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INTRODUCTION

1. Background

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

2. Purpose

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

3. Objective

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

4. Scope

The scope of this generic EMPr applies to the development or expansion of overhead electricity transmission and distribution infrastructure requiring EA in terms of NEMA, i.e. with a capacity of 33 kilovolts or more. This generic EMPr applies to activities requiring EA, mainly activity 11 and 47 of the Environmental Impact Assessment Regulations Listing Notice 1 of 2014, as amended, and activity 9 of the Environmental Impact Assessment Regulations Listing Notice 2 of 2014, as amended, and all associated listed or specified activities necessary for the realisation of such infrastructure.

5. Structure of this document

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

Part	Section	Heading	Content
A		Provides general guidance and information and is **not legally binding**	Definitions, acronyms, roles & responsibilities and documentation and reporting.
B	1	Pre-approved generic EMPr template	Contains generally accepted impact management outcomes and impact management actions required for the avoidance, management and mitigation of impacts and risks associated with the development or expansion of overhead electricity transmission and distribution infrastructure, which are presented in the form of a template that has been pre-approved. The template in this section is to be completed by the contractor, with each completed page signed and dated by the holder of the EA prior to commencement of the activity. Where an impact management outcome is not relevant, the words "not applicable" can be inserted in the template under the "responsible persons" column. Once completed and signed, the template represents the EMPr for the activity approved by the CA and is legally binding. The template **is not required** to be submitted to the CA as once the generic EMPr is gazetted for implementation, it has been approved by the CA. To allow interested and affected parties access to the pre-approved EMPr template for consideration through the decision-making process, the EAP on behalf of the applicant /proponent must make the hard copy of this EMPr available at a public location and where the applicant has a website, the EMPr should also be made available on such publicly accessible website.
	2	Site specific information	Contains preliminary infrastructure layout and a declaration that the applicant/holder of the EA will comply with the pre-approved generic EMPr template contained in Part B: Section 1, and understands that the impact management

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

Part	Section	Heading	Content
			management actions that are necessary for the avoidance, management and mitigation of impacts and risks associated with the specific development or expansion and which are not already included in Part B: section 1.
Appendix 1			Contains the method statements to be prepared prior to commencement of the activity. The method statements are **not required** to be submitted to the competent authority.

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

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

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

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

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

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

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

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

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

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

Sub-section 2 is to be prepared by an EAP and must contain his/her name and expertise including a curriculum vitae. This sub-section must include a map of the site sensitivity overlaid with the preliminary infrastructure layout using the national web based environmental screening tool, when available for compulsory use at: https://screening.environment.gov.za/screeningtool. The sensitivity map shall identify the nature of each sensitive feature e.g. raptor nest, threatened plant species, archaeological site, etc. Sensitivity maps must identify features both within the planned working area and any known sensitive features in the surrounding landscape within 50m from the development footprint. The overhead transmission and distribution profile must be illustrated at an appropriate resolution to enable fine scale interrogation. It is recommended that <20 km of overhead transmission and distribution length is illustrated per page in A3 landscape format. Where considered appropriate, photographs of sensitive features in the context of tower positions must be used.

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

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

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

PART A – GENERAL INFORMATION

1. DEFINITIONS

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

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

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

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

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

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

The method statement must cover applicable details with regard to:

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

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

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

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

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

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

2. ACRONYMS and ABBREVIATIONS

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

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

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

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

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

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

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

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

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

Responsible Person (s)	Role and Responsibilities
	- Undertaking corrective actions where non-compliances are registered within the stipulated timeframes; - Report back formally on the completion of corrective actions; - Assist the ECO in maintaining all the site documentation; - Prepare the site inspection reports and corrective action reports for submission to the ECO; - Assist the ECO with the preparing of the monthly report; and - Where more than one Contractor is undertaking work on site, each company appointed as a Contractor will appoint a cEO representing that company.

4. ENVIRONMENTAL DOCUMENTATION REPORTING AND COMPLIANCE

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

4.1 Document control/Filing system

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

4.2 Documentation to be available

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

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

4.3 Weekly Environmental Checklist

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

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

4.4 Environmental site meetings

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

4.5 Required Method Statements

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

The method statement must cover applicable details with regard to:

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

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

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

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

4.6 Environmental Incident Log (Diary)

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

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

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

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

The Environmental Incident Log will be captured in the EAR.

4.7 Non-compliance

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

- Time and date of the non-compliance;
- Name of the contractor responsible;
- Nature and description of the non-compliance;
- Recommended / required corrective action; and
- Date by which the corrective action to be completed.
- The contractors shall act immediately when a notice of non-compliance is received and correct whatever is the cause for the issuing of the notice. Complaints received regarding activities on the development site pertaining to the environment shall be

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

4.8 Corrective action records

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

4.9 Photographic record

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

The Contractor shall:

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

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

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

4.10 Complaints register

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

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

4.11 Claims for damages

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

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

4.12 Interactions with affected parties

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

The ECOs shall:

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

4.13 Environmental audits

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

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

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

4.14 Final environmental audits

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

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

5. IMPACT MANAGEMENT OUTCOMES AND IMPACT MANAGEMENT ACTIONS

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

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

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

5.1 Environmental awareness training

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

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– All staff must receive environmental awareness training prior to commencement of the activities; – The Contractor must allow for sufficient sessions to train all personnel with no more than 20 personnel attending each course; – Refresher environmental awareness training is available as and when required; – All staff are aware of the conditions and controls linked to the EA and within the EMPr and made aware of their individual roles and responsibilities in achieving compliance with the EA and EMPr; – The Contractor must erect and maintain information posters at key locations on site, and the posters must include the following information as a minimum: a)Safety notifications; and b) No littering. – Environmental awareness training must include as a minimum the following: a) Description of significant environmental impacts, actual or potential, related to their work activities; b) Mitigation measures to be implemented when carrying out specific activities;	**Contractor, ECO**	**Onsite training and Posters**	**Commencement of the project and as and when required**	**ECO**	**Once off**	**Certificates, Attendance registers, course material and photographs**

c) Emergency preparedness and response procedures; d) Emergency procedures; e) Procedures to be followed when working near or within sensitive areas; f) Wastewater management procedures; g) Water usage and conservation; h) Solid waste management procedures; i) Sanitation procedures; j)Fire prevention; and k) Disease prevention. – A record of all environmental awareness training courses undertaken as part of the EMPr must be available; – Educate workers on the dangers of open and/or unattended fires; – A staff attendance register of all staff to have received environmental awareness training must be available. – Course material must be available and presented in appropriate languages that all staff can understand.						

5.2 Site Establishment development

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

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– A method statement must be provided by the contractor prior to any onsite activity that includes the layout of the construction camp in the form of a plan showing the location of key infrastructure and services (where applicable), including but not limited to offices, overnight vehicle parking areas, stores, the workshop, stockpile and lay down areas, hazardous materials storage areas (including fuels), the batching plant (if one is located at the construction camp), designated access routes, equipment cleaning areas and the placement of staff accommodation, cooking and ablution facilities, waste and wastewater management; – Location of camps must be within approved area to ensure that the site does not impact on sensitive areas identified in the environmental assessment or site walk through; – Sites must be located where possible on previously disturbed areas; – The camp must be fenced in accordance with ***Section 5.5: Fencing and gate installation***; and – The use of existing accommodation for contractor staff, where possible, is encouraged.	**Contractor**	**Method statement provided, Fencing and strict access control and warning signs**	**Throughout the project**	**ECO**	**Throughout the project**	**Method statement and site inspection**

5.3 Access restricted areas

Impact management outcome: Access to restricted areas prevented.

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Identification of access restricted areas is to be informed by the environmental assessment, site walk through and any additional areas identified during development; – Erect, demarcate and maintain a temporary barrier with clear signage around the perimeter of any access restricted area, colour coding could be used if appropriate; and – Unauthorised access and development related activity inside access restricted areas is prohibited.	**Contractor**	**Method statement provided, Fencing and strict access control and warning signs**	**Throughout the project**	**ECO**	**Throughout the project**	**Method statement and site inspection**

5.4 Access roads

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

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance

– Access to the servitude and tower positions must be negotiated with the relevant landowner and must fall within the assessed and authorised area; – An access agreement must be formalised and signed by the DPM, Contractor and landowner before commencing with the activities; – The access roads to tower positions must be signposted after access has been negotiated and before the commencement of the activities; – All private roads used for access to the servitude must be maintained and upon completion of the works, be left in at least the original condition – All contractors must be made aware of all these access routes. – Any access route deviation from that in the written agreement must be closed and re-vegetated immediately, at the contractor's expense; – Maximum use of both existing servitudes and existing roads must be made to minimize further disturbance through the development of new roads; – In circumstances where private roads must be used, the condition of the said roads must be recorded in accordance with ***section 4.9: photographic record***; prior to use and the condition thereof agreed by the landowner, the DPM, and the contractor; – Access roads in flattish areas must follow fence lines and tree belts to avoid fragmentation of vegetated areas or croplands – Access roads must only be developed on pre-planned and approved roads.	**Contractor**	**Use existing roads and negotiated access roads, Photograph and signed agreement records**	**Throughout the project**	**ECO**	**Once off**	**Photograph and signed agreement records**

5.5 Fencing and Gate installation

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

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Use existing gates provided to gain access to all parts of the area authorised for development, where possible; – Existing and new gates to be recorded and documented in accordance with **section *4.9: photographic record***; – All gates must be fitted with locks and be kept locked at all times during the development phase, unless otherwise agreed with the landowner; – At points where the line crosses a fence in which there is no suitable gate within the extent of the line servitude, on the instruction of the DPM, a gate must be installed at the approval of the landowner; – Care must be taken that the gates must be so erected that there is a gap of no more than 100 mm between the bottom of the gate and the ground; – Where gates are installed in jackal proof fencing, a suitable reinforced concrete sill must be provided beneath the gate. – Original tension must be maintained in the fence wires; – All gates installed in electrified fencing must be re-electrified; – All demarcation fencing and barriers must be maintained in good working order for the duration of overhead transmission	**Contractor**	**Maintain fencing and notices at the fence and gates and also site inspection**	**Throughout the project**	**ECO**	**Throughout the project**	**Photograph and signed agreement records, site inspection**

and distribution electricity infrastructure development activities; – Fencing must be erected around the camp, batching plants, hazardous storage areas, and all designated access restricted areas, where appropriate and would not cause harm to the sensitive flora; – Any temporary fencing to restrict the movement of life-stock must only be erected with the permission of the land owner. – All fencing must be developed of high quality material bearing the SABS mark; – The use of razor wire as fencing must be avoided; – Fenced areas with gate access must remain locked after hours, during weekends and on holidays if staff is away from site. Site security will be required at all times; – On completion of the development phase all temporary fences are to be removed; – The contractor must ensure that all fence uprights are appropriately removed, ensuring that no uprights are cut at ground level but rather removed completely.						

5.6 Water Supply Management

Impact management outcome: Undertake responsible water usage**.**

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– All abstraction points or bore holes must be registered with the DWS and suitable water meters installed to ensure that the abstracted volumes are measured on a daily basis; – The Contractor must ensure the following: a. The vehicle abstracting water from a river does not enter or cross it and does not operate from within the river; b. No damage occurs to the river bed or banks and that the abstraction of water does not entail stream diversion activities; and c. All reasonable measures to limit pollution or sedimentation of the downstream watercourse are implemented. – Ensure water conservation is being practiced by: a. Minimising water use during cleaning of equipment; b. Undertaking regular audits of water systems; and c. Including a discussion on water usage and conservation during environmental awareness training. d. The use of grey water is encouraged.	**Contractor**	**Environmental awareness training, prevent unauthorized water abstraction**	**Throughout the project**	**ECO**	**Throughout the project**	**Site inspection and audit reports**

5.7 Storm and wastewater management

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

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Runoff from the cement/ concrete batching areas must be strictly controlled, and contaminated water must be collected, stored and either treated or disposed of off-site, at a location approved by the project manager; – All spillage of oil onto concrete surfaces must be controlled by the use of an approved absorbent material and the used absorbent material disposed of at an appropriate waste disposal facility; – Natural storm water runoff not contaminated during the development and clean water can be discharged directly to watercourses and water bodies, subject to the Project Manager's approval and support by the ECO; – Water that has been contaminated with suspended solids, such as soils and silt, may be released into watercourses or water bodies only once all suspended solids have been removed from the water by settling out these solids in settlement ponds. The release of settled water back into the environment must be subject to the Project Manager's approval and support by the ECO.	**Contractor**	**Implementation of stormwater management**	**Throughout the project**	**ECO**	**Once off**	**Site inspection**

5.8 Solid and hazardous waste management

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

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– All measures regarding waste management must be undertaken using an integrated waste management approach; – Sufficient, covered waste collection bins (scavenger and weatherproof) must be provided; – A suitably positioned and clearly demarcated waste collection site must be identified and provided; – The waste collection site must be maintained in a clean and orderly manner; – Waste must be segregated into separate bins and clearly marked for each waste type for recycling and safe disposal; – Staff must be trained in waste segregation; – Bins must be emptied regularly; – General waste produced onsite must be disposed of at registered waste disposal sites/ recycling company; – Hazardous waste must be disposed of at a registered waste disposal site; – Certificates of safe disposal for general, hazardous and recycled waste must be maintained.	**Contractor**	**Covered waste storage areas and Emptying bins regularly**	**Throughout the project**	**ECO**	**Throughout the project**	**Audit report**

5.9 Protection of watercourses and estuaries

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

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– All watercourses must be protected from direct or indirect spills of pollutants such as solid waste, sewage, cement, oils, fuels, chemicals, aggregate tailings, wash and contaminated water or organic material resulting from the Contractor's activities; – In the event of a spill, prompt action must be taken to clear the polluted or affected areas; – Where possible, no development equipment must traverse any seasonal or permanent wetland – No return flow into the estuaries must be allowed and no disturbance of the Estuarine Functional Zone should occur; – Development of permanent watercourse or estuary crossing must only be undertaken where no alternative access to tower position is available; – There must not be any impact on the long term morphological dynamics of watercourses or estuaries; – Existing crossing points must be favored over the creation of new crossings (including temporary access) – When working in or near any watercourse or estuary, the following environmental controls and consideration must be taken: a) Water levels during the period of construction;	**contractor**	**Site inspection and implementing management action**	**Throughout the project**	**ECO**	**Throughout the project**	**Site inspection and monitoring report**

No altering of the bed, banks, course or characteristics of a watercourse b) During the execution of the works, appropriate measures to prevent pollution and contamination of the riparian environment must be implemented e.g. including ensuring that construction equipment is well maintained; c) Where earthwork is being undertaken in close proximity to any watercourse, slopes must be stabilised using suitable materials, i.e. sandbags or geotextile fabric, to prevent sand and rock from entering the channel; and d) Appropriate rehabilitation and re-vegetation measures for the watercourse banks must be implemented timeously. In this regard, the banks should be appropriately and incrementally stabilised as soon as development allows.						

5.10 Vegetation clearing

Impact management outcome: Vegetation clearing is restricted to the authorised development footprint of the proposed infrastructure.

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
General: – Indigenous vegetation which does not interfere with the development must be left undisturbed;	**Contractor**	**As per EA and Ecological report**	**Throughout the project**	**ECO**	**Throughout the project**	**Audit report**

– Protected or endangered species may occur on or near the development site. Special care should be taken not to damage such species; – Search, rescue and replanting of all protected and endangered species likely to be damaged during project development must be identified by the relevant specialist and completed prior to any development or clearing; – Permits for removal must be obtained from the Department of Agriculture, Forestry and Fisheries prior to the cutting or clearing of the affected species, and they must be filed; – The Environmental Audit Report must confirm that all identified species have been rescued and replanted and that the location of replanting is compliant with conditions of approvals; – Trees felled due to construction must be documented and form part of the Environmental Audit Report; – Rivers and watercourses must be kept clear of felled trees, vegetation cuttings and debris; – Only a registered pest control operator may apply herbicides on a commercial basis and commercial application must be carried out under the supervision of a registered pest control operator, supervision of a registered pest control operator or is appropriately trained; – A daily register must be kept of all relevant details of herbicide usage; – No herbicides must be used in estuaries; – All protected species and sensitive vegetation not removed must be clearly marked and such areas fenced off in accordance to ***Section 5.3: Access restricted areas***. **Servitude:** – Vegetation that does not grow high enough to cause interference with overhead transmission and distribution						

infrastructures, or cause a fire hazard to any plantation, must not be cut or trimmed unless it is growing in the road access area, and then only at the discretion of the Project Manager; – Where clearing for access purposes is essential, the maximum width to be cleared within the servitude must be in accordance to distance as agreed between the landowner and the EA holder – Alien invasive vegetation must be removed according to a plan (in line with relevant municipal and provincial procedures, guidelines and recommendations) and disposed of at a recognised waste disposal facility; – Vegetation must be trimmed where it is likely to intrude on the minimum vegetation clearance distance (MVCD) or will intrude on this distance before the next scheduled clearance. MVCD is determined from SANS 10280; – Debris resulting from clearing and pruning must be disposed of at a recognised waste disposal facility, unless the landowners wish to retain the cut vegetation; – In the case of the development of new overhead transmission and distribution infrastructures, a one metre "trace-line" must be cut through the vegetation for stringing purposes only and no vehicle access must be cleared along the "trace-line". Alternative methods of stringing which limit impact to the environment must always be considered.						

5.11 Protection of fauna

Impact management outcome: Minimise disturbance to fauna.

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– No interference with livestock must occur without the landowner's written consent and with the landowner or a person representing the landowner being present; – The breeding sites of raptors and other wild birds species must be taken into consideration during the planning of the development programme; – Breeding sites must be kept intact and disturbance to breeding birds must be avoided. Special care must be taken where nestlings or fledglings are present; – Nesting sites on existing parallel lines must documented; – Special recommendations of the avian specialist must be adhered to at all times to prevent unnecessary disturbance of birds; – Bird guards and diverters must be installed on the new line as per the recommendations of the specialist; – No poaching must be tolerated under any circumstances. All animal dens in close proximity to the works areas must be marked as Access restricted areas; – No deliberate or intentional killing of fauna is allowed; – In areas where snakes are abundant, snake deterrents to be deployed on the pylons to prevent snakes climbing up, being electrocuted and causing power outages; and	**Contractor**	**As per EA and avifauna report**	**Throughout the project**	**ECO**	**Throughout the project**	**Site inspection and audit report**

– No Threatened or Protected species (ToPs) and/or protected fauna as listed according NEMBA (Act No. 10 of 2004) and relevant provincial ordinances may be removed and/or relocated without appropriate authorisations/permits.						

5.12 Protection of heritage resources

Impact management outcome: Minimise impact to heritage resources.

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Identify, demarcate and prevent impact to all known sensitive heritage features on site in accordance with the No-Go procedure in ***Section 5.3: Access restricted areas***; – Carry out general monitoring of excavations for potential fossils, artefacts and material of heritage importance; – All work must cease immediately, if any human remains and/or other archaeological, palaeontological and historical material are uncovered. Such material, if exposed, must be reported to the nearest museum, archaeologist/ palaeontologist (or the South African Police Services), so that a systematic and professional investigation can be undertaken. Sufficient time must be allowed to remove/collect such material before development recommences.	**Contractor**	**As per EA and Site inspection**	**Prior construction and throughout the project**	**ECO**	**Prior construction and throughout the project**	**Site inspection, audit report and photographs**

5.13 Safety of the public

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

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Identify fire hazards, demarcate and restrict public access to these areas as well as notify the local authority of any potential threats e.g. large brush stockpiles, fuels etc.; – All unattended open excavations must be adequately fenced or demarcated; – Adequate protective measures must be implemented to prevent unauthorised access to and climbing of partly constructed towers and protective scaffolding; – Ensure structures vulnerable to high winds are secured; – Maintain an incidents and complaints register in which all incidents or complaints involving the public are logged.	**Contractor**	**Fencing, signage, implementation of approved designs. Maintain complaints records**	**Throughout the project**	**ECO**	**Throughout the project**	**Contractors record and site inspection**

5.14 Sanitation

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

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Mobile chemical toilets are installed onsite if no other ablution facilities are available; – The use of ablution facilities and or mobile toilets must be used at all times and no indiscriminate use of the veld for the purposes of ablutions must be permitted under any circumstances; – Where mobile chemical toilets are required, the following must be ensured: a) Toilets are located no closer than 100 m to any watercourse or water body; b) Toilets are secured to the ground to prevent them from toppling due to wind or any other cause; c) No spillage occurs when the toilets are cleaned or emptied and the contents are managed in accordance with the EMPr; d) Toilets have an external closing mechanism and are closed and secured from the outside when not in use to prevent toilet paper from being blown out; e) Toilets are emptied before long weekends and workers holidays, and must be locked after working hours;	**Contractor**	**Use of licensed sanitation suppliers**	**Throughout the project**	**ECO**	**Weekly**	**Site inspection and documentation**

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

5.15 Prevention of disease

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

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Undertake environmentally friendly pest control in the camp area; – Ensure that the workforce is sensitised to the effects of sexually transmitted diseases, especially HIV AIDS; – The Contractor must ensure that information posters on AIDS are displayed in the Contractor Camp area; – Information and education relating to sexually transmitted diseases to be made available to both construction workers and local community, where applicable; – Free condoms must be made available to all staff on site at central points; – Medical support must be made available; – Provide access to Voluntary HIV Testing and Counselling Services.	**Contractor**	**Use of pest control were required and HIV/Aids awareness training**	**Prior construction**	**ECO**	**Once off**	**Certificates and attendance register**

5.16 Emergency procedures

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

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Compile an Emergency Response Action Plan (ERAP) prior to the commencement of the proposed project; – The Emergency Plan must deal with accidents, potential spillages and fires in line with relevant legislation; – All staff must be made aware of emergency procedures as part of environmental awareness training; – The relevant local authority must be made aware of a fire as soon as it starts; – In the event of emergency necessary mitigation measures to contain the spill or leak must be implemented (see ***Hazardous Substances section 5.17***).	**Contractor**	**Approved ERAP and onsite training**	**Prior construction**	**ECO**	**Once off**	**Poof of approved ERAP and course material for training**

5.17 Hazardous substances

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

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– The use and storage of hazardous substances to be minimised and non-hazardous and non-toxic alternatives substituted where possible; – All hazardous substances must be stored in suitable containers as defined in the Method Statement; – Containers must be clearly marked to indicate contents, quantities and safety requirements; – All storage areas must be bunded. The bunded area must be of sufficient capacity to contain a spill / leak from the stored containers; – Bunded areas to be suitably lined with a SABS approved liner; – An Alphabetical Hazardous Chemical Substance (HCS) control sheet must be drawn up and kept up to date on a continuous basis; – All hazardous chemicals that will be used on site must have Material Safety Data Sheets (MSDS); – All employees working with HCS must be trained in the safe use of the substance and according to the safety data sheet; – Employees handling hazardous substances / materials must be aware of the potential impacts and follow appropriate safety measures. Appropriate personal protective equipment must be made available;	**Contractor** **Contractor**	**Safe disposal certificates available,** **•Hazardous substances discussed in awareness training,** **•Bunded hazardous waste areas,** **•Clearly marked storage containers,** **• Spill kits made available** **• Diesel and fuel storage areas in line with fuel storage requirements**	**Throughout** **Throughout**	**ECO** **ECO**	**Throughout** **Throughout**	**Audit report** **Audit report**

– The Contractor must ensure that diesel and other liquid fuel, oil and hydraulic fluid is stored in appropriate storage tanks or in bowsers; – The tanks/ bowsers must be situated on a smooth impermeable surface (concrete) with a permanent bund. The impermeable lining must extend to the crest of the bund and the volume inside the bund must be 130% of the total capacity of all the storage tanks/ bowsers (110% statutory requirement plus an allowance for rainfall); – The floor of the bund must be sloped, draining to an oil separator; – Provision must be made for refueling at the storage area by protecting the soil with an impermeable groundcover. Where dispensing equipment is used, a drip tray must be used to ensure small spills are contained; – All empty externally dirty drums must be stored on a drip tray or within a bunded area; – No unauthorised access into the hazardous substances storage areas must be permitted; – No smoking must be allowed within the vicinity of the hazardous storage areas; – Adequate fire-fighting equipment must be made available at all hazardous storage areas; – Where refueling away from the dedicated refueling station is required, a mobile refueling unit must be used. Appropriate ground protection such as drip trays must be used; – An appropriately sized spill kit kept onsite relevant to the scale of the activity/s involving the use of hazardous substance must be available at all times; – The responsible operator must have the required training to make use of the spill kit in emergency situations;		**•Refuelling of vehicles in designated bunded areas**				

– An appropriate number of spill kits must be available and must be located in all areas where activities are being undertaken; – In the event of a spill, contaminated soil must be collected in containers and stored in a central location and disposed of according to the National Environmental Management: Waste Act 59 of 2008. Refer to ***Section 5.7*** for procedures concerning ***storm and wastewater management*** and ***5.8*** for ***solid and hazardous waste management.***						

5.18 Workshop, equipment maintenance and storage

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

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Where possible and practical all maintenance of vehicles and equipment must take place in the workshop area; – During servicing of vehicles or equipment, especially where emergency repairs are effected outside the workshop area, a suitable drip tray must be used to prevent spills onto the soil. The relevant local authority must be made aware of a fire as soon as it starts; – Leaking equipment must be repaired immediately or be removed from site to facilitate repair; – Workshop areas must be monitored for oil and fuel spills; – Appropriately sized spill kit kept onsite relevant to the scale of the activity taking place must be available;	**Contractor**	**Demarcate a service area and implement emergency procedures for spills.**	**Throughout construction**	**ECO**	**Throughout the project**	**Site inspection and monitoring report**

– The workshop area must have a bunded concrete slab that is sloped to facilitate runoff into a collection sump or suitable oil / water separator where maintenance work on vehicles and equipment can be performed; – Water drainage from the workshop must be contained and managed in accordance ***Section 5.7: storm and wastewater management***.						

5.19 Batching plants

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

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Concrete mixing must be carried out on an impermeable surface; – Batching plants areas must be fitted with a containment facility for the collection of cement laden water. – Dirty water from the batching plant must be contained to prevent soil and groundwater contamination – Bagged cement must be stored in an appropriate facility and at least 10 m away from any water courses, gullies and drains; – A washout facility must be provided for washing of concrete associated equipment. Water used for washing must be restricted;	**contractor**	**Appropriate cement mixing and storage facilities, Monitor water use. Use of bunded concrete washing area, Obtain waste disposal. certificates**	**During construction**	**ECO**	**Throughout the project**	**Site inspection and contractor documentation**

– Hardened concrete from the washout facility or concrete mixer can either be reused or disposed of at an appropriate licensed disposal facility; – Empty cement bags must be secured with adequate binding material if these will be temporarily stored on site; – Sand and aggregates containing cement must be kept damp to prevent the generation of dust (Refer to ***Section 5.20: Dust emissions***) – Any excess sand, stone and cement must be removed or reused from site on completion of construction period and disposed at a registered disposal facility; – Temporary fencing must be erected around batching plants in accordance with ***Section 5.5: Fencing and gate installation***.						

5.20 Dust emissions

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

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Take all reasonable measures to minimise the generation of dust as a result of project development activities to the satisfaction of the ECO; – Removal of vegetation must be avoided until such time as soil stripping is required and similarly exposed surfaces must be re-vegetated or stabilised as soon as is practically possible; – Excavation, handling and transport of erodible materials must be avoided under high wind conditions or when a visible dust plume is present; – During high wind conditions, the ECO must evaluate the situation and make recommendations as to whether dust-damping measures are adequate, or whether working will cease altogether until the wind speed drops to an acceptable level; – Where possible, soil stockpiles must be located in sheltered areas where they are not exposed to the erosive effects of the wind; – Where erosion of stockpiles becomes a problem, erosion control measures must be implemented at the discretion of the ECO;	**contractor**	**Enforce vehicle speed limits Implement dust controls from stockpiles where needed**	**Throughout the project**	**ECO**	**Throughout the project**	**Site inspection**

– Vehicle speeds must not exceed 40 km/h along dust roads or 20 km/h when traversing unconsolidated and non-vegetated areas; – Straw stabilisation must be applied at a rate of one bale/10 m² and harrowed into the top 100 mm of top material, for all completed earthworks; – For significant areas of excavation or exposed ground, dust suppression measures must be used to minimise the spread of dust.						

5.21 Blasting

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

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Any blasting activity must be conducted by a suitably licensed blasting contractor; and – Notification of surrounding landowners, emergency services site personnel of blasting activity 24 hours prior to such activity taking place on Site.	**contractor**	**Blasting license and notification of landowners**	**Once off**	**ECO**	**Once off**	**Documentation and proof of notification**

5.22 Noise

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

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– The Contractor must keep noise level within acceptable limits, Restrict the use of sound amplification equipment for communication and emergency only; – All vehicles and machinery must be fitted with appropriate silencing technology and must be properly maintained; – Any complaints received by the Contractor regarding noise must be recorded and communicated. Where possible or applicable, provide transport to and from the site on a daily basis for construction workers; – Develop a Code of Conduct for the construction phase in terms of behaviour of construction staff.Operating hours as determined by the environmental authorisation are adhered to during the development phase. Where not defined, it must be ensured that development activities must still meet the impact management outcome related to noise management.	**Contractor**	**EA compliance**	**Throughout the project**	**ECO**	**Throughout the project**	**Site inspection**

5.23 Fire prevention

Impact management outcome: Prevention of uncontrollable fires.

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Designate smoking areas where the fire hazard could be regarded as insignificant; – Firefighting equipment must be available on all vehicles located on site; – The local Fire Protection Agency (FPA) must be informed of construction activities; – Contact numbers for the FPA and emergency services must be communicated in environmental awareness training and displayed at a central location on site; – Two way swop of contact details between ECO and FPA.	**Contractor**	**Ongoing site maintenance Emergency signage available**	**Throughout the project**	**ECO**	**Throughout the project**	**Site inspection**

5.24 Stockpiling and stockpile areas

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

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– All material that is excavated during the project development phase (either during piling (if required) or earthworks) must be stored appropriately on site in order to minimise impacts to watercourses, watercourses and water bodies; – All stockpiled material must be maintained and kept clear of weeds and alien vegetation growth by undertaking regular weeding and control methods; – Topsoil stockpiles must not exceed 2 m in height; – During periods of strong winds and heavy rain, the stockpiles must be covered with appropriate material (e.g. cloth, tarpaulin etc.); – Where possible, sandbags (or similar) must be placed at the bases of the stockpiled material in order to prevent erosion of the material.	**Contractor**	**Adhere to EA**	**Throughout the project**	**ECO**	**Throughout the project**	**Site inspection**

5.25 Finalising tower positions

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

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– No vegetation clearing must occur during survey and pegging operations; – No new access roads must be developed to facilitate access for survey and pegging purposes; – Project manager, botanical specialist and contractor to agree on final tower positions based on survey within assessed and approved areas; – The surveyor is to demarcate (peg) access roads/tracks in consultation with ECO. No deviations will be allowed without the prior written consent from the ECO.	**Contractor**	**Implement management action**	**Once off**	**ECO**	**Once off**	**Site inspection**

5.26 Excavation and Installation of foundations

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

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– All excess spoil generated during foundation excavation must be disposed of in an appropriate manner and at a recognised disposal site, if not used for backfilling purposes; – Spoil can however be used for landscaping purposes and must be covered with a layer of 150 mm topsoil for rehabilitation purposes; – Management of equipment for excavation purposes must be undertaken in accordance with ***Section 5.18: Workshop equipment maintenance and storage***; and – Hazardous substances spills from equipment must be managed in accordance with ***Section 5.17: Hazardous substances***. – Batching of cement to be undertaken in accordance with **Section *5.19 : Batching plants***; – Residual cement must be disposed of in accordance with **Section *5.8: Solid and hazardous waste management***.	**Contractor**	**Implement management action**	**Throughout the project**	**ECO**	**Throughout the project**	**Site inspection**

5.27 Assembly and erecting towers

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

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Prior to erection, assembled towers and tower sections must be stored on elevated surface (suggest wooden blocks) to minimise damage to the underlying vegetation; – In sensitive areas, tower assembly must take place off-site or away from sensitive positions; – The crane used for tower assembly must be operated in a manner which minimises impact to the environment; – The number of crane trips to each site must be minimised; – Wheeled cranes must be utilised in preference to tracked cranes; – Consideration must be given to erecting towers by helicopter or by hand where it is warranted to limit the extent of environmental impact; – Access to tower positions to be undertaken in accordance with access requirements in specified in Section 8.4: Access Roads; – Vegetation clearance to be undertaken in accordance with general vegetation clearance requirements specified in Section 8.10: Vegetation clearing; – No levelling at tower sites must be permitted unless approved by the Development Project Manager or Developer Site Supervisor;	**Contractor**	**Implement management action**	**Throughout the project**	**ECO**	**Throughout the project**	**Site inspection**

– Topsoil must be removed separately from subsoil material and stored for later use during rehabilitation of such tower sites; – Topsoil must be stored in heaps not higher than 1m to prevent destruction of the seed bank within the topsoil. – Excavated slopes must be no greater that 1:3, but where this is unavoidable, appropriate measures must be undertaken to stabilise the slopes. – Fly rock from blasting activity must be minimised and any pieces greater than 150 mm falling beyond the Working Area, must be collected and removed. – Only existing disturbed areas are utilised as spoil areas. – Drainage is provided to control groundwater exit gradient with the spill areas such that migration of fines is kept to a minimum. – Surface water runoff is appropriately channeled through or around spoil areas. – During backfilling operations, care must be taken not to dump the topsoil at the bottom of the foundation and then put spoil on top of that. – The surface of the spoil is appropriately rehabilitated in accordance with the requirements specified in Section 5.29: Landscaping and rehabilitation. – The retained topsoil must be spread evenly over areas to be rehabilitated and suitably compacted to effect re-vegetation of such areas to prevent erosion as soon as construction activities on the site is complete. Spreading of topsoil must not be undertaken at the beginning of the dry season.						

5.28 Stringing

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

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Where possible, previously disturbed areas must be used for the siting of winch and tensioner stations. In all other instances, the siting of the winch and tensioner must avoid Access restricted areas and other sensitive areas; – The winch and tensioner station must be equipped with drip trays in order to contain any fuel, hydraulic fuel or oil spills and leaks; – Refueling of the winch and tensioner stations must be undertaken in accordance with Section 5.17: Hazardous substances; – In the case of the development of overhead transmission and distribution infrastructure, a one metre "trace-line" may be cut through the vegetation for stringing purposes only and no vehicle access must be cleared along "trace-lines". Vegetation clearing must be undertaken by hand, using chainsaws and handheld implements, with vegetation being cut off at ground level. No tracked or wheeled mechanised equipment must be used; – Alternative methods of stringing which limit impact to the environment must always be considered e.g. by hand or by using a helicopter;	**Contractor**	**As indicated in the applicable management action**	**Throughout construction**	**ECO**	**Throughout construction**	**Site inspection**

– Where the stringing operation crosses a public or private road or railway line, the necessary scaffolding/ protection measures must be installed to facilitate access. If, for any reason, such access has to be closed for any period(s) during development, the persons affected must be given reasonable notice, in writing; – No services (electrical distribution lines, telephone lines, roads, railways lines, pipelines fences etc.) must be damaged because of stringing operations. Where disruption to services is unavoidable, persons affected must be given reasonable notice, in writing; – Where stringing operations cross cultivated land, damage to crops is restricted to the minimum required to conduct stringing operations, and reasonable notice (10 workdays minimum), in writing, must be provided to the landowner; – Necessary scaffolding protection measures must be installed to prevent damage to the structures supporting certain high value agricultural areas such as vineyards, orchards, nurseries.						

5.29 Socio-economic

Impact management outcome: Socio-economic development is enhanced.

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Develop and implement communication strategies to facilitate public participation; – Develop and implement a collaborative and constructive approach to conflict resolution as part of the external stakeholder engagement process; – Sustain continuous communication and liaison with neighboring owners and residents – Create work and training opportunities for local stakeholders; and – Where feasible, no workers, with the exception of security personnel, must be permitted to stay over-night on the site. This would reduce the risk to local farmers.	**Contractor**	**communication with the community liaison officer and project steering committee**	**Monthly**	**ECO**	**Monthly**	**Record of meetings**

5.30 Temporary closure of site

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

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Bunds must be emptied (where applicable) and need to be undertaken in accordance with the impact management actions included in ***sections 5.17: management of hazardous substances*** and ***5.18 workshop, equipment maintenance and storage***; – Hazardous storage areas must be well ventilated; – Fire extinguishers must be serviced and accessible. Service records to be filed and audited at last service; – Emergency and contact details displayed must be displayed; – Security personnel must be briefed and have the facilities to contact or be contacted by relevant management and emergency personnel; – Night hazards such as reflectors, lighting, traffic signage etc. must have been checked; – Fire hazards identified and the local authority must have been notified of any potential threats e.g. large brush stockpiles, fuels etc.; – Structures vulnerable to high winds must be secured; – Wind and dust mitigation must be implemented; – Cement and materials stores must have been secured; – Toilets must have been emptied and secured; – Refuse bins must have been emptied and secured;	**Contractor**	**Fire, security, and emergency preparedness plan should be adhered to**	**Before temporary closure**	**ECO**	**Once off**	**Reviewing the contractor's documentation for temporary site closure and site inspection**

– Drip trays must have been emptied and secured.						

5.31 Landscaping and rehabilitation

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

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– All areas disturbed by construction activities must be subject to landscaping and rehabilitation; All spoil and waste must be disposed to a registered waste site and certificates of disposal provided; – All slopes must be assessed for contouring, and to contour only when the need is identified in accordance with the Conservation of Agricultural Resources Act, No 43 of 1983 – All slopes must be assessed for terracing, and to terrace only when the need is identified in accordance with the Conservation of Agricultural Resources Act, No 43 of 1983; – Berms that have been created must have a slope of 1:4 and be replanted with indigenous species and grasses that approximates the original condition; – Where new access roads have crossed cultivated farmlands, that lands must be rehabilitated by ripping which must be agreed to by the holder of the EA and the landowners; – Rehabilitation of tower sites and access roads outside of farmland;	**Contractor**	**As per Environmental Authorization requirements**	**End of construction**	**ECO**	**End of construction**	**Site inspection and report**

– Indigenous species must be used for with species and/grasses to where it compliments or approximates the original condition; – Stockpiled topsoil must be used for rehabilitation (refer to Section ***5.24: Stockpiling and stockpiled areas***); – Stockpiled topsoil must be evenly spread so as to facilitate seeding and minimise loss of soil due to erosion; – Before placing topsoil, all visible weeds from the placement area and from the topsoil must be removed; – Subsoil must be ripped before topsoil is placed; – The rehabilitation must be timed so that rehabilitation can take place at the optimal time for vegetation establishment; – Where impacted through construction related activity, all sloped areas must be stabilised to ensure proper rehabilitation is effected and erosion is controlled ; – Sloped areas stabilised using design structures or vegetation as specified in the design to prevent erosion of embankments. The contract design specifications must be adhered to and implemented strictly; – Spoil can be used for backfilling or landscaping as long as it is covered by a minimum of 150 mm of topsoil. – Where required, re-vegetation including hydro-seeding can be enhanced using a vegetation seed mixture as described below. A mixture of seed can be used provided the mixture is carefully selected to ensure the following: a) Annual and perennial plants are chosen; b) Pioneer species are included; c) Species chosen must be indigenous to the area with the seeds used coming from the area; d) Root systems must have a binding effect on the soil;						

e) The final product must not cause an ecological imbalance in the area						

6 ACCESS TO THE GENERIC EMPr

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

PART B: SECTION 2

7 SITE SPECIFIC INFORMATION AND DECLARATION

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

7.1.1 Details of the applicant: **National Transmission Company South Africa SOC Ltd (NTCSA)**

Name of applicant: **Mr I. Moeng**

Tel No: **011 800 4114**

Fax No: **N/A**

Postal Address: **P.O. Box 1091, Johannesburg, 2001**

Physical Address: **Megawatt Park, 2 Maxwell Drive, Sunninghill, Sandton**

7.1.2 Details and expertise of the EAP: **DIGES Group**

Name of applicant: **Brenda Makanza**

Tel No: **011 312 2878**

Fax No: **N/A**

E-mail address: **brendam@diges.co.za**

Expertise of the EAP is given below, and the Curriculum Vitae included is attached in **Appendix 2.**

Principal EAP	
EAP's name and surname:	Brenda Makanza
Postal address:	P.O. Box 7068, Midrand, 1685
Tel:	011 312 2878
Fax:	011 312 7824
E-mail:	brendam@diges.co.za
Qualifications and relevant experience	• B.Sc. Honours Environmental Science. • Professional Diploma Geographic Information Systems • Twenty-one (21) in the environmental consulting field. Refer to Appendix 2 for CV and Qualifications
Professional affiliations	• South African Council for Natural Scientific Professions (SACNASP). Registration Number 400016/17. • Environmental Assessment Practitioners of South Africa (EAPASA). Registration Number 2019/1542.

7.1.3 **Project name: Kimberley Strengthening Phase 3: Proposed construction of the Ferrum–Mookodi 400kV powerline within Joe Morolong, Gamagara, Ga-Segonyana Local Municipalities under John Taolo Gaetsewe District Municipality, Northern Cape Province and Naledi, Greater Taung Local Municipalities under Dr Ruth Segomotsi Mompatsi District Municipality, North West Province**

7.1.4 **Description of the project:**

The National Transmission Company South Africa SOC Ltd (NTCSA) a subsidiary of Eskom Holdings SOC Ltd, has to supply reliable power to meet the increasing needs of electricity users. Therefore, NTCSA must continuously maintain, construct, and upgrade its transmission powerlines and substation infrastructure. According to Eskom TDP 2010–2019, some objectives involve transmission network strengthening plans and reliability projects, ensuring the transmission system's reliability and adequacy are sustained as load demand increases. A study done for the Northern Cape and North West grid indicated that based on the anticipated growing electricity demand, there may be a risk that demand will exceed the supply. As a result, they have identified the need to strengthen the transmission system between the Ferrum, Hotazel Transmission and Mookodi Substations by constructing two 400kV transmission powerlines and upgrade substations. The advantages of the proposed transmission powerline would include:

(a) avoiding current and future possible voltage collapse;
(b) contributing towards a more flexible electrical network;
(c) Improve the overall reliability of the electrical systems, which would benefit electricity users in the region and sustain economic growth in the two Provinces.

The scope of work proposed by NTCSA to strengthen the network entails the following:

(i) Construct a ±260km, 400kV transmission powerline from Ferrum Transmission Substation to Mookodi Substation.

7.1.5 **Project location:**

The proposed route is approximately 60km between Ferrum Substation and Hotazel and 200km between Hotazel and Mookodi substation. Ferrum Substation is approximately 3.4km southeast of Kathu, and the Mookodi Substation is 6.5km south of Vryburg town. The proposed route crosses the national road (N14), regional road R31, a few district roads between N14 and R31, and a railway line. Mine areas exist close to Hotazel town, and several settlements are near the proposed corridor. Approximately 80% of the area affected by this proposed route is rural land, and 70% of the proposed powerline route is within the Northern Strategic Transmission Corridor. See Figure 1.

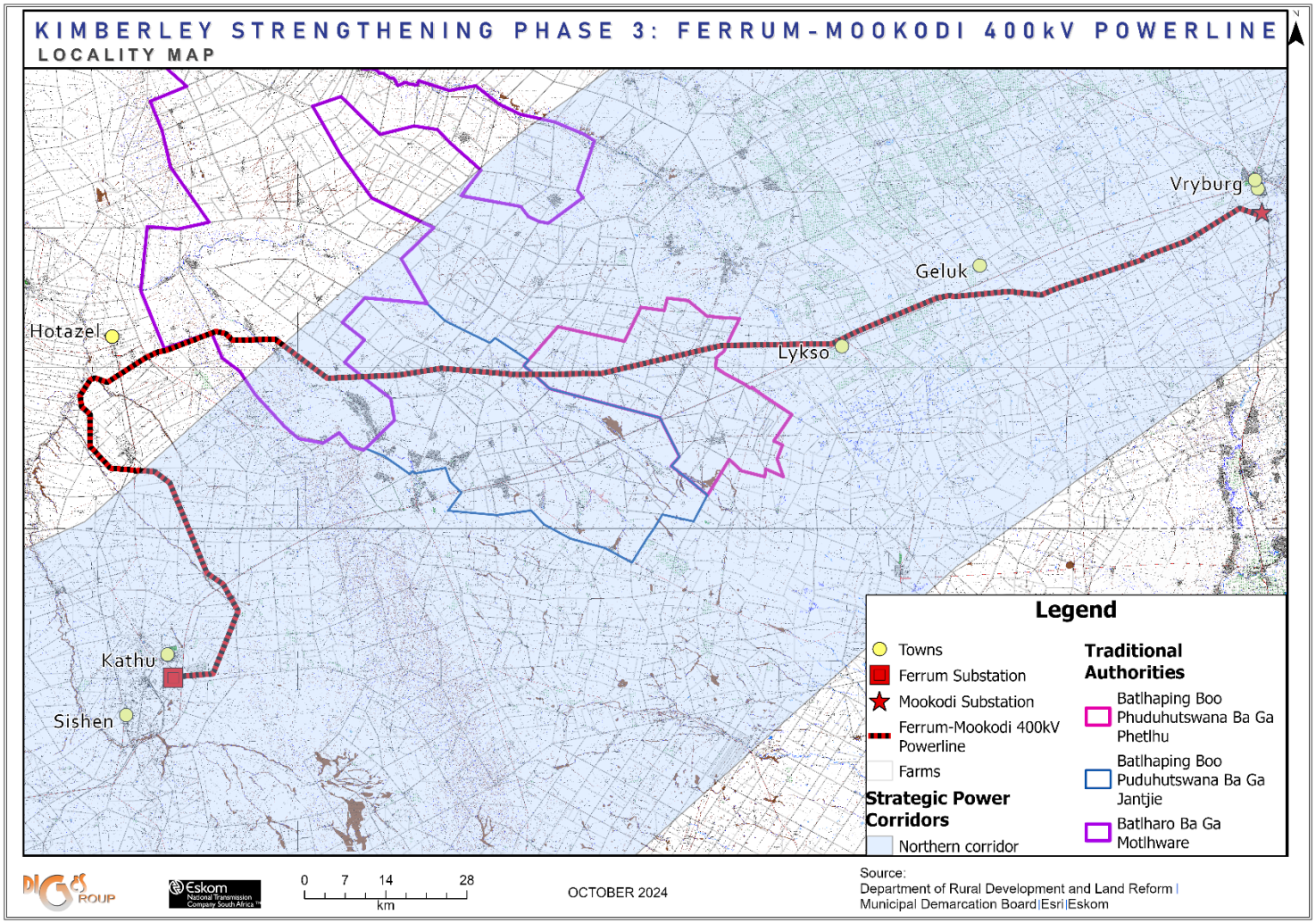


Figure 1: Locality Map

Table 1: Location

NO	FARM NAME	FARM NO.	PORTION NAME	PORTION NUMBER	LATITUDE	LONGITUDE
1	Wilstead	99	Farm	0	27° 16'0.99"S	23° 38'23.08"E
2	Golington	101	Farm	0	27° 13'1.39S	23° 39'40.91"E
3	Golington	101	Farm Portion	2	27° 14'21.15"S	23° 40'14.42"E
4	Warden	102	Farm	0	27° 14'8.3"S	23° 43'0.75"E
5	Warden	102	Farm Portion	1	27° 13'58.87"S	23° 41'47.57"E
6	Warden	102	Farm Portion	0	27°13'50.8"S	23°43'51"E
7	Kgatlagomo	106	Farm	0	27°13'2.08"S	23°46'54.78"E
8	Kgatlagomo	106	Farm Portion	0	27°12'45.18"S	23°47'25.54"E
9	Kgatlagomo	106	Farm Portion	1	27°15'14.5"S	23°46'6.6"E
10	Depatholong	108	Farm	0	27°13'17.99"S	23°50'6.38"E
11	Depatholong	108	Farm Portion	0	27°12'50.24"S	23°50'27.47"E
12	Depatholong	108	Farm Portion	2	27° 13' 41.67"S	23°49'25.48"E
13	Colston	109	Farm	0	27° 15'29.69"S	23°49'1.13"E
14	Colston	109	Farm Portion	1	27° 14'58.7"S	23°49'0.51"E
15	Witnesham	111	Farm	0	27° 12'23.31"S	23°54'3.32"E
16	Witnesham	111	Farm	0	27° 12'10.74"S	23° 53'57.25E
17	Witnesham	111	Farm Portion	2	27° 12'36.13"S	23°54'21.29"E
18	Witnesham	111	Farm Portion	1	27° 13'47.41S	23°53'11.37"E
19	Witnesham	111	Farm Portion	3	27° 12'29.19S	23°53'15.47"E
20	Ellendale	207	Farm	0	27° 17'15.52S	23°35'54.78"E
21	Ellendale	207	Farm Portion	0	27° 17'4.52S	23°35'55.16"E
22	Kookfontein	208	Farm	0	27° 14'38.86S	23°33'35.47"E
23	Kookfontein	208	Farm Portion	3	27° 14'54.49S	23°32'11.34"E
24	Kookfontein	208	Farm Portion	2	27° 15'34.63S	23°33'27.53"E
25	Kookfontein	208	Farm Portion	0	27° 15'11.98S	23°34'45.47"E
26	Cardington	210	Farm	0	27° 13'31.44"S	23°30'36.3"E
27	Cardington	210	Farm Portion	0	27° 13'21.16"S	23°30'35.98"E
28	Churchill	211	Farm	0	27° 14'46.6"S	23°27'7.97"E
29	Churchill	211	Farm Portion	8	27° 15'20.07"S	23°25'37.91"E
30	Churchill	211	Farm Portion	7	27° 14'54.88"S	23°25'51.75"E
31	Churchill	211	Farm Portion	5	27° 15'47.91"S	23°27'21.41"E
32	Churchill	211	Farm Portion	4	27° 14'29.45"S	23°27'57.35"E
33	Churchill	211	Farm Portion	3	27° 15'2.48"S	23°26'38.71"E
34	Churchill	211	Farm Portion	0	27°16'13.94"S	23°29'17.18"E
35	Nyra	213	Farm	0	27°16'29.86"S	23°24'21.05"E
36	Nyra	213	Farm Portion	2	27°16'35.81"S	23°25'36.09"E

NO	FARM NAME	FARM NO.	PORTION NAME	PORTION NUMBER	LATITUDE	LONGITUDE
37	Nyra	213	Farm Portion	0	27°16'26.83"S	23°23'2.99"E
38	Minto	214	Farm	0	27°13'40.62"S	23°20'26.67"E
39	Minto	214	Farm Portion	0	27°14'19.19"S	23°21'10.21"E
40	Lower Kuruman Native Reserve	219	Farm	0	27°9'15.69"S	23°8'22.59"E
41	Lower Kuruman Native Reserve	219	Farm Portion	0	27°10'6.09"S	23°8'24.49"E
42	The	220	Farm	0	27°8'6.14"S	23°2'15.56"E
43	The	220	Farm Portion	0	27°8'6.67"S	23°2'28.25"E
44	Langdon	273	Farm	0	27°12'15.18"S	23°1'3.45"E
45	Langdon	273	Farm Portion	0	27°12'13.61"S	23°1'5.34"E
46	Devon	277	Farm	0	27°15'14.33"S	22°57'53.4"E
47	Devon	277	Farm Portion	1	27°15'11.63"S	22°58'21.12"E
48	Devon	277	Farm Portion	0	27°15'40.86"S	22°57'16.7"E
49	Annex Langdon	278	Farm	0	27°13'52.08"S	23°0'5.77"E
50	Annex Langdon	278	Farm Portion	0	27°13'53.97"S	23°0'9.4"E
51	Botha	313	Farm	0	27°17'40.99"S	22°55'42.97"E
52	Botha	313	Farm Portion	0	27°17'45.58"S	22°55'46"E
53	Smartt	314	Farm	0	27°19'3.59"S	22°57'30.81"E
54	Smartt	314	Farm Portion	0	27°19'11.04"S	22°57'25.24"E
55	Mamatwan	331	Farm	0	27°23'16.29"S	22°57'30.81"E
56	Mamatwan	331	Farm Portion	0	27°24'4.43"S	22°56'49.92"E
57	Mamatwan	331	Farm Portion	8	27°23'1.46"S	22°56'34.18"E
58	Middelplaats	332	Farm	0	27°21'6.39"S	22°55'36.18"E
59	Middelplaats	332	Farm Portion	0	27°21'6.06"S	22°55'24.33"E
60	Shirley	367	Farm	0	27°25'45.9"S	22°56'50.22"E
61	Shirley	367	Farm Portion	3	27°25'37.8"S	22°58'53.15"E
62	Shirley	367	Farm Portion	1	27°25'19.85"S	22°57'59.93"E
63	Alton	368	Farm	0	27°25'44.73"S	23°2'3.03"E
64	Alton	368	Farm Portion	1	27°26'24.61"S	23°2'24.9"E
65	Alton	368	Farm Portion	0	27°25'6.87"S	23°1'49.78"E
66	Dingwall	388	Farm	0	27°29'17.94"S	23°5'21.41"E
67	Dingwall	388	Farm Portion	0	27°30'11.7"S	23°5'13.14"E
68	Dingwall	388	Farm Portion	1	27°28'24.29"S	23°5'29.68"E
69	Erith	389	Farm	0	27°28'55.41"S	23°1'54.18"E
70	Erith	389	Farm Portion	1	27°29'9.83"S	23°3'33.34"E
71	Lyndoch	432	Farm	0	27°32'43.94"S	23°5'6.33"E
72	Lyndoch	432	Farm Portion	0	27°33'16.39"S	23°5'8.5"E
73	Lyndoch	432	Farm Portion	1	27°31'43.27"S	23°5'2.28"E

NO	FARM NAME	FARM NO.	PORTION NAME	PORTION NUMBER	LATITUDE	LONGITUDE
74	Westfield	455	Farm	0	27°38'21.43"S	23°11'6.14"E
75	Westfield	455	Farm Portion	0	27°38'33.01"S	23°9'50.57"E
76	Cowley	457	Farm	0	27°35'37.55"S	23°6'37.8"E
77	Cowley	457	Farm Portion	1	27°35'46.43"S	23°5'43.74"E
78	Cowley	457	Farm Portion	2	27°34'47.56"S	23°5'25.35"E
79	Cowley	457	Farm Portion	0	27°36'10.09"S	23°8'3.73"E
80	Hartnolls	458	Farm	0	27°38'46.25"S	23°7'23.11"E
81	Hartnolls	458	Farm Portion	3	27°39'8.98"S	23°7'3.28"E
82	Hartnolls	458	Farm Portion	1	27°37'37.68"S	23°7'41.59"E
83	Bestwood	459	Farm	0	27°42'22.87"S	23°7'19.6"E
84	Bestwood	459	Farm Portion	22	27°43'39.79"S	23°5'6.77"E
85	Bestwood	459	Farm Portion	1	27°43'13.61"S	23°7'34.93"E
86	Bestwood	459	Farm Portion	16	27°43'33.61"S	23°5'53.09"E
87	Bestwood	459	Farm Portion	17	27°43'45.12"S	23°5'45.1"E
88	Bestwood	459	Farm Portion	36	27°43'43.18"S	23°5'31.7"E
89	Bestwood	459	Farm Portion	37	27°43'35.65"S	23°5'22.73"E
90	Bestwood	459	Farm Portion	0	27°40'54.53"S	23°6'29.2"E
91	Bestwood	459	Farm Portion	35	27°43'30.64"S	23°5'38.7"E
92	Sekgame	461	Farm	0	27°44'34.93"S	23°3'48.2"E
93	Sekgame	461	Farm Portion	0	27°44'31.82"S	23°4'41.66"E
94	Sekgame	461	Farm Portion	2	27°44'43.03"S	23°2'59.27"E
95	Kormutsetla	639	Farm	0	27°14'13.2"S	23°58'49.16"E
96	Kormutsetla	639	Farm Portion	1	27°14'31.41"S	23°57'10.1"E
97	Kormutsetla	639	Farm Portion	0	27°13'48.68"S	24°0'47.86"E
98	Kormutsetla	639	Farm Portion	2	27°13'46.7"S	23°55'10.88"E
99	Kalahari	644	Farm	0	27°12'6.29"S	24°4'41.58"E
100	Kalahari	644	Farm Portion	1	27°11'42.69"S	24°5'42.78"E
101	Kalahari	644	Farm Portion	0	27°12'40.87"S	24°3'27.73"E
102	Kalahari	644	Farm Portion	2	27°11'57.87"S	24°4'24.26"E
103	Kalahari	644	Farm Portion	7	27°12'45.71"S	24°4'41.06"E
104	Kalahari	644	Farm Portion	3	27°12'40.83"S	24°5'9.78"E
105		645	Farm Portion	0	27°11'10.21"S	24°6'55.51"E
106		645	Farm Portion	2	27°11'59.45"S	24°8'52.63"E
107		648	Farm Portion	0	27°8'58.31"S	24°11'29.68"E
108		648	Farm Portion	1	27°11'44.93"S	24°10'5.04"E

NO	FARM NAME	FARM NO.	PORTION NAME	PORTION NUMBER	LATITUDE	LONGITUDE
109		648	Farm Portion	4	27°11'10.37"S	24°10'41.98"E
110		648	Farm Portion	7	27°10'13.69"S	24°10'35.79"E
111		649	Farm	0	27°8'50.74"S	24°15'23.26"E
112		649	Farm Portion	6	27°8'33.71"S	24°14'48.29"E
113		649	Farm Portion	15	27°8'1.7"S	24°16'33.1"E
114		649	Farm Portion	0	27°9'42.79"S	24°13'40.6"E
115		649	Farm Portion	8	27°9'7.08"S	24°17'28.49"E
116		649	Farm Portion	7	27°9'20.01"S	24°14'35.76"E
117		649	Farm Portion	1	27°7'11.94"S	24°16'9.96"E
118		651	Farm Portion	1	27°8'45.11"S	24°21'47.08"E
119		651	Farm Portion	0	27°8'26.55"S	24°19'44.81"E
120	Eersteling	652	Farm	0	27°6'37.36"S	24°18'43.7"E
121	Eersteling	652	Farm Portion	9	27°9'27.43"S	24°15'59.04"E
122	Eersteling	652	Farm Portion	0	27°7'22.82"S	24°19'18.39"E
123	Rocklands	654	Farm	0	27°6'43.47"S	24°22'57.2"E
124	Rocklands	654	Farm Portion	0	27°6'35.07"S	24°22'57.33"E
125	Kalk Plaats	655	Farm	0	27°9'4.28"S	24°24'32.88"E
126	Kalk Plaats	655	Farm Portion	1	27°9'15.85"S	24°23'52.58"E
127	Kalk Plaats	655	Farm Portion	0	27°8'57.25"S	24°25'29.97"E
128	Langgewacht	656	Farm	0	27°8'7.07"S	24°27'53.36"E
129	Langgewacht	656	Farm Portion	0	27°8'23.5"S	24°26'56.98"E
130	Langgewacht	656	Farm Portion	2	27°7'43.69"S	24°27'56.35"E
131	Knoppies Vlakte	657	Farm	0	27°5'57.24"S	24°27'47.29"E
132	Knoppies Vlakte	657	Farm Portion	2	27°6'27.69"S	24°28'14.76"E
133	Takwanen Native Reserve	662	Farm	0	27°4'36.2"S	24°33'8.9"E
134	Takwanen Native Reserve	662	Farm Portion	4	27°4'35.51"S	24°34'21.74"E
135	Takwanen Native Reserve	662	Farm Portion	1	27°5'35.33"S	24°29'50.71"E
136	Takwanen Native Reserve	662	Farm Portion	2	27°4'46.74"S	24°31'18.86"E
137	Driepoort	664	Farm	0	27°4'17.47"S	24°37'35.26"E
138	Driepoort	664	Farm Portion	1	27°4'38.26"S	24°36'52.12"E
139	Driepoort	664	Farm Portion	2	27°3'44.68"S	24°37'40.2"E
140	Nazareth	665	Farm	0	27°3'25.03"S	24°39'35.65"E
141	Nazareth	665	Farm Portion	4	27°2'43.8"S	24°39'45.31"E
142	Nazareth	665	Farm Portion	5	27°3'7.32"S	24°38'44.67"E
143	Retreat	671	Farm	0	27°0'49.09"S	24°40'37.15"E

NO	FARM NAME	FARM NO.	PORTION NAME	PORTION NUMBER	LATITUDE	LONGITUDE
144	Retreat	671	Farm Portion	0	27°2'27.35"S	24°40'50.43"E
145	Retreat	671	Farm Portion	1	27°1'14.45"S	24°40'13.01"E
146	Frankfort	672	Farm	0	27°1'47.97"S	24°41'59.42"E
147	Frankfort	672	Farm Portion	1	27°1'24.55"S	24°42'23.19"E
148	Rosendal	673	Farm	0	27°0'6.16"S	24°45'0.49"E
149	Rosendal	673	Farm Portion	0	27°0'45.7"S	24°44'4.26"E
150	Moab	700	Farm	0	27°24'16.18"S	22°59'54.67"E
151	Moab	700	Farm Portion	0	27°24'15.39"S	22°59'53.72"E
152	Verwes	1000	Farm	0	27°6'46.29"S	24°25'51.61"E
153	Verwes	1000	Farm Portion	0	27°6'41.12"S	24°25'51.47"E
154	Mahohomal	8	Farm Portion	0	27°23'41.86"S	22°57'16.95"E

7.16 Preliminary technical specification of the overhead transmission and distribution: The details regarding the number of towers and structures are given below:

- **Length:** 261.7km
- Tower parameters
  - **Number of towers:** 562
  - **Types of towers:**
    i. Self-supporting towers: 515C, 515D, 515E, 518C, 518D and 518H.
    ii. Guyed V: 520B
  - **Tower spacing (mean and maximum):** 450m, 500m.
  - **Tower height (lowest, mean and height):** 21m, 37.5m, 51m.
  - **Conductor attachment height (mean):** 27m.
  - **Minimum ground clearance:** 8.1m

The type of towers to be used are indicated in Table 2 below, while the location and description of the environment are shown in Table 3.

Table 2: Types of towers

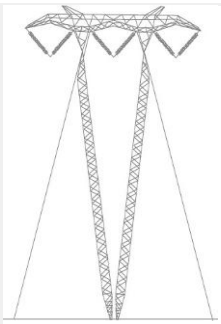
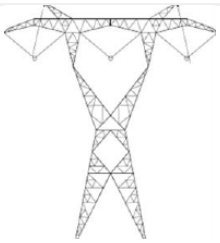
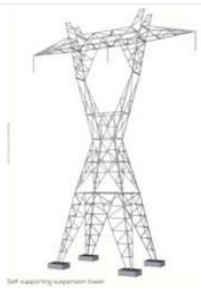
Type	Guyed "VEE" Suspension Tower (520B)	Self-Supporting Tower (515C, D, E)	Self-Supporting Suspension Tower (518 H)	Angle Strain and Closing Span Tower (518 C & D)
				
Maximum CAH	33m	21	45 m	51 m
Maximum Tower Height	40m	33	51.15m	C: 57m. D=58m
Footprint	30mx40m	10.5m x10.5m	21mx 21m	C=25mx25m; d= 26mx26m
Min Servitude Width	35 m	55m	35 m (55m sugar cane height)	35 m (55m sugar cane height)

Table 3: Tower location and type

FARM NAME	Remainder of Sekgame 461		
CONDITIONS	-		
NO OF TOWERS	6		
TOWER NUMBER	LATITUDE (S)	LONGITUDE (E)	TOWER STRUCTURES
Ferrum Gantry	27° 43' 47.0" S	023° 03' 36.97" E	
2 FER-MOO 1	27° 43' 46.88" S	023° 03' 40.45" E	515E
2 FER-MOO 2	27° 43' 45.76" S	023° 03' 53.68" E	518H
2 FER-MOO 3	27° 43' 44.45" S	023° 04' 9.16" E	518H
2 FER-MOO 4	27° 43' 43.02" S	023° 04' 26.06" E	518H
2 FER-MOO 5	27° 43' 41.57" S	023° 04' 43.21" E	518H
2 FER-MOO 6	27° 43' 40.2" S	023° 04' 59.39" E	518H
FARM NAME	Portion 22 of Bestwood 459		
CONDITIONS	– Only self-supporting towers may be used. – Contact land-owner before entering the farm.		
NO OF TOWERS	1		
TOWER NUMBER	LATITUDE (S)	LONGITUDE (E)	TOWER STRUCTURES
2 FER-MOO 7	27° 43' 38.81" S	023° 05' 15.85" E	520B
FARM NAME	Portion 36 of Bestwood 459		
CONDITIONS	– Contact land-owner before entering the farm.		
NO OF TOWERS	1		
TOWER NUMBER	LATITUDE (S)	LONGITUDE (E)	TOWER STRUCTURES
2 FER-MOO 8	27° 43' 37.3" S	023° 05' 33.58" E	520B
FARM NAME	Portion 16 of Bestwood 459		
CONDITIONS	-		
NO OF TOWERS	1		
TOWER NUMBER	LATITUDE (S)	LONGITUDE (E)	TOWER STRUCTURES
2 FER-MOO 9	27° 43' 35.86" S	023° 05' 50.51" E	520B
FARM NAME	Portion 1 of Bestwood 459		
CONDITIONS	– Contact owner prior to construction. – Talk to owner before installing gates.		

	– No fires or hunting. – Use mobile toilets. – Keep gates closed.		
NO OF TOWERS	11		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 10	27° 43' 34.5" S	023° 06' 6.58" E	520B
2 FER-MOO 11	27° 43' 33.23" S	023° 06' 21.53" E	520B
2 FER-MOO 12	27° 43' 31.8" S	023° 06' 38.42" E	520B
2 FER-MOO 13	27° 43' 30.43" S	023° 06' 54.5" E	520B
2 FER-MOO 14	27° 43' 29.37" S	023° 07' 7.02" E	518D
2 FER-MOO 15	27° 43' 15.76" S	023° 07' 12.49" E	520B
2 FER-MOO 16	27° 43' 0.84" S	023° 07' 18.48" E	520B
2 FER-MOO 17	27° 42' 45.44" S	023° 07' 24.67" E	520B
2 FER-MOO 18	27° 42' 30.38" S	023° 07' 30.72" E	520B
2 FER-MOO 19	27° 42' 16.24" S	023° 07' 36.4" E	520B
2 FER-MOO 20	27° 42' 2.03" S	023° 07' 42.11" E	520B
FARM NAME	Remainder of Bestwood 459		
CONDITIONS	-		
NO OF TOWERS	7		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 21	27° 41' 46.2" S	023° 07' 48.47" E	520B
2 FER-MOO 22	27° 41' 32.04" S	023° 07' 54.16" E	520B
2 FER-MOO 23	27° 41' 16.69" S	023° 08' 0.32" E	520B
2 FER-MOO 24	27° 41' 1.69" S	023° 08' 6.35" E	520B
2 FER-MOO 25	27° 40' 47.23" S	023° 08' 12.15" E	520B
2 FER-MOO 26	27° 40' 34.52" S	023° 08' 17.26" E	520B
2 FER-MOO 27	27° 40' 19.03" S	023° 08' 23.48" E	520B
FARM NAME	Portion 3 of Hartnolls 458		
CONDITIONS	– Use portable toilets. – Contact landowner prior to construction.		
NO OF TOWERS	8		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 28	27° 40' 5.79" S	023° 08' 28.79" E	520B
2 FER-MOO 29	27° 39' 51.76" S	023° 08' 34.43" E	520B
2 FER-MOO 30	27° 39' 36.94" S	023° 08' 40.38" E	520B
2 FER-MOO 31	27° 39' 22.05" S	023° 08' 46.35" E	520B
2 FER-MOO 32	27° 39' 6.8" S	023° 08' 52.47" E	520B

2 FER-MOO 33	27° 38' 53.17" S	023° 08' 57.94" E	520B
2 FER-MOO 34	27° 38' 38.15" S	023° 09' 3.97" E	520B
2 FER-MOO 35	27° 38' 23.01" S	023° 09' 10.05" E	520B
FARM NAME	Portion 1 of Hartnolls 458		
CONDITIONS	– Use portable toilets. – Contact landowner prior to construction. – No fires. – No rubble.		
NO OF TOWERS	4		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 36	27° 38' 8.2" S	023° 09' 15.99" E	520B
2 FER-MOO 39	27° 37' 27.02" S	023° 09' 19.83" E	520B
2 FER-MOO 40	27° 37' 13.01" S	023° 09' 11.93" E	520B
2 FER-MOO 41	27° 36' 58.59" S	023° 09' 3.81" E	520B
FARM NAME	Remainder of Westfield 455		
CONDITIONS	– Use portable toilets. – Contact landowner prior to construction. – No fires. – No rubble.		
NO OF TOWERS	2		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 37	27° 37' 53.48" S	023° 09' 21.9" E	520B
2 FER-MOO 38	27° 37' 40.17" S	023° 09' 27.23" E	515E
FARM NAME	Remainder of Cowley 457		
CONDITIONS	– Access on servitude only. – Contact owner prior to construction. – Use portable toilets. – No fires.		
NO OF TOWERS	9		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 42	27° 36' 44.46" S	023° 08' 55.85" E	520B
2 FER-MOO 43	27° 36' 30.59" S	023° 08' 48.04" E	520B
2 FER-MOO 44	27° 36' 16.49" S	023° 08' 40.1" E	520B
2 FER-MOO 45	27° 36' 2.63" S	023° 08' 32.3" E	520B
2 FER-MOO 46	27° 35' 48.44" S	023° 08' 24.31" E	520B
2 FER-MOO 47	27° 35' 34.43" S	023° 08' 16.42" E	520B
2 FER-MOO 48	27° 35' 20.88" S	023° 08' 8.8" E	518C

2 FER-MOO 49	27° 35' 9.35" S	023° 08' 2.3" E	518C
2 FER-MOO 50	27° 35' 0.76" S	023° 07' 49.7" E	520B
FARM NAME	Portion 1 of Cowley 457		
CONDITIONS	– Contact owner prior to construction		
NO OF TOWERS	2		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 51	27° 34' 52.03" S	023° 07' 36.89" E	520B
2 FER-MOO 52	27° 34' 43.31" S	023° 07' 24.11" E	520B
FARM NAME	Portion 2 of Cowley 457		
CONDITIONS	– Stay within the servitude area – The line goes through a game camp, keep gates locked at all times		
NO OF TOWERS	4		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 53	27° 34' 34.59" S	023° 07' 11.31" E	520B
2 FER-MOO 54	27° 34' 25.79" S	023° 06' 58.4" E	520B
2 FER-MOO 55	27° 34' 16.97" S	023° 06' 45.46" E	520B
2 FER-MOO 56	27° 34' 8.27" S	023° 06' 32.7" E	515D
FARM NAME	Remainder of Lyndoch 432		
CONDITIONS	- Contact owner prior to construction.		
NO OF TOWERS	7		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 57	27° 33' 53.78" S	023° 06' 26.73" E	520B
2 FER-MOO 58	27° 33' 39.88" S	023° 06' 21.01" E	520B
2 FER-MOO 59	27° 33' 24.77" S	023° 06' 14.79" E	520B
2 FER-MOO 60	27° 33' 9.93" S	023° 06' 8.68" E	520B
2 FER-MOO 61	27° 32' 54.73" S	023° 06' 2.42" E	520B
2 FER-MOO 62	27° 32' 40.42" S	023° 05' 56.53" E	520B
2 FER-MOO 63	27° 32' 25.7" S	023° 05' 50.47" E	520B
FARM NAME	Portion 1 of Lyndoch 432		
CONDITIONS	– Access gates to be locked at all times. – Access on servitude only. – Bore hole to be re located.		
NO OF TOWERS	5		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**

2 FER-MOO 64	27° 32' 11.28" S	023° 05' 44.53" E	520B
2 FER-MOO 65	27° 31' 56.9" S	023° 05' 38.62" E	520B
2 FER-MOO 66	27° 31' 42.88" S	023° 05' 32.85" E	520B
2 FER-MOO 67	27° 31' 27.55" S	023° 05' 26.54" E	520B
2 FER-MOO 68	27° 31' 13.19" S	023° 05' 20.63" E	520B
FARM NAME	Remainder of Dingwall 388		
CONDITIONS	– Contact owner prior to construction. – Keep gates locked.		
NO OF TOWERS	8		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 69	27° 30' 58.83" S	023° 05' 14.72" E	520B
2 FER-MOO 70	27° 30' 44.86" S	023° 05' 8.97" E	520B
2 FER-MOO 71	27° 30' 30.64" S	023° 05' 3.12" E	520B
2 FER-MOO 72	27° 30' 16.35" S	023° 04' 57.24" E	520B
2 FER-MOO 73	27° 30' 2.0" S	023° 04' 51.34" E	520B
2 FER-MOO 74	27° 29' 47.43" S	023° 04' 45.35" E	520B
2 FER-MOO 75	27° 29' 32.29" S	023° 04' 39.12" E	520B
2 FER-MOO 76	27° 29' 17.95" S	023° 04' 33.22" E	520B
FARM NAME	Portion 1 of Dingwall 388		
CONDITIONS	– Contact owner prior to construction . – Cleanup site every day.		
NO OF TOWERS	4		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 77	27° 29' 3.78" S	023° 04' 27.39" E	520B
2 FER-MOO 78	27° 28' 49.36" S	023° 04' 21.46" E	520B
2 FER-MOO 79	27° 28' 35.1" S	023° 04' 15.6" E	520B
2 FER-MOO 80	27° 28' 20.94" S	023° 04' 9.78" E	520B
FARM NAME	Portion 1 of Erith 389		
CONDITIONS	– Contact owner prior to construction. – Access on servitude only.		
NO OF TOWERS	4		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 81	27° 28' 6.84" S	023° 04' 3.98" E	520B
2 FER-MOO 82	27° 27' 52.44" S	023° 03' 58.07" E	520B

2 FER-MOO 83	27° 27' 38.22" S	023° 03' 52.22" E	520B
2 FER-MOO 84	27° 27' 23.97" S	023° 03' 46.36" E	520B
FARM NAME	Portion 1 of Alton 368		
CONDITIONS	– Contact owner prior to construction. – Close and lock all gates at all times. – Use one access road, if possible. – Use portable toilets. – Do not touch the animals and respect nature. – Re-establish grass after construction. – No rubble.		
NO OF TOWERS	7		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 85	27° 27' 9.34" S	023° 03' 40.35" E	520B
2 FER-MOO 86	27° 26' 54.93" S	023° 03' 34.43" E	520B
2 FER-MOO 87	27° 26' 40.56" S	023° 03' 28.52" E	520B
2 FER-MOO 88	27° 26' 26.3" S	023° 03' 22.66" E	520B
2 FER-MOO 89	27° 26' 11.77" S	023° 03' 16.7" E	520B
2 FER-MOO 90	27° 25' 57.32" S	023° 03' 10.76" E	520B
2 FER-MOO 91	27° 25' 45.04" S	023° 03' 5.72" E	515D
FARM NAME	Remainder of Alton 368		
CONDITIONS	– Contact owner prior to construction. – Close and lock all gates at all times. – Use one access road, if possible. – Use portable toilets. – Do not touch the animals and respect nature. – Re-establish grass after construction. – No rubble.		
NO OF TOWERS	16		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 92	27° 25' 36.27" S	023° 02' 53.88" E	520B
2 FER-MOO 93	27° 25' 27.23" S	023° 02' 41.69" E	520B
2 FER-MOO 94	27° 25' 18.47" S	023° 02' 29.87" E	520B
2 FER-MOO 95	27° 25' 9.39" S	023° 02' 17.63" E	520B
2 FER-MOO 96	27° 25' 0.6" S	023° 02' 5.77" E	520B
2 FER-MOO 97	27° 24' 51.8" S	023° 01' 53.91" E	520B
2 FER-MOO 98	27° 24' 42.64" S	023° 01' 41.56" E	515D
2 FER-MOO 99	27° 24' 41.46" S	023° 01' 26.45" E	520B
2 FER-MOO 100	27° 24' 40.26" S	023° 01' 11.02" E	520B
2 FER-MOO 101	27° 24' 39.03" S	023° 00' 55.32" E	520B

2 FER-MOO 102	27° 24' 37.8" S	023° 00' 39.65" E	520B
2 FER-MOO 103	27° 24' 36.61" S	023° 00' 24.38" E	520B
2 FER-MOO 104	27° 24' 35.43" S	023° 00' 9.23" E	515E
2 FER-MOO 105	27° 24' 40.27" S	022° 59' 58.21" E	518D
2 FER-MOO 106	27° 24' 36.72" S	022° 59' 52.36" E	518H
2 FER-MOO 107	27° 24' 33.71" S	022° 59' 47.4" E	518D
FARM NAME	Remainder of Moab 700		
CONDITIONS	– Contact owner prior to construction. – No accommodation on property. – No open fires. – Don't remove wood. – Keep gates closed and locked. – No rubble. – Clean site every day, no wires or any material to be left overnight.		
NO OF TOWERS	1		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 108	27° 24' 32.35" S	022° 59' 30.08" E	518H
FARM NAME	Portion 1 of Shirley 367		
CONDITIONS	– Contact owner prior to construction. – No open fires.		
NO OF TOWERS	7		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 109	27° 24' 31.14" S	022° 59' 14.64" E	518C
2 FER-MOO 110	27° 24' 29.76" S	022° 58' 57.0" E	520B
2 FER-MOO 111	27° 24' 28.48" S	022° 58' 40.7" E	520B
2 FER-MOO 112	27° 24' 27.21" S	022° 58' 24.5" E	520B
2 FER-MOO 113	27° 24' 25.93" S	022° 58' 8.14" E	520B
2 FER-MOO 114	27° 24' 24.63" S	022° 57' 51.66" E	520B
2 FER-MOO 115	27° 24' 23.32" S	022° 57' 34.9" E	515E
FARM NAME	Remainder of Mamatwan 331		
CONDITIONS	– Contact owner prior to construction.		
NO OF TOWERS	7		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 116	27° 24' 11.82" S	022° 57' 24.18" E	520B
2 FER-MOO 117	27° 23' 59.32" S	022° 57' 12.53" E	520B

2 FER-MOO 118	27° 23' 46.96" S	022° 57' 1.02" E	520B
2 FER-MOO 119	27° 23' 34.64" S	022° 56' 49.53" E	520B
2 FER-MOO 120	27° 23' 22.51" S	022° 56' 38.24" E	520B
2 FER-MOO 121	27° 23' 10.34" S	022° 56' 26.89" E	520B
2 FER-MOO 122	27° 22' 58.09" S	022° 56' 15.48" E	520B
FARM NAME	Remainder of Middelplaats 332		
CONDITIONS	-		
NO OF TOWERS	15		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 123	27° 22' 48.34" S	022° 56' 6.4" E	520B
2 FER-MOO 124	27° 22' 38.82" S	022° 55' 57.53" E	520B
2 FER-MOO 125	27° 22' 29.55" S	022° 55' 48.89" E	520B
2 FER-MOO 126	27° 22' 21.52" S	022° 55' 41.42" E	515E
2 FER-MOO 127	27° 22' 7.45" S	022° 55' 41.43" E	520B
2 FER-MOO 128	27° 21' 54.05" S	022° 55' 41.44" E	520B
2 FER-MOO 129	27° 21' 40.49" S	022° 55' 41.45" E	520B
2 FER-MOO 130	27° 21' 24.26" S	022° 55' 41.47" E	520B
2 FER-MOO 131	27° 21' 8.31" S	022° 55' 41.48" E	520B
2 FER-MOO 132	27° 20' 52.56" S	022° 55' 41.5" E	520B
2 FER-MOO 133	27° 20' 36.56" S	022° 55' 41.51" E	520B
2 FER-MOO 134	27° 20' 20.56" S	022° 55' 41.53" E	520B
2 FER-MOO 135	27° 20' 4.65" S	022° 55' 41.54" E	520B
2 FER-MOO 136	27° 19' 48.6" S	022° 55' 41.55" E	520B
2 FER-MOO 137	27° 19' 32.72" S	022° 55' 41.57" E	520B
FARM NAME	Remainder of Smartt 314		
CONDITIONS	-		
NO OF TOWERS	1		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 138	27° 19' 16.73" S	022° 55' 41.58" E	520B
FARM NAME	Remainder of Botha 313		
CONDITIONS	-		
NO OF TOWERS	12		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**

2 FER-MOO 139	27° 19' 0.78" S	022° 55' 41.6" E	520B
2 FER-MOO 140	27° 18' 44.72" S	022° 55' 41.61" E	520B
2 FER-MOO 141	27° 18' 29.3" S	022° 55' 41.62" E	520B
2 FER-MOO 142	27° 18' 14.04" S	022° 55' 41.64" E	520B
2 FER-MOO 143	27° 18' 2.12" S	022° 55' 41.65" E	515D
2 FER-MOO 144	27° 17' 51.06" S	022° 55' 47.13" E	520B
2 FER-MOO 145	27° 17' 37.42" S	022° 55' 53.88" E	520B
2 FER-MOO 146	27° 17' 23.76" S	022° 56' 0.65" E	520B
2 FER-MOO 147	27° 17' 9.86" S	022° 56' 7.53" E	520B
2 FER-MOO 148	27° 16' 56.09" S	022° 56' 14.35" E	520B
2 FER-MOO 149	27° 16' 43.03" S	022° 56' 20.81" E	515D
2 FER-MOO 150	27° 16' 35.19" S	022° 56' 33.14" E	520B
FARM NAME	Remainder of Devon 277		
CONDITIONS	– Contact either the Mine Manager, Engineering Manager or Construction Manager before entering the property.		
NO OF TOWERS	15		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 151	27° 16' 26.45" S	022° 56' 46.88" E	520B
2 FER-MOO 152	27° 16' 17.97" S	022° 57' 0.22" E	520B
2 FER-MOO 153	27° 16' 9.82" S	022° 57' 13.02" E	520B
2 FER-MOO 154	27° 16' 1.86" S	022° 57' 25.53" E	520B
2 FER-MOO 155	27° 15' 53.81" S	022° 57' 38.18" E	520B
2 FER-MOO 156	27° 15' 45.88" S	022° 57' 50.65" E	518C
2 FER-MOO 157	27° 15' 41.24" S	022° 57' 57.95" E	518C
2 FER-MOO 158	27° 15' 30.92" S	022° 58' 14.15" E	518C
2 FER-MOO 159	27° 15' 22.77" S	022° 58' 26.96" E	518C
2 FER-MOO 160	27° 15' 13.4" S	022° 58' 41.68" E	520B
2 FER-MOO 161	27° 15' 4.45" S	022° 58' 55.74" E	520B
2 FER-MOO 162	27° 14' 55.59" S	022° 59' 9.67" E	520B
2 FER-MOO 163	27° 14' 47.09" S	022° 59' 23.01" E	520B
2 FER-MOO 164	27° 14' 38.33" S	022° 59' 36.76" E	520B
2 FER-MOO 165	27° 14' 30.32" S	022° 59' 49.35" E	520B
FARM NAME	Remainder of Annex Langdon 278		
CONDITIONS	– Contact owner prior to construction.		
NO OF TOWERS	4		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**

2 FER-MOO 166	27° 14' 22.88" S	023° 00' 1.02" E	520B
2 FER-MOO 167	27° 14' 15.39" S	023° 00' 12.79" E	520B
2 FER-MOO 168	27° 14' 7.27" S	023° 00' 25.53" E	518C
2 FER-MOO 169	27° 14' 5.25" S	023° 00' 41.65" E	520B
FARM NAME	Remainder of Langdon 273		
CONDITIONS	– Call the town planner prior to access.		
NO OF TOWERS	7		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 170	27° 14' 3.06" S	023° 00' 58.99" E	518C
2 FER-MOO 171	27° 13' 55.58" S	023° 01' 15.29" E	520B
2 FER-MOO 172	27° 13' 48.36" S	023° 01' 31.05" E	520B
2 FER-MOO 173	27° 13' 41.13" S	023° 01' 46.81" E	520B
2 FER-MOO 174	27° 13' 34.03" S	023° 02' 2.28" E	515D
2 FER-MOO 175	27° 13' 31.55" S	023° 02' 16.92" E	520B
2 FER-MOO 176	27° 13' 29.23" S	023° 02' 30.61" E	520B
FARM NAME	Farm 220		
CONDITIONS	– Contact Kgosi Phethlu before construction starts. – Contractor to have meeting with community to explain the construction process and job opportunities before construction.		
NO OF TOWERS	16		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 177	27° 13' 26.81" S	023° 02' 44.88" E	515C
2 FER-MOO 178	27° 13' 20.69" S	023° 03' 0.92" E	520B
2 FER-MOO 179	27° 13' 14.36" S	023° 03' 17.48" E	520B
2 FER-MOO 180	27° 13' 7.94" S	023° 03' 34.27" E	518C
2 FER-MOO 181	27° 13' 1.62" S	023° 03' 50.84" E	520B
2 FER-MOO 182	27° 12' 55.27" S	023° 04' 7.44" E	520B
2 FER-MOO 183	27° 12' 49.06" S	023° 04' 23.69" E	520B
2 FER-MOO 184	27° 12' 43.17" S	023° 04' 39.1" E	520B
2 FER-MOO 185	27° 12' 37.15" S	023° 04' 54.85" E	518C
2 FER-MOO 186	27° 12' 30.42" S	023° 05' 12.46" E	518H
2 FER-MOO 187	27° 12' 24.42" S	023° 05' 28.16" E	518H
2 FER-MOO 188	27° 12' 19.0" S	023° 05' 42.33" E	518C
2 FER-MOO 189	27° 12' 12.39" S	023° 05' 59.61" E	518H
2 FER-MOO 190	27° 12' 6.46" S	023° 06' 15.13" E	520B
2 FER-MOO 191	27° 12' 0.33" S	023° 06' 31.14" E	520B

2 FER-MOO 192	27° 11' 54.45" S	023° 06' 46.5" E	518H
FARM NAME	Remainder of Lower Kuruman Native Reserve 219		
CONDITIONS	– Contractor to have meeting with community to explain the construction process and job opportunities before construction.		
NO OF TOWERS	58		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 193	27° 11' 49.68" S	023° 06' 58.97" E	518C
2 FER-MOO 194	27° 11' 45.36" S	023° 07' 10.28" E	518H
2 FER-MOO 195	27° 11' 40.55" S	023° 07' 22.86" E	515E
2 FER-MOO 196	27° 11' 43.46" S	023° 07' 36.01" E	520B
2 FER-MOO 197	27° 11' 46.3" S	023° 07' 48.81" E	520B
2 FER-MOO 198	27° 11' 49.32" S	023° 08' 2.45" E	520B
2 FER-MOO 199	27° 11' 52.39" S	023° 08' 16.29" E	515D
2 FER-MOO 200	27° 12' 2.69" S	023° 08' 27.23" E	520B
2 FER-MOO 201	27° 12' 13.11" S	023° 08' 38.3" E	520B
2 FER-MOO 202	27° 12' 22.77" S	023° 08' 48.57" E	520B
2 FER-MOO 203	27° 12' 29.35" S	023° 08' 55.55" E	515E
2 FER-MOO 204	27° 12' 28.97" S	023° 09' 12.57" E	520B
2 FER-MOO 205	27° 12' 28.57" S	023° 09' 30.34" E	520B
2 FER-MOO 206	27° 12' 28.17" S	023° 09' 47.91" E	520B
2 FER-MOO 207	27° 12' 27.77" S	023° 10' 5.64" E	520B
2 FER-MOO 208	27° 12' 27.38" S	023° 10' 22.74" E	520B
2 FER-MOO 209	27° 12' 27.06" S	023° 10' 37.09" E	515E
2 FER-MOO 210	27° 12' 26.73" S	023° 10' 51.76" E	520B
2 FER-MOO 211	27° 12' 26.38" S	023° 11' 7.23" E	518H
2 FER-MOO 212	27° 12' 25.97" S	023° 11' 24.89" E	518H
2 FER-MOO 213	27° 12' 25.59" S	023° 11' 41.99" E	520B
2 FER-MOO 214	27° 12' 25.17" S	023° 12' 0.32" E	520B
2 FER-MOO 215	27° 12' 24.78" S	023° 12' 17.38" E	520B
2 FER-MOO 216	27° 12' 24.38" S	023° 12' 34.9" E	518C
2 FER-MOO 217	27° 12' 23.95" S	023° 12' 53.53" E	518C
2 FER-MOO 218	27° 12' 32.88" S	023° 13' 5.46" E	520B
2 FER-MOO 219	27° 12' 41.3" S	023° 13' 16.73" E	520B
2 FER-MOO 220	27° 12' 49.73" S	023° 13' 27.99" E	520B
2 FER-MOO 221	27° 12' 59.66" S	023° 13' 41.27" E	520B
2 FER-MOO 222	27° 13' 9.44" S	023° 13' 54.34" E	520B
2 FER-MOO 223	27° 13' 19.92" S	023° 14' 8.36" E	520B

2 FER-MOO 224	27° 13' 29.36" S	023° 14' 20.98" E	520B
2 FER-MOO 225	27° 13' 39.3" S	023° 14' 34.28" E	520B
2 FER-MOO 226	27° 13' 48.97" S	023° 14' 47.21" E	520B
2 FER-MOO 227	27° 13' 59.11" S	023° 15' 0.77" E	520B
2 FER-MOO 228	27° 14' 9.34" S	023° 15' 14.46" E	520B
2 FER-MOO 229	27° 14' 19.61" S	023° 15' 28.2" E	520B
2 FER-MOO 230	27° 14' 29.94" S	023° 15' 42.03" E	520B
2 FER-MOO 231	27° 14' 40.41" S	023° 15' 56.03" E	520B
2 FER-MOO 232	27° 14' 50.44" S	023° 16' 9.46" E	520B
2 FER-MOO 233	27° 15' 0.9" S	023° 16' 23.46" E	520B
2 FER-MOO 234	27° 15' 10.97" S	023° 16' 36.94" E	520B
2 FER-MOO 235	27° 15' 21.42" S	023° 16' 50.92" E	520B
2 FER-MOO 236	27° 15' 31.48" S	023° 17' 4.39" E	520B
2 FER-MOO 237	27° 15' 41.87" S	023° 17' 18.31" E	520B
2 FER-MOO 238	27° 15' 51.82" S	023° 17' 31.62" E	520B
2 FER-MOO 239	27° 16' 1.3" S	023° 17' 44.31" E	520B
2 FER-MOO 240	27° 16' 0.61" S	023° 18' 0.64" E	520B
2 FER-MOO 241	27° 15' 59.86" S	023° 18' 18.5" E	520B
2 FER-MOO 242	27° 15' 59.11" S	023° 18' 36.5" E	518C
2 FER-MOO 243	27° 15' 58.37" S	023° 18' 54.12" E	518C
2 FER-MOO 244	27° 15' 57.64" S	023° 19' 11.45" E	520B
2 FER-MOO 245	27° 15' 56.93" S	023° 19' 28.23" E	520B
2 FER-MOO 246	27° 15' 56.22" S	023° 19' 45.16" E	520B
2 FER-MOO 247	27° 15' 55.51" S	023° 20' 2.01" E	520B
2 FER-MOO 248	27° 15' 54.79" S	023° 20' 19.05" E	520B
2 FER-MOO 249	27° 15' 54.07" S	023° 20' 36.03" E	520B
2 FER-MOO 250	27° 15' 53.35" S	023° 20' 52.95" E	520B
FARM NAME	Remainder of Minto 214		
CONDITIONS	– Contact Kgosi Jantjies before construction starts.		
NO OF TOWERS	1		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 251	27° 15' 52.64" S	023° 21' 9.96" E	520B
FARM NAME	Remainder of Nyra 213		
CONDITIONS	– Contact Kgosi Jantjies before construction starts.		
NO OF TOWERS	10		

TOWER NUMBER	LATITUDE (S)	LONGITUDE (E)	TOWER STRUCTURES
2 FER-MOO 252	27° 15' 51.89" S	023° 21' 27.62" E	520B
2 FER-MOO 253	27° 15' 51.17" S	023° 21' 44.48" E	520B
2 FER-MOO 254	27° 15' 50.47" S	023° 22' 1.01" E	520B
2 FER-MOO 255	27° 15' 49.75" S	023° 22' 18.07" E	520B
2 FER-MOO 256	27° 15' 49.02" S	023° 22' 35.21" E	520B
2 FER-MOO 257	27° 15' 48.3" S	023° 22' 52.04" E	520B
2 FER-MOO 258	27° 15' 47.58" S	023° 23' 9.14" E	520B
2 FER-MOO 259	27° 15' 46.84" S	023° 23' 26.34" E	520B
2 FER-MOO 260	27° 15' 46.12" S	023° 23' 43.46" E	520B
2 FER-MOO 261	27° 15' 45.39" S	023° 24' 0.56" E	520B
FARM NAME	Portion 2 of Nyra 213		
CONDITIONS	– Contact Kgosi Jantjies before construction starts.		
NO OF TOWERS	5		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 262	27° 15' 44.68" S	023° 24' 17.14" E	515C
2 FER-MOO 263	27° 15' 42.08" S	023° 24' 33.56" E	520B
2 FER-MOO 264	27° 15' 39.29" S	023° 24' 51.27" E	520B
2 FER-MOO 265	27° 15' 36.55" S	023° 25' 8.59" E	520B
2 FER-MOO 266	27° 15' 33.78" S	023° 25' 26.09" E	520B
FARM NAME	Portion 8 of Churchill 211		
CONDITIONS	- Contact Kgosi Jantjies before construction starts.		
NO OF TOWERS	2		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 267	27° 15' 30.98" S	023° 25' 43.77" E	520B
2 FER-MOO 268	27° 15' 28.19" S	023° 26' 1.39" E	520B
FARM NAME	Portion 7 of Churchill 211		
CONDITIONS	– Contact Kgosi Jantjies before construction starts.		
NO OF TOWERS	1		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 269	27° 15' 25.42" S	023° 26' 18.92" E	520B
FARM NAME	Portion 3 of Churchill 211		
CONDITIONS	– Contact Kgosi Jantjies before construction starts.		

NO OF TOWERS	1		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 270	27° 15' 22.63" S	023° 26' 36.53" E	520B
FARM NAME	Portion 5 of Churchill 211		
CONDITIONS	– Contact Kgosi Jantjies before construction starts.		
NO OF TOWERS	3		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 271	27° 15' 19.88" S	023° 26' 53.9" E	520B
2 FER-MOO 272	27° 15' 17.11" S	023° 27' 11.42" E	520B
2 FER-MOO 273	27° 15' 14.32" S	023° 27' 29.02" E	520B
FARM NAME	Portion 4 of Churchill 211		
CONDITIONS	– Contact Kgosi Jantjies before construction starts.		
NO OF TOWERS	4		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 274	27° 15' 11.54" S	023° 27' 46.56" E	520B
2 FER-MOO 275	27° 15' 8.8" S	023° 28' 3.88" E	520B
2 FER-MOO 276	27° 15' 6.16" S	023° 28' 20.5" E	515D
2 FER-MOO 277	27° 15' 7.58" S	023° 28' 37.36" E	520B
FARM NAME	Remainder of Churchill 211		
CONDITIONS	– Contact Kgosi Jantjies before construction starts.		
NO OF TOWERS	6		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 278	27° 15' 9.06" S	023° 28' 54.97" E	520B
2 FER-MOO 279	27° 15' 10.56" S	023° 29' 12.91" E	518C
2 FER-MOO 280	27° 15' 12.07" S	023° 29' 30.87" E	518C
2 FER-MOO 281	27° 15' 13.58" S	023° 29' 48.88" E	520B
2 FER-MOO 282	27° 15' 15.06" S	023° 30' 6.59" E	520B
2 FER-MOO 283	27° 15' 16.54" S	023° 30' 24.24" E	520B
FARM NAME	Farm Cordington 210		
CONDITIONS	– Contact Kgosi Jantjies before construction starts.		
NO OF TOWERS	1		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 284	27° 15' 17.76" S	023° 30' 38.79" E	520B

FARM NAME	Portion 3 of Kookfontein 208		
CONDITIONS	– Contact Kgosi Jantjies before construction starts.		
NO OF TOWERS	7		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 285	27° 15' 19.2" S	023° 30' 56.05" E	520B
2 FER-MOO 286	27° 15' 20.64" S	023° 31' 13.3" E	520B
2 FER-MOO 287	27° 15' 22.1" S	023° 31' 30.71" E	520B
2 FER-MOO 288	27° 15' 23.54" S	023° 31' 47.98" E	520B
2 FER-MOO 289	27° 15' 25.01" S	023° 32' 5.6" E	520B
2 FER-MOO 290	27° 15' 26.25" S	023° 32' 20.43" E	520B
2 FER-MOO 291	27° 15' 27.72" S	023° 32' 38.07" E	520B
FARM NAME	Portion 2 of Kookfontein 208		
CONDITIONS	– Contact Kgosi Jantjies before construction starts.		
NO OF TOWERS	4		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 292	27° 15' 29.15" S	023° 32' 55.22" E	520B
2 FER-MOO 293	27° 15' 30.6" S	023° 33' 12.56" E	520B
2 FER-MOO 294	27° 15' 32.07" S	023° 33' 30.23" E	520B
2 FER-MOO 295	27° 15' 33.5" S	023° 33' 47.35" E	520B
FARM NAME	Remainder of Kookfontein 208		
CONDITIONS	– Contact Kgosi Jantjies before construction starts.		
NO OF TOWERS	4		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 296	27° 15' 34.97" S	023° 34' 5.01" E	520B
2 FER-MOO 297	27° 15' 36.43" S	023° 34' 22.53" E	520B
2 FER-MOO 298	27° 15' 37.79" S	023° 34' 38.89" E	520B
2 FER-MOO 299	27° 15' 39.06" S	023° 34' 54.21" E	518H
FARM NAME	Ellendale 207		
CONDITIONS	– Contact Kgosi Jantjies before construction starts.		
NO OF TOWERS	7		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 300	27° 15' 40.3" S	023° 35' 9.13" E	520B
2 FER-MOO 301	27° 15' 41.7" S	023° 35' 25.96" E	515C

2 FER-MOO 302	27° 15' 41.46" S	023° 35' 43.57" E	520B
2 FER-MOO 303	27° 15' 41.22" S	023° 36' 0.67" E	520B
2 FER-MOO 304	27° 15' 40.98" S	023° 36' 17.66" E	520B
2 FER-MOO 305	27° 15' 40.73" S	023° 36' 34.96" E	520B
2 FER-MOO 306	27° 15' 40.49" S	023° 36' 52.24" E	520B
FARM NAME	Wilstead 99		
CONDITIONS	– Contact Kgosi Phethlu before construction starts.		
NO OF TOWERS	11		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 307	27° 15' 40.27" S	023° 37' 7.81" E	520B
2 FER-MOO 308	27° 15' 40.02" S	023° 37' 25.36" E	520B
2 FER-MOO 309	27° 15' 39.78" S	023° 37' 42.55" E	520B
2 FER-MOO 310	27° 15' 39.54" S	023° 37' 58.97" E	520B
2 FER-MOO 311	27° 15' 39.29" S	023° 38' 16.29" E	520B
2 FER-MOO 312	27° 15' 39.05" S	023° 38' 33.36" E	520B
2 FER-MOO 313	27° 15' 38.8" S	023° 38' 50.41" E	520B
2 FER-MOO 314	27° 15' 38.56" S	023° 39' 7.54" E	520B
2 FER-MOO 315	27° 15' 38.31" S	023° 39' 24.64" E	520B
2 FER-MOO 316	27° 15' 38.06" S	023° 39' 41.86" E	520B
2 FER-MOO 317	27° 15' 37.81" S	023° 39' 58.99" E	520B
FARM NAME	Portion 2 of Golington 101		
CONDITIONS	– Contact Kgosi Phethlu before construction starts.		
NO OF TOWERS	1		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 318	27° 15' 37.56" S	023° 40' 16.08" E	520B
FARM NAME	Portion 1 of Warden 102		
CONDITIONS	Contact Kgosi Phethlu before construction starts.		
NO OF TOWERS	9		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 319	27° 15' 37.31" S	023° 40' 33.31" E	520B
2 FER-MOO 320	27° 15' 37.07" S	023° 40' 50.01" E	520B
2 FER-MOO 321	27° 15' 36.81" S	023° 41' 7.5" E	520B
2 FER-MOO 322	27° 15' 36.55" S	023° 41' 25.17" E	520B
2 FER-MOO 323	27° 15' 36.29" S	023° 41' 43.12" E	520B
2 FER-MOO 324	27° 15' 36.03" S	023° 42' 0.87" E	520B

2 FER-MOO 325	27° 15' 35.76" S	023° 42' 18.82" E	520B
2 FER-MOO 326	27° 15' 35.5" S	023° 42' 36.59" E	520B
2 FER-MOO 327	27° 15' 35.23" S	023° 42' 54.46" E	520B
FARM NAME	Remainder of Warden 102		
CONDITIONS	– Contact Kgosi Phethlu before construction starts.		
NO OF TOWERS	5		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 328	27° 15' 34.98" S	023° 43' 11.29" E	515C
2 FER-MOO 329	27° 15' 31.24" S	023° 43' 27.47" E	520B
2 FER-MOO 330	27° 15' 27.21" S	023° 43' 44.87" E	520B
2 FER-MOO 331	27° 15' 23.11" S	023° 44' 2.6" E	520B
2 FER-MOO 332	27° 15' 19.09" S	023° 44' 19.99" E	520B
FARM NAME	Portion 1 of Kgatlagomo 106		
CONDITIONS	– Contact Kgosi Phethlu before construction starts.		
NO OF TOWERS	10		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 333	27° 15' 14.98" S	023° 44' 37.74" E	520B
2 FER-MOO 334	27° 15' 11.0" S	023° 44' 54.89" E	520B
2 FER-MOO 335	27° 15' 6.96" S	023° 45' 12.35" E	520B
2 FER-MOO 336	27° 15' 2.89" S	023° 45' 29.91" E	520B
2 FER-MOO 337	27° 14' 58.86" S	023° 45' 47.33" E	520B
2 FER-MOO 338	27° 14' 54.82" S	023° 46' 4.75" E	520B
2 FER-MOO 339	27° 14' 50.73" S	023° 46' 22.4" E	520B
2 FER-MOO 340	27° 14' 46.67" S	023° 46' 39.89" E	520B
2 FER-MOO 341	27° 14' 42.61" S	023° 46' 57.43" E	520B
2 FER-MOO 342	27° 14' 38.59" S	023° 47' 14.75" E	520B
FARM NAME	Remainder of Kgatlagomo 106		
CONDITIONS	– Contact Kgosi Phethlu before construction starts.		
NO OF TOWERS	1		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 343	27° 14' 34.45" S	023° 47' 32.61" E	520B
FARM NAME	Portion 1 of Colston 109		
CONDITIONS	– Contact Kgosi Phethlu before construction starts.		
NO OF TOWERS	6		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 344	27° 14' 30.52" S	023° 47' 49.55" E	520B

2 FER-MOO 345	27° 14' 26.34" S	023° 48' 7.55" E	520B
2 FER-MOO 346	27° 14' 22.49" S	023° 48' 24.18" E	520B
2 FER-MOO 347	27° 14' 18.56" S	023° 48' 41.1" E	520B
2 FER-MOO 348	27° 14' 14.52" S	023° 48' 58.5" E	520B
2 FER-MOO 349	27° 14' 10.5" S	023° 49' 15.82" E	520B
FARM NAME	Portion 2 of Depatholong 108		
CONDITIONS	– Contact Kgosi Phethlu before construction starts.		
NO OF TOWERS	5		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 350	27° 14' 6.48" S	023° 49' 33.15" E	520B
2 FER-MOO 351	27° 14' 2.46" S	023° 49' 50.44" E	520B
2 FER-MOO 352	27° 13' 58.46" S	023° 50' 7.67" E	520B
2 FER-MOO 353	27° 13' 54.34" S	023° 50' 25.4" E	520B
2 FER-MOO 354	27° 13' 50.31" S	023° 50' 42.74" E	520B
FARM NAME	Remainder of Depatholong 108		
CONDITIONS	– Contact Kgosi Phethlu before construction starts.		
NO OF TOWERS	4		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 355	27° 13' 46.36" S	023° 50' 59.73" E	520B
2 FER-MOO 356	27° 13' 42.16" S	023° 51' 17.81" E	520B
2 FER-MOO 357	27° 13' 38.77" S	023° 51' 32.38" E	520B
2 FER-MOO 358	27° 13' 34.65" S	023° 51' 50.1" E	520B
FARM NAME	Portion 1 of Witnesham 111		
CONDITIONS	– Contact Kgosi Phethlu before construction starts.		
NO OF TOWERS	3		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 359	27° 13' 30.7" S	023° 52' 7.1" E	520B
2 FER-MOO 360	27° 13' 26.67" S	023° 52' 24.41" E	520B
2 FER-MOO 361	27° 13' 22.65" S	023° 52' 41.71" E	520B
FARM NAME	Portion 3 of Witnesham 111		
CONDITIONS	– Contact Kgosi Phethlu before construction starts.		
NO OF TOWERS	2		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**

2 FER-MOO 362	27° 13' 18.62" S	023° 52' 59.03" E	520B
2 FER-MOO 363	27° 13' 14.6" S	023° 53' 16.28" E	520B
FARM NAME	Portion 2 of Witnesham 111		
CONDITIONS	– Contact Kgosi Phethlu before construction starts.		
NO OF TOWERS	5		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 364	27° 13' 10.66" S	023° 53' 33.24" E	520B
2 FER-MOO 365	27° 13' 6.63" S	023° 53' 50.54" E	520B
2 FER-MOO 366	27° 13' 2.65" S	023° 54' 7.66" E	520B
2 FER-MOO 367	27° 12' 58.93" S	023° 54' 23.6" E	515C
2 FER-MOO 368	27° 12' 58.67" S	023° 54' 40.38" E	520B
FARM NAME	Portion 2 of Kormutsetla 639		
CONDITIONS	– Contact landowner prior to access on the property.		
NO OF TOWERS	4		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 369	27° 12' 58.39" S	023° 54' 58.23" E	520B
2 FER-MOO 370	27° 12' 58.1" S	023° 55' 16.2" E	520B
2 FER-MOO 371	27° 12' 57.82" S	023° 55' 33.87" E	520B
2 FER-MOO 372	27° 12' 57.53" S	023° 55' 51.87" E	520B
FARM NAME	Portion 1 of Kormutsetla 639		
CONDITIONS	–		
NO OF TOWERS	8		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 373	27° 12' 57.24" S	023° 56' 9.84" E	520B
2 FER-MOO 374	27° 12' 56.96" S	023° 56' 27.76" E	520B
2 FER-MOO 375	27° 12' 56.67" S	023° 56' 45.59" E	520B
2 FER-MOO 376	27° 12' 56.38" S	023° 57' 3.4" E	520B
2 FER-MOO 377	27° 12' 56.1" S	023° 57' 21.19" E	520B
2 FER-MOO 378	27° 12' 55.81" S	023° 57' 38.7" E	520B
2 FER-MOO 379	27° 12' 55.53" S	023° 57' 56.21" E	520B
2 FER-MOO 380	27° 12' 55.25" S	023° 58' 13.66" E	520B
FARM NAME	Remainder of Kormutsetla 639		
CONDITIONS	– Contact owner prior to construction. – No open fires. – Use portable toilets.		

	– Keep gates closed.		
NO OF TOWERS	15		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 381	27° 12' 54.96" S	023° 58' 31.47" E	520B
2 FER-MOO 382	27° 12' 54.67" S	023° 58' 49.32" E	520B
2 FER-MOO 383	27° 12' 54.37" S	023° 59' 7.15" E	520B
2 FER-MOO 384	27° 12' 54.08" S	023° 59' 25.1" E	520B
2 FER-MOO 385	27° 12' 53.79" S	023° 59' 42.89" E	520B
2 FER-MOO 386	27° 12' 53.5" S	024° 00' 0.53" E	520B
2 FER-MOO 387	27° 12' 53.21" S	024° 00' 17.88" E	520B
2 FER-MOO 388	27° 12' 52.91" S	024° 00' 35.9" E	520B
2 FER-MOO 389	27° 12' 52.61" S	024° 00' 53.95" E	520B
2 FER-MOO 390	27° 12' 52.32" S	024° 01' 11.75" E	520B
2 FER-MOO 391	27° 12' 52.03" S	024° 01' 29.21" E	520B
2 FER-MOO 392	27° 12' 51.75" S	024° 01' 45.74" E	520B
2 FER-MOO 393	27° 12' 51.46" S	024° 02' 3.34" E	520B
2 FER-MOO 394	27° 12' 51.17" S	024° 02' 20.71" E	520B
2 FER-MOO 395	27° 12' 50.87" S	024° 02' 38.32" E	520B
FARM NAME	Remainder of Kalahari 644		
CONDITIONS	– Contact landowner prior to access on the property.		
NO OF TOWERS	4		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 396	27° 12' 50.59" S	024° 02' 55.4" E	520B
2 FER-MOO 397	27° 12' 50.27" S	024° 03' 14.33" E	520B
2 FER-MOO 398	27° 12' 49.98" S	024° 03' 31.55" E	520B
2 FER-MOO 399	27° 12' 49.67" S	024° 03' 49.66" E	520B
FARM NAME	Portion 2 of Kalahari 644		
CONDITIONS	– Contact owner prior to construction. – No open fires. – Use portable toilets. – Keep gates closed.		
NO OF TOWERS	2		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 400	27° 12' 49.37" S	024° 04' 7.18" E	520B
2 FER-MOO 401	27° 12' 49.07" S	024° 04' 25.12" E	520B
FARM NAME	Portion 7 of Kalahari 644		

CONDITIONS	– Contact owner prior to construction. – No open fires. – Use portable toilets. – Keep gates closed.		
NO OF TOWERS	1		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 402	27° 12' 48.78" S	024° 04' 41.98" E	515C
FARM NAME	Portion 3 of Kalahari 644		
CONDITIONS	– Contact the municipality prior to construction. – The public must be notified of the powerline prior to construction. – Replace stormwater drainage if damaged. – Any existing services to be relocated will be for Eskom's cost.		
NO OF TOWERS	2		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 403	27° 12' 41.77" S	024° 04' 56.12" E	520B
2 FER-MOO 404	27° 12' 34.0" S	024° 05' 11.8" E	520B
FARM NAME	Portion 1 of Kalahari 644		
CONDITIONS	– Keep Gates Closed. – No open Fires. – Contact owner before construction. – No hunting of animals.		
NO OF TOWERS	5		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 405	27° 12' 27.28" S	024° 05' 25.35" E	520B
2 FER-MOO 406	27° 12' 19.38" S	024° 05' 41.28" E	520B
2 FER-MOO 407	27° 12' 11.65" S	024° 05' 56.85" E	520B
2 FER-MOO 408	27° 12' 3.87" S	024° 06' 12.54" E	520B
2 FER-MOO 409	27° 11' 56.21" S	024° 06' 27.98" E	520B
FARM NAME	Remainder of Holpan 645		
CONDITIONS	– Keep Gates Closed. – No open Fires. – Contact owner before construction. – No hunting of animals.		
NO OF TOWERS	4		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 410	27° 11' 49.21" S	024° 06' 42.09" E	520B
2 FER-MOO 411	27° 11' 41.94" S	024° 06' 56.74" E	515C
2 FER-MOO 412	27° 11' 35.11" S	024° 07' 12.89" E	520B
2 FER-MOO 413	27° 11' 28.28" S	024° 07' 29.02" E	520B

FARM NAME	Portion 2 of Holpan 645		
CONDITIONS	– Keep Gates Closed. – No open Fires. – Contact owner before construction.		
NO OF TOWERS	6		
TOWER NUMBER	LATITUDE (S)	LONGITUDE (E)	TOWER STRUCTURES
2 FER-MOO 414	27° 11' 22.35" S	024° 07' 43.02" E	520B
2 FER-MOO 415	27° 11' 16.26" S	024° 07' 57.41" E	520B
2 FER-MOO 416	27° 11' 9.77" S	024° 08' 12.73" E	520B
2 FER-MOO 417	27° 11' 3.17" S	024° 08' 28.31" E	520B
2 FER-MOO 418	27° 10' 56.3" S	024° 08' 44.54" E	520B
2 FER-MOO 419	27° 10' 49.45" S	024° 09' 0.71" E	520B
FARM NAME	Portion 1 of Hartebeest Bult 648		
CONDITIONS	– Keep Gates Closed. – No open Fires. – Contact owner before construction.		
NO OF TOWERS	3		
TOWER NUMBER	LATITUDE (S)	LONGITUDE (E)	TOWER STRUCTURES
2 FER-MOO 420	27° 10' 42.61" S	024° 09' 16.87" E	520B
2 FER-MOO 421	27° 10' 35.75" S	024° 09' 33.07" E	520B
2 FER-MOO 422	27° 10' 28.98" S	024° 09' 49.05" E	520B
FARM NAME	Portion 4 of Hartebeest Bult 648		
CONDITIONS	– Contact the landowner prior to access.		
NO OF TOWERS	2		
TOWER NUMBER	LATITUDE (S)	LONGITUDE (E)	TOWER STRUCTURES
2 FER-MOO 423	27° 10' 22.15" S	024° 10' 5.15" E	520B
2 FER-MOO 424	27° 10' 15.68" S	024° 10' 20.41" E	520B
FARM NAME	Portion 7 of Hartebeest Bult 648		
CONDITIONS	– Keep Gates Closed. – No open Fires. – Contact owner before construction.		
NO OF TOWERS	1		
TOWER NUMBER	LATITUDE (S)	LONGITUDE (E)	TOWER STRUCTURES
2 FER-MOO 425	27° 10' 8.79" S	024° 10' 36.68" E	520B
FARM NAME	Remainder of Hartebeest Bult 648		

CONDITIONS	- Contact owner before construction.		
NO OF TOWERS	8		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 426	27° 10' 2.13" S	024° 10' 52.4" E	520B
2 FER-MOO 427	27° 09' 55.3" S	024° 11' 8.49" E	520B
2 FER-MOO 428	27° 09' 48.53" S	024° 11' 24.46" E	520B
2 FER-MOO 429	27° 09' 41.78" S	024° 11' 40.38" E	520B
2 FER-MOO 430	27° 09' 35.08" S	024° 11' 56.18" E	520B
2 FER-MOO 431	27° 09' 30.0" S	024° 12' 8.17" E	520B
2 FER-MOO 432	27° 09' 23.87" S	024° 12' 22.61" E	520B
2 FER-MOO 433	27° 09' 17.66" S	024° 12' 37.25" E	520B
FARM NAME	Remainder of Beginsel Pan 649		
CONDITIONS	– Contact owner prior to access. – Keep gates closed. – Use portable toilets.		
NO OF TOWERS	5		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 434	27° 09' 11.34" S	024° 12' 52.79" E	520B
2 FER-MOO 435	27° 09' 5.53" S	024° 13' 7.05" E	520B
2 FER-MOO 436	27° 09' 0.16" S	024° 13' 20.25" E	520B
2 FER-MOO 437	27° 08' 54.57" S	024° 13' 33.98" E	520B
2 FER-MOO 438	27° 08' 48.92" S	024° 13' 47.87" E	520B
FARM NAME	Portion 7 of Beginsel Pan 649		
CONDITIONS	– Keep Gates Closed. – No open Fires. – Contact owner before construction.		
NO OF TOWERS	2		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 439	27° 08' 43.92" S	024° 14' 0.14" E	520B
2 FER-MOO 440	27° 08' 38.6" S	024° 14' 13.21" E	520B
FARM NAME	Portion 6 of Beginsel Pan 649		
CONDITIONS	– Contact owner prior to access. – Keep gates closed. – No open fires.		
NO OF TOWERS	4		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 441	27° 08' 33.2" S	024° 14' 26.47" E	515C

2 FER-MOO 442	27° 08' 30.45" S	024° 14' 41.48" E	520B
2 FER-MOO 443	27° 08' 27.7" S	024° 14' 56.52" E	520B
2 FER-MOO 444	27° 08' 24.96" S	024° 15' 11.5" E	520B
FARM NAME	Portion 1 of Beginsel Pan 649		
CONDITIONS	– Contact owner prior to access. – Keep gates closed. – No open fires. – Use portable toilets. – Communicate gates with owner. – No littering.		
NO OF TOWERS	2		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 445	27° 08' 22.31" S	024° 15' 25.99" E	520B
2 FER-MOO 446	27° 08' 19.57" S	024° 15' 40.97" E	518C
FARM NAME	Portion 1 of Eersteling 652		
CONDITIONS	– Contact owner prior to access. – Keep gates closed. – No open fires.		
NO OF TOWERS	3		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 447	27° 08' 26.48" S	024° 15' 56.44" E	518C
2 FER-MOO 448	27° 08' 24.92" S	024° 16' 11.34" E	520B
2 FER-MOO 449	27° 08' 23.33" S	024° 16' 26.58" E	520B
FARM NAME	Portion 8 of Beginsel Pan 649		
CONDITIONS	– Contact owner prior to access. – Keep gates closed. – No open fires.		
NO OF TOWERS	5		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 450	27° 08' 21.73" S	024° 16' 41.95" E	520B
2 FER-MOO 451	27° 08' 20.09" S	024° 16' 57.64" E	520B
2 FER-MOO 452	27° 08' 18.45" S	024° 17' 13.31" E	520B
2 FER-MOO 453	27° 08' 16.83" S	024° 17' 28.78" E	520B
2 FER-MOO 454	27° 08' 15.26" S	024° 17' 43.79" E	520B
FARM NAME	Remainder of Eersteling 652		
CONDITIONS	– Contact owner prior to access. – Keep gates closed. – No open fires.		

NO OF TOWERS	5		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 455	27° 08' 13.85" S	024° 18' 0.0" E	520B
2 FER-MOO 456	27° 08' 12.3" S	024° 18' 17.7" E	520B
2 FER-MOO 457	27° 08' 10.77" S	024° 18' 35.19" E	520B
2 FER-MOO 458	27° 08' 9.22" S	024° 18' 52.84" E	520B
2 FER-MOO 459	27° 08' 7.66" S	024° 19' 10.69" E	520B
FARM NAME	Remainder of Eengezind 651		
CONDITIONS	– Contact owner prior to access. – Keep gates closed. – No open fires.		
NO OF TOWERS	8		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 460	27° 08' 6.11" S	024° 19' 28.43" E	520B
2 FER-MOO 461	27° 08' 4.56" S	024° 19' 46.1" E	520B
2 FER-MOO 462	27° 08' 3.04" S	024° 20' 3.46" E	520B
2 FER-MOO 463	27° 08' 1.51" S	024° 20' 20.87" E	520B
2 FER-MOO 464	27° 07' 59.98" S	024° 20' 38.3" E	520B
2 FER-MOO 465	27° 07' 58.79" S	024° 20' 51.89" E	520B
2 FER-MOO 466	27° 07' 57.63" S	024° 21' 5.07" E	518C
2 FER-MOO 467	27° 07' 58.91" S	024° 21' 16.93" E	518C
FARM NAME	Portion 1 of Eengezind 651		
CONDITIONS	-		
NO OF TOWERS	1		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 468	27° 08' 0.82" S	024° 21' 34.71" E	520B
FARM NAME	Remainder of Rocklands 654		
CONDITIONS	– No construction before payment. – No fires. – No other structures than towers and conductors allowed in servitude.		
NO OF TOWERS	4		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 469	27° 08' 2.68" S	024° 21' 51.95" E	520B
2 FER-MOO 470	27° 08' 4.54" S	024° 22' 9.31" E	520B
2 FER-MOO 471	27° 08' 6.4" S	024° 22' 26.6" E	520B

2 FER-MOO 472	27° 08' 8.26" S	024° 22' 43.89" E	520B
FARM NAME	Portion 1 of Kalk Plaats 655		
CONDITIONS	– Contact owner prior to construction. – Keep gates locked. – No open fires.		
NO OF TOWERS	5		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 473	27° 08' 10.15" S	024° 23' 1.44" E	520B
2 FER-MOO 474	27° 08' 11.97" S	024° 23' 18.42" E	520B
2 FER-MOO 475	27° 08' 13.63" S	024° 23' 33.86" E	520B
2 FER-MOO 476	27° 08' 15.37" S	024° 23' 50.05" E	520B
2 FER-MOO 477	27° 08' 17.13" S	024° 24' 6.49" E	515D
FARM NAME	Remainder of Kalk Plaats 655		
CONDITIONS	– Contact owner prior to construction. – Keep gates locked.		
NO OF TOWERS	5		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 478	27° 08' 10.92" S	024° 24' 21.08" E	520B
2 FER-MOO 479	27° 08' 4.54" S	024° 24' 36.1" E	520B
2 FER-MOO 480	27° 07' 58.15" S	024° 24' 51.13" E	520B
2 FER-MOO 481	27° 07' 51.48" S	024° 25' 6.79" E	520B
2 FER-MOO 482	27° 07' 45.19" S	024° 25' 21.57" E	520B
FARM NAME	Remainder of Langgewacht 656		
CONDITIONS	– Contact owner prior to construction. – Keep gates locked. – No open fires. – Stay on servitude.		
NO OF TOWERS	6		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 483	27° 07' 38.93" S	024° 25' 36.29" E	515C
2 FER-MOO 484	27° 07' 33.71" S	024° 25' 52.3" E	520B
2 FER-MOO 485	27° 07' 28.35" S	024° 26' 8.74" E	520B
2 FER-MOO 486	27° 07' 23.09" S	024° 26' 24.86" E	520B
2 FER-MOO 487	27° 07' 17.94" S	024° 26' 40.65" E	520B
2 FER-MOO 488	27° 07' 12.56" S	024° 26' 57.14" E	520B
FARM NAME	Portion 2 of Langgewacht 656		

CONDITIONS	– Contact owner prior to access. – Keep gates closed. – No open fires.		
NO OF TOWERS	2		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 489	27° 07' 7.28" S	024° 27' 13.33" E	520B
2 FER-MOO 490	27° 07' 1.98" S	024° 27' 29.56" E	520B
FARM NAME	Portion 2 of Knoppies Vlakte 657		
CONDITIONS	-		
NO OF TOWERS	5		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 491	27° 06' 56.64" S	024° 27' 45.93" E	520B
2 FER-MOO 492	27° 06' 51.08" S	024° 28' 2.98" E	520B
2 FER-MOO 493	27° 06' 45.68" S	024° 28' 19.5" E	520B
2 FER-MOO 494	27° 06' 40.31" S	024° 28' 35.97" E	520B
2 FER-MOO 495	27° 06' 34.9" S	024° 28' 52.54" E	520B
2 FER-MOO 496	27° 06' 29.41" S	024° 29' 9.33" E	520B
FARM NAME	Portion 1 of Takwanen Native Reserve 662		
CONDITIONS	-		
NO OF TOWERS	5		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 497	27° 06' 24.43" S	024° 29' 24.59" E	520B
2 FER-MOO 498	27° 06' 18.88" S	024° 29' 40.81" E	520B
2 FER-MOO 500	27° 06' 7.45" S	024° 30' 14.18" E	520B
2 FER-MOO 501	27° 06' 1.83" S	024° 30' 30.57" E	520B
2 FER-MOO 502	27° 05' 56.27" S	024° 30' 46.83" E	520B
FARM NAME	Portion 2 of Takwanen Native Reserve 662		
CONDITIONS	-		
NO OF TOWERS	6		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 503	27° 05' 50.44" S	024° 31' 3.82" E	520B
2 FER-MOO 504	27° 05' 44.8" S	024° 31' 20.28" E	520B
2 FER-MOO 505	27° 05' 39.14" S	024° 31' 36.8" E	520B
2 FER-MOO 506	27° 05' 33.25" S	024° 31' 53.99" E	520B
2 FER-MOO 507	27° 05' 28.01" S	024° 32' 9.27" E	520B
2 FER-MOO 508	27° 05' 21.95" S	024° 32' 26.95" E	520B

FARM NAME	Portion 4 of Takwanen Native Reserve 662		
CONDITIONS	-		
NO OF TOWERS	14		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 509	27° 05' 16.4" S	024° 32' 43.13" E	520B
2 FER-MOO 510	27° 05' 10.87" S	024° 32' 59.26" E	520B
2 FER-MOO 511	27° 05' 5.61" S	024° 33' 14.6" E	520B
2 FER-MOO 512	27° 05' 0.34" S	024° 33' 29.98" E	515E
2 FER-MOO 513	27° 04' 45.39" S	024° 33' 37.61" E	515E
2 FER-MOO 514	27° 04' 40.59" S	024° 33' 50.58" E	520B
2 FER-MOO 515	27° 04' 34.99" S	024° 34' 5.72" E	520B
2 FER-MOO 516	27° 04' 29.44" S	024° 34' 20.71" E	520B
2 FER-MOO 517	27° 04' 23.4" S	024° 34' 37.04" E	520B
2 FER-MOO 518	27° 04' 17.38" S	024° 34' 53.28" E	520B
2 FER-MOO 519	27° 04' 11.38" S	024° 35' 9.5" E	520B
2 FER-MOO 520	27° 04' 5.28" S	024° 35' 25.96" E	520B
2 FER-MOO 521	27° 03' 59.25" S	024° 35' 42.25" E	520B
2 FER-MOO 522	27° 03' 53.17" S	024° 35' 58.67" E	520B
FARM NAME	Portion 1 of Driepoort 664		
CONDITIONS	– Contact owner prior to access. – Keep gates closed. – No open fires.		
NO OF TOWERS	3		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 523	27° 03' 47.18" S	024° 36' 14.84" E	520B
2 FER-MOO 524	27° 03' 41.02" S	024° 36' 31.46" E	520B
2 FER-MOO 525	27° 03' 34.89" S	024° 36' 48.01" E	520B
FARM NAME	Portion 2 of Driepoort 664		
CONDITIONS	– Contact owner prior to access. – Keep gates closed. – No open fires.		
NO OF TOWERS	4		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 526	27° 03' 29.0" S	024° 37' 3.89" E	520B
2 FER-MOO 527	27° 03' 22.82" S	024° 37' 20.57" E	520B
2 FER-MOO 528	27° 03' 16.84" S	024° 37' 36.7" E	515C

2 FER-MOO 529	27° 03' 8.89" S	024° 37' 49.61" E	520B
FARM NAME	Portion 5 of Nazareth 665		
CONDITIONS	– Contact the landowner prior to access.		
NO OF TOWERS	5		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 530	27° 03' 1.0" S	024° 38' 2.41" E	520B
2 FER-MOO 531	27° 02' 53.12" S	024° 38' 15.22" E	520B
2 FER-MOO 532	27° 02' 45.45" S	024° 38' 27.66" E	520B
2 FER-MOO 533	27° 02' 37.78" S	024° 38' 40.11" E	520B
2 FER-MOO 534	27° 02' 29.67" S	024° 38' 53.28" E	520B
FARM NAME	Portion 4 of Nazareth 665		
CONDITIONS	-		
NO OF TOWERS	4		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 535	27° 02' 21.01" S	024° 39' 7.32" E	520B
2 FER-MOO 536	27° 02' 12.35" S	024° 39' 21.37" E	520B
2 FER-MOO 537	27° 02' 4.43" S	024° 39' 34.22" E	520B
2 FER-MOO 538	27° 01' 56.43" S	024° 39' 47.21" E	520B
FARM NAME	Portion 1 of Retreat 671		
CONDITIONS	– Contact the landowner prior to access. – No open fires. – Fire and spark equipment to be monitored at all times. – Lock gates.		
NO OF TOWERS	6		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 539	27° 01' 49.05" S	024° 39' 59.17" E	520B
2 FER-MOO 540	27° 01' 40.71" S	024° 40' 12.71" E	520B
2 FER-MOO 541	27° 01' 32.26" S	024° 40' 26.4" E	520B
2 FER-MOO 542	27° 01' 23.79" S	024° 40' 40.15" E	520B
2 FER-MOO 543	27° 01' 15.34" S	024° 40' 53.85" E	520B
2 FER-MOO 544	27° 01' 6.51" S	024° 41' 8.17" E	520B
FARM NAME	Portion 1 of Frankfort 672		
CONDITIONS	– Contact the landowner prior to access. – No open fires. – Fire and spark equipment to be monitored at all times. – Lock gates.		
NO OF TOWERS	7		

TOWER NUMBER	LATITUDE (S)	LONGITUDE (E)	TOWER STRUCTURES
2 FER-MOO 545	27° 00' 58.6" S	024° 41' 20.99" E	520B
2 FER-MOO 546	27° 00' 50.45" S	024° 41' 34.2" E	520B
2 FER-MOO 547	27° 00' 42.31" S	024° 41' 47.39" E	520B
2 FER-MOO 548	27° 00' 34.83" S	024° 41' 59.53" E	520B
2 FER-MOO 549	27° 00' 27.4" S	024° 42' 11.56" E	520B
2 FER-MOO 550	27° 00' 20.56" S	024° 42' 22.65" E	520B
2 FER-MOO 551	27° 00' 14.16" S	024° 42' 33.02" E	515E
FARM NAME	FARM 673 IN		
CONDITIONS	-		
NO OF TOWERS	11		
TOWER NUMBER	**LATITUDE (S)**	**LONGITUDE (E)**	**TOWER STRUCTURES**
2 FER-MOO 552	27° 00' 19.12" S	024° 42' 47.39" E	520B
2 FER-MOO 553	27° 00' 23.94" S	024° 43' 1.34" E	520B
2 FER-MOO 554	27° 00' 28.61" S	024° 43' 14.87" E	520B
2 FER-MOO 555	27° 00' 33.42" S	024° 43' 28.81" E	520B
2 FER-MOO 556	27° 00' 37.9" S	024° 43' 41.78" E	520B
2 FER-MOO 557	27° 00' 42.62" S	024° 43' 55.45" E	520B
2 FER-MOO 558	27° 00' 47.39" S	024° 44' 9.27" E	520B
2 FER-MOO 559	27° 00' 52.07" S	024° 44' 22.81" E	515C
2 FER-MOO 560	27° 00' 55.48" S	024° 44' 36.7" E	518D
2 FER-MOO 561	27° 00' 52.03" S	024° 44' 39.56" E	518D
2 FER-MOO 562	27° 00' 43.88" S	024° 44' 36.03" E	518D
Gantry	27° 00' 42.11" S	024° 44' 35.52" E	

7.2 Sub-section 2: Development footprint site map

This sub-section must include a map of the site sensitivity overlaid with the preliminary infrastructure layout. The sensitivity map must be prepared from the national web based environmental screening tool, when available for compulsory use at: https://screening.environment.gov.za/screeningtool. The sensitivity map shall identify the nature of each sensitive feature e.g. raptor nest, threatened plant species, archaeological site, etc. Sensitivity maps shall identify features both within the planned working area and any known sensitive features in the surrounding landscape. The overhead transmission and distribution profile shall be illustrated at an appropriate resolution to enable fine scale interrogation. It is recommended that <20 km of overhead transmission and distribution length is illustrated per page in A3 landscape format. Where considered appropriate, photographs of sensitive features in the context of tower positions shall be used.

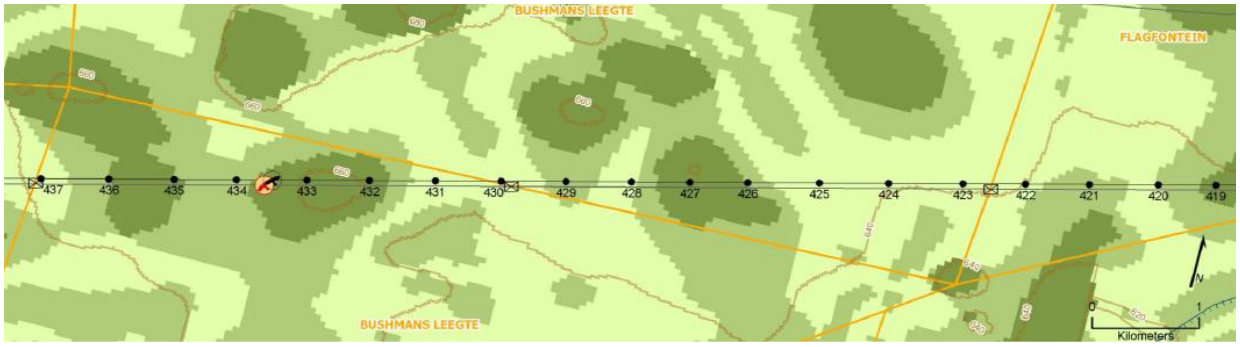


Figure 1: Example of an environmental sensitivity map in the context of a final overhead transmission and distribution profile.

The detailed sensitivity maps with the walkdown findings are attached in Appendix 3.

7.3 Sub-section 3: Declaration

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

Signature Proponent/applicant/ holder of EA Date:

obo I. Moeng 08 Jan 2025

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

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

PART C

8 SITE SPECIFIC ENVIRONMENTAL ATTRIBUTES

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

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

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

8.1 SPECIALIST RECOMMENDATIONS

8.1.1 Agriculture (Soil Potential and Land Capability)

Impact Management outcome: Minimal impact on soil and land capability

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
Management of loss of land capability – Direct surface disturbance of the identified arable soils can be avoided where possible to minimise loss of arable soils; – Avoid construction on active agricultural soils where feasible; – Minimise the development footprint within the actively cultivated soils; – The footprint areas must be lightly ripped to alleviate compaction; – Limit removal of vegetation to demarcated areas only; – Limit earthworks and vehicle movement to demarcated paths and areas.	cEO	Demarcate work areas and control vegetation clearance	Construction	• ECO	Weekly	Monitoring reports

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
Soil compaction management – Soil Compaction is usually greatest when soils are moist, so soils must be stripped when moisture content is as low as possible; – Heavy equipment movement over replaced soils must be minimised; – Minimise compaction during smoothing of replaced soils by using dozers rather than graders; and – Following placement, compacted soils must be ripped to full rooting depth (30cm as the bare minimum seedbed) to allow penetration of plant root.	cEO	Timing work activities. Implement method statement on soil compaction management.	Construction	• ECO	Daily	Monitoring report.

8.1.2 Animal and Plant Management

Impact Management outcome: Minimise habitat destruction, disturbance and loss of fauna.

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Limit deep excavations to areas where construction is starting. The concern is that animals can fall into the excavated holes. – Many of the animals in the area are active at dusk or dawn or during the night. Safety nets must be placed around the excavated areas to lower the risk of animals entering the area. – Use shade netting to ensure small animals such as small mammals and rodents can't get through the nets. – A ramp is left to help animals to escape during the night. – Part of the daily routine must be to remove any animals trapped at night and release them away from the active site.	cEO	• Placing shed netting around excavated areas and inspecting work areas in the morning and at the end of the day,	construction	• dEO • ECO	Daily.	• Incident Reports. • Photos of excavations and barricading.

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Killing of trapped animals and usage as bushmeat is prohibited. – Any dead animals must be removed off site and dispersed at predetermined sites.						
– An Alien Invasive Management Plan must be compiled for the project.	cEO dEO	• Compile an alien invasive plant management plan.	Once-off.	• ECO • DPM	Once-off	• Alien Invasive Management Plan

8.1.3 Avifauna

Impact Management outcome: Mitigate the displacement and direct mortality impacts caused by the construction and operation of the 400 kV power line

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– ECO walk ahead of clearance to ensure that no new nests are destroyed – Areas of indigenous vegetation, even secondary communities outside of the direct footprint, should under no circumstances be fragmented or disturbed further. – Clearing vegetation must be minimised and avoided where possible. – All activities must be restricted to flat areas as far as possible. It is recommended that areas to be developed be specifically demarcated so that during the construction phase, only the demarcated areas be impacted upon.	cEO ECO	• Site walkdown • Compilation of an access plan. • Demarcation of work areas before construction starts. • Progressive rehabilitation done during the project.	Construction	• ECO • dEO	As and when clearing is being done.	• Access Plan. • Demarcated areas. • Inspection and monitoring reports.

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– All structure footprints to be rehabilitated and landscaped after installation is complete. Rehabilitation of the disturbed areas existing in the project area must be made a priority. Topsoil must also be utilised, and any disturbed area must be re-vegetated with plant and grass species which are indigenous to this vegetation type. – Existing access routes, especially roads, must be made use of where feasible. The development areas and access roads should be specifically demarcated so that during the construction phase, only the demarcated areas may be impacted upon. – Areas that are denuded during construction need to be re-vegetated with indigenous vegetation to prevent erosion during flood and wind events. This will also reduce the likelihood of encroachment by alien invasive plant species.						

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Rehabilitated areas must be cordoned off and livestock access not permitted.						
Walkdown						
– The duration of the construction should be minimised to as short term as possible, to reduce the period of disturbance on avifauna.	DPM cEO	• Risk Assessment undertaken to ensure measures are in place, this will help with minimising delays.	Preconstruction/ Construction	• ECO • dEO	Monthly	• Risk Assessment
– Outside lighting must be designed and limited to minimise impacts on avifauna. All outside lighting should be directed away from highly sensitive areas. Fluorescent and mercury vapor lighting should be avoided, and sodium vapor	cEO dSS	• Installation of lights at the site camp done as per specification	Construction	• dEO	Once off	• Site Establishment Method Statement.

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
(green/red) lights should be used wherever possible.		during site establishment. • Monitoring the brightness of lights daily			Weekly	• Inspection Reports.
– Noise must be kept to an absolute minimum during the evenings and at night to minimise all possible disturbances. Construction should be restricted to daylight hours.	cEO dSS	• Issuing an instruction indicating working hours. • Daily vehicle inspections before work starts.	Construction	• ECO • dEO	Weekly	• Work Instruction. • Daily vehicle checklist
No trapping, killing, egg poaching or poisoning of any wildlife is to be allowed • Signs must be put up in communal areas to enforce this. • This must be communicated during toolbox talks.	cEO dSS	• Signs placed before construction activities start. • Weekly toolbox talks done	Construction	• ECO • dEO	Weekly	• Signs • Attendance Registers. • Toolbox talks

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
		during construction.				presentation.
– All construction and maintenance motor vehicle operators should undergo an environmental induction that includes instruction on the need to comply with speed limits, to respect all forms of wildlife. Speed limits must still be enforced to ensure that road killings, dust and erosion is limited. The speed limits should be restricted to maximum 40 km/h.		•		•		•
– Any holes/deep excavations must be dug and planted in a progressive manner and should not be left open overnight; Should the holes overnight they must be covered temporarily to ensure no avifauna species fall in.	cEO	• Issuing work instructions that ensure that excavations	Construction	• ECO	Weekly	• Work instructions • Inspection Report.

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
		are done progressively. • Inspections at the end of the work done to ensure that holes are covered,				
Power line mitigations: Powerline construction must follow the guidelines as outlined in the "Generic Environmental Management Programme Relevant to an Application for Substation and Overhead Electricity Transmission and Distribution Infrastructure", outlined in Government Gazette No. 42323 of 22 March 2019, must be adopted. • Any OHLs must be of a design that minimizes electrocution risk by using adequately insulated 'bird friendly' monopole structures, with	Line Engineer cEO	• Daily inspections to ensure EMPr measures are adequately implemented. • The usage of bird friendly towers and phase cables	Construction Pre-construction	• ECO • EAP • DPM	Daily Once-off	• Inspection Report • Design Report

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
clearances between live components of 2 m or greater. • Ensure that the phase cables are spaced far enough apart to reduce the risk of large birds touching both simultaneously (2 m for large raptors and vultures) (Prinsen et al., 2012). If such separation (isolation) cannot be provided, exposed parts must be covered (insulated) to reduce electrocution risk.		in the line design.				
Environmental Awareness – All personnel and contractors to undergo Environmental Awareness Training. A signed register of attendance must be kept for proof. Discussions are required on sensitive environmental receptors within the project area to inform contractors and site staff of the presence of SCC and priority species, their identification, conservation status and importance, biology, habitat requirements and management	cEO	• Training done before construction activities start and weekly toolbox talks.	Construction	• ECO	Weekly	• Attendance Register. • Toolbox talk and Awareness presentation.

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
requirements the Environmental Authorisation and within the EMPr.						
– All data of fatalities need to be recorded in the national database (CIR) and incidents to undergo NTCSA environmental incidents management procedure. – Any devices that become damaged or fall during the operational phase to be replaced within a year of being identified. – The entire line to be monitored quarterly in the first year from the start of the line being built and second year line to be monitored biannually. First two years to be monitored by a registered avifaunal specialist. Quarterly and biannual ornithological management reports to be produced and actioned within a year of the reports being received. Further annual monitoring to be integrated into NTCSA's annual line	Grid Personnel Avifauna specialist	• Regular recording of fatalities on the national database. • Implementation of the environmental incidents management procedure. • Replacement of damaged/ failed devices. • Compilation and implementatio	Operation	• dEO • PM	Quarterly Biannual during the second year of operation. Thereafter annually.	• Record of fatalities. • Monitoring procedure and reporting. • Maintenance schedules. • Quarterly and biannual ornithological management report.

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
maintenance schedules by internal Environmental practitioners. – Should new knowledge and products that can significantly improve visibility for the species of concern be available, the products need to be considered for additional mitigation for this site.		n of monitoring procedures. • Implementation of new devices as and when they are available.				

8.1.4 Archaeological Assessment

Impact Management outcome: Proper management of archaeological features that may be discovered

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
Pre-construction education and awareness training – Before construction, contractors must be trained to identify and protect archaeological remains that may be discovered during the project. The pre-construction training should include some limited site recognition training for the types of archaeological sites that may occur in the construction areas. Below are some of the indicators of an archaeological site that may be found during construction: • Flaked stone tools, bone tools and loose pieces of flaked stone; • Ash and charcoal; • Bones and shell fragments;	cEO DSS	• Induction presentation • Toolbox talks. • Demarcating sensitive areas	• Pre-construction /Construction.	• dEO • ECO	Throughout construction	• Signed attendance register. • Induction presentation • Demarcated areas. • Incident Report.

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
• Artefacts (e.g., beads or hearths; • Packed stones which might be uncounted underground, and might indicate a grave or collapse stone walling. – In the event that any of the above are unearthed, construction on the affected pylon site should cease and the area be demarcated by a danger tape. Accordingly, a professional archaeologist or SAHRA officer should be contacted immediately. In the meantime, it is the responsibility of the contractor to protect the site from publicity (i.e., media) until a mutual agreement is reached. Noteworthy that any measures to cover up the suspected archaeological material or to collect any resources is illegal and punishable by law. In the same manner, no person may exhume or collect such remains, whether of recent origin or not, without the endorsement of SAHRA.						

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
Archaeological Chance Find Procedure The following procedures must be followed when heritage resources are encountered during the operational or construction phase: – All construction/clearance activities in the vicinity of the heritage resources found by accident on site must cease immediately to avoid further damage to the chance finds – Immediately report the chance finds to the supervisor/site manager or if they are unavailable, report to the project Environmental Officer (EO) who will provide further instructions. – Record (note taking, photograph with a scale, GPS coordinates) of all the chance find exposed during the activity. – All remains are to be stabilised in situ. – Secure (e.g., barricade) the area to prevent further disturbance on heritage resources.	cEO	• Regular training the workers about the ACP Procedures to ensure they know the steps to follow when they identify archaeological resources. • Finds must be recorded in the incident register including the steps followed after noting the find.	• Construction	• ECO	Monthly	• Attendance register. • Incident registers.

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
• The EO must contact the qualified archaeologist registered with the association for Association for Southern African Professional Archaeologist (ASAPA) or South African Heritage Resources Agency (SAHRA). • The project archaeologist will conduct the inspection and assess the significance of the chance finds under SAHRA guidelines, give recommendation and mitigation measures.						

8.1.5 Civil Aviation

Impact Management outcome: Ensure the safety of flights.

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Obstacle Approval from the SACAA is required.	PM dEO	• Obstacle assessment application	• Pre-construction	• ECO	Once off	• South African Civil Aviation Authority Approval.
– Sections of the powerline will need to be marked in compliance with SA-CATS 139.	PM dEO	• Marking the powerline according to SACAA/ ATNS	• Operation	• dEO	Once-off	• Marked powerline

8.1.6 Freshwater Assessment

Impact Management outcome: Mitigate the infilling of wetlands and other freshwater ecosystems, the loss of vegetation (and subsequent erosion) in or adjacent to freshwater ecosystems, and the possible fragmentation of habitats associated with freshwater ecosystems

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Avoid wetlands and buffers where feasible. – Implement a rehabilitation plan for any disturbed wetlands. Cleared areas must be rehabilitated and stabilised to avoid impacts to adjacent wetland and buffer areas. – Although the prescribed post-mitigation buffer as per the national buffer determination tool is 15 m attempt wherever possible to maintain a 33 m buffer on the delineated wetlands to lower the potential for bird collisions which are highest near water resources.	cEO dSS Line Engineer	• Consideration of the measure when doing line design. • Cordon off no-go areas • Application of Water Use License or General Authorisation. • Construction of crossing structures. • Have induction and toolbox talks. • Demarcate the work area before	Preconstruction and construction	• dEO • ECO	Weekly during constructio n.	• Approved profiles. • Demarcated no-go areas. • General Authorisation • Method Statement • Access route maps • Attendance registers and agenda • Photographic evidence of demarcated areas. • Work instructions.

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Reduce the disturbance footprint and the unnecessary clearing of vegetation when traversing the identified drainage lines. – Make use of existing access routes as much as possible, before new routes are considered. Any selected "new" route must not encroach into the wetland areas. – Keep tower base excavation and soil heaps neat and tidy. – Limit construction activities in proximity (< 50 m) to wetlands to the dry season when storms are least likely to wash concrete and sand into wetlands. This is only where towers are within wetlands and buffer areas. – Ensure soil stockpiles and concrete / building sand are sufficiently safeguarded against rain wash. – Mixing of concrete must under no circumstances take place in any wetland or their buffers. Scrape the area where mixing and		construction activities start. • Silt traps and sediment trapping berms before construction starts and inspecting and maintaining them weekly • Installation of erosion control infrastructures before construction activities start and regularly inspect and maintain them. • Undertake progressive rehabilitation in work areas. • Revegetation of bare areas				• Method Statements. • Monitoring Reports. • Inspection records. • Installed infrastructure. • No erosion noted.

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
storage of sand and concrete occurred to clean once finished. – Limit the placement of towers within wetlands and buffer areas where feasible. – Do not situate any of the construction material laydown areas within any wetland or buffer area. Try adhering to a 30 m buffer in these instances. – No machinery should be allowed to park in any wetlands or buffer areas. – Promptly remove all alien and invasive plant species that may emerge during construction (i.e. weedy annuals and other alien forbs) must be removed. – Limit soil disturbance. – The use of herbicides is not recommended in or near wetlands (opt for mechanical removal). – Appropriately stockpile topsoil cleared from the powerline footprint.		as and when they are noted. • Implement measures in the AMP as and when alien vegetation infestation is noted. Take photos before and after.				

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Clearly demarcate powerline construction footprint, and limit all activities within this area. – Minimize unnecessary clearing of vegetation beyond the tower footprints and powerline corridors. – Lightly till any disturbed soil around the tower footprint to avoid compaction. – See mitigation for increased bare surfaces, runoff and potential for erosion – Re-instate topsoil and lightly till transmission tower disturbance footprint. – Make sure all excess consumables and building materials / rubble is removed from site and deposited at an appropriate waste facility. – Appropriately contain any generator diesel storage tanks, machinery spills (e.g. accidental spills of hydrocarbons oils, diesel etc.) or construction materials on site (e.g. concrete) in such a way as to prevent them leaking and entering wetland or buffer areas.						

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– The Contractor must be in possession of an emergency spill kit that must be complete and available at all times on site; – Any possible contamination of topsoil by hydrocarbons must be avoided. Any contaminated soil must be treated in situ or be placed in containers and removed from the site for disposal in a licensed facility; – In line with the 2010 Eskom Environmental Procedure Document entitled "Procedure for vegetation clearance and maintenance within overhead powerline servitudes" all alien vegetation along the transmission servitude should be managed in terms of the Regulation GNR.1048 of 25 May 1984 (as amended) issued in terms of the Conservation of Agricultural Resources Act, Act 43 of 1983. By this Eskom is obliged to control category 1, 2 and 3 plants to the extent necessary to prevent or to contain the occurrence, establishment, growth,						

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
multiplication, propagation, regeneration and spreading such plants within servitude areas.						

8.1.7 Palaeontological Features

Impact Management outcome: Proper management of paleontological features that may be discovered

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– If any fossils are discovered during the excavations, then it is strongly recommended that the fossils are rescued and a paleontologist is called to assess their importance and make further recommendations. The following procedure must be considered in the event that previously unknown fossils or fossil sites are exposed or found during the life of the project: 1. Surface excavations should continuously be monitored by the ECO and any fossil material be unearthed the excavation must be halted. 2. If fossiliferous material has been disturbed during the excavation process it should be put aside to prevent it from being destroyed.	cEO DSS	• Induction presentation • Toolbox talks. • CFP implemented when palaeontology resources are identified.	• Construction	• dEO • ECO	Throughout construction	• Rescue Plan. • Paleontologist appointment letter.

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
3. The ECO then has to take a GPS reading of the site and take digital pictures of the fossil material and the site from which it came. 4. The ECO then should contact a palaeontologist and supply the palaeontologist with the information (locality and pictures) so that the palaeontologist can assess the importance of the find and make recommendations. 5. If the palaeontologist is convinced that this is a major find an inspection of the site must be scheduled as soon as possible in order to minimise delays to the development. From the photographs and/or the site visit the palaeontologist will make one of the following recommendations: a) The material is of no value so development can proceed, or: b) Fossil material is of some interest and a representative sample should be collected and put aside for further study and to be						

Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
incorporated into a recognised fossil repository after a permit was obtained from SAHRA for the removal of the fossils, after which the development may proceed, or: c) The fossils are scientifically important and the palaeontologist must obtain a SAHRA permit to excavate the fossils and take them to a recognised fossil repository, after which the development may proceed. 6. If any fossils are found then a schedule of monitoring will be set up between the developer and palaeontologist in case of further discoveries.						

8.1.8 Social

Impact Management outcome: Minimal negative impacts on society / the society

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
– Community Liaisons must be made available to sensitise the public about disruptions in operational schedule that will impact access to residential and other public activities whenever the project schedule should affect public activities and alternative arrangements be agreed upon with stakeholders to be affected in all the areas where such impacts should arise; – Communication measures to include farming communities and in order to make arrangement for Contractors to access farmlands to avoid exposure to criminals; – Security personnel must ensure that access to people's properties be controlled; – Where possible, local SMME's and labourers/jobseekers be considered for those	cEO DSS CLO	• CLO having meetings with landowners as and when disruptions are anticipated. • CLO and NTCSA to liaise with farmers about access before project starts. • Security to be hired at the onset of the project.	Throughout the project	• dEO • ECO	• As and when workers and material are required. • Skills Development - quarterly	• Communication Strategy implemented. • Complaints register. • Proof of notification • Signed Minutes • Certificates for skills training.

opportunities that can be made available for localization; – Safety and Health precautions be encouraged in the form of primary health care and safety training.		• Toolbox talks • Skills Development Plan • Health and Safety training				

8.1.9 Visual Impact

Impact Management outcome: Minimal visual impacts to the residents and tourists.

Impact Management Actions	**Implementation**			**Monitoring**		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
Landscape Integration – Design the substations and powerline structures to minimize contrast with the surrounding environment by using neutral, non-reflective colours and materials that blend with the natural landscape.	Line engineer.	• Placement of the towers to follow natural topographical lines	• Pre-Construction	• dEO • ECO	Once-off	• Tower positions • Design reports

– Position infrastructure to follow natural topographic lines and avoid prominent ridgelines or highly visible areas. **Viewshed Consideration** – Avoid locating infrastructure in areas with high visual sensitivity, such as near cultural or scenic landmarks, where the visual integrity is critical. – Perform site-specific analyses to identify less intrusive locations and adjust alignments accordingly. **Vegetative Screening** – Establish vegetative buffers with indigenous plant species along critical sections of the powerline to obscure structures and reduce visibility from key viewpoints. – Maintain and restore natural vegetation in disturbed areas to enhance visual absorption capacity and reduce the visual footprint of the development. **Construction Phase Mitigation**	cEO dSS	• Vegetation buffers installation in areas zoned as critical and regular maintenance of vegetation.	Construction Operations	• dEO • ECO	Monthly	• Maintenance reports • Operation Management Plan.

– Ensure temporary structures, materials, and equipment are placed out of sight from public areas and removed immediately after use. – Limit construction activities to defined areas and avoid unnecessary clearing of vegetation.	cEO dSS	• Establishing laydown areas out of sight from the public. • Demarcating work areas,	Construction	• dEO • ECO	Daily	• Site plan • Inspection records
Stakeholder Collaboration						
– Engage with local stakeholders to incorporate their concerns into the visual mitigation strategies, especially in areas of high cultural or aesthetic value. – Provide visual simulations and renderings to communicate the expected visual impact and proposed mitigation measures effectively.	EAP dEO	• Undertaking Public Participation activities such as meetings and using visuals to communicate impacts to the stakeholders.	Pre-construction	PM	During the EIA process	• PP minutes • Comments and Response Reports. • Basic Assessment Reports.
Monitoring and Adaptation						
– Implement regular visual impact monitoring during both construction and operation phases to ensure the effectiveness of mitigation measures. – Adapt mitigation measures based on monitoring results and feedback from stakeholders.	dEO	• Scheduling and undertaking regular monitoring.	Construction Operation	PM	Quarterly	Monitoring Reports.

8.2 Tower Specific Measures

8.2.1 Archaeology

TOWER NOS.	FEATURE	SITE-SPECIFIC MEASURES	IMPLEMENTATION	MONITORING
199-203	• Pottery	- Monitor construction activities	**Responsible person** cEO **Method** • Awareness training Posters • Flyers • Barricaded area. • Monitoring tower construction (199-203). **Timeframe** Pre-construction and as and when construction is done at Towers 199-203	**Responsible person** ECO dEO **Frequency** Monthly. **Evidence of Compliance** • Awareness material • Interviews with staff • Records • Barricaded area • Archaeological Monitoring Reports
229 507	• Cemetery • Burial site • grave	- An educational programme to construction workers is essential to avoid accidental damage. - Take note of the position and ensure that no negative impact take place during construction. A danger tape around the site is recommended.		

8.2.2 Avifauna

TOWER NOS.	FEATURE	SITE-SPECIFIC MEASURES	IMPLEMENTATION	MONITORING
All towers	• Priority species. • Species of Conservation Concern.	– All the parts of the infrastructure must be nest proofed and anti-perch devices placed on areas that can lead to electrocution.	**Responsible person** cEO DSS **Method** Installation of anti-perch devices and nest proofing. **Timeframe** Tower construction.	**Responsible Person** ECO dEO **Frequency** As and when tower construction is done. **Evidence of Compliance** Installed devices and nest proofed towers.
All	• Priority species. • Species of Conservation Concern.	– Due to the high sensitivities of the proposed line, a SACNASP registered avifauna specialist will have to compile a detailed ornithological management plan. Herewith are some preliminary suggestions: 1. During the first year, the line needs to be monitored quarterly by a SACNASP registered avifauna specialist; monitoring should include carcasses searches to identify further hotspot areas along	**Responsible person** cEO DSS **Method** Installation of anti-perch devices and nest proofing. **Timeframe** Operation	**Responsible Person** ECO dEO **Frequency** During operation **Evidence of Compliance** Ornithological Management Plan. Monitoring reports

TOWER NOS.	FEATURE	SITE-SPECIFIC MEASURES	IMPLEMENTATION	MONITORING
		the power line that need further mitigations; 2. During the second year, the line needs to be monitored bi-annually; 3. Thereafter, it needs to be monitored every 3 – 5 years; 4. If hotspots or excessive deaths are observed, additional mitigations must be implemented.		
1-17	• Four Sociable Weaver nests were found alongside the route of the powerline on existing powerline towers	– The existing line must follow the existing line as close as possible.	**Responsible person** DPM Project Engineer **Method** Line profiling. **Timeframe** Pre-construction.	**Responsible Person** dEO **Frequency** Once-off. **Evidence of Compliance** Tower positions.
1-187 202-210 213-299	• Vegetation. • Priority species. • Species of Conservation Concern.	– Bird flight diverters (BFDs) are to be spaced at the maximum 15m apart on the shield wire as per the known technical knowledge or industry standards. On one shield wire the	**Responsible person** cEO DSS **Method** Installation of Bird Flight Diverters	**Responsible Person** ECO dEO **Frequency**

TOWER NOS.	FEATURE	SITE-SPECIFIC MEASURES	IMPLEMENTATION	MONITORING
302-562		spacing should be 30m and staggered 30m on the opposite shield wire, however in total, the power line with two shield wires will have 15m when approached from any side hence where the runs parallel with the existing line it may be ideal to mark the outer shield wires of the new and existing line, thus reducing the collisions for the servitude. Due to the challenges installing BFDs on existing lines, should this recommendation be considered the first BFD should be at the maximum be 20m from the tower.	**Timeframe** As and when stringing is done.	As and when stringing is done. **Evidence of Compliance** Installed Bird Flight Diverters
21-35 57-80 123-137 170-176	• Access • Vultures	– When the towers are being erected, an avifauna specialist must confirm there are no nests present.	**Responsible person** cEO DSS **Method** Tower construction. **Timeframe**	**Responsible Person** ECO dEO **Frequency** As and when towers are erected. **Evidence of Compliance**

TOWER NOS.	FEATURE	SITE-SPECIFIC MEASURES	IMPLEMENTATION	MONITORING
			As and when tower construction is done.	Monitoring records.
188-201 211-212 300-301	• Vultures. • Kuruman Mountain Bushveld. • Rocky ridge. • River/wetland system. • Waterbirds.	– Collisions need to be heavily mitigated against where the line crosses the river and where vultures were observed (188-201) by ensuring there are bird diverters placed every 5 m along the line. – If for any reason the entire line cannot be marked, the spans near water from 202-319 must be installed with bird flight diverters especially where the power line crosses the river / water body. –	**Responsible person** cEO DSS **Method** Installation of Bird Flight Diverters **Timeframe** As and when stringing is done.	**Responsible Person** ECO dEO **Frequency** As and when stringing is done. **Evidence of Compliance** Installed Bird Flight Diverters
288 548	• Active Greater Kestrel nest	– 500 m seasonal no-go buffers must be applied to the Greater Kestrel nests. – No construction activities are permitted within 500 m of these nests between the months of July and February.	**Responsible person** • cEO • DSS **Method** • Demarcating buffers around the identified nests **Timeframe** Between July and February.	**Responsible Person** • ECO • dEO **Frequency** • As and when construction is done. **Evidence of Compliance** • Demarcated buffers.

TOWER NOS.	FEATURE	SITE-SPECIFIC MEASURES	IMPLEMENTATION	MONITORING
				• Monitoring Reports.

8.2.3 Flora and Fauna

TOWER NOS.	FEATURE	– SITE-SPECIFIC MEASURES	IMPLEMENTATION	MONITORING
173-187 208-215 201, 206 211, 250, 255, 302, 352,469, 502, 505, 506	• Protected tree species o Boscia albitrunca, o Vachellia erioloba o Vachellia haematoxylo	– A permit must be obtained for plant species that are protected under the Northern Cape Nature Conservation Act, 2009 (Act 9 of 2009) and the National Environmental Management: Biodiversity Act, 2004 (Act 10 of 2004). – For all individuals of the protected trees, that will be destroyed for construction of infrastructure, a permit is required according to the requirements of the National Forests Act.	**Responsible person** dEO **Method** Permit application. **Timeframe** Pre-construction.	**Responsible person** ECO **Frequency** Once off **Evidence of Compliance** • Tree permits
312-313 469	• Active animal colonies	– Dens must be marked prior to construction. Where possible, the dens must not be disturbed.		

8.2.3 Freshwater Assessment

TOWER NOS.	• FEATURE	– SITE-SPECIFIC MEASURES	IMPLEMENTATION	MONITORING
All	• Rivers • Drainages • Wetlands	– No work may commence without a General Authorisation issued by the Department of Water and Sanitation. – Implement stormwater and erosion management plans at the onset of construction activities to prevent erosion and stabilise existing erosion.	**Responsible person** cEO DSS **Method** • Implementation of stormwater management infrastructure. • Compiling and implementing a rehabilitation plan. • Implementation of General Authorisation conditions. • Demarcate 'no-go' areas. **Timeframe** Throughout construction.	**Responsible person** ECO dEO **Frequency** Throughout construction **Evidence of Compliance** • General Authorisation. • Demarcated no-go areas. • Stormwater management structures and minimal erosion. • Rehabilitation plan. • State of the wetlands.

APPENDIX 1: METHOD STATEMENTS

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

APPENDIX 2: EAP'S CV

CURRICULUM VITAE BRENDA MAKANZA

Role: Principal Environmental Scientist

Name of Firm: DIGES Group

Name of Staff: Brenda Makanza

Date of Birth: 24 March 1981

Total Years of Experience: 17 years

Education:

Qualification	Institution	Date obtained
ISO 14001:2015- Lead Auditor	SACAS	2022
Incident Investigation- Level 3	NOSA	2020
ISO 45001:2018 & ISO 14001:2015: Implementation & Audit	NOSA	2020
SAMTRAC	NOSA	2020
Post Graduate Diploma: Geoinformatics (GIS)	Universetat Salzburg	2016
Bachelor of Science (Hons) Environmental Science	National University of Science and Technology	2004

Membership of Professional Associations:

Professional Associations	Membership
SACNASP	Pr. Sci. Nat (Reg No.: 400016/17)
EAPASA	Environmental Assessment Practitioner (Reg No. 2019/1542)
WISA	Member

Other Training:

- Project Estimating and Procurement – University of Pretoria.
- Integrated Water Resources Management- Saxon University, The Netherlands

Employment Record:

DIGES Group
Senior Environmental Scientist/ECO – February 2009 to date

Ministry of Environment, Water & Climate
SABSP Project Assistant- March 2005 to Jan 2009

IUCN: The World Conservation Union
Ecosystems Programme: Aug 2002- July 2003

Summary

A dedicated and passionate Environmentalist with valuable theoretical and experiential acumen in the areas of environmental conservation and administration. She holds 17 years of experience gained through direct involvement in several conservation initiatives and leverages academic skills gained through an honours level degree in Environmental Science and Post Graduate Certificates in Integral Water Management and Geo-informatics; alongside the proficient ability to actively and valuably participate in the development, design and implementation of environmental / conservation management policies and consultation initiatives; thereby supporting the highest standards of Environmental Management and Sustainable Development, in all undertakings.

Projects and Professional Technical Experience

Walkdowns and CEMPr

- **2014:** Walkdown and CEMPr for the Ariadne-Venus 400kV powerline within various Municipalities in KZN Province
- **2016:** Walkdown and compilation of CEMPr for the Medupi Witkop 400kV powerline in various Municipalities, Limpopo Province.

Basic Assessment

- **EAP, 2010:** EMP and Basic Assessment Report for Establishment of Seshego Cemetery within Polokwane Local Municipality.
- **EAP, 2010:** EMP and Basic Assessment Report for Upgrading of gravel road from Praktiseer to Taung village within Greater Tubatse Local Municipality
- **EAP, 2014:** Basic Assessment for the construction of Klarinet Bridge within Emalahleni Local Municipality.
- **EAP, 2015-2017:** Proposed construction of a 132kV power line from PPRUST substation to the proposed Akanani substation within Mogalakwena Local Municipality.
- **EAP, 2015-2018:** Basic Assessment for the establishment of Sakhelwe extension within Emakhazeni Local Municipality.
- **Project Manager, Reviewer. 2020.** Proposed Southgate Township Establishment within Polokwane Local Municipality**.**

Scoping & Environmental Impact Assessments

- **EAP, 2010-2011:** Proposed construction of a 30 km 132kV power line from Amandla substation within Elias Motsoaledi Local Municipality, Greater Sekhukhune District to Kwaggafontein substation within Thembisile Hani Local Municipality, Nkangala District.
- **EAP, 2010-2011:** Proposed construction of a 45 km 132kV power line from Jane Furse ss to the new Mamatsekele ss within Makhuduthamage Local Municipality, Greater Sekhukhune District.
- **EAP, 2011-2012:** Proposed Koedoesdoorns township establishment within Thabazimbi Local Municipality;
- **EAP, 2011-2012:** Proposed Madala township establishment within Emakhazeni Local Municipality.
- **EAP, 2014-2016:** Proposed Rustenburg Strengthening Project within Rustenburg Local Municipality.
- **EAP, 2016-2018:** Proposed construction for the Limpopo East Strengthening Corridor within Limpopo Province.
- **Reviewer, 2018:** Proposed construction of Hyperrama pipeline within COE.

Amendments

- **EAP, 2013 and 2014:** First and second amendment for the 132kV Mamatsekele poweline within Limpopo Province.

Water Use Licence Applications

- **EAP, 2014:** WULA for Klarinet Ext5 and Ext6 Bridge Construction.
- **EAP, 2017:** WULA for construction of 400kV Ariadne-Venus power line within KZN province.
- **EAP, 2019:** General Authorisation for the construction of Hyperrama pipeline within COE.

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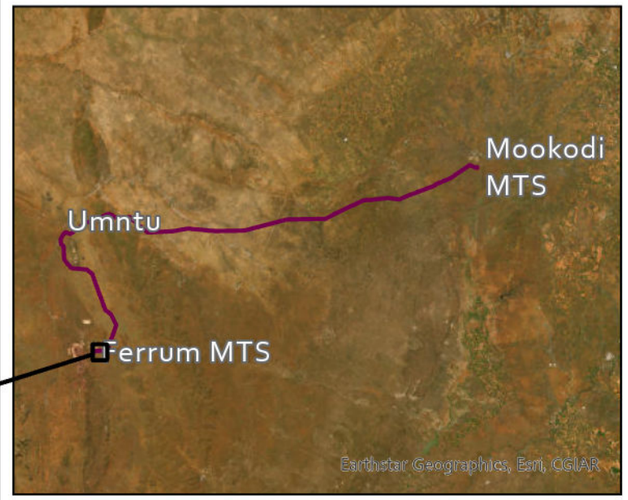
Monitoring

- **Lead Auditor, 2019-2022:** Landfill auditing and water monitoring at City of Ekurhuleni's operational and closed landfills.
- **Lead Auditor, 2017-2019:** Landfill auditing and water monitoring at City of Ekurhuleni's operational and closed landfills.

APPENDIX 3: SENSITIVITY MAPS

Eskom
National Transmission Company South Africa ™



KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

NOTES:

Avoid the delineated watercourse areas where feasible.

Nest proof and install anti-perch devices in areas that can lead to electrocution.

Fit the line with BFDs.

0 0,55 1,1 2,2
km

Project Ref: Ferrum-Mookodi	Tower Nos. Fer-Moo 01-13	Map No. 01
Drawn By: BM	Date: Oct 2024	Scale on A3 1:24 000
Coordinate System GCS WGS 1984 Units: Degree	Source: NTCSA, DRDLR, Specialists, Esri	

DIGES GROUP
Building 2, Constantia Park
546, 16th Road
Midrand
1685

Legend

- Ferrum-Mookodi Towers
- Ferrum-Mookodi 400kV Powerline
- 55m Servitude
- Ferrum MTS
- Farms
- RE Plants
- Rivers

Wetland Areas Including Buffer

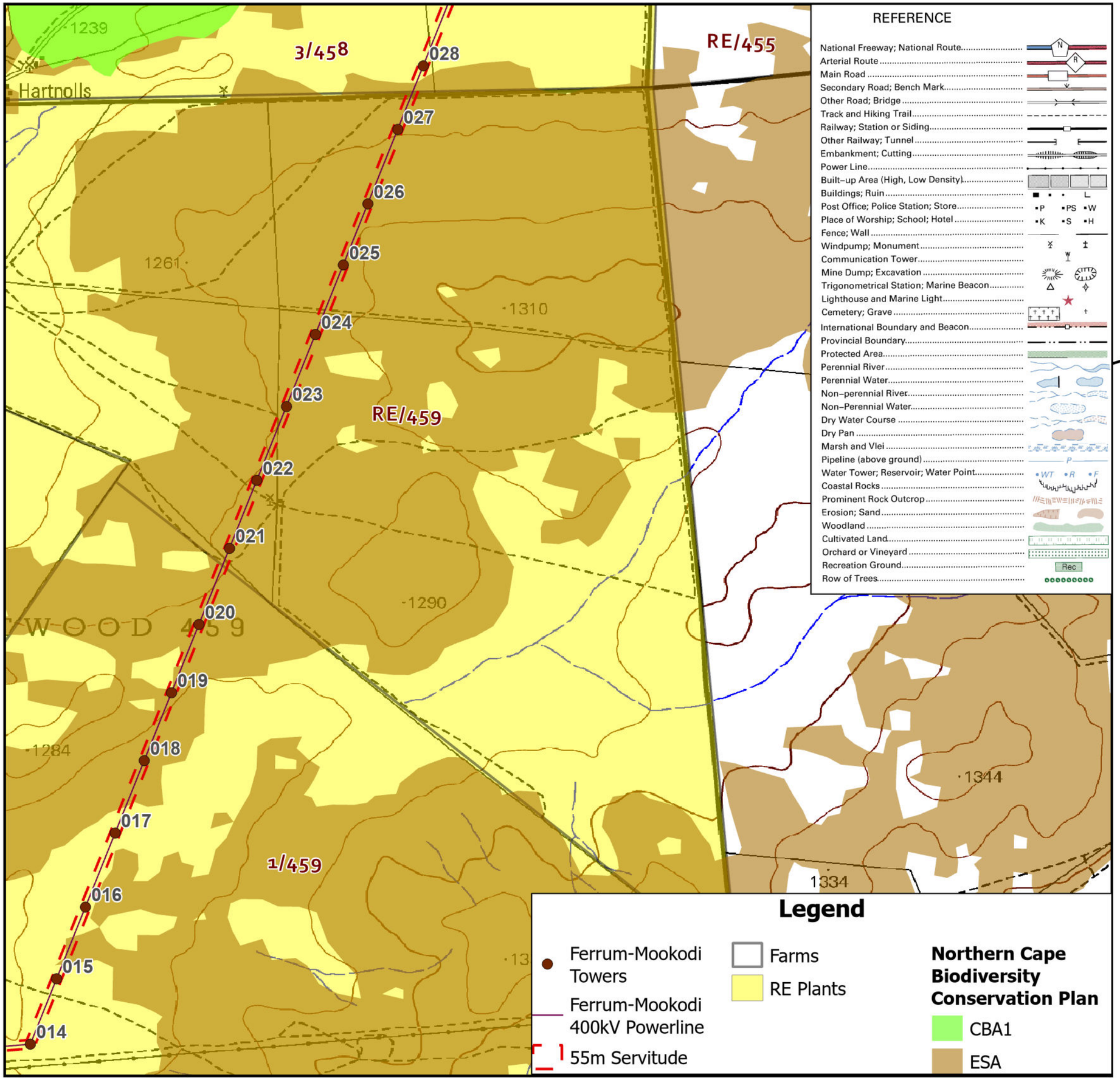
- Wetland

Northern Cape Biodiversity Conservation Plan

- ESA

REFERENCE

National Freeway; National Route
Arterial Route
Main Road
Secondary Road; Bench Mark
Other Road; Bridge
Track and Hiking Trail
Railway; Station or Siding
Other Railway; Tunnel
Embankment; Cutting
Power Line
Built-up Area (High, Low Density)
Buildings; Ruin
Post Office; Police Station; Store
Place of Worship; School; Hotel
Fence; Wall
Windpump; Monument
Communication Tower
Mine Dump; Excavation
Trigonometrical Station; Marine Beacon
Lighthouse and Marine Light
Cemetery; Grave
International Boundary and Beacon
Provincial Boundary
Protected Area
Perennial River
Perennial Water
Non-perennial River
Non-Perennial Water
Dry Water Course
Dry Pan
Marsh and Vlei
Pipeline (above ground)
Water Tower; Reservoir; Water Point
Coastal Rocks
Prominent Rock Outcrop
Erosion; Sand
Woodland
Cultivated Land
Orchard or Vineyard
Recreation Ground
Row of Trees



REFERENCE

National Freeway; National Route
Arterial Route
Main Road
Secondary Road; Bench Mark
Other Road; Bridge
Track and Hiking Trail
Railway; Station or Siding
Other Railway; Tunnel
Embankment; Cutting
Power Line
Built-up Area (High, Low Density)
Buildings; Ruin
Post Office; Police Station; Store
Place of Worship; School; Hotel
Fence; Wall
Windpump; Monument
Communication Tower
Mine Dump; Excavation
Trigonometrical Station; Marine Beacon
Lighthouse and Marine Light
Cemetery; Grave
International Boundary and Beacon
Provincial Boundary
Protected Area
Perennial River
Perennial Water
Non-perennial River
Non-Perennial Water
Dry Water Course
Dry Pan
Marsh and Vlei
Pipeline (above ground)
Water Tower; Reservoir; Water Point
Coastal Rocks
Prominent Rock Outcrop
Erosion; Sand
Woodland
Cultivated Land
Orchard or Vineyard
Recreation Ground
Row of Trees

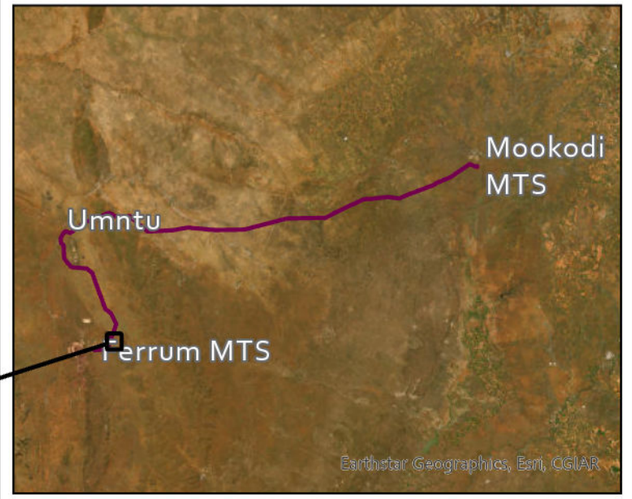
Legend

- Ferrum-Mookodi Towers
- Ferrum-Mookodi 400kV Powerline
- 55m Servitude
- Farms
- RE Plants

Northern Cape Biodiversity Conservation Plan

- CBA1
- ESA

Eskom
National Transmission Company South Africa ™



KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

NOTES:

Avoid the delineated watercourse areas where feasible.

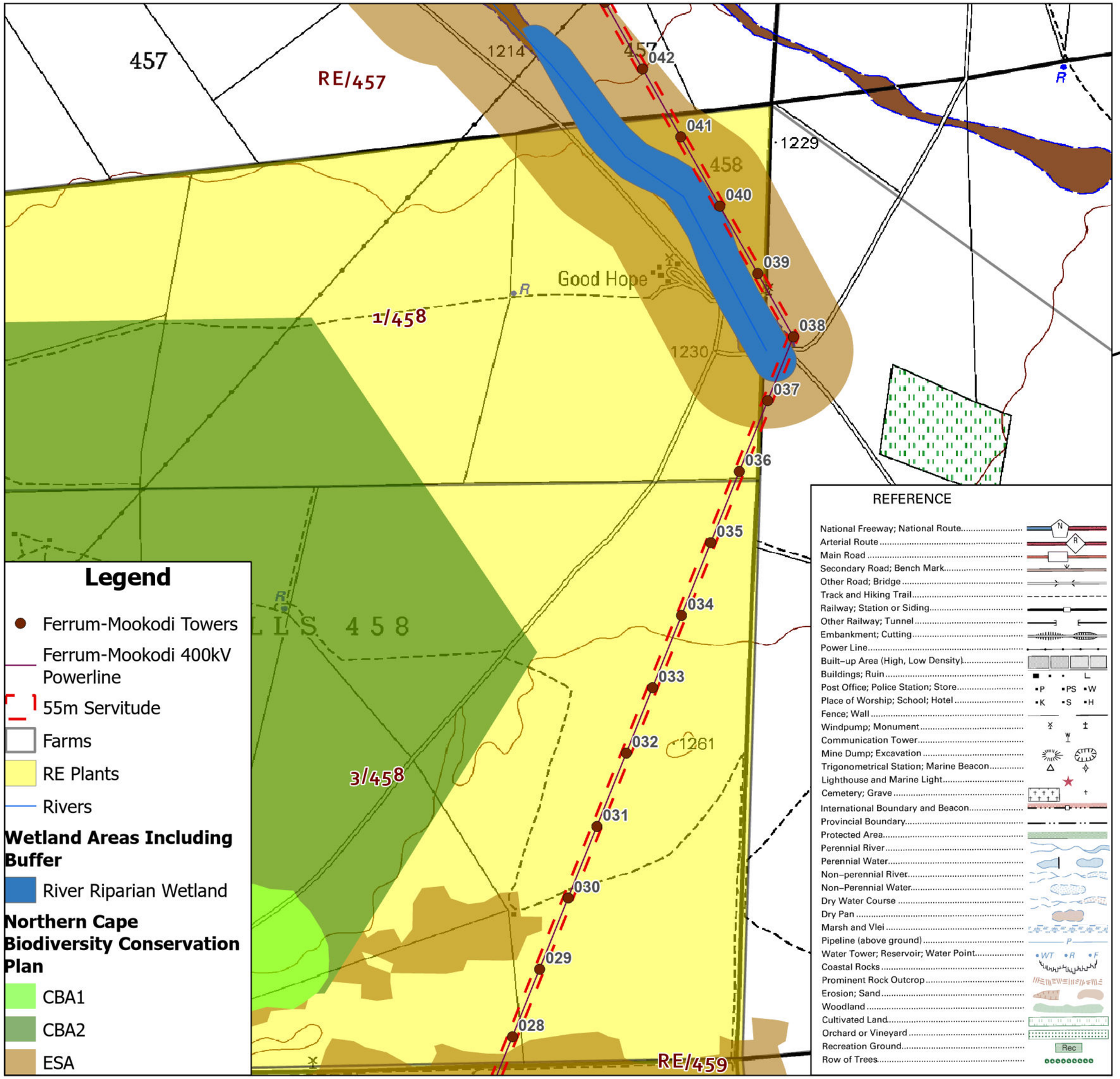
Nest proof towers and install anti-perch devices in areas that can lead to electrocution.

Fit the line with BFDs.

0 0,55 1,1 2,2
km

Project Ref:	Tower Nos.	Map No.
Ferrum-Mookodi	Fer-Moo 14-28	02
Drawn By:	Date:	Scale on A3
BM	Oct 2024	1:24 000
Coordinate System: GCS WGS 1984 Units: Degree	Source: NTCSA, DRDLR, Specialists, Esri	

DIGES GROUP
Building 2, Constantia Park
546, 16th Road
Midrand
1685



Legend

- Ferrum-Mookodi Towers
- Ferrum-Mookodi 400kV Powerline
- 55m Servitude
- Farms
- RE Plants
- Rivers

Wetland Areas Including Buffer

- River Riparian Wetland

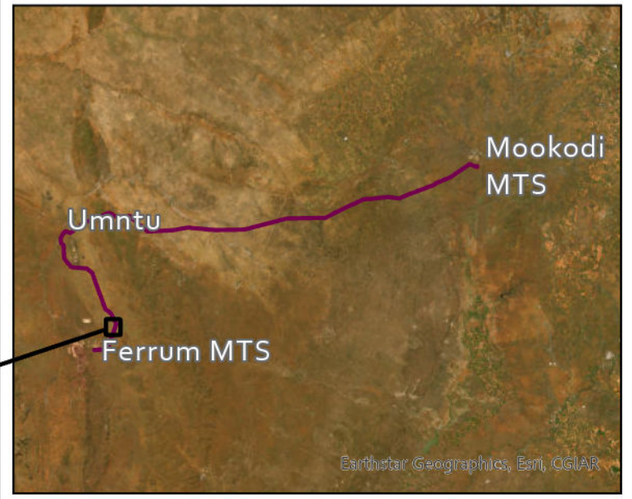
Northern Cape Biodiversity Conservation Plan

- CBA1
- CBA2
- ESA

REFERENCE

National Freeway; National Route
Arterial Route
Main Road
Secondary Road; Bench Mark
Other Road; Bridge
Track and Hiking Trail
Railway; Station or Siding
Other Railway; Tunnel
Embankment; Cutting
Power Line
Built-up Area (High, Low Density)
Buildings; Ruin
Post Office; Police Station; Store
Place of Worship; School; Hotel
Fence; Wall
Windpump; Monument
Communication Tower
Mine Dump; Excavation
Trigonometrical Station; Marine Beacon
Lighthouse and Marine Light
Cemetery; Grave
International Boundary and Beacon
Provincial Boundary
Protected Area
Perennial River
Perennial Water
Non-perennial River
Non-Perennial Water
Dry Water Course
Dry Pan
Marsh and Vlei
Pipeline (above ground)
Water Tower; Reservoir; Water Point
Coastal Rocks
Prominent Rock Outcrop
Erosion; Sand
Woodland
Cultivated Land
Orchard or Vineyard
Recreation Ground
Row of Trees

Eskom
National Transmission Company South Africa ™



KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

NOTES:

Avoid the delineated watercourse areas where feasible.

Nest proof towers and install anti-perch devices in areas that can lead to electrocution.

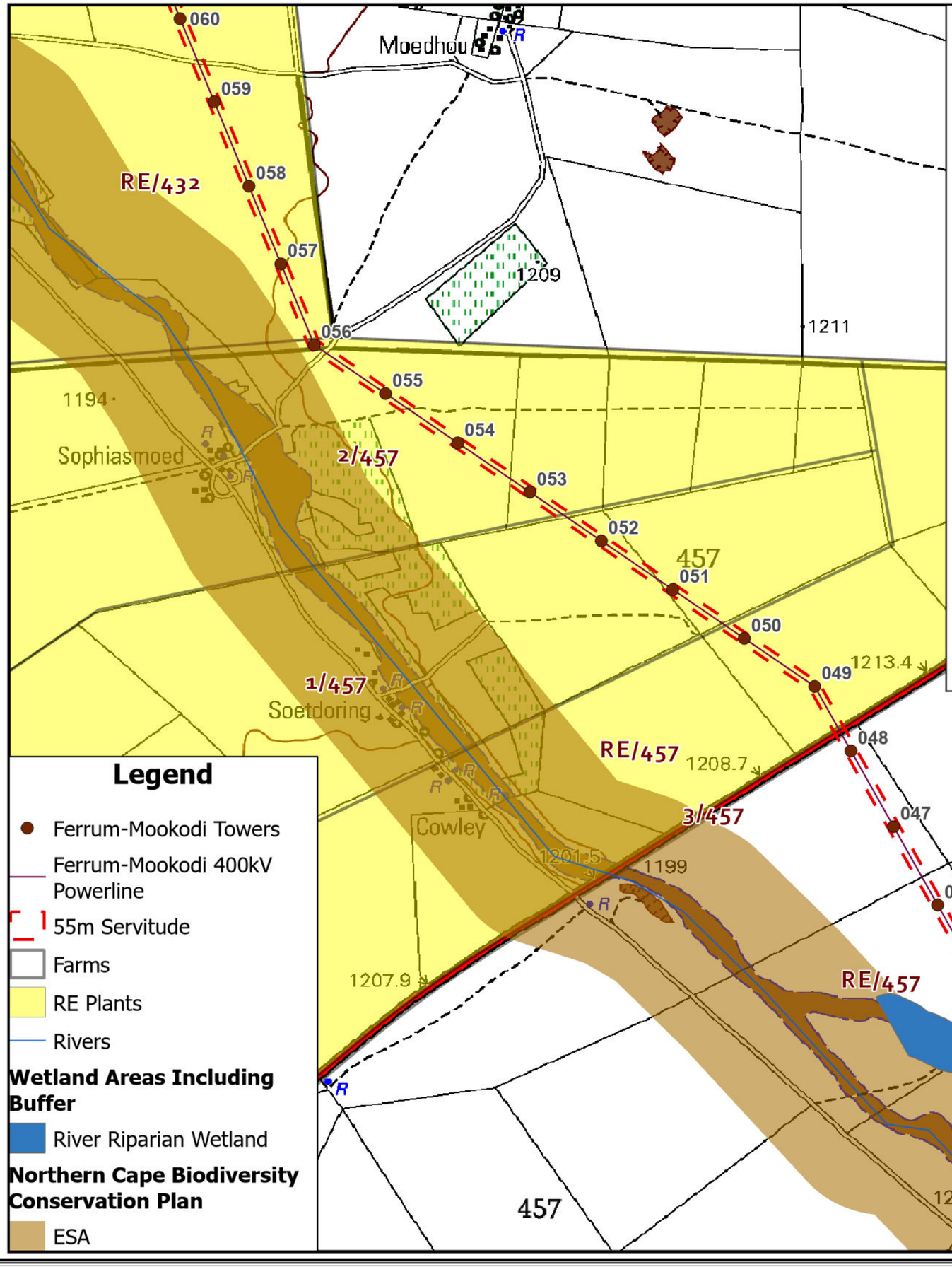
Fit the line with BFDs.

Avoid the delineated watercourse areas where feasible.

0 0,55 1,1 2,2
km

Project Ref:	Tower Nos.	Map No.
Ferrum-Mookodi	Fer-Moo 28-42	03
Drawn By:	Date:	Scale on A3
BM	Oct 2024	1:24 000
Coordinate System: GCS WGS 1984 Units: Degree	Source: NTCSA, DRDLR, Specialists, Esri	

DIGES GROUP
Building 2, Constantia Park
546, 16th Road
Midrand
1685



REFERENCE

National Freeway; National Route
Arterial Route
Main Road
Secondary Road; Bench Mark
Other Road; Bridge
Track and Hiking Trail
Railway; Station or Siding
Other Railway; Tunnel
Embankment; Cutting
Power Line
Built-up Area (High, Low Density)
Buildings; Ruin
Post Office; Police Station; Store
Place of Worship; School; Hotel
Fence; Wall
Windpump; Monument
Communication Tower
Mine Dump; Excavation
Trigonometrical Station; Marine Beacon
Lighthouse and Marine Light
Cemetery; Grave
International Boundary and Beacon
Provincial Boundary
Protected Area
Perennial River
Perennial Water
Non-perennial River
Non-Perennial Water
Dry Water Course
Dry Pan
Marsh and Vlei
Pipeline (above ground)
Water Tower; Reservoir; Water Point
Coastal Rocks
Prominent Rock Outcrop
Erosion; Sand
Woodland
Cultivated Land
Orchard or Vineyard
Recreation Ground
Row of Trees

Legend

- Ferrum-Mookodi Towers
- Ferrum-Mookodi 400kV Powerline
- 55m Servitude
- Farms
- RE Plants
- Rivers

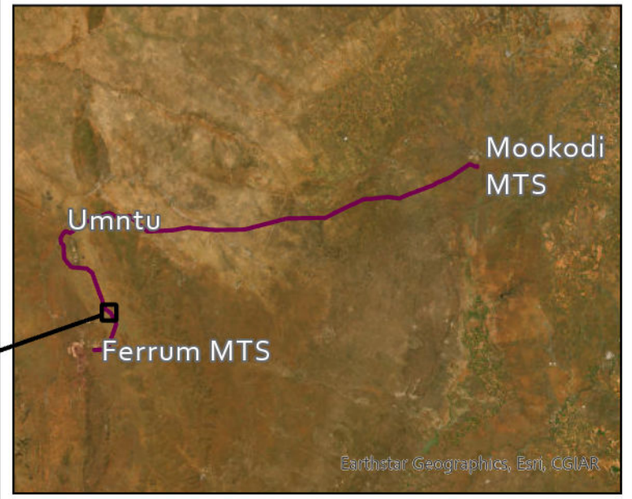
Wetland Areas Including Buffer

- River Riparian Wetland

Northern Cape Biodiversity Conservation Plan

- ESA

Eskom
National Transmission Company South Africa ™



KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

NOTES:

Avoid the delineated watercourse areas where feasible.

Nest proof towers and install anti-perch devices in areas that can lead to electrocution.

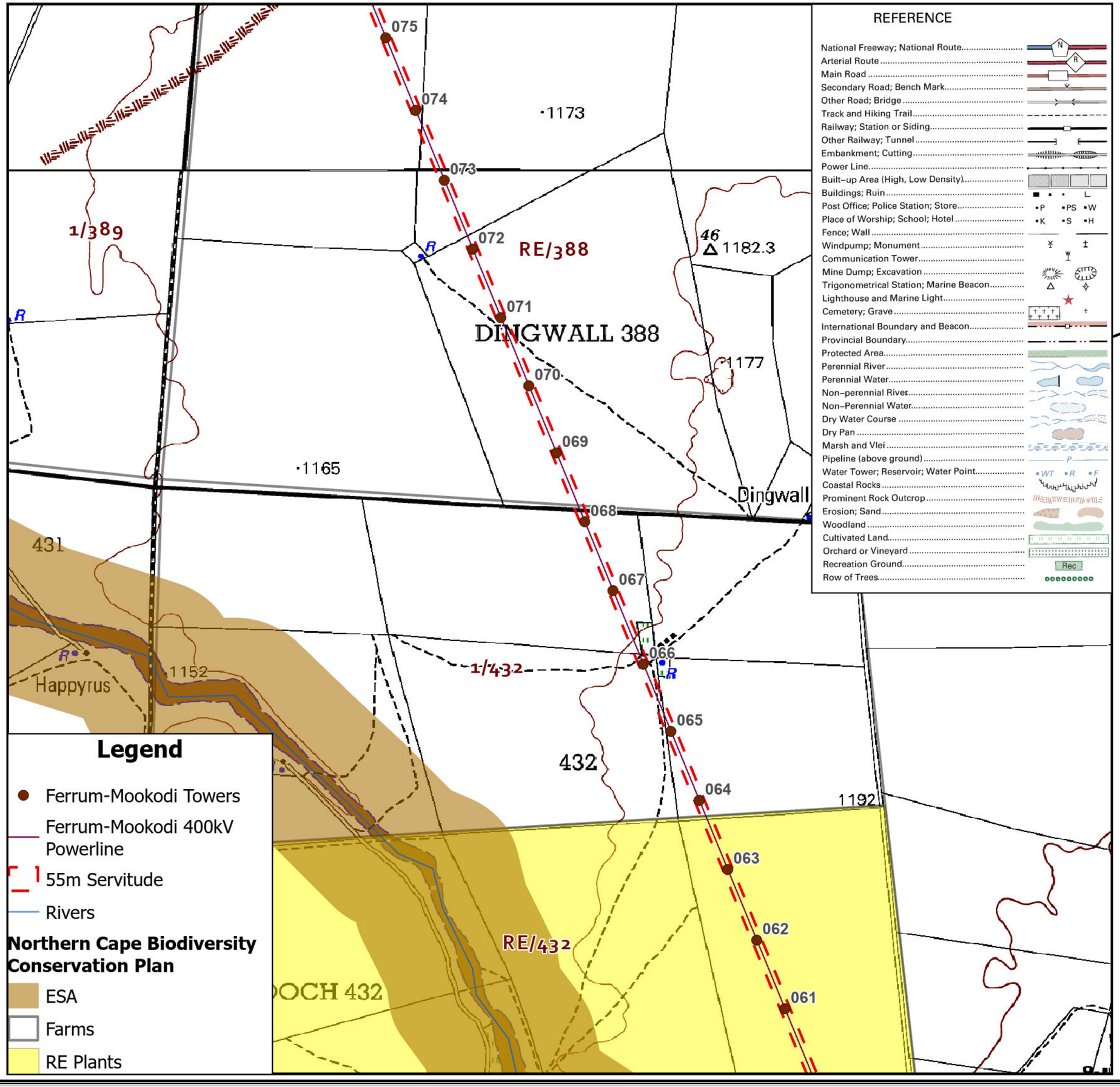
Fit the line with BFDs.

Avoid the delineated watercourse areas where feasible

0 0,55 1,1 2,2
km

Project Ref:	Tower Nos.	Map No.
Ferrum-Mookodi	Fer-Moo 42-60	04
Drawn By:	Date:	Scale on A3
BM	Oct 2024	1:24 000
Coordinate System: GCS WGS 1984 Units: Degree	Source: NTCSA, DRDLR, Specialists, Esri	

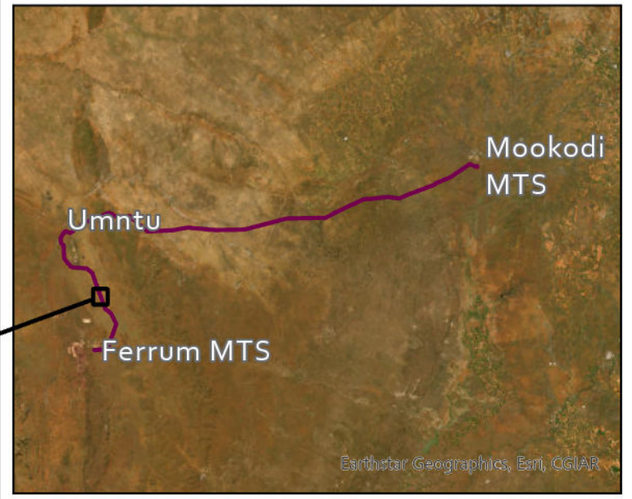
DIGES GROUP
Building 2, Constantia Park
546, 16th Road
Midrand
1685



REFERENCE

National Freeway; National Route
Arterial Route
Main Road
Secondary Road; Bench Mark
Other Road; Bridge
Track and Hiking Trail
Railway; Station or Siding
Other Railway; Tunnel
Embankment; Cutting
Power Line
Built-up Area (High, Low Density)
Buildings; Ruin
Post Office; Police Station; Store
Place of Worship; School; Hotel
Fence; Wall
Windpump; Monument
Communication Tower
Mine Dump; Excavation
Trigonometrical Station; Marine Beacon
Lighthouse and Marine Light
Cemetery; Grave
International Boundary and Beacon
Provincial Boundary
Protected Area
Perennial River
Perennial Water
Non-perennial River
Non-Perennial Water
Dry Water Course
Dry Pan
Marsh and Vlei
Pipeline (above ground)
Water Tower; Reservoir; Water Point
Coastal Rocks
Prominent Rock Outcrop
Erosion; Sand
Woodland
Cultivated Land
Orchard or Vineyard
Recreation Ground
Row of Trees

Eskom
National Transmission Company South Africa ™



KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

NOTES:

Avoid the delineated watercourse areas where feasible.

Nest proof towers and install anti-perch devices in areas that can lead to electrocution.

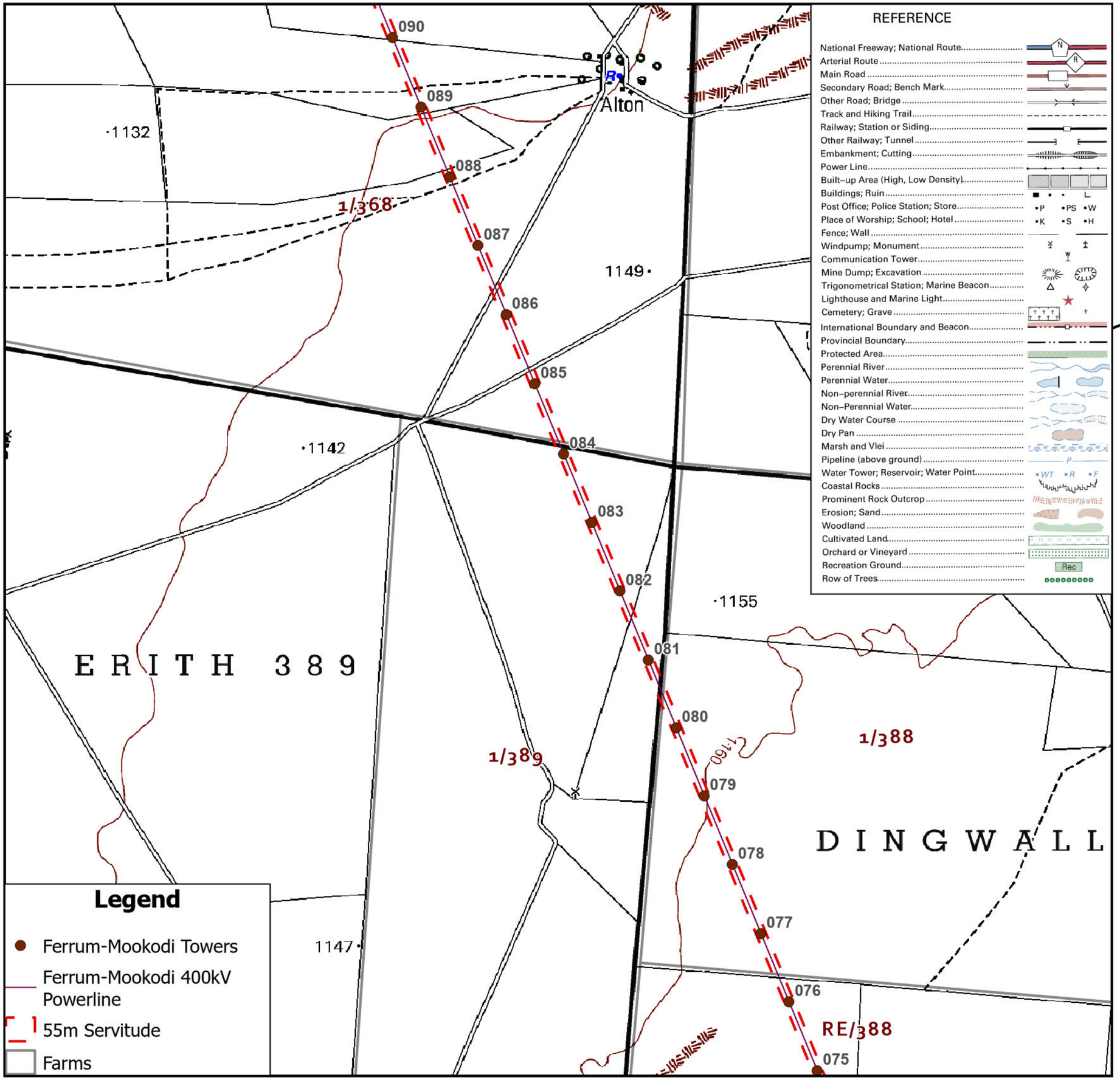
Fit the line with BFDs.

During construction, an avifauna specialist must confirm there are no nests present.

0 0,55 1,1 2,2
km

Project Ref:	Tower Nos.	Map No.
Ferrum-Mookodi	Fer-Moo 60-75	05
Drawn By:	Date:	Scale on A3
BM	Oct 2024	1:24 000
Coordinate System: GCS WGS 1984 Units: Degree	Source: NTCSA, DRDLR, Specialists, Esri	

DIGES GROUP
Building 2, Constantia Park
546, 16th Road
Midrand
1685



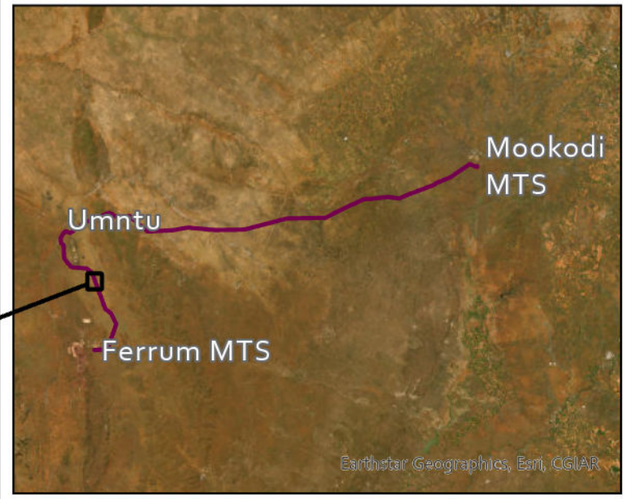
REFERENCE

National Freeway; National Route
Arterial Route
Main Road
Secondary Road; Bench Mark
Other Road; Bridge
Track and Hiking Trail
Railway; Station or Siding
Other Railway; Tunnel
Embankment; Cutting
Power Line
Built-up Area (High, Low Density)
Buildings; Ruin
Post Office; Police Station; Store
Place of Worship; School; Hotel
Fence; Wall
Windpump; Monument
Communication Tower
Mine Dump; Excavation
Trigonometrical Station; Marine Beacon
Lighthouse and Marine Light
Cemetery; Grave
International Boundary and Beacon
Provincial Boundary
Protected Area
Perennial River
Perennial Water
Non-perennial River
Non-Perennial Water
Dry Water Course
Dry Pan
Marsh and Vlei
Pipeline (above ground)
Water Tower; Reservoir; Water Point
Coastal Rocks
Prominent Rock Outcrop
Erosion; Sand
Woodland
Cultivated Land
Orchard or Vineyard
Recreation Ground
Row of Trees

Legend

- Ferrum-Mookodi Towers
- Ferrum-Mookodi 400kV Powerline
- 55m Servitude
- Farms

Eskom
National Transmission Company South Africa ™



KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

NOTES:

Nest proof towers and install anti-perch devices in areas that can lead to electrocution.

Fit the line with BFDs.

During construction, an avifauna specialist must confirm there are no nests present from towers 75-80.

0 0,55 1,1 2,2
km

Project Ref:	Tower Nos.	Map No.
Ferrum-Mookodi	Fer-Moo 75-90	06
Drawn By:	Date:	Scale on A3
BM	Oct 2024	1:24 000
Coordinate System: GCS WGS 1984 Units: Degree	Source: NTCSA, DRDLR, Specialists, Esri	

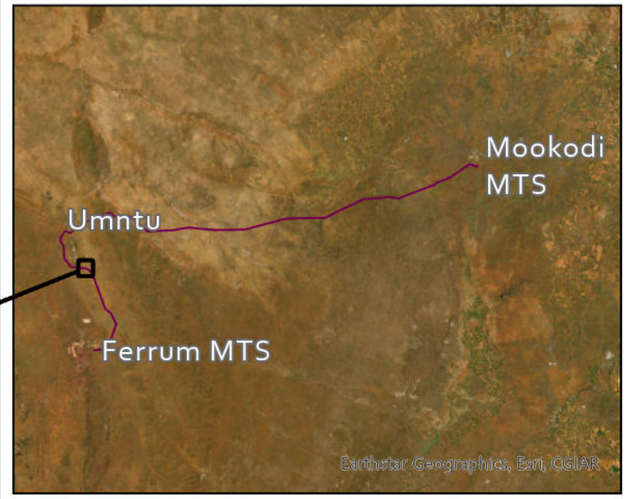
DIGES GROUP
Building 2, Constantia Park
546, 16th Road
Midrand
1685

REFERENCE

National Freeway; National Route
Arterial Route
Main Road
Secondary Road; Bench Mark
Other Road; Bridge
Track and Hiking Trail
Railway; Station or Siding
Other Railway; Tunnel
Embankment; Cutting
Power Line
Built-up Area (High, Low Density)
Buildings; Ruin
Post Office; Police Station; Store
Place of Worship; School; Hotel
Fence; Wall
Windpump; Monument
Communication Tower
Mine Dump; Excavation
Trigonometrical Station; Marine Beacon
Lighthouse and Marine Light
Cemetery; Grave
International Boundary and Beacon
Provincial Boundary
Protected Area
Perennial River
Perennial Water
Non-perennial River
Non-Perennial Water
Dry Water Course
Dry Pan
Marsh and Vlei
Pipeline (above ground)
Water Tower; Reservoir; Water Point
Coastal Rocks
Prominent Rock Outcrop
Erosion; Sand
Woodland
Cultivated Land
Orchard or Vineyard
Recreation Ground
Row of Trees

Legend

- Ferrum-Mookodi Towers
- Ferrum-Mookodi 400kV Powerline
- 55m Servitude
- Farms
- RE Plants



KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

NOTES:

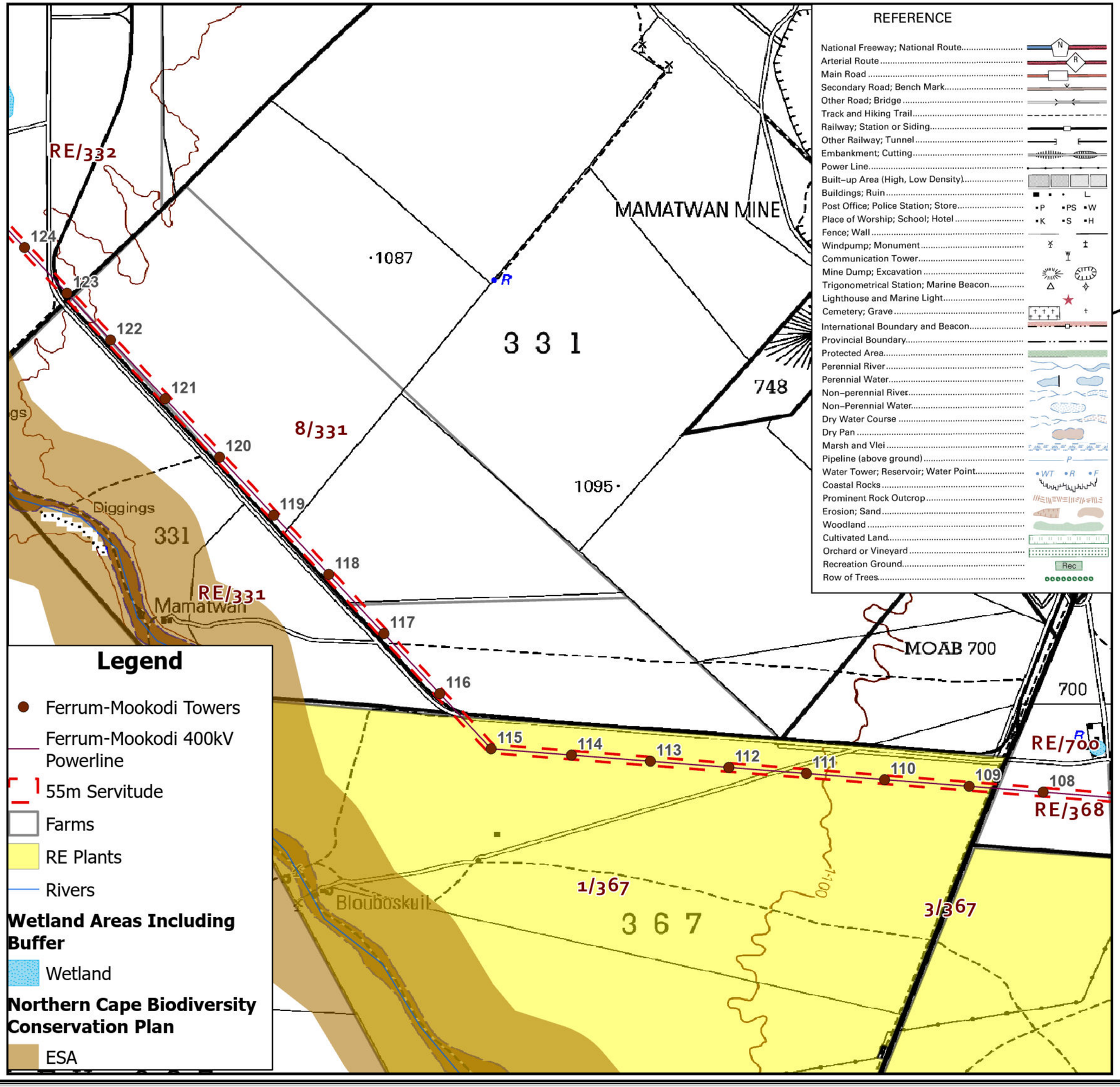
Nest proof towers and install anti-perch devices in areas that can lead to electrocution.

Fit the line with BFDs.

0 0,55 1,1 2,2
km

Project Ref:	Tower Nos.	Map No.
Ferrum-Mookodi	Fer-Moo 90-108	07
Drawn By:	Date:	Scale on A3
BM	Oct 2024	1:24 000
Coordinate System: GCS WGS 1984 Units: Degree	Source: NTCSA, DRDLR, Specialists, Esri	

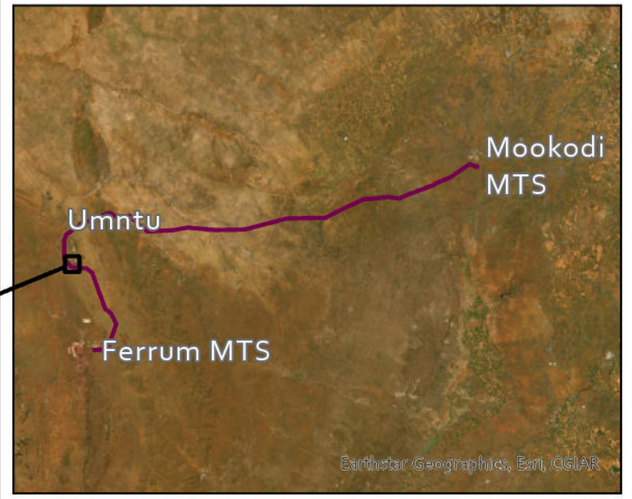
Building 2, Constantia Park
546, 16th Road
Midrand
1685



REFERENCE

National Freeway; National Route
Arterial Route
Main Road
Secondary Road; Bench Mark
Other Road; Bridge
Track and Hiking Trail
Railway; Station or Siding
Other Railway; Tunnel
Embankment; Cutting
Power Line
Built-up Area (High, Low Density)
Buildings; Ruin
Post Office; Police Station; Store
Place of Worship; School; Hotel
Fence; Wall
Windpump; Monument
Communication Tower
Mine Dump; Excavation
Trigonometrical Station; Marine Beacon
Lighthouse and Marine Light
Cemetery; Grave
International Boundary and Beacon
Provincial Boundary
Protected Area
Perennial River
Perennial Water
Non-perennial River
Non-Perennial Water
Dry Water Course
Dry Pan
Marsh and Vlei
Pipeline (above ground)
Water Tower; Reservoir; Water Point
Coastal Rocks
Prominent Rock Outcrop
Erosion; Sand
Woodland
Cultivated Land
Orchard or Vineyard
Recreation Ground
Row of Trees

Eskom
National Transmission Company South Africa ™



KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

NOTES:

Nest proof towers and install anti-perch devices in areas that can lead to electrocution.

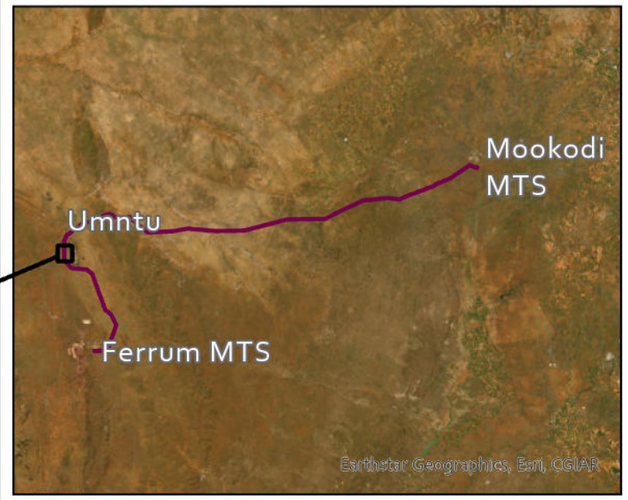
Fit the line with BFDs.

0 0,55 1,1 2,2
km

Project Ref:	Tower Nos.	Map No.
Ferrum-Mookodi	Fer-Moo 108-124	08
Drawn By:	Date:	Scale on A3
BM	Oct 2024	1:24 000
Coordinate System: GCS WGS 1984 Units: Degree	Source: NTCSA, DRDLR, Specialists, Esri	

DIGS GROUP
Building 2, Constantia Park
546, 16th Road
Midrand
1685

Eskom
National Transmission Company South Africa ™



KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

RE/313
RE/314
RE/332
8/331
MIDDELPLAATS 332
334
1059
1063
1072
1069
332
Diggings
Rec
Shaft
Conveyor Belt
Vlermuisleegte
138
137
136
135
134
133
132
131
130
129
128
127
126
125
124

Legend

- Ferrum-Mookodi Towers
- Ferrum-Mookodi 400kV Powerline
- 55m Servitude
- Farms
- RE Plants
- Rivers

Wetland Areas Including Buffer

- Drainage Line
- River Riparian Wetland

Northern Cape Biodiversity Conservation Plan

- ESA

REFERENCE

National Freeway; National Route
Arterial Route
Main Road
Secondary Road; Bench Mark
Other Road; Bridge
Track and Hiking Trail
Railway; Station or Siding
Other Railway; Tunnel
Embankment; Cutting
Power Line
Built-up Area (High, Low Density)
Buildings; Ruin
Post Office; Police Station; Store
Place of Worship; School; Hotel
Fence; Wall
Windpump; Monument
Communication Tower
Mine Dump; Excavation
Trigonometrical Station; Marine Beacon
Lighthouse and Marine Light
Cemetery; Grave
International Boundary and Beacon
Provincial Boundary
Protected Area
Perennial River
Perennial Water
Non-perennial River
Non-Perennial Water
Dry Water Course
Dry Pan
Marsh and Vlei
Pipeline (above ground)
Water Tower; Reservoir; Water Point
Coastal Rocks
Prominent Rock Outcrop
Erosion; Sand
Woodland
Cultivated Land
Orchard or Vineyard
Recreation Ground
Row of Trees

NOTES:

Avoid the delineated watercourse areas where feasible.

Nest proof towers and install anti-perch devices in areas that can lead to electrocution.

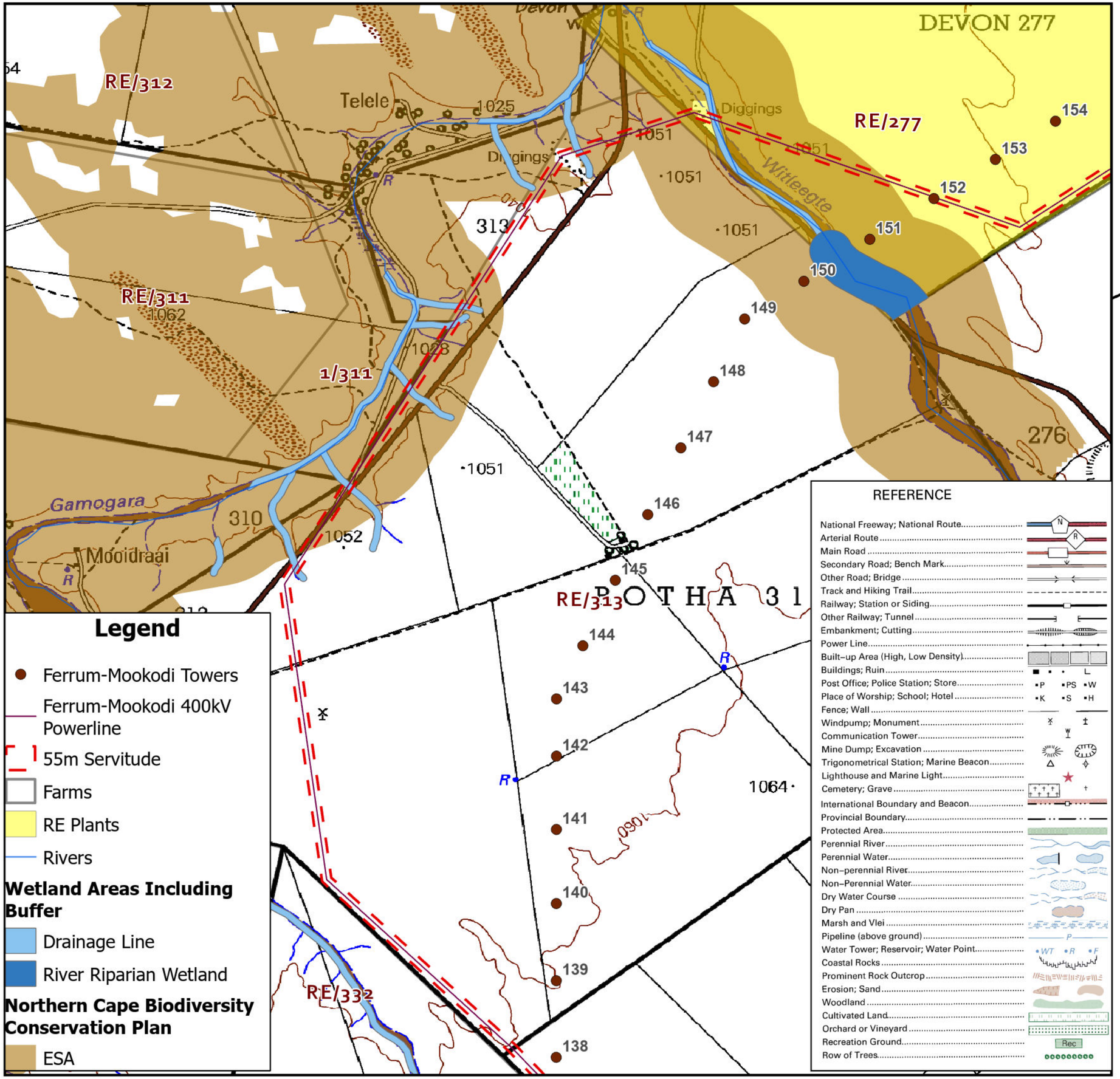
Fit the line with BFDs.

During construction, an avifauna specialist must confirm there are no nests present.

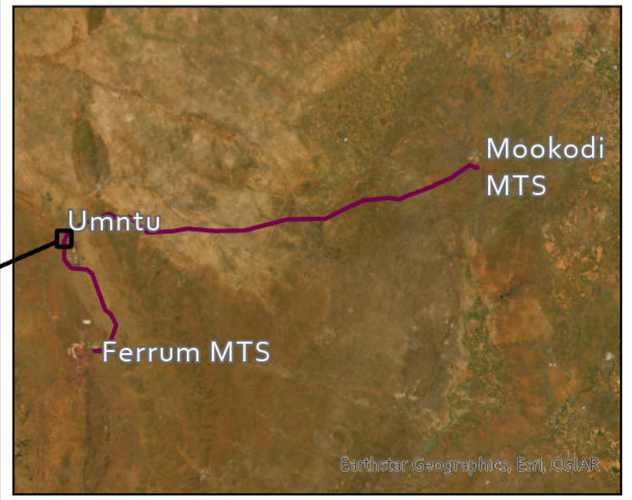
0 0,55 1,1 2,2
km

Project Ref:	Tower Nos.	Map No.
Ferrum-Mookodi	Fer-Moo 124-138	09
Drawn By:	Date:	Scale on A3
BM	Oct 2024	1:24 000
Coordinate System: GCS WGS 1984 Units: Degree	Source: NTCSA, DRDLR, Specialists, Esri	

DIGES GROUP
Building 2, Constantia Park
546, 16th Road
Midrand
1685



Eskom
National Transmission Company South Africa ™



KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

NOTES:

Avoid the delineated watercourse areas where feasible.

Nest proof towers and install anti-perch devices in areas that can lead to electrocution.

Fit the line with BFDs.

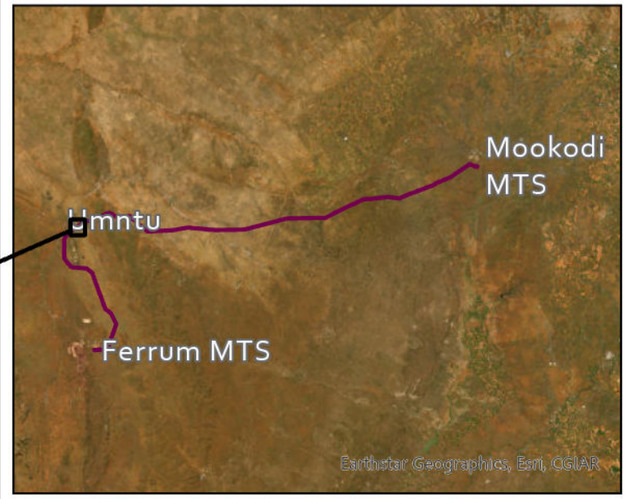
During construction, an avifauna specialist must confirm there are no nests present.

0 0,55 1,1 2,2
km

Project Ref:	Tower Nos.	Map No.
Ferrum-Mookodi	Fer-Moo 138-154	10
Drawn By:	Date:	Scale on A3
BM	Oct 2024	1:24 000
Coordinate System: GCS WGS 1984 Units: Degree	Source: NTCSA, DRDLR, Specialists, Esri	

DIGES GROUP
Building 2, Constantia Park
546, 16th Road
Midrand
1685

Eskom
National Transmission Company South Africa ™



KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

NOTES:

Avoid the delineated watercourse areas where feasible.

Nest proof towers and install anti-perch devices in areas that can lead to electrocution.

Fit the line with BFDs.

During construction, an avifauna specialist must confirm there are no nests present.

0 0,55 1,1 2,2
km

Project Ref: Ferrum-Mookodi	Tower Nos. Fer-Moo 154-170	Map No. 11
Drawn By: BM	Date: Oct 2024	Scale on A3 1:24 000
Coordinate System GCS WGS 1984 Units: Degree	Source: NTCSA, DRDLR, Specialists, Esri	

DIGES GROUP
Building 2, Constantia Park
546, 16th Road
Midrand
1685

Legend

- Ferrum-Mookodi Towers
- Ferrum-Mookodi 400kV Powerline
- 55m Servitude
- Farms
- RE Plants

REFERENCE

National Freeway; National Route
Arterial Route
Main Road
Secondary Road; Bench Mark
Other Road; Bridge
Track and Hiking Trail
Railway; Station or Siding
Other Railway; Tunnel
Embankment; Cutting
Power Line
Built-up Area (High, Low Density)
Buildings; Ruin
Post Office; Police Station; Store
Place of Worship; School; Hotel
Fence; Wall
Windpump; Monument
Communication Tower
Mine Dump; Excavation
Trigonometrical Station; Marine Beacon
Lighthouse and Marine Light
Cemetery; Grave
International Boundary and Beacon
Provincial Boundary
Protected Area
Perennial River
Perennial Water
Non-perennial River
Non-Perennial Water
Dry Water Course
Dry Pan
Marsh and Vlei
Pipeline (above ground)
Water Tower; Reservoir; Water Point
Coastal Rocks
Prominent Rock Outcrop
Erosion; Sand
Woodland
Cultivated Land
Orchard or Vineyard
Recreation Ground
Row of Trees

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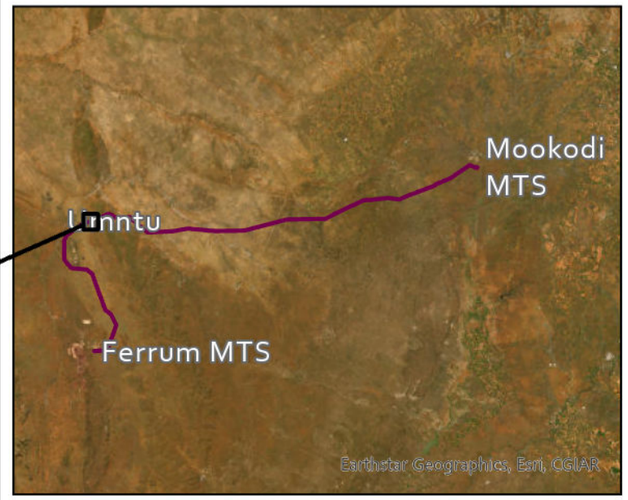

KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

NOTES:

Avoid the delineated watercourse areas where feasible.

Nest proof towers and install anti-perch devices in areas that can lead to electrocution.

Fit the line with BFDs.

Apply for a tree permit and General Authorisation.

0 0,55 1,1 2,2
km

Project Ref:	Tower Nos.	Map No.
Ferrum-Mookodi	Fer-Moo 170-184	12
Drawn By:	Date:	Scale on A3
BM	Oct 2024	1:24 000
Coordinate System: GCS WGS 1984 Units: Degree	Source: NTCSA, DRDLR, Specialists, Esri	

DIGES GROUP
Building 2, Constantia Park
546, 16th Road
Midrand
1685

Legend

- Ferrum-Mookodi Towers
- Ferrum-Mookodi 400kV Powerline
- 55m Servitude
- Farms

Protected Trees

- Boscia albitrunca

Wetland Areas Including Buffer

- River Riparian Wetland

Northern Cape Biodiversity Conservation Plan

- ESA

REFERENCE

National Freeway; National Route
Arterial Route
Main Road
Secondary Road; Bench Mark
Other Road; Bridge
Track and Hiking Trail
Railway; Station or Siding
Other Railway; Tunnel
Embankment; Cutting
Power Line
Built-up Area (High, Low Density)
Buildings; Ruin
Post Office; Police Station; Store
Place of Worship; School; Hotel
Fence; Wall
Windpump; Monument
Communication Tower
Mine Dump; Excavation
Trigonometrical Station; Marine Beacon
Lighthouse and Marine Light
Cemetery; Grave
International Boundary and Beacon
Provincial Boundary
Protected Area
Perennial River
Perennial Water
Non-perennial River
Non-Perennial Water
Dry Water Course
Dry Pan
Marsh and Vlei
Pipeline (above ground)
Water Tower; Reservoir; Water Point
Coastal Rocks
Prominent Rock Outcrop
Erosion; Sand
Woodland
Cultivated Land
Orchard or Vineyard
Recreation Ground
Row of Trees

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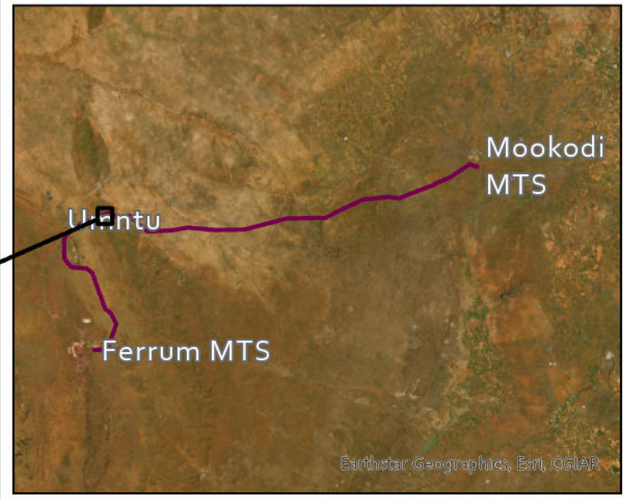

KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

NOTES:

Avoid the delineated watercourse areas where feasible.

Nest proof towers and install anti-perch devices in areas that can lead to electrocution.

Vultures noted on the ridges, BFDs to be fitted 5m apart from Towers 188-201.

Apply for a tree permit and General Authorisation.

0 0,55 1,1 2,2
km

Project Ref: Ferrum-Mookodi	Tower Nos. Fer-Moo 184-199	Map No. 13
Drawn By: BM	Date: Oct 2024	Scale on A3 1:24 000
Coordinate System GCS WGS 1984 Units: Degree	Source: NTCSA, DRDLR, Specialists, Esri	

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Building 2, Constantia Park
546, 16th Road
Midrand
1685

Legend

- Ferrum-Mookodi Towers
- Ferrum-Mookodi 400kV Powerline
- 55m Servitude
- Farms

Archaeological Findings

- LIA Tswana Pottery

Protected Trees

- Boscia albitrunca

Wetland Areas Including Buffer

- Drainage Line
- River Riparian Wetland

Northern Cape Biodiversity Conservation Plan

- ESA

REFERENCE

National Freeway; National Route
Arterial Route
Main Road
Secondary Road; Bench Mark
Other Road; Bridge
Track and Hiking Trail
Railway; Station or Siding
Other Railway; Tunnel
Embankment; Cutting
Power Line
Built-up Area (High, Low Density)
Buildings; Ruin
Post Office; Police Station; Store
Place of Worship; School; Hotel
Fence; Wall
Windpump; Monument
Communication Tower
Mine Dump; Excavation
Trigonometrical Station; Marine Beacon
Lighthouse and Marine Light
Cemetery; Grave
International Boundary and Beacon
Provincial Boundary
Protected Area
Perennial River
Perennial Water
Non-perennial River
Non-Perennial Water
Dry Water Course
Dry Pan
Marsh and Vlei
Pipeline (above ground)
Water Tower; Reservoir; Water Point
Coastal Rocks
Prominent Rock Outcrop
Erosion; Sand
Woodland
Cultivated Land
Orchard or Vineyard
Recreation Ground
Row of Trees

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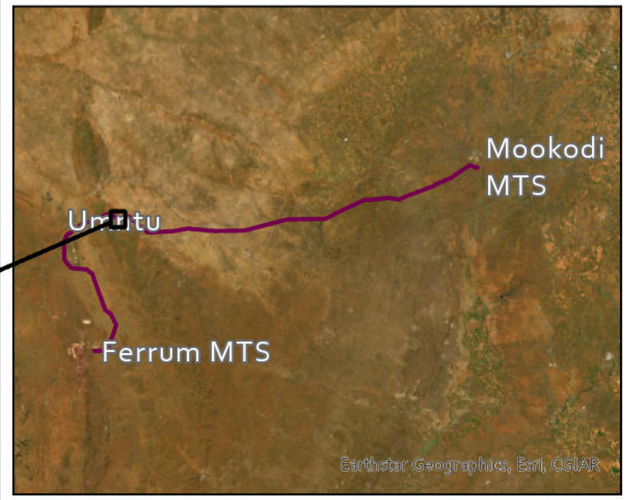
Company South Africa ™



KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

NOTES:

Avoid the delineated watercourse areas where feasible.

Nest proof towers and install anti-perch devices in areas that can lead to electrocution.

BFDs to be fitted 5m apart where the line crosses the river.

Apply for a tree permit and General Authorisation.

0 0,55 1,1 2,2
km

Project Ref:	Tower Nos.	Map No.
Ferrum-Mookodi	Fer-Moo 199-213	14
Drawn By:	Date:	Scale on A3
BM	Oct 2024	1:24 000
Coordinate System: GCS WGS 1984 Units: Degree	Source: NTCSA, DRDLR, Specialists, Esri	

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546, 16th Road
Midrand
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Legend

- Ferrum-Mookodi Towers
- Ferrum-Mookodi 400kV Powerline
- 55m Servitude
- Farms

Birds

Name

- Water birds

Protected Trees

- Boscia albitrunca
- Olea europaea
- Carmel thorn tree
- Stand of Carmel thorns

Wetland Areas Including Buffer

- Drainage Line
- River Riparian Wetland

Northern Cape Biodiversity Conservation Plan

- ESA

REFERENCE

National Freeway; National Route
Arterial Route
Main Road
Secondary Road; Bench Mark
Other Road; Bridge
Track and Hiking Trail
Railway; Station or Siding
Other Railway; Tunnel
Embankment; Cutting
Power Line
Built-up Area (High, Low Density)
Buildings; Ruin
Post Office; Police Station; Store
Place of Worship; School; Hotel
Fence; Wall
Windpump; Monument
Communication Tower
Mine Dump; Excavation
Trigonometrical Station; Marine Beacon
Lighthouse and Marine Light
Cemetery; Grave
International Boundary and Beacon
Provincial Boundary
Protected Area
Perennial River
Perennial Water
Non-perennial River
Non-Perennial Water
Dry Water Course
Dry Pan
Marsh and Vlei
Pipeline (above ground)
Water Tower; Reservoir; Water Point
Coastal Rocks
Prominent Rock Outcrop
Erosion; Sand
Woodland
Cultivated Land
Orchard or Vineyard
Recreation Ground
Row of Trees

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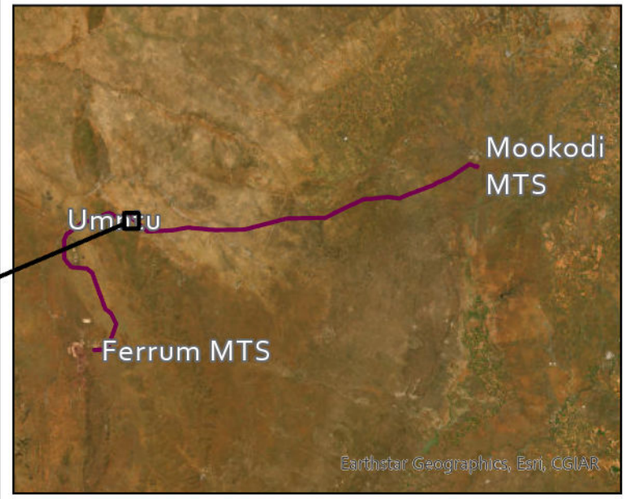

KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

NOTES:

Nest proof towers and install anti-perch devices in areas that can lead to electrocution.

Fit the line with BFDs.

Apply for a tree permit.

0 0,55 1,1 2,2
km

Project Ref: Ferrum-Mookodi	Tower Nos. Fer-Moo 213-228	Map No. 15
Drawn By: BM	Date: Oct 2024	Scale on A3 1:24 000
Coordinate System GCS WGS 1984 Units: Degree	Source: NTCSA, DRDLR, Specialists, Esri	

DIGES GROUP
Building 2, Constantia Park
546, 16th Road
Midrand
1685

REFERENCE

National Freeway; National Route
Arterial Route
Main Road
Secondary Road; Bench Mark
Other Road; Bridge
Track and Hiking Trail
Railway; Station or Siding
Other Railway; Tunnel
Embankment; Cutting
Power Line
Built-up Area (High, Low Density)
Buildings; Ruin
Post Office; Police Station; Store
Place of Worship; School; Hotel
Fence; Wall
Windpump; Monument
Communication Tower
Mine Dump; Excavation
Trigonometrical Station; Marine Beacon
Lighthouse and Marine Light
Cemetery; Grave
International Boundary and Beacon
Provincial Boundary
Protected Area
Perennial River
Perennial Water
Non-perennial River
Non-Perennial Water
Dry Water Course
Dry Pan
Marsh and Vlei
Pipeline (above ground)
Water Tower; Reservoir; Water Point
Coastal Rocks
Prominent Rock Outcrop
Erosion; Sand
Woodland
Cultivated Land
Orchard or Vineyard
Recreation Ground
Row of Trees

Legend

- Ferrum-Mookodi Towers
- Ferrum-Mookodi 400kV Powerline
- 55m Servitude
- Farms

Protected Trees

- Boscia albitrunca
- Olea europaea

Northern Cape Biodiversity Conservation Plan

- ESA

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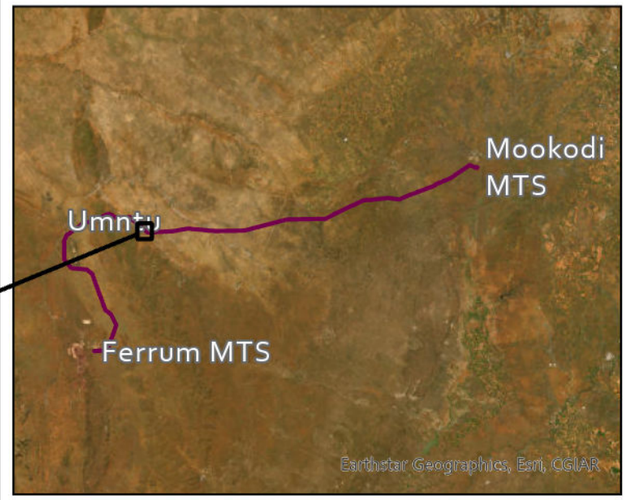

KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

NOTES:

Nest proof towers and install anti-perch devices in areas that can lead to electrocution.

Fit the line with BFDs.

0 0,55 1,1 2,2
km

Project Ref:	Tower Nos.	Map No.
Ferrum-Mookodi	Fer-Moo 228-242	16
Drawn By:	Date:	Scale on A3
BM	Oct 2024	1:24 000
Coordinate System: GCS WGS 1984 Units: Degree	Source: NTCSA, DRDLR, Specialists, Esri	

DIGES GROUP
Building 2, Constantia Park
546, 16th Road
Midrand
1685

REFERENCE

National Freeway; National Route
Arterial Route
Main Road
Secondary Road; Bench Mark
Other Road; Bridge
Track and Hiking Trail
Railway; Station or Siding
Other Railway; Tunnel
Embankment; Cutting
Power Line
Built-up Area (High, Low Density)
Buildings; Ruin
Post Office; Police Station; Store
Place of Worship; School; Hotel
Fence; Wall
Windpump; Monument
Communication Tower
Mine Dump; Excavation
Trigonometrical Station; Marine Beacon
Lighthouse and Marine Light
Cemetery; Grave
International Boundary and Beacon
Provincial Boundary
Protected Area
Perennial River
Perennial Water
Non-perennial River
Non-Perennial Water
Dry Water Course
Dry Pan
Marsh and Vlei
Pipeline (above ground)
Water Tower; Reservoir; Water Point
Coastal Rocks
Prominent Rock Outcrop
Erosion; Sand
Woodland
Cultivated Land
Orchard or Vineyard
Recreation Ground
Row of Trees

Legend

- Ferrum-Mookodi Towers
- Ferrum-Mookodi 400kV Powerline
- 55m Servitude
- Farms

Archaeological Findings

- Community Cemetery

Northern Cape Biodiversity Conservation Plan

- ESA

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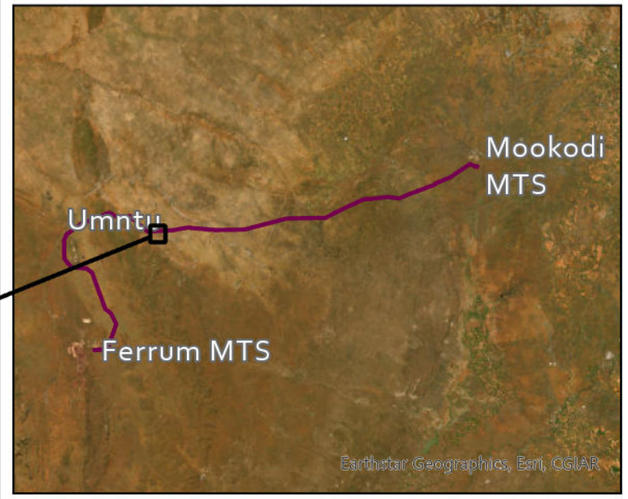

KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

NOTES:

Nest proof towers and install anti-perch devices in areas that can lead to electrocution.

Fit the line with BFDs.

Apply for a tree cutting permit.

0 0,57 1,15 2,3
km

Project Ref: Ferrum-Mookodi	Tower Nos. Fer-Moo 242-255	Map No. 17
Drawn By: BM	Date: Oct 2024	Scale on A3 1:25 000
Coordinate System GCS WGS 1984 Units: Degree	Source: NTCSA, DRDLR, Specialists, Esri	

DIGES GROUP
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Midrand
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Gariele
Gariele
Diggings
1216
1220
1222
1224
1232
1241
1242
RE/214
MINTO 214 HM
RE/213
RE/219
722 HM
242 243 244 245 246 247 248 249 250 251 252 253 254 255
1226 Sewage Works
219 HM

REFERENCE

- National Freeway; National Route
- Arterial Route
- Main Road
- Secondary Road; Bench Mark
- Other Road; Bridge
- Track and Hiking Trail
- Railway; Station or Siding
- Other Railway; Tunnel
- Embankment; Cutting
- Power Line
- Built-up Area (High, Low Density)
- Buildings; Ruin
- Post Office; Police Station; Store
- Place of Worship; School; Hotel
- Fence; Wall
- Windpump; Monument
- Communication Tower
- Mine Dump; Excavation
- Trigonometrical Station; Marine Beacon
- Lighthouse and Marine Light
- Cemetery; Grave
- International Boundary and Beacon
- Provincial Boundary
- Protected Area
- Perennial River
- Perennial Water
- Non-perennial River
- Non-Perennial Water
- Dry Water Course
- Dry Pan
- Marsh and Vlei
- Pipeline (above ground)
- Water Tower; Reservoir; Water Point
- Coastal Rocks
- Prominent Rock Outcrop
- Erosion; Sand
- Woodland
- Cultivated Land
- Orchard or Vineyard
- Recreation Ground
- Row of Trees

Legend

- Ferrum-Mookodi Towers
- Ferrum-Mookodi 400kV Powerline
- 55m Servitude
- Farms

Wetland Areas Including Buffer

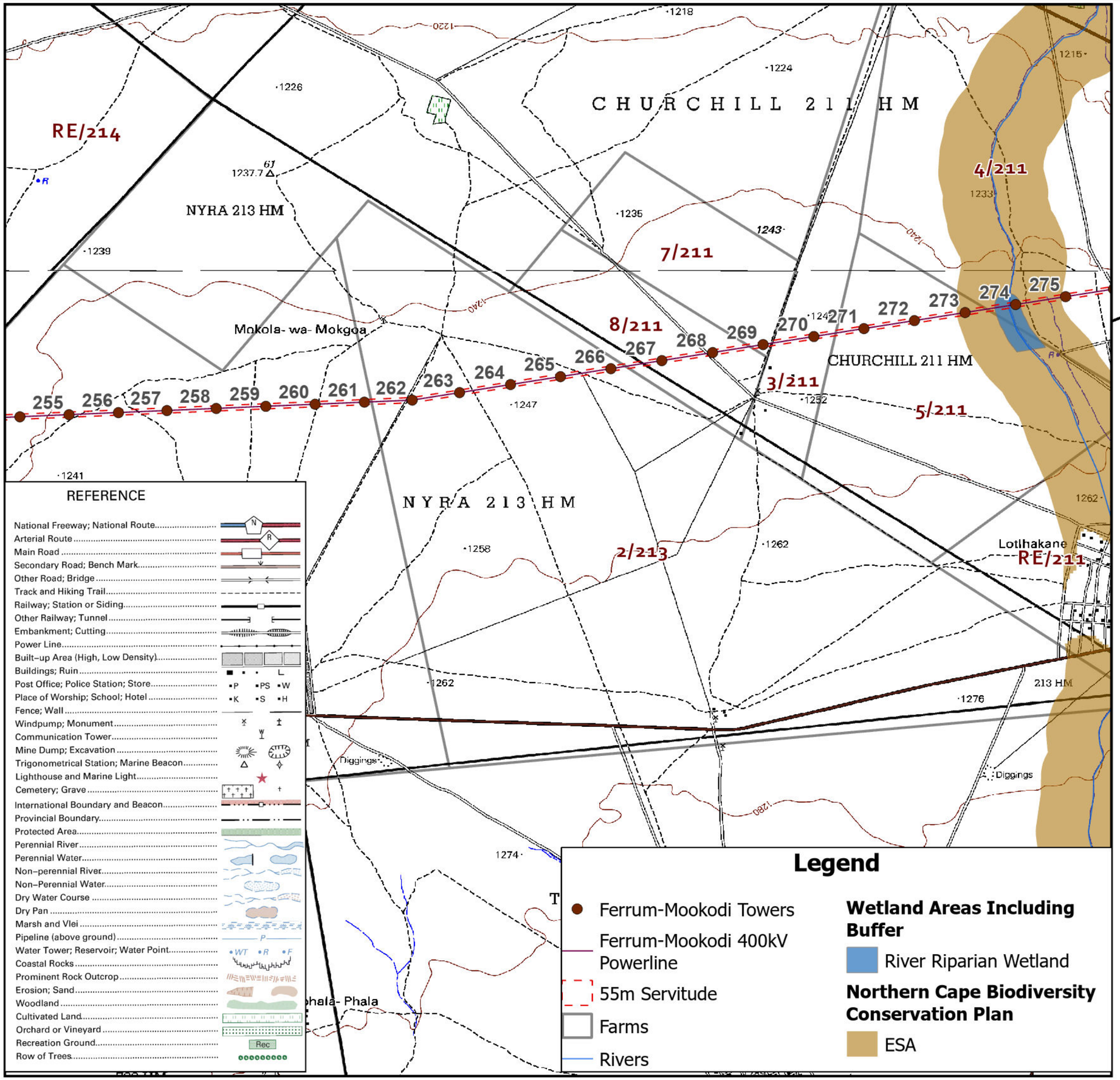
- River Riparian Wetland

Northern Cape Biodiversity Conservation Plan

- CBA1
- ESA

Protected trees

- Carmel thorn tree
- Dense Carmel thorn



REFERENCE

- National Freeway; National Route
- Arterial Route
- Main Road
- Secondary Road; Bench Mark
- Other Road; Bridge
- Track and Hiking Trail
- Railway; Station or Siding
- Other Railway; Tunnel
- Embankment; Cutting
- Power Line
- Built-up Area (High, Low Density)
- Buildings; Ruin
- Post Office; Police Station; Store
- Place of Worship; School; Hotel
- Fence; Wall
- Windpump; Monument
- Communication Tower
- Mine Dump; Excavation
- Trigonometrical Station; Marine Beacon
- Lighthouse and Marine Light
- Cemetery; Grave
- International Boundary and Beacon
- Provincial Boundary
- Protected Area
- Perennial River
- Perennial Water
- Non-perennial River
- Non-Perennial Water
- Dry Water Course
- Dry Pan
- Marsh and Vlei
- Pipeline (above ground)
- Water Tower; Reservoir; Water Point
- Coastal Rocks
- Prominent Rock Outcrop
- Erosion; Sand
- Woodland
- Cultivated Land
- Orchard or Vineyard
- Recreation Ground
- Row of Trees

Legend

- Ferrum-Mookodi Towers
- Ferrum-Mookodi 400kV Powerline
- 55m Servitude
- Farms
- Rivers

Wetland Areas Including Buffer

- River Riparian Wetland

Northern Cape Biodiversity Conservation Plan

- ESA

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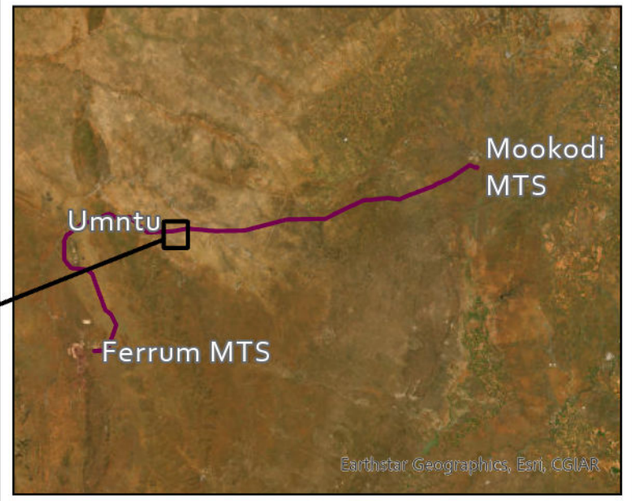
National Transmission Company South Africa ™



KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

NOTES:

Nest proof towers and install anti-perch devices in areas that can lead to electrocution.

Fit the line with BFDs.

0 0,9 1,8 3,6
km

Project Ref:	Tower Nos.	Map No.
Ferrum-Mookodi	Fer-Moo 255-275	18
Drawn By:	Date:	Scale on A3
BM	Oct 2024	1:40 000
Coordinate System: GCS WGS 1984 Units: Degree	Source: NTCSA, DRDLR, Specialists, Esri	

DIGES GROUP
Building 2, Constantia Park
546, 16th Road
Midrand
1685

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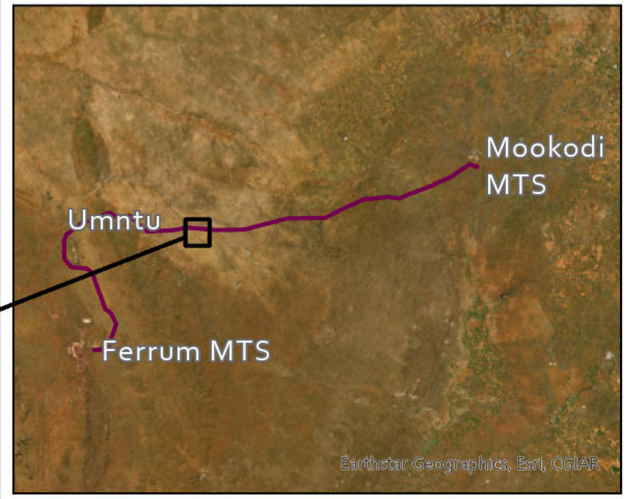

KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

NOTES:

Nest proof towers and install anti-perch devices in areas that can lead to electrocution.

Fit the line with BFDs.

The 500 m seasonal buffer around the Greater Kestrel must be applied between July and February, where no construction is to take place during this period.

0 0,9 1,8 3,6
km

Project Ref: Ferrum-Mookodi	Tower Nos. Fer-Moo 255-275	Map No. 18
Drawn By: BM	Date: Oct 2024	Scale on A3 1:40 000
Coordinate System GCS WGS 1984 Units: Degree	Source: NTCSA, DRDLR, Specialists, Esri	

DIGS GROUP
Building 2, Constantia Park
546, 16th Road
Midrand
1685

Legend

- Ferrum-Mookodi Towers
- Ferrum-Mookodi 400kV Powerline
- 55m Servitude
- Farms
- Rivers

Birds

- Greater Kestrel

Seasonal Nest Buffer

- Greater Kestrel Nest Seasonal Buffer

Wetland Areas Including Buffer

- River Riparian Wetland
- Wetland

Northern Cape Biodiversity Conservation Plan

- ESA

REFERENCE

- National Freeway; National Route
- Arterial Route
- Main Road
- Secondary Road; Bench Mark
- Other Road; Bridge
- Track and Hiking Trail
- Railway; Station or Siding
- Other Railway; Tunnel
- Embankment; Cutting
- Power Line
- Built-up Area (High, Low Density)
- Buildings; Ruin
- Post Office; Police Station; Store
- Place of Worship; School; Hotel
- Fence; Wall
- Windpump; Monument
- Communication Tower
- Mine Dump; Excavation
- Trigonometrical Station; Marine Beacon
- Lighthouse and Marine Light
- Cemetery; Grave
- International Boundary and Beacon
- Provincial Boundary
- Protected Area
- Perennial River
- Perennial Water
- Non-perennial River
- Non-Perennial Water
- Dry Water Course
- Dry Pan
- Marsh and Vlei
- Pipeline (above ground)
- Water Tower; Reservoir; Water Point
- Coastal Rocks
- Prominent Rock Outcrop
- Erosion; Sand
- Woodland
- Cultivated Land
- Orchard or Vineyard
- Recreation Ground
- Row of Trees

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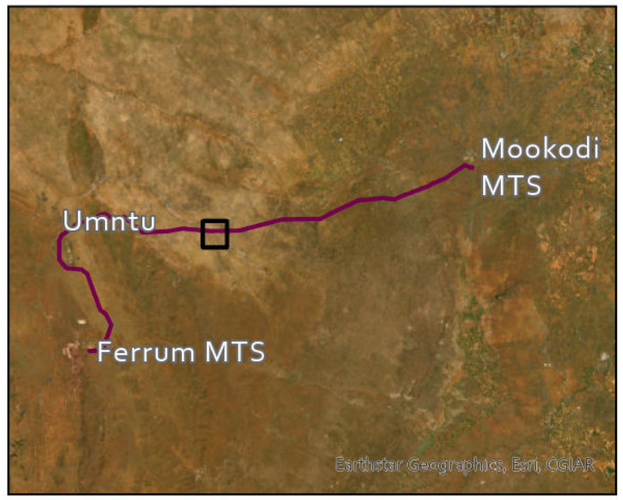

KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

NOTES:

Nest proof towers and install anti-perch devices in areas that can lead to electrocution.

Bird diverters must be placed every 5 m along the line, where the line crosses the river.

Active animal colonies noted from near towers 311 and 312.

Legend

- Ferrum-Mookodi Towers
- Ferrum-Mookodi 400kV Powerline
- 55m Servitude
- Farms
- Rivers
- Active animal colonies

Birds

- Water birds

Wetland Areas Including Buffer

- River Riparian Wetland

Northern Cape Biodiversity Conservation Plan

- ESA

Protected trees

- Dense Carmel thorn

REFERENCE

- National Freeway; National Route
- Arterial Route
- Main Road
- Secondary Road; Bench Mark
- Other Road; Bridge
- Track and Hiking Trail
- Railway; Station or Siding
- Other Railway; Tunnel
- Embankment; Cutting
- Power Line
- Built-up Area (High, Low Density)
- Buildings; Ruin
- Post Office; Police Station; Store
- Place of Worship; School; Hotel
- Fence; Wall
- Windpump; Monument
- Communication Tower
- Mine Dump; Excavation
- Trigonometrical Station; Marine Beacon
- Lighthouse and Marine Light
- Cemetery; Grave
- International Boundary and Beacon
- Provincial Boundary
- Protected Area
- Perennial River
- Perennial Water
- Non-perennial River
- Non-Perennial Water
- Dry Water Course
- Dry Pan
- Marsh and Vlei
- Pipeline (above ground)
- Water Tower; Reservoir; Water Point
- Coastal Rocks
- Prominent Rock Outcrop
- Erosion; Sand
- Woodland
- Cultivated Land
- Orchard or Vineyard
- Recreation Ground
- Row of Trees

0 0,9 1,8 3,6
km

Project Ref: Ferrum-Mookodi	Tower Nos. Fer-Moo 295-316	Map No. 20
Drawn By: BM	Date: Oct 2024	Scale on A3 1:40 000
Coordinate System GCS WGS 1984 Units: Degree	Source: NTCSA, DRDLR, Specialists, Esri	

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Midrand
1685

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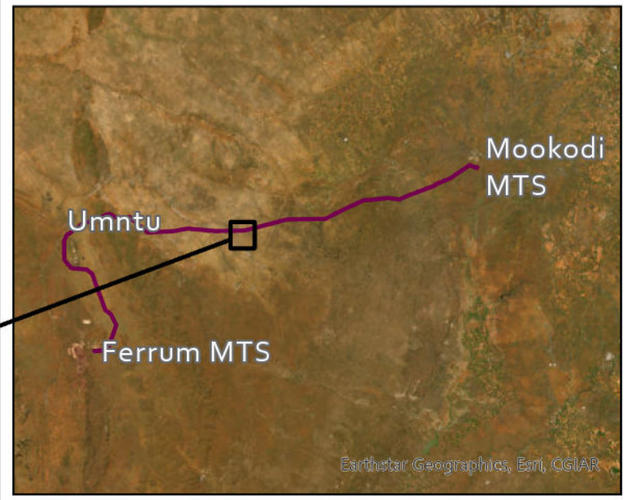


KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

NOTES:

Nest proof towers and install anti-perch devices in areas that can lead to electrocution.

Install BFDs.

During construction, an avifauna specialist must confirm that there are no nests present.

0 0,9 1,8 3,6
km

Project Ref: Ferrum-Mookodi	Tower Nos. Fer-Moo 316-337	Map No. 21
Drawn By: BM	Date: Oct 2024	Scale on A3 1:40 000
Coordinate System GCS WGS 1984 Units: Degree	Source: NTCSA, DRDLR, Specialists, Esri	

DIGES GROUP
Building 2, Constantia Park
546, 16th Road
Midrand
1685

Legend

- Ferrum-Mookodi Towers
- Ferrum-Mookodi 400kV Powerline
- 55m Servitude
- Farms
- Rivers

Northern Cape Biodiversity Conservation Plan

- ESA

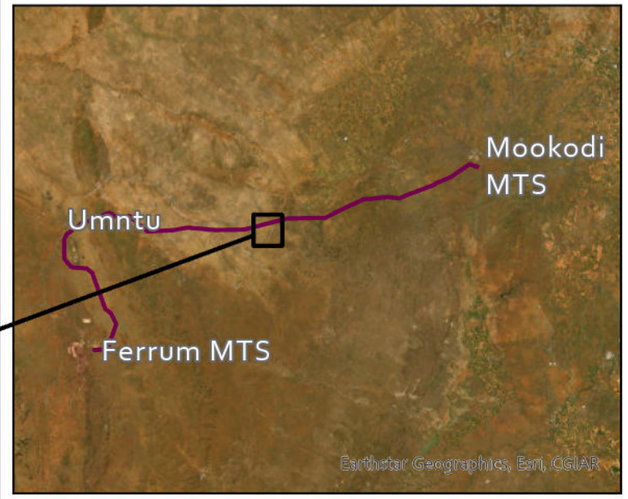
Wetland Areas Including Buffer

- Drainage Line
- River Riparian Wetland
- Wetland

REFERENCE

- National Freeway; National Route
- Arterial Route
- Main Road
- Secondary Road; Bench Mark
- Other Road; Bridge
- Track and Hiking Trail
- Railway; Station or Siding
- Other Railway; Tunnel
- Embankment; Cutting
- Power Line
- Built-up Area (High, Low Density)
- Buildings; Ruin
- Post Office; Police Station; Store
- Place of Worship; School; Hotel
- Fence; Wall
- Windpump; Monument
- Communication Tower
- Mine Dump; Excavation
- Trigonometrical Station; Marine Beacon
- Lighthouse and Marine Light
- Cemetery; Grave
- International Boundary and Beacon
- Provincial Boundary
- Protected Area
- Perennial River
- Perennial Water
- Non-perennial River
- Non-Perennial Water
- Dry Water Course
- Dry Pan
- Marsh and Vlei
- Pipeline (above ground)
- Water Tower; Reservoir; Water Point
- Coastal Rocks
- Prominent Rock Outcrop
- Erosion; Sand
- Woodland
- Cultivated Land
- Orchard or Vineyard
- Recreation Ground
- Row of Trees

Eskom
National Transmission Company South Africa ™



KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

NOTES:

Nest proof towers and install anti-perch devices in areas that can lead to electrocution.

Install BFDs.

During construction, an avifauna specialist must confirm that there are no nests present.

0 1,07 2,15 4,3
km

Legend

- Ferrum-Mookodi Towers
- Ferrum-Mookodi 400kV Powerline
- 55m Servitude
- Farms
- Rivers

Northern Cape Biodiversity Conservation Plan

- ESA

Wetland Areas Including Buffer

- Drainage Line
- River Riparian Wetland
- Wetland

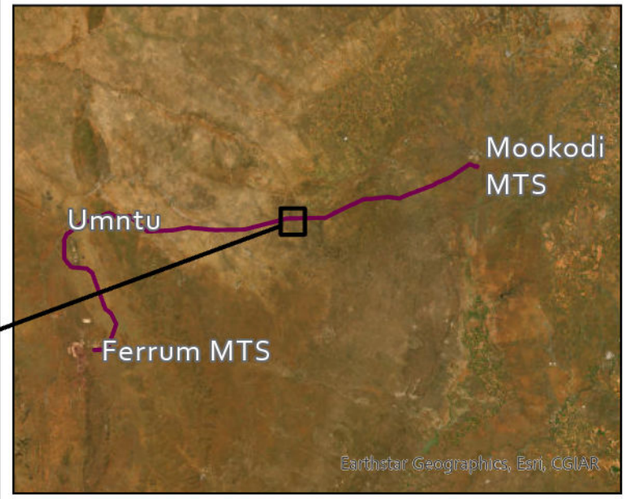
REFERENCE

- National Freeway; National Route
- Arterial Route
- Main Road
- Secondary Road; Bench Mark
- Other Road; Bridge
- Track and Hiking Trail
- Railway; Station or Siding
- Other Railway; Tunnel
- Embankment; Cutting
- Power Line
- Built-up Area (High, Low Density)
- Buildings; Ruin
- Post Office; Police Station; Store
- Place of Worship; School; Hotel
- Fence; Wall
- Windpump; Monument
- Communication Tower
- Mine Dump; Excavation
- Trigonometrical Station; Marine Beacon
- Lighthouse and Marine Light
- Cemetery; Grave
- International Boundary and Beacon
- Provincial Boundary
- Protected Area
- Perennial River
- Perennial Water
- Non-perennial River
- Non-Perennial Water
- Dry Water Course
- Dry Pan
- Marsh and Vlei
- Pipeline (above ground)
- Water Tower; Reservoir; Water Point
- Coastal Rocks
- Prominent Rock Outcrop
- Erosion; Sand
- Woodland
- Cultivated Land
- Orchard or Vineyard
- Recreation Ground
- Row of Trees

Project Ref:	Tower Nos.	Map No.
Ferrum-Mookodi	Fer-Moo 337-362	22
Drawn By:	Date:	Scale on A3
BM	Oct 2024	1:47 396
Coordinate System: GCS WGS 1984 Units: Degree	Source: NTCSA, DRDLR, Specialists, Esri	

DIGES ROUP
Building 2, Constantia Park
546, 16th Road
Midrand
1685

Eskom
National Transmission Company South Africa ™



KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

NOTES:

Nest proof towers and install anti-perch devices in areas that can lead to electrocution.

Install BFDs.

During construction, an avifauna specialist must confirm that there are no nests present.

0 0,9 1,8 3,6
km

Project Ref: Ferrum-Mookodi	Tower Nos. Fer-Moo 362-383	Map No. 23
Drawn By: BM	Date: Oct 2024	Scale on A3 1:40 000
Coordinate System GCS WGS 1984 Units: Degree	Source: NTCSA, DRDLR, Specialists, Esri	

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546, 16th Road
Midrand
1685

Legend

- Ferrum-Mookodi Towers
- Ferrum-Mookodi 400kV Powerline
- 55m Servitude
- Farms
- Rivers

Northern Cape Biodiversity Conservation Plan

- ESA

North West Biodiversity Conservation Plan

- ESA1

Wetland Areas Including Buffer

- River Riparian Wetland
- Wetland

REFERENCE

- National Freeway; National Route
- Arterial Route
- Main Road
- Secondary Road; Bench Mark
- Other Road; Bridge
- Track and Hiking Trail
- Railway; Station or Siding
- Other Railway; Tunnel
- Embankment; Cutting
- Power Line
- Built-up Area (High, Low Density)
- Buildings; Ruin
- Post Office; Police Station; Store
- Place of Worship; School; Hotel
- Fence; Wall
- Windpump; Monument
- Communication Tower
- Mine Dump; Excavation
- Trigonometrical Station; Marine Beacon
- Lighthouse and Marine Light
- Cemetery; Grave
- International Boundary and Beacon
- Provincial Boundary
- Protected Area
- Perennial River
- Perennial Water
- Non-perennial River
- Non-Perennial Water
- Dry Water Course
- Dry Pan
- Marsh and Vlei
- Pipeline (above ground)
- Water Tower; Reservoir; Water Point
- Coastal Rocks
- Prominent Rock Outcrop
- Erosion; Sand
- Woodland
- Cultivated Land
- Orchard or Vineyard
- Recreation Ground
- Row of Trees

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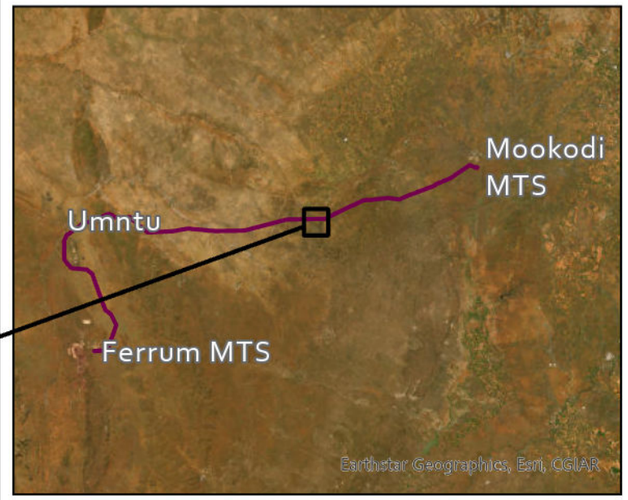

KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

NOTES:

Nest proof towers and install anti-perch devices in areas that can lead to electrocution.

Install BFDs.

During construction, an avifauna specialist must confirm that there are no nests present.

0 0,9 1,8 3,6
km

Project Ref: Ferrum-Mookodi	Tower Nos. Fer-Moo 383-404	Map No. 24
Drawn By: BM	Date: Oct 2024	Scale on A3 1:40 000
Coordinate System GCS WGS 1984 Units: Degree	Source: NTCSA, DRDLR, Specialists, Esri	

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Midrand
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Legend

- Ferrum-Mookodi Towers
- Ferrum-Mookodi 400kV Powerline
- 55m Servitude
- Farms
- Rivers

Archaeological Findings

- Blade

North West Biodiversity Conservation Plan

- ESA1

Wetland Areas Including Buffer

- Drainage Line
- Wetland

REFERENCE

National Freeway; National Route
Arterial Route
Main Road
Secondary Road; Bench Mark
Other Road; Bridge
Track and Hiking Trail
Railway; Station or Siding
Other Railway; Tunnel
Embankment; Cutting
Power Line
Built-up Area (High, Low Density)
Buildings; Ruin
Post Office; Police Station; Store
Place of Worship; School; Hotel
Fence; Wall
Windpump; Monument
Communication Tower
Mine Dump; Excavation
Trigonometrical Station; Marine Beacon
Lighthouse and Marine Light
Cemetery; Grave
International Boundary and Beacon
Provincial Boundary
Protected Area
Perennial River
Perennial Water
Non-perennial River
Non-Perennial Water
Dry Water Course
Dry Pan
Marsh and Vlei
Pipeline (above ground)
Water Tower; Reservoir; Water Point
Coastal Rocks
Prominent Rock Outcrop
Erosion; Sand
Woodland
Cultivated Land
Orchard or Vineyard
Recreation Ground
Row of Trees

ZWARTFONTEIN 629-HN

RE/645

RE/1/644

RE/3/644

RE/1/648

RE/2/645

RE/4/648

RE/7/648

RE/648

HOLPAN 644-HN

645-HN

643-HN

HARTEBEES B

Swartrand

Beespan

Smithville

Harbeestbult

Holpan

Joubert's Pan

Diggings

Lykso

Eensgevonden

Driedoorn

Boschknop

Sweet

644-HN

R371

404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427

1455 1428 1438 1437 1429 1463.1 1453 1455.5 1457 1452.4 1444.5 1436.4 1434.8 1450 1461 1460 1158 642-HN

Legend

- Ferrum-Mookodi Towers
- Ferrum-Mookodi 400kV Powerline
- 55m Servitude
- Farms
- RE Plants
- Rivers

North West Biodiversity Conservation Plan

- CBA2
- ESA1

Wetland Areas Including Buffer

- River Riparian Wetland
- Wetland

REFERENCE

National Freeway; National Route
Arterial Route
Main Road
Secondary Road; Bench Mark
Other Road; Bridge
Track and Hiking Trail
Railway; Station or Siding
Other Railway; Tunnel
Embankment; Cutting
Power Line
Built-up Area (High, Low Density)
Buildings; Ruin
Post Office; Police Station; Store
Place of Worship; School; Hotel
Fence; Wall
Windpump; Monument
Communication Tower
Mine Dump; Excavation
Trigonometrical Station; Marine Beacon
Lighthouse and Marine Light
Cemetery; Grave
International Boundary and Beacon
Provincial Boundary
Protected Area
Perennial River
Perennial Water
Non-perennial River
Non-Perennial Water
Dry Water Course
Dry Pan
Marsh and Vlei
Pipeline (above ground)
Water Tower; Reservoir; Water Point
Coastal Rocks
Prominent Rock Outcrop
Erosion; Sand
Woodland
Cultivated Land
Orchard or Vineyard
Recreation Ground
Row of Trees

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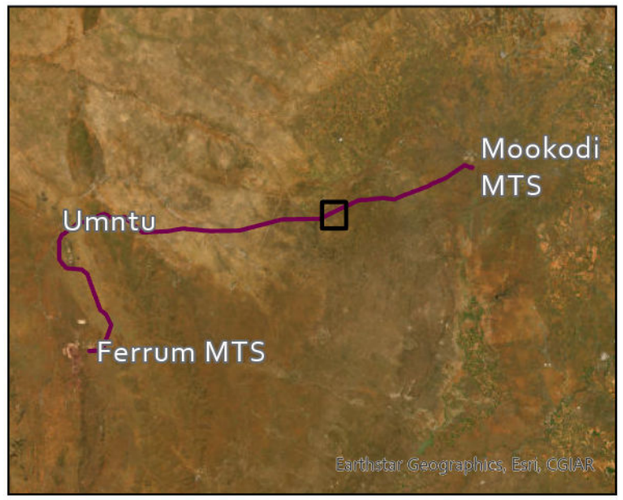

KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

NOTES:

Nest proof towers and install anti-perch devices in areas that can lead to electrocution.

Install BFDs.

During construction, an avifauna specialist must confirm that there are no nests present.

0 0,9 1,8 3,6
km

Project Ref: Ferrum-Mookodi	Tower Nos. Fer-Moo 404-427	Map No. 25
Drawn By: BM	Date: Oct 2024	Scale on A3 1:40 000
Coordinate System GCS WGS 1984 Units: Degree	Source: NTCSA, DRDLR, Specialists, Esri	

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1685

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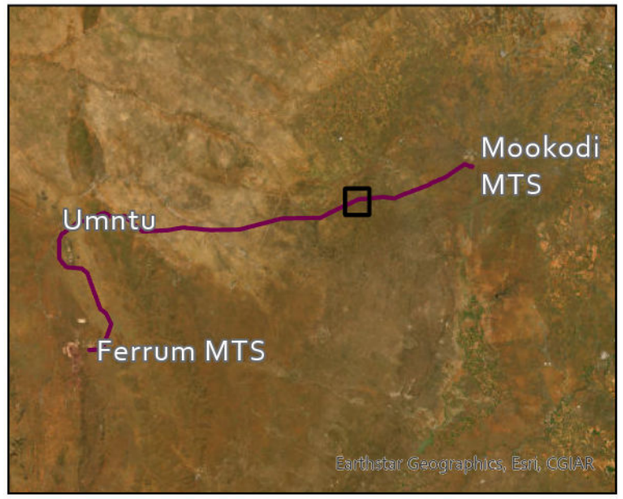


KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

NOTES:

Nest proof towers and install anti-perch devices in areas that can lead to electrocution.

Install BFDs.

During construction, an avifauna specialist must confirm that there are no nests present.

0 0,9 1,8 3,6
km

Project Ref: Ferrum-Mookodi	Tower Nos. Fer-Moo 427-452	Map No. 26
Drawn By: BM	Date: Oct 2024	Scale on A3 1:40 000
Coordinate System GCS WGS 1984 Units: Degree	Source: NTCSA, DRDLR, Specialists, Esri	

DIGES GROUP
Building 2, Constantia Park
546, 16th Road
Midrand
1685

Legend

- Ferrum-Mookodi Towers
- Ferrum-Mookodi 400kV Powerline
- 55m Servitude
- Farms
- Rivers

Archaeological Findings

- Stone tools
- Stone Cairns
- Cores

North West Biodiversity Conservation Plan

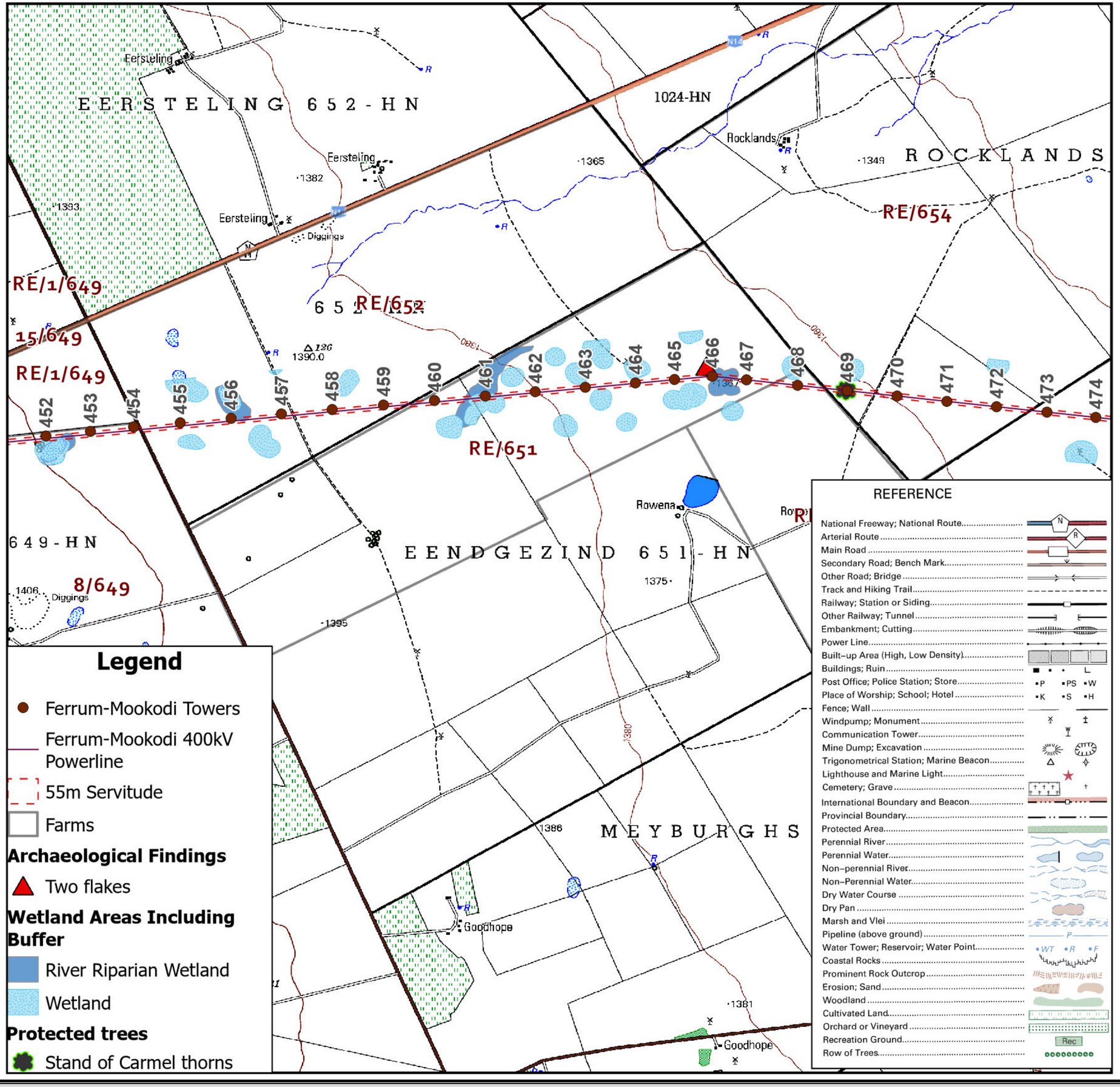
- ESA1

Wetland Areas Including Buffer

- River Riparian Wetland
- Wetland

REFERENCE

National Freeway; National Route
Arterial Route
Main Road
Secondary Road; Bench Mark
Other Road; Bridge
Track and Hiking Trail
Railway; Station or Siding
Other Railway; Tunnel
Embankment; Cutting
Power Line
Built-up Area (High, Low Density)
Buildings; Ruin
Post Office; Police Station; Store
Place of Worship; School; Hotel
Fence; Wall
Windpump; Monument
Communication Tower
Mine Dump; Excavation
Trigonometrical Station; Marine Beacon
Lighthouse and Marine Light
Cemetery; Grave
International Boundary and Beacon
Provincial Boundary
Protected Area
Perennial River
Perennial Water
Non-perennial River
Non-Perennial Water
Dry Water Course
Dry Pan
Marsh and Vlei
Pipeline (above ground)
Water Tower; Reservoir; Water Point
Coastal Rocks
Prominent Rock Outcrop
Erosion; Sand
Woodland
Cultivated Land
Orchard or Vineyard
Recreation Ground
Row of Trees



Legend

- Ferrum-Mookodi Towers
- Ferrum-Mookodi 400kV Powerline
- 55m Servitude
- Farms

Archaeological Findings

- Two flakes

Wetland Areas Including Buffer

- River Riparian Wetland
- Wetland

Protected trees

- Stand of Carmel thorns

REFERENCE

National Freeway; National Route
Arterial Route
Main Road
Secondary Road; Bench Mark
Other Road; Bridge
Track and Hiking Trail
Railway; Station or Siding
Other Railway; Tunnel
Embankment; Cutting
Power Line
Built-up Area (High, Low Density)
Buildings; Ruin
Post Office; Police Station; Store
Place of Worship; School; Hotel
Fence; Wall
Windpump; Monument
Communication Tower
Mine Dump; Excavation
Trigonometrical Station; Marine Beacon
Lighthouse and Marine Light
Cemetery; Grave
International Boundary and Beacon
Provincial Boundary
Protected Area
Perennial River
Perennial Water
Non-perennial River
Non-Perennial Water
Dry Water Course
Dry Pan
Marsh and Vlei
Pipeline (above ground)
Water Tower; Reservoir; Water Point
Coastal Rocks
Prominent Rock Outcrop
Erosion; Sand
Woodland
Cultivated Land
Orchard or Vineyard
Recreation Ground
Row of Trees

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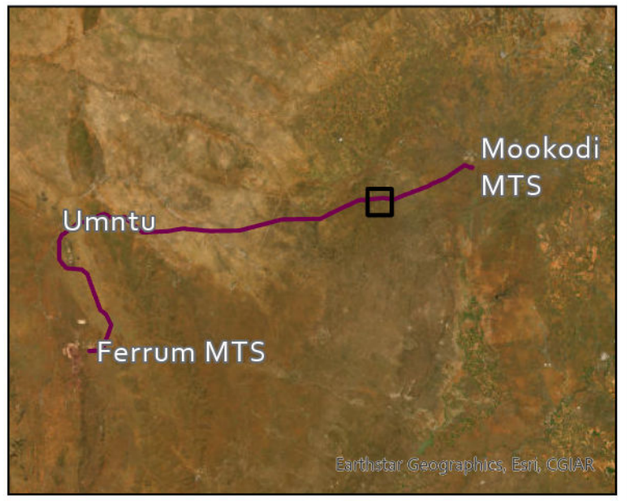

KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

NOTES:

Nest proof towers and install anti-perch devices in areas that can lead to electrocution.

Install BFDs.

During construction, an avifauna specialist must confirm that there are no nests present.

Apply for a tree permit.

0 0,9 1,8 3,6
km

Project Ref:	Tower Nos.	Map No.
Ferrum-Mookodi	Fer-Moo 452-474	27
Drawn By:	Date:	Scale on A3
BM	Oct 2024	1:40 000
Coordinate System: GCS WGS 1984 Units: Degree	Source: NTCSA, DRDLR, Specialists, Esri	

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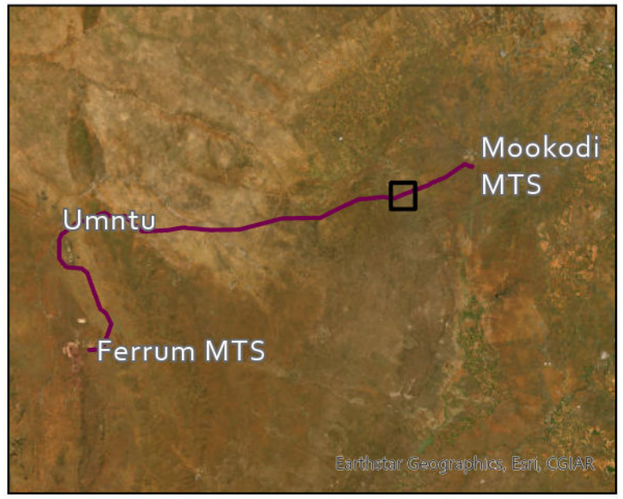

KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

NOTES:

Nest proof towers and install anti-perch devices in areas that can lead to electrocution.

Install BFDs.

During construction, an avifauna specialist must confirm that there are no nests present.

Legend

- Ferrum-Mookodi Towers
- Ferrum-Mookodi 400kV Powerline
- 55m Servitude
- Farms

Wetland Areas Including Buffer

- River Riparian Wetland
- Wetland

REFERENCE

- National Freeway; National Route
- Arterial Route
- Main Road
- Secondary Road; Bench Mark
- Other Road; Bridge
- Track and Hiking Trail
- Railway; Station or Siding
- Other Railway; Tunnel
- Embankment; Cutting
- Power Line
- Built-up Area (High, Low Density)
- Buildings; Ruin
- Post Office; Police Station; Store (P, PS, W)
- Place of Worship; School; Hotel (K, S, H)
- Fence; Wall
- Windpump; Monument
- Communication Tower
- Mine Dump; Excavation
- Trigonometrical Station; Marine Beacon
- Lighthouse and Marine Light
- Cemetery; Grave
- International Boundary and Beacon
- Provincial Boundary
- Protected Area
- Perennial River
- Perennial Water
- Non-perennial River
- Non-Perennial Water
- Dry Water Course
- Dry Pan
- Marsh and Vlei
- Pipeline (above ground) (P)
- Water Tower; Reservoir; Water Point (WT, R, F)
- Coastal Rocks
- Prominent Rock Outcrop
- Erosion; Sand
- Woodland
- Cultivated Land
- Orchard or Vineyard
- Recreation Ground (Rec)
- Row of Trees

0 0,9 1,8 3,6
km

Project Ref:	Tower Nos.	Map No.
Ferrum-Mookodi	Fer-Moo 474-497	28
Drawn By:	Date:	Scale on A3
BM	Oct 2024	1:40 000
Coordinate System: GCS WGS 1984 Units: Degree	Source: NTCSA, DRDLR, Specialists, Esri	

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Midrand
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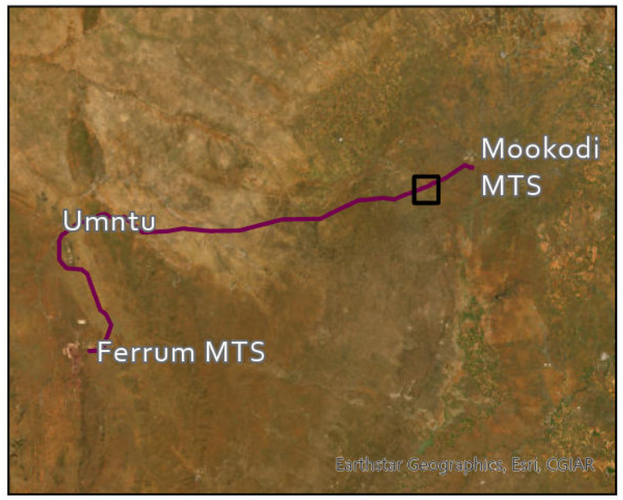


KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

NOTES:

Nest proof towers and install anti-perch devices in areas that can lead to electrocution.

Install BFDs.

During construction, an avifauna specialist must confirm that there are no nests present.

Apply a tree permit.

0 0,9 1,8 3,6
km

Project Ref: Ferrum-Mookodi	Tower Nos. Fer-Moo 497-520	Map No. 29
Drawn By: BM	Date: Oct 2024	Scale on A3 1:40 000
Coordinate System GCS WGS 1984 Units: Degree	Source: NTCSA, DRDLR, Specialists, Esri	

DIGES GROUP
Building 2, Constantia Park
546, 16th Road
Midrand
1685

Legend

- Ferrum-Mookodi Towers
- Ferrum-Mookodi 400kV Powerline
- 55m Servitude
- Farms
- Rivers

Archaeological Findings

- Burial Site
- Grave

North West Biodiversity Conservation Plan

- ESA1

Wetland Areas Including Buffer

- River Riparian Wetland
- Wetland

Protected trees

- Carmel thorn forest

REFERENCE

- National Freeway; National Route
- Arterial Route
- Main Road
- Secondary Road; Bench Mark
- Other Road; Bridge
- Track and Hiking Trail
- Railway; Station or Siding
- Other Railway; Tunnel
- Embankment; Cutting
- Power Line
- Built-up Area (High, Low Density)
- Buildings; Ruin
- Post Office; Police Station; Store
- Place of Worship; School; Hotel
- Fence; Wall
- Windpump; Monument
- Communication Tower
- Mine Dump; Excavation
- Trigonometrical Station; Marine Beacon
- Lighthouse and Marine Light
- Cemetery; Grave
- International Boundary and Beacon
- Provincial Boundary
- Protected Area
- Perennial River
- Perennial Water
- Non-perennial River
- Non-Perennial Water
- Dry Water Course
- Dry Pan
- Marsh and Vlei
- Pipeline (above ground)
- Water Tower; Reservoir; Water Point
- Coastal Rocks
- Prominent Rock Outcrop
- Erosion; Sand
- Woodland
- Cultivated Land
- Orchard or Vineyard
- Recreation Ground
- Row of Trees

RE/671

RETREAT 671-IN

1/671

KAMEELFONTEIN 666-HN

Kameelfontein

RE/4/665

665-HN

5/665

2/664

Diggings

Villa Pax

Nazareth

NAZ

DRIEPOORT 664-HN

4/662

662-HN

1/664

Driepoort

664-HN

Thakwaneng

Villina

BR

517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543

Legend

- Ferrum-Mookodi Towers
- Ferrum-Mookodi 400kV Powerline
- 55m Servitude
- Farms
- RE Plants

North West Biodiversity Conservation Plan

- ESA1

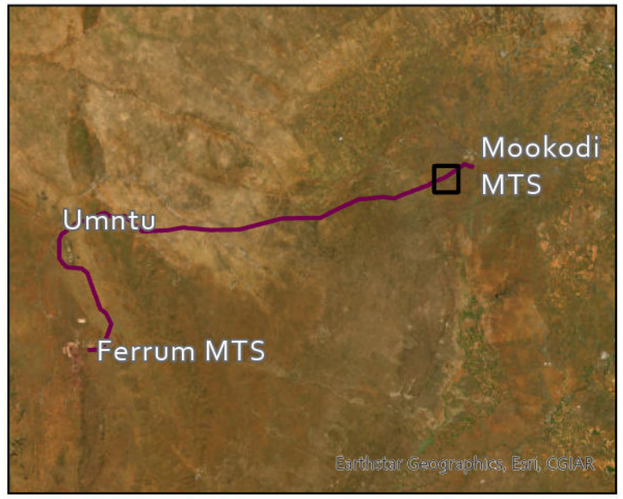
Wetland Areas Including Buffer

- River Riparian Wetland
- Wetland

REFERENCE

National Freeway; National Route
Arterial Route
Main Road
Secondary Road; Bench Mark
Other Road; Bridge
Track and Hiking Trail
Railway; Station or Siding
Other Railway; Tunnel
Embankment; Cutting
Power Line
Built-up Area (High, Low Density)
Buildings; Ruin
Post Office; Police Station; Store — P PS W
Place of Worship; School; Hotel — K S H
Fence; Wall
Windpump; Monument
Communication Tower
Mine Dump; Excavation
Trigonometrical Station; Marine Beacon
Lighthouse and Marine Light
Cemetery; Grave
International Boundary and Beacon
Provincial Boundary
Protected Area
Perennial River
Perennial Water
Non-perennial River
Non-Perennial Water
Dry Water Course
Dry Pan
Marsh and Vlei
Pipeline (above ground) — P
Water Tower; Reservoir; Water Point — WT R F
Coastal Rocks
Prominent Rock Outcrop
Erosion; Sand
Woodland
Cultivated Land
Orchard or Vineyard
Recreation Ground — Rec
Row of Trees

Eskom
National Transmission Company South Africa ™



KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

NOTES:

Nest proof towers and install anti-perch devices in areas that can lead to electrocution.

Install BFDs.

During construction, an avifauna specialist must confirm that there are no nests present.

0 0,9 1,8 3,6
km

Project Ref: Ferrum-Mookodi	Tower Nos. Fer-Moo 520-539	Map No. 30
Drawn By: BM	Date: Oct 2024	Scale on A3 1:40 000
Coordinate System GCS WGS 1984 Units: Degree	Source: NTCSA, DALRRD, Specialists, Esri	

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Midrand
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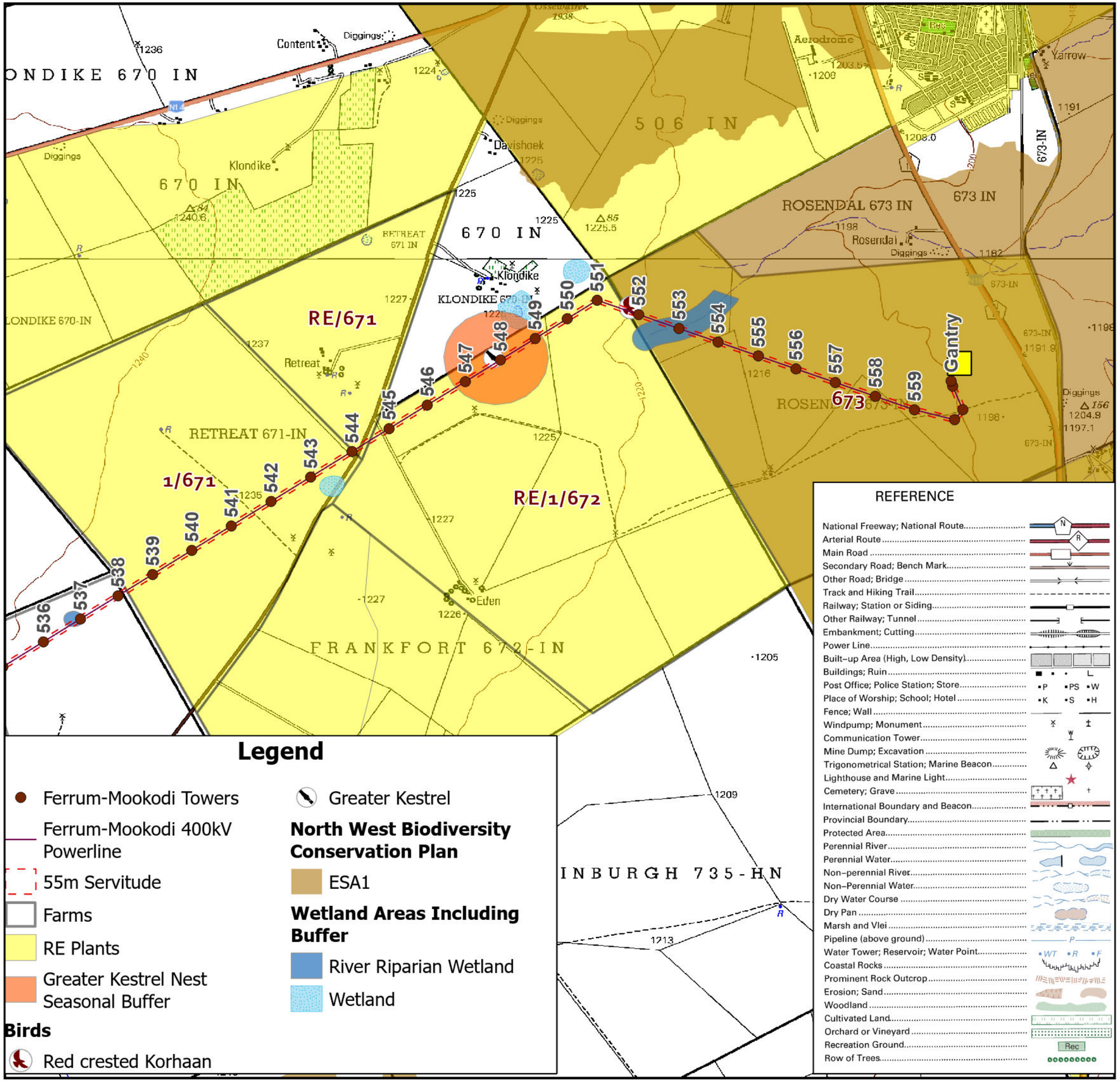

Legend

- Ferrum-Mookodi Towers
- Ferrum-Mookodi 400kV Powerline
- 55m Servitude
- Farms
- RE Plants
- Greater Kestrel Nest Seasonal Buffer

Birds

- Red crested Korhaan
- Greater Kestrel

North West Biodiversity Conservation Plan

- ESA1

Wetland Areas Including Buffer

- River Riparian Wetland
- Wetland

REFERENCE

National Freeway; National Route
Arterial Route
Main Road
Secondary Road; Bench Mark
Other Road; Bridge
Track and Hiking Trail
Railway; Station or Siding
Other Railway; Tunnel
Embankment; Cutting
Power Line
Built-up Area (High, Low Density)
Buildings; Ruin
Post Office; Police Station; Store
Place of Worship; School; Hotel
Fence; Wall
Windpump; Monument
Communication Tower
Mine Dump; Excavation
Trigonometrical Station; Marine Beacon
Lighthouse and Marine Light
Cemetery; Grave
International Boundary and Beacon
Provincial Boundary
Protected Area
Perennial River
Perennial Water
Non-perennial River
Non-Perennial Water
Dry Water Course
Dry Pan
Marsh and Vlei
Pipeline (above ground)
Water Tower; Reservoir; Water Point
Coastal Rocks
Prominent Rock Outcrop
Erosion; Sand
Woodland
Cultivated Land
Orchard or Vineyard
Recreation Ground
Row of Trees

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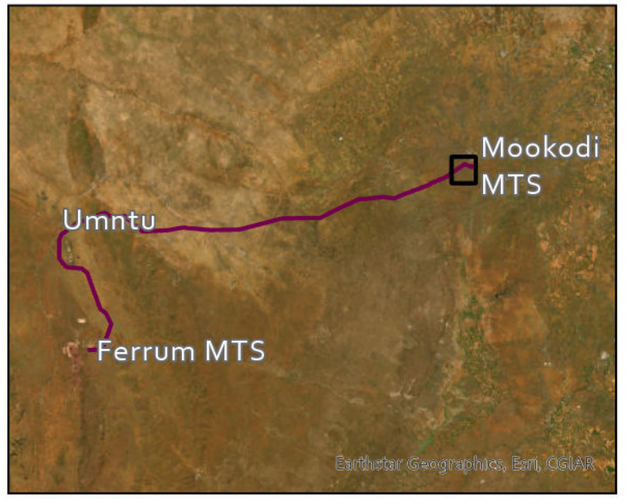

KIMBERLEY STRENGTHENING PHASE 3: FERRUM-MOOKODI 400KV POWERLINE

NOTES:

Nest proof towers and install anti-perch devices in areas that can lead to electrocution.

Install BFDs.

During construction, an avifauna specialist must confirm that there are no nests present.

0 0,9 1,8 3,6
km

Project Ref:	Tower Nos.	Map No.
Ferrum-Mookodi	Fer-Moo 520-539	30
Drawn By:	Date:	Scale on A3
BM	Oct 2024	1:40 000
Coordinate System	Source:	
GCS WGS 1984 Units: Degree	NTCSA, DALRRD, Specialists, Esri	

DIGES GROUP

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Midrand
1685