

DEPARTMENT OF ENVIRONMENTAL AFFAIRS

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NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998  
(ACT NO. 107 OF 1998)

**CONSULTATION ON THE GENERIC ENVIRONMENTAL MANAGEMENT PROGRAMME RELEVANT TO AN APPLICATION FOR AN ENVIRONMENTAL AUTHORISATION FOR SUBSTATION INFRASTRUCTURE FOR THE TRANSMISSION AND DISTRIBUTION OF ELECTRICITY**

I, Bomo Edna Edith Molewa, Minister of Environmental Affairs, hereby publish for public comment, in terms of section 24(5) of the National Environmental Management Act, 1998 (Act No. 107 of 1998), regulations 19(4) and 23(4) of the Environmental Impact Assessment Regulations, 2014 and Appendix 4 to the regulations, the draft Generic Environmental Management Programme relevant to an application for substation infrastructure for the transmission and distribution of electricity, which require an environmental authorisation for activity 11 or 47 of Environmental Impact Assessment Regulations Listing Notice 1 or for activity 9 of Environmental Impact Assessment Regulations Listing Notice 2, or any other listed and specified activity necessary for the realisation of such infrastructure, as set out in the Schedule hereto.

Members of the public are invited to submit to the Minister, within 45 days from the date of the publication of this Notice in the *Gazette*, written comments or inputs to the following addresses:

By post to: The Director-General:  
Department of Environmental Affairs  
Attention: Mr Alfred Mocheke  
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Any inquiries in connection with the Notice can be directed to Mr Alfred Mocheke at 012 399 9315.

Comments received after the closing date will not be considered.



**BOMO EDNA EDITH MOLEWA  
MINISTER OF ENVIRONMENTAL AFFAIRS**

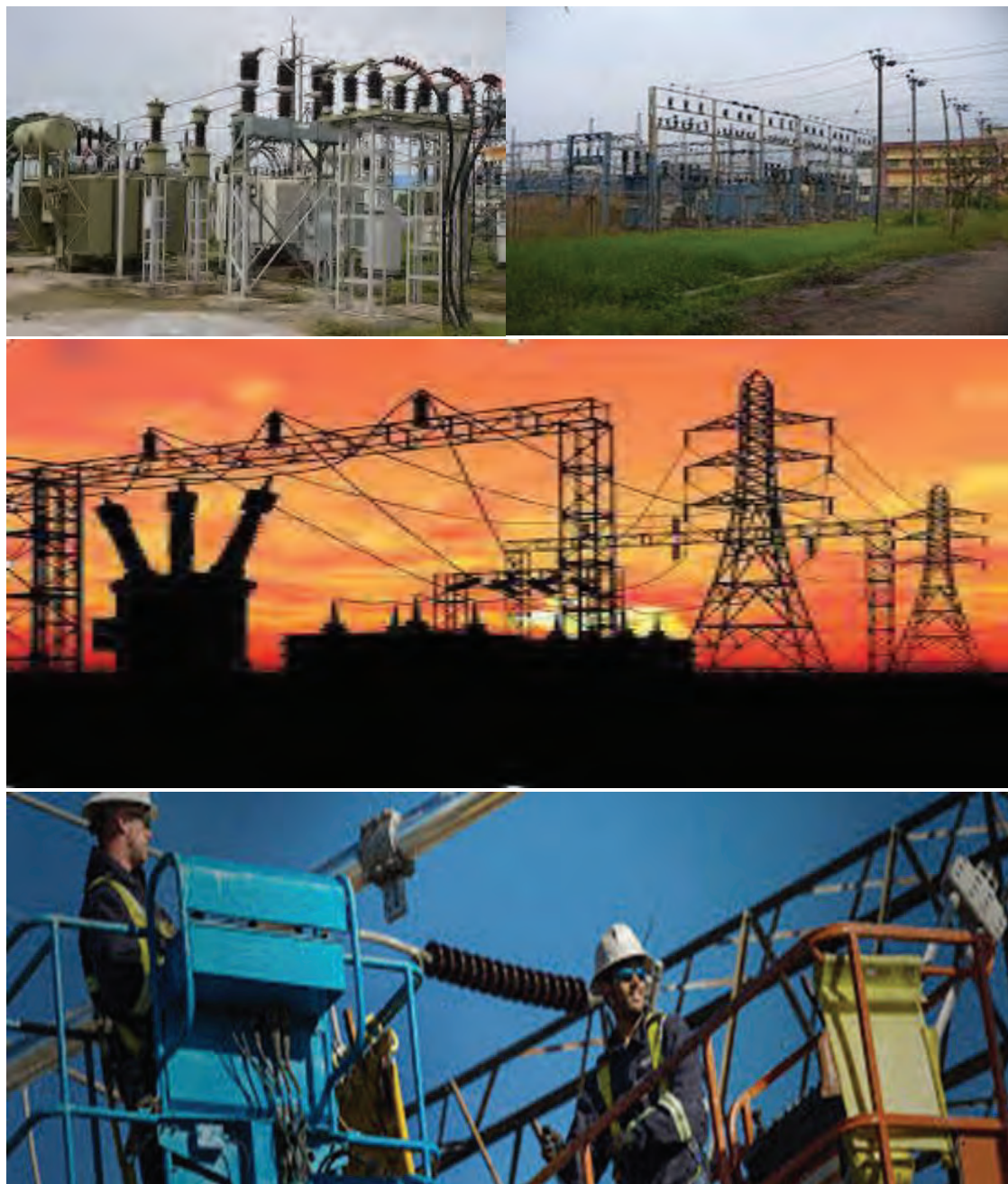
## SCHEDULE

An applicant for an environmental authorisation for substation infrastructure for the transmission and distribution of electricity, when such facilities trigger—

- activity 11 or 47 of Environmental Impact Assessment Regulations Listing Notice 1 of 2014 and any other listed and specified activities necessary for the realisation of such facilities; or
- activity 9 of Environmental Impact Assessment Regulations Listing Notice 2 of 2014; or
- any other listed or specified activities necessary for the realisation of such facilities;

must use the generic Environmental Management Programme, contemplated in regulations 19(4), 23(4) and Appendix 4 to the Environmental Impact Assessment Regulations, 2014. The draft Generic Environmental Management Programme is set out in Appendix 1.

**APPENDIX 1**  
ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr) FOR THE  
DEVELOPMENT AND EXPANSION OF SUBSTATION INFRASTRUCTURE FOR THE  
TRANSMISSION AND DISTRIBUTION OF ELECTRICITY



**environmental affairs**

Department:  
Environmental Affairs  
REPUBLIC OF SOUTH AFRICA

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## INTRODUCTION

### 1. Background

The National Environmental Management Act 107 of 1998 (NEMA) requires that an environmental management programme (EMPr) be submitted where an environmental impact assessment (EIA) has been identified as the environmental instrument to be utilised as the basis for a decision on an application for environmental authorisation (EA). The content of an EMPr must either contain the information set out in Appendix 4 of the EIA Regulations, 2014, or must be a generic EMPr relevant to an application as identified and gazetted by the Minister in a government notice. Once the Minister has identified, through a government notice that a generic EMPr is relevant to an application for EA, that generic EMPr must be applied by all parties involved in the EA process, including but not limited to the applicant, environmental assessment practitioner and the competent authority (CA).

### 2. Purpose

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

### 3. Objective

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

### 4. Scope

The scope of this generic EMPr applies to the development or expansion of substation infrastructure for the transmission and distribution of electricity requiring EA in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), i.e. with a capacity of 33 kilovolts or more. This generic EMPr applies to activities requiring EA, mainly activity 11 and 47 of the EIA Regulations Listing Notice 1 of 2014 and activity 9 of the EIA Regulations Listing Notice 2 of 2014, and all associated listed or specified activities necessary for the realization and expansion of such infrastructure.

## 5. Structure of this document

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

Part	Section	Heading	Content
A		Provides general guidance and information and is not legally binding	Definitions, acronyms, roles & responsibilities and documentation and reporting.
B	1	Pre-approved EMPr template	<p>Contains generally accepted impact management outcomes and actions required for the avoidance, management and mitigation of impacts and risks associated with the development or expansion of substation infrastructure for the transmission and distribution of electricity, which are presented in the form of a template that has been pre-approved.</p> <p>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.</p> <p>Once completed and signed, the template represents the EMPr for the activity approved by the CA and is legally binding. The template <b>is not required</b> to be submitted to the CA and <b>does not</b> need approval. Once the generic EMPr is gazetted for implementation, it has been approved by the CA.</p> <p>To allow interested and affected parties access to the pre-approved EMPr template for consideration through the authorisation process, the applicant (s)/proponent(s) or the EAP on behalf of the applicant/proponent must make the location of the document known to the potential registered interested and affected parties. Should the potential registered interested and affected parties not have access to electronic media, the applicant (s) or EAP must make a hard copy available at a public location.</p>
	2	Site specific information	Contains preliminary infrastructure layout and a declaration that the applicant/holder of the EA will comply with the pre-approved generic EMPr template contained in <u>Part B: Section 1</u> , and understands that the impact



Part	Section	Heading	Content
			<p>management outcomes and actions are legally binding. The preliminary infrastructure layout must be finalized to inform final EMPr that is to be submitted with BAR or EIAR before commencement, ensuring that all impact management outcomes and actions have been either pre-approved or approved in terms of <u>Part C</u>.</p> <p>This section <b>must be</b> submitted to the CA as part of the BAR or EIAR, for consideration of, and decision on, the application for EA. The information submitted for EA will be considered to be incomplete should a signed copy of <u>Part B: section 2</u> not be submitted. Once approved, this Section forms part of the EMPr for the site and is legally binding.</p>
C		Site specific sensitivities/ attributes	<p>If any specific environmental sensitivities/ attributes are present on the site which require site specific impact management outcomes and actions not included in the pre-approved generic EMPr to manage impacts, these specific impact management outcomes and actions must be included in this section. These specific environmental attributes must be referenced spatially and impact management outcomes and actions must be provided. These specific impact management outcomes and actions must be presented in the format of the pre-approved EMPr template (<u>Part B: section 1</u>)</p> <p>If <u>Part C</u> is applicable to the site, it <b>is required</b> to be submitted as part of the BAR or EIAR, for consideration of, and decision on, the application for EA. The information in this section must be prepared by an EAP and the name and expertise of the EAP, including the curriculum vitae are to be included. Once approved, Part C forms part of the EMPr for the site and is legally binding.</p> <p>This section applies only <b>to additional</b> impact management outcomes and actions that are necessary for the avoidance, management and mitigation of impacts and risks associated</p>

Part	Section	Heading	Content
			<p>with the specific development and which are not already included or adequately addressed in <u>Part B: section 1</u>.</p> <p>This section will <b>not be required</b> should the site contain no specific environmental sensitivities or attributes.</p>
		Appendix 1	<p>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.</p>

**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 impact management action:

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

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

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

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

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

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

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

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

Sub-section 2 is to be prepared by an EAP/ or an applicant in the case of exemption, and must contain his/her name and expertise including a curriculum vitae. This sub-section must include a map of the site sensitivity overlaid with the preliminary infrastructure layout. Once the web-based environmental screening tool identified in regulation 16(1)(v) of the EIA Regulations, 2014 is available, the sensitivity map must be prepared from this system. The map is to indicate areas/features of sensitivity based on the findings of the assessment and illustrated according to four tiers, Very High, High, Medium or Low. The sensitivity map shall also identify the nature of each sensitive feature e.g. raptor nest, threatened plant species, archaeological site, etc. Sensitivity maps shall identify features both within the planned working area and any known sensitive features in the surrounding landscape.

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

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

Should the EA be transferred, Part B: Section 2 must be completed by the new applicant/proponent and submitted with the application for amendment of the EA in terms of regulations 29 or 31 of the EIA Regulations, 2014. The information submitted for an amendment to an EA will be considered to be incomplete should a signed copy of Part B: Section 2 not be submitted. Once approved, Part B: Section 2 forms part of the EMPr for the site and the EMPr becomes legally binding to the new EA holder once the amendment process has been concluded.

**PART A – GENERAL INFORMATION****1. DEFINITIONS**

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

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

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

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

The Method Statement shall cover applicable details with regard to:

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

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

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

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

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

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

**Works** means the Works to be executed in terms of the Contract

## 2. ACRONYMS and ABBREVIATIONS

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

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

The effective implementation of this EMPr is dependent on established and clear roles, responsibilities and reporting lines within an institutional framework. This section of the EMPr gives guidance to the various environmental roles and reporting lines.

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

Function	Role and Responsibilities
Developer's Project Manager (DPM)	<p><u>Role</u> The Project Developer is accountable for ensuring compliance with the EMPr and any conditions of approval from the CA. An environmental control officer (ECO) must be contracted by the Project Developer to objectively monitor the implementation of the EMPr, and the conditions of 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.</p> <p><u>Responsibilities</u></p> <ul style="list-style-type: none"> <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>- 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)	<p><u>Role</u> 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.</p> <p><u>Responsibilities</u></p> <ul style="list-style-type: none"> <li>- Ensure that all contractors identify a contractor's Environmental Officer (cEO);</li> </ul>

Function	Role and Responsibilities
	<ul style="list-style-type: none"> <li>- Must be fully conversant with the conditions of the EA. Oversees site works, liaison with Contractor, DPM and ECO;</li> <li>- Must ensure that all landowners have the relevant contact details of the site staff, ECO and cEO;</li> <li>- Will issue all non-compliances to contractors; and</li> <li>- Ratify the Monthly Environmental Report.</li> </ul>
<p>Environmental Control Officer (ECO)</p>	<p><u>Role</u></p> <p>The ECO should be employed by the developer for the duration of the project. The ECO should have appropriate training and experience in the implementation of environmental management specifications. In this respect, the ECO is to conduct periodic site inspections, attend regular site meetings, pre-empt problems and suggest mitigation and be available to advise on incidental issues that arise. The ECO is also required to conduct compliance audits, verifying the monitoring reports submitted by the cEO. The ECO provides feedback to the DSS and Project Manager regarding all environmental matters. The Contractor, cEO and dEO are answerable to the ECO for non-compliance with the Performance Specifications as set out in the EA and EMPr.</p> <p>The ECO provides feedback to the DSS and Project Manager, who in turn reports back to the Implementing Agent and potential and Registered Interested &amp; Affected Parties' (RI&amp;AP's), as required. Issues of non-compliance raised by the ECO must be taken up by the Project Manager, and resolved with the Contractor as per the conditions of his contract. Decisions regarding environmental procedures, specifications and requirements which have a cost implication (i.e. those that are deemed to be a variation, not allowed for in the Performance Specification) must be endorsed by the Project Manager.</p> <p>The ECO must also, as specified by the EA, report to the relevant CA as and when required.</p> <p><u>Responsibilities</u></p> <p>The responsibilities of the ECO will include the following:</p> <ul style="list-style-type: none"> <li>- Be aware of the findings and conclusions of all EA related to the development;</li> <li>- Be familiar with the recommendations and mitigation measures of this EMPr;</li> </ul>

Function	Role and Responsibilities
	<ul style="list-style-type: none"> <li>- Be conversant with relevant environmental legislation, policies and procedures, and ensure compliance with them;</li> <li>- Undertake regular and comprehensive site inspections / audits of the construction site according to the EMPr and applicable licenses in order to monitor compliance as required;</li> <li>- Educate the construction team about the management measures contained in the EMPr and environmental licenses;</li> <li>- Compilation and administration of an environmental monitoring plan to ensure that the environmental management measures are implemented and are effective;</li> <li>- Monitoring the performance of the Contractors and ensuring compliance with the EMPr and associated Method Statements;</li> <li>- In consultation with the DSS order the removal of person(s) and/or equipment which are in contravention of the specifications of the EMPr and/or environmental licenses;</li> <li>- Liaison between the DPM, Contractors, authorities and other lead stakeholders on all environmental concerns;</li> <li>- Issuing of site instructions to the Contractor for corrective actions required;</li> <li>- Compile a regular environmental audit report highlighting any non-compliance issues as well as satisfactory or exceptional compliance with the EMPr;</li> <li>- Validating the regular site inspection reports, which are to be prepared by the 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> <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 and/or sub-contractors;</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> <li>- Maintenance, update and review of the EMPr;</li> </ul>



Function	Role and Responsibilities
<p>developer Environmental Officer (dEO)</p>	<ul style="list-style-type: none"> <li>- Communication of all modifications to the EMPr to the relevant stakeholders.</li> </ul> <p><u>Role</u>                      The dEOs will report to the Project Manager and are responsible for implementation of the EMPr, environmental monitoring and reporting, providing environmental input to the Project Manager and Contractor's Manager, liaising with contractors and the landowners as well as a range of environmental coordination responsibilities.</p> <p><u>Responsibilities</u></p> <ul style="list-style-type: none"> <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) and its sub-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> <li>- Assist the contractor in investigating environmental incidents and compile investigation reports;</li> <li>- Follow-up on pre-warnings, defects, non-conformance reports;</li> <li>- Measure and communicate environmental performance to the Contractor;</li> <li>- Conduct environmental awareness training on site together with ECO and cEO;</li> <li>- Ensure that the necessary legal permits and / or licenses are in place and up to date;</li> <li>- Acting as Developer's Environmental Representative on site and work together with the ECO and contractor;</li> <li>- Audit carried out by an independent auditor.</li> </ul>

Function	Role and Responsibilities
Contractor	<p><u>Role</u> The Contractor appoints the cEO and has overall responsibility for ensuring that all work, activities, and actions linked to the delivery of the contract are in line with the EMPr and that Method Statements are implemented as described. External contractors must ensure compliance with this EMPr while performing the onsite activities as per their contract with the Project Developer. The contractors are required, where specified, to provide Method Statements setting out in detail how the management actions contained in the EMPr will be implemented during the development or expansion of substation infrastructure for the transmission and distribution of electricity activities.</p> <p><u>Responsibilities</u></p> <ul style="list-style-type: none"> <li>- project delivery and quality control for the development services as per appointment;</li> <li>- employ a suitably qualified person to monitor and report to the Project Developer's appointed person on the daily activities on-site during the development period;</li> <li>- 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 procedure to be carried out safely;</li> <li>- attend on site meeting(s) prior to the commencement of activities to confirm the procedure and designated activity zones;</li> <li>- ensure that contractors' staff (or sub-contractors) repair, at their own cost, any environmental damage as a result of a contravention of the specifications contained in the EMPr, to the satisfaction of the ECO.</li> </ul>
contractor Environmental Officer (cEO)	<p><u>Role</u> Each Contractor affected by the EMPr should appoint a cEO, who is responsible for the on-site implementation of the EMPr (or relevant sections of the EMPr). The Contractor's representative can be the site agent; site engineer; a dedicated environmental officer; or an independent consultant. The Contractor must ensure that the Contractor's representative is suitably qualified to perform the necessary tasks and is appointed at a level such that she/he can interact effectively with other site Contractors, labourers, the ECO and the public.</p>

Function	Role and Responsibilities
	<p>The cEO ensures that all Sub-contractors working under the Contractor abide by the requirements of the EMPr. The Contractor is answerable to the Project Manager for all environmental issues associated with the project.</p> <p><u>Responsibilities</u></p> <ul style="list-style-type: none"> <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> <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> <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 substation infrastructure for the transmission and distribution of electricity 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 must be filed, while an electronic copy may be kept where relevant. A duplicate file will be maintained in the office of the DSS (where applicable). This duplicate file will be the responsibility of the ECOs and must remain current and up-to-date. The filing system must be updated and relevant documents added as required. The EMPr file must be made available at all times on request by the CA (in terms of NEMA EIA regulation) or other relevant authorities. The EMPr file will form part of any environmental audits undertaken as prescribed in the EIA Regulations.

##### 4.2 Documentation to be available

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

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

##### 4.3 Weekly Environmental Checklist

The ECOs are required to complete a Weekly Environmental Checklist. The 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 (EAR) as required in terms of the EIA regulations, 2014.

#### 4.4 Environmental site meetings

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

#### 4.5 Required Method Statements

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

The method statement shall cover applicable details with regard to:

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

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

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

The ECOs shall ensure that the contractors perform in accordance with these method statements. Completed method statements must be appended as 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 record of all environmental incidents and/or all non-compliance notice that 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 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 signed off by the ECOs.

#### 4.9 Photographic record

A digital photographic record will be filed. 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, construction 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 development;
7. Waste management sites;
8. Ablution facilities (inside and out);
9. Any non-conformances deemed to be "significant";
10. All completed corrective actions for non-compliances;
11. All required signage;
12. All areas before, during and post rehabilitation; and
13. Include relevant photographs in the final Environmental Audit Report.

#### 4.10 Complaints register

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

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

#### 4.11 Claims for damages

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

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

#### 4.12 Interactions with affected parties

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

The ECOs shall:

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



#### 4.13 Environmental audits

Internal Environmental Audits of the activity and implementation of the EMPr will be undertaken by the ECO. The findings and outcomes of these audits will be recorded in the EMPr file. The environmental audits and associated reports must be conducted and submitted to the CA at intervals as indicated in the EA.

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

- Weekly Environmental Checklists;
- Deviations and non-compliances with the checklists;
- Non-compliances issued;
- Completed and reported corrective actions;
- Environmental Monitoring;
- General environmental findings and actions; and
- Minutes of the Bi-monthly Environmental Site Meetings.

#### 4.14 Final environmental audits

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

- Details of the independent person who prepared the report;
- Details of the expertise of independent person that compiled the report;
- A declaration that the independent auditor is independent in a form as may be specified by the CA;
- An indication of the scope of, and the purpose for which, the EAR was prepared;
- A description of the methodology adopted in preparing the EAR;
- An indication of the ability of the EMPr, and where applicable, the closure plan to-
  - Sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity on an on-going basis;
  - Sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the closure of the facility; and
  - Ensure compliance with the provisions of EA, EMPr, and where applicable, the closure plan;
- A description of any assumptions made, and any uncertainties or gaps in knowledge;
- A description of any consultation process that was undertaken during the course of carrying out the EAR;
- A summary and copies of any comments that were received during any consultation process; and
- Any other information requested by the CA.

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

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

**5. IMPACT MANAGEMENT OUTCOMES AND ACTIONS**

This section provides a pre-approved generic EMPr template with activities that are common to the development or expansion of substation infrastructure for the transmission and distribution of electricity. There are 34 doings identified for the development or expansion of substation infrastructure for the transmission and distribution of electricity, and for each doing a set of prescribed impact management outcomes and associated management actions have been identified. Holders of EAs are responsible to ensure the implementation of these outcomes and actions for all projects as a minimum requirement for managing the impact of activities identified for the development or expansion of substation infrastructure for the transmission and distribution of electricity.

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

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

**5.1 Environmental awareness training**

Impact management outcome: All onsite staff are aware and understands the individual responsibilities in terms of this EMPr.						
Impact management actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>- All staff must receive environmental awareness training prior to commencement of the activities;</li> <li>- The Contractor must allow for sufficient sessions to train all personnel with no more than 20 personnel attending each course;</li> <li>- Refresher environmental awareness training is available as and when required;</li> <li>- All staff are aware of the conditions and controls linked to the EA and within the EMPr and made aware of their individual roles and responsibilities in achieving compliance with the EA and EMPr;</li> <li>- The Contractor must erect and maintain information posters at key locations on site;</li> <li>- Environmental awareness training should include as a minimum the following:                             <ul style="list-style-type: none"> <li>a) Description of significant, actual or potential environmental impacts, related to their work activities;</li> <li>b) Impact management actions to be implemented when carrying out specific activities;</li> <li>c) Emergency preparedness and response procedures;</li> </ul> </li> </ul>						

<ul style="list-style-type: none"> <li>e) Procedures to be followed when working near or within sensitive areas;</li> <li>f) Wastewater management procedures;</li> <li>g) Water usage and conservation;</li> <li>h) Solid waste management procedures;</li> <li>i) Sanitation procedures; and</li> <li>j) Disease prevention;</li> </ul>									
<ul style="list-style-type: none"> <li>- A record of all environmental awareness training courses undertaken as part of the EMPr must be available;</li> <li>- Educate workers on the dangers of open and/or unattended fires;</li> <li>- A staff attendance register of all staff to have received environmental awareness training must be available; and</li> <li>- Course material must be available and presented in all appropriate languages.</li> </ul>									

**5.2 Site Establishment development**

<p><b>Impact management outcome:</b> Impacts on the environment are minimised when developing new infrastructure and the development footprint are kept to demarcated development area.</p>								
<b>Impact Management Actions</b>			<b>Monitoring</b>					
			Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <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</li> </ul>								

<p>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;</p> <ul style="list-style-type: none"> <li>- Sites should be located where possible on previously disturbed areas;</li> <li>- The camp must be fenced in accordance with <b>Section 5.5: Fencing and gate installation</b>; and</li> <li>- The contractor staff will be encouraged to use existing accommodation, where possible.</li> </ul>						
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**5.3 No-Go areas**

<p><b>Impact management outcome:</b> Access to No go areas prevented.</p>						
<p><b>Impact Management Actions</b></p>						
<p><b>Implementation</b></p>			<p><b>Monitoring</b></p>			
Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance	
<ul style="list-style-type: none"> <li>- Identification of No-Go areas is to be informed by the environmental assessment, site walk through and any additional areas identified during development;</li> <li>- Erect, demarcate and maintain a temporary fence around the perimeter of any No-Go area;</li> </ul>						

<ul style="list-style-type: none"> <li>- Fencing of No-Go areas is to be undertaken in accordance with Section 5.5: <b>Fencing and gate installation</b>; and</li> <li>- Unauthorised access and development related activity inside No-Go areas is prohibited.</li> </ul>						
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**5.4 Access roads**

<p><b>Impact management outcome:</b> Minimise impact to the environment through the planned and restricted movement of vehicles on site.</p>						
<p><b>Impact Management Actions</b></p>			<p><b>Implementation</b></p>		<p><b>Monitoring</b></p>	
<ul style="list-style-type: none"> <li>- Maximum use of existing roads must be utilised;</li> <li>- In circumstances where private roads must be used, the condition of the said roads must be recorded in accordance with section 4.9: <b>photographic record</b>; prior to use and the condition thereof agreed by the landowner, the DPM, landowner and the contractor;</li> <li>- All private roads used for access to the site must be maintained and upon completion of the works, be left in at least the original condition; and</li> <li>- As far as possible, access roads must follow the contours in hilly areas, as opposed to winding down steep slopes.</li> </ul>	<p>Responsible person</p>	<p>Method of implementation</p>	<p>Timeframe for implementation</p>	<p>Responsible person</p>	<p>Frequency</p>	<p>Evidence of compliance</p>

**5.5 Fencing and Gate installation**

Impact Management Actions		Implementation			Monitoring		
		Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<p><b>Impact management outcome:</b> To minimise impact to the environment and ensure safe and controlled access to the site through the erection of fencing and gates where required.</p>							
<ul style="list-style-type: none"> <li>- Use existing gates provided to gain access, where possible;</li> <li>- Existing and new gates to be recorded and documented in accordance with section 4.9: <b>photographic record</b>;</li> <li>- All gates must be fitted with locks and be kept locked at all times during the development phase, unless otherwise agreed with the landowner;</li> <li>- At points where the line crosses a fence in which there is no suitable gate within the extent of the line servitude, on the instruction of the DPM, a gate must be installed at the approval of the landowner;</li> <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> <li>- Where gates are installed in jackal proof fencing, a suitable reinforced concrete sill must be provided beneath the gate;</li> <li>- Original tension must be maintained in the fence wires;</li> <li>- All gates installed in electrified fencing must be re-electrified;</li> <li>- All demarcation fencing and barriers must be maintained in good working order for the duration of electricity substation infrastructure development activities;</li> </ul>							

<ul style="list-style-type: none"> <li>- Fencing must be erected around the camp, batching plants and hazardous storage areas;</li> <li>- All fencing must be developed of high quality material bearing the SABS mark;</li> <li>- The use of razor wire as fencing must be avoided;</li> <li>- Fenced areas with gate access will remain locked after hours, during weekends and on holidays if staff is away from site. Site security will be required at all times;</li> <li>- On completion of the project all temporary fences are to be removed and where possible re-used by the contractor at new projects;</li> <li>- The contractor will ensure that all fence uprights are appropriately removed, ensuring that no uprights are cut at ground level but rather removed completely.</li> </ul>					
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**5.6 Water Supply Management**

<p><b>Impact management outcome:</b> Undertake responsible water usage.</p>						
Impact Management Actions		Implementation			Monitoring	
		Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency
-	All abstraction points or bore holes must be registered with the DWS and suitable water meters installed to ensure that the abstracted volumes are measured on a daily basis;					
-	Should water abstraction be required and the necessary authorisation from DWS and permission from the landowner has been received, the Contractor must ensure the following:					



<p>a. The vehicle abstracting water from a river does not enter or cross it and does not operate from within the river;</p> <p>b. No damage occurs to the river bed or banks and that the abstraction of water does not entail stream diversion activities; and</p> <p>c. All reasonable measures to limit pollution or sedimentation of the downstream watercourse are implemented.</p> <p>– Ensure water conservation is being practiced by:</p> <p>a. Minimising water use during cleaning of equipment;</p> <p>b. Undertaking regular audits of water systems; and</p> <p>c. Including a discussion on water usage and conservation during environmental awareness training.</p>						
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**5.7 Storm and waste water management**

<p><b>Impact management outcome:</b> Impacts to the environment caused by storm water and wastewater discharges during construction are avoided.</p>						
<p><b>Impact Management Actions</b></p>			<p><b>Monitoring</b></p>			
<p>– An effective system of storm water run-off control is implemented;</p> <p>– Appropriate pollution control facilities necessary to prevent discharge of water containing polluting matter or visible suspended;</p> <p>– Materials into watercourses or water bodies must be designed and implemented;</p>	<p>Responsible person</p>	<p>Method of implementation</p>	<p>Timeframe for implementation</p>	<p>Responsible person</p>	<p>Frequency</p>	<p>Evidence of compliance</p>

<ul style="list-style-type: none"> <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> <li>- 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;</li> <li>- Natural storm water runoff not contaminated by development activities and clean water can be discharged directly to watercourses and water bodies, subject to the Project Manager's approval and support by the ECO;</li> <li>- Water that has been contaminated with suspended solids, such as soils and silt, may be released into watercourses or water bodies only once all suspended solids have been removed from the water by settling out these solids in settlement ponds. The release of settled water back into the environment must be subject to the Project Manager's approval and support by the ECO.</li> </ul>						
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**5.8 Solid waste management**

<p><b>Impact management outcome:</b> Wastes are appropriately stored, handled and safely disposed of at a recognised waste facility.</p>					
<p><b>Impact Management Actions</b></p>			<p><b>Implementation</b></p>		<p><b>Monitoring</b></p>
			<p>Responsible person</p>	<p>Method of implementation</p>	<p>Timeframe for implementation</p>

<ul style="list-style-type: none"> <li>- All measures regarding waste management must be undertaken using an integrated waste management approach;</li> <li>- Sufficient, covered waste collection bins (scavenger and weatherproof) must be provided;</li> <li>- A suitably positioned and clearly demarcated waste collection site must be identified and provided;</li> <li>- The waste collection site must be maintained in a clean and orderly fashion;</li> <li>- Waste must be segregated into separate bins and clearly marked for each waste type;</li> <li>- Bins must be emptied regularly;</li> <li>- General waste produced onsite must be disposed of at recognised landfill waste disposal sites/ recycling company;</li> <li>- Hazardous waste must be disposed of at a registered waste disposal site;</li> <li>- Certificates of safe disposal for general, hazardous and recycled waste must be maintained.</li> </ul>					
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**5.9 Protection of watercourses**

<p><b>Impact management outcome:</b> Pollution and contamination of the watercourse environment and erosion are prevented.</p>					
<p><b>Impact Management Actions</b></p>			<p><b>Monitoring</b></p>		
<p><b>Implementation</b></p>		<p><b>Implementation</b></p>		<p>Responsible person</p>	<p>Evidence of compliance</p>
<p>Responsible person</p>	<p>Method of implementation</p>	<p>Timeframe for implementation</p>	<p>Responsible person</p>	<p>Frequency</p>	<p>Evidence of compliance</p>
<ul style="list-style-type: none"> <li>- All watercourses must be protected from direct or indirect spills of pollutants such as solid waste, sewage, cement,</li> </ul>					

<p>oils, fuels, chemicals, aggregate tailings, wash and contaminated water or organic material resulting from the Contractor's activities;</p> <ul style="list-style-type: none"> <li>- In the event of a spill, prompt action must be taken to clear the polluted or affected areas;</li> <li>- When working in or near any watercourse or wetland, the following environmental controls and consideration must be taken:             <ul style="list-style-type: none"> <li>a) River levels during the period of construction;</li> <li>b) During the execution of the Works, appropriate measures to prevent pollution and contamination of the riverine environment must be implemented e.g. including ensuring that construction equipment is well maintained;</li> <li>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</li> <li>d) Appropriate rehabilitation and re-vegetation measures for the river banks must be implemented timeously. In this regard, the banks should be appropriately and incrementally stabilised as soon as development allows.</li> </ul> </li> </ul>	
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**5.10 Vegetation clearing**

<p><b>Impact management outcome:</b> Vegetation clearing is restricted to the authorised development footprint of the proposed infrastructure.</p>	
<p><b>Impact Management Actions</b></p>	<p><b>Implementation</b></p>
<p><b>Monitoring</b></p>	

Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<p><b>General:</b></p> <ul style="list-style-type: none"> <li>- Indigenous vegetation which does not interfere with the safe development of the substation must be left undisturbed;</li> <li>- Protected or endangered species may occur on or near the development site. Special care should be taken not to damage such species;</li> <li>- Search, rescue and replanting of all protected and endangered species likely to be damaged during project development must be identified by the Botanical Specialist and completed prior to any development or clearing;</li> <li>- Permits for removal must be obtained from the relevant CA prior to the removal of the affected species, and they must be filed;</li> <li>- The Environmental Audit Report must confirm whether identified species have been rescued and replanted;</li> <li>- Rivers, watercourses and other water bodies must be kept clear of felled trees, vegetation cuttings and debris.</li> <li>- Only a registered pest control operator may apply herbicides on a commercial basis and commercial application must be carried out under the supervision of a registered pest control operator, supervision of a registered pest control operator or is appropriately trained;</li> <li>- A daily register must be kept of all relevant details of herbicide usage as stipulated in Act 36 of 1947;</li> <li>- All protected species and sensitive vegetation not removed must be clearly marked and such areas fenced</li> </ul>					

<p>off if required in accordance with No-Go procedure in Section 5.3: No-Go areas.</p> <ul style="list-style-type: none"> <li>– Alien invasive vegetation should be removed and disposed of at a recognised waste disposal facility.</li> </ul>								
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**5.11 Protection of fauna**

<p><b>Impact Management outcome:</b> minimise disturbance to fauna.</p>											
<p><b>Impact Management Actions</b></p>					<p><b>Monitoring</b></p>						
<p><b>Implementation</b></p>		<p>Responsible person</p>			<p>Method of implementation</p>		<p>Timeframe for implementation</p>		<p>Responsible person</p>	<p>Frequency</p>	<p>Evidence of compliance</p>
<ul style="list-style-type: none"> <li>– No interference with livestock must occur without the landowner's written consent and with the landowner or a person representing the landowner being present;</li> <li>– The breeding sites of raptors and other wild birds species must be taken into consideration during the planning of the development;</li> <li>– 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;</li> <li>– Special recommendations of the avian specialist must be adhered to at all times to prevent unnecessary disturbance of birds;</li> <li>– No poaching must be tolerated under any circumstances. All animal dens in close proximity to the works areas must be marked as No-Go areas.</li> </ul>											

**5.12 Protection of heritage resources**

<b>Impact management outcome:</b> impact to heritage resources is minimised.						
<b>Impact Management Actions</b>						
<b>Implementation</b>		<b>Monitoring</b>				
Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance	
<ul style="list-style-type: none"> <li>- Identify, demarcate and prevent impact to all known sensitive heritage features on site in accordance with the No-Go procedure in <b>Section 5.3: No-Go areas</b>;</li> <li>- Carry out general monitoring of excavations for potential fossils, artefacts and material of heritage importance;</li> <li>- All work must cease immediately, if any human remains and/or other archaeological, palaeontological or historical material are uncovered. Such material, if exposed, must be reported to the nearest museum, archaeologist/palaeontologist (or the South African Police Services), so that a systematic and professional investigation can be undertaken. Sufficient time should be allowed to remove/collect such material before development recommences.</li> </ul>						

**5.13 Safety of the public**

<b>Impact management outcome:</b> all precautions are taken to minimise the risk of injury, harm or complaints.	
<b>Impact Management Actions</b>	
<b>Implementation</b>	<b>Monitoring</b>

Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>- Identify fire hazards, demarcate and restrict public access to these areas as well as notify the local authority of any potential threats e.g. large brush stockpiles, fuels etc.;</li> <li>- All unattended open excavations must be adequately fenced or demarcated;</li> <li>- Ensure structures vulnerable to high winds are secured;</li> <li>- Maintain an incidents and complaints register in which all incidents or complaints involving the public are logged.</li> </ul>					

**5.14 Sanitation**

<p><b>Impact management outcome:</b> 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.</p>					
<b>Implementation</b>			<b>Monitoring</b>		
<ul style="list-style-type: none"> <li>- Mobile chemical toilets are installed onsite if no other ablation facilities are available;</li> <li>- The use of ablation facilities and or mobile toilets must be used at all times and no indiscriminate use of the veld for the purposes of ablations must be permitted under any circumstances;</li> <li>- Where mobile chemical toilets are required, the following must be ensured:                             <ul style="list-style-type: none"> <li>a) Toilets are located no closer than 100 m to any watercourse or water body;</li> </ul> </li> </ul>					



<p>b) Toilets are secured to the ground to prevent them from toppling due to wind or any other cause;</p> <p>c) No spillage occurs when the toilets are cleaned or emptied and the contents are managed in accordance with the EMPr;</p> <p>d) Toilets have an external closing mechanism and are closed and secured from the outside when not in use to prevent toilet paper from being blown out;</p> <p>e) Toilets are emptied before long weekends and workers holidays, and must be locked after working hours;</p> <p>f) Toilets are serviced regularly and the ECO must inspect toilets to ensure compliance to health standards;</p> <p>- A copy of the waste disposal certificates must be maintained.</p>						
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**5.15 Prevention of disease**

<p><b>Impact management outcome:</b> All necessary precautions linked to the spread of disease are taken.</p>						
<p><b>Impact Management Actions</b></p> <ul style="list-style-type: none"> <li>- Undertake environmentally-friendly pest control in the camp area;</li> <li>- Ensure that the workforce is sensitised to the effects of sexually transmitted diseases, especially HIV AIDS;</li> <li>- Information posters on HIV AIDS are displayed in the Contractor Camp area;</li> </ul>			<p><b>Implementation</b></p>			<p><b>Monitoring</b></p>
			Responsible person	Method of implementation	Timeframe for implementation	Responsible person

<ul style="list-style-type: none"> <li>- Information and education relating to sexually transmitted diseases to be made available to both construction workers and local community, where applicable;</li> <li>- Free condoms will be made available to all staff on site at central points;</li> <li>- Medical support must be made available;</li> <li>- Provide access to Voluntary HIV Testing and Counselling Services.</li> </ul>					
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**5.16 Emergency procedures**

<p><b>Impact management outcome:</b> emergency procedures are in place to enable a rapid and effective response to all types of environmental emergencies.</p>						
<p><b>Impact Management Actions</b></p>			<p><b>Implementation</b></p>		<p><b>Monitoring</b></p>	
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>- Compile an Emergency Response Action Plan (ERAP) prior to the commencement of the proposed project;</li> <li>- The Emergency Plan must deal with accidents, potential spillages and fires in line with relevant legislation;</li> <li>- All staff must be made aware of emergency procedures as part of environmental awareness training;</li> <li>- The relevant local authority must be made aware of a fire as soon as it starts;</li> <li>- In the event of emergency necessary mitigation measures to contain the spill or leak must be implemented (see <b>Hazardous Substances section 5.17</b>).</li> </ul>						

5.17 Hazardous substances

Impact Management Actions		Implementation			Monitoring		
		Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<p><b>Impact management outcome:</b> safe storage, handling, use and disposal of hazardous substances.</p>							
<ul style="list-style-type: none"> <li>- The use and storage of hazardous substances to be minimised and non-hazardous and non-toxic alternatives substituted where possible;</li> <li>- All hazardous substances will be stored in suitable containers as defined in the Method Statement;</li> <li>- Containers will be clearly marked to indicate contents, quantities and safety requirements;</li> <li>- All storage areas will be banded. The banded area will be of sufficient capacity to contain a spill / leak from the stored containers;</li> <li>- An Alphabetical Hazardous Chemical Substance (HCS) control sheet will be drawn up and kept up to date on a continuous basis;</li> <li>- All hazardous chemicals that will be used on site will have Material Safety Data Sheets (MSDS);</li> <li>- All employees working with HCS will be trained in the safe use of the substance and according to the safety data sheet;</li> <li>- Employees handling hazardous substances / materials must be aware of the potential impacts and follow appropriate safety measures. Appropriate personal protective equipment must be made available;</li> </ul>							

<p>The Contractor must ensure that diesel and other liquid fuel, oil and hydraulic fluid is stored in appropriate storage tanks or in bowzers;</p> <ul style="list-style-type: none"> <li>- The tanks/ bowzers 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/ bowzers (110% statutory requirement plus an allowance for rainfall);</li> <li>- The floor of the bund must be sloped, draining to an oil separator;</li> <li>- Provision must be made for refueling at the storage area by protecting the soil with an impermeable groundcover. Where dispensing equipment is used, a drip tray must be used to ensure small spills are contained;</li> <li>- All empty externally dirty drums must be stored on a drip tray or within a banded area;</li> <li>- No unauthorised access into the hazardous substances storage areas must be permitted;</li> <li>- No smoking must be allowed within the vicinity of the hazardous storage areas;</li> <li>- Adequate fire-fighting equipment must be made available at all hazardous storage areas;</li> <li>- Where refueling away from the dedicated refueling station is required, a mobile refueling unit must be used. Appropriate ground protection such as drip trays must be used;</li> <li>- 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;</li> </ul>	
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<ul style="list-style-type: none"> <li>- The responsible operator must have the required training to make use of the spill kit in emergency situations;</li> <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 <b>Section 5.7 for procedures concerning waste water management</b> and <b>5.8 for solid waste management</b>.</li> </ul>						
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**5.18 Workshop, equipment maintenance and storage**

<p><b>Impact management outcome:</b> Soil, surface water and groundwater contamination is minimized.</p>						
Impact Management Actions			Implementation			Monitoring
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>- Where possible and practical all maintenance of vehicles and equipment must take place in the workshop area;</li> <li>- During servicing of vehicles or equipment, especially where emergency repairs are effected outside the workshop area, a suitable drip tray must be used to prevent spills onto the soil. The relevant local authority must be made aware of a fire as soon as it starts;</li> <li>- Leaking equipment must be repaired immediately or be removed from site to facilitate repair;</li> <li>- The responsible operator of equipment must have the required training to make use of the spill kit in emergency situations</li> <li>- Workshop areas must be monitored for oil and fuel spills;</li> </ul>						

<ul style="list-style-type: none"> <li>- Appropriately sized spill kit kept onsite relevant to the scale of the activity taking place must be available;</li> <li>- The workshop area must have a bunded concrete slab that is sloped to facilitate runoff into a collection sump or suitable oil / water separator where maintenance work on vehicles and equipment can be performed;</li> <li>- Water drainage from the workshop must be contained and managed in accordance Section 5.7: <b>Waste water management</b>.</li> </ul>					
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**5.19 Batching plants**

<p><b>Impact management outcome:</b> Minimise spillages and contamination of soil, surface water and groundwater</p>						
<p><b>Impact Management Actions</b></p>			<p><b>Monitoring</b></p>			
<p><b>Implementation</b></p>			<p>Responsible person</p>	<p>Method of implementation</p>	<p>Timeframe for implementation</p>	<p>Responsible person</p>
<ul style="list-style-type: none"> <li>- Concrete mixing areas must be fitted with a sump facility for the collection of cement laden water. This facility must be impervious to prevent soil and groundwater contamination;</li> <li>- Bagged cement must be stored in an appropriate facility and at least 100 m away from any water courses, gullies and drains;</li> <li>- A washout facility must be provided for washing of concrete associated equipment. Water used for washing must be restricted;</li> </ul>						

<ul style="list-style-type: none"> <li>- Hardened concrete from the washout facility or concrete mixer can either be reused or disposed of at a recognised disposal facility;</li> <li>- Empty cement bags must be covered with adequate binding material if these will be temporarily stored on site;</li> <li>- Sand and aggregates containing cement must be kept damp to prevent the generation of dust (Refer to <b>Section 5.20: Dust emissions</b>)</li> <li>- Any excess sand, stone and cement must be removed from site and disposed at a registered disposal facility or reused on completion of construction period;</li> <li>- Temporary fencing must be erected around batching plants in accordance with Section <b>5.5: Fencing and gate installation</b>.</li> </ul>	
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**5.20 Dust emissions**

<p><b>Impact management outcome:</b> dust prevention measures are applied to minimise the generation of dust.</p>					
<p><b>Impact Management Actions</b></p>			<p><b>Implementation</b></p>		
<ul style="list-style-type: none"> <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> <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>	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency
					Evidence of compliance

<ul style="list-style-type: none"> <li>- Excavation, handling and transport of erodible materials must be avoided under high wind conditions or when a visible dust plume is present;</li> <li>- During high wind conditions, the ECO will evaluate the situation and make recommendations as to whether dust-dampening measures are adequate, or whether working will cease altogether until the wind speed drops to an acceptable level;</li> <li>- Where possible, soil stockpiles must be located in sheltered areas where they are not exposed to the erosive effects of the wind;</li> <li>- Where erosion of stockpiles becomes a problem, erosion control measures must be implemented at the discretion of the ECO;</li> <li>- Vehicle speeds must not exceed 40km/h along dust roads or 20km/h when traversing unconsolidated and non-vegetated areas;</li> <li>- Appropriate dust suppression measures must be used when dust generation is unavoidable, e.g. dampening with water; particularly during prolonged periods of dry weather in summer. Such measures must also include the use of temporary stabilising measures (e.g. chemical soil binders, straw, brush packs, chipping);</li> <li>- Straw stabilisation must be applied at a rate of one bale/10m<sup>2</sup> and harrowed into the top 100 mm of top material, for all completed earthworks;</li> <li>- For significant areas of excavation or exposed ground, spray water or wet areas using trucks to minimise the spread of dust.</li> </ul>



**5.21 Blasting**

<b>Impact management outcome:</b> impact to the environment is minimised through a safe blasting practice.						
<b>Impact Management Actions</b>			<b>Monitoring</b>			
<b>Implementation</b>		<b>Implementation</b>		<b>Implementation</b>		<b>Monitoring</b>
Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance	
<ul style="list-style-type: none"> <li>- Any blasting activity must be conducted by a suitably licensed blasting contractor; and</li> <li>- Notification of surrounding landowners, emergency services site personnel of blasting activity 24 hours prior to such activity taking place on Site.</li> </ul>						

**5.22 Noise**

<b>Impact management outcome:</b> To prevent unnecessary noise to the environment by ensuring that noise from development activity is mitigated.						
<b>Impact Management Actions</b>			<b>Monitoring</b>			
<b>Implementation</b>		<b>Implementation</b>		<b>Implementation</b>		<b>Monitoring</b>
Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance	
<ul style="list-style-type: none"> <li>- Working hours as determined by the environmental authorisation are adhered to during the development phase. Where not defined, development must be limited to daylight hours.</li> </ul>						

**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
<ul style="list-style-type: none"> <li>- Designate smoking areas where the fire hazard could be regarded as insignificant;</li> <li>- Firefighting equipment must be available on all vehicles located on site;</li> <li>- The local Fire Protection Agency (FPA) must be informed of construction activities;</li> <li>- Contact numbers for the FPA and emergency services must be communicated in environmental awareness training and displayed at a central location on site; and</li> <li>- Two way swop of contact details between ECO and FPA.</li> </ul>					

**5.24 Stockpiling and stockpile areas**

Impact management outcome: To reduce erosion and sedimentation as a result of stockpiling.						
Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>- All material that is excavated during the project development phase (either during piling (if required) or earthworks) must be stored appropriately on site in order to minimise impacts to watercourses, wetlands and water bodies;</li> <li>- All stockpiled material must be maintained and kept clear of weeds and alien vegetation growth by undertaking regular weeding and control methods;</li> <li>- Stockpiles must not exceed 2 m in height;</li> <li>- During periods of strong winds and heavy rain, the stockpiles should be covered with appropriate material (e.g. cloth, tarpaulin etc.); and</li> <li>- Where possible, sandbags (or similar) should be placed at the bases of the stockpiled material in order to prevent erosion of the material.</li> </ul>						

5.25 Civil works

Impact Management Actions		Implementation			Monitoring		
		Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<p><b>Impact management outcome:</b> Impact to the environment to be minimised during civil works to create the substation terrace.</p>							
<ul style="list-style-type: none"> <li>- Where terracing is required, topsoil must be collected and retained for the purpose of re-use later to rehabilitate disturbed areas not covered by yard stone;</li> <li>- Areas to be rehabilitated include terrace embankments and areas outside the high voltage yards;</li> <li>- Where required, all sloped areas must be stabilised to ensure proper rehabilitation is effected and erosion is controlled;</li> <li>- These areas can be stabilised using design structures or vegetation as specified in the design to prevent erosion of embankments. The contract design specifications must be adhered to and implemented strictly;</li> <li>- Rehabilitation of the disturbed areas must be managed in accordance with Section <b>5B.34: Landscaping and rehabilitation</b>;</li> <li>- All excess spoil generated during terracing activities must be disposed of in an appropriate manner and at a recognised landfill site; and</li> <li>- Spoil can however be used for landscaping purposes and must be covered with a layer of 150mm topsoil for rehabilitation purposes.</li> </ul>							

5.26 Excavation of foundation, cable trenching and drainage systems

Impact management outcome: No environmental degradation occurs as a result of excavation of foundation, cable trenching and drainage systems.	
Impact Management Actions	Implementation
	Monitoring
	Responsible person
	Method of implementation
	Timeframe for implementation
	Responsible person
	Frequency
	Evidence of compliance
<ul style="list-style-type: none"> <li>- All excess spoil generated during foundation excavation must be disposed of in an appropriate manner and at a recognised landfill site, if not used for backfilling purposes;</li> <li>- Spoil can however be used for landscaping purposes and must be covered with a layer of 150mm topsoil for rehabilitation purposes;</li> <li>- Management of equipment for excavation purposes must be undertaken in accordance with Section 5.18: <b>Workshop equipment maintenance and storage</b>; and</li> <li>- Hazardous substances spills from equipment must be managed in accordance with Section 5.17: <b>Hazardous substances</b>.</li> </ul>	

**5.27 Installation of foundations, cable trenching and drainage systems**

<b>Impact management outcome:</b> No environmental degradation occurs during the installation of foundation, cable trenching and drainage system.						
<b>Impact Management Actions</b>			<b>Implementation</b>			<b>Monitoring</b>
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
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- Batching of cement to be undertaken in accordance with <b>Section 5.19 : Batching</b> ; and - Residual solid waste must be disposed of in accordance with <b>Section 5.8: Solid Waste Management</b> .						

**5.28 Steelwork Assembly and Erection**

<b>Impact management outcome:</b> No environmental degradation occurs as a result of steelwork assembly and erection.						
<b>Impact Management Actions</b>			<b>Implementation</b>			<b>Monitoring</b>
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
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-						
- During assembly, care must be taken to ensure that no wasted/unused materials are left on site e.g. bolts and nuts - Emergency repairs due to breakages of equipment must be managed in accordance with <b>Section 5.18: Workshop equipment maintenance and storage</b> and <b>Section 5.16: Emergency procedures</b> .						

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

Impact management outcome: No environmental degradation occurs as a result of installation of equipment.		Monitoring				
Impact Management Actions		Implementation		Responsible person	Frequency	Evidence of compliance
		Responsible person	Method of implementation	Timeframe for implementation		
	<ul style="list-style-type: none"> <li>- Management of dust must be conducted in accordance with <b>Section 5.20: Dust emissions</b>;</li> <li>- Management of equipment used for installation must be conducted in accordance with <b>Section 5.18: Workshop equipment maintenance and storage</b>;</li> <li>- Management hazardous substances and any associated spills must be conducted in accordance with <b>Section 5.17: Hazardous substances</b>; and</li> <li>- Residual solid waste must be recycled or disposed of in accordance with <b>Section 5.8: Solid Waste Management</b>.</li> </ul>					

**5.30 Cabling and Stringing**

<p><b>Management outcome:</b> No environmental degradation occurs as a result of cabling and stringing.</p>					
<p><b>Impact Management Actions</b></p>			<p><b>Monitoring</b></p>		
<p><b>Implementation</b></p>					
Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>- Management of dust must be conducted in accordance with <b>Section 5.20: Dust emissions;</b></li> <li>- Management of equipment used for installation must be conducted in accordance with <b>Section 5.18: Workshop equipment maintenance and storage;</b></li> <li>- Management hazardous substances and any associated spills must be conducted in accordance with <b>Section 5.17: Hazardous substances;</b> and</li> <li>- Residual solid waste must be recycled or disposed of in accordance with <b>Section 5.8: Solid Waste Management.</b></li> </ul>					

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

<p><b>Impact management outcome:</b> No environmental degradation occurs as a result of Testing and Commissioning.</p>					
<p><b>Impact Management Actions</b></p>			<p><b>Monitoring</b></p>		
<p><b>Implementation</b></p>					
Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>- Residual solid waste must be recycled or disposed of in accordance with <b>Section 5.8: Solid Waste Management.</b></li> </ul>					



**5.32 Temporary closure of site**

Impact management outcome: Minimise the risk of environmental impact during periods of site closure greater than five days.						
Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>- Bunds must be emptied (where applicable);</li> <li>- Hazardous storage areas must be well ventilated;</li> <li>- Fire extinguishers must be serviced and accessible. Service records to be filed and audited at last service;</li> <li>- Emergency and contact details displayed must be displayed;</li> <li>- Security personnel must be briefed and have the facilities to contact or be contacted by relevant management and emergency personnel;</li> <li>- Night hazards such as reflectors, lighting, traffic signage etc. must have been checked;</li> <li>- Fire hazards identified and the local authority must have been notified of any potential threats e.g. large brush stockpiles, fuels etc.;</li> <li>- Structures vulnerable to high winds must be secured;</li> <li>- Wind and dust mitigation must be implemented;</li> <li>- Cement and materials stores must have been secured;</li> <li>- Toilets must have been emptied and secured;</li> <li>- Refuse bins must have been emptied and secured; and</li> <li>- Drip trays must have been emptied and secured.</li> </ul>						

**5.33 Dismantling of old equipment**

<p><b>Impact management outcome:</b> Impact to the environment to be minimised during the dismantling, storage and disposal of old equipment commissioning.</p>						
<p><b>Impact Management Actions</b></p>		<p><b>Implementation</b></p>			<p><b>Monitoring</b></p>	
		<p>Responsible person</p>	<p>Method of implementation</p>	<p>Timeframe for implementation</p>	<p>Responsible person</p>	<p>Frequency</p>
<ul style="list-style-type: none"> <li>- All old equipment removed during the project must be stored in such a way as to prevent pollution of the environment;</li> <li>- Oil containing equipment must be stored to prevent leaking or be stored on drip trays;</li> <li>- All scrap steel must be stacked neatly and any disused and broken insulators must be stored in containers;</li> <li>- Once material has been scrapped and the contract has been placed for removal, the disposal Contractor must ensure that any equipment containing pollution causing substances is dismantled and transported in such a way as to prevent spillage and pollution of the environment;</li> <li>- The Contractor must also be equipped to contain and clean up any pollution causing spills; and</li> <li>- Disposal of unusable material must be at a recognised waste disposal site.</li> </ul>						

5.34 Landscaping and rehabilitation

Impact Management Actions		Implementation			Monitoring		
		Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<p><b>Impact management outcome:</b> No environmental degradation occurs as a result of the survey and pegging.</p>							
<ul style="list-style-type: none"> <li>- All areas disturbed by construction activities must be subject to landscaping and rehabilitation;</li> <li>- All spoil and waste will be disposed to a registered waste site and certificates of disposal provided;</li> <li>- All slopes in excess of 2% (1:50) must be contoured in accordance with the Conservation of Agricultural Resources Act, No 43 of 1983;</li> <li>- All slopes in excess of 12% (1:8.3) must be terraced in accordance with the Conservation of Agricultural Resources Act, No 43 of 1983;</li> <li>- Berms that have been created should have a slope of 1:4 and be replanted with indigenous species and grasses;</li> <li>- Where new access roads have crossed cultivated farmlands, that lands must be rehabilitated by ripping to a minimum depth of 600 mm;</li> <li>- Rehabilitation of access roads outside of farmland;</li> <li>- Indigenous species will be used for replanting;</li> <li>- Stockpiled topsoil must be used for rehabilitation (refer to Section 5.23: <b>Stockpiling and stockpiled areas</b>);</li> <li>- Stockpiled topsoil will be evenly spread so as to facilitate seeding and minimise loss of soil due to erosion;</li> <li>- Before placing topsoil, all visible weeds from the placement area and from the topsoil must be removed;</li> </ul>							

<ul style="list-style-type: none"> <li>- Subsoil must be ripped before topsoil is placed;</li> <li>- The project must be timed so that rehabilitation can take place at the optimal time for vegetation establishment;</li> <li>- Where impacted through construction related activity, all sloped areas must be stabilised to ensure proper rehabilitation is effected and erosion is controlled as per the instruction from the ECO;</li> <li>- Sloped areas stabilised using design structures or vegetation as specified in the design to prevent erosion of embankments. The contract design specifications must be adhered to and implemented strictly; and</li> <li>- Where required, re-vegetation can be enhanced using a vegetation seed mixture as described below. A mixture of seed can be used provided the mixture is carefully selected to ensure the following:             <ul style="list-style-type: none"> <li>a) Annual and perennial plants are chosen;</li> <li>b) Pioneer species are included;</li> <li>c) Species chosen must grow in the area feasible to grow;</li> <li>d) Root systems must have a binding effect on the soil;</li> <li>e) The final product should not cause an ecological imbalance in the area</li> </ul> </li> </ul>	

**6 ACCESS TO THE GENERIC EMPR**

Once completed and signed, to allow the public access to the generic EMPr, the holder of the EA must make the EMPr available to the public in accordance with regulation 26 (h) of the Environmental Impact Assessment Regulations, 2014.

**PART B: SECTION 2**

**7 SITE SPECIFIC INFORMATION AND DECLARATION**

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

7.1.1 Details of the applicant:

Name of applicant:

Tel No:

Fax No:

Postal Address:

Physical Address:

7.1.2 Details and expertise of the EAP:

Name of applicant:

Tel No:

Fax No:

E-mail address:

Expertise of the EAP (Curriculum Vitae included):

7.1.3 Project name:

7.1.4 Description of the project:

7.1.5 Project location:

NO	FARM NAME( if applicable)	FARM NUMBER( if applicable)	PORTION NAME	PORTION NUMBER	LATITUDE	LONGITUDE

**7.2 Sub-section 2: Development footprint site map**

This sub-section must include a map of the site sensitivity overlaid with the preliminary infrastructure layout. Once the web-based environmental screening tool identified in regulation 16(1) (v) of the EIA Regulations, 2014 is available, the sensitivity map must be prepared from this system. The map is to indicate areas/features of sensitivity based on the findings of the assessment and illustrated according to four tiers, Very High, High, Medium or Low. The sensitivity map shall also identify the nature of each sensitive feature e.g. raptor nest, threatened plant species, archaeological site, etc. Sensitivity maps shall identify features both within the planned working area and any known sensitive features in the surrounding

landscape. Where considered appropriate, photographs of sensitive features in the context of the site must be used.

**7.3 Sub-section 3: Declaration**

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

Signature Proponent/applicant/ holder of EA

Date:

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

Should the EA be transferred, Part B: Section 2 must be completed by the new applicant and submitted with the application for amendment of the EA in terms of regulations 29 of the EIA Regulations, 2014. The information submitted for an amendment to an EA will be considered to be incomplete should a signed copy of Part B: Section 2 not be submitted. Once approved, Part B: Section 2 forms part of the EMPr for the development or expansion and the EMPr becomes legally binding to the new EA holder once the amendment process has been concluded.

## PART C

### 8 SITE SPECIFIC ENVIRONMENTAL ATTRIBUTES

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

If Part C is applicable to the site, it is required to be submitted to the CA for approval prior to commencement of the activity. The information in this section must be prepared by an EAP and the name and expertise of the EAP, including the curriculum vitae are to be included. Once approved, Part C forms part of the EMPr for the site and is legally binding.

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

## APPENDIX 1: METHOD STATEMENTS

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