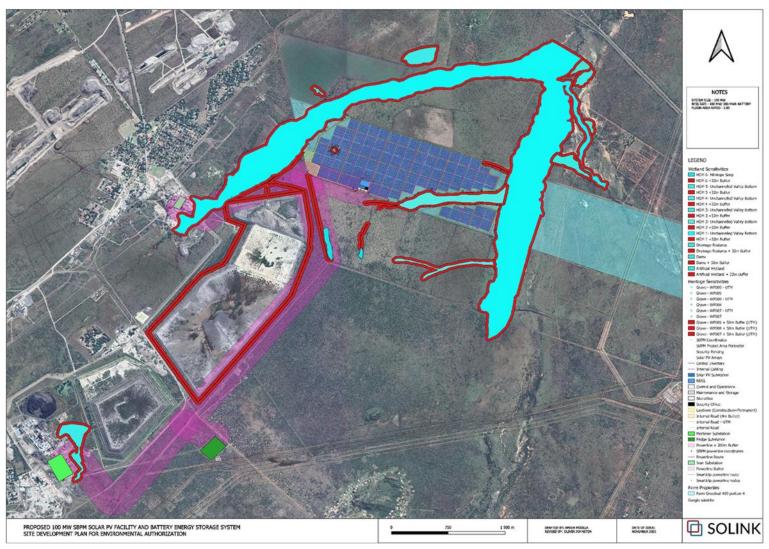
#### 7.1 Sub-section 2: Development footprint site map

This sub-section must include a map of the site sensitivity overlaid with the preliminary infrastructure layout. The sensitivity map must be prepared from the national web based environmental screening available tool, when for compulsory https://screening.environment.gov.za/screeningtool. The sensitivity map shall 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.



**Figure 1:** Example of an environmental sensitivity map in the context of a final overhead transmission and distribution profile

It must be noted that the maps provided below also include the larger PV facility which the power line is associated with.



**Figure 2:** Layout and sensitivity map of the development footprint and grid connection corridor for the SCSCSolar PV Facility as was assessed as part of the EIA process.

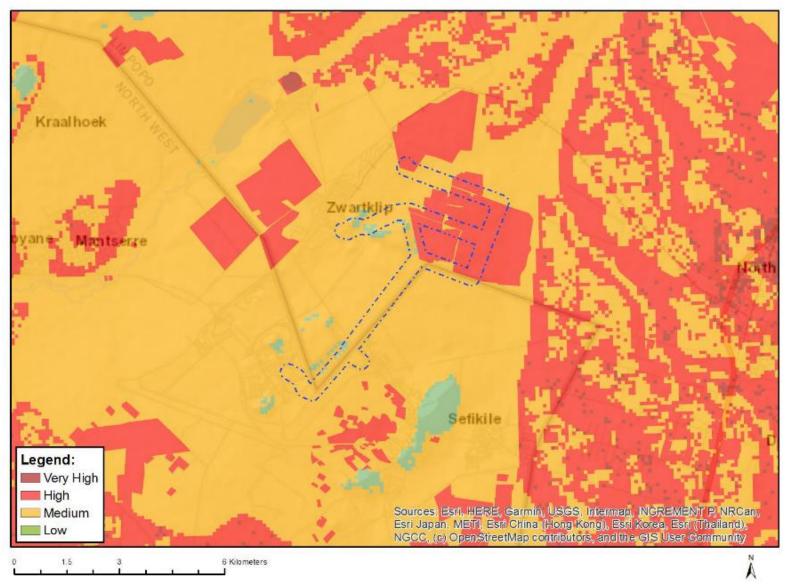


Figure 3: Map of relative agriculture theme sensitivity



Figure 4: Map of relative animal species theme sensitivity

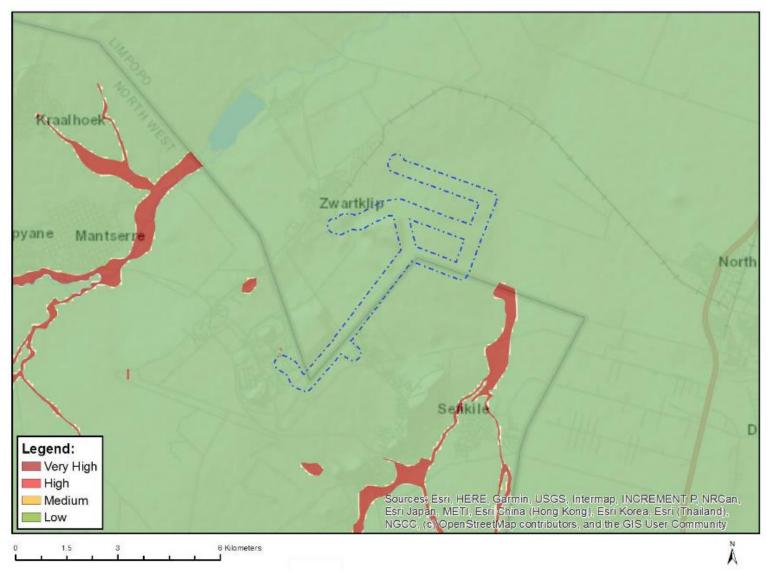


Figure 5: Map of relative aquatic biodiversity theme sensitivity

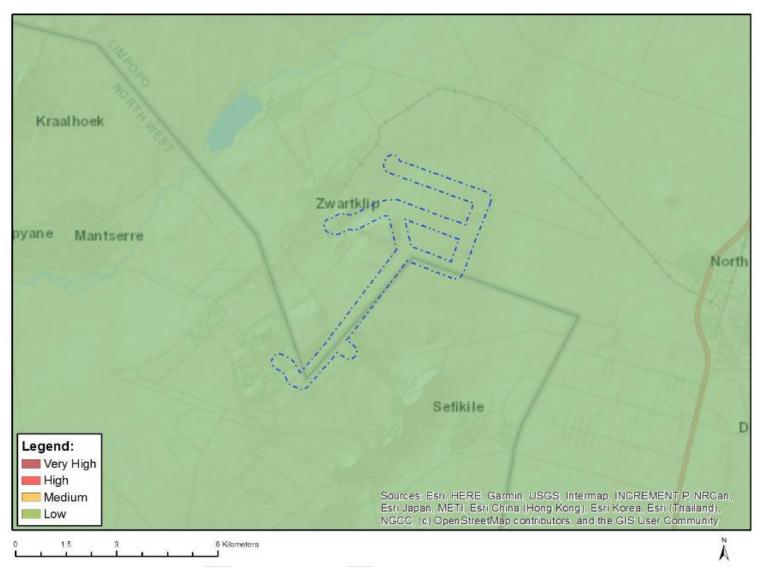


Figure 6: Map of relative archaeological and cultural heritage theme sensitivity.

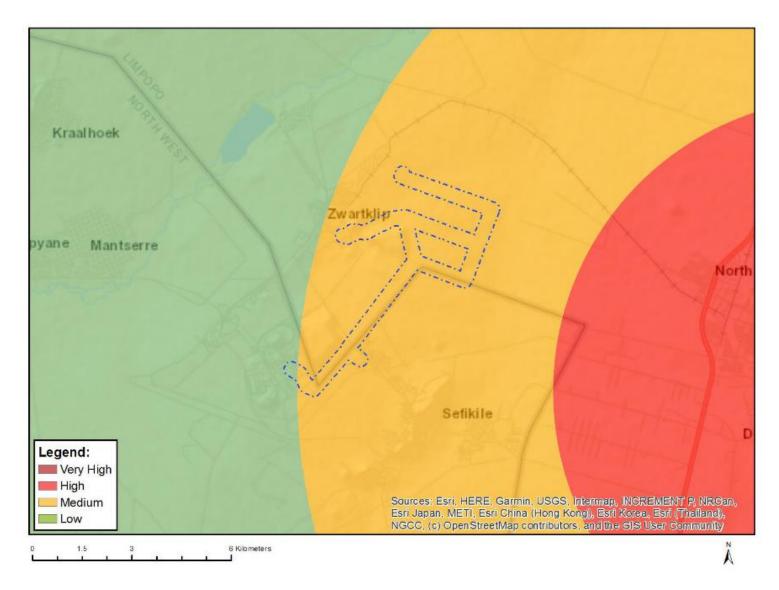


Figure 7: Map of relative civil aviation theme sensitivity

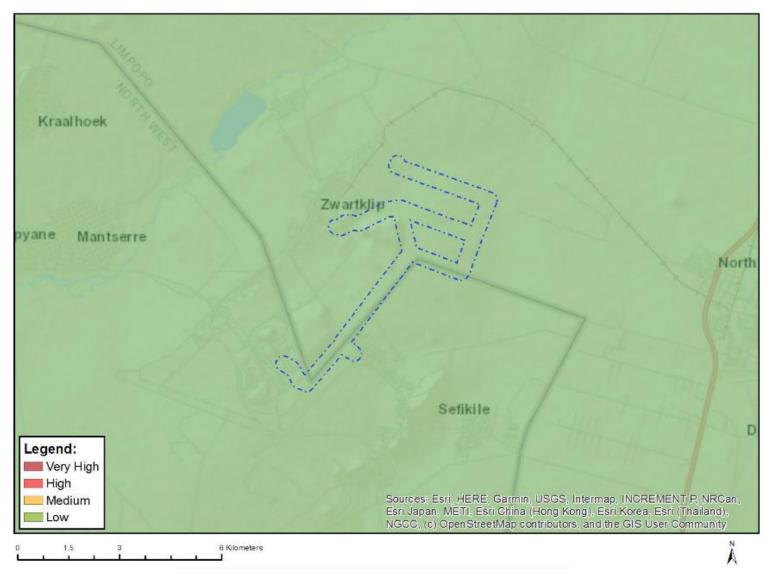


Figure 8: Map of relative defence theme sensitivity

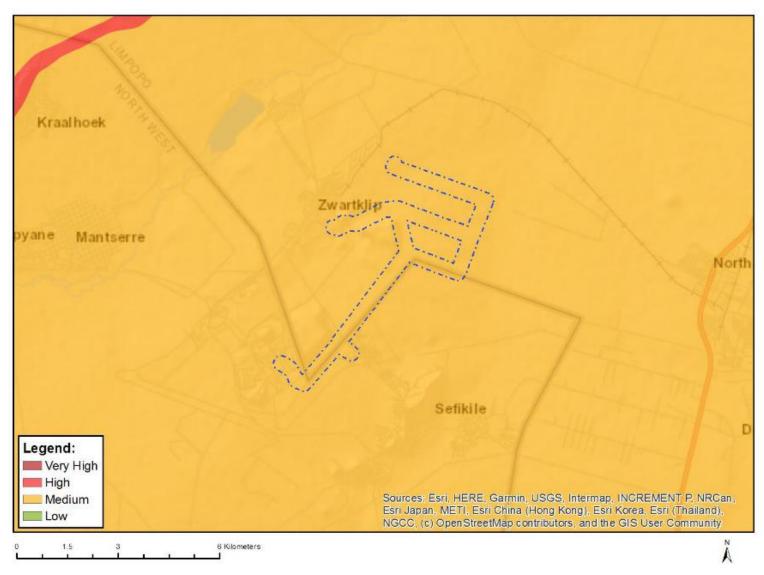


Figure 9: Map of relative palaeontology theme sensitivity

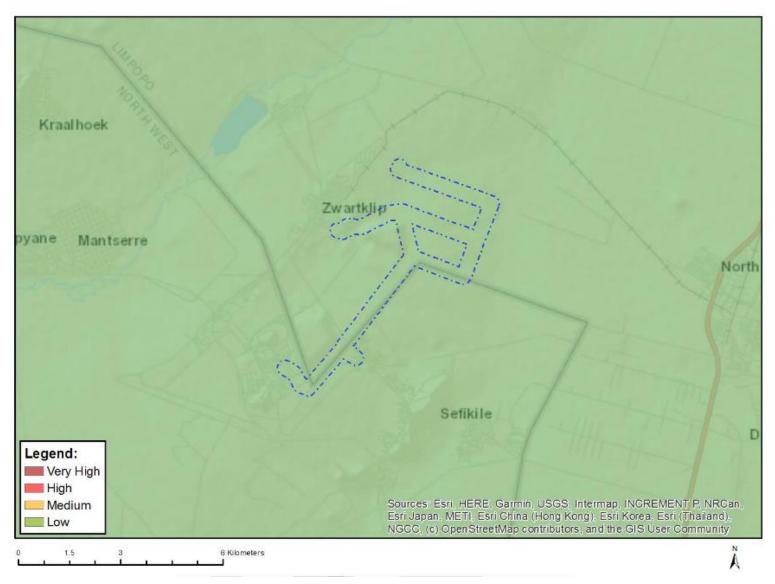


Figure 10: Map of relative plant species theme sensitivity



Figure 11: Map of relative terrestrial biodiversity theme sensitivity

#### 7.2 Sub-section 3: Declaration

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

Signature Proponent/applicant/ holder of EA	Date:

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

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

#### 8 SITE SPECIFIC ENVIRONMENTAL ATTRIBUTES

If any specific environmental sensitivities/attributes are present on the site which require more specific impact management outcomes and impact management 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 impact management actions. The management controls including impact management outcomes and impact management actions must be presented in the format of the pre-approved generic EMPr template. This applies only to additional impact management outcomes and impact management actions that are necessary.

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

# **CONSTRUCTION AND DECOMMISSIONING OUTCOMES AND ACTIONS**

### 8.1 Protection of sensitive areas, flora and fauna

Project Component/s	» Grid Connection Infrastructure
Potential Impact	<ul> <li>Impacts on natural vegetation, habitats and fauna.</li> <li>Loss of indigenous natural vegetation due to construction activities.</li> <li>Impacts on sensitive areas</li> </ul>
Activity/Risk Source	<ul> <li>Vegetation clearing.</li> <li>Site preparation and earthworks.</li> <li>Excavation of foundations.</li> <li>Construction of infrastructure.</li> <li>Site preparation (e.g. compaction).</li> <li>Excavation of foundations.</li> </ul>
Mitigation: Target/Objective	<ul><li>To minimise the development area as far as possible.</li><li>To minimise impacts on surrounding sensitive areas.</li></ul>

Mitigation: Action/control	Responsibility	Timeframe
Before construction commences individuals of listed species within the Development Footprint that would be affected, should be counted and marked and translocated where deemed	EPC Contractor Specialist – Ecologist	Pre-construction Construction
necessary by the ecologist conducting the pre-construction walk-through survey, and according to the recommended ratios.	EO ECO	
Any individuals of protected species affected by and observed within the Development Footprint during construction should be translocated under the supervision of the ECO and/or Contractor's Environmental Officer (EO).	EPC Contractor ECO EO	Construction
No fires are allowed within the Project Site boundary as there is a risk of runaway veld fires.	EPC Contractor	Construction
No firewood collection is allowed on-site.	EPC Contractor	Construction
ECO and/or Contractor's EO to provide supervision and oversight of vegetation clearing activities and other activities which may cause damage to the environment, especially at the initiation of the Project, when the majority of vegetation clearing is taking place.		Construction

Mitigation: Action/control	Responsibility	Timeframe
Unnecessary impacts on surrounding natural vegetation must be avoided. The construction impacts must be contained to the Development Footprint of the Project.	EPC Contractor	Construction
Where new roads need to be constructed, the existing road infrastructure should be rationalised and any unnecessary roads decommissioned and rehabilitated to reduce the disturbance of the area.	EPC Contractor	Construction
All vehicles to remain on demarcated roads and no unnecessary driving in the veld outside these areas should be allowed.	EPC Contractor	Construction
All cleared areas should be revegetated with indigenous perennial species from the local area.	EPC Contractor ECO EO	Construction
The extent of clearing and disturbance to the vegetation must be kept to a minimum so that impact on fauna and their habitats is restricted.	EPC Contractor	Construction
During construction any fauna directly threatened by the construction activities should be removed to a safe location by a suitably qualified person.	EPC Contractor Specialist – ecologist/ trained person	Construction
The illegal collection, hunting or harvesting of any plants or animals at the site should be strictly forbidden.	EPC Contractor	Construction
Employees should be trained (e.g. during toolbox talks) that poisonous animals should not be killed and if encountered the ECO/ EO should be informed.	Project Developer EPC Contractor ECO EO	Duration of contract
All construction vehicles on site should adhere to a low speed limit (40km/h) to avoid collisions with susceptible species such as snakes and tortoises.	EPC Contractor	Construction
Construction vehicles limited to the Development Footprint on the Project Site (no movement outside of the demarcated footprint).	EPC Contractor	Construction

# 8.2 Avifauna

Project component/s	» Grid Connection Infrastructure
Potential Impact	» Disturbance of avifaunal species (e.g. destruction of habitat).
	» Displacement of avifaunal species
	» Collision with Project components.
	» Electrocution by means of powerline collision
Activity/risk source	» Site preparation and earthworks.
	» Installation of foundations or plant equipment.
	» Movement of mobile construction equipment on site.
	» Access road construction activities.
	» Substation construction facilities.
	» Powerline construction activities.
Mitigation: Target/Objective	» To minimise habitat destruction.
	» To minimise disturbance to resident and visitor avifaunal species.

Mitigation: Action/control	Responsibility	Timeframe
The extent of clearing and disturbance to the vegetation must be kept to a minimum so that impact on avifauna and their habitats is restricted.	EPC Contractor	Construction
The movement of construction personnel should be restricted to the construction areas on the Project Site.	EPC Contractor	Construction
The appointed EO must be trained to identify the potential Red Data species as well as the signs that indicate possible breeding by these species.	EPC Contractor EO	Construction
The EO must, during audits/site visits, make a concerted effort to look out for such breeding activities of SCCs.	EPC Contractor EO	Construction
All areas to be developed must be walked through prior to any activity to ensure no nests or avifauna species are found in the area. Should any SCC 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.	Project manager/Site manager EO Specialist – avifaunal	Planning, Construction and Decommissioning
Any excavations should not be left open for extended periods of time to prevent entrapment by ground dwelling avifauna or their young and only be dug when required and filled in soon thereafter.	EPC Contractor	Construction

Mitigation: Action/control	Responsibility	Timeframe
Temporary fencing must be suitably constructed, e.g. if double layers of fencing are required for security purposes they should be positioned at least 2 m apart to reduce the probability of entrapment by larger bodied species that may find themselves between the two fences.	EPC Contractor	Construction
All personnel should undergo environmental induction with regards to avifauna and in particular awareness about not harming, collecting, or hunting terrestrial species and owls, which are often persecuted out of superstition. Signs must be put up to enforce this.	EO	Life of operation
The EO should provide training of construction staff (e.g. in Toolbox talks) to identify Red Data species, followed by regular questioning of staff as to the regular whereabouts on site of these species.	EPC Contractor EO	Construction
All construction and maintenance motor vehicle operators should undergo an environmental induction that includes instruction on the need to comply with speed limit (40km/h), to respect all forms of wildlife. Speed limits must still be enforced to ensure that road killings and erosion is limited.	Health and Safety Officer	Life of operation
No faunal species may be harmed, collected or hunted on the Project Site	EPC Contractor ECO EO	Life of operation
The duration of the construction should be kept to a minimum to avoid disturbing avifauna.	Project manager/Site Manager EO Design Engineer	Construction/Operational Phase
All traffic on the Project Site will adhere to the set speed limit (40km/h), to respect all forms of wildlife. Speed limits must still be enforced to ensure that road killings and erosion is limited.	Health and Safety Officer	Life of operation
All Project activities must be undertaken with appropriate noise mitigation measures to avoid disturbance to avifauna population in the region	Project manager/Site manager EO	Construction/Operational Phase
All the parts of the infrastructure must be nest proofed and anti-perch devices placed on areas that can lead to electrocution	EPC Contractor EO Engineer	Planning and construction
As far as possible power cables within the Project Area should be thoroughly insulated and preferably buried.	EPC Contractor EO Engineer	Planning and construction
Overhead powerlines over the ridge must be fitted with bird diverters throughout the alignment and not just the portions adjacent to the pylons.	EPC Contractor EO Engineer	Planning and construction

Mitigation: Action/control	Responsibility	Timeframe
	EPC Contractor	
Any exposed parts must be covered (insulated) to reduce electrocution risk	EO	Planning and construction
	Engineer	

# 8.3 Soils

Project component/s	» Grid Connection Infrastructure
Potential Impact	<ul> <li>» Erosion and soil loss.</li> <li>» Increased runoff.</li> <li>» Downstream sedimentation.</li> </ul>
Activities/risk sources	<ul> <li>Rainfall and wind erosion of disturbed areas.</li> <li>Excavation, stockpiling and compaction of soil.</li> <li>Concentrated discharge of water from construction activity.</li> <li>Stormwater run-off from sealed surfaces.</li> <li>Mobile construction equipment movement on site.</li> <li>Roadside drainage ditches.</li> <li>Project related infrastructure, such as buildings, solar panels and fences.</li> </ul>
Mitigation: Target/Objective	<ul> <li>To minimise erosion of soil from site during construction.</li> <li>To minimise damage to vegetation by erosion or deposition.</li> <li>To retain all topsoil .</li> </ul>

Mitigation: Action/control	Responsibility	Timeframe
Any erosion problems observed along access roads or any hardened/engineered surface should be rectified immediately and monitored thereafter to ensure that they do not re-occur.	EPC Contractor	Construction
All denuded areas, affected by the development, should be revegetated with locally occurring species, to bind the soil and limit erosion potential where applicable.		Construction
Practical phased development and vegetation clearing must be practiced so that cleared areas are not left un-vegetated and vulnerable to erosion for extended periods of time.		Construction

Mitigation: Action/control	Responsibility	Timeframe
Roads and other disturbed areas should be regularly monitored for signs of erosion. These areas should be monitored by the EO to assess the success of the rehabilitation.	EPC Contractor EO	Construction
Topsoil must be removed and stored separately from subsoil. Topsoil must be reapplied where appropriate as soon as possible in order to encourage and facilitate rapid regeneration of the natural vegetation on cleared areas.	EPC Contractor ECO EO	Construction
Stockpile topsoil for re-use in rehabilitation phase. Maintain stockpile shape and protect from erosion.	EPC Contractor	Construction
<ul> <li>Salvaging topsoil:</li> <li>Topsoil must always be salvaged and stored separately from subsoil and lower-lying parent rock or other spoil material.</li> <li>* Topsoil stripping removes up to 30 cm or less of the upper soils.</li> <li>* In cultivated areas, depth of topsoil may increase and needs to be confirmed with the landowner.</li> <li>&gt; Prior to salvaging topsoil the depth, quality and characteristics of topsoil should be known for every management area.</li> <li>o This will give an indication of total volumes of topsoil that need to be stored to enable the proper planning and placement of topsoil storage.</li> <li>o Different types of topsoil – rocky soils and sands or loams must be stored separately.</li> <li>Topsoil should be removed (and stored) under dry conditions to avoid excessive compaction whenever topsoil will have to be stored for longer than one year.</li> </ul>	EPC Contractor	Construction
Excavated soils should be stockpiled on the upslope side of the excavated trench so that eroded sediments off the stockpile are washed back into the trench.	EPC Contractor	Construction
Storing topsoil:  » Viability of stored topsoil depends on moisture, temperature, oxygen, nutrients and time stored.	EPC Contractor	Construction

Mitigation: Action/control	Responsibility	Timeframe
» Rapid decomposition of organic material in warm, moist topsoil		
rapidly decreases microbial activity necessary for nutrient cycling,		
and reduces the amount of beneficial micro-organisms in the soil.		
» Stockpile location should ideally be in a disturbed but weed-free area.		
» Storage of all topsoil that is disturbed should be of a maximum height		
of 2 m and the maximum length of time before re-use is 18 months.		
» Topsoil handling should be reduced to stripping, piling (once), and re-		
application. Between the stockpiling and reapplication, stored		
topsoil should not undergo any further handling except control of		
erosion and (alien) invasive vegetation.		
» Where topsoil can be reapplied within six months to one year after		
excavation, it will be useful to store the topsoil as close as possible to		
the area of excavation and re-application, e.g. next to cabling		
trenches.		
» Do not mix overburden with topsoil stockpiles, as this will dilute the		
proportion of fertile soil (with less fertile subsoil or rock material).		
» Employ wind nets made from Hessian or similarly fibrous and		
biodegradable material, where required, to stabilise newly placed		
topsoil stockpiles and to reduce wind erosion.		
» In cases where topsoil has to be stored longer than 6 months or during		
the rainy season, soils should be kept as dry as possible and protected		
from erosion and degradation by:		
Preventing ponding on or between heaps of topsoil		
* Covering topsoil berms		
Preventing all forms of contamination or pollution		
* Preventing any form of compaction		
* Monitoring the establishment of all invasive vegetation and		
removing such if it appears		
Keeping slopes of topsoil at a maximal 2:1 ratio		
* Monitoring and mitigating erosion where it appears		
Where topsoil needs to be stored in excess of one year, it is		
recommended to either cover the topsoil or allow an indigenous grass		

Mitigation: Action/control	Responsibility	Timeframe
cover to grow on it – if this does not happen spontaneously, seeding should be considered.		
Excavated soils will need to be replaced in the same order as excavated from the trench, i.e. sub-soil must be replaced first and topsoil must be replaced last (this will maximise opportunity for re-vegetation of disturbed areas).	EPC Contractor	Construction
Re-applied topsoil needs to be re-vegetated as soon as possible.	EPC Contractor	Construction
Only the proposed access roads as per the Development Footprint are to be used to reduce any unnecessary compaction.	EPC Contractor	Construction
Silt traps should be used where there is a danger of topsoil eroding and entering streams and other sensitive areas. These silt traps must be regularly monitored and maintained and replaced / repaired immediately as and when required. These measures should be regularly checked, maintained and repaired when required to ensure that they are effective.	EPC Contractor	Construction
Spillages of cement to be cleaned up immediately and disposed or reused in the construction process.	EPC Contractor	Construction
Spill kits to be kept on active parts of the construction site and at site offices.	EPC Contractor	Construction

# 8.4 Heritage

Project component/s	» Grid Connection Infrastructure
Potential Impact	» Loss of archaeological artefacts.
	» Loss of fossil resources.
	» Loss of resources going unnoticed.
	» Destruction of resources
Activity/risk source	» All earthworks.
Mitigation: Target/Objective	» To facilitate the likelihood of identifying heritage resources and ensure appropriate actions in terms of the relevant legislation

Mitigat	ion: Action/control	Responsibility	Timeframe
A Cha	nce Fossil Find Procedure must be implemented for the duration of construction es:	EPC Contractor Project Developer	Construction
*	One person in the staff must be identified and appointed as responsible for the implementation of the protocol in instances of accidental fossil discovery and must report to the ECO or site agent. If the ECO or site agent is not present on site, then the responsible person on site should follow the protocol correctly in order to not jeopardize the conservation and well-being of the fossil material.	ECO Heritage Specialist	
>>	Once a workman notices possible fossil material, he/she should report this to the ECO or site agent. Procedure to follow if it is likely that the material identified is a fossil:		
*	The ECO must ensure that all work ceases immediately in the vicinity of the area where the fossil or fossils have been found.		
*	The ECO must inform SAHRA of the find immediately. This information must include photographs of the findings and GPS co-ordinates.		
*	The ECO must compile a Preliminary Report and fill in the attached Fossil Discoveries: Preliminary Record Form within 24 hours without removing the fossil from its original position. The Preliminary Report records basic information about the find including:		
	<ul> <li>The date.</li> <li>A description of the discovery.</li> <li>A description of the fossil and its extent (e.g., position and depth of find).</li> <li>Where and how the find has been stored.</li> <li>Photographs to accompany the preliminary report: (</li> <li>A scale must be used.</li> </ul>		
*	<ul> <li>Photos of location from several angles.</li> <li>Photos of vertical section should be provided.</li> <li>Digital images of hole showing vertical section (side).</li> <li>Digital images of fossil or fossils.</li> </ul> Upon receipt of this Preliminary Report, SAHRA will inform the ECO whether or not a rescue excavation or rescue collection by a palaeontologist is necessary.		

Mitigation	n: Action/control	Responsibility	Timeframe
w 0	exposed finds must be stabilised where they are unstable and the site capped, e.g. with a plastic sheet or sand bags. This protection should allow for the later excavation of the finds with due scientific care and diligence. SAHRA can advise on the most appropriate method for stabilisation.		
o Fi a	If the find cannot be stabilised, the fossil may be collect with extreme care by the ECO or the site agent and put aside and protected until SAHRA advises on further action. Finds collected in this way must be safely and securely stored in tissue paper and an appropriate box. Care must be taken to remove the all fossil material and any preakage of fossil material must be avoided at all costs.		
	No work may continue in the vicinity of the find until SAHRA has indicated, in writing, hat it is appropriate to proceed.		
	A detailed "walk down" of the final approved Solar PV Energy Facility and the grid connection corridor will be required before construction commences.		
n	Any heritage features of significance identified during this walk down will require formal mitigation (i.e., permitting where required) or where possible a slight change in design could accommodate such resources.		
а	A Heritage management plan (HMP) for the heritage resources needs to be compiled and approved for implementation during construction and operations where heritage eatures of significance are identified.		
a p a C tt	Workmen and foremen need to be trained in the procedure to follow in instances of accidental discovery of fossil material, in a similar way to the Health and Safety protocol. A brief introduction to the process to follow in the event of possible accidental discovery of fossils should be conducted by the designated Environmental Control Officer (ECO) for the project, or the foreman or site agent in the absence of the ECO It is recommended that copies of the attached poster and procedure are printed out and displayed at the site office so that workmen may familiarise themselves with them and are thereby prepared in the event that accidental discovery of fossil	EPC Contractor Project Developer ECO Heritage Specialist	Construction
n	naterial takes place.		

# 8.5 Visual

Project component/s	*	Grid Connection Infrastructure
Potential Impact	*	Enhanced visual intrusion.
Activity/risk source	*	Lighting of the Project Site for safety and security purposes
Mitigation: Target/Objective	>>	To retain the Visual Impact rating of area.

Mitigation: Action/control	Responsibility	Timeframe
Ensure that vegetation cover adjacent to the Development Footprint (if present) is not unnecessarily removed during the construction phase, where possible.	EPC Contractor	Construction
Reduce the construction phase timeframes through careful logistical planning and productive implementation of resources wherever possible.	EPC Contractor	Construction
Restrict the activities and movement of construction workers and vehicles to the immediate construction site and existing access roads.	EPC Contractor	Construction
Ensure that rubble, litter, and disused construction materials are appropriately stored (if not removed daily) and then disposed regularly at licensed waste facilities.	EPC Contractor	Construction
Reduce and control construction dust through the use of approved dust suppression techniques as and when required (i.e. whenever dust becomes apparent).	EPC Contractor	Construction
Restrict construction activities to daylight hours in order to negate or reduce the visual impacts associated with lighting, where possible.	EPC Contractor	Construction
Rehabilitate all disturbed areas (if present/if required) immediately after the completion of construction works.	EPC Contractor	Construction

Performance Indicator	Vegetation cover on and in the vicinity of the Project Site is intact (i.e. full cover as per natural vegetation present within the environment) with no evidence of degradation or erosion.
Monitoring	Monitoring of vegetation clearing during construction (by contractor as part of construction contract).  Monitoring of rehabilitated areas quarterly for at least a year following the end of construction (by contractor as part of construction
	contract).

### 8.6 Rehabilitation

Project component/s	» Grid Connection Infrastructure
Potential Impact	» Undermining of the Environmental integrity of the Project Site resulting in reduced visual aesthetics, erosion, compromised land capability and the requirement for on-going management intervention.
Activity/risk source	<ul> <li>» Site preparation and earthworks.</li> <li>» Excavation of foundations and trenches.</li> <li>» Construction of laydown areas.</li> <li>» Construction of access roads/tracks.</li> <li>» Other disturbed areas/footprints.</li> </ul>
Mitigation: Target/Objective	<ul> <li>To ensure and encourage site rehabilitation of disturbed areas.</li> <li>To ensure that the Project Site is appropriately rehabilitated following the execution of the works, such that residual environmental impacts (including erosion) are remediated or curtailed.</li> </ul>

Mitigation: Action/control	Responsibility	Timeframe
Following construction, rehabilitation of all disturbed areas that will not be utilised during the operations of the Facility will be undertaken.	Contractor EO ECO	Rehabilitation
Rehabilitate of disturbed areas should be undertaken as soon as reasonably practicable after construction works have been closed out.	Contractor EO ECO	Rehabilitation
Where required, artificial rehabilitation (e.g. re-seeding with collected or commercial indigenous seed mixes) may be applied in order to speed up the rehabilitation process if deemed necessary by the ECO.	Contractor EO ECO	
If natural re-vegetation is unsuccessful, seeding and planting of the area will need to be implemented	Contractor EO ECO	Rehabilitation
All temporary facilities, equipment and waste materials must be removed from the Project Site and appropriately disposed of.	Contractor	Rehabilitation
On-going alien plant monitoring and removal should be undertaken on all areas of natural vegetation on an annual basis.	Contractor	Life of Project

# **OPERATIONAL PHASE OUTCOMES AND ACTIONS**

### 8.7 Protection of sensitive area, flora, fauna and soils

Project Component/s	*	Rehabilitated areas.
Potential Impact	» »	Disturbance to or loss of vegetation and/or habitat in surrounding areas.  Environmental integrity of the site undermined resulting in reduced visual aesthetics, erosion, compromised land capability and the requirement for on-going management intervention.
Activities/Risk Sources	*	Movement of employee vehicles within and around the site.
Mitigation: Target/Objective	» »	Maintain minimised footprints of disturbance of vegetation/habitats on-site.  Ensure and encourage plant regrowth in non-operational areas of post-construction rehabilitation.

Mitigation: Action/Control	Responsibility	Timeframe
Any potentially dangerous fauna such as snakes or fauna threatened by the maintenance and operational activities should be removed to a safe location.	O&M Operator	Operation phase
The collection, hunting or harvesting of any plants or animals at the Project Site should be strictly forbidden by anyone without the appropriate permits and permissions.	O&M Operator	Operation phase
Implement an animal removal plan to ensure safety of workers and fauna.	O&M Operator	Operation phase
All vehicles accessing the site should adhere to a low-speed limit (40km/h max) to avoid collisions with susceptible species such as snakes and tortoises.	O&M Operator	Operation phase
All roads and other hardened surfaces should have runoff control features which redirect water flow and dissipate any energy in the water which may pose an erosion risk.	O&M Operator	Operation phase
Existing roads must be maintained to ensure limited erosion and impact on areas adjacent to roadways.	O&M Operator	Operation phase
Vehicle movements must be restricted to designated roadways.	O&M Operator	Operation phase

# 8.8 Avifauna

Project component/s	» Grid Connection Infrastructure
Potential Impact	<ul> <li>Enhanced visual intrusion.</li> <li>Visual impact of the Project degradation and vegetation rehabilitation failure.</li> </ul>
	** Visual impact of the Project addition and Vegetalion Tenabilitation.
Activity/risk source	» Visual Impact on observers.
Mitigation: Target/Objective	» To minimise the potential for visual impact.
	» Well maintained and neat facility.

Mitigation: Action/control	Responsibility	Timeframe
Maintain the general appearance of the infrastructure.	Project proponent / operator	Throughout the operation phase.
Maintain roads and servitudes to forego erosion and to suppress dust.	Project proponent / operator	Throughout the operation phase.
Monitor rehabilitated areas and implement remedial action as and when required.	Project proponent / operator	Throughout the operation phase.
Investigate and implement (should it be required) the potential to screen visual impacts at affected receptor sites.	Project proponent / operator	Throughout the operation phase.

# **APPENDIX 1: METHOD STATEMENTS**

ENDIX 1. MEIROD STATEMENTS	
To be prepared by the contractor prior to commencement of the activity. The method statements are <b>not required</b> to be submitted to the CA.	od

### APPENDIX 2: CV OF THE EAP