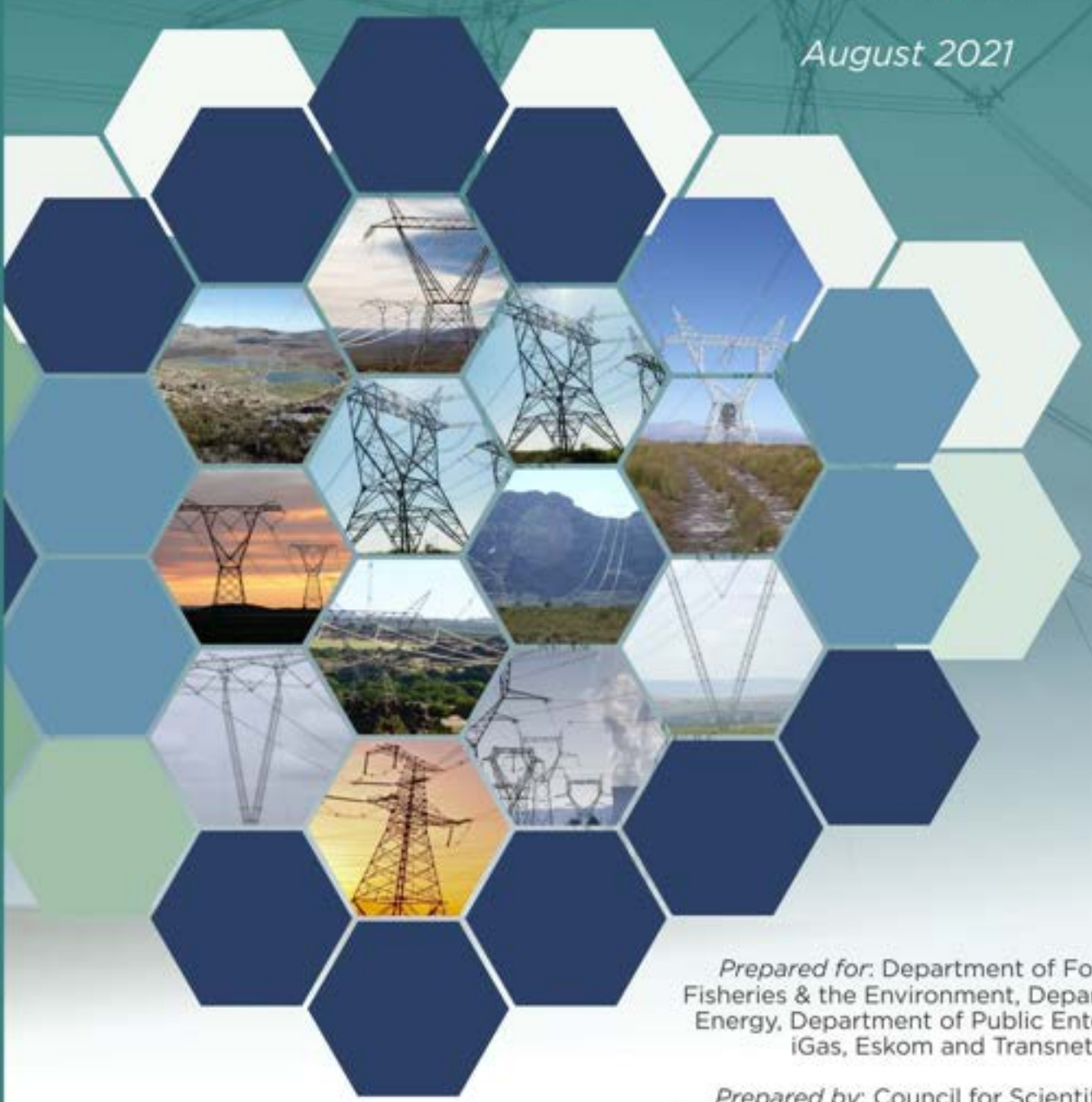


# Standard for the Development of Power Lines and Substations within Identified Geographical Areas

Revision 1

August 2021



*Prepared for:* Department of Forestry, Fisheries & the Environment, Department of Energy, Department of Public Enterprises, iGas, Eskom and Transnet

*Prepared by:* Council for Scientific and Industrial Research (CSIR) and South African National Biodiversity Institute (SANBI)



# Standard for the Development of Power Lines and Substations within Identified Geographical Areas

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Department of Mineral Resources and Energy  
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<sup>2</sup> This project team member resigned from SANBI at end October 2020.

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<sup>3</sup> Department of Environment, Forestry and Fisheries, 2019. Strategic Environmental Assessment for the Expansion of Electricity Grid Infrastructure Corridors in South Africa. CSIR Report Number: CSIR/SPLA/EMS/ER/2019/0076/B. ISBN Number: ISBN 978-0-7988-5648-5. Stellenbosch and Durban.

<sup>4</sup> Note that this Author was under the employ of the Council for Scientific and Industrial Research (CSIR) during the completion of the relevant SEA Report Chapters; however has subsequently resigned.

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Figure 1: Five Gazetted EGI Corridors assessed as part of the 2016 EGI SEA and two Expanded EGI Corridors assessed as part of the 2019 EGI Expansion SEA.

7

## ABBREVIATIONS

BID	Background Information Document
BFD	Bird Flight Diverter
CBO	Community-Based Organisation
CR	Critically Endangered
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
ECO	Environmental Control Officer
EGI	Electricity Grid Infrastructure
EMPr	Environmental Management Programme
EN	Endangered
EWT	Endangered Wildlife Trust
GIS	Geographic Information Systems
HIA	Heritage Impact Assessment
I&APs	Interested and Affected Parties
IBA	Important Bird Area
LC	Least-Concern
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended
NEM:BA	National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004), as amended
NGO	Non-Governmental Organisation
OEC	Obstacle Evaluation Committee
SABAP	South African Bird Atlas Project
SACAA	South African Civil Aviation Authority
SACNASP	South African Council for Natural Scientific Professions
SAHRA	South African Heritage Resources Agency
SCC	Species of Conservation Concern
SEA	Strategic Environmental Assessment
VU	Vulnerable

# CHAPTER 1. CONTEXT, PURPOSE AND APPLICATION

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## 1.1 Context of the Standard

The National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) promotes the integrated environmental management of activities that may have a significant impact (positive or negative) on the environment. Section 24(1) of the NEMA states that *“in order to give effect to the general objectives of integrated environmental management laid down in this Chapter, the potential consequences for or impacts on the environment of listed activities or specified activities must be considered, investigated, assessed and reported on to the competent authority or Minister responsible for Mineral Resources, as the case may be, except in respect of those activities that may commence without having to obtain environmental authorisation in terms of this Act.”*

Section 24(2)(c) - (e) provides the ability of the Minister, or MEC in concurrence with the Minister to identify activities and geographical areas within which activities may be excluded from the requirement to obtain environmental authorisation and section 24(2)(d) provides the additional ability to link such exclusions with compliance with prescribed norms or standards. This Standard, entitled “Standard for the Development of Powerlines and Substations within Identified Geographical Areas” (the Standard) is intended to be adopted in terms of section 24(10)(a) of NEMA to allow for the exclusion, in terms of section 24(2)(d) of NEMA, of activities which relate to the development of electricity transmission and distribution infrastructure as identified in Listing Notices 1 and 2 of the Environmental Impact Assessment (EIA) Regulations, promulgated under section 24(5) of NEMA as well as any listed or specified activities necessary for the realisation of such infrastructure which includes substations, as described in the scope of this Standard.

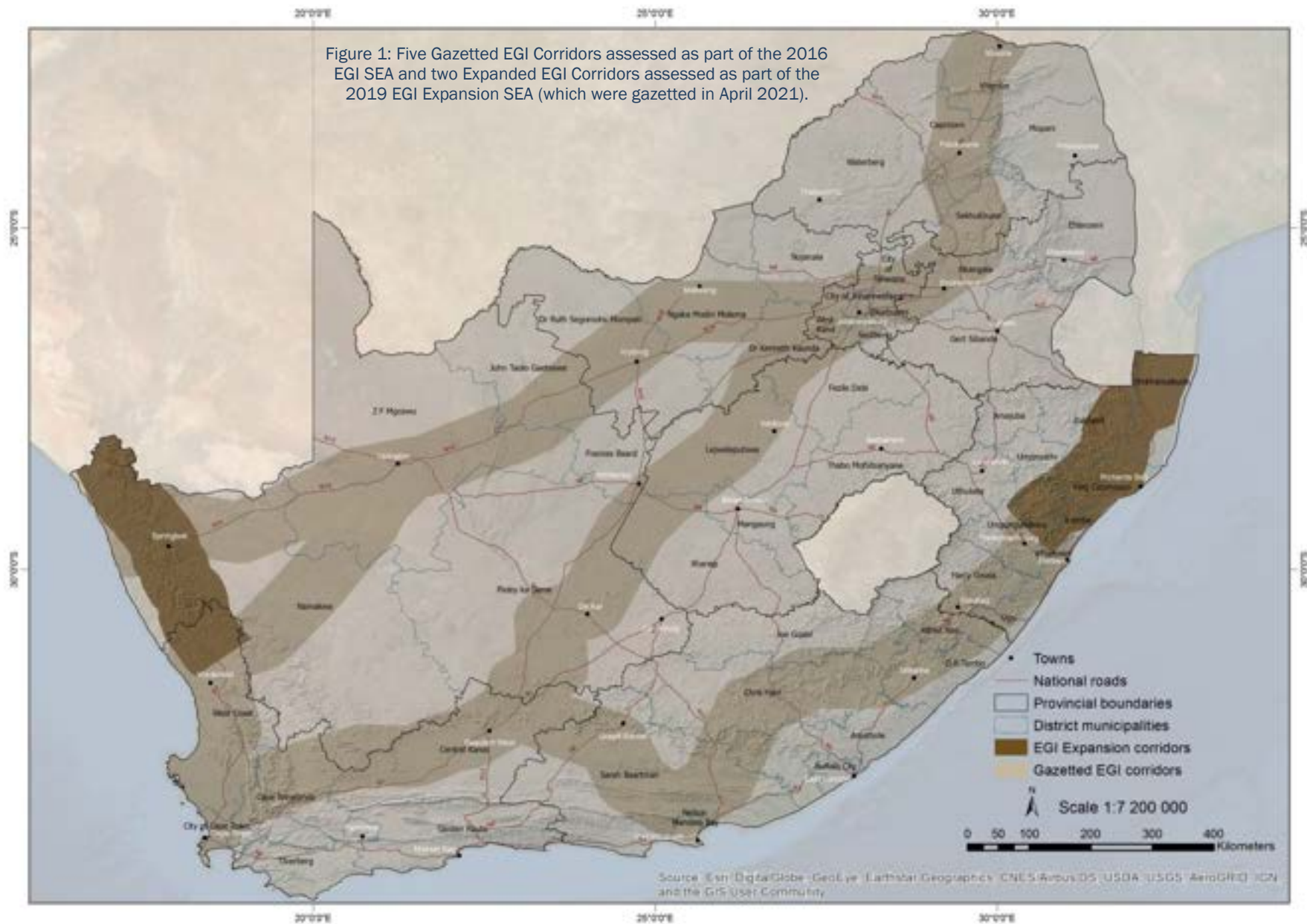
This Standard has been developed based on two Strategic Environmental Assessment (SEA) processes undertaken for the development of Electricity Grid Infrastructure (EGI) in South Africa as listed below:

- SEA completed in 2016 for the identification and assessment of five (5) EGI Corridors; and
- SEA initiated in 2017 and completed in 2019 for the identification and assessment of two (2) expanded EGI Corridors.

The SEA processes identified geographical areas which are of strategic importance for the rollout of electricity transmission and distribution infrastructure in terms of Strategic Integrated Project 10: Electricity Transmission and Distribution for all. These geographical areas consist of seven (7) strategic transmission corridors for the development of transmission and distribution infrastructure (Figure 1) that have been pre-assessed for environmental sensitivities.

- 2016 EGI SEA:
  - Central Corridor;
  - Eastern Corridor;
  - International Corridor;
  - Northern Corridor; and
  - Western Corridor.
- 2019 Expanded EGI SEA:
  - Expanded Eastern Corridor; and
  - Expanded Western Corridor.

The study areas of the SEAs (i.e. the corridors) were investigated by specialists through desktop geographic information system (GIS) analysis. These strategic transmission corridors have been gazetted as identified geographical areas in Government Notice No. 113 published under Government Gazette No. 41445 of 16 February 2018 and Government Notice No. 1637 published under Government Gazette No. 45690 of 24 December 2021.



## 1.2 Purpose of the Standard

The purpose of this Standard is to provide rules, which must be complied with, ensuring:

- compliance to the principles contained in section 2 of NEMA and the duty of care, in terms of section 28(1) of NEMA; and
- sustainable development within the strategic transmission corridors.

This Standard has been prepared to allow a proponent to achieve planning, routing, siting and remediation objectives that will ensure the acceptability of the impacts of the development of EGI including substations on the environment, independently from the need for an assessment by the competent authority. These planning, routing, siting and remediation objectives were determined through the development of two SEAs undertaken to identify geographical areas best suited for the development of EGI infrastructure and its supporting infrastructure, including substations as identified in paragraph 1.1 above.

The submission of the registration form provided in Appendix F, the signing of the declaration by the proponent to commit to implementing the Standard provided in Appendix 9 and to comply with the Generic Environmental Management Programmes identified in paragraph 1.5 and provided in Appendix 10, will enable the exclusion of the development of EGI infrastructure and substations in the identified strategic transmission corridors from the need to obtain an environmental authorisation from the competent authority, as provided for in section 24(2)(d) of NEMA, for the development of transmission and distribution infrastructure within the Strategic Transmission Corridors as identified in paragraph 1.3.

The Final SEA Reports for the 2016 EGI SEA and 2019 EGI Expansion SEA can be accessed at: <https://gasnetwork.csir.co.za/> and <https://egis.environment.gov.za/>

## 1.3 Scope of this Standard

The provisions of this Standard are applicable:

- within the strategic transmission corridors as identified in Government Notice No. 113 in Government Gazette No. 41445 of 16 February 2018 and Government Notice No. 1637 in Government Gazette No. 45690 of 24 December 2021;
  - in areas identified by the national web based screening tool<sup>5</sup> (screening tool) as being of medium or low environmental sensitivity and confirmed to be such by the EAP or the relevant specialist for the identified environmental theme; and
  - for the following activities, including the associated activities necessary for the realisation of the infrastructure, as identified in the EIA Regulations:
- Listing Notice 1: Activity 11<sup>6</sup> and 47; and
  - Listing Notice 2: Activity 9;

In addition to the activities identified above, the following activities and infrastructure are required for the realisation of transmission and/ or distribution power lines and/ or substations which could trigger additional listed or specified activities. Should any of the associated activities undertaken trigger an identified activity, it is regarded as being included in this Standard;

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<sup>5</sup> The screening tool is an online application that includes a database of currently available spatial data used to assist Environmental Assessment Practitioners (EAPs) identify and consider environmental sensitivities in an area where development is being proposed. The screening tool can be accessed at: <https://screening.environment.gov.za/screeningtool>.

<sup>6</sup> Activity 11 of Environmental Impact Assessment Regulations Listing Notice 1 of 2014 is inclusive of substation developments



- Construction camp site and laydown area establishment;
- Servitude gate installation to facilitate access to the servitude;
- Vegetation clearing to facilitate access, construction and the safe operation of the infrastructure;
- Establishing of access roads on the servitude where required;
- Preparation for construction right-of-way and ground preparation;
- Pegging of tower positions for construction;
- Transportation of equipment, materials and personnel to site and stores;
- Installation of foundations for the towers;
- Tower assembly and erection;
- Conductor stringing and regulation;
- Transfer of the line from the Contractor for commissioning;
- Final inspection of the line, commissioning and transfer to the Grid Line and Servitude Manager for operation;
- Rehabilitation of disturbed areas;
- Final inspection of the line, commissioning and transfer to the Grid Line and Servitude Manager for operation;
- Rehabilitation of disturbed areas;
- Signing off of Landowners on acceptability of the rehabilitation upon completion of the construction and rehabilitation;
- Transfer of the servitude by the Grid Environmental Manager; and
- Operation and maintenance of the infrastructure.

Transmission and distribution power lines are located within a registered servitude and maintenance of this servitude is required to retain access and reduce the risk of obstruction and lightning strikes to the power line infrastructure. Servitude widths vary from 15 m – 80 m depending on the size of the power line and an access road of 4 m – 6 m in width is required. The servitude agreement with the landowner will specify the requirements of the power line operator. Maintenance activities will include cleaning, inspections, and repair (as required).

## 1.4 Exclusions

This Standard and exclusions do not apply in the following instances:

- Where any part of the infrastructure occurs on an area for which the environmental sensitivity for a relevant environmental theme is identified as being very high or high by the screening tool and confirmed to be such by the EAP or the relevant specialist for the identified environmental theme; or
- Where the greater part of the proposed infrastructure fall outside of any strategic transmission corridor.

Where this Standard does not apply, either the requirements of the EIA Regulations, or the requirements of Government Notice No. 113 in Government Gazette No. 41445 of 16 February 2018, read with the NEMA EIA Regulations, where relevant, apply to the relevant environmental theme for which the very high or high sensitivity has been identified, in respect of the portion of the development which occurs on the area where the environmental sensitivity is confirmed to be very high or high, or to the entire development where the greater part of the infrastructure falls outside of the strategic transmission corridor.

## 1.5 Applicability of the Generic Environmental Management Programme

As part of the 2016 EGI SEA, a Generic Environmental Management Programme (EMPr) was compiled for the development and expansion of: (a) overhead electricity transmission and distribution infrastructure; and (b) substation infrastructure for the transmission and distribution of electricity. The two Generic EMPrs were gazetted for implementation in Government Notice No. 435 published under Government Gazette No. 42323 of 22 March 2019. The Generic EMPrs apply within South Africa as a whole, and need to be applied for the development of all overhead and substation electricity transmission and distribution infrastructure (as

contained in Government Notices R982<sup>7</sup>, R983<sup>8</sup>, R984<sup>9</sup> and R985<sup>10</sup>). These Generic EMPs consist of the following:

- Part A - Includes definitions, acronyms, roles and responsibilities and documentation and reporting requirements.
- Part B – Section 1: Pre-Approved Generic Template that must be completed by the contractor prior to commencement of construction. This section does not need to be submitted to the competent authority.
- Part B – Section 2: Provision of preliminary infrastructure layout and a declaration that the applicant/holder of the environmental authorisation will comply with the pre-approved Generic EMP template contained in Part B: Section 1 and understands that the impact management outcomes and impact management actions are legally binding.
- Part C – Site Specific Sensitivities and Attributes: If any specific environmental sensitivities or attributes are present on the site which require site specific impact management outcomes and actions that are not included in the pre-approved generic EMP (Part B – Section 1), these specific impact management outcomes and actions must be included in Part C and must be submitted to the competent authority for approval.

For the purpose of this Standard, the Pre-Approved Generic Template of the Generic EMPs (Part B – Section 1) applies. Part C will apply if any specific environmental sensitivities or attributes are identified which the generic pre-approved template does not cover. However, in the case of this Standard being applicable, Part C does not need to be submitted to the competent authority for approval. In this case Part C must be appended to the Pre- Approved Generic Template (Part B – Section 1).

## 1.6 General

The provisions of the National Appeal Regulations, 2014, as amended, are applicable to decisions taken based on this Standard and an appeal against any registration decision related to this Standard may be lodged.

Compliance with this Standard does not negate the need for the proponent to comply with all other applicable legislation.

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<sup>7</sup> Published under Government Gazette No. 38282 of 4 December 2014, as amended

<sup>8</sup> Published under Government Gazette No. 38282 of 4 December 2014, as amended

<sup>9</sup> Published under Government Gazette No. 38282 of 4 December 2014, as amended

<sup>10</sup> Published under Government Gazette No. 38282 of 4 December 2014, as amended

## CHAPTER 2. PROCEDURAL REQUIREMENTS

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1. The proponent must identify a *preliminary corridor*<sup>11</sup> and/or the proposed substation sites using the screening tool and additional up-to-date spatial datasets where available.
2. The proponent must appoint an Environmental Assessment Practitioner (EAP) and must ensure that the EAP fulfils the requirements to register the proposed development in accordance with this Standard.
3. The proponent must ensure that the EAP, as a minimum, follows the public participation process required in Chapter 6 of the EIA Regulations for a linear development during the route determination process, excluding the following requirements which would not be relevant to the Standard:
  - Obtaining written consent from the owner or person in control of the land on which the proposed development is to be undertaken for the powerline development;
  - Timeframes pertaining to comment periods for basic assessment reports, EMPr, scoping reports, EIA reports, and closure plans;
  - Notification along alternative routes in the form of notice boards; and
  - Giving notice of the process being applied (basic assessment or scoping and environmental impact report).
4. As part of the interested and affected parties<sup>12</sup> (I&APs) the EAP<sup>13</sup> must ensure that relevant Non-Governmental Organisations (NGOs) and Community-Based Organisations (CBOs) are effectively consulted during the public participation process.

Based on the information provided by the screening tool, additional spatial data and the EAP's professional knowledge, the proponent assisted by the EAP must appoint a specialist team who will assist with the route planning. The proponent must ensure that the EAP prepares a preliminary database of possible stakeholders and interested and affected parties<sup>14</sup> (I&APs) along the *preliminary corridor* and in the vicinity of the substation site, including relevant government departments and relevant non-governmental stakeholders. The proponent assisted by the EAP must then announce the proposed development by making available a Background Information Document (BID) on a publicly accessible website and distributing the BID to stakeholders and I&APs identified on the database.

5. The proponent assisted by the EAP must appoint a specialist team to undertake the site verification of the relevant environmental themes where relevant as well as a walkthrough<sup>15</sup> of areas that need verification in the opinion of the EAP and specialist. Should a particular specialist not be required, the EAP must motivate their exclusion from the team and include this motivation in the BID. It is anticipated that the following specialist expertise will be required:
  - (a) Terrestrial biodiversity and ecology;
  - (b) Aquatic biodiversity and ecology;
  - (c) Avifauna;
  - (d) Heritage;
  - (e) Agriculture/soil scientist; and
  - (f) Visual (not required for a substation).

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<sup>11</sup> The *preliminary corridor* is to be wide enough to provide options to avoid environmental and engineering constraints. The width of the Preliminary Corridor shall be determined by the proponent based on best practice.

<sup>12</sup> The purpose of the BID is not to obtain comments within a dedicated comment period but rather to announce the project, and to update the stakeholder database with registered stakeholders.

<sup>13</sup> There is reference to an environmental assessment practitioner who may work on behalf of the proponent, however the proponent remains responsible for undertaking all legislated tasks.

<sup>14</sup> The purpose of the BID is not to obtain comments within a dedicated comment period but rather to announce the project, and to update the stakeholder database with registered stakeholders.

<sup>15</sup> It is not intended that a walkthrough would be required for the entire footprint, but rather areas that need verification in the expert view of the specialist or EAP

6. The BID must include as a minimum the following information:
  - (a) Purpose of the BID;
  - (b) Legal context;
  - (c) Background and project description;
  - (d) Process and timeline;
  - (e) The screening report generated from the screening tool for the *Preliminary Corridor* and/or proposed substation site;
  - (f) Location of the *Preliminary Corridor* and/or proposed substation site
  - (g) Contact details of the EAP; and
  - (h) I&AP registration forms.
  
7. The proponent must ensure that the EAP and specialists identify through their specialist knowledge and site verifications/walkthrough as necessary, a *proposed route* and/or the substation location/s (where a substation or substations are relevant) within the *preliminary corridor* based on:
  - a) consideration and implementation of the mitigation hierarchy<sup>16</sup>,
  - b) environmental sensitivity identified using the methodologies or processes as stipulated in Chapter 3 of this Standard, and
  - c) engineering constraints.
  
8. As the route is being identified, the initial servitude negotiations<sup>17</sup> are to be undertaken to ensure that the route and/or substation location is not fatally flawed in relation to servitude access.
  
9. The process to identify the *proposed route* and/or substation location and the outcome of the initial servitude negotiations must be documented in an environmental sensitivity report, which must be subjected to a minimum public comment period of 30 days as part of the public participation process identified in 3 above.
  
10. The environmental sensitivity report must include, as a minimum, the following information:
  - (a) The details and relevant expertise of the EAP and specialists preparing the report;
  - (b) The outcome of the screening exercise<sup>18</sup> undertaken using the screening tool, the expert knowledge of the specialists where necessary, results of the site verification, the adoption of the mitigation hierarchy principles and the principles contained in Chapter 3 of this Standard;
  - (c) Location map of the *proposed route* and/or proposed location of the substation;
  - (d) Details of the public participation process undertaken;
  - (e) A discussion by the specialists and/or EAP of the process used to confirm that the *proposed route* and/or substation location has applied the principles stipulated in Chapter 3, and the process used to confirm that the site sensitivity of the proposed route and/or substation location is of low or medium environmental sensitivity; and
  - (f) If applicable, a site specific EMPr as per Part C of the Generic EMPr for overhead power lines and/or substations gazetted in Government Notice 435<sup>19</sup> published in Government Gazette No. 42323 of 22 March 2019.
  - (g) The completed generic EMPr pre-approved template which is Part B – Section 1 of the Generic EMPr for overhead power lines and/or substations, and where applicable Part C, gazetted in Government Notice 435 published in Government Gazette No. 42323 of 22 March 2019, for display on the websites of the proponent and the EAP.

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<sup>16</sup> Mitigation hierarchy includes the following steps in the order of decreasing desirability: Avoid, Minimise, Rehabilitate, and Offset.

<sup>17</sup> Initial servitude negotiations do not entail the signing of actual servitude agreements but should indicate proof of the negotiations which can be in the form of a “no objection letter” signed by the landowner indicating that they are aware of the proposed routing and have no objection to the route traversing their property based on the formal signing of a servitude agreement.

<sup>18</sup> The screening exercise would entail the generation of several screening reports and the consideration of various alternative routes to avoid environmental sensitivities and engineering constraints.

<sup>19</sup> Part C of the Generic EMPr must include, where required, additional site specific impact management outcomes and impact management actions.

- (h) The confirming statement by the various specialists in the format as identified in Appendix B.
11. The *proposed route* must be finalised to become the final *pre-negotiated route*<sup>20</sup> and where relevant the final location/s of the substation/s, by taking into consideration comments received during the public participation process and refining the route as relevant.
  12. A final environmental sensitivity report must be prepared by the EAP supported by the specialists, which locates the final pre-negotiated route and/or the substation location on a map which includes the location of any mitigation devices such as bird flight diverters, a record of comments and responses and, where applicable, Part C of the Generic EMPr and the final confirming statements by the various specialists in the format as identified in Appendix B.
  13. All registered I&APs must be notified of the availability of the final environmental sensitivity report for information<sup>21</sup>.
  14. The proponent must submit the relevant registration form contained in Appendix F of this Standard.
  15. The registration form must be accompanied by:
    - (a) The final pre-negotiated route and the signed declaration by the proponent of commitment to implement the Standard (included as Appendix 9 to the registration form);
    - (b) A signed statement from the proponent that initial servitude negotiations have been concluded;
    - (c) The signed declaration that the proponent will comply with the pre-approved Generic EMPr templates and site specific EMPr if relevant; and
    - (d) All supporting documents stipulated in the registration form.
  16. On receiving the relevant information identified in paragraph 15 above, the competent authority must issue a registration number within 30 days of receipt of the information submitted or if the information is incomplete, indicate to the proponent that the submission is incomplete and identify the outstanding information. A register of all registrations must be kept by the competent authority.
  17. Upon receipt of a registration number, the proponent must inform all registered I&APs within 14 days of the registration and the opportunity to appeal.<sup>22</sup>
  18. Registration contemplated in paragraph 16 will be valid for a period of 10 years from receipt of the registration number in order for commencement to take place (validity period). If commencement does not take place within the validity period or the construction has not been finalised, the process contemplated in Chapter 2 will apply afresh in such instances.
  19. The proponent must provide written notice to the compliance monitoring unit within the competent authority 14 days prior to the date on which the first of the activities contemplated in the scope of this Standard, including site preparation, will commence in order to facilitate compliance inspections.
  20. Proof of registration must be:
    - (a) lodged by the proponent with the relevant Local Municipality, as well as the relevant provincial department responsible for the environment, if the national department responsible for the environment is the CA, prior to commencement;
    - (b) made available by the proponent on request by any member of the public or Authority; and

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<sup>20</sup> The pre-negotiated route must be 250m or less in width. The width of the pre-negotiated route must be included in the final environmental sensitivity report.

<sup>21</sup> The purpose of the notification is not to make the report available for comment, but rather to make it available for information purposes so that I&APs have access to it.

<sup>22</sup> Any appeal must be lodged and processed according to the NEMA National Appeal Regulations promulgated in Government Notice 993 published in Government Gazette 38303 of 8 December 2014; and the NEMA National Appeal Amendment Regulations promulgated in Government Notice 205 published in Government Gazette 38559 of 12 March 2015.

- (c) made available, where the proponent or owner has a website, on such publicly accessible website.

21. Where change of ownership of a registered development in terms of paragraph 16 occurs during the pre-construction or construction phases of the infrastructure, the registration number is retained by the new owner, however the new owner must submit to the competent authority for re-registration, the declaration by the proponent of commitment to implement the Standard (included as Appendix 9) and the declaration to implement Part B – Section 1 of the Generic EMPr for overhead power lines and/or substations, and where applicable Part C (Appendix 10), within 30 days upon finalisation of such change. There is no requirement for re-registration once the infrastructure has been constructed as the operation of a power line or substation is not an identified activity in terms of the Act.

Appendix C of this Standard contains a process flow diagram of the procedural requirements and route determination and/or substation location process.

## CHAPTER 3. GENERAL ENVIRONMENTAL PRINCIPLES

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When planning the power line route or locating the substation position, the following principles must be adhered to:

- 22. There must be no removal of threatened plant species.
- 23. There must be no impact on Tier 1 plant species<sup>23</sup> identified through the screening process and site verification process.
- 24. Clear-cutting during construction must be kept to a maximum of 8 m.
- 25. Wetlands must be avoided or, where wetland crossing is unavoidable, the power line should be routed over the narrowest part of the wetland. For the most part, wetlands and rivers can be traversed by the power line with little to no impact, as they are often not more than 500 m in diameter.
- 26. Avoid all known Blue Swallow breeding habitat by a 2.5 km buffer. Should the full extent of the buffering not be practically possible, a thorough investigation must be conducted by a suitably experienced avifaunal specialist with experience of Blue Swallows to identify any potential nesting holes, which must then be appropriately buffered, in consultation with Ezemvelo KwaZulu-Natal Wildlife and BirdLife South Africa to prevent destruction of the nest holes.
- 27. Avoid Cape Vulture and White-backed Vulture breeding colonies by a 5 km buffer. In addition, it would require management of the potential impacts on the breeding birds once construction commences, which would necessitate the involvement of the avifaunal specialist and the environmental control officer (ECO).
- 28. Avoid Lappet-faced Vulture and Bearded Vulture restaurants by a 5 km buffer. Should the full extent of the buffering at vulture restaurants not be practically possible, the vulture restaurant should be relocated in consultation with the owner of the restaurant.

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<sup>23</sup> A tier 1 plant species means “Habitat for species that are endemic to South Africa, where all the known occurrences of that species are within an area of 10 km<sup>2</sup> are considered Critical Habitat[1], as all remaining habitat is irreplaceable[2]. Typically these include species that qualify under Critically Endangered (CR), Endangered (EN), or Vulnerable (VU)[3] D criteria of the IUCN or species listed as Critically/ Extremely[4] Rare under South Africa’s National Red List Criteria. For each species reliant in a Critical Habitat, all remaining suitable habitat has been manually mapped at a fine scale

29. The power line alignment or substation footing shall not be located within 500 m of the edge of waterbodies found to be suitable for Greater Flamingo, Black Stork, Blue Crane, Great White Pelican, Lesser Flamingo and African Marsh-harrier.
30. The power line alignment or substation shall not be located within 1 km of major<sup>24</sup> piggeries and poultry farms.

## CHAPTER 4. COMPLIANCE – AUTHORITY INSPECTIONS

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31. The proponent must provide the competent authority and any authorised official, including duly designated Environmental Management Inspectors, with access to the facility where the activity included under this Standard is undertaken, for the purposes of monitoring compliance with the Standard.

## CHAPTER 5. OFFENCES

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32. Failure to comply with the requirements of the Standard constitutes an offence in terms of section 49A of NEMA.

## CHAPTER 6. CONTACT DETAILS

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The information relating to the location of the EGI Corridors contained in the Standard can also be obtained from the Head Office of the Department of Forestry, Fisheries and the Environment, at the contact details provided below:

### CONTACT PERSON/S

Directorate Spatial information Management

Ms Marlanie Moodley or Ms Lisa Pretorius

### CONTACT DETAILS

- GazetteMapping@dfef.gov.za
- Direct Line +27 12 399 8916/9301
- Call Centre Number: +27 86 111 2468

## CHAPTER 7. REFERENCES

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Parties using the Standard shall also consider, *inter alia*, the most recent edition of the documents listed hereunder:

### Normative

- The National Environmental Management Act, 1998 (Act No. 107 of 1998);
- The National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) (NEM: BA);
- The National Environmental Management: Protected Areas Act, 2003 (Act No. 59 of 2003) (NEM:PAA);
- The National Water Act, 1998 (Act No. 36 of 1998);
- Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983) and relevant regulations;

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<sup>24</sup> A major facility is a facility as described in Listing Notice 1, Activity 4 and 5, of the EIA Regulations.

- National Forest Act, 1998 (Act No. 84 of 1998) and the Notice Of Protected Tree Species under the National Forest Act (Government Notice No. 817 published in Government Gazette No. 30253, of the 7 September 2007); and
- Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act No. 36 of 1947).

#### Informative

- NEM: BA GNR 1002 of 2011 – National list of ecosystem that are threatened and in need of protection.
- NEM: BA GNR 255 of 2015 – Threatened or Protected Species Regulations.
- NEM: BA: GNR 598 of 2014 – Alien and Invasive Species Regulations.
- National Biodiversity Strategy and Action Plan (2005).
- National Biodiversity Framework (2008).
- National Protected Area Expansion Strategy (2008).
- National Biodiversity Assessment (2011).
- Spatial Planning and Land Use Management Act, 2013 (Act No. 16 of 2013).
- Heritage Western Cape Short Guide to and Policy Statement on Grading issued in 2012<sup>25</sup>;
- South African Heritage Resources Agency (SAHRA) Minimum Standards for Archaeological and Palaeontological Impact Assessments issued in 2007<sup>26</sup>.
- SANS 10280-1:2013 Overhead power lines for conditions prevailing in South Africa. Part 1: Safety.
- Eskom Specifications:
  - Land and Biodiversity Policy, 32-736.
  - Transmission Environmental Policy, TPL41-435, June 2010.
  - Herbicide Management Policy, ESKPBAAD4, June 2005.
  - Land and Biodiversity Standard, 32-815, May 2016.
  - Wildlife Interaction and Management Standard, 32-829, December 2016.
  - Transmission servitude gates Standard, TGL41-338, November 2009.
  - Standard for bush clearance and maintenance within overhead power line servitude, ESKASABG3, May 2003.
  - Standard for the Safe use of pesticides and herbicides, ESKASAALO, June 2005.
  - Guideline on the electrical coordination of pipelines and power lines, 240-66418968, April 2015.
  - Erosion Guideline, TGL41-337, November 2009.
  - Transmission vegetation management guideline, TGL41-334, November 2009.
  - Bird nesting guidelines, TGL41-333, November 2009.
  - Transmission Bird collision prevention guideline, TGL41-335, November 2009.
  - Transmission Bird perch guideline, TGL41-332, November 2009.
  - Proactive bird mitigation in distribution, 240-115756171.
  - Specification – Transmission line towers and line construction, TRMSCAAC1, March 2001.
  - Contractor Specification for Vegetation Management, 240-52456757, February 2013.
  - Vegetation Management on Eskom Land, Servitudes, Rights of Way, 240-70172585, January 2014.
  - Environmental Procedure for vegetation clearance and maintenance within overhead power line servitudes and on Eskom owned land, 32-247, September 2007.

<sup>25</sup>[https://www.westerncape.gov.za/other/2012/9/grading\\_guide\\_&\\_policy\\_version\\_5\\_app\\_30\\_may\\_2012.pdf](https://www.westerncape.gov.za/other/2012/9/grading_guide_&_policy_version_5_app_30_may_2012.pdf)

<sup>26</sup> <http://www.sahra.org.za/sahris/sites/default/files/website/articledocs/ASG2-2%20SAHRA%20A%26PIAs%20MIN%20STDS%20Ph1-2%2016May07.pdf>



## APPENDIX A – ENVIRONMENTAL SPECIFICATIONS

Appendix A includes specifications per environmental theme that need to be carried out to verify the environmental sensitivity of the site and undertake the walkthrough to guide the power line routing and to identify the *final pre-negotiated route as well as identify the location of a substation where relevant*.

### A.1. Terrestrial Ecology

1. The Terrestrial Ecology Specialist must:

- a) Use the **most recently obtainable and available information** (spatial and otherwise) to verify, on a desktop level, the environmental sensitivity of the power line routing and/or substation location. This includes, *inter alia*, most recent versions of the provincial or municipal conservation plans.
- b) Identify ecosystem types and faunal species that are prone to impacts resulting from power lines and/or substations within the proposed route.
- c) Verify with a walkthrough, the presence and status of the ecosystem types and species.
- d) Avoid threatened ecosystem types (CR, EN and VU) or threatened or rare/range restricted species in the final routing and/or substation location if relevant.

### A.2. Bats

2. Avoid bat roosts that are known and/or have been identified within a 500 m buffer of the proposed alignment.

### A.3. Aquatic Ecology

3. Engage with the department responsible for water affairs to discuss the requirements of a General Authorisation or Water Use Licence.
4. The outcomes of the engagement process contemplated in sub-section (3) of Section A.3, where required, must be documented in the final environmental sensitivity report, including any restrictions or design requirements.
5. Identify freshwater features that are prone to impacts resulting from the construction of power lines within the proposed route.
6. Avoid the freshwater features in the final routing.

### A.4. Estuaries

7. Pylons shall not be placed within the estuarine functional zone<sup>27</sup> or within its associated inflowing coastal wetlands and rivers.
8. Estuarine vegetation and associated coastal freshwater riparian vegetation flowing into and/or associated with estuaries shall not be cleared.

### A.5. Avifauna

9. During the planning phase:
  - a) A 2 km buffer either side of the centre line of the proposed route of the power line alignment falling within the *preliminary corridor* must be drawn for verification of avifaunal sensitivity.
  - b) The Avifauna specialist must:

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<sup>27</sup> In South Africa the estuary functional zone is generally defined by the +5 m topographical contour (as indicative of 5 m above mean sea level) and includes all the estuarine open water area; estuarine habitats (sand and mudflats, rock and plant communities) and adjacent floodplain area whether developed or undeveloped. It therefore encompasses not only the estuary water-body but also all the habitats that support physical and biological processes that characterise an estuarine system.

- i. Use the **most recently obtainable and available information** (spatial and otherwise) as well as the screening tool, professional knowledge of the EAP and the avifauna specialist to determine, on a desktop level, the habitat sensitivity for avifaunal species along the power line route and/or substation location must be determined. BirdLife South Africa, WWF, the Endangered Wildlife Trust and VULPRO, must be contacted for their input.
- ii. The power line bird mortality incident database of the Endangered Wildlife Trust must be consulted to determine which of the species occurring in the broader study area are typically impacted upon by power lines (EWT unpublished data).
- iii. Establish habitat and migratory routes based on the most recently obtainable and available desktop data and site verification.
- iv. The conservation status of all avifaunal species recorded by the most recent iteration of the SABAP in the broader study area must be determined as per the most recent iteration of the list of threatened species and the IUCN Red Data List of Birds.
- v. Based on the information collected on birds typically impacted upon by power lines, identify the presence of threatened species which include, as a minimum, Cranes, Flamingos, Vultures, Kori Bustards, and Pelicans.
- vi. Where high risk areas are identified these areas must be confirmed with EWT by using their risk assessment tool<sup>28</sup>.
- vii. Where the risk assessment tool identifies that mitigation measures can be applied, apply these mitigation measures in consultation with EWT, BirdLife South Africa and the local conservation agency.
- viii. Where no acceptable mitigation measures can be applied, re-routing options or engineering solution, for example routing under the risk area identified or increasing the height of the power line in order to avoid potential collision risk areas, must be applied. Where engineering options are considered these must be discussed with EWT, BirdLife South Africa and the local conservation agency.

#### A.6. Agriculture

10. The placement of pylons must be avoided in the following areas:
  - (a) Land capability evaluation values 11 – 15.
  - (b) Demarcated high value agricultural areas with a priority rating of A and/or B.
11. Where pylons are located in the following areas, the placement must be undertaken in manner in which the impact on these areas are minimised:
  - (a) Land capability evaluation values 8 – 10.
  - (b) Irrigated land.
  - (c) Horticulture and viticulture.
  - (d) Demarcated high value agricultural areas with a priority rating of C and/or D.
12. Where avoidance of the areas specified in sub-section (10) of Section A.6 is not possible, the areas disturbed during construction must be returned to the pre-disturbance land capability within two years of the construction.
13. All reasonable measures must be taken through micro-siting of the proposed development to minimize fragmentation and disturbance of agricultural activities.
14. Self-supporting lattice or monopole structures are to be used in crop fields, orchards and vineyards.

#### A.7. Visual

15. Sensitive human receptors (including, but not limited to, residents, commuters, visitors and tourists) must be identified and a visual sensitivity map compiled to inform the location of the proposed route of the power line.
16. The precautionary principle must be followed, whereby negotiations must be undertaken with the sensitive human receptors.
17. If the negotiations stipulated in sub-section (16) of Section A.7 are unsuccessful, the power line must avoid sensitive human receptors.

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<sup>28</sup> Screening.environment.gov.za

#### **A.8. Heritage Resources**

18. Where required, a heritage impact assessment (HIA) will be undertaken in compliance with Section 38(1) to 38(4) of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) as well as any Minimum Standards or Guidelines published in relation to Section 38(3)<sup>29</sup>.
19. The HIA must be submitted to the South African Heritage Resources Agency and applicable Provincial Heritage Authorities for decision making procedures.
20. The applicable recommendations or requirements from the South African Heritage Resources Agency and applicable Provincial Heritage Authorities must be documented in the final environmental sensitivity report.

#### **A.9. Civil Aviation**

21. Engage with Civil Aviation Authority to identify potential hazards and obstacles to civil aviation installations and conditions as described in the South African Civil Aviation Regulations of 2011.
22. The outcomes of the engagement process must be documented in the final environmental sensitivity report, including any restrictions or design requirements.

#### **A.10. Defence**

23. Engage with the defence authorities in the event of the power line being located within:
  - (a) 1 km of forward airfields, high sites, operational military bases, military training areas, shooting ranges, border posts, all other Department of defence features (including naval bases, housing, offices, workshops);
  - (b) 8 km from air force bases;
  - (c) 10 km from ammunition depots; or
  - (d) 56 km from bombing ranges.
24. The outcomes of the engagement process, where required, must be documented in the final environmental sensitivity report, including any restrictions or design requirements.

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<sup>29</sup> The SG 2.2 SAHRA APM Guidelines: Minimum Standards for the Archaeological & Palaeontological Components of Impact Assessment Reports can be accessed on the following website:  
<https://www.sahra.org.za/publications/gazettes/>

## APPENDIX B – FORMAT OF ENVIRONMENTAL SPECIALIST CONFIRMING STATEMENTS

Appendix B provides the formats of the confirming statements to be provided by the specialist(s) or EAP per theme. The overall aim of the confirming statement is to:

- Confirm that the environmental sensitivity is low or medium as per the sensitivity identified by the screening tool;
- provide a brief elaboration on how the mitigation hierarchy was implemented for the theme;
- state whether identified route is considered to be optimal based on the specialist confirmation of low or medium environmental sensitivity and walkthrough.

In all the confirming statements the following information must be provided:

1. Contact details, relevant qualifications and curriculum vitae of the specialist or EAP, including a description of expertise in preparing the statement;
2. A signed declaration of independence by the specialist or EAP on the form contained in Appendix D or Appendix E of this Standard;

### B.1. Terrestrial Ecology

The confirming statement must be prepared by a specialist registered with the South African Council for Natural Scientific Professions (SACNASP) with relevant expertise in terrestrial ecology or similar, and must contain, as a minimum, the following information:

1. A statement on the duration, date and season of the site verification inspection and walkthrough as well as the relevance of the season to the outcome of the confirming statement;
2. Confirmation that the terrestrial ecology (flora and fauna) within the *final pre-negotiated route* and/or the substation location is low based on the most recently available desktop data, site verification inspection and walk through;
3. Identification of terrestrial ecological areas to be avoided within the *final pre-negotiated route*, including buffers and/or the substation location;
4. A terrestrial biodiversity sensitivity map, generated by the screening tool and enhanced by any relevant additional information including the walkthrough, overlaid with the proposed development footprint (i.e. pylon placement and power line route, as well as supporting infrastructure);
5. A description on how the identified environmental sensitivity, relating to terrestrial ecology, has been considered in determining the *final pre-negotiated route* and/or the substation location;
6. A description on how the identified engineering constraints, relating to terrestrial ecology, have been considered in determining the preferred route;
7. A description of the implementation of the mitigation hierarchy in order to determine the *final pre-negotiated route* and/or substation location;
8. How the comments from interested and affected parties on the proposed route and/or substation location were incorporated; and
9. A statement confirming that:
  - a. impact management actions as contained in the pre-approved Generic EMPr template are sufficient for the avoidance, management and mitigation of impacts and risks; or
  - b. where required, specific impact management outcomes and actions are required and have been provided as part of the site specific EMPr.

### B.2. Aquatic Ecology

The confirming statement must be prepared by a specialist registered with the SACNASP with relevant expertise in aquatic ecology or similar, and must contain, as a minimum, the following information:

10. A statement on the duration, date and season of the site verification inspection and walkthrough as well as the relevance of the season to the outcome of the confirming statement;
11. Confirmation that the aquatic ecology (flora and fauna) and existing environmental impacts within the *final pre-negotiated route* and/or substation location is low, based on the most recently available desktop data, site verification inspection and walk through;
12. Identification of aquatic ecological areas to be avoided within the *preliminary corridor*, including buffers;
13. An aquatic biodiversity sensitivity map, generated by the screening tool and enhanced by any relevant additional information, overlaid with the proposed development footprint (i.e. pylon placement and power line route, as well as supporting infrastructure);
14. A description on how the identified environmental sensitivity, relating to aquatic ecology, has been considered in determining the proposed route;
15. A description on how the identified engineering constraints, relating to aquatic ecology, have been considered in determining the proposed route;
16. A description of the implementation of the mitigation hierarchy in order to determine the proposed route and/or substation location;
17. How the comments from interested and affected parties on the proposed route and/or substation location were incorporated; and
18. A statement confirming that:
  - a. impact management actions as contained in the pre-approved Generic EMPr template are sufficient for the avoidance, management and mitigation of impacts and risks; or
  - b. where required, specific impact management outcomes and actions are required and have been provided as part of the site specific EMPr;

### B.3. Estuaries

The confirming statement is only required if the development is proposed within 5 km of an estuary, and must be prepared by an EAP, or a specialist with relevant expertise in aquatic and/or terrestrial ecology, and must contain, as a minimum, the following information:

19. A description of the affected environment in relation to the presence of estuaries within the *preliminary corridor* and their existing condition, based on available desktop information;
20. Identification of the estuary functional zone to be avoided within the *preliminary corridor*, including buffers that are delineated from the channel margin;
21. A map identifying the estuary and buffer if relevant overlaid with the proposed development footprint (i.e. pylon placement and power line route, as well as supporting infrastructure) based on most recently obtainable and available desktop data, such as the information on the screening tool;
22. A description on how the identified environmental sensitivity, as it pertains to estuaries, has been considered in determining the proposed route;
23. A description on how the identified engineering constraints, as it pertains to estuaries, have been considered in determining the proposed route;
24. A description of the implementation of the mitigation hierarchy in order to determine the *final pre-negotiated route* and/or substation location;
25. How the inputs made by I&APs were considered when determining *the final pre-negotiated route* and/or substation location; and
26. A statement confirming that:
  - a. impact management actions as contained in the pre-approved Generic EMPr template are sufficient for the avoidance, management and mitigation of impacts and risks; or
  - b. where required, specific impact management outcomes and actions are required and have been provided as part of the site specific EMPr;

### B.4. Avifauna

The confirming statement must be prepared by an avifaunal specialist registered with the SACNASP, and must contain, as a minimum, the following information:

27. A statement on the duration, date and season of the site verification inspection and walk through as well as the relevance of the season to the outcome of the confirming statement;
28. A description of the affected environment relating to avifauna within the *preliminary corridor*, based on the most recently available desktop data, site verification inspection and walk through information;
29. Identification of avifaunal sensitive areas to be avoided within the *preliminary corridor*, including buffers;
30. An avifauna sensitivity map overlaid with the proposed development footprint (i.e. pylon placement and power line route, as well as supporting infrastructure);
31. A description on how the identified environmental sensitivity, relating to avifauna, has been considered in determining the proposed route;
32. A description on how the identified engineering constraints, relating to avifauna, have been considered in determining the proposed route;
33. A description of the implementation of the mitigation hierarchy in order to determine the proposed route and/or substation location;
34. How the inputs of I&APs were considered when determining the *final pre-negotiated route* and/or substation location; and
35. A statement confirming that:
  - a. impact management actions as contained in the pre-approved Generic EMPr template are sufficient for the avoidance, management and mitigation of impacts and risks; or
  - b. where required specific impact management outcomes and actions are required and have been provided as part of the site specific EMPr;

## **B.5. Agriculture**

The confirming statement must be prepared by a soil scientist or agricultural specialist registered with the SACNASP, and must contain, as a minimum, the following information:

36. The duration, date and season of the site verification inspection and walk through as well as the relevance of the season to the outcome of the confirming statement;
37. Confirmation that the affected environment within the *preliminary corridor*, as it pertains to agricultural resources is low to medium, based on desktop information, site verification and walk through information;
38. Identification of agricultural resource areas to be avoided within the *preliminary corridor*, including buffers;
39. An agricultural resources sensitivity map generated by the screening tool and enhanced by any relevant additional information, overlaid with the (i.e. pylon placement and power line route, as well as supporting infrastructure);
40. A description on how the identified environmental sensitivity, as it pertains to agricultural resources, has been considered in determining the proposed route;
41. A description on how the identified engineering constraints, as it pertains to agricultural resources, have been considered in determining the proposed route;
42. A description of the implementation of the mitigation hierarchy in order to determine the proposed route and/or substation location; and confirmation that all reasonable measures have been considered in the micro-siting of the development to minimise fragmentation and disturbance of agricultural activities;
43. How the inputs of I&APs were considered when determining the *final pre-negotiated route* and/or substation location; and
44. A statement confirming that:
  - a. impact management actions as contained in the pre-approved Generic EMPr template are sufficient for the avoidance, management and mitigation of impacts and risks; or
  - b. where required specific impact management outcomes and actions are required and have been provided as part of the site specific EMPr.

## **B.6. Visual**

The confirming statement must be prepared by a visual specialist. In the context of this Standard, a visual specialist is a person that has relevant academic qualifications and expertise in the domain of visual impact assessments. The confirming statement must contain, as a minimum, the following information:

45. A description of the affected environment as it pertains to visual aspects, including the identification of possible sensitive human visual receivers.
46. A description of the findings of the engagement with the sensitive visual receptors;
47. A description of the implementation of the mitigation hierarchy in order to determine the *preferred route and/or* substation location;
48. Statement on whether or not the proposed development will have any residual risk on the sensitive visual receptors, and whether such a risk is acceptable or not;
49. How the inputs of I&APs were considered when determining the *final pre-negotiated route and/or* substation location, and
50. A statement confirming that:
  - a. impact management actions as contained in the pre-approved Generic EMPr template are sufficient for the avoidance, management and mitigation of impacts and risks; or
  - b. where required, specific impact management outcomes and actions are required and have been provided as part of the site specific EMPr.

### **B.7. Heritage Resources**

The confirming statement must be prepared by suitably qualified specialist in the field of heritage resources (archaeology, marine and built environment) and palaeontology, and must contain, as a minimum, the following information:

51. A description of the affected environment in terms of heritage resources and palaeontology, and an indication of existing heritage and palaeontological impacts within the *preliminary corridor* based on the site verification inspection and walk through.
52. Identification of heritage resources and palaeontological areas to be avoided within the *preliminary corridor*, including buffers;
53. A heritage sensitivity map overlaid with the proposed development footprint (i.e. pylon placement and power line route, as well as supporting infrastructure) based on most recently obtainable and available desktop data, such as the information on the screening tool and the South African Heritage Resources Information System, site verification inspection and walk through (where necessary);
54. Where required, a written comment or letter of no objection from the South African Heritage Resources Agency and/or applicable provincial heritage authority confirming that there is no unacceptable impact on heritage resources and palaeontology;
55. Confirmation that any recommendations as required by the South African Heritage Resources Agency and/or applicable provincial heritage authority have been incorporated and considered;
56. A description on how the identified environmental sensitivity pertaining to heritage resources and palaeontology has been considered in determining the proposed route;
57. A description of the implementation of the mitigation hierarchy in order to determine the proposed route and/or substation location;
58. How the inputs of I&APs were considered when determining the *final pre-negotiated route and/or* substation location; and
59. A statement confirming that:
  - a. impact management actions as contained in the pre-approved Generic EMPr template are sufficient for the avoidance, management and mitigation of impacts and risks; or
  - b. where required, specific impact management outcomes and actions are required and have been provided as part of the site specific EMPr.

### **B.9. Civil Aviation**

The confirming statement must be prepared by an EAP and must contain, as a minimum, the following information:

60. A signed declaration of independence by the EAP on a form prescribed by the competent authority as contained in Appendix E of this Standard;

61. Confirmation that the affected environment within the *preliminary corridor* is low or medium, as it pertains to aspects of civil aviation based on desk top information, the site verification inspection and the walk through;
62. Identification of civil aviation areas to be avoided within the proposed route, including buffers;
63. A civil aviation sensitivity map overlaid with the proposed development footprint (i.e. pylon placement and power line route, as well as supporting infrastructure) based on most recently obtainable and available desktop data, such as the information on the screening tool;
64. Where required, a written comment from the South African Civil Aviation Authority (SACAA), which may require input from the Obstacle Evaluation Committee (OEC), confirming that there is no unacceptable impact on civil aviation installations;
65. Confirmation that any restrictions or design requirements as required by the SACAA and/or OEC have been incorporated and considered;
66. A description on how the identified environmental sensitivity, as it pertains to civil aviation, has been considered in determining the proposed route;
67. A description on how the identified engineering constraints, as it pertains to civil aviation, have been considered in determining the proposed route;
68. A description of the implementation of the mitigation hierarchy in order to determine the proposed route and/or substation location;
69. How the inputs of I&APs were considered when determining the *final pre-negotiated route* and/or substation location; and
70. A statement confirming that:
  - a. impact management actions as contained in the pre-approved Generic EMPr template are sufficient for the avoidance, management and mitigation of impacts and risks; or
  - b. where required, specific impact management outcomes and actions are required and have been provided as part of the site specific EMPr;

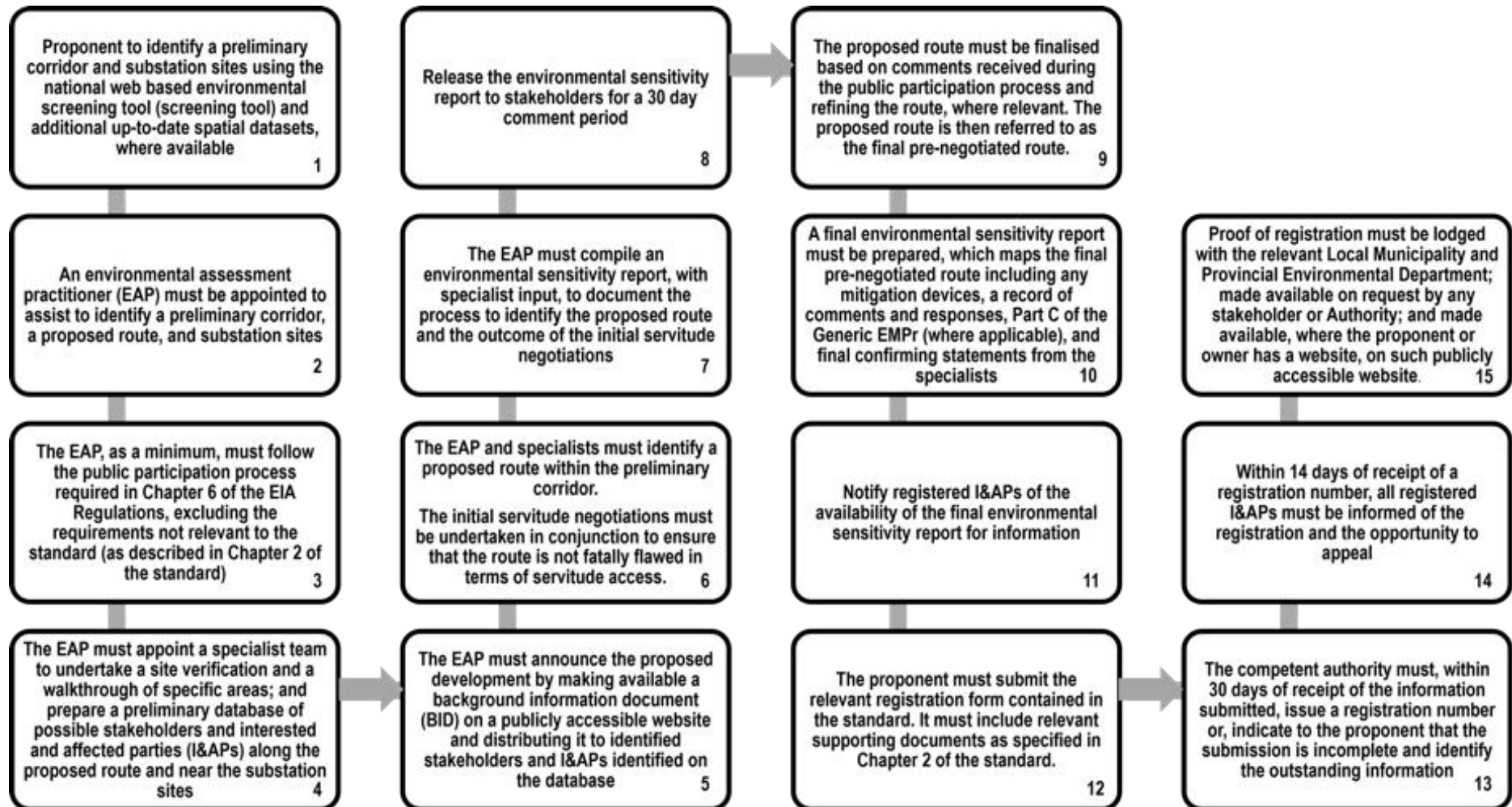
#### **B.10. Defence**

The confirming statement must be prepared by an EAP, and must contain, as a minimum, the following information:

71. A signed declaration of independence by the EAP on a form prescribed by the competent authority as contained in Appendix E of this Standard;
72. Confirmation that the affected environment within the *preliminary corridor* is low or medium, as it pertains to aspects of Defence;
73. Identification of defence areas to be avoided within the *preliminary corridor*, including buffers;
74. A defence sensitivity map overlaid with the proposed development footprint (i.e. pylon placement and power line route, as well as supporting infrastructure) based on most recently obtainable and available desktop data, such as the information on the screening tool;
75. Where required, a written comment from the defence authority confirming that there is no unacceptable impact on military areas of interest;
76. Confirmation that any restrictions or design requirements as required by the defence authority have been incorporated and considered;
77. A description on how the identified environmental sensitivity, as it pertains to defence, has been considered in determining the proposed route;
78. A description on how the identified engineering constraints, as it pertains to defence, have been considered in determining the proposed route;
79. A description of the implementation of the mitigation hierarchy in order to determine the proposed route and/or substation location;
80. How the inputs of I&APs were considered when determining the *final pre-negotiated route* and/or substation location and
81. A statement confirming that:
  - a. impact management actions as contained in the pre-approved Generic EMPr template are sufficient for the avoidance, management and mitigation of impacts and risks; or
  - b. where required, specific impact management outcomes and actions are required and have been provided as part of the site specific EMPr.



## APPENDIX C - GENERIC PROCESS FLOW DIAGRAM OF THE PROCEDURAL REQUIREMENTS



## APPENDIX D - SPECIALIST DECLARATION TEMPLATE

Specialist Company Name:			
Specialist name:			
Specialist Qualifications:			
Professional affiliation/registration:			
Physical address:			
Postal address:			
Postal code:		Cell:	
Telephone:		Fax:	
E-mail:			

### DECLARATION BY THE SPECIALIST

I, \_\_\_\_\_, declare that –

- I act as the independent specialist in this Standard registration process;
- I have performed the work relating to the specialist assessment and/or route or substation location confirmation in an objective manner;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist input and confirming statement relevant to this request for registration, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the proponent all material information in my possession that reasonably has or may have the potential of influencing compliance with the Standards registration process; and
- all the particulars furnished by me in this form are true and correct.

Signature of the Specialist:

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Name of Company:

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Date:

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## APPENDIX E - ENVIRONMENTAL ASSESSMENT PRACTITIONER DECLARATION TEMPLATE

EAP Company Name:	Ourbiosphere Environmental (Pty) Ltd		
EAP name:	Mr Musa Netshivhambe		
EAP Qualifications:	Master of Environmental Sciences		
Professional affiliation/registration:	EAPASA REG 2019/1853 and SACNASP REG 200076/12		
Physical address:	9 Lords Lane Street, Northview Complex, Bendor Park, Polokwane, 0699		
Postal address:	9 Lords Lane Street, Northview Complex, Bendor Park, Polokwane		
Postal code:	0699	Cell:	073 977 9414
Telephone:	086 001 8255	Fax:	086 567 5523
E-mail:	musa@ourbiosphere.co.za		

### DECLARATION BY THE EAP

I, Musa Netshivhambe, declare that –

- I act as the independent environmental assessment practitioner in this Standard registration process;
- I have expertise in conducting environmental impact assessments, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- I have complied with the Act, Regulations and all other applicable legislation;
- I have performed the work relating to the Standard registration process in an objective manner;
- I have taken into account, to the extent possible, the matters listed in regulation 13 of the Environmental Impact Assessment Regulations, 2014 (as amended) when preparing the various reports and submitting the request for registration;
- I have disclosed to the Proponent all material information in my possession that reasonably has or may have the potential of influencing the Standard registration process; and the objectivity of any report, plan or document prepared by myself for submission as part of this Standard registration process, other than information that is protected by law, in which case it was indicated that such information exists; and
- I have performed all obligations as expected from an environmental assessment practitioner in terms of the registration process in terms of the Standard.

### Disclosure of Vested Interest (delete whichever is not applicable)

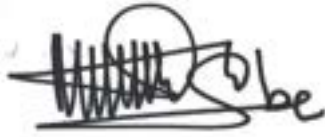
I do not have any vested interest (either business, financial, personal or other) in the proposed activity proceeding other than remuneration for work performed in terms of this Standard registration process;

I have a vested interest in the proposed activity proceeding, such vested interest being:

**Not Applicable**

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Signature of the Environmental Assessment Practitioner



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Name of Company:

Ourbiosphere Environmental (Pty) Ltd

---

Date

**UNDERTAKING UNDER OATH/ AFFIRMATION**

I, Musa Netshivhambe, swear under oath / affirm that all the information submitted for the purposes of this registration is true and correct.

Signature of the Environmental Assessment Practitioner



---

Name of Company

Ourbiosphere Environmental (Pty) Ltd

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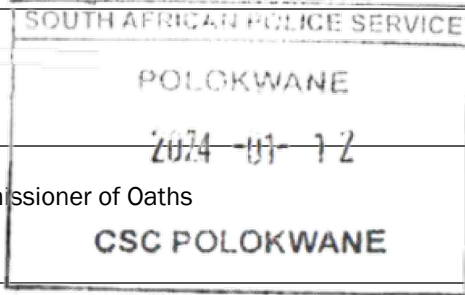
Date

Signature of the Commissioner of Oaths

*29 January 2024*

Date

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## APPENDIX F – REGISTRATION FORM

Registration form to request registration and intent to comply with the *Standard for the Development of Powerlines and Substations within Identified Geographical Areas Revision 1* in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

FOR OFFICE USE ONLY	
Date of receipt of the registration form	
Registration number	

### PROJECT TITLE

Application for environmental authorisation in terms of the National Environmental Management Act, 1998: GN R. 982 and 983 for the proposed Mbongolwane 132/22KV, 20MVA substation and 132kv powerline (Gingindlovu-Mbongolwane) within uMlalazi Local Municipality in Kwazulu Natal Province.

1. This form must always be used when requesting registration in terms of *the Standard for the Development of Power Lines and Substations within Identified Geographical Areas Revision 1*, which allows for the exclusion from the requirement to obtain an environmental authorisation from the competent authority for listed and specified activities identified in the scope of this Standard which are associated with the development of electricity transmission and distribution power lines and substations when developed in areas of low or medium environmental sensitivity within the *Strategic Electricity Corridors*.
2. An electronic copy (in the form of a USB) of the signed registration form must be submitted together with two hard copies (one of which must contain the original signatures of both the proponent and EAP) to the competent authority.
3. All fields must be completed in full. The submission of incomplete information will lead to the registration being returned for inclusion of the missing information.
4. The required information must be typed within the spaces provided in the form. The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided. Spaces are provided in tabular format and will extend automatically when each space is filled with typing. A legible font type and size must be used when completing the form. The font size should not be smaller than 10pt (e.g. Arial 10).
5. Unless protected by law, all information contained in and attached to this registration form, will become public information on receipt by the competent authority other than personal information of landowners which is for competent authority verification only. Upon request during any stage of the registration process, the proponent / EAP must provide any registered interested and affected party with the information contained in and attached to this registration form other than the personal information of landowners.
6. Please note that where the competent authority is the national department responsibly for the environment, this form must be copied to the relevant Provincial Environmental Department(s) for their information.
7. Shape files of the mapping included in the supporting documentation must be provided on the electronic copy (in the form of a USB). Hartebeesthoek94 WGS84 co-ordinate system must be used.

**Departmental Details (example provided is for the national competent authority):**

<p><b>Postal address:</b>                  Department of Forestry, Fisheries and the Environment                  Attention: Chief Director: Integrated Environmental Authorisations                  Private Bag X447                  Pretoria                  0001</p> <p><b>Physical address:</b>                  Department of Forestry, Fisheries and the Environment                  Attention: Chief Director: Integrated Environmental Authorisations                  Environment House                  473 Steve Biko Road                  Arcadia</p> <p>Queries must be directed to the Directorate: Coordination, Strategic Planning and Support at:                  Email: EIAAdmin@dffe.gov.za</p>
--

**COMPETENT AUTHORITY**

Identified competent authority to consider the registration form:	Department of Forestry, Fisheries and the Environment
Reason(s) in terms of S24C of NEMA:	Eskom is a Parastatal and have a National Footprint in South Africa

**DETAILS OF THE PROPONENT**

All notifications regarding the registration will be sent to the proponent using the details provided in this section.

Name of the proponent (Company/ Trading Name):	Eskom Distribution (Central East Cluster – KwaZulu-Natal)		
Name of contact person for proponent:	Ms. Tshililo Nekhalale		
RSA Identity/ Passport Number:	7706200569080		
Responsible position, e.g. Director, CEO, etc.:	Manager : Environmental Management		
Company Registration Number:	2002/015527/30		
BBBEE status:	Level 8		
Physical address:	25 Valley View Road, New Germany, 3620		
Postal address:	25 Valley View Road, New Germany,		
Postal code:	3620	Cell:	083 229 2295
Telephone:	031 710 5044	Fax:	086 666 9403
E-mail:	NekhalT@eskom.co.za		

The originally signed declaration by the proponent confirming commitment to comply with the *Standard for the Development of Power Lines and Substation within Identified Geographical Areas Revision 1* in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), must be submitted as Appendix 9 of the registration form.

Where a change of ownership of a registered development in terms of paragraph 16 occurs during the pre-construction or construction phases of the infrastructure, the registration number is retained by the new

owner, however the new owner must submit the declaration by the proponent of commitment to implement the Standard (included as Appendix 9) and the declaration to implement Part B – Section 1 of the Generic EMPr for overhead power lines and substations, and where applicable Part C, within 30 days upon finalisation of such change. There is no requirement for re-registration once the infrastructure has been constructed as the operation of a power line and substation are not identified activities in terms of the Act.

### LANDOWNER CONTACT DETAILS

Please note that the Department of Forestry, Fisheries and the Environment complies with the Protection of Personal Information Act, 2013 (Act No. 4 of 2013) and the personal information of landowners is for the use of the Department only for verification if necessary of pre-negotiation of the route only.

Name of the landowner:	Nzuza Ndabazwe Vitalis		
Name of contact person for landowner (if other):	Nzuza Ndabazwe Vitalis		
Postal address:	P.O.Box 309, Gingindlovu		
Postal code:	3800	Cell:	076 888 6222
Telephone:		Fax:	
E-mail:	Uphindo.nzuza@outlook.com		

Name of Person in control of the land:	Nzuza Ndabazwe Vitalis		
Name of contact person for person in control of the land:	Nzuza Ndabazwe Vitalis		
Postal address:	P.O.Box 309, Gingindlovu		
Postal code:	3800	Cell:	076 888 6222
Telephone:		Fax:	
E-mail:	Uphindo.nzuza@outlook.com		

In instances where there is more than one landowner, please attach a list of those landowners with their contact details in Appendix 3 of this registration form.

### PROVINCIAL ENVIRONMENTAL AUTHORITY AND LOCAL MUNICIPALITY CONTACT DETAILS

Provincial Environmental Authority:	Kwazulu-Natal Department of Economic Development, Tourism and Environmental Affairs		
Name of contact person:	Mr. Muziwandile Mdamba		
Postal address:	Next to sports complex in Veld en Vlei, corner Aloe & Loop Street, Richards Bay		
Postal code:		Cell:	082 822 2582
Telephone:	(035) 780 0313	Fax:	(035) 780 0315
E-mail:	muziwandile.mdamba@kznedtea.gov.za		
Local Municipality:	uMlalazi Local Municipality		
Name of contact person in (Environmental Section)	Mr Abraham Phiri		
Postal address:	P.O.Box 37, Eshowe, 3815		
Postal code:		Cell:	
Telephone:	035 473 3401	Fax:	
E-mail:	abrahamp@umlalazi.org.za		

In instances where there is more than one Provincial Environmental Authority and Local Municipality involved, please attach a list of these Authorities with their contact details in Appendix 4 of this registration form.

## ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP) INFORMATION

Company of Environmental Assessment Practitioner: B-BBEE	Ourbiosphere Environmental (Pty) Ltd		
EAP name:	Musa Netshivhambe		
EAP Qualifications:	Master of Environmental Sciences		
Professional affiliation/registration:	EAPASA REG NO: and SACNASP REG NO:		
Physical address:	9 Lords Lane Street, Northview Complex, Bendor Park, Polokwane, 0699		
Postal address:	9 Lords Lane Street, Northview Complex, Bendor Park, Polokwane		
Postal code:	0699	Cell:	073 977 9414
Telephone:	086 001 8255	Fax:	086 567 5523
E-mail:	musa@ourbiosphere.co.za		

The appointed EAP must meet the requirements of regulation 13 of the EIA Regulations, 2014 as amended. The declaration of independence of the EAP and undertaking under oath or affirmation that all the information submitted for the purposes of the registration is true and correct must be submitted and included in Appendix 11. Curriculum Vitae of the EAP and specialists must be included in Appendix 12.

## PROJECT INFORMATION AND MAPS

Please provide a **detailed** description of the project:

Eskom have received an environmental authorization for the application of Environmental Authorisation In terms of the National Environmental Management Act, 1998: GN R. 982 and 983 for the proposed Gingindlovu-Mbongolwane 132kV powerline within uMlalazi Local Municipality in KwaZulu Natal Province.

Eskom have since commenced with the project construction through Survey work currently underway, however Eskom noted at Vekeya (Vekeza) Village where the powerline is traversing there are some residential dwellings that have encroached on the authorised powerline route. Because of safety concerns and as well as building restrictions, the powerline cannot be constructed through the residential dwellings on this point and therefore there is a need for the powerline to be deviated by two structures have arisen. The powerline deviation will see two structures located outside the authorised powerline corridor on the left (western direction) of the authorised route. The length of the powerline deviation is  $\pm 810$ metres.

This have necessitated Eskom to seek Department of Forestry, Fisheries and Environment (DFFE) on whether to amend the Environmental Authorisation through an Impact Assessment Process or through Strategic Transmission Corridor (EGI) process. Eskom requested a meeting with Department of Forestry, Fisheries and Environment (DFFE) and the



consultation meeting with the following REF: 2022-09-0009 was held on January 25, 2023, with the officials from DFFE.

From this meeting, Eskom requested to have the powerline deviation follow the Transmission Strategic Corridors Process (EGI) for obtaining an Environmental Authorisation. That is, because the proposed Gingindlovu-Powerline Project falls within the Expanded Electricity Grid Infrastructure (EGI) [Expanded Eastern Corridor] that is, is it is located within the Eastern Strategic Transmission Corridor to be precise as per the National Environmental Management Act, 1998 (Act NO.107 of 1998) Standard No 383 of 29 April 2021 as gazetted. The Standard identification is in terms of sections 24(3), 24(5)(1) and 24(5)(b) of the National Environmental Management Act, 1998 of expanded geographical areas of strategic importance for the development of electricity transmission and distribution infrastructure.

If it is read in conjunction with the extension of the Strategic Transmission Corridors as outlined in the Schedule hereto, which was announced on February 16, 2018, under Government Notice No. 113. Via exclusions and/or certain requirements of the Impact Assessment Procedure, Eskom wants to be excluded. The EGI procedure is in accordance with the Notice of Identification in Terms of Sections 24(5)(a) and (b) of the National Environmental Management Act, 1998, of the procedure to be followed in applying for Environmental Authorization for Large-Scale Electricity Transmission and Distribution Development Activities identified in Terms of Section 24(2)(a) of the National Environmental Management Act, 1998, when occurring in Geographic Areas of Strategic Importance. In this instance, the proposed Construction Mbongolwane 132/22kv, 20MVA Mbongolwane Gingindlovu-Mbongolwane 132kv powerline deviation and 132kv powerline in the Kwazulu-Natal Province falls within the Transmission Strategic Corridors (EGI), Expanded Eastern Corridor.

To this end, the DFFE requested that Eskom comply with the following requirements before the Department may accept its request to pursue the EGI process application:

- Utilise the web base environmental screening tool to determine the sensitivity of the Gingindlovu-Mbongolwane 132kV powerline deviation.
- To confirm or dispute the sensitivity indicated by the National web-based Environmental Screening program, the Eskom appointed Environmental Assessment Practitioner will conduct a ground verification. A feedback report be prepared and be subjected to a public participation period of 30 days and all comments be included and then be submitted to the DFFE for decision. This report details the site's various sensitivity levels as determined by the National Web-based Environmental Screening Tool, as well as ground verification input and additional recommendations made by an Environmental Assessment Practitioner (EAP).

Please indicate which gazetted Strategic Transmission Corridor the project will take place in:

The gazetted Standard No. 383 of the 29 April 2021 as gazetted by the National Environmental Management Act, 1998 (Act NO.107 of 1998), the proposed Gingindlovu-Powerline Project is situated within the Expanded Eastern Strategic Transmission Corridor, specifically, within the Expanded Electricity Grid Infrastructure (EGI) [Expanded Eastern Corridor]. The National Environmental Management Act of 1998's extended geographical areas of strategic importance for the development of electrical transmission and distribution facilities are identified in terms of the Standard under sections 24(3), 24(5)(1), and 24(5)(b).

A copy of the final Screening Tool Report generated on the National Web Based Environmental Screening Tool for the proposed pre-negotiated route and any substation where relevant must be attached as Appendix 1 of the registration form.

A copy of the final environmental sensitivity report as required in the *Standard for the Development of Power Lines and Substations within Identified Geographical Areas Revision 1* must be submitted as Appendix 2 of the registration form.

A locality map must be attached to Appendix 6 of the registration form. For linear activities of more than 25 kilometres, a small scale e.g. 1:250 000 can be used. The scale must be indicated on the map. The map must include the following:

- an accurate indication of the project site position;
- location of the gazetted Strategic Transmission Corridor(s);
- road names or numbers of all the major roads as well as the roads that provide access to the site(s)
- a north arrow;
- a legend;
- a scale bar; and
- GPS co-ordinates (Indicate the position of the proposed activity with the latitude and longitude at strategic points along the route of the power line. The co-ordinates should be in degrees and decimal minutes. The minutes should be to at least three decimal places. The projection that must be used in all cases is the WGS-84 spheroid in a national or local projection).

A final pre-negotiated route plan and/or any substation location where relevant must be attached to Appendix 7 of the registration form.

The sensitivity map must be attached as Appendix 8 of the registration form. The map must include the following:

- a north arrow;
- a legend;
- a scale bar;
- site sensitivities, including but not limited to vegetation, wetlands, watercourses, heritage sites, critical biodiversity area/s, world heritage site, etc. and it must be overlaid by the study area and proposed electricity grid infrastructure and/or any substation where relevant.

## **SITE DESCRIPTION**

Provide a detailed description of the site involved in the registration.

Province/s	KwaZulu-Natal
District Municipality/ies	King Cetshwayo District Municipality
Local Municipality/ies	uMlalazi Local Municipality
Ward number/s	17
Nearest town/s	Gingindlovu
Farm name/s and number/s	Nzuza 17625
Portion number/s	0

Surveyor General 21 digit codes for the route alignment, which can be obtained from the screening report:

N	0	G	U	0	0	0	0	0	0	0	0	1	7	6	2	5	0	0	0	0	0
1	2	3	4	5																	

If there are more than 4, please attach a list with the rest of the codes. Where the 21 digit SGID and farm name are not available, the coordinates of the boundary of the property or properties must be provided in Appendix 5 of this registration form.

#### LIST OF APPENDICES

		SUBMITTED	
APPENDIX 1	Final screening tool report for the final proposed pre-negotiated route and/or the location of any substation where relevant	<del>YES</del>	NO
APPENDIX 2	Final environmental sensitivity report	<del>YES</del>	NO
APPENDIX 3	List and contact details of land owners	<del>YES</del>	NO
APPENDIX 4	List and contact details of provincial environmental authority and local municipality	<del>YES</del>	NO
APPENDIX 5	List of SGIDs/coordinates of the boundary of the property or properties	<del>YES</del>	NO
APPENDIX 6	Locality map	<del>YES</del>	NO
APPENDIX 7	Final pre-negotiated route plan of the electricity grid infrastructure and/or the location of any relevant substation	<del>YES</del>	NO
APPENDIX 8	Sensitivity map	<del>YES</del>	NO
APPENDIX 9	Declaration of the proponent: commitment to implement the Standard	<del>YES</del>	NO
APPENDIX 10	Declaration of the proponent: commitment to implement the Generic and where relevant the site specific environmental management programme	<del>YES</del>	NO
APPENDIX 11	Declaration of EAP and undertaking under oath or affirmation	<del>YES</del>	NO
APPENDIX 12	Curriculum vitae of the EAP and specialists	<del>YES</del>	NO

***APPENDIX 1:***

**FINAL SCREENING TOOL REPORT FOR THE FINAL PROPOSED PRE-NEGOTIATED ROUTE  
AND/OR THE LOCATION OF ANY SUBSTATION WHERE RELEVANT**

**SCREENING REPORT FOR AN ENVIRONMENTAL AUTHORIZATION AS  
REQUIRED BY THE 2014 EIA REGULATIONS – PROPOSED SITE  
ENVIRONMENTAL SENSITIVITY**

**EIA Reference number:** 14/12/16/3/3/1 /1918

**Project name:** PROPOSED MBONGOLWANE 132/22KV

**Project title:** APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998: GN R. 982 AND 983 FOR THE PROPOSED MBONGOLWANE 132/22KV, 20MVA SUBSTATION AND 132KV POWERLINE (GINGINDLOVU-MBONGOLWANE) WITHIN UMLALAZI LOCAL MUNICIPALITY IN KWAZULU NATAL PROVINCE

**Date screening report generated:** 04/03/2023 23:29:48

**Applicant:** Eskom KZN Operating Unit

**Compiler:** Ourbiosphere Environmental (Pty) Ltd

**Compiler signature:**  
.....

**Application Category:** Utilities Infrastructure | Electricity | Distribution and Transmission | Powerline



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# Proposed Project Location

## Orientation map 1: General location



## Map of proposed site and relevant area(s)



### Cadastral details of the proposed site

Property details:

No	Farm Name	Farm/ Erf No	Portion	Latitude	Longitude	Property Type
1	NZUZA	17625	0	28°57'21.17S	31°35'36.57E	Farm
2	NZUZA	17625	0	28°57'22.11S	31°35'36.22E	Farm Portion

Development footprint<sup>1</sup> vertices:

No development footprint(s) specified.

### Wind and Solar developments with an approved Environmental Authorisation or applications under consideration within 30 km of the proposed area

No	EIA Reference No	Classification	Status of application	Distance from proposed area (km)
1	12/12/20/2356	Solar PV	Approved	6.7

<sup>1</sup> "development footprint", means the area within the site on which the development will take place and includes all ancillary developments for example roads, power lines, boundary walls, paving etc. which require vegetation clearance or which will be disturbed and for which the application has been submitted.



## Environmental Management Frameworks relevant to the application

No intersections with EMF areas found.

## Environmental screening results and assessment outcomes

The following sections contain a summary of any development incentives, restrictions, exclusions or prohibitions that apply to the proposed development site as well as the most environmental sensitive features on the site based on the site sensitivity screening results for the application classification that was selected. The application classification selected for this report is:

**Utilities Infrastructure | Electricity | Distribution and Transmission | Powerline.**

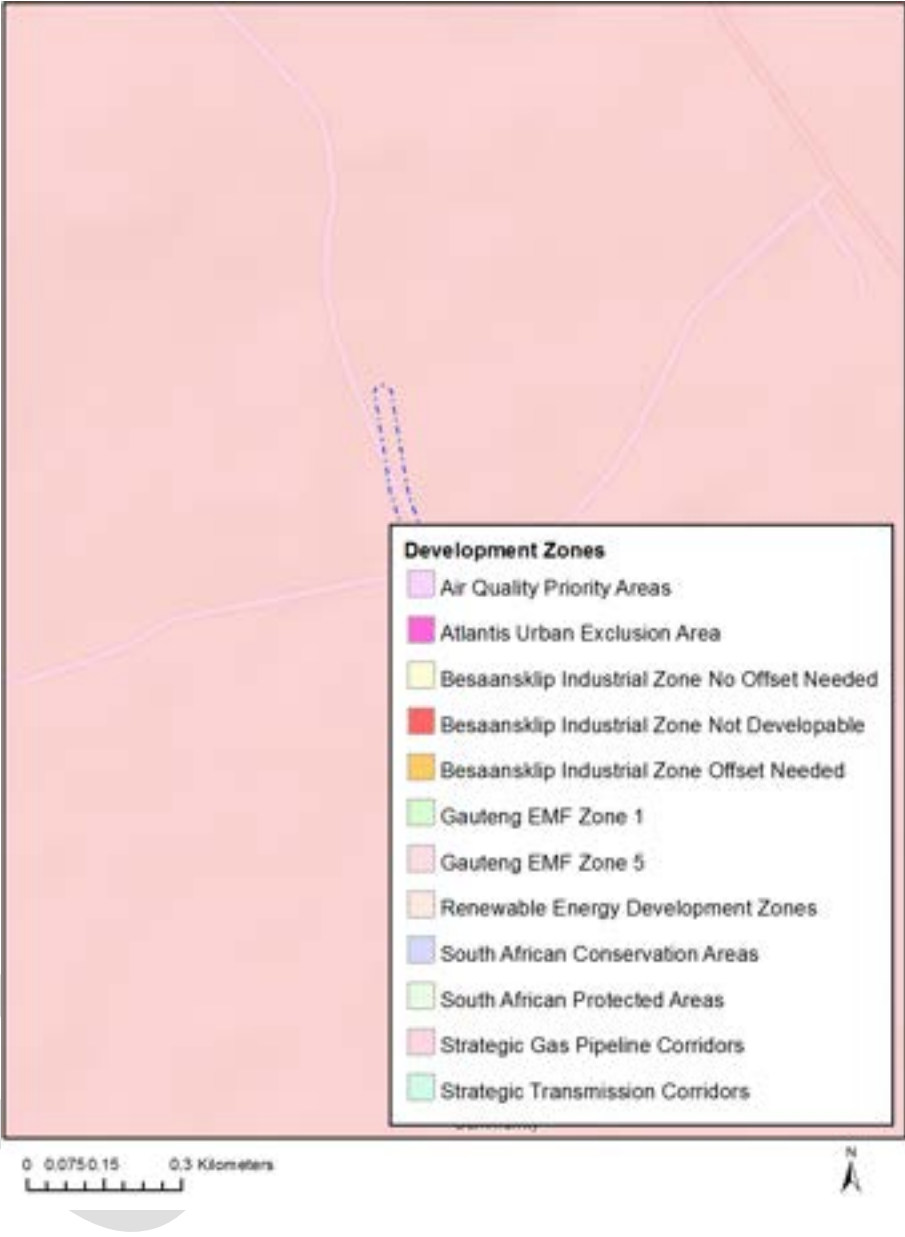
### Relevant development incentives, restrictions, exclusions or prohibitions

The following development incentives, restrictions, exclusions or prohibitions and their implications that apply to this site are indicated below.

Incentive, restriction or prohibition	Implication
Strategic Transmission Corridor-Expanded Eastern Corridor	<a href="https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Combined_EGI.pdf">https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Combined_EGI.pdf</a>
Strategic Gas Pipeline Corridors-Phase 7: Coega to Richards Bay	<a href="https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Combined_GAS.pdf">https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Combined_GAS.pdf</a>

Map indicating proposed development footprint within applicable development incentive, restriction, exclusion or prohibition zones

**Project Location: PROPOSED MBONGOLWANE 132/22KV**



**Proposed Development Area Environmental Sensitivity**

The following summary of the development site environmental sensitivities is identified. Only the highest environmental sensitivity is indicated. The footprint environmental sensitivities for the proposed development footprint as identified, are indicative only and must be verified on site by a suitably qualified person before the specialist assessments identified below can be confirmed.

Theme	Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
Agriculture Theme	X			
Animal Species Theme			X	

Aquatic Biodiversity Theme				X
Archaeological and Cultural Heritage Theme				X
Civil Aviation Theme			X	
Defence Theme				X
Paleontology Theme	X			
Plant Species Theme				X
Terrestrial Biodiversity Theme	X			

### Specialist assessments identified

Based on the selected classification, and the known impacts associated with the proposed development, the following list of specialist assessments have been identified for inclusion in the assessment report. It is the responsibility of the EAP to confirm this list and to motivate in the assessment report, the reason for not including any of the identified specialist study including the provision of photographic evidence of the site situation.

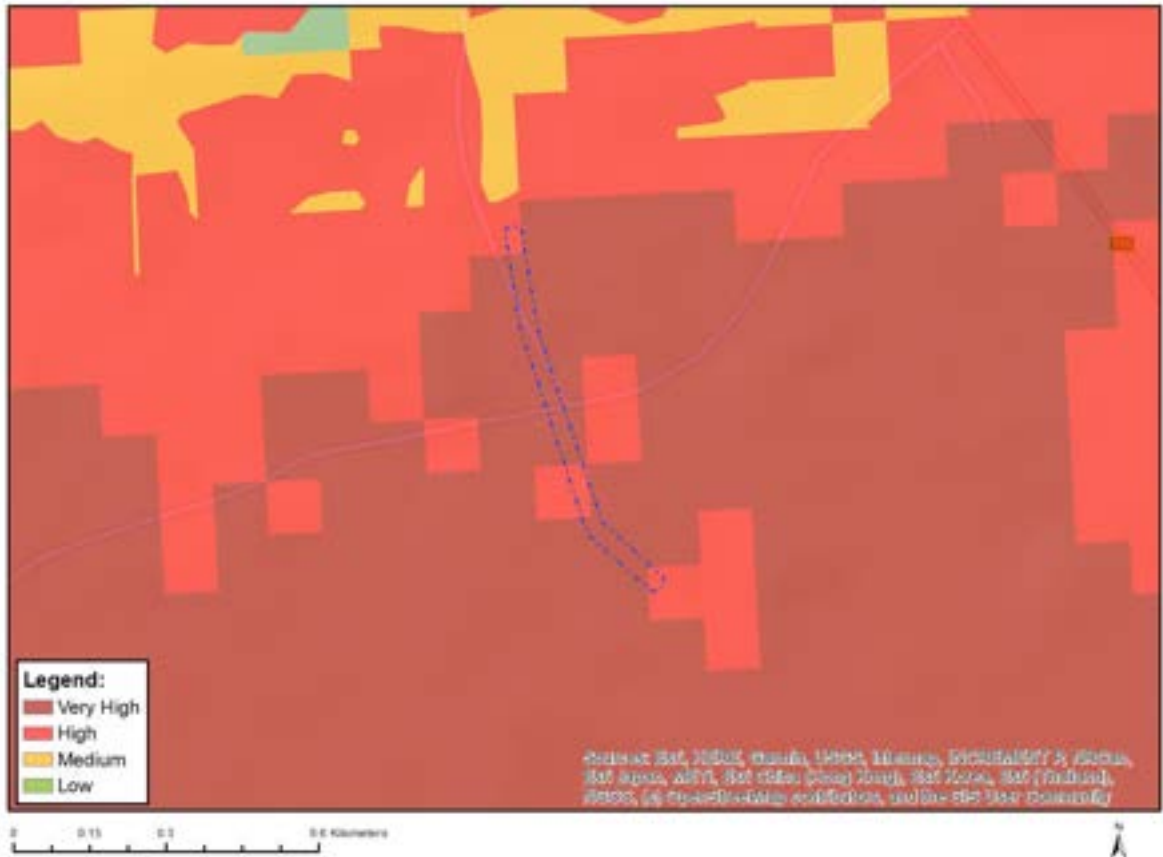
<b>N</b>	<b>Specialist assessment</b>	<b>Assessment Protocol</b>
1	Agricultural Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Agriculture_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Agriculture_Assessment_Protocols.pdf</a>
2	Landscape/Visual Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf</a>
3	Archaeological and Cultural Heritage Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf</a>
4	Palaeontology Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf</a>
5	Terrestrial Biodiversity Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Terrestrial_Biodiversity_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Terrestrial_Biodiversity_Assessment_Protocols.pdf</a>
6	Aquatic Biodiversity Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Aquatic_Biodiversity_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Aquatic_Biodiversity_Assessment_Protocols.pdf</a>

7	Avian Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Avifauna_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Avifauna_Assessment_Protocols.pdf</a>
8	Civil Aviation Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Civil_Aviation_Installations_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Civil_Aviation_Installations_Assessment_Protocols.pdf</a>
9	RFI Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf</a>
10	Geotechnical Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf</a>
11	Plant Species Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Plant_Species_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Plant_Species_Assessment_Protocols.pdf</a>
12	Animal Species Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Animal_Species_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Animal_Species_Assessment_Protocols.pdf</a>

## Results of the environmental sensitivity of the proposed area.

The following section represents the results of the screening for environmental sensitivity of the proposed site for relevant environmental themes associated with the project classification. It is the duty of the EAP to ensure that the environmental themes provided by the screening tool are comprehensive and complete for the project. Refer to the disclaimer.

### MAP OF RELATIVE AGRICULTURE THEME SENSITIVITY

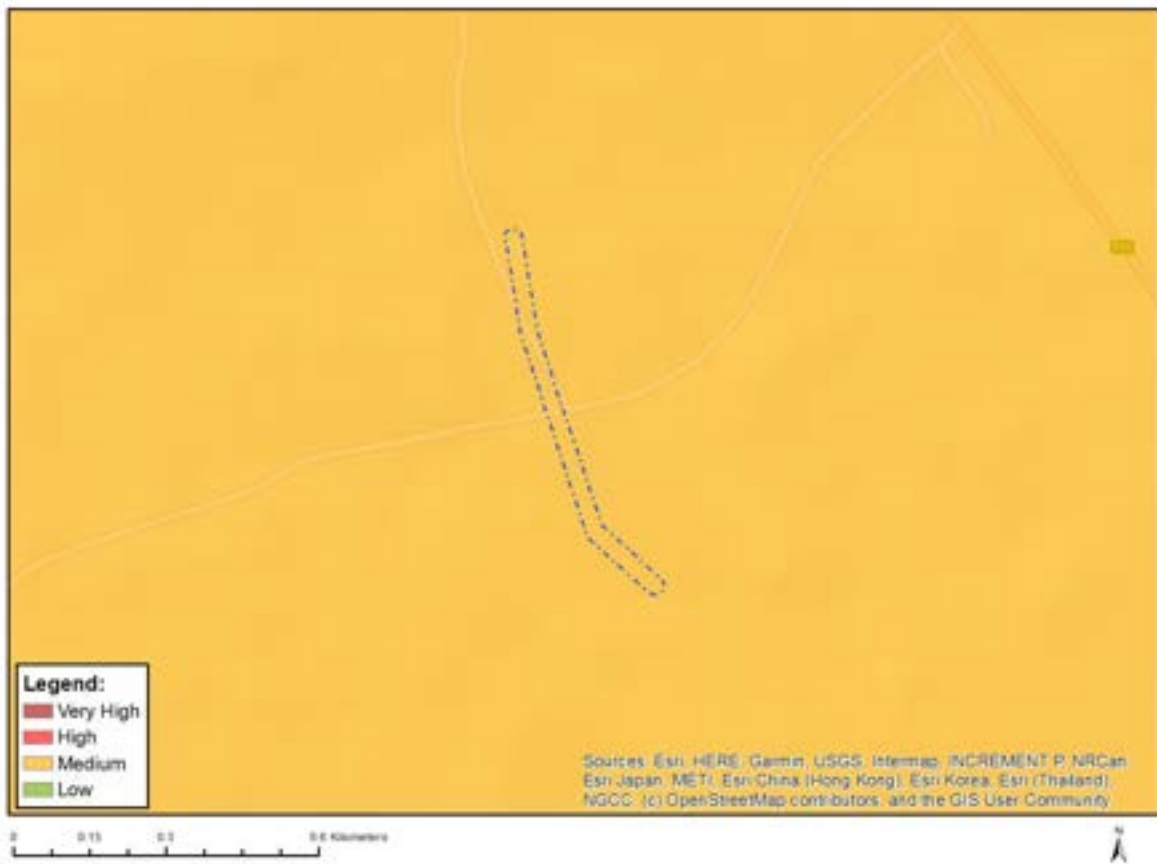


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

#### Sensitivity Features:

Sensitivity	Feature(s)
High	Land capability;09. Moderate-High/10. Moderate-High
High	Subsistence Farming 1;Land capability;09. Moderate-High/10. Moderate-High
Very High	Land capability;11. High/12. High-Very high/13. High-Very high/14. Very high/15. Very high
Very High	Subsistence Farming 1;Land capability;11. High/12. High-Very high/13. High-Very high/14. Very high/15. Very high

## MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY



Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at [eiadatarequests@sanbi.org.za](mailto:eiadatarequests@sanbi.org.za) listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

### Sensitivity Features:

Sensitivity	Feature(s)
Medium	Sensitive species 8
Medium	Invertebrate-Arytropteris basalis
Medium	Invertebrate-Physophorina livingstonii

MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity

MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY



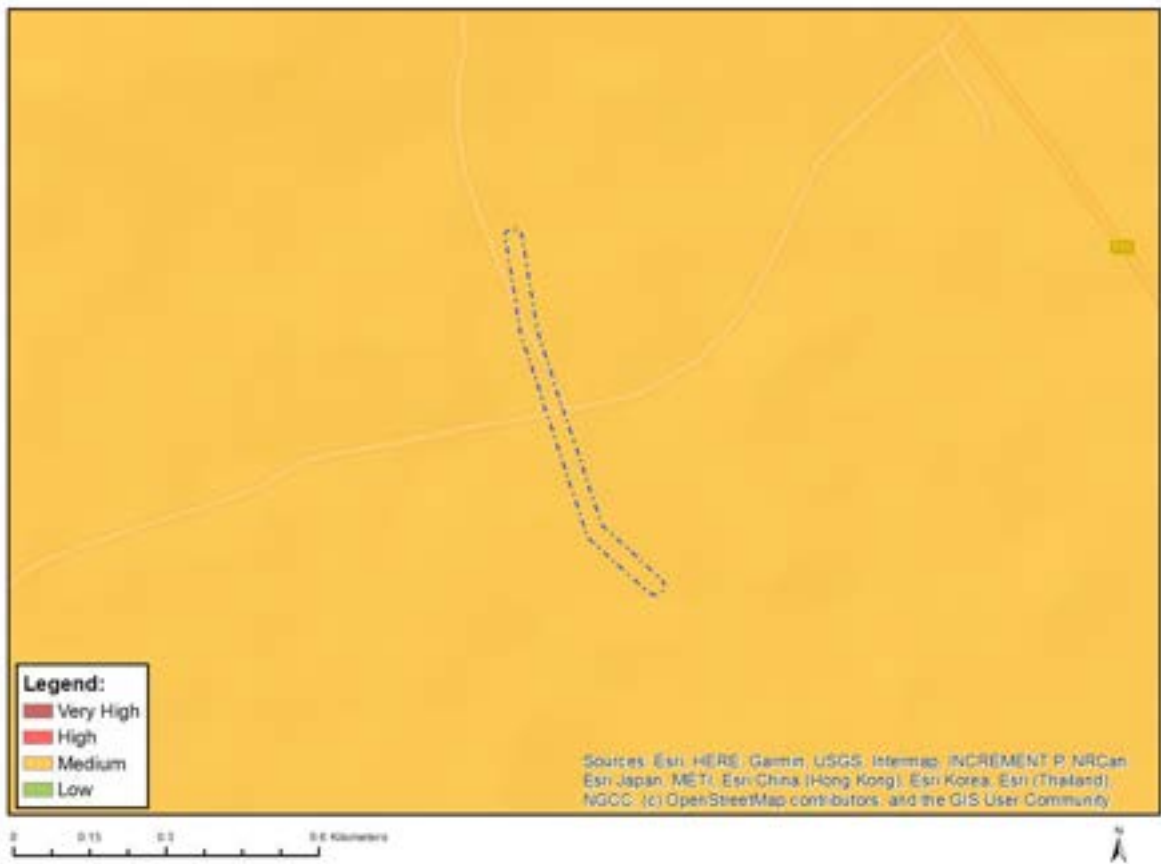
Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity



## MAP OF RELATIVE CIVIL AVIATION THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

### Sensitivity Features:

Sensitivity	Feature(s)
Medium	Between 8 and 15 km of other civil aviation aerodrome

## MAP OF RELATIVE DEFENCE THEME SENSITIVITY

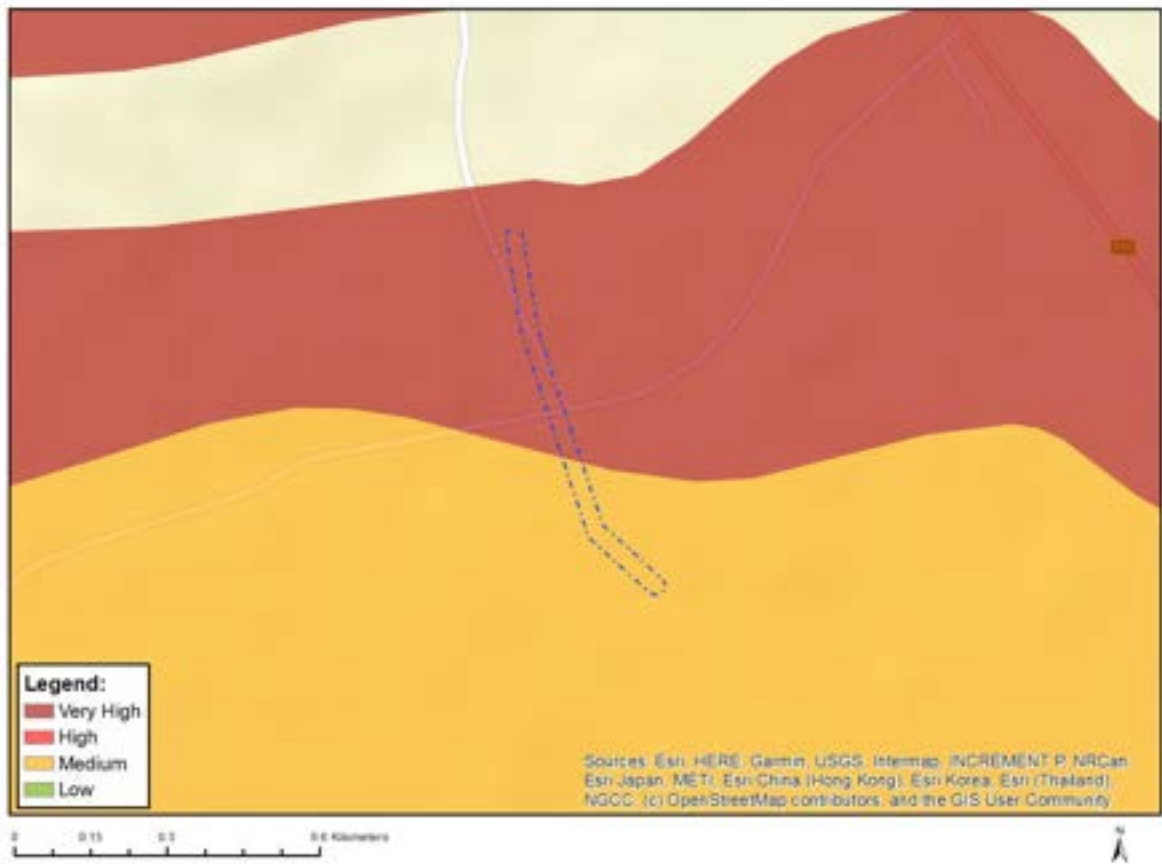


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

### Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

## MAP OF RELATIVE PALEONTOLOGY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

### Sensitivity Features:

Sensitivity	Feature(s)
Medium	Features with a Medium paleontological sensitivity
Very High	Features with a Very High paleontological sensitivity

## MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY



Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at [eiadatarequests@sanbi.org.za](mailto:eiadatarequests@sanbi.org.za) listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

### Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

## MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

### Sensitivity Features:

Sensitivity	Feature(s)
Very High	Vulnerable ecosystem

***APPENDIX 2:***

**FINAL ENVIRONMENTAL SENSITIVITY REPORT**



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**OURBIOSPHERE**  
— ENVIRONMENTAL —

## **FINAL IMPACT ASSESSMENT REPORT**

**DFFE Consultation Meeting REF: 2022-09-0009**

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN  
TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT  
ACT, 1998: GN R. 982 AND 983 FOR THE PROPOSED  
MBONGOLWANE 132/22KV, 20MVA SUBSTATION AND  
132KV POWERLINE (GINGINDLOVU-MBONGOLWANE)  
WITHIN UMLALAZI LOCAL MUNICIPALITY IN KWAZULU  
NATAL PROVINCE.

Web Based Environmental Screening Tool and 20 MVA  
132/22 kV Mt Elias Substation Site Impact Assessment  
Report

Prepared For:

Eskom KZN Operating Unit

Nandipa Mbili: Environmental Management Officer, Land  
Development

October 2023

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**i) List of Abbreviations**

<b>Terms</b>	<b>Description</b>
BRP	Bioregional Plan
BSP	Biodiversity Sector Plan
CBA	Critical Biodiversity Area
CARA	Conservation of Agricultural Resources Act 43 of 1983
CR	Critically Endangered (IUCN threat category)
DFFE	National Department of Agriculture, Forestry and Fisheries
The district	King Cetshwayo District Municipality
DPLG	The Department of Provincial and Local Government
DWS	The Department of Water and Sanitation
EI	Ecological Infrastructure
EIA	Environmental Impact Assessment
EKZNW	Ezemvelo KwaZulu-Natal Wildlife as defined in Act 9 of 1997 to be the KZN Nature Conservation Service
EN	Endangered (IUCN threat category)
EMF	Environmental Management Framework
EMPr	Environmental Management Programme
ESA	Ecological Support Area
ESCA	Estuarine Systematic Conservation Assessment
FEPA	Freshwater Ecosystem Priority Area
GIS	Geographic Information System
IUCN	International Union for Conservation of Nature
KZN	KwaZulu-Natal Province of the Republic of South Africa
NEMA	The National Environmental Management Act 107 of 1998
NEMBA	National Environmental Management Biodiversity Act 10 of 2004

<b>NEMPAA</b>	National Environmental Management Protected Areas Act 57 of 2003
<b>NBA</b>	The National Biodiversity Assessment
<b>NPAES</b>	National Protected Area Expansion Strategy
<b>SANBI</b>	The South African National Biodiversity Institute
<b>SEA</b>	Strategic Environmental Assessment
<b>SCA</b>	Systematic Conservation Assessment
<b>SDF</b>	Spatial Development Framework
<b>TFCA</b>	Transfrontier Conservation Areas (TFCA)

## ii) List of Definitions

<b>Term</b>	<b>Description</b>
<b>Bioregional Plan (BRP)</b>	A district-based plan which identifies priority biodiversity areas (CBAs and ESAs) and provides associated planning and decision-making guidelines for a range of sectors whose actions, policies, and decisions impact on biodiversity. Once adopted, the BRP has to be considered in all the planning and assessment tools used within a bioregion. Bioregions have been identified as a District Municipality.
<b>Biodiversity Sector Plan (BSP)</b>	A precursor to the BRP which includes a biodiversity priorities area map and associated management guidelines. BSPs incorporate provincial biodiversity conservation priorities and other available information to determine the Critical Biodiversity Areas (CBA) and Ecological Support Areas (ESA) within a bioregion which is then used for the development of a Bioregional Plan.
<b>Buffers</b>	There are three main forms of buffer which are considered in the creation of the KZN Biodiversity Planning process; namely those that reflect land-use management guideline principals associated with agreements and/or conventions, those that must be considered in order to better reflect a mapped feature (e.g., buffer a river line to more accurately reflect the width aspect associated with the feature in question), and those that are associated with geographical feature and/or a specific species that are required to ensure the persistence of that feature or specific species.
<b>Critical Biodiversity Area (CBA)</b>	Natural or near-natural features, habitats or landscapes that include terrestrial, aquatic, and marine areas that are considered critical for (i) meeting national and provincial biodiversity targets and thresholds (ii) safeguarding areas required to ensure the persistence and functioning of species and ecosystems, including the delivery of ecosystem services; and/or (iii) conserving important locations for biodiversity features or rare species. Conservation of these areas is crucial, in that if these areas are not maintained in a natural or near-natural state, biodiversity.

	conservation targets cannot be met.
<b>CBA: Expert Input</b>	Areas of natural or near natural state which are identified by local experts as being of high biodiversity importance based on the feature's uniqueness, rarity and/ or critical endangered threat status, and where the suitability and condition has been verified or there is high confidence in the data.
<b>CBA Irreplaceable</b>	Areas considered critical for meeting biodiversity targets and thresholds, and which are required to ensure the persistence of viable populations of species and the functionality of ecosystems. This category is a combination of three subcategories, namely CBA: Irreplaceable (SCA), CBA: Irreplaceable linkage and CBA: Expert Input.
<b>CBA Irreplaceable (SCA)</b>	Areas which are required to meet biodiversity conservation targets, and where there are no alternative sites available. (Category driven by species and feature presence). Derived from the Systematic Conservation Assessment and is a combination of the SCA subcategories, CBA Irreplaceable and CBA High Irreplaceability
<b>CBA Irreplaceable: SCA-Subcategory Irreplaceable</b>	Areas identified as having an Irreplaceability value of 1, these planning units represent the only localities for which the conservation targets for one or more of the biodiversity features contained within can be achieved i.e., there are no alternative sites available
<b>CBA Irreplaceable: SCA Subcategory High Irreplaceable</b>	Areas of significantly high biodiversity value. In C-Plan analyses, these areas are identifiable as having an Irreplaceability score of $\geq 0.8$ and $< 1.0$ whilst the MARXAN equivalent is reflected in PU's displaying a selection frequency value of between 80 – 100%
<b>CBA: Irreplaceable Linkage (Terrestrial)</b>	Areas within Terrestrial Landscape Corridors that, due to the modification of the natural landscape within and surrounding the corridor, represent the only remaining and highly constrained link (i.e., pinch point on corridor) which, if lost, would result in the breakage of the corridor and corridor network. These areas are vital in maintaining the linkage of the corridor and its associated biodiversity related processes.
<b>CBA: Irreplaceable Linkage (Aquatic)</b>	National flagship rivers as identified through the Freshwater Ecosystem Priority Area's project.
<b>CBA Optimal</b>	Areas that represent an optimised solution to meet the required biodiversity conservation targets while avoiding areas where the risk of biodiversity loss is high Category driven primarily by process but is also informed by expert input. This category is a combination of two subcategories, namely CBA: Optimal (SCA) and CBA: Optimal Expert Input.
<b>CBA Optimal Expert Input</b>	Areas of natural or near natural state which are identified by local experts as being of biodiversity importance based on (i) the feature's endangered or vulnerable threat status and a high confidence in the data. (ii) the feature qualifying for CBA Irreplaceable but having a medium confidence in the data and requiring site verification to increase data confidence level to High

<b>CBA Optimal (SCA)</b>	<p>Areas which represent the best localities out of a potentially larger selection of available planning units that are optimally located to meet both the conservation target but also the criteria defined by the Decision Support Layers or the Cost Layers, which weigh the risk of loss of biodiversity in areas. Using C-Plan, these areas are identified through the MINSET analysis process and reflect the negotiable sites with an Irreplaceability score of less than 0.8. Within the C-Plan MINSET analysis this does not mean they are of a lower biodiversity value however, only that there are more.</p> <p>alternate options available within which the features located within can be met.</p>
<b>Ecological Infrastructure</b>	<p>Functional landscapes that provide ecological goods and services to society. These areas are not necessarily required to meet conservation targets but are important to promote water security, assist disaster relief (e.g., flooding), prevent soil loss and in maintaining or improving key services such as clean water for domestic and recreational use.</p>
<b>Ecological Support Area</b>	<p>Functional, but not necessarily entirely natural, areas that are required to ensure the persistence and maintenance of biodiversity patterns and ecological processes within the Critical Biodiversity Areas. This category is made up of four subcategories: namely Ecological Support Areas (SCA), ESA: Expert input, ESA: Species Specific and ESA: Corridors</p>
<b>Ecological Support Area: Corridors</b>	<p>Corridors made up of Landscape and Local Corridors</p>
<b>Ecological Support Area: Expert Input</b>	<p>Areas identified by local experts as areas of functional but not necessarily entirely natural areas that are required to ensure the persistence and maintenance of biodiversity patterns and ecological processes within the Critical Biodiversity Areas.</p>
<b>Ecological Support Area: Species Specific</b>	<p>Areas required for the persistence of specific species. Although these areas are frequently modified, a change in current land use, to anything other than rehabilitated land, would most likely result in a loss of that feature from the area.</p>
<b>Ecosystem goods and services</b>	<p>Ecosystem services are direct and indirect benefits derived from the natural environment (ecological infrastructure), and include production services such as food and oxygen, regulatory services such as flood attenuation and pollination, spiritual &amp; knowledge services and space services, such as settlement areas and farmland.</p>
<b>Endemism</b>	<p>The ecological state of being unique to, or only found within a defined geographic location, such as a habitat, island, country, etc.</p>
<b>Flagship Rivers</b>	<p>Flagship rivers are rivers that have been identified as (i) been representative of Free-Flowing Rivers and (ii) having high importance based on ecosystem processes and biodiversity values.</p>
<b>Flagship species</b>	<p>A species that is selected as an icon/symbol within the environment. Such species are chosen because of their vulnerability, attractiveness and/or distinctiveness in order to attract support and acknowledgment from society. The conservation of specific habitats and ecosystems to support such species provides for the protection.</p>

	of the other less charismatic species within the area.
<b>Free Flowing Rivers</b>	Free flowing rivers are rivers that flow undisturbed (not dammed/impounded) from its source to the confluence with another large river or to the sea. Where such a river must be permanent or seasonal flowing and have an 'A or B' ecological category (good condition), with inland rivers have a minimum length of 50 kms (Driver, A et al, 2011)
<b>Freshwater Ecosystem Priority Areas</b>	Freshwater Ecosystem Priority Areas (FEPAs) are strategic spatial priorities for conserving freshwater ecosystems and supporting sustainable use of water resources. The National Freshwater Ecosystem Priority Areas Project determined the FEPAs through a process of systematic biodiversity planning and expert input, using a range of criteria dealing with maintenance of key ecological processes and the conservation of ecosystem types and species associated with rivers, wetlands, and estuaries.
<b>High Potential Agricultural land</b>	Land having the soil and terrain quality, growing season and available moisture supply needed to produce sustained high yields of crops (cash crops or planted pastures) economically when treated and managed according to best possible farming practices (Collett & Mitchell, 2012).
<b>Landscape Corridors</b>	A series of bio-geographic corridors created in KZN to facilitate ecological and climate change processes to create a linked landscape for the conservation of species in a fragmented landscape.
<b>Landscape Corridors: Aquatic</b>	Aquatic landscape corridors are to facilitate movement of aquatic species and are the KZN Flagship Rivers.
<b>Landscape Corridors: Terrestrial</b>	A series of altitudinal and biogeographic corridors to facilitate, ecological and climate change processes and to create a linked landscape for the conservation of species in a fragmented landscape.
<b>Local Corridors</b>	Terrestrial and Aquatic corridors developed at a District scale to create fine scale links within the landscape that facilitates ecological processes and ensure persistence of critical biodiversity features.
<b>National Threatened Ecosystems</b>	National Threatened Ecosystems are provided for in the National Environmental Management: Biodiversity Act (Act 10 of 2004), these areas represent threatened and protected ecosystems categorised according to one of four categories (Critically Endangered, Endangered, Vulnerable and Protected Ecosystems). Within this Act, it is stated that both Critically Endangered and Endangered Ecosystems must be considered as part of Critical Biodiversity Areas.
<b>Protected Area</b>	Formally Protected Areas declared under NEMPAA. Such areas form the backbone of the conservation network and are critical in their contribution to the achievement of conservation objectives in the province.
<b>Red List</b>	Identifies the status of threatened species in terms of threat categories, namely: Critically Endangered, Endangered, Vulnerable, Near Threatened and Data Deficient.



**Systematic  
Conservation  
Assessment**

An approach to conservation that prioritises actions by setting quantitative targets for biodiversity features such as broad habitat units or vegetation types. It is premised on conserving a representative sample of biodiversity pattern, including species and habitats (the principle of representation), as well as the ecological and evolutionary processes that maintain biodiversity over time (the principle of persistence).

## i) EXECUTIVE SUMMARY

Eskom have since commenced with the project construction through Survey work currently underway, however Eskom noted at Vekeya Village where the powerline is traversing there are some residential dwellings that have encroached on the authorised route. Because of safety concerns and as well as building restrictions, the powerline cannot be constructed through the residential dwellings and therefore the need to deviate the line by two structures have arisen. The powerline deviation will see two structures located outside the authorised powerline corridor on the left (western direction) of the authorised route. The second issue is with regard to the proposed authorised Mbongolwane Substation. Eskom intends to introduce a  $\pm 35\text{m}$  communication tower within this authorised substation.

This have necessitated Eskom to seek Department of Forestry, Fisheries and Environment (DFFE) on whether to amend the Environmental Authorisation through an Impact Assessment Process or through Strategic Transmission Corridor (EGI) process. Eskom requested a meeting with Department of Forestry, Fisheries and Environment (DFFE) and the consultation meeting with the following REF: 2022-09-0009 was held on January 25, 2023, with the officials from DFFE. Following this discussion, Eskom asked that the transmission strategic corridors process (EGI) be used to get an environmental authorization for the powerline deviation. This is due to the fact that, in accordance with Standard No. 383 of the 29 April 2021 as gazetted by the National Environmental Management Act, 1998 (Act N0.107 of 1998), the proposed Gingindlovu-Powerline Project is situated within the Eastern Strategic Transmission Corridor, specifically, within the Expanded Electricity Grid Infrastructure (EGI) [Expanded Eastern Corridor]. The National Environmental Management Act of 1998's extended geographical areas of strategic importance for the development of electrical transmission and distribution facilities are identified in terms of the Standard under sections 24(3), 24(5)(1), and 24(5)(b).

### Agriculture Theme

- The site visit was conducted in summer for 1 day on **24 February 2023** to determine the current use of the land and the environmental sensitivity of the Gingindlovu-Mbongolwane 132kV powerline deviation under consideration, this was done in order to confirm the sensitivity information as identified by the web based environmental screening tool.
- The screening tool has allocated a very high Agricultural sensitivity theme on the Gingindlovu-Mbongolwane 132kV powerline deviation. After the site visit, it is hereby confirmed that the rating given by the web based environmental assessment tool is similar to what has been suggested by the tool.

An applicant intending to undertake an activity identified in the Scope of this Protocol on a site identified by the national web based environmental screening tool as being of "very high" or "high" sensitivity for agricultural resources must submit an **Agricultural Agro-Ecosystems Assessment**, unless the:

- Application is for a linear activity for which impacts to the agricultural resource are temporary and the land in the opinion of the soil scientist/agricultural specialist based on the mitigation and remedial measures, can be returned to the current land capability within two years of the completion of construction phase; or
- Impact on agricultural resources is from an electricity pylon which is self-supporting. In case the project is a linear activity or an Electricity Pylon that is self-supporting, which in this case the Gingindlovu-Mbongolwane 132kV powerline deviation fits to both the categories, that is the two structures are a linear activity and they are also electricity structures which are self-supporting pylons, and an Agricultural Compliance Statement is to be provided. The environmental assessment practitioner will append to the **Agricultural Compliance Statement** a motivation and evidence (e.g., photographs) of the different agricultural resource sensitivity.

### Animal Species Theme

The web-based environmental screening tool has given the Animal Species Theme a medium sensitivity rating. This is relevant to the alleged presence of terrestrial animal species in the study area. The medium sensitivity rating is, regrettably, hereby disputed following the site visit. In contrast to amphibians, who depend on a mix of aquatic and terrestrial habitats, terrestrial animals are those that live mostly or entirely on land. Aquatic creatures, on the other hand, dwell primarily or entirely in water. A few examples of terrestrial animals are cats, ants, dogs, spiders, lions, mice, bats, bulls, oxen, leopards, elephants, and many more. Yet, certain species of creatures only exist underground.

The medium rating is for the animal theme is here by disputed, and a rating of low sensitivity is therefore deemed to be appropriate for this Gingindlovu-Mbongolwane 132kV powerline deviation. In the main, the problem the monocultural type of sugarcane which contribute to loss of biodiversity, the other contributing factor is the location of both structures within the residential areas, their location proximity of the residential dwellings can easily introduce unwanted poaching and can also generally threaten terrestrial animals away. The other major contributor is the agricultural activities that occasionally practiced on site. This on its will fend off the potential animals to inhabit the site.

According to Government Notice No. 1150, government gazette 43855 of 30 October 2020. An applicant intending to undertake an activity identified in the scope of this protocol on a site identified by the screening tool as being of "low" sensitivity for terrestrial animal species must submit a Terrestrial Animal Species Compliance Statement.

### Aquatic Biodiversity Theme

The location of structure 20 is fully covered by sugarcane as it is located within a sugarcane plantation. There river is located  $\pm 136$  metres away south of the structure. The sugarcane plantation itself is in a fairly flat surface and the

construction of structure No 20 is not envisaged that it can cause any impact on the Nyezane river or its biodiversity as it is located 136 meters. The low sensitivity rating suggested for the aquatic biodiversity theme is here by confirmed. According to Government Notice No. 648, Government Gazette 45421 10 May 2019 3(b) - protocol for the assessment and reporting of environmental impacts on aquatic biodiversity.

However, where the information gathered from the Initial Site Sensitivity Verification identified on this Protocol or the specialist assessment differs from the designation of "very high" aquatic biodiversity sensitivity from the national web based environmental screening tool, and it is found to be of a "low" sensitivity, an aquatic biodiversity impact assessment is not required. Because although there is Nyezane river on the southern direction of structure 20, it is located 136 metres away and the area is flat and the construction of structure 20 will not cause any threat to the aquatic biodiversity, it means Aquatic Biodiversity Compliance Statement will have to be prepared and submitted.

The EAP will provide an Aquatic Biodiversity Compliance Statement. An Environmental Assessment Practitioner will append to the Aquatic Biodiversity Compliance Statement a motivation and evidence (e.g., photographs) of the changed Aquatic Biodiversity sensitivity.

### **Archaeological and Cultural Heritage Theme**

The term "archaeological site/materials" refers to any remains or indications of human activity that have been on or in a body of land for more than 100 years, including artifacts, fossilized human and hominid remains, and man-made structures and features. No archaeological artifact, assemblage, settlement (site), and no historical building or structure older than 60 years may be altered, moved, or destroyed without the necessary authorization from the South African Heritage Resources Agency (SAHRA) or a provincial heritage resources authority, in accordance with the National Heritage Resources Act (NHRA) (Act No. 25 of 1999). Yet on the site visit, none of these were seen.

The low rating given by the web based environmental screening tool allocated for Archaeological and Cultural Heritage Theme is hereby confirmed. The reason for this is that no significant sites, structures, features, ecofacts and artefacts of importance associated with the history, architecture, or archaeology of human development occurrence has been identified during the site visit.

## Civil Aviation Theme

The site visit verified that the Gingindlovu-Mbongolwane 132kV powerline deviation site, is currently used for Agricultural farming (sugarcane plantation and subsistence crops farming). The Gingindlovu-Mbongolwane 132kV powerline deviation site also has a 22kV powerline traversing the site from east to western direction supplying the local community with electricity.

- Along the proposed project footprint for Gingindlovu-Mbongolwane 132kV powerline deviation project, no civil aviation installations were discovered.
- According to Air Traffic and Navigation Services SOC Limited (ATNS), RSA Airspaces in 3D the proposed site for Gingindlovu-Mbongolwane 132kV powerline deviation, there is not Aviation Installation nearby. The only Avian Installation is an airport located  $\pm 16$ km away at FAES (Eshowe Airport) and Isithebe Airport located  $\pm 17$ km away.
- The site of the Gingindlovu-Mbongolwane 132kV powerline deviation project was found to have low sensitivity (as it relates to civil aviation, the medium sensitivity is therefore disputed). It confirms the sensitivity assigned on the Screening Tool, Air Traffic and Navigation Services SOC Ltd (ATNS), RSA Airspaces in 3D, which was assessed through a site visit and based on existing databases. Based on the aforementioned, in terms of GN 320, no further obligations are necessary i.e., a Compliance Statement is not required.

## Defence Theme

The site visit confirmed that the proposed Gingindlovu-Mbongolwane 132kV powerline deviation site is dominated by agricultural activities (structure 20 will be located in an active sugarcane plantation, and structure 21 will be located within a field recovering from crops cultivated field that is also surrounded by residential dwellings in all directions. Site visit conducted found that there are no defence installations found on site or within the proposed project vicinity area and footprint for the Gingindlovu-Mbongolwane 132kV powerline deviation Site.

The planned project area within a 30-kilometer radius do not contain any defence installations, according to the Air Traffic and Navigation Services SOC Limited (ATNS) data. The powerline deviation project area is not shown to have any defence installations by the screening tool, which also rates the area as low sensitive.

The proposed Gingindlovu-Mbongolwane 132kV powerline deviation project site was found to have low sensitivity with regard to Defence Theme, and this was confirmed (as it relates to defence installations). This verifies the sensitivity assigned on the Screening Tool and was determined through a site visit and based on already-existing databases. Based

on the aforementioned, no additional requirements are relevant under GN 320, so a Compliance Statement is not necessary.

### **Palaeontology Theme**

The site Palaeontological theme is given a very high environmental sensitivity according to the web based environmental screening tool. The high environmental sensitivity is hereby disputed. rock units of high palaeontological sensitivity are concerned, levels of bedrock exposure within the study area are adequate; large-scale projects with high potential heritage impact are planned; and where the distribution and nature of fossil remains in the proposed project area is unknown.

The very high sensitivity is hereby disputed and a more relevant and suitable rating for the project area of low sensitivity of Palaeontological theme is hereby allocated. Considering the fact that the site has been for a while utilised for sugarcane plantation, based on the above, in terms of GN 320, no further requirements are applicable i.e., a Compliance Statement is not required.

### **Plant Species Theme**

The study area where the Gingindlovu-Mbongolwane 132kV powerline deviation traverse has been through the site visit found to be an area where no natural habitat remains. And on the same note, the area was also not suspected to have the occurrence of SCC. The reason for this is that the site covered predominantly by sugarcane plantation especially on the location of the first structure No 20 deviations, however, from the edge of sugarcane field through the dwellings where powerline conductors will be flying over, the grass species *Setaria megaphylla*, and *Themeda triandra*. The major portion of the areas of study have been heavily transformed and degraded by sugarcane plantation and/or residential dwelling. The location of structure 21 has been for a while also degraded by the subsistence farming crops cultivation, this have contributed to the loss of plant species. The proposed development is not envisaged to have any impact on Species of Conservation Concern (SCC). The low environmental sensitivity rating as depicted by the web based environmental screening tool is hereby confirmed.

This verifies the sensitivity assigned on the Screening Tool and was determined through a site visit and based on already-existing databases. Based on the aforementioned, no additional requirements are relevant under GN 320, so a Compliance Statement is necessary because, Published in Government Notice No. 1150 Government Gazette 43855 30 October 2020, protocol for the specialist assessment and minimum report content requirements for environmental impacts on terrestrial plant species. Its states: An applicant intending to undertake an activity identified in the scope of

this protocol, on a site identified by the screening tool as being of “low” sensitivity for terrestrial plant species, must submit a Terrestrial Plant Species Compliance Statement.

### **Terrestrial Biodiversity Theme**

The web based environmental screening tool has allocated the very high sensitivity due to the fact that the site is considered to have a Vulnerable ecosystem. According to SANBI (2020), an Ecosystem is a dynamic complex of animal, plant and micro-organism communities and their non-living environment interacting as a functional unit.

Site visit conducted in summer for one day on 24 February 2023 found out that the complete landscape of where the Gingindlovu-Mbongolwane 132kV powerline deviation has been transformed from natural to sugarcane plantation fields. Further study was even extended even 500 metres away to the Nyezane Riverbanks which were also found to have been heavily cultivated for sugarcane plantation. The ecosystem of the study area can no longer be referred to as vulnerable since it already is completely transformed with the exception of the Nyezane river which in many cases seem to still be in place yet disturbed.

The clearance of vegetation for the sake of agricultural activities which serves as a habitat for animal species as well as other species have eroded the Very High Sensitivity of terrestrial biodiversity to virtually a low sensitivity. Biological diversity of flora has been heavily reduced to that of one dominant species of sugarcane. Sugarcane plantation has been known to inhabit small mammals, birds, snakes. However, these animal numbers fluctuates heavily because when harvesting and preparation of new plant is prepared, it is done through burning of fire which in itself kill many of the animals and some migrate. Meaning that sugarcane cannot be allocated a very high terrestrial biodiversity sensitivity because of these activities.

## DECLARATION OF INDEPENDENCE

The Environmental Impact Assessment Regulations Regulation 13(1) of Government Notice No R982 of 2014), requires that the EAP must be Independent. And have expertise in conducting environmental impact assessments or undertaking specialist work as required, including knowledge of the Act,

### **EAP Expertise:**

Musa Netshivhambe has experience that spans 3 decades working with Integrated Environmental Management Systems conducting almost 100 Environmental Impact Assessment, Environmental Management related project, assisting with many habitat suitability studies for Black Rhinos, conducting Botanical Assessment Studies, Development of Environmental Management Studies, Conducting Training on Tree and Grass Identification Trainings, compiling over 100 Environmental Management Programmes, Water use Licences and many countless environmental management reports and advice to Private Individuals, Government SOCs and the Government Departments of South Africa. Musa is registered with Environmental Assessment Practitioners Association of South Africa (EAPASA: 2019/1853) and Certificated Natural Scientist with the South African Council for Natural Scientific Professions (Reg. No. 200076/12).

### **Declaration of independence:**

Ourbiosphere Environmental (Pty) Ltd in an independent consultancy firm and hereby declare that it does not have any financial or other vested interest in the undertaking of the proposed activity, other than remuneration for the work performed in terms of the National Environmental Management Act, 1998 (Act 107 of 1998). In addition, remuneration for services provided by Ourbiosphere is not subjected to or based on approval of the proposed project by the relevant authorities responsible for authorising this proposed project.

### **Disclosure:**

Ourbiosphere undertake to disclose, to the competent authority, any material information that has or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the National Environmental Management Act, 1998 (Act 107 of 1998) and will provide the competent authority with access to all information at its disposal regarding the application, whether such information is favourable to the applicant or not. Based on information provided to Ourbiosphere by the client, and in addition to information obtained during the course of this study, Ourbiosphere present the results and conclusion within the associated document to the best of the author's professional judgement and in accordance with best practise.

Musa Netshivhambe

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August 2023



## II) CONDITIONS OF THIS REPORT

Despite the tremendous effort made to ensure the correctness of this study, terrestrial biodiversity assessment studies are limited in their scope, length, and financial resources. Discussions focus on reasonable and well-informed premises that are backed up by materials, subject matter experts, logical reasoning, and real scientific concepts. The most accurate and true environmental judgments based on field study and observations can only be produced across a number of years and seasons in order to account for changing environmental conditions and animal migrations.

Since environmental impact assessments deal with dynamic natural systems, additional information may be discovered later. Therefore, notwithstanding conclusions reached in good faith utilizing all available scientific and empirical facts, the expert is not responsible for any advised mitigating measures.

Although the authors exercised reasonable care and diligence in delivering services and putting together documents, we disclaim all responsibility, and the Client indemnifies the author by accepting this document from any and all actions, claims, demands, losses, liabilities, costs, damages, and expenses resulting directly or indirectly from the services delivered by the author and by the use of this document.

Any inferences, recommendations, or assertions based on or supported by this study must specifically cite or make reference to it. The entire significant report must be included whenever such recommendations, statements, or conclusions are made in relation to the current investigation. No version of this material may be altered or expanded without the author's express written authorization. Hence, while you read this report and consider your options, keep these limitations in mind.

## 1. INTRODUCTION

Eskom have received an environmental authorization for the application of Environmental Authorisation In terms of the National Environmental Management Act, 1998: GN R. 982 and 983 for the proposed Mbongolwane 132/22kV, 20MVA Gingindlovu-Mbongolwane 132kV powerline deviation and 132kV powerline (Gingindlovu-Mbongolwane) within uMlalazi Local Municipality in KwaZulu Natal Province.

Eskom have since commenced with the project construction through Survey work currently underway, however Eskom noted at Vekeya Village where the powerline is traversing there are some residential dwellings that have encroached on the authorised route. Because of safety concerns and as well as building restrictions, the powerline cannot be constructed through the residential dwellings and therefore the need to deviate the line by two structures have arisen. The powerline deviation will see two structures located outside the authorised powerline corridor on the left (western direction) of the authorised route. The second issue is with regard to the proposed authorised Mbongolwane Substation. Eskom intends to introduce a  $\pm 35\text{m}$  communication tower within this substation.

This have necessitated Eskom to seek Department of Forestry, Fisheries and Environment (DFFE) on whether to amend the Environmental Authorisation through an Impact Assessment Process or through Strategic Transmission Corridor (EGI) process. Eskom requested a meeting with Department of Forestry, Fisheries and Environment (DFFE) and the consultation meeting with the following REF: 2022-09-0009 was held on January 25, 2023, with the officials from DFFE.

From this meeting, Eskom requested to have the powerline deviation follow the Transmission Strategic Corridors Process (EGI) for obtaining an Environmental Authorisation. That is, because the proposed Gingindlovu-Powerline Project falls within the Expanded Electricity Grid Infrastructure (EGI) [Expanded Eastern Corridor] that is, it is located within the Eastern Strategic Transmission Corridor to be precise as per the National Environmental Management Act, 1998 (Act NO.107 of 1998) Standard No 383 of 29 April 2021 as gazetted. The Standard identification is in terms of sections 24(3), 24(5)(1) and 24(5)(b) of the National Environmental Management Act, 1998 of expanded geographical areas of strategic importance for the development of electricity transmission and distribution infrastructure.

If it is read in conjunction with the extension of the Strategic Transmission Corridors as outlined in the Schedule hereto, which was announced on February 16, 2018, under Government Notice No. 113. Via exclusions and/or certain requirements of the Impact Assessment Procedure, Eskom wants to be excluded. The EGI procedure is in accordance with the Notice of Identification in Terms of Sections 24(5)(a) and (b) of the National Environmental Management Act, 1998,

of the procedure to be followed in applying for Environmental Authorization for Large-Scale Electricity Transmission and Distribution Development Activities identified in Terms of Section 24(2)(a) of the National Environmental Management Act, 1998, when occurring in Geographic Areas of Strategic Importance. In this instance, the proposed Construction Mbongolwane 132/22kv, 20MVA Mbongolwane Gingindlovu-Mbongolwane 132kV powerline deviation and 132kv powerline in the Kwazulu-Natal Province falls within the Transmission Strategic Corridors (EGI), Expanded Eastern Corridor.

To this end, the DFFE requested that Eskom comply with the following requirements before the Department may accept its request to pursue the EGI process application:

- Utilise the web base environmental screening tool to determine the sensitivity of the Gingindlovu-Mbongolwane 132kV powerline deviation.
- To confirm or dispute the sensitivity indicated by the National web-based Environmental Screening program, the Eskom appointed Environmental Assessment Practitioner will conduct a ground verification. A feedback report be prepared and be subjected to a public participation period of 30 days and all comments be included and then be submitted to the DFFE for decision.

This report details the site's various sensitivity levels as determined by the National Web-based Environmental Screening Tool, as well as ground verification input and additional recommendations made by an Environmental Assessment Practitioner (EAP).



**Figure 1. 1:** Showing the authorised corridor and the deviated two structures.

### **1.1. Web Based Environmental Screening Tool**

The site's environmental sensitivities were identified using the web-based environmental screening tool. Prior to the site inspection, the initial environmental screening was completed on 13 January 2023. Following the site visit, a final environmental screening was conducted on March 4, 2023, to make sure the environmental sensitivity had not altered.

### **1.2. Site Visit (Ground Verification)**

The site visit was conducted in summer for a duration of 1 day on **24 February 2023**. The goal of the site visit was to validate, verify, or dispute the many environmental sensitivity themes that the web based environmental screening tool had produced.

#### **1.2.1. Methodology followed to assess all themes sensitivities:**

##### **1.2.1.1. Site sensitivity verification and minimum report content requirements**

Prior to commencing with a specialist assessment, the current use of the land and the environmental sensitivity of the site under consideration identified by the screening tool has been confirmed by the undertaking a site sensitivity verification.

1.2.1.2. The site sensitivity verification was undertaken by an environmental assessment practitioner.

1.2.1.3 The site sensitivity verification was undertaken through the use of:

- (a) a desk top analysis, using satellite imagery.
- (b) a preliminary site inspection; and
- (c) any other available and relevant information.

1.2.1.4 The outcome of the site sensitivity verification was recorded in the form of a report this that:

- (a) confirms or disputes the current use of the land and the environmental sensitivity as identified by the screening tool, such as new developments or infrastructure, the change in vegetation cover or status etc.
- (b) contains a motivation and evidence (e.g., photographs) of either the verified or different use of the land and environmental sensitivity; and
- (c) is submitted together with the relevant assessment report prepared in accordance with the requirements of the Environmental Impact Assessment Regulations.

## 2. BACKGROUND OF THE PROJECT.

### 2.1. Project area

The project area falls within the Vekeya village of the uMlalazi Local Municipality area within the uThungulu District Municipality in KwaZulu-Natal Province GPS coordinates **Electrical Lattice Structure (Pole) No 20 S 28°59'23.15"; E 31°33' 12.9"**, **Electrical Lattice Structure (Pole) No 21 S:28°59'11.8"; E:31°33' 08.2"** see Figure 1.1 below) and each lattice structure is approximately 2 square metres each in extent.



**Figure 1. 2:** Showing the location of the proposed Gingindlovu-Mbongolwane Structure 20 and 21 deviations.

### 2.2. Current land use and infrastructure

The two deviated structure are located entirely within the agricultural areas, Structure No 20 is located within an active sugarcane plantation (Figure 1.3, 1.4, 1.5, 1.6) below. There is also a residential dwelling located in close proximity to structure No 20 on the eastern direction, many other dwellings on the northern and western directions. There is a Nyezane river that also possess a riverine wetland located on the south side of structure 20 situated at  $\pm 136$  metres. The sugarcane plantation also stretches all the way to the riverbanks system of the Nyezane River. Both sides of the Nyezane river have been cultivated and planted with sugarcane.

### 2.2.1. Location of Lattice Structure No 20



**Figure 1. 3: Lattice Structure No 20, Showing the current land use on site, sugar cane, facing southern direction towards Nyezane River.**



**Figure 1. 4: Lattice Structure No 20, Showing the current land use on site, sugar cane, facing western direction towards Residential dwellings.**



**Figure 1. 5: Lattice Structure No 20, Showing the current land use on site, sugar cane, facing northern direction towards Structure No 21.**



**Figure 1. 6: Lattice Structure No 20, Showing the current land use on site, facing eastern direction towards the residential house in close proximity of structure 20.**

### 2.2.2. Location of Lattice Structure No 21

**Structure No 21** is located within a field covered by grass recovering from recent agricultural activities used for subsistence farming in close proximity of household dwellings in the northern and eastern directions (see **Figure 1.6, 1.7, 1.8, 1.9**) below. There is also a gravel access road that separate the field on the west and residential dwelling on the eastern direction. Structure No 21 from the field will traverse within residential households in the street. The residential

dwelling is located on both sides of the access road towards the northern side when the powerline is traversing back into the authorised route corridor towards structure 22 located on the northern direction. There is an existing 22kV powerline situated within the in the field closer to where Structure no 21 will be constructed.



**Figure 1. 7:** Lattice Structure No 21, Showing the current land use on site, facing western direction.



**Figure 1. 8:** Lattice Structure No 21, Showing the current land use on site, facing southern direction towards the structure 20.





**Figure 1. 9: Lattice Structure No 21**, Showing the current land use on site (residential dwellings and gravel road), facing northern direction towards the structure 22.



**Figure 1. 10: Lattice Structure No 21**, Showing the current land use on site, facing eastern direction towards the residential house in close proximity of structure 21.

### 2.3. Topography

The study area's topography ranges from being comparatively flat on Structure 20 to being slightly hilly on Structure 21. But still, the field around structure 21 is fairly flat. For the two structures, the area around them is generally flat. Soil erosion will not have a potential influence on the proposed development due to the terrain of the study region.

### 2.4. Geology

The project area's regional geological background is described since it affects the terrain's form, drainage system, and soil types. The Geological Survey (1988), which is now the Council for Geoscience, released two 1:250 000

lithostratigraphic series geological maps of the Durban (2930) and Dundee (2830) areas, on which the geological information for the area is based in part.

The geological maps of the lithostratigraphic series covering the Gingindlovu-Mbongolwane project area depict the distribution and relationships between lithostratigraphic rock groupings throughout the Meso-Proterozoic period (about 1.6 billion years) of the region's geological history.

The complex structure and metamorphism associated with these rocks resulted from several episodes of continental assembly and mountain building processes that took place during this time. Tectonic eras were followed by deep erosive and crustal uplift episodes. The Namaqua-Natal Metamorphic Province's metamorphic basement rocks, Natal Group sandstones, Karoo Supergroup sedimentary sequence, and Quaternary alluvium are all found in the project area.

### **Lithostratigraphy**

Serpentine, gneiss, and amphibolite are examples of Meso-Proterozoic basement rocks.

The basement of the project region is made up of the Meso-Proterozoic (1200 Ma) Namaqua-Natal Metamorphic Province (Linstrom, 1988). Northeast-southwest oriented zones associated with denudation contain areas of exposed basement lithologies, resulting in the formation of uneven hills and incised valleys nearby. The Buhleni Gneiss intrudes the Thondo (Amphibolite) Formation (Namaqua-Natal Metamorphic Province), which is exposed in the project area's central and westernmost regions (Joubert and Johnson, 1998). Quartz-feldspar-biotite gneiss, mylonite, and other minerals make up the intrusive Buhleni Gneiss (Linstrom, 1987).

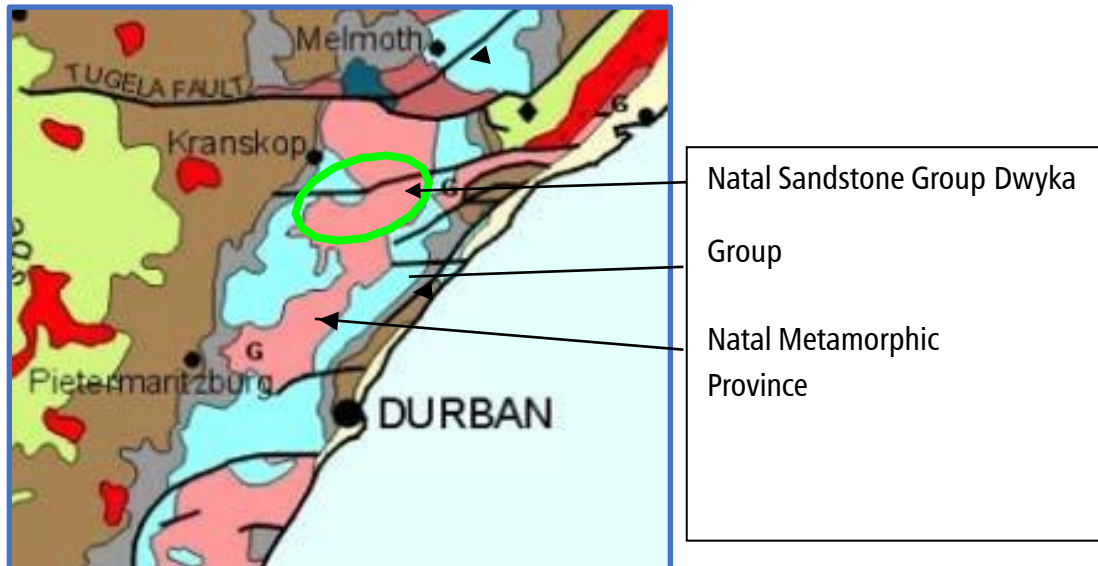
#### **(ii) Natal Group (arenite)**

In the eastern and western parts of the research region, the Ordovician Natal Group (490Ma) is exposed. It is composed of red-brown, coarse-to-fine-grained arkose to subarkose, light grey quartzarenite, micaceous sandstone, grit, conglomerate, subordinate siltstone, and mudstone (Thomas et al., 1988; Thomas, et.al 1992). Although they support a variety of terrain morphologies, these lithologies are most prevalent in the flat-lying areas west of Gingindlovu and Eshowe.

#### **(iii) The Dwyka/Ecca Group of the Karoo Supergroup (tillite and shale)**

The Dwyka and Ecca Groups of rocks cover these level plains north of Gingindlovu. While fresh, the glacial diamictites are huge, frequently structureless, dark bluish grey, and exhibit a variety of weathering traits (Johnson et.al, 2006).

Mica is abundant on the bedding surfaces of the dark grey, carbonaceous, and siltstone that make up the Pietermaritzburg Formation (Johnson et.al, 2006; Linstrom, 1987). The Vryheid Formation conformably overlies the Pietermaritzburg Formation and is composed of medium- to coarse-grained sandstone, grey micaceous shale, and coal. It can be split into the lower sandstone, coal zone, and higher sandstone (Johnson et al., 2006).



**Figure 1. 11:** The Geology of study area

Source, <http://www.geology.ukzn.ac.za/GEM/kzngeol/maponly.html>

## 2.5. Vegetation

The main vegetation type can be observed within the project is North Coast Grassland. However, where the two structures are occurring, in the main there is mostly sugarcane cover around structure no 20, and the span between structure 20 and 21, the area is either covered by sugar cane or road or residential trees and fields that are fairly covered by *Themeda triandra* grass showing recovering from agricultural activities. At some areas, *Aristida junciformis* (Ngongoni grass) was also observed. Some of the edge of cultivated areas around the site have been left fallow, where they have become infected with exotic weeds, native pioneer plants, or both.



**Figure 1. 12:** Showing grass as the dominant vegetation of the around Structure 20



**Figure 1. 13:** Showing grass as the dominant vegetation of the around Structure 21

### 3. SCREENING REPORT FOR AN ENVIRONMENTAL AUTHORIZATION AS REQUIRED BY THE 2014 EIA REGULATIONS – PROPOSED SITE ENVIRONMENTAL SENSITIVITY

#### Findings of the Screening Tool

A Screening Tool Report was generated for the proposed EGI project using the following classification: Utilities Infrastructure > Electricity > Distribution and Transmission > Powerline > Powerline.

- The descriptions and justifications given below indicate that the proposed power lines will, nevertheless, be located in an area with medium sensitivity to civil aviation.
- Hence, if the site is really determined to be of medium sensitivity during the site visit, this means that further requirements are relevant, i.e., a Compliance Statement is not required.

General Orientation: Proposed Mbongolwane 132/22KV



Figure 1. 14: General Orientation: Gingindlovu-Mbongolwane 132kV Powerline Deviation

### 3.1. SITE SENSITIVITY VERIFICATION AND MINIMUM REPORT CONTENT REQUIREMENTS UTILISED

Prior to commencing with a specialist assessment, the current use of the land and the potential environmental sensitivity of the site under consideration, identified by the screening tool, must be confirmed by undertaking a site sensitivity verification.

- The site sensitivity verification must be undertaken by an environmental assessment practitioner or a specialist.
- The site sensitivity verification must be undertaken through the use of:
  - a desktop analysis, using satellite imagery.
  - a preliminary on-site inspection; and
  - any other available and relevant information.
- The outcome of the site sensitivity verification must be recorded in the form of a report that:
  - confirms or disputes the current use of the land and environmental sensitivity as identified by the screening tool, such as new developments or infrastructure, the change in vegetation cover or status etc.
  - contains a motivation and evidence (e.g., photographs) of either the verified or different use of the land and environmental sensitivity; and
  - is submitted together with the relevant assessment report prepared in accordance with the requirements of the Environmental Impact Assessment Regulations.

### 3.2. CADASTRAL DETAILS OF THE PROPOSED SITE



**Figure 1. 15:** Map of proposed site and relevant area(s)

Property details:

**Table 1. 1:** Showing the Cadastral details of the proposed site.

No	Farm Name	Farm/ Erf No	Portion	Latitude	Longitude	Property Type
1	NZUZA	17625	0	28°57'21.17S	31°35'36.57E	Farm
2	NZUZA	17625	0	28°57'22.11S	31°35'36.22E	Farm Portion

### 3.2.1. Environmental screening results and assessment outcomes

The development incentives, limitations, exclusions, and prohibitions that apply to the proposed development site are listed in the sections that follow. Based on the findings of the site sensitivity screening for the chosen application classification, these sections also list the site's most environmentally sensitive features. The application classification selected for this report is: **Utilities Infrastructure | Electricity | Distribution and Transmission | Powerline.**

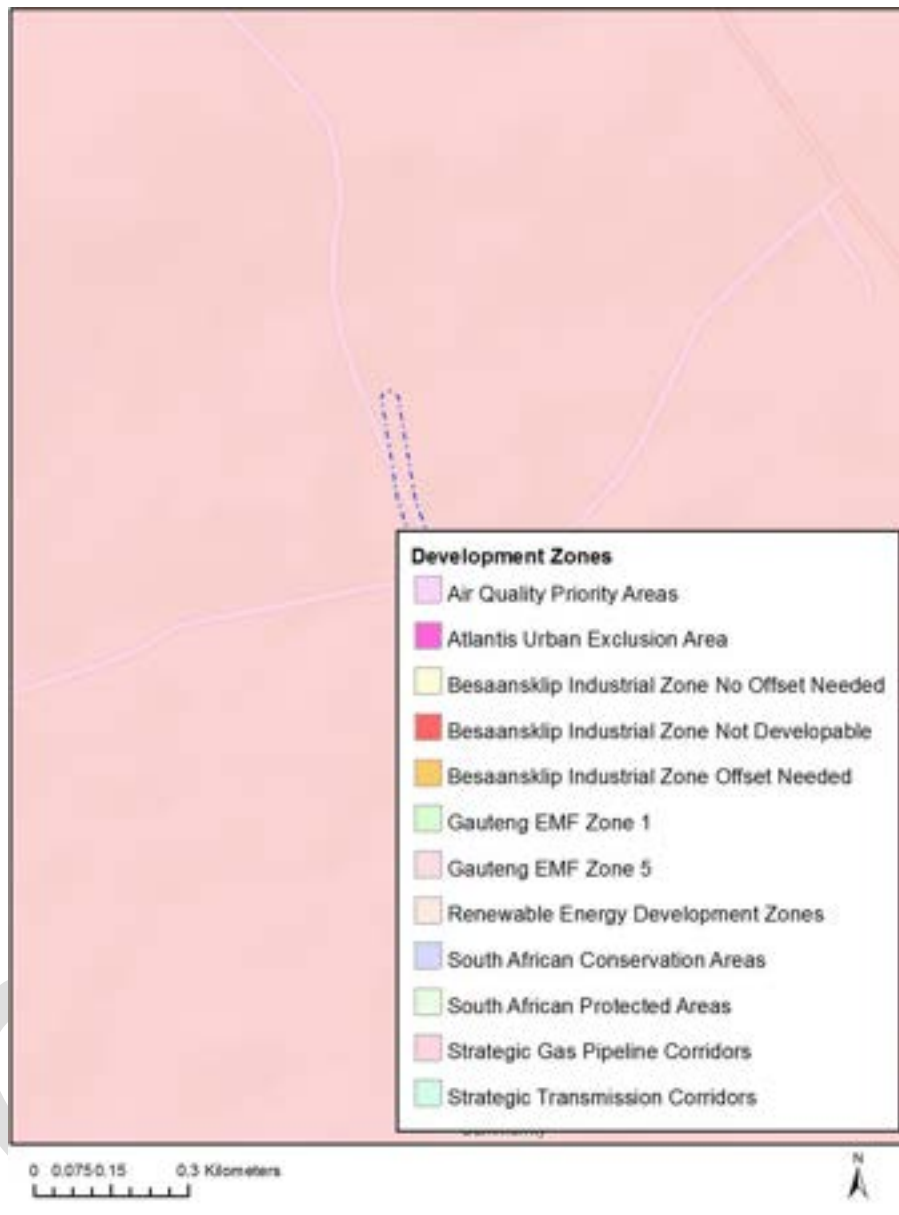
### 3.3. Relevant development incentives, restrictions, exclusions, or prohibitions

The following development incentives, restrictions, exclusions or prohibitions and their implications that apply to this site are indicated below.

**Table 1. 2:** Relevant development incentives, restrictions, exclusions, or prohibitions

Incentive, restriction, or prohibition	Implication
Strategic Transmission Corridor- Expanded Eastern Corridor	<a href="https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Combined_EGI.pdf">https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Combined_EGI.pdf</a>
Strategic Gas Powerline Structure Corridors- Phase 7: Coega to Richards Bay	<a href="https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Combined_GAS.pdf">https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Combined_GAS.pdf</a>

Map indicating proposed development footprint within applicable development incentive, restriction, exclusion, or prohibition zones.



**Figure 1. 16:** Project Location: Proposed Gingindlovu-Mbongolwane 132kV and showing that that Gingindlovu-Mbongolwane 132kV powerline deviation area falls within the Renewable Energy Development Zone

#### **Concluding Statement:**

The Web Based Environmental Screening Tools indicated that the Gingindlovu-Mbongolwane 132kV powerline deviation area falls within both Renewable Energy Development Zone as well as Transmission Strategic Corridors (EGI). Gingindlovu-Mbongolwane 132kV powerline deviation site area falls within the Strategic Transmission Corridors or what is also known as Electricity Grid Infrastructure (EGI) as gazetted by Government Notice No. 114 in Government



Gazette No. 41445. This have identified 5 strategic transmission corridors important for the planning of electricity transmission and distribution infrastructure as well as procedure to be followed when applying for environmental authorisation for electricity transmission and distribution expansion when occurring in these corridors. Gingindlovu-Mbongolwane 132kV powerline deviation is suit well with EGI project as it aims to strengthen the strategic electricity of the region to mee the energy demand.

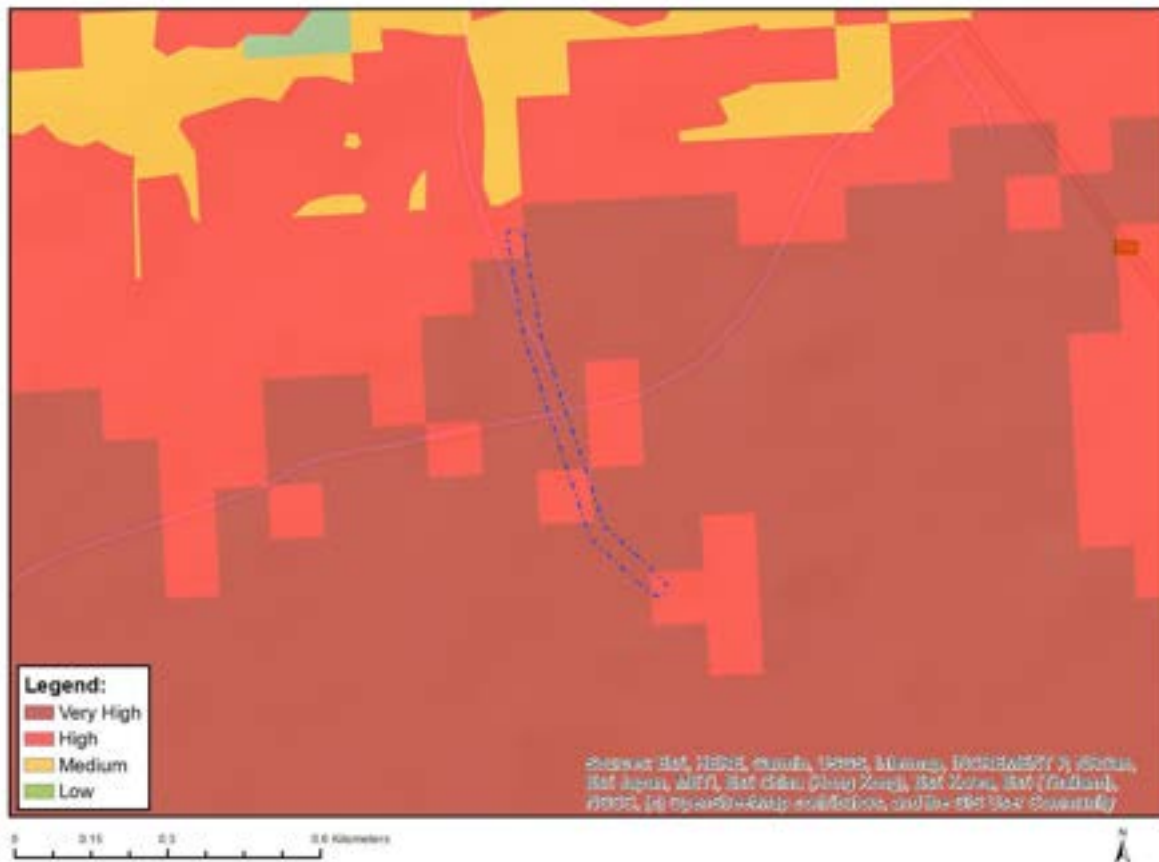
### 3.4. Assessment of the Proposed Development Area Environmental Sensitivity

The following summary of the development site environmental sensitivities is identified by the web based environmental screening tool. It only indicated the highest environmental sensitivity. The footprint environmental sensitivities for the proposed development footprint have been identified, has been verified on site by a registered EAPASA and SACNASP registered Environmental Assessment Practitioner (EAP) .

**Table 1. 3:** Showing various environmental sensitivities and their ratings as per environmental screening tool.

Theme	Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
Agriculture Theme	X			
Animal Species Theme			X	
Aquatic Biodiversity Theme				X
Archaeological and Cultural Heritage Theme				X
Civil Aviation Theme			X	
Defence Theme				X
Palaeontology Theme	X			
Plant Species Theme				X
Terrestrial Biodiversity Theme	X			

### 3.4.1. Agriculture Theme (High Sensitivity)

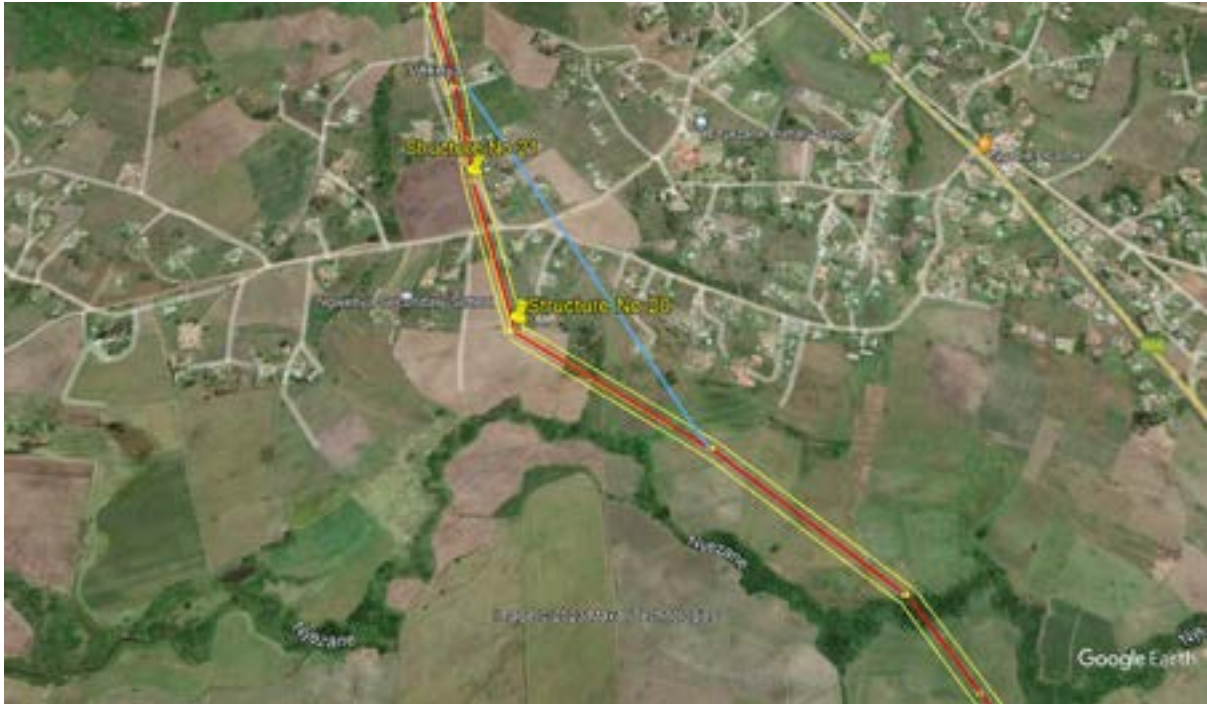


**Figure 1. 17:** Map of relative agriculture showing very high theme sensitivity as per web based environmental screening tool.

The site visit was conducted in summer for 1 day on **24 February 2023** to determine the current use of the land and the environmental sensitivity of the Gingindlovu-Mbongolwane 132kV powerline deviation under consideration, this was done in order to confirm the sensitivity information as identified by the web based environmental screening tool.

The screening tool has allocated a very high Agricultural sensitivity theme on the Gingindlovu-Mbongolwane 132kV powerline deviation. After the site visit, it is hereby confirmed that the rating given by the web based environmental assessment tool is similar to what has been suggested by the tool.

The position of structure 20 is situated in a sugar cane plantation that is active. The area seemingly is cultivated regularly and currently have high sugar cane yield. The conductors will be flying over the sugar cane plantation field. See **Figure 1.9 and 1.10** below.



**Figure 1. 18:** showing the whole area the powerline deviation traversing cultivated areas.



**Figure 1. 19:** Showing the evidence that the area has a very high agricultural potential.

The location of Structure No 20 is a fully fledged sugar cane plantation and will require about 2 square metre of sugarcane in order to make way for the structure. The google imagery of November and December 2021 indicated the site having been cultivated, and sugarcane plants were seeded in December 2021. The general area including along the stream and all other areas where the powerline will be traversing close to the deviation are also cultivated for sugarcane. The site visit has also confirmed that even on the Nyezane riverbanks, and on both sides of the river has been cultivated sugarcane.

On structure No 21 positions, the structure is also located in a field that is cultivated almost yearly for agricultural purposes. The crops are often used for subsistence purposes. Although the field was currently recovering, although it is currently recovering from agricultural activities, evidence shows that the field had been recently cultivated for crops. However, the yield may not reflect the High to very high sensitivity as suggested by the Web based environmental screening tool. This is considering the size of the field and its location with relation to the residential dwellings. The field is relatively smaller in size and also restricted by the residential dwellings and also is used for subsistence use and occasionally not cultivated throughout. On this portion, a rating of Medium to low is rather suitable. December 2022 google satellite imagery has shown this field cultivated.



**Figure 1. 20:** ALL structure positions cultivated in December of 2022

#### 3.4.1.1. Agricultural Potential Category

According to the Published in Government Notice No. 648 Government Gazette 45421 of 10 May 2019, the protocol for the assessment and reporting of environmental impacts on agricultural resources.

#### Concluding Statement:

An applicant intending to undertake an activity identified in the Scope of this Protocol on a site identified by the national web based environmental screening tool as being of "very high" or "high" sensitivity for agricultural resources must submit an **Agricultural Agro-Ecosystems Assessment**, unless the:

- Application is for a linear activity for which impacts to the agricultural resource are temporary and the land in the opinion of the soil scientist/agricultural specialist based on the mitigation and remedial measures, can be returned to the current land capability within two years of the completion of construction phase; or

- Impact on agricultural resources is from an electricity pylon which is self-supporting. In case the project is a linear activity or an Electricity Pylon that is self-supporting, which in this case the Gingindlovu-Mbongolwane 132kV powerline deviation fits to both the categories, that is the two structures are a linear activity and they are also electricity structures which are self-supporting pylons, and an Agricultural Compliance Statement is to be provided. The environmental assessment practitioner will append to the **Agricultural Compliance Statement** a motivation and evidence (e.g., photographs) of the different agricultural resource sensitivity.

### 3.5. Animal Species Theme (Medium sensitivity)



**Figure 1. 21:** Map of relative animal species theme sensitivity

The web-based environmental screening tool has given the Animal Species Theme a medium sensitivity rating. This is relevant to the alleged presence of terrestrial animal species in the study area. The medium sensitivity rating is, regrettably, hereby disputed following the site visit. In contrast to amphibians, who depend on a mix of aquatic and terrestrial habitats, terrestrial animals are those that live mostly or entirely on land. Aquatic creatures, on the other hand, dwell primarily or entirely in water. A few examples of terrestrial animals are cats, ants, dogs, spiders, lions, mice, bats, bulls, oxen, leopards, elephants, and many more. Yet, certain species of creatures only exist underground.

The web based environmental screening tool have given a Medium Sensitivity rating because of the possibility of the *Arytropteris basalis*. According to SANBI the challenge here is that Terrestrial species occurs only within coastal forest and thicket mosaics of KwaZulu-Natal Province, a region which naturally constitutes <0.1% of South Africa's surface area (~1000 km<sup>2</sup>). This biome is under anthropogenic pressure by cultivation, mining, and tourism. However, the area under study is covered only by grassland meaning that the possibility of *Arytropteris basalis* occurrence is low since the location of the two structures are cultivated more often than not. The other animal that also triggered the rating as per the screening tool Invertebrate-*Physophorina livingstonii*. According to SANBI *physophorina livingstonii* is the largest of the pneumorid species (Dirsh 1965). It is a forest dwelling species, although its host plant is unknown. The extent of forest habitat is observed to be declining within the range of the species. Likewise, the study area is not a forest rather a disturbed land due to agricultural activities of sugarcane and other crops, and in the main it will be covered by grassland more than anything else.

According to Mamba et.al 2019: Sugarcane plantations in African savannas harbour a low diversity of small mammals, with a single genus (*Mastomys* spp.) often dominating the community, but this species was not observed during the site visit. However, during the site visit, brown locust was sighted in and around the study area.

The location of structure 21 is in a field that has been recently cultivated, and it has some grass recovering from the cultivation. The field is also surrounded by the residential dwelling and access road. This on its own will not be an ideal habitat for animals, let alone abundance of animals that can warrant the site to be considered having a medium animal sensitivity. The general area maybe medium animal sensitivity, but the affected site as well as looking at the footprint of the powerline is considered to be low in as far as site visit is concerned.



**Figure 1. 22:** showing location of structure 20 where no animals were observed.



**Figure 1. 23:** Showing the location of structure 21, the field where no animals were observed except some grasshoppers.

### **Concluding Statement**

The medium rating is for the animal theme is here by disputed, and a rating of low sensitivity is therefore deemed to be appropriate for this Gingindlovu-Mbongolwane 132kV powerline deviation. In the main, the problem the monocultural type of sugarcane which contribute to loss of biodiversity, the other contributing factor is the location of both structures within the residential areas, their location proximity of the residential dwellings can easily introduce unwanted poaching and can also generally threaten terrestrial animals away. The other major contributor is the agricultural activities that occasionally practiced on site. This on its will fend off the potential animals to inhabit the site.

According to Government Notice No. 1150, government gazette 43855 of 30 October 2020. An applicant intending to undertake an activity identified in the scope of this protocol on a site identified by the screening tool as being of "low" sensitivity for terrestrial animal species must submit a Terrestrial Animal Species Compliance Statement.

Where the information gathered from the site sensitivity verification differs from the screening tool designation of "very high" or "high", for terrestrial animal species sensitivity and it is found to be of a "low" sensitivity, then a Terrestrial Animal Species Compliance Statement must be submitted. The site visit has disputed the medium rating to a low rating and Compliance Statement will therefore be submitted.

### 3.6. Aquatic Biodiversity Theme (Very High sensitivity)



**Figure 1. 24:** Map of relative aquatic biodiversity theme sensitivity

The location of structure 20 is fully covered by sugarcane as it is located within a sugarcane plantation. The river is located  $\pm 136$  metres away south of the structure. The sugarcane plantation itself is in a fairly flat surface and the construction of structure No 20 is not envisaged that it can cause any impact on the Nyezane river or its biodiversity as it is located 136 meters.





**Figure 1. 25** : Showing the direction of the river from location of structure 20, the river is at a distant



**Figure 1. 26:** The location of structure 21 is within a residential area where there is no river nearby.

#### **Concluding Statement:**

The low sensitivity rating suggested for the aquatic biodiversity theme is here by confirmed.

According to Government Notice No. 648, Government Gazette 45421 10 May 2019 3(b) - protocol for the assessment and reporting of environmental impacts on aquatic biodiversity.

#### **3.6.1. Requirements for the assessment and reporting of impacts.**

Requirements for the assessment and reporting of impacts of development on aquatic biodiversity are set out in Table below and correlate to the sensitivity ratings contained in the national web based environmental screening tool. Prior to

beginning the assessment, the current land use and the potential environmental sensitivity of the site as identified by the national web based environmental screening tool must be confirmed by undertaking an Initial Site Sensitivity Verification.

The Initial Site Sensitivity Verification must be undertaken by an environmental assessment practitioner or a registered specialist with expertise in the relevant environmental theme being considered.

An applicant intending to undertake an activity identified in the Scope of this Protocol on a site identified as being of "very high sensitivity" for aquatic biodiversity on the national web based environmental screening tool must submit an Aquatic Biodiversity Impact Assessment.

However, where the information gathered from the Initial Site Sensitivity Verification identified on this Protocol or the specialist assessment differs from the designation of "very high" aquatic biodiversity sensitivity from the national web based environmental screening tool, and it is found to be of a "low" sensitivity, an aquatic biodiversity impact assessment is not required. Because although there is Nyezane river on the southern direction of structure 20, it is located 136 metres away and the area is flat and the construction of structure 20 will not cause any threat to the aquatic biodiversity, it means Aquatic Biodiversity Compliance Statement will have to be prepared and submitted.

The EAP will provide an Aquatic Biodiversity Compliance Statement. An Environmental Assessment Practitioner will append to the Aquatic Biodiversity Compliance Statement a motivation and evidence (e.g., photographs) of the changed Aquatic Biodiversity sensitivity.

### 3.7. Archaeological and Cultural Heritage Theme (Low Sensitivity)



**Figure 1. 27:** Map of relative archaeological and cultural heritage theme sensitivity

The research area has been identified as having low sensitivity to themes related to archaeological and cultural heritage by the web-based environmental screening tool. Cultural (heritage) resources include all man-made and natural aspects that are connected to human activity, both on a physical and non-physical level. They can be isolated or found in groupings, and they include important locations, buildings, landscape elements, ecofacts, and artifacts related to the history, architecture, or archaeology of human progress. None of these were noticed during the site inspection, and none of these are anticipated to happen given the agricultural activities taking place there.

The term "archaeological site/materials" refers to any remains or indications of human activity that have been on or in a body of land for more than 100 years, including artifacts, fossilized human and hominid remains, and man-made structures and features. No archaeological artifact, assemblage, settlement (site), and no historical building or structure older than 60 years may be altered, moved, or destroyed without the necessary authorization from the South African Heritage Resources Agency (SAHRA) or a provincial heritage resources authority, in accordance with the National Heritage Resources Act (NHRA) (Act No. 25 of 1999). Yet on the site visit, none of these were seen.



**Figure 1. 28:** Location Structure 20, location fully disturbed and covered by sugarcane plantation, no evidence of archaeological or heritage resources identified.

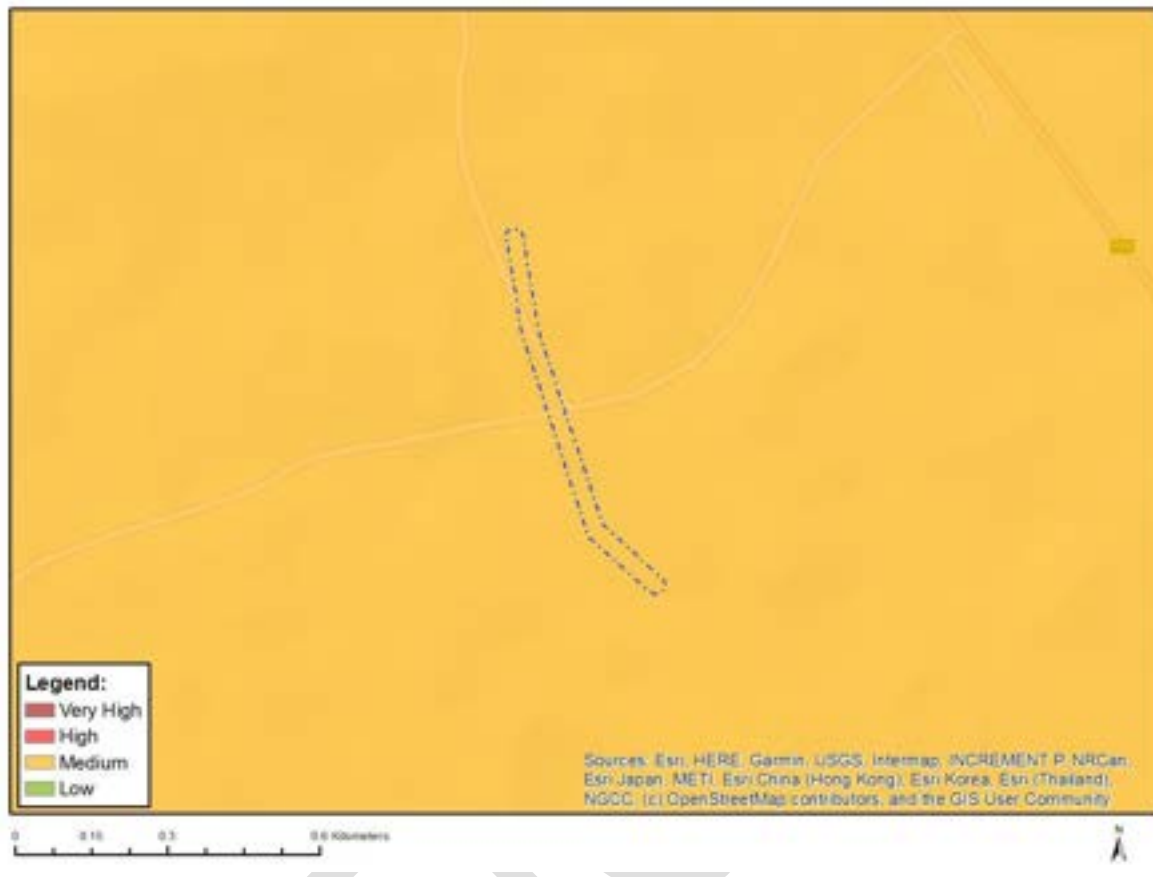


**Figure 1. 29:** Location Structure 21:  
Showing location of structure 21 disturbed by agricultural activities, no evidence of archaeological or heritage resources

### **Concluding Statement**

The low rating given by the web based environmental screening tool allocated for Archaeological and Cultural Heritage Theme is hereby confirmed. The reason for this is that no significant sites, structures, features, ecofacts and artefacts of importance associated with the history, architecture, or archaeology of human development occurrence has been identified during the site visit.

### 3.8. Civil Aviation Theme (Medium Sensitivity)



**Figure 1. 30:** Screening Tool Map showing the Gingindlovu-Mbongolwane 132kV powerline deviation Site in terms of Civil Aviation Medium Sensitivity.

In accordance with this specific protocol, prospective developments that are located on sites that are identified as having Very High, High, or Medium Sensitivity as stated on the National Web-Based Environmental Screening Tool must include a Civil Aviation Compliance Statement. Additionally, it states that no obligations will be imposed if the proposed developments occur in Low sensitivity zones as determined by the Screening Tool. Nonetheless, a Site Sensitivity Verification is required for the Civil Aviation Protocol.

Given that an EA is required, the planned EGI projects must adhere to the 2014 NEMA EIA Guidelines (as amended), and civil aviation was chosen as a relevant problem for the General Methodology on the Screening Tool as well as required research, GN 320 must be followed.

#### 3.8.1. Methodology

The methodology used to generate the Site Sensitivity Verification Procedure and Report is as follows:

- In order to locate civil aviation installations in connection to the project area and to identify preliminary areas of concern regarding impacts to civil aviation installations, spatial databases that already exist were employed.
- To determine the sensitivity assigned, the planned project sites and footprints were plotted on the screening tool.
- A site visit was conducted to confirm the present land use and environmental sensitivity with regard to civil aviation.
- To support the Site Sensitivity Verification process, more research was conducted; and
- A report on the site's sensitivity was created (i.e., in this section of the report).

**Table 1. 4:** The Site Sensitivity Verification procedure made use of the information source.

Data / Information	Source	Date	Type	Description
National Web-Based Environmental Screening Tool (Screening Tool)	Department of Environment, Forestry and Fisheries (DEFF)	2020	Spatial / Online Assessment	The Screening Tool is a geographically based web-enabled application which allows a proponent intending to submit an Application for EA in terms of the 2014 NEMA EIA Regulations (as amended) to screen the proposed site for any environmental sensitivity <sup>1</sup> .
Airport, Airfields and Obstacle Datasets	Civil Aviation Authority (CAA)	2018	Spatial Vector Dataset	Location of airfields in RSA.
Transmission Strategic Corridors (EGI) Strategic Environmental Assessment (SEA)	Department of Environmental Affairs (DEA)	2021	Report	SEA commissioned by the DFFE [identification in terms of sections 24(3), 24(5)(a) and 24(5)(b) of the National Environmental Management Act, 1998 of Expanded Geographical Areas of strategic importance for the development of electricity transmission and distribution infrastructure and of procedures to be followed when applying for or deciding on environmental authorisations for large scale electricity transmission or distribution development activities identified in terms of section 24(2)(a) of the National Environmental Management Act, 1998 when occurring in geographical areas of strategic importance

RSA Airspaces in 3D	Air Traffic and Navigation Services SOC Limited (ATNS)	2020	Google Earth KMZ File	The RSA Airspaces in 3D data KMZ file is an initiative undertaken by the ATNS to illustrate the definitions and complexities of airspace, routes, aerodromes, and navigational facilities within South Africa to the public in the interest of safety.
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In order to complete the Site Sensitivity Verification, desktop analysis, satellite imaging, a preliminary on-site examination, and other ATNS pertinent information were used.

The map of civil aviation combined sensitivity generated and included in the Screening Tool depicted that the falls within a medium sensitivity area. The medium sensitivity area is based on the following trigger:

- Other Civil Aviation Aerodrome 8 and 15 km buffer in relation to commercial scale wind energy installations.
- However, based on the descriptions and motivations provided below, the proposed Gingindlovu-Mbongolwane 132kV powerline deviation will fall within an area of Medium Sensitivity as per Screening Tool in terms of civil aviation.
- However, in terms of GN 320, no further requirements are applicable i.e., a Compliance Statement is required, since the site visit and research found the site to be of low sensitivity and it is so after reviewing all other research data sources like ATNS records.

The site visit verified that the Gingindlovu-Mbongolwane 132kV powerline deviation site, is currently used for Agricultural farming (sugarcane plantation and subsistence crops farming). The Gingindlovu-Mbongolwane 132kV powerline deviation site also has a 22kV powerline traversing the site from east to western direction supplying the local community with electricity.

- Along the proposed project footprint for Gingindlovu-Mbongolwane 132kV powerline deviation project, no civil aviation installations were discovered.

According to Air Traffic and Navigation Services SOC Limited (ATNS), RSA Airspaces in 3D the proposed site for Gingindlovu-Mbongolwane 132kV powerline deviation, there is not Aviation Installation nearby. The only Avian Installation is an airport located  $\pm 16$ km away at FAES (Eshowe Airport) and Isithebe Airport located  $\pm 17$ km away.



**Figure 1. 31:** Showing the Gingindlovu-Mbongolwane 132kV powerline deviation site with relation to nearest airport at Eshowe Airport at 16km away and Isithebe Airport located 17 kilometres away according to ATNS.



**Figure 1. 32:** Location of structure No 20, no civil aviation installations





**Figure 1. 33:** Location of structure No 21, no Civil Aviation Installations

According to ATNS, the construction of new structures and infrastructure, such as masts and power lines, near airports could potentially have an impact on flight safety. As a result, assessments must be made to see if these structures and infrastructure violate the established obstacle limitation surfaces around each airport.

Also, the Gingindlovu-Mbongolwane 132kV powerline deviation sensitivities used by the screening tool and associated infrastructure, such as the actual power lines structures, which will only be 30 m high, are used. As a result, it is anticipated that the sensitivity and impact of the Gingindlovu-Mbongolwane 132kV powerline deviation will be substantially lower.



**Figure 1. 34:** Showing the flying restriction zone of 5500 feet altitude due to mountain ranges around the site, TMACTALE FL. 145 5500'ALT.

The site is also not on any airport's flight path, according to Air Traffic and Navigation Services SOC Limited (ATNS), RSA Airspaces in 3D. Instead, it is situated in what is known as restricted air space, with a restricted flying altitude of 5500 feet above sea level, because of the extensive mountain ranges that surround it. This translates to 1.6764 kilometre's above sea level. The Gingindlovu-Mbongolwane 132kV powerline deviation and its associated infrastructure, it follows, will not in any way interfere with aviation. The Mast, at 35 meters above earth, will be the tallest structure, and any associated powerline structures will be at 30 meters above ground, which is much too low.

#### **Concluding Statement:**

The site of the Gingindlovu-Mbongolwane 132kV powerline deviation project was found to have low sensitivity (as it relates to civil aviation, the medium sensitivity is therefore disputed). It confirms the sensitivity assigned on the Screening Tool, Air Traffic and Navigation Services SOC Ltd (ATNS), RSA Airspaces in 3D, which was assessed through a site visit and based on existing databases. Based on the aforementioned, in terms of GN 320, no further obligations are necessary i.e., a Compliance Statement is not required.

An applicant intending to carry out an activity listed in the scope of this protocol for which a specialist assessment has been identified on the screening tool must submit a Civil Aviation Compliance Statement if the site is listed as having "very high," "high," or "medium" sensitivity for civil aviation, or "low" sensitivity, in which case no further assessment requirements are identified, according to Published in Government Notice No. 320 Government Gazette 43110 20 March 2020. There are no further assessment requirements for this project.

### 3.9. Defence Theme (Low Sensitivity)

This report serves as the Site Sensitivity Verification for Defence for proposed Gingindlovu-Mbongolwane 132kV powerline deviation and associated infrastructure. The proposed project is located within the EGI Expanded Eastern Corridor.



**Figure 1. 35:** Showing map of relative defence theme Low sensitivity.

The site visit confirmed that the proposed Gingindlovu-Mbongolwane 132kV powerline deviation site is dominated by agricultural activities (structure 20 will be located in an active sugarcane plantation, and structure 21 will be located within a field recovering from crops cultivated field that is also surrounded by residential dwellings in all directions. Site visit conducted found that there are no defence installations found on site or within the proposed project vicinity area and footprint for the Gingindlovu-Mbongolwane 132kV powerline deviation Site.



**Figure 1. 36:** Showing the overall look of structure 20 from north-southern direction.

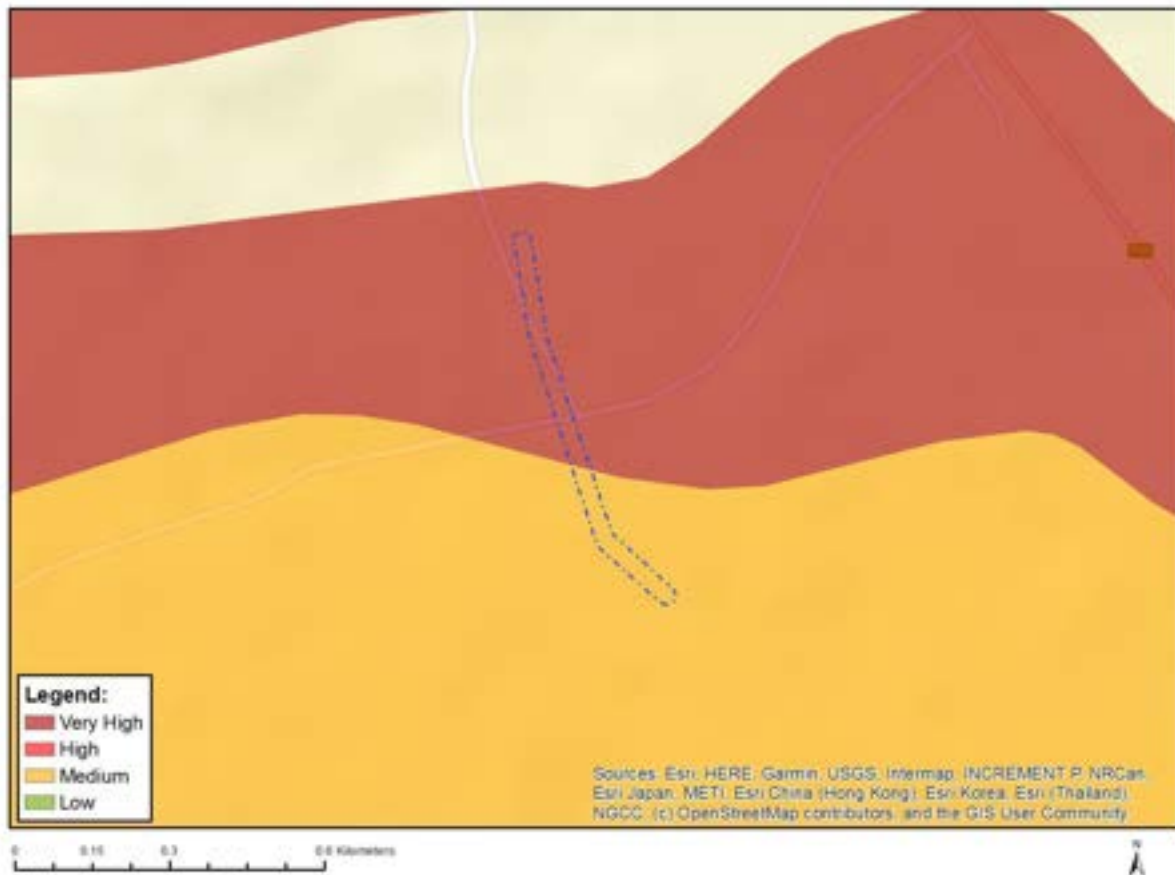
The planned project area within a 30-kilometer radius do not contain any defence installations, according to the Air Traffic and Navigation Services SOC Limited (ATNS) data. The powerline deviation project area is not shown to have any defence installations by the screening tool, which also rates the area as low sensitive.

### **Concluding Statement**

The proposed Gingindlovu-Mbongolwane 132kV powerline deviation project site was found to have low sensitivity with regard to Defence Theme, and this was confirmed (as it relates to defence installations). This verifies the sensitivity assigned on the Screening Tool and was determined through a site visit and based on already-existing databases. Based on the aforementioned, no additional requirements are relevant under GN 320, so a Compliance Statement is not necessary.

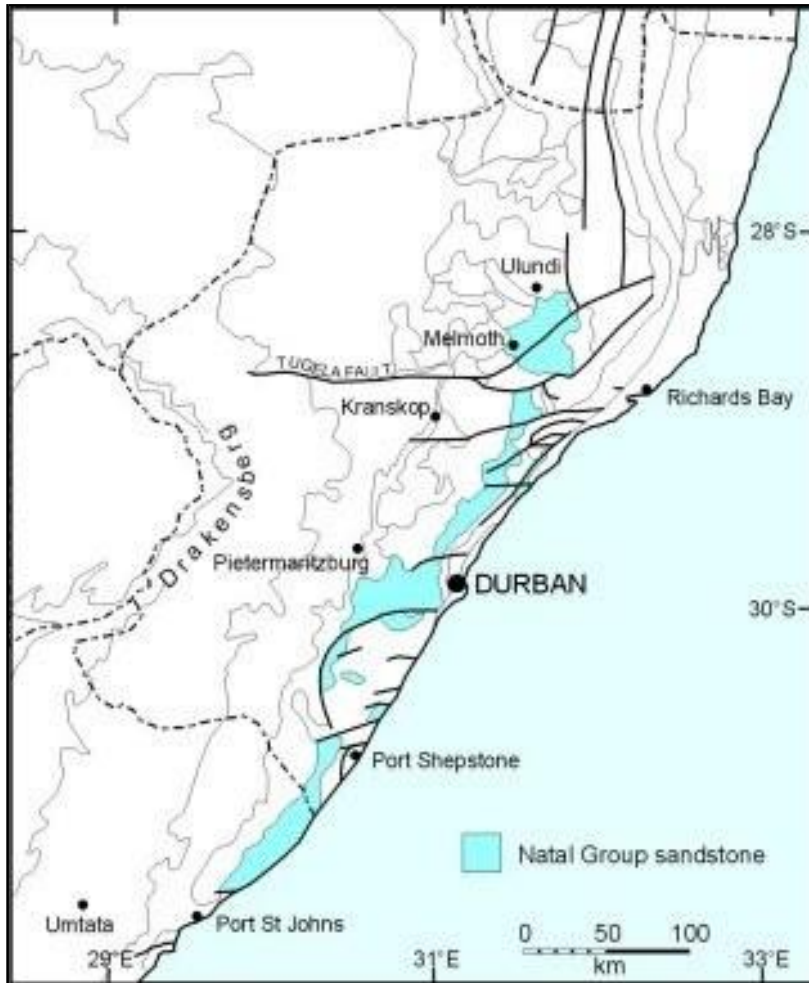
According to Published in Government Notice No. 320 Government Gazette 43110 20 March 2020, An applicant intending to undertake an activity identified in the scope of this protocol for which a specialist assessment has been identified on the screening tool: On a site identified as being of: "very high", "high" or "medium" sensitivity for civil aviation, must submit a Civil Aviation Compliance Statement; or "low" sensitivity, no further assessment requirements are identified. No further assessment is required.

### 3.10. Palaeontology Theme (Low Sensitivity)



**Figure 1. 37:** Showing map of relative Palaeontology Theme sensitivity.

The site Palaeontological theme is given a very high environmental sensitivity according to the web based environmental screening tool. The high environmental sensitivity is hereby disputed. rock units of high palaeontological sensitivity are concerned, levels of bedrock exposure within the study area are adequate; large-scale projects with high potential heritage impact are planned; and where the distribution and nature of fossil remains in the proposed project area is unknown.



**Figure 1. 38:** Outcrops of Natal Group sandstones in KwaZulu-Natal

### 3.10.1. The Dwyka Group/Natal Group Sandstone

The rocks overlying the Natal Group is a thick unit of tillite that was deposited in a glacial environment by retreating ice sheets about 300 million years ago.

The significance of potential impacts to palaeontological resources was assessed to be low sensitivity during the site visit. This means, before construction it is low sensitivity and still low after construction. It is therefore the opinion of the EAP that development of the proposed Gingindlovu-Mbongolwane 132kV powerline deviation and associated infrastructure is considered acceptable from a palaeontological perspective and hereby confirm the Low Sensitivities as stated by the Web based Environmental Screening Tool.

The combined desktop and field-based palaeontological heritage Screening and Site Sensitivity Verification Study of the proposed Gingindlovu-Mbongolwane 132kV powerline deviation Site was based on the following information resources:

- A brief project outline, kmz files, screening report and maps provided by CSIR -Environmental Management Services.
- A desktop review of (a) the relevant 1:50 000 and 1:250 000 scale topographic maps, (b) Google Earth© satellite imagery, (c) published geological and palaeontological literature, including 1:250 000 geological maps as well as (d) several previous and on-going fossil heritage (PIA) assessments in the iLembe region of KZN.

According to AMAFA (2012) the geology of the study area is mainly the Dwyka Group Formation. This rock formation is characterised by trace fossils which have been recorded from the fine-grained shales of the Dwyka Group in KwaZulu-Natal.

All of the following could potentially be found in KwaZulu-Natal.

- Trackways, produced mostly by fish and arthropods (invertebrates), have been recovered in shales from the uppermost Dwyka Group. Other trace fossils include coprolites (fossilized faeces) of chondrichthyan's (sharks, skates, and rays). Body fossils include araneous foraminifera and radiolarians (single-celled organisms), bryozoans, sponge spicules (internal support elements of sponges), primitive starfish, orthoceroid nautiloids (marine invertebrates similar to the living Nautilus), goniatite cephalopods (Eoasinites sp.), gastropods (marine snails such as *Peruvispira viperdorfensis*), bivalves (*Nuculopsis* sp., *Phestia* sp., *Aphanaia haibensis*, *Eurydesma mytiloides*), brachiopods (*Attenuatella* sp.) and palaeoniscoid fish such as *Namaichthys schroederi* and *Watsonichthys lotzi*

AMAFA further cautioned the following:

Most fossils are hidden in the bedrock and developers will only be able to assess specific reference to fossils once the topsoil has been removed and excavation has exposed the bedrock.

None of the above-mentioned palaeontological resources were not located on the deviation site. The area is most utilised for sugarcane plantation, crops cultivation, access road and residential dwellings. The rating of very high sensitivity maybe applicable to the general surrounding are, but not the powerline deviation site.

### **Concluding Statement**

The very high sensitivity is hereby disputed and a more relevant and suitable rating for the project area of low sensitivity of Palaeontological theme is hereby allocated. Considering the fact that the site has been for a while utilised for sugarcane plantation, based on the above, in terms of GN 320, no further requirements are applicable i.e., a Compliance Statement is not required.

### 3.11. Plant Species Theme (Low Sensitivity)

The Initial Site Sensitivity Verification must be undertaken through the use of:

(a) a desktop analysis, using satellite imagery; and

#### Desktop Analysis

- A review of easily accessible plans, records, and documents, including geotechnical data, was used to help identify potentially hazardous environmental conditions on site and to assist in identifying previous land uses.
- An evaluation of aerial photographs was also readily available, to assist in assessing historical land uses and conditions on and adjacent to the property.



Figure 1. 39: Showing Plant Species Theme (Low Sensitivity)

The study area where the Gingindlovu-Mbongolwane 132kV powerline deviation traverse has been through the site visit found to be an area where no natural habitat remains. And on the same note, the area was also not suspected to have the occurrence of SCC. The reason for this is that the site covered predominantly by sugarcane plantation especially on the location of the first structure No 20 deviations, however, from the edge of sugarcane field through the dwellings where powerline conductors will be flying over, the grass species *Setaria megaphylla*, and *themeda triandra*. The major



portion of the areas of study have been heavily transformed and degraded by sugarcane plantation and/or residential dwelling. The location of structure 21 has been for a while also degraded by the subsistence farming crops cultivation, this have contributed to the loss of plant species. The proposed development is not envisaged to have any impact on Species of Conservation Concern (SCC).

The low environmental sensitivity rating as depicted by the web based environmental screening tool is hereby confirmed.



**Figure 1. 40:** Showing sugarcane as the most dominant monocultural species on the location of structure 20.



**Figure 1. 41:** Showing the location of structure 21, field recovering from the recent crops' cultivation.

## Concluding Statement

The proposed Gingindlovu-Mbongolwane 132kV powerline deviation project site was found to have low sensitivity with regard to Plant Species Theme, and therefore the, the Low Sensitivity plant species theme as per national web based According to Published in Government Notice No. 1150 Government Gazette 43855 30 October 2020, protocol for the specialist assessment and minimum report content requirements for environmental impacts on terrestrial plant species.

This verifies the sensitivity assigned on the Screening Tool and was determined through a site visit and based on already-existing databases. Based on the aforementioned, no additional requirements are relevant under GN 320, so a Compliance Statement is necessary because, Published in Government Notice No. 1150 Government Gazette 43855 30 October 2020, protocol for the specialist assessment and minimum report content requirements for environmental impacts on terrestrial plant species. Its states: An applicant intending to undertake an activity identified in the scope of this protocol, on a site identified by the screening tool as being of "low" sensitivity for terrestrial plant species, must submit a Terrestrial Plant Species Compliance Statement.

### 3.12. Terrestrial Biodiversity Theme (Very High Sensitivity)



Figure 1. 42: Map of relative terrestrial biodiversity theme sensitivity

The web based environmental screening tool has allocated the very high sensitivity due to the fact that the site is considered to have a Vulnerable ecosystem. According to SANBI (2020), an Ecosystem is a dynamic complex of animal, plant and micro-organism communities and their non-living environment interacting as a functional unit.

The vulnerable ecosystem is seen as an ecosystem that inhabits species of conservation concern (SCC) – includes all species that are assessed according the IUCN Red List Criteria as Critically Endangered (CR), Endangered (EN), Vulnerable (VU), Data Deficient (DD) or Near Threatened (NT), as well as range-restricted species which are not declining and are nationally listed as Rare or Extremely Rare [also referred to in some Red Lists as Critically Rare];

The vulnerable ecosystem has been derived from the threatened ecosystem – threatened ecosystems are listed in terms of NEMBA, using the following categories: critically endangered, endangered, or vulnerable. Threatened ecosystems may include those listed in province-level biodiversity assessments. The NEMBA-listed categories align with the IUCN categories of Critically Endangered, Endangered, or Vulnerable. The NEMBA list of ecosystems can also include listed protected ecosystems, which is not an IUCN ecosystem assessment category.



**Figure 1. 43:** Showing the extent of completely transformed ecosystem from natural to purely agricultural landscape.

Site visit conducted in summer for one day on 24 February 2023 found out that the complete landscape of where the Gingindlovu-Mbongolwane 132kV powerline deviation has been transformed from natural to sugarcane plantation fields. Further study was even extended even 500 metres away to the Nyezane Riverbanks which were also found to have been heavily cultivated for sugarcane plantation. The ecosystem of the study area can no longer be referred to as vulnerable

since it already is completely transformed with the exception of the Nyezane river which in many cases seem to still be in place yet disturbed.

The clearance of vegetation for the sake of agricultural activities which serves as a habitat for animal species as well as other species have eroded the Very High Sensitivity of terrestrial biodiversity to virtually a low sensitivity. Biological diversity of flora has been heavily reduced to that of one dominant species of sugarcane. Sugarcane plantation has been known to inhabit small mammals, birds, snakes. However, these animal numbers fluctuates heavily because when harvesting and preparation of new plant is prepared, it is done through burning of fire which in itself kill many of the animals and some migrate. Meaning that sugarcane cannot be allocated a very high terrestrial biodiversity sensitivity because of these activities.

Many animals' species that normally will inhabit the area that is later cleared and cultivated for the sole purpose of planting sugarcane often never returns and the habitat has been heavily transformed, thereby significantly reducing biological diversity. In other words, sugarcane plantation terrestrial biodiversity (diversity of both plants and animals) is greatly compromised and a sensitivity rating of low is deemed appropriate. And it is for this reason that the very high sensitivity is disputed.





**Figure 1. 44:** Showing various photos of transformed site from natural to complete agricultural or residential and access roads.

### Concluding Statement

According to the Published in Government Notice No. 648 Government Gazette 45421 10 May 2019, protocol for the assessment and reporting of environmental impacts on terrestrial biodiversity. It stated that:

- An applicant intending to undertake an activity identified in the Scope of this Protocol, on a site identified as being of "very high sensitivity" for terrestrial biodiversity on the national web based environmental screening tool must submit a Terrestrial Biodiversity Impact Assessment.
- However, where the information gathered from the Initial Site Sensitivity Verification identified in section 2.1 of this Protocol or the specialist assessment differs from the designation of "very high" terrestrial biodiversity sensitivity from the national web based environmental screening tool and it is found to be of a "low" sensitivity, then a terrestrial biodiversity impact assessment is not required. This protocol applies to the Gingindlovu-Mbongolwane 132kV powerline since it is found to have Low Sensitivity after site visit and satellite imagery sources.
- In case the site is found to be of Low Sensitivity, a Terrestrial Biodiversity Compliance Statement is to be provided. An Environmental Assessment Practitioner or a suitably qualified and SACNASP registered specialist, must append to the Terrestrial Biodiversity Compliance Statement a motivation and evidence (e.g., photographs) of the changed Terrestrial Biodiversity sensitivity.

#### 4. INTRODUCTION OF TELECOMMUNICATION TOWER: AUTHORISED MBONGOLWANE SUBSTATION

Eskom intends a  $\pm 35\text{m}$  telecommunication tower within the authorised Mbongolwane substation that is yet to be built. The telecommunication tower was not part of the spec during the initial EIA study. But it has become a necessity for the proper optimum management, communication, and general operation and performance of the substation during its operational phase.

##### 4.1. Meeting with DFFE

During the first virtual Meeting dated 22 September 2022, DFFE officials requested that:

- The EAP to get a written confirmation of whether the proposed Tower is considered a listed activity by KZN Department of Economic Development, Tourism and Environmental Affairs or not.
- Whether it is considered listed or not, the EAP to send the written response to DFFE to have the response incorporated on the new Authorisation for record purposes.

Subsequently, Muzi Mdamba, from the Provincial Office (KZNDED) responsible for Mbongolwane area was contacted.

In response, he has requested that:

- When EAP/Eskom sent a response email to DFFE must copy him as well.
- That, Eskom has enquired with the provincial office in trying to ascertain whether this activity is listed or not, and the provincial office has indicated that they (Province) 'HAS NO AUTHORITY' to decide over Eskom EIA issues since Eskom is a Government Entity and the competent Authority for Eskom is the DFFE National office.
- He further requested that he also be included on this response email, so that he can also engage and respond to National that they (National) should be deciding whether the telecommunication Mast is listed or not. Province by law cannot decide over issues related to parastatals but then can only comment as I&APS.

A follow up meeting was held with the with DFFE on 25 February 2023, DFFE has requested the EAP to include the Telecommunication Mast on this Impact Assessment Report and to consider the Eskom request based on the fact that the telecommunication mast will be built within the already authorised substation. DFFE to make a decision that will also be included in the final authorisation of this impact assessment.

With regard to the Telecommunication Tower and Civil Aviation, the characteristics of the powerline deviation as explained under the Civil Aviation Theme applies here in as far as the substation is concerned. According ATNS however, Mbongolwane Substation is located 7 kilometres away from Eshowe Aerodrome (FAES). However, because Mbongolwane area is mountainous, and Eshowe is rather flat, According to Air Traffic and Navigation Services SOC

Limited (ATNS), RSA Airspaces in 3D the proposed site for Mbongolwane 20 MV, the site not on the airport's flight path. Instead, the substation will be situated in what is known as restricted air space, with a restricted flying altitude of 5500 feet above sea level, because of the extensive mountain ranges that surround it. This translates to 1.6764 kilometre's above sea level. The Mbongolwane substation just like the powerline and its associated infrastructure will not in any way interfere with Eshowe FAES Aerodrome. The Mast, at 35 meters above earth, will be the tallest structure, and any associated powerline structures will be at 30 meters above ground, which is much too lower than the suggested 1.6764-kilometre altitude.

## 5. PUBLIC PARTICIPATION PROCESS

Public Participation is a process that is designed to enable all interested and affected parties (I&APs) to voice their opinions and concerns that enable the practitioner to evaluate all aspects of the proposed development, with the objective of improving the project by maximising its benefits while minimising the adverse effects. I&APs include all interested stakeholders, technical specialists, and the various relevant organs of state (Annexure 4) who work together to produce better decisions.

Public Participation plays an important role in the compilation of environmental reports as well as the planning, design, and ultimately the implementation of the project. Public Participation is a process leading to informed decision-making, through joint effort by the proponent (Eskom), technical experts, governmental authorities, and systematically identified I&APs.

The purpose of the public participation process for the Gingindlovu-Mbongolwane Powerline Deviation was:

- to ensure inclusivity (the needs, interests and values of I&APs must be considered in the decision-making process by DFFE).
- to focus on issues relevant to the project, and issues considered important by I&APs and key stakeholders
- to identify issues and concerns of key stakeholders and I&APs with regards to the application
- to inform I&APs and key stakeholders of the proposed application and environmental studies.
- to initiate meaningful and timeous participation of I&APs.
- to promote transparency and an understanding of the project and its potential
- to provide a structure for liaison and communication with I&APs and key stakeholders.

- to provide information used for decision-making.
- to provide responses to I&AP queries.

The following process was undertaken to facilitate the public participation for the proposed project:

### 5.1. PUBLIC PARTICIPATION PROCESS DETAILS

<b>Newspaper Names</b>	1. isiZulu – Isolezwe Newspaper 2. English – Zululand Observer Newspaper
<b>Date Published</b>	Thursday, 01 June 2023
<b>Site Notices</b>	03 A2 size Site Notices were placed on site
<b>Date Site Notices Placed</b>	June 01, 2023 –July 07, 2023
<b>Public Open Day Meeting</b>	22 July 2023
<b>Background Information Documents</b>	Background Information Documents were sent to I&APs via email, and some who did not have emails were given hard copies.

**Table 1.5:** Process was undertaken to facilitate the public participation

### 5.3. Newspaper Advertisement

An advertisement, notifying the public of the Environmental Authorisation application and Impact Assessment Process, and requesting Interested and Affected Parties (I&APs) to register their comments with Ourbiosphere Environmental (Pty) Ltd, The isiZulu advert was placed on Isolezwe newspaper and the English advert was placed in the Zululand Observer on June 01, 2023 -see Appendix 11. The advertisement was placed in accordance with regulation 41(2) (c) of the Impact Assessment Regulations of 2014 (as amended). The isiZulu Newspaper advertisement was made on Isolezwe Newspaper and the English advertisement was made on Zululand Observer Newspaper.



**ISAZISO NGOHLELO LOKUCWANINGA UKUVIKELA EZEMVELO ELAZIWA NGOKUTHI UKWAKHIWA KWENQALASIZINDA YOKUHAMBISA UGESI (ELECTRICITY GRID INSTRUCTURE- EGI)**

Lesi saziso sikhishwa ngoko Mthetho-mgomo 40(3) wemigomo eshicilelwe kwi Saziso sikaHulumeni No. R982 nakwisigaba 41(c)(i) sifundwa ngokuhlenganiswa nesigaba 43 soMthetho kazwelonke wezokunakelwa nokuphathwa kwezemvelo (umthetho 107 ka 1998), mayelana nenhloso yokwenza lomsebenzi olandelayo:

**DFFE EGI REF NO: 2023-01-0009**

Umsebenzi kanye nendawo: Kuhlongozwa ukuphambuka kukalayini kagesi ngama mitha awu 873m endaweni yaseVekeya kulayini ogunyaziwe osuka eGingindlovu usiya eMbongolwane, lolayini unamandla awu 132 kV. Futhi kuhlongozwa ukwenezelwa kombhoshongo wezokuzhumana ozokwakhiwa phakathi esiteshini sikagesi iMbongolwane ongaphezu kamamitha awu 35 ubude. UMnyango Wezamaqhathi, Ezokudoba kanye Nezemvelo wakhipha imvume yokwakha lesiteshi ngaphansi kwenombolo (DFFE) : 14/12/16/3/3/1/1918.

Starting Point	Middle Point	End Point
S: 28°59'23.42" E: 31°33'19.02"	S: 28°59'23.11" E: 31°33'11.83"	S: 28°59'07.46" E: 31°33'07.19"

Lo msebenzi uzoqoka ukuphambuka kukalayini osugunyaziwe obizwa nge Gingindlovu-Mbongolwane 132kV ngezixobo ezimbili buqamama nezindlu zabantu endaweni yase Vekeya, kuzophinde futhi kwakhiwe umbhoshongo wezokuzhumana ongamamitha acishe adule u 35 ngaphakathi esiteshini sikagesi iMbongolwane.

**Proponent:** Eskom Distribution (Eskom, KwaZulu-Natal Operating Unit)  
**Umhlongetsi:** Eskom Distribution (Eskom, KwaZulu Natal Operating Unit)  
**Consultants:** Ourbiosphere Environmental (Pty) Ltd  
**Umcwaningi:** Ourbiosphere Environmental (Pty) Ltd  
**Thinta:** Musa Netshivhambe

**Umhlangano womphakathi:** 22<sup>nd</sup> June 2023  
**Indawo:** Ngwenya Secondary School  
**Isikhathi:** 09H30am to 16h00pm  
**Venue GPS Coordinates:** S: 28°59'21.38" and E: 31°33'03.64"  
**Usuku lokugcina lokufaka imibono:** 1<sup>st</sup> July 2023 (23:59pm)  
**Contact:** Musa Netshivhambe  
**Cell:** Tel: 073 977 9414  
**Fax:** 086 567 5523  
**Email:** musa@ourbiosphere.co.za

Ukuqinisekisa ukuthi uyafakwa kuhlulwabantu abanentshisekelo futhi abethintekayo iloku okuhlongozwayo, sicela uthumele igama lakho, nemininigwane yokuthinteka kwakho email: musa@ourbiosphere.co.za, Cell: 073 977 9414 zingakapheli izinsuku ezingama-30 kusukela ngelanga lesikhangiso. Usuku lokugcina lokuletha imiboni ngumhlaka 1<sup>st</sup> July 2023 nge hora 23:59.

**ISAZISO NGOHLELO LOKUCWANINGA UKUVIKELA EZEMVELO ELAZIWA NGOKUTHI UKWAKHIWA KWENQALASIZINDA YOKUHAMBISA UGESI (ELECTRICITY GRID INSTRUCTURE- EGI)**

Lesi saziso sikhishwa ngoko Mthetho-mgomo 40(3) wemigomo eshicilelwe kwi Saziso sikaHulumeni No. R982 nakwisigaba 41(c)(i) sifundwa ngokuhlenganiswa nesigaba 43 soMthetho kazwelonke wezokunakelwa nokuphathwa kwezemvelo (umthetho 107 ka 1998), mayelana nenhloso yokwenza lomsebenzi olandelayo:

Figure 1.45: Showing the isiZulu Newspaper advert.

Thursday, June 09 2022 SOLEZWE KZN

WISCELLANEOUS SALES
WISCELLANEOUS SALES
BUSINESS
BUSINESS
RECRUITMENT
RECRUITMENT
LIQUOR ACT
LIQUOR ACT

**S.A.P.S GUNSHOP**  
SPECIALS 41 Trunk 400 ROOM 4000  
**JOHN WICK**  
1000000  
211 1000000  
211 1000000

**CHARLIE'S ANGELS**  
1000000  
1000000  
1000000

**JOHN WAYNE**  
1000000  
1000000  
1000000

031 808 8888  
031 808 8888  
031 808 8888

**ACCOUNTING & TAX CONSULTANTS**  
Your Business Driver

Competitively Accounting and Tax Services  
• Preparation of Financial Statements, Wages a/c  
• Company & Personal Income Tax Submissions  
• Tax Clearance & Filing of All SARS Returns  
• VAT, BEE Cert, PAYE, CODA, COB Registrations  
• Shell & VET Shell Companies - Ready to Trade  
• Company Re-instatements & Amendments done  
• Payroll, Letter of Drawings, DO, Needs Loan Assistance

**General workers / cleaners needed**  
Send your resume  
031 808 8888

**LEGAL SERVICES**

**LEGAL SERVICES**

**ANNEXURE D**  
NOTICE TO DISPLAY INTENTION TO APPLY FOR  
LIQUOR LICENCE IN TERMS OF  
SECTION 40(1) LIQUOR ACT, 1959  
(ACT NO. 9 OF 1959)  
KZN(LA)  
(TO BE DISPLAYED IN A PROMINENT PLACE AT  
USING A NOTICE BOARD 90 x 90 IN SIZE)  
Name and surname of the applicant:  
Carmel Louw  
Category of license applied for:  
On 30 Licenses (Manufacture)  
Type of premises for which license is  
applied for: Liquor Store  
Trading name of the premises:  
4 Area Liquor  
Address of the premises:  
101 231 Lighthouse Drive  
Langebaan, KZN 3175  
Date of display: 01 June 2022  
Expiry date of display: 04 July 2022  
NB: Objections should be lodged with the local  
committee in the district from where the application  
was received within 14 days from the date of the display.  
KZN LIQUOR AUTHORITY  
101 231 LIGHTHOUSE DRIVE  
LANGEBAAN, KZN 3175  
031 808 8888

**EMPIRE LODGE**  
From R200  
• Aircon  
• En-suite  
• TV  
• Parking  
• 24HR security  
1000000  
1000000  
1000000

**2004 TOYOTA SIYAYA 2.2 Y SUPER 16 HI-ACE**  
Petrol, School Transportation Bus, Very good condition. No installations Required. Private Seller.  
**R43 000 Cash price**  
Contact 078 770 2211

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**USED CARS**

**USED CARS**

**USED CARS**

**USED CARS**

**USED CARS**

**USED CARS**

**USED CARS**

**USED CARS**

**USED CARS**

**USED CARS**

**USED CARS**

**USED CARS**

**UDINGA IMOTO**  
Zingaphico kaKa  
99 Udinga  
031 808 8888

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**2007 TOYOTA BRAVA**  
CASH R98 000  
DEPOSIT R15 000

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**2017 TOYOTA AVANZA 1.5 SX**  
7 Seater  
Immaculate condition with all paperwork available. Accident free, No scratches on board.  
**R45 000 Cash**  
Contact 093 815 9339

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**PROPERTY FOR SALE**

**THOLA ISIXAPHAZISO**  
Call Now 072 144 1262  
201 Dorset House,  
265 Ashton Lane/6th  
Street, Durban

**EDUCATION & TRAINING**

**EDUCATION & TRAINING**

**EDUCATION & TRAINING**

**EDUCATION & TRAINING**

**EDUCATION & TRAINING**

**EDUCATION & TRAINING**

**EDUCATION & TRAINING**

**EDUCATION & TRAINING**

**EDUCATION & TRAINING**

**EDUCATION & TRAINING**

**There's WARMTH In Classified advertising**

Classified advertising provides the hottest leads for your residential search.

Whether you're looking for a flat or a cosy cottage -

Classified offers the options to warm up your search

**Classifieds**  
031 308 2004

**TRANSFORMATION FUND**  
NATIONAL GOVERNMENT  
ANNOUNCEMENT  
The National Government has announced that it is launching a new initiative to support the economic recovery of South Africa through the provision of financial assistance to small and medium enterprises (SMEs) and micro-businesses. The initiative is part of the government's broader strategy to create jobs and stimulate economic growth. For more information, visit the website: [www.transformfund.gov.za](#)

**PUBLIC NOTICES**

**PUBLIC NOTICES**

**PUBLIC NOTICES**

**PUBLIC NOTICES**

**PUBLIC NOTICES**

**PUBLIC NOTICES**

**PUBLIC NOTICES**

**PUBLIC NOTICES**

Figure 1.45: Showing newspaper advertisement

**NOTICE OF IMPACT ASSESSMENT PROCESS  
(ELECTRICITY GRID INFRASTRUCTURE-EGI)**

Notice is hereby given in terms of Regulation 40(3) of the regulations published in Government Notice No. R 982 and Section 41(c)(i) read together with Section 43 of the National Environmental Management Act (Act 107 of 1998) of intent to carry out the following Activity:

**DFFE EGI REF NO:2022-09-0009**

**Activity & Locality:** The proposed deviation of the 132kv power line at Vekeya on the authorised Gingindlovu-Mbongolwane 132kV from Gingindlovu to Mbongolwane substation and addition of a ±35 metre telecommunication tower at the authorised Mbongolwane Substation.  
DEA Environmental Authorisation NO: 14/12/16/3/3/1 /1918

Starting Point	Middle Point	End Point
S: 28°59'23.42" E: 31°33'19.02"	S: 28°59'23.11" E: 31°33'11.83"	S: 28°59'07.46" E: 31°33'07.19"

The activity will include the deviation of the authorised Gingindlovu-Mbongolwane 132kV powerline by two Electricity Lattice Structures away from residential house's at Vekeya Village and the addition of a ±35 metre telecommunication tower at the authorised Mbongolwane Substation.

**Proponent:** Eskom Distribution (Eskom, KwaZulu-Natal Operating Unit)  
**Consultants:** Ourbiosphere Environmental (Pty) Ltd  
**Contact:** Musa Netshivhambe  
**Tel:** 073 977 9414 **Fax:** 086 567 5523  
**Email:** [musa@ourbiosphere.co.za](mailto:musa@ourbiosphere.co.za)

**Public Open Day Meeting:** 22 June 2023  
**Venue:** Ngwenya Secondary School (Vekeya Village)  
**Time:** 09H30am to 16h00pm  
**Venue GPS Coordinates:** S: 28°59'21.41" and E: 31°33'03.65"

**Deadline for Comments Submissions:** 06 July 2023 (23:59pm)

To ensure that you are identified as an Interested and/or Affected Party (I&AP) **ONLY in terms of the IA process**, please submit your name, contact information and Interest (comments) to **email: [musa@ourbiosphere.co.za](mailto:musa@ourbiosphere.co.za)**  
**Tel: 0739779414** within 30 days from publication of this notice. **Deadline for Comments 06 July 2023 at 23:59pm**

Figure 1.46: Showing the English Newspaper Advert

## 24 ZO CLASSIFIEDS

2 JUNE 2023

**8500**  
PROPERTY TO LET

**8501**  
ESTATE AGENCIES

**FOSPROPS**  
PROPERTY  
SHOPS, OFFICES & FACTORIES TO LET / FOR SALE  
E/Reg: 035 789 8593  
Empr: 035 772 4011  
HOUSES/FLATS TO LET/FOR SALE  
E/Reg: 035 789 1481  
Empr: 035 772 4011  
BODY CORPORATE ADMINISTRATION  
E/Reg: 035 789 6730  
Empr: 035 772 4011

**8515**  
FLATS/UNITS TO LET

**BRAND NEW GOLF COURSE FLAT**  
Central Empangeni, 200m from the sea, security, 24/7 electricity, water, sewage, internet and TV.  
083 430 5074

**8520**  
OFFICES & SHOPS TO LET

**EXPANDED CENTRAL BUSINESS OFFICE PREMISES TO LET**  
200m from the sea, security, 24/7 electricity, water, sewage, internet and TV.  
083 430 5074

**8700**  
MOTORING

**8710**  
COMMERCIAL VEHICLES

**COMMERCIAL VEHICLES**  
200km from the sea, security, 24/7 electricity, water, sewage, internet and TV.  
083 430 5074

**8740**  
USED CARS

**Beware, do not pay any money in advance for any cars and trucks advertised privately. Don't pay any holding deposits or full payments before seeing the vehicle.**  
Sizuka oziphele, ungapheli ngokukhetha imali emva okhona izinkonzo ezinokuba abangaphila ngaphantsi. Ungapheli ukukhetha imali yezinkonzo emva okhona imali ephela ngokukhetha izinkonzo ezinokuba abangaphila ngaphantsi.

**1800**  
VACANCIES

**1802**  
ACCOUNTING

Bookkeeper required for busy workshop to control admin.  
• Must be computer literate  
• Debtors, Creditors, E-Filing, Quotes etc.  
• Pleasant personality  
Contact: 083 625 8778

**1817**  
GENERAL

Company seeking services of a receptionist  
• General Admin duties with knowledge of computer skills  
• With minimum 2 years experience  
Email CV to: info@melomed.co.za

**HIV**  
"I thought you'd never help me"

**858**  
MANAGEMENT

LODGE MANAGEMENT INTERIM POSITION AVAILABLE  
INTERESTED SEND CV TO: recruiting@officer 488@gmail.com

**• VACANCIES •**

**WE ARE HIRING!**

Medical secretary / receptionist required for specialist practice at Melomed Hospital  
email CV to: [vacancymelomed@gmail.com](mailto:vacancymelomed@gmail.com)

**• VACANCIES •**

**KZ 281**  
ADVERTISEMENT

Applications are invited from suitably qualified applicants for the permanent position which exist within Mthonjaneni Local Municipality

**EXECUTIVE SECRETARY/ MUNICIPAL MANAGER**  
SALARY: 167 712.36 (Excl benefits)  
TASK GRADE LEVEL 7 OF A CATEGORY 1 MUNICIPALITY  
PERMANENT POSITION

**REQUIREMENTS:** Grade 12 + Computer Literacy, MS Office + 2-6 years relevant Secretarial/Administrative experience.

**RESPONSIBILITIES:**

- Scheduling and planning executive diary and events (working with superior in establishing the priorities for scheduling purposes, to interact internally and externally to confirm arrangement and programmes, confirming travel and accommodation details, attending to specific business arrangements and bookings on itineraries prior to departure, co-ordinating all protocol requirements for internal executive's events and functions)
- Provision of administrative and secretarial support (searching for information on specific topics using the internet and library resources, copying, typing and formatting the documents and routine reports and create presentations using related office applications; providing support during the Management meetings by recording discussions and resolutions with regard to agenda items, penning Council and Committee agendas and minutes of meetings and forwarding items requiring attention of the superior)
- Information record keeping (updating the correspondence register inserting reference numbers of correspondence received, retaining source documentation and seeking approval on the destruction of old & out dated correspondence)
- Reception/ telephone and office support (answering to telephone calls and visitors, recording details of enquiries, messages in the absence of the superior, maintaining stocks of standard forms, stationary and completing requisition orders to facilitate the replenishment of items prior to depletion)

Applications consisting of a Comprehensive CV in English and completed application form, certified copies of ID and qualifications should be deposited in the Municipal CV Box which is located at the Council Chamber building at No. 25 Bredeba Street, Kwa-Mbongolwane, 3915 or be addressed to the Municipal Manager, P. O. Box 99 Kwa-Mbongolwane 3915 on or before 21<sup>st</sup> of June 2023 Application forms are obtainable at the reception or at the Mthonjaneni Municipal website: [www.mthonjaneni.gov.za](http://www.mthonjaneni.gov.za) Failure to attach the required documentation will lead to your application being disqualified.

Enquiries may be directed to the Human Resources Officer, Ms NC Mngomezulu at (035) 580 - 5421. The Municipality subscribes to an Affirmative Action Programme, which is non-racial, non-sexist, and non-discriminatory and based on merit. Should you not hear from the Municipality within 30 days of the closing date of the advert, please consider your application as being unsuccessful.

MR L.S. JOI  
MUNICIPAL MANAGER

**Mthonjaneni Local Municipality**

**FINAL NOTICE TO OBJECT TO THE PROPOSED DEVIATION OF THE 132KV POWERLINE FROM THE 132KV OCHENI SUBSTATION TO THE 132KV OCHENI SUBSTATION**

Notice is hereby given that, in terms of section 40(3) of the Environmental Information Act 2014 (Act 20 of 2014), the proposed deviation of the 132KV powerline from the 132KV Ocheni Substation to the 132KV Ocheni Substation is hereby advertised for public comment. The proposed deviation of the 132KV powerline from the 132KV Ocheni Substation to the 132KV Ocheni Substation is hereby advertised for public comment. The proposed deviation of the 132KV powerline from the 132KV Ocheni Substation to the 132KV Ocheni Substation is hereby advertised for public comment.

**• VACANCIES •**

**NOTICE OF IMPACT ASSESSMENT PROCESS (ELECTRICITY GRID INFRASTRUCTURE-EGI)**

Notice is hereby given in terms of Regulation 40(3) of the regulations published in Government Notice No. R 582 and Section 41(3) read together with Section 43 of the National Environmental Management Act (Act 107 of 1998) of intent to carry out the following Activity:

**DPFE EGI REF NO:2022-09-0009**

**Activity & Locality:** The proposed deviation of the 132kv power line at Weyers on the authorized Gingindlovu-Mbongolwane 132KV from Gingindlovu to Mbongolwane substation and addition of a 225 metre telecommunication tower at the authorized Mbongolwane Substation, DEA Environmental Authorisation No: 1413/16/30/1/7918

Starting Point	Middle Point	End Point
S: 29°50'23.42"	S: 29°50'23.11"	S: 29°50'07.46"
E: 31°33'16.02"	E: 31°33'11.83"	E: 31°33'07.59"

The activity will include the installation of the authorized Gingindlovu Mbongolwane 132KV powerline by two Electricity Lattice Structures away from residential houses at Weyers Village and the addition of a 225 metre telecommunication tower at the authorized Mbongolwane Substation

**Proponent:** Eskom Distribution (Eskom, KwaZulu-Natal Operating Unit)  
**Consultants:** Outrighters Environmental (Pty) Ltd  
**Contact:** Musa Ntshuhamba  
**Tel:** 071 077 0414 **Fax:** 086 567 5523  
**Email:** [musa@outrighters.co.za](mailto:musa@outrighters.co.za)

**Public Open Day Meeting:** 22 June 2023  
**Venue:** Ngwenya Secondary School (Weyers Village)  
**Time:** 09H00am to 10H00pm  
**Venue GPS Coordinates:** S: 29°50'21.41" and E: 31°33'03.85"

**Deadline for Comments Submissions:** 06 July 2023 (23:59pm)

To ensure that you are identified as an interested and/or Affected Party (I/AAP) ONLY in terms of the IA process, please submit your name, contact information and interest (comments) to email: [musa@outrighters.co.za](mailto:musa@outrighters.co.za) Tel: 0710779414 within 30 days from publication of this notice. **Deadline for Comments:** 06 July 2023 at 23:59pm

**NOTICE OF IMPACT ASSESSMENT PROCESS (ELECTRICITY GRID INFRASTRUCTURE-EGI)**

**DPFE EGI REF NO: 2023-01-0006**

**Activity & Locality:** The proposed project will entail the location change of the new 20MVA 132/20KV Ocheeni Substation on the authorized 20MVA 132/20KV OCHENI Substation and associated 21km 132KV power line in Mthunjaneni within Mthunjaneni Local Municipality in the KwaZulu-Natal Province, DPFE Environmental Authorisation No: 13-12/20/271/AM3

**Substation Project Boundary Coordinates:**

North-West Corner	North-East Corner	South-West Corner	North-East Corner
S: 29°08'45.85"	S: 29°08'45.05"	S: 29°08'48.71"	S: 29°08'51.22"
E: 31°02'49.46"	E: 31°02'47.64"	E: 31°02'52.79"	E: 31°02'55.33"

Eskom Distribution in KwaZulu-Natal Operating Unit has appointed Outrighters Environmental to undertake the application process for the change of location of the Ocheni Substation in terms of the Electrical Grid Infrastructure process in the Department of Forestry, Fisheries and Environment in compliance with regulation 41 of the NEMA-EIA Regulations, you are invited to following public meeting:

**Proponent:** Eskom Distribution (Eskom, KwaZulu-Natal Operating Unit)  
**Consultants:** Outrighters Environmental (Pty) Ltd  
**Contact:** Musa Ntshuhamba  
**Tel:** 071 077 0414 **Fax:** 086 567 5523  
**Email:** [musa@outrighters.co.za](mailto:musa@outrighters.co.za)

**Public Open Day Meeting:** 21 June 2023  
**Venue:** Mthunjaneni Community Hall Durbanville (KwaZulu-Natal)  
**Time:** 09H00am to 10H00pm  
**Venue GPS Coordinates:** S: 29°08'21.41" and E: 31°33'03.85"

**Deadline for Comments Submissions:** 06 July 2023 (23:59pm)

To ensure that you are identified as an interested and/or Affected Party (I/AAP) ONLY in terms of the IA process, please submit your name, contact information and interest (comments) to email: [musa@outrighters.co.za](mailto:musa@outrighters.co.za) Tel: 0710779414 within 30 days from publication of this notice. **Deadline for Comments:** 06 July 2023 at 23:59pm.

Figure 1.47: Showing the English Newspaper Advertisement as advertised on Zululand Observer.

#### **5.4. Site Notices**

In order to inform surrounding communities and adjacent landowners of the proposed development, site notice boards in accordance with regulation 41(2)(a) and 41(3) of the Impact Assessment Regulations (as amended) were placed at the following locations on June 01, 2023: The site notice was written in both English and isiZulu. There were 03 A2 Size site notices, that were placed on various villages that are affected by the project.

# ISAZISO NGOHLELO LOKUCWANINGA UKUVIKELA EZEMVELO ELAZIWA NGOKUTHI UKWAKHIWA KWENQALASIZINDA YOKUH AMBISA UGESI

## NOTICE OF IMPACT ASSESSMENT PROCESS (ELECTRICITY GRID INFRASTRUCTURE PROCESS -EGI)

Lesi saziso sikhishwa ngoko Mthetho ngqomo 4003) wemigomo eshicilelwe kwi Saiso sikhululweni No. 9982 nakwengqubo 41(5)(b) sifundwa ngokuhlangelelwa nesigaba 43 soMthetho kuzwelonke wezokusivikela nokuphaziswa kwemvelo (santetho 107 ka 1998), mayelana neMlazo yokwenza iimezibeni elandelayo:

Notice is hereby given in terms of Regulation 4003) of the regulations published in Government Notice No. R 982 and Section 41(5)(b) read together with Section 43 of the National Environmental Management Act (Act 107 of 1998) of intent to carry out the following Activity:

**DIFFE EGI REF NO: 2023-01-0009**

**Umsebenzi kanye nendawo:** Kuhlalongozwa ukuphambuka kukalayini kagesi ngama mitha awu 873m endaweni yaseVekeya kulayini opapayative oquka eGingindlovu usiya eMbongolwane, ibayini unamandla awu 132 kV. Futhi kuhlalongozwa ukwenziwa kombushongo wezokuhamba ozokwakhiwa phakathi esiteshini sikagesi eMbongolwane ongaphesha kanamitha awu 35 abude. UMnyango WezamaMlazi, Ezokudisa kanye nemvelo wakhiwa imvume yokwika lesiteshi ngaphansi kwenombolo (DPE) : 14/12/16/3/3/1/1918.

**Activity & Locality:** The proposed deviation of the 132kV power line for about 873m at Vekeya on the authorised Gingindlovu-Mbongolwane 132kV from Gingindlovu to Mbongolwane Substation and addition of a ±35 metre telecommunication tower at the authorised Mbongolwane Substation. DEA (Environmental Authorisation No: 14/12/16/3/3/1/1918)

**Project Coordinates Details:**

Starting Point	Middle Point	End Point
S: 28°59'23.42"	S: 28°59'23.11"	S: 28°59'07.46"
E: 31°33'19.02"	E: 31°33'11.83"	E: 31°33'07.19"

Lo msebenzi uzoquka ukuphambuka kukalayini kagesi ngama mitha awu 873m endaweni yase Vekeya, kuzwelonke futhi kwakhiwe umbushongo wezokuhamba ongimamitha acinane adalwe u 35 ngaphakathi esiteshini sikagesi eMbongolwane.

The activity will include the deviation of the authorised Gingindlovu-Mbongolwane 132kV powerline by two Electricity Lattice Structures away from residential houses at Vekeya Village and the addition of a ±35 metre telecommunication tower at the authorised Mbongolwane Sub.

**Proponent:** Eskom Distribution (Eskom, KwaZulu Natal Operating Unit)  
**Umhlalongozi:** Eskom Distribution (Eskom, KwaZulu Natal Operating Unit)  
**Consultants:** Orbiosphere Environmental (Pty) Ltd  
**Umchwangeli:** Orbiosphere Environmental (Pty) Ltd  
**Thixo:** M. Musa Ntshihahlebe

**Umhlangano wongqokothi:** 27 June 2023  
**Public Open Day Meeting:**

**Indawo:** Ngwenya Secondary School  
(Venus)

**Usuku lokugcina lokufaka imibono:** 6 July 2023  
**Deadline:**  
**Contact:** Musa Ntshihahlebe

**Iikhathi 09H30am to 16H00pm  
(Time):**

**Venue GPS Coordinates:**  
28°59'21.38" and E: 31°33'03.64"

**Tel:** 073 977 9414 Calls/WhatsApp  
**Fax:** 086 567 5523  
**Email:** [musa@orbiosphere.co.za](mailto:musa@orbiosphere.co.za)  
**web:** [www.orbiosphere.co.za](http://www.orbiosphere.co.za)



Ukugcinisekisa ukuthi uyafakwa kahle lwabantu abawenzihisekeli futhi abathathazayo iloku okahlalongozwayo, sicela uthathele igama lakho, neminihawane yokuthinteka kwakho email: [musa@orbiosphere.co.za](mailto:musa@orbiosphere.co.za), Cell: 073 977 9414 oingqapheli iminaka ezingama 30 kususela ngelanga lesikhungelo. Usuku lokugcina lokufaka imibono ngumhla 6 July 2023 ngo hlo 23:59pm.

To ensure that you are identified as an interested and/or Affected Party (SAP) ONLY in terms of the IA process, please submit your name, contact information and interest (comments) to email: [musa@orbiosphere.co.za](mailto:musa@orbiosphere.co.za), Cell: 073 977 9414, 30 days from publication of this notice. Deadline for Comments 06 July 2023 at 23:59pm

Figure 1.48: Showing the Actual English and isiZulu Notice that was placed on site



Figure 1.48: Showing site notice 1 posted at Ntokozweni Butchery and Tuckshop, Vekeza Village

Site Notice 1 Location	
S: 28°59'8.28"	E: 31°33'50.07"



**Figure 1.49:** Showing site notice 1 posted at the Local Spaza Shop, Vekeza Village

Site Notice 2 Location	
S: 28°59'18.03"	E: 31°32'58.51"





Figure 1.50: Showing site notice 3 posted at the local Supermarket and Bottle store.

Site Notice 3 Location	
S: 28°58'36.93"S	E: 31°32'56.23"



Figure 1.51: Showing the location of the three site notices in relation to the project.

### 5.4.1. Further Public Participation

On November 22, 2023, DFFE Sindiswa Dlomo requested a meeting with regard to the submission of the Impact Assessment report to DFFE. It was then indicated that a wrong application form was used for the application. And that the Standard for the Development of the Powerlines and Substations within identified Geographical Areas must be used. Sindiswa also requested that a further site Notice to notify the local communities with regard to the EGI registration must be affixed on site for another 30 days period

<b>EGI Registration Public Notice</b>	08 December 2023 – 29 January 2024 (The prolonged days were due to the regulated time frame of December 15, to January 05 where public participation is not allowed)
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# NOTICE OF APPLICATION OF PROJECT REGISTRATION AS PER THE STANDARD FOR THE DEVELOPMENT OF POWER LINES AND SUBSTATION WITHIN IDENTIFIED GEOGRAPHICAL AREAS (ELECTRICITY GRID INFRASTRUCTURE - EGI)

PROJECT NAME: The proposed deviation of the 132kV power line for about 873m at Vekeya on the authorised Gingindlovu Mbongolwane 132kV from Gingindlovu to Mbongolwane substation, DFFE Environmental Authorisation NO: 14/12/16/3/1 /1918.

Umsebenzi kanye nendawo: Kuhlondolwa ukuphambuka kakalayini kagesi ngama mita awu 873m endaweni yaseVekeya kulayini oguqanywe osuka eGingindlovu usya eMbongolwane, lolayini anamandla awu 132 kV. UMnyango Wezamaqhathi, Ezokudoba kanye Nezemvelo wakhipha imvume yokwakha lesiteshi ngaphansi kwentombolo (DFFE) : 14/12/16/3/1/1918.

Please note that the project application to the Department of Forestry, Fisheries and Environment (DFFE) applied for and will be as per the Standard for the Development of Power Lines and Substations within Identified Geographical Areas.

Sicela ngqophele ukuthi lesisicelo semvume esifakiwe eMnyangweni weZamaqhathi, ezokuDoba kanye nezemvelo sifakwe ngaphansi kwentombolo yokwakhiwa kuka lolayini neziteshi zikagesi ezakhiwe eendaweni ezithize eziqokwe.



Ukuqinisekisa ukuthi uyifakwa kuthu lwabantu abanentshisekalo luthi abathintekayo iloku okuhlongoswayo, sicela uqhamele igama lakho, neminingwane yokuthinteka kwakho email: [musa@ourbiosphere.co.za](mailto:musa@ourbiosphere.co.za), Cell: 073 977 9414 zingakapheli izinsuku ezingama-30 kusukela ngelanga lesikhangiso. Usuku lokugcina loluletha imiboni ngumhlaka 29 January 2024 nge hora 23:59pm.

To ensure that you are identified as an Interested and/or Affected Party (I&AP) ONLY in terms of the EGI process, please submit your name, contact information and interest (comments) to email: [musa@ourbiosphere.co.za](mailto:musa@ourbiosphere.co.za), Cell: 073 977 9414. 30 days from publication of this notice. Deadline for Comments 29 January 2024 at 23:59pm



Figure 151.1: Showing site notice 1 posted at Ngobie's Shop, Vekeza Village

Site Notice 2 Location	
S: 28°59'8.27"	E: 31°33'49.99"



Figure 151.2: Showing site notice 1 posted the Local Spazashop Container, Vekeza Village

Site Notice 2 Location	
S: 28°59'1.46	E: 31°33'27.90"



Figure 151.3: Showing site notice 1 posted the Local Shop, Vekeza Village

Site Notice 3 Location

S: 28°59'19.42"

E: 31°32'34.38"



Figure 151.4: Showing site notice 1 posted the Local Shop, Vekeza Village

**Site Notice 4 Location**

S: 28°58'37.06"

E: 31°32'56.23"

**5.4.2. Location of Site Notices****5.5. Interested and Affected Parties (I&APs)**

A register of IAPs has been compiled as per Section 42 of the Impact Assessment Regulations, 2014 as amended. This includes all relevant authorities, Government Departments, the Municipality, non-governmental organisations (NGOs), and members of the public that had requested to be registered. The IAP register was updated to include those IAPs responding to the newspaper advertisement, site notice boards and Notification Letters. A copy of the I&AP Register is included in Annexure 2 of this report, and the full list of identified I& AP is on Annexure 3.

**5.6. Background Information Document (BID)**

The Background Information Document (BID) containing the details about the Impact Assessment process and all the project details was compiled. The majority of BIDs were distributed to the landowners mainly via email and WhatsApp service. The local ward councillors were also sent the BID as well as the comment sheet. The copy of the BID is attached on this report as Annexure 1.



## 5.7. Public Meeting

A public open day meeting was conducted at Ngwenya Secondary School at Vekeza from **09h00am to 16h30pm** on **July 22, 2023**.

## 5.8. Comments Received and Responses

		I&AP/Stakeholder		
No	Name	Capacity	Comments	EAPs' Response
1	Mr Qiniso Ngema	Local Ward Councillor – Vekeza Village	We are very much interested in the project, when is it going to be under construction	The project in general has already commenced through Survey work and pegging, only that, the Gingindlovu-Mbongolwane Powerline deviation at Vekeya (Vekeza Village) will only commence only after we have submitted the Impact Assessment Report to DFFE and only if DFFE have issued Eskom with an Environmental Authorisation.
			Many Local People are without jobs, is this project contractor going to appoint local Labourers?	It is a standing rule that, a project of this magnitude that the contractor will be required to appoint local labourers, it is part and parcel of



				what is known as Supplier development and localisation.
			We shall help you identify all the conspicuous shops where you can paste the site notifications.	We will truly appreciate it, kindly be there when we post the site notices on site, we would really appreciate you showing us the frequented areas by the community
			How is this project going to benefit the people of Vekeza?	This project is aimed at strengthening the whole region by stabilizing the electricity grid to ensure that they are unnecessary power trips due to poor capacity as it is currently. Many other business that cannot be given power currently to operate will then be able to operate there by creating jobs for locals.
2	Mrs Nobuhle	School Principal – Ngwenya Secondary School	We have had our school damaged by the previous floods, can you also help us	We shall pass the message to the company directors, and they will decide on whether they can help you or not. Kindly provide us with your



			through any forms of donations?	numbers so that the directors can directly call you.
3	Ndabezitha	Chief – Vekeza Village	Why was the project stopped last time in 2007?	It was stopped due to lack of funds from the Eskom side.
			Do Eskom now have funds?	The project is now funded by the National Department of Energy, and there are funds available.
			What is the next step, after your Impact Assessment Process?	We shall submit the Impact Assessment Report to DFFE, if DFFE issue an Environmental Authorisation, then Eskom can then proceed with construction of the Gingindlovu-Mbongolwane Powerline.
			When is the process of money negotiation going to start?	The process can only commence after DFFE have issued Eskom with an Environmental Authorisation.
4	Mrs Phyllis Thobile Mhlongo	Resident of Vekeza	My house and trees will be affected by the project, and I have a letter from Eskom to	Please note that if Eskom has already approached you with regard to your house that will be affected it surely means that your



			<p>that effect, can you please tell me how she is going to be compensated</p>	<p>property will be affected. It simply means that before any work can commence in your property, Eskom land and rights will come and negotiate with you on the issues of compensation, where necessarily they will also appoint a valuer to valuer your property and offer you an amount, only after agreement, can Eskom then proceed with the project.</p>
5			<p>Good morning Musa</p> <p>Please note that your email has been forwarded to Muzi Mdamba, a colleague responsible for environmental authorisations on behalf of EDTEA in King Cetshwayo Districts.</p>	<p>Email Noted, Thank you</p>
<b>COMMENTS ON THE DRAFT IMPACT ASSESSMENT REPORT</b>				

Table 1.6: Comments from I&APs and EAP's Responses

## 5.9. Circulation of Draft Impact Assessment Report (IAR) for Comments

Notification of the availability of the Draft Impact Assessment Report was circulated on **1 June 2023** to all the I&APs and the following Key Organs of State for review and comments:

No	I&APS/STAKEHOLDERS
1	KZN Economic Development, Environment and Tourism
2	Amafa Heritage Resource Agency
3	Department of Minerals and Energy
4	Department of Transport
5	KZN Department of Transport
6	Department of Rural Development and Land Reform: Land Reform Office
7	Department of Agriculture,
8	Department of Water Affairs: Water Resources & Water Quality Management
9	Department of Rural Development and Land Reform: Land Claims Commissioner
10	Landowners and all other I&APs
11	King Cetshwayo District Municipality
12	Gingindlovu Local Municipality

**Table 1.7:** List of I&APs

## 5.10. Background Information Document

The copy of the BID and Comments Sheet had also been uploaded onto Ourbiosphere Environmental (Pty) Ltd website and the I & APs were notified about this links via email. For the copy of BID, kindly refer to Annexure 1.



### 5.11. Authority Participation

For all the authorities and organs of state identified as key stakeholders, proof of Draft Impact Assessment Report Link was distributed via email and was meant to notify I&APs as proof for the availability of the Impact Assessment and EMPr (Annexure 6) and to the Organ of state as (Annexure 4).

### 5.12. Consultation with other stakeholders

A list of registered I&APs is included as Annexure 2. Copies of correspondence are included in Annexure 5.

### 5.13. Draft Impact Assessment Report

The Impact Assessment Regulations specify that I&AP's must have an opportunity to comment, in writing, on all reports or plans submitted to such party during the public participation process. A period of 30 days (**1 June 2023 to 07 July 2023**) was made available to allow for public comment on the Draft Impact Assessment Report and the Draft EMPr. The availability of the Draft Impact Assessment Report and EMPr was announced via personal notification letters distributed via emails and SMS to all the identified stakeholders on the distribution list. The following methods were made available for I&APs to access the reports:

- EMPr and Draft Impact Assessment Report were also uploaded on the EAPs website, and the link was also sent to all the registered I&APs and Organs of State. I &APs and Organs of state were given 30 days to comment on the Draft IA and EMPr. The comment period was from **July 10, 2023, to August 10, 2023**.

## 6. IMPACT ASSESSMENT METHODOLOGY

### 6.1. A complete description of the process used to determine, evaluate, and order the impacts that the activity will have on the environment.

The following is a methodology for impact assessments that evaluates the significance of planned activities' impacts. The introduction of a standardized and internationally recognized approach to evaluate the significance of the potential environmental consequences of the proposed development allowed for the assessment of prospective effects across the project life cycle stages. The following criteria were used to assess the importance of the impacts:

The CONSEQUENCE of an impact is calculated for each impact based on its SEVERITY (magnitude or degree), DURATION (temporal scale), and EXTENT (spatial scale).

The assessment techniques used in the study are described in the section below.



A site surveillance was conducted to assist desktop studies, specialized studies, Geographic Systems Information, and the use of tools and standards given by NEMA, IFC, and UNEP in order to detect and quantify impacts.

**Nature of Impact** – explains the effect. It illustrates how the effects happen. For instance, "emissions by machinery" refers to the creation of air pollutants by fossil fuel-powered vehicles.

**Magnitude** – describes how much the impact has an impact on the environment. It refers to how serious an influence is—minimal, moderate, severe, or extremely serious.

**Probability** – This is the chance or danger that the impact will happen. It is labelled as unlikely, probable, or highly probable. Where there is no vegetation clearing, impacts such soil erosion are relatively improbable, whereas there is vegetation clearing.

**Extent** – This is the area that the impact is said to have affected, either locally or widely. For instance, air pollution affects a huge area because airborne toxins spread out, whereas localized vegetation removal only affects a single site.

**Duration** – At this point, the environment or nearby communities are still being affected by the impact. A short-term, medium-term, or long-term impact rating is given. One day can pass between certain effects, like noise, and others, like chemical spills into water, which remain until the chemical is biodegraded.

**Reversibility** – explains whether or not the impact can be reverted. Reversibility or irreversibility is determined. While some effects, like the destruction of vegetation, can be undone, others, like the loss of human life, cannot.

**Significance** – describes the significance of the impact based on any resulting repercussions and side effects. Ratings range from negligible to highly significant.

## 6.2. Rate-and-determine impacts methodology.

<b>IMPACT STATUS</b>	
Positive - impacts that are beneficial to the environment or community or economy.	
Negative - these are impacts that are detrimental to the environment, community, or economy	
<b>SEVERITY</b>	
How severe does the aspects impact on the resource quality i.e., flow regime, water quality, geomorphology, biota, habitat?	
<b>Scale</b>	Positive/Beneficial
	Negative/Detrimental



1	Insignificant	Non-harmful
2	Slightly significant	Potentially harmful
3	Significant	Slightly harmful
4	Very significant	Harmful
5	Extremely beneficial	Extremely harmful

**IMPACT PROBABILITY**

Probable - impact or benefit is most likely to occur  
 Improbable - impact or benefit is most unlikely to occur  
 Definite - impact or benefit will occur

**REVERSIBILITY**

Reversible – benefits are for a short time and will eventually return to initial state. Negative impacts are short lived and affected aspects can be restored back to original state.

Irreversible - defines impacts that are permanent and cannot be restored back to original state.

**SPATIAL SCALE**

Defines how big the area that the aspect is impacting on?

Scale	Description
1	Restricted to a portion of project site
2	Entire project site
3	Within village and surrounding communities
4	Impacting beyond provinces
5	Transboundary

**DURATION**

Rates how long the impact or benefits lasts

Scale	Description
1	One month to a year
2	One year to five years
3	Five to ten years





4	Ten to thirty years
5	Permanent or over 30 years
<p><b>Calculations.</b></p> <p>Consequence = Severity + Spatial Scale + Duration</p> <p>Significance/Risk = Consequence x Likelihood</p> <p>Likelihood/Probability of occurrence = Frequency of Activity + Frequency of Incident</p>	

**Table 1.9.** Impact status.

Once the importance of an influence has been identified, the rating methods listed below are used to calculate the CONFIDENCE in the assessment of the significance rating.

### 6.3. Confidence rate definition

CONFIDENCE RATINGS*	CRITERIA
<b>High</b>	Extensive knowledge of and solid grasp of the environmental factors that could have an impact. More than 70% confident in effect projection
<b>Medium</b>	A fair quantity of valuable knowledge and a solid comprehension of the environmental elements that could have an impact. Impact prediction is between 35% and 70% certain.
<b>Low</b>	There is a lack of helpful knowledge and awareness of the environmental elements that could have an impact on this impact. Prediction of impact is only about 35% certain.

**Table 1.10:** Confidence rating

The accuracy of the data utilized to create the prediction and the level of confidence in it are both reliant on the expert knowledge in that specific field.

FREQUENCY OF THE ACTIVITY		
<b>How often do you do the specific activity?</b>		
<b>Annually or less</b>	1	



6-monthly	2	
Monthly	3	
Weekly	4	
Daily	5	
FREQUENCY OF THE INCIDENT/IMPACT		
How often does the activity impact on the resource quality?		
Almost never / almost impossible / >20%		1
Very seldom / highly unlikely / >40%		2
Infrequent / unlikely / seldom / >60%		3
Often / regularly / likely / possible / >80%		4
Daily / highly likely / definitely / >100%		5
Remote and difficult to observe		4
Covered		5

Table 1.11: Frequency of the activity.

#### 6.4. Definition of resource loss

DEGREE TO WHICH IMPACT CAN BE MITIGATED	CRITERIA
None	No change in impact after mitigation.
Very Low	Where the significance rating stays the same, but where mitigation will reduce the intensity of the impact.
Low	Where the significance rating drops by one level, after mitigation.
Medium	Where the significance rating drops by two to three levels, after mitigation.
High	Where the significance rating drops by more than three levels, after mitigation.

Table 1.12: Degree of which the impact can be mitigated



RATING	CLASS	MANAGEMENT DESCRIPTION
1 -55	(L) Low Risk	Acceptable as is or consider requirement for mitigation. Impact to easily mitigated.
56-169	(M) Moderate Risk	Risk and impact are notably and require mitigation measures on a higher level, which costs more and require specialist input.
170 - 300	(H) High Risk	Impacts by the activity are such that they impose a long-term threat on a large scale. Mitigation measure will have to be more stringent and require dedicated monitoring and enforcement.

**Table 1.13:** Ratings

## 6.5. Description of all Identified Environmental Risks and Issues

The project site's consequences and risks are listed here, regardless of the site orientation options because they have no bearing on the project site's location or position. It is significant to remember that the majority of these effects are localized and not pervasive.

A preliminary background investigation was conducted to get an idea of the project's institutional, legal, policy, and administrative contexts. The receiving environment's baseline environmental assessment studies, which are likely to be impacted, were carried out. The State of the Environment Report (SoER), IDP, SDF, communication with municipality officials, consultation with authorities from the Competent Authority offices, research of information from SANBI and Windeed, and professional expertise were used to identify impacts. Other sources of information included a literature review of the municipality and its related documents.

Using the criteria and procedures described in above in section 6.4, the impacts were then evaluated for importance. Identification of environmental activities, features, and affects was the first step in the impact assessment process. This was backed up by the discovery of resources and receptors, which made it possible to comprehend the impact pathway and gauge the susceptibility to change. On the following Sections, more environmental hazards and consequences are described.

## 6.6. Evaluation of the Importance of Each Problem/Risk and An Indicator of the Mitigation Potential

The significance of the influence was subsequently evaluated by scoring each variable in accordance with predetermined standards. The rating's goal was to create a clear picture of the processes and influences that each impact was influenced by. Then, based on prior experience with the EAP while conducting studies of a similar nature, input from the project team, I&APs, and stakeholders, as well as already published materials and reports, impact management objectives were established. The importance of the impact also influenced the impact management goals to be used, such as whether ongoing monitoring of the impact is necessary or whether mitigation measures may be put in place to lessen it within a set time frame. The objectives for impact management were also determined using the laws, policies, and standards that already exist with reference to the various actions and affects that must be conducted.

To a certain extent, Specialists views were sought on various Compliance Statements on potential issues of concerns obtained through stakeholder engagement, identifying the main aspects and the repercussions deriving from those aspects. Stakeholders were given the chance to voice any issues or solutions they may have had with the project.

The significance of each issue or danger is evaluated in the table below, along with an indication of how much it can be mitigated. The project is a small-scale construction project since it only constitutes the short powerline deviation, notwithstanding the cited impacts. Such projects have relatively little long-term environmental impact and only short-term effects.

The terms in the last column of the table below are defined as follows: Measurables refers to the ability to quantify the amount, size, or characteristic of the impact. Avoidable refers to the possibility that the impact can be avoided. Manageable refers to the capacity to lessen the effects of an impact on the environment. Quantitative refers to the impacts being measurable by amount or size. Qualitative refers to the impacts being measurable by characteristics.

## 7. ASSESSMENT OF EACH IDENTIFIED POTENTIALLY SIGNIFICANT IMPACT AND RISKS

The effects that the steps of planning, designing, building, operating, and decommissioning may have. This section has been devoted to identified key consequences and risks as well as suggested management and mitigation actions.

This section also lists advantages and suggests ways to maximize them. The evaluation includes:

- Cumulative Impacts
- Extent and Duration of Impacts and Risks



- Extent of Losses Associated with Risks and Impacts
- Extent of Reversal of Impacts and Risks
- Mitigation, Avoidance and Management of Impacts and Risks
- Nature, Significance and Consequence, Impacts and Risks
- Probability of Impacts and Risks Occurring

Tables 1.9 to 1.13 give an assessment of the identified implications for various phases of development.

**Table 1.14:** Assessment of identified potentially significant impact and risk during construction phase.

Activity	Possible Impacts and Impact Status	Impact Probability Activity Frequency + Impact Frequency	Reversibility	Severity	Significance prior to mitigation Consequence x Probability	Spatial Scale + Duration	Cumulative Impacts prior to Mitigation	Cumulative Impacts after Mitigation	Significance Rating after Mitigation or Enhancement Consequence x Probability
Land clearing during preparation of area for power line construction	ii). During the construction of the power line, casual labour will be sourced from the local communities, if need be	Probable 3 + 4 = 7	Reversible. Short-term financial benefits.	3 Significant	7 x 7 = 49	3 + 1 = 4	None	None	8 x 7 = 56  Low risk
	Impact Status: Positive Degree to which the impact can cause loss to natural resources: Low Degree to which the impact can be mitigated: High Confidence rating: Medium								
	<p>Mitigation/Enhancement: During construction, contractor will give preference of casual labour to locals. Once project ends, casual labour employees can be issued with letters of recognition of their contribution to the construction.</p> <p>Cumulative Impacts: Currently, there is no known activity at the power line creating employment for surrounding communities. As such, the cumulative effect during the project will be low.</p>								
	iii). Due to the measures that will be put in place to limit negative impacts, there can be easing of pre-existing environmental challenges.	Probable 2 + 4 = 6	Irreversible.  Most of these measures	4  Beneficial	8 x 6 = 48	3 + 1 = 4	Medium	Low	9 x 6 = 54  Low risk

Activity	Possible Impacts and Impact Status	Impact Probability Activity Frequency + Impact Frequency	Reversibility	Severity	Significance prior to mitigation Consequence x Probability	Spatial Scale + Duration	Cumulative Impacts prior to Mitigation	Cumulative Impacts after Mitigation	Significance Rating after Mitigation or Enhancement Consequence x Probability
	Impact Status: Positive Degree to which the impact can cause loss to natural resources: Low. Degree to which the impact can be mitigated: -High. Confidence rating: High		are long-term or permanent						
Mitigation/Enhancement Measures: Permanent and long-term measures will be put in place for controlling existing environmental challenges.									
Cumulative impacts: Currently, there is no known activity at the power line contributing to alleviation of existing environmental issues. As such, the cumulative effect during the project will be low.									
	iv). Leftover construction materials such as cable conductors, wire and rubble can be given to community members if they want to use them for things such as construction of fowl runs.  Impact Status: Positive Degree to which the impact can cause loss to natural resources: Low	Probable 5 + 4 = 9	Irreversible.  Most material left over from power line construction is durable. e.g., cable conductors.	4  Beneficial	$8 \times 9 = 72$	$3 + 1 = 4$	Low	None	$9 \times 9 = 81$  Moderate risk

Activity	Possible Impacts and Impact Status	Impact Probability Activity Frequency + Impact Frequency	Reversibility	Severity	Significance prior to mitigation Consequence x Probability	Spatial Scale + Duration	Cumulative Impacts prior to Mitigation	Cumulative Impacts after Mitigation	Significance Rating after Mitigation or Enhancement Consequence x Probability
	Degree to which the impact can be mitigated: -High. Confidence rating: High								
Mitigation/Enhancement Measures: Hazardous material and substances will not be part of the leftover material that may be made available for collection by community members. Community members who choose to collect left-over material will be informed on how to get rid of the material when they no longer need it.									
Cumulative impacts: Collected leftover material may end up being disposed of improperly. However, in rural areas, the issues of existing improper waste disposal are close to non-existent, and Vekeya Village is no exception. As such, the cumulative effect will be low.									
	v). There will be loss of vegetation during clearing of land.  Impact status: Negative Degree to which the impact can cause loss to natural resources: Low. Degree to which the impact can be mitigated: -High. Confidence rating: Medium	2 + 4 = 6	Irreversible.  Even though vegetation can be planted again, power lines must have no vegetation.	4 Harmful	7 x 6 = 42	1 + 2 = 3	Low	None	10 x 6 = 60  Low risk
Mitigation/Enhancement Measures: Unnecessary vegetation clearing, especially outside of demarcated project area, will be avoided at all costs. Project area to be cleared will be visibly demarcated to avoid unnecessary vegetation clearing.									
Cumulative impacts:									



Activity	Possible Impacts and Impact Status	Impact Probability Activity Frequency + Impact Frequency	Reversibility	Severity	Significance prior to mitigation Consequence x Probability	Spatial Scale + Duration	Cumulative Impacts prior to Mitigation	Cumulative Impacts after Mitigation	Significance Rating after Mitigation or Enhancement Consequence x Probability
At the moment, there are no known activities causing vegetation loss at the Chloe-Vekeya Village power line. Therefore, the cumulative effect during construction will be low.									
	vi). Habitat destruction will occur during removal of vegetation since wildlife such as birds and insects greatly rely on tree and shrub vegetation.  Impact Status: Negative Degree to which the impact can cause loss to natural resources: Low. Degree to which the impact can be mitigated: -High. Confidence rating: High	2 + 4 = 6	Reversible.  Affected wildlife will most likely migrate to nearby vegetation	2 Potentially harmful	6 x 6 = 36	2 + 2 = 4	Low	Low	3 x 6 = 18  Low risk
Mitigation/Enhancement Measures: Construction activities and movement of workers or machinery will avoid the east to north-east of the project site to allow for smooth migration of any wildlife to the nearby game reserve. If bird nests are encountered, they will be carefully moved to nearby vegetation which will not be cleared.									
Cumulative impacts: Currently, there is no known activity at the power line causing loss of habitats. As such, the cumulative effect due to construction activities will be low.									
	vii). Spread of alien invasive species may occur due to vegetation clearing and the	Probable 3 + 5 = 8	Reversible. Any spread alien invasive	3 Slightly harmful	5 x 8 = 40	1 + 1 = 2	Low	Low	2 x 8 = 16  Low risk

Activity	Possible Impacts and Impact Status	Impact Probability Activity Frequency + Impact Frequency	Reversibility	Severity	Significance prior to mitigation Consequence x Probability	Spatial Scale + Duration	Cumulative Impacts prior to Mitigation	Cumulative Impacts after Mitigation	Significance Rating after Mitigation or Enhancement Consequence x Probability
	<p>movement of workers. The following alien invasive species were observed by Web based Environmental Screening tool.</p> <p>Impact Status: Negative Degree to which the impact can cause loss to natural resources: Medium. Degree to which the impact can be mitigated: -High. Confidence rating: High</p>		species can be cleared and destroyed						
<p>Mitigation/Enhancement Measures:</p> <p>In addition to an alien vegetation management, the identified alien invasive species will be removed and burnt before any vegetation clearing begins. The site ECO will familiarise with the alien invasive species identified by Web based Environmental Screening tool. Hunting of both animals and plants by project workers will be prohibited as this also spreads alien and invasive species from outside the project site.</p>									
<p>Cumulative impacts:</p> <p>Currently, most alien invasive species most probably spread through movement of people and wildlife. With the commencement of construction activities, movement of wildlife and people will be low to none. There will only be movement of workers. As such, the cumulative effect is expected to be low.</p>									
	viii). Biodiversity disturbance and loss of endangered species may occur due to loss of	Improbable 1 + 3 = 4	Reversible. Biodiversity can be revived or	2 Potentially harmful	4 x 4 = 16	1 + 1 = 2	Medium	Low	3 x 4 = 12 Low risk

Activity	Possible Impacts and Impact Status	Impact Probability Activity Frequency + Impact Frequency	Reversibility	Severity	Significance prior to mitigation Consequence x Probability	Spatial Scale + Duration	Cumulative Impacts prior to Mitigation	Cumulative Impacts after Mitigation	Significance Rating after Mitigation or Enhancement Consequence x Probability
	<p>vegetation due to land clearing.</p> <p>Impact Status: Negative</p> <p>Degree to which the impact can cause loss to natural resources: Medium.</p> <p>Degree to which the impact can be mitigated: -High.</p> <p>Confidence rating: High</p>		promoted through the use of mitigation measures.						
<p>Mitigation/Enhancement Measures:</p> <p>According to Web based Environmental Screening tool, there is a possibility of the occurrence of the following species <i>Arytropteris basalis</i> and <i>Physophorina livingstonii</i> was identified and this will not be affected by the project activities.</p> <p>Web based Environmental Screening tool also recommended that minimum clearing to the bushveld vegetation be observed in order to limit impacts.</p> <p>To reduce pressure on biodiversity, all construction workers will not be allowed to poach or make use of ecosystem services.</p>									
<p>Cumulative impacts:</p> <p>Rural areas such as Vekeya Village usually experience seasonal veld fires that weaken the intensity of biodiversity. The clearing of land during construction has low intensity effects on biodiversity but when viewed together with existing causes such as veld fires, the cumulative effect is medium.</p>									
<p>Mitigation/Enhancement Measures:</p> <p>Dust suppression measures will be used especially during windy days. These may include spraying of water or binding agents. Wind barriers will also be installed on windy days.</p>									
<p>Cumulative impacts:</p> <p>Even though dust can occur naturally in pristine conditions, it is unlikely that the project site experiences such due to the presence of vegetation. Dust is likely to be experienced during the construction phase only. As such, the cumulative effect will be low.</p>									

Activity	Possible Impacts and Impact Status	Impact Probability Activity Frequency + Impact Frequency	Reversibility	Severity	Significance prior to mitigation Consequence x Probability	Spatial Scale + Duration	Cumulative Impacts prior to Mitigation	Cumulative Impacts after Mitigation	Significance Rating after Mitigation or Enhancement Consequence x Probability
	<p>x). Soil erosion and loss of topsoil will be a result of loss of vegetation as their root systems which hold soils together to prevent soil erosion, will be removed.</p> <p>Impact Status: Negative Degree to which the impact can cause loss to natural resources: Low. Degree to which the impact can be mitigated: -High. Confidence rating: High</p>	Probable 3 + 4 = 7	Reversible.  Even though the power line must be free of vegetation, topsoil will be restored, and geotextiles used to prevent future erosion.	3 Slightly harmful	8 x 7 = 56	1 + 1 = 2	Medium	Low	5 x 7 = 35  Moderate risk
<p>Mitigation/Enhancement Measures: Unnecessary vegetation clearing, such as removal of plants outside of the project site, will be minimised. Erosion control mechanisms such as use of geotextiles will be done.</p>									
<p>Cumulative impacts: Satellite images of the project site from 2005, 2018 and 2021 shows a trend in increasing soil erosion. According to <a href="https://www.worldweatheronline.com/">https://www.worldweatheronline.com/</a> (2021), average wind speed in the area September and October can reach up to 16 km per hour which is powerful enough to gradually cause noticeable soil erosion. As such, considering construction activities, the cumulative effect will be medium.</p>									
	xi). Land degradation due to land clearing activities that involve removal of	Improbable 5 + 2 = 7	Reversible. Mitigation will restore land even though there may be	4 Harmful	6 x 7 = 42	2 + 1 = 3	Medium	Low	3 x 7 = 21  Low risk

Activity	Possible Impacts and Impact Status	Impact Probability Activity Frequency + Impact Frequency	Reversibility	Severity	Significance prior to mitigation Consequence x Probability	Spatial Scale + Duration	Cumulative Impacts prior to Mitigation	Cumulative Impacts after Mitigation	Significance Rating after Mitigation or Enhancement Consequence x Probability
	vegetation and loss of topsoil.  Impact Status: Negative Degree to which the impact can cause loss to natural resources: High. Degree to which the impact can be mitigated: -High. Confidence rating: High		no revegetation						
Mitigation/Enhancement Measures: All degraded land will be restored using geotextiles, stones, or rip rap methods.									
Cumulative impacts: As aforementioned, satellite images show changes in vegetation over time and soil erosion occurring. Further land degradation due to construction activities will result in medium cumulative impacts. They will not be high at any given time due to use of soil erosion control mechanisms that will be installed before construction.									
	xii). Undiscovered paleontological resources can be inadvertently disturbed or wrecked during site preparation activities.  Impact Status: Negative	Improbable 3 + 2 = 5	Irreversible.	2 Potentially harmful	5 x 5 = 25	1 + 2 = 3	Low	None	3 x 5 = 15  Low risk

Activity	Possible Impacts and Impact Status	Impact Probability Activity Frequency + Impact Frequency	Reversibility	Severity	Significance prior to mitigation Consequence x Probability	Spatial Scale + Duration	Cumulative Impacts prior to Mitigation	Cumulative Impacts after Mitigation	Significance Rating after Mitigation or Enhancement Consequence x Probability
	Degree to which the impact can cause loss to natural resources: Low. Degree to which the impact can be mitigated: -High. Confidence rating: High								
<p>Mitigation/Enhancement Measures: The site ECO and site supervisor will be trained on how to identify paleontological resources. If any skeletal remains are discovered, works will cease whilst a qualified archaeologist and SAHRA will be engaged.</p> <p>Cumulative impacts: Currently, there are no known activities causing disturbance of paleontological resources in the project site and therefore the cumulative effect is almost non-existent.</p>									
	xiii). Disturbance of riverine ecosystems may occur. Satellite imagery shows a seasonal water body about 500 m south-east of the of site.  Impact Status: Negative Degree to which the impact can cause loss to natural resources: Medium	Probable 5 + 2 = 7	Reversible. It can be avoided, and the current status enhanced after construction.	3 Slightly harmful	$7 \times 7 = 49$	$3 + 1 = 4$	Low	None	$5 \times 7 = 35$  Low risk

Activity	Possible Impacts and Impact Status	Impact Probability Activity Frequency + Impact Frequency	Reversibility	Severity	Significance prior to mitigation Consequence x Probability	Spatial Scale + Duration	Cumulative Impacts prior to Mitigation	Cumulative Impacts after Mitigation	Significance Rating after Mitigation or Enhancement Consequence x Probability
	Degree to which the impact can be mitigated: -High. Confidence rating: High								
Mitigation/Enhancement Measures: Workers will be prohibited from accessing the seasonal water body. All project activities will not come within 300 m of the water body.									
Cumulative impacts: Currently there are no known activities causing disturbance of the seasonal water body									
Movement of construction machinery and vehicles.	i). Air pollution will occur as a result of greenhouse gas emissions from construction machinery powered by diesel engines.  Impact Status: Negative Degree to which the impact can cause loss to natural resources: Low. Degree to which the impact can be mitigated: -High. Confidence rating: High	Probable 5 + 4 = 9	Reversible. Carbon can be trapped by wetlands and trees. The impact can also be minimised.	3 Slightly harmful	$7 \times 9 = 63$	$3 + 1 = 4$	Medium	Low	$5 \times 9 = 45$  Moderate risk
Mitigation/Enhancement: Construction vehicles will be well serviced before project activities begin. Vehicles with high emissions will be fitted with catalytic converters.									

Activity	Possible Impacts and Impact Status	Impact Probability Activity Frequency + Impact Frequency	Reversibility	Severity	Significance prior to mitigation Consequence x Probability	Spatial Scale + Duration	Cumulative Impacts prior to Mitigation	Cumulative Impacts after Mitigation	Significance Rating after Mitigation or Enhancement Consequence x Probability
<p>Cumulative impacts: The project area has fewer sources of greenhouse gas emissions. Traffic movement is generally low. Taking into account the movement of construction vehicles, the cumulative effect is low.</p>									
<p>ii). Vibration can result from the operations and movement of heavy vehicles and construction machinery. The vibrations can disturb underground animals such as moles. Vibrations can cause the shaking syndrome in workers if exposed over a long period.</p> <p>Impact Status: Negative Degree to which the impact can cause loss to natural resources: Low. Degree to which the impact can be mitigated: -High. Confidence rating: High</p>									
<p>Probable 5 + 4 = 9</p>		<p>Reversible. There are no sensitive receptors nearby</p>	<p>1 Non-harmful</p>	<p>3 x 9 = 27</p>	<p>1 + 1 = 2</p>	<p>Low</p>	<p>None</p>	<p>2 x 9 = 18 Low risk</p>	
<p>Mitigation/Enhancement: Vehicles and machinery used will have low vibration technology. Sound absorbers and good maintenance will be used as vibration-reducing measures. Workers will make use of vibration protection measures such as limiting daily and weekly exposure to vibration equipment.</p>									



Activity	Possible Impacts and Impact Status	Impact Probability Activity Frequency + Impact Frequency	Reversibility	Severity	Significance prior to mitigation Consequence x Probability	Spatial Scale + Duration	Cumulative Impacts prior to Mitigation	Cumulative Impacts after Mitigation	Significance Rating after Mitigation or Enhancement Consequence x Probability
<p>Cumulative impacts: Even though there is a road next to the of site and power line running parallel, the movement of heavy vehicles which can cause vibrations is low. Again, power line construction does not involve high usage of heavy vehicle for long periods of time. As such the cumulative impact of vibration remains low when considering both ground disturbance and occupational risks to workers.</p>									
	<p>iii). Compaction of soil can occur from the repeated movement of heavy construction vehicles on the project site. Soil compaction can disturb the soil structure resulting in poor infiltration and aeration.</p> <p>Impact Status: Negative Degree to which the impact can cause loss to natural resources: Medium. Degree to which the impact can be mitigated: -High. Confidence rating: High</p>	<p>Improbable 5 + 1 = 6</p>	<p>Reversible. Endangered plants can be avoided or replanted. Impact can be avoided</p>	<p>3 Slightly harmful</p>	<p>6 x 6 = 36</p>	<p>2 + 1 = 3</p>	<p>Medium</p>	<p>None</p>	<p>4 x 6 = 24 Low risk</p>
<p>Mitigation/Enhancement Measures: Use of heavy machinery will be limited during rainy days or when the soil is wet and most likely to be compacted. Movement of heavy vehicles will be restricted to the project site, main road, and areas where there may be need to collect construction material.</p>									
<p>Cumulative impacts:</p>									

Activity	Possible Impacts and Impact Status	Impact Probability Activity Frequency + Impact Frequency	Reversibility	Severity	Significance prior to mitigation Consequence x Probability	Spatial Scale + Duration	Cumulative Impacts prior to Mitigation	Cumulative Impacts after Mitigation	Significance Rating after Mitigation or Enhancement Consequence x Probability
As an operational power line, there is currently no movement of heavy vehicles or activities causing soil compaction. Even when viewed alone, the movement of construction vehicles is not likely to cause significant compaction. Cumulative impacts will be low.									
	iv). Soil and Water contamination from oil and grease spills from heavy construction vehicles and machinery infiltrating the soil or runoff to nearby waterbodies or seepage into wetlands.  Impact Status: Negative Degree to which the impact can cause loss to natural resources: Low. Degree to which the impact can be mitigated: -High. Confidence rating: High	Probable 2 + 4 = 6	Reversible. Can be reversed but at a high cost. Damage takes time to occur.	2 Potentially harmful	7 x 6 = 42	3 + 2 = 5	High	Low	5 x 6 = 30  Low risk
Mitigation/Enhancement Measures: All vehicles and machinery will be regularly inspected and maintained in good condition to reduce incidences of oil leaks or fuel leaks. Any machinery or construction vehicles will be parked on hard surfaces within the existing substation parking to minimise infiltration of oils and fuel into soil after leaks or spills. Use oil drip trays to contain any possible spill of oil from faulty equipment containing oil and construction vehicles while parked overnight.									
Cumulative impacts:									

Activity	Possible Impacts and Impact Status	Impact Probability Activity Frequency + Impact Frequency	Reversibility	Severity	Significance prior to mitigation Consequence x Probability	Spatial Scale + Duration	Cumulative Impacts prior to Mitigation	Cumulative Impacts after Mitigation	Significance Rating after Mitigation or Enhancement Consequence x Probability
According to the Biodiversity Report by Web based Environmental Screening tool, the nearest wetland is in good condition and has not been disturbed. The project activities will not disturb or impact the wetland. As such, there will be no need for mitigation and there will be no cumulative impacts.									
	<p>v). Noise pollution from use of machinery and movement of construction vehicles can result in disturbance of wildlife breeding pattern. Noise is also an occupational health hazards that can cause ear damage.</p> <p>Impact Status: Negative Degree to which the impact can cause loss to natural resources: Low. Degree to which the impact can be mitigated: -High. Confidence rating: High</p>	<p>Improbable 5 + 4 = 9</p>	<p>Irreversible. In some cases, damage to ears can be permanent.</p>	<p>3 Slightly harmful</p>	<p>5 x 9 = 45</p>	<p>1 + 1 = 2</p>	<p>Low</p>	<p>None</p>	<p>3 x 9 = 27 Low risk</p>
<p>Mitigation/Enhancement Measures: Workers in high noise areas exceeding 85 dB (WHO threshold level) will be provided with ear protection. The biodiversity study by Web based Environmental Screening tool found no wildlife breeding areas in the vicinity of the project area therefore none will be impacted.</p>									
<p>Cumulative impacts: Due to the absence of sensitive areas such as wildlife breeding grounds within the vicinity of the project site, the likelihood of this impact is low. Currently there are no activities causing noise above 85 dB in the area therefore there will be no cumulative impacts.</p>									

Activity	Possible Impacts and Impact Status	Impact Probability Activity Frequency + Impact Frequency	Reversibility	Severity	Significance prior to mitigation Consequence x Probability	Spatial Scale + Duration	Cumulative Impacts prior to Mitigation	Cumulative Impacts after Mitigation	Significance Rating after Mitigation or Enhancement Consequence x Probability
	vi). Dust particulate emissions will most likely result from construction activities. Dust inhalation result in respiratory problems  Impact Status: Negative Degree to which the impact can cause loss to natural resources: Low. Degree to which the impact can be mitigated: - High. Confidence rating: High	$2 + 3 = 5$	Reversible. The impact is easily avoidable and will be short term	3 Potentially harmful	$7 \times 5 = 35$	$2 + 2 = 4$	Low	Low	$5 \times 5 = 25$  Low risk
Mitigation/Enhancement Measures: Water with binding agents will be sprayed to reduce the likelihood of soil being blown away by the wind. Construction vehicles will travel below 30 km per hour. Workers will be provided with PPE such as goggles and respirators when working in high dust areas.									
Cumulative impacts: Being a naturally hot and dry region, the project area can easily experience dust. However, the project site still has vegetation cover enough to limit dust generation even by natural means such as wind. Therefore, whether viewed alone or with natural causes such as wind, the cumulative impacts remain low.									
	vii). Being close to the highway, construction vehicles will cross and use	Probable 5 $+ 2 = 7$	Irreversible. Traffic accidents	4 Harmful	$8 \times 7 = 56$	$3 + 1 = 4$	Low	None	$3 \times 4 = 12$  Moderate risk

Activity	Possible Impacts and Impact Status	Impact Probability Activity Frequency + Impact Frequency	Reversibility	Severity	Significance prior to mitigation Consequence x Probability	Spatial Scale + Duration	Cumulative Impacts prior to Mitigation	Cumulative Impacts after Mitigation	Significance Rating after Mitigation or Enhancement Consequence x Probability
	<p>it regularly. This makes the risk of traffic accidents high.</p> <p>Impact Status: Negative</p> <p>Degree to which the impact can cause loss to natural resources: Low.</p> <p>Degree to which the impact can be mitigated: -High.</p> <p>Confidence rating: High</p>		can result in loss of life or permanent injuries.						
	<p>Mitigation/Enhancement Measures: All construction vehicles will adhere to the national traffic regulations. Approved traffic signs will be erected at least 400 m from crossing points to warn incoming traffic of construction vehicles movement and crossing. All construction vehicle drivers will be reminded daily on the need for extra caution when entering into or crossing the highway.</p> <p>Cumulative impacts: The project site is in a rural area with low traffic movement, and this makes traffic incidents low. Due to this, the likelihood of accidents remains low. Cumulative impacts will be none with measures put in place to ensure road traffic safety.</p>								
Movement of workers	<p>i). Construction workers can put unnecessary pressure on ecosystem services when they rummage nearby bushes for firewood or wildlife.</p> <p>Impact Status: Negative</p>	Probable 4 + 3 = 7	Reversible. Ecosystem services can be restored	3 Slightly harmful	7 x 7 = 49	3 + 1 = 4	Medium	Low	5 x 6 = 30 Low risk

Activity	Possible Impacts and Impact Status	Impact Probability Activity Frequency + Impact Frequency	Reversibility	Severity	Significance prior to mitigation Consequence x Probability	Spatial Scale + Duration	Cumulative Impacts prior to Mitigation	Cumulative Impacts after Mitigation	Significance Rating after Mitigation or Enhancement Consequence x Probability
	Degree to which the impact can cause loss to natural resources: Medium. Degree to which the impact can be mitigated: -High. Confidence rating: High								
Mitigation/Enhancement Measures: As part of contractual agreements, the contractor and other workers will not be allowed to poach for firewood or wildlife. Vegetation from bush clearing will be piled and allowed to decompose and will be categorised as garden waste. Garden waste will be managed according to internal waste management procedures.									
Cumulative impacts: In rural areas, firewood and wildlife poaching is common and if this pressure increases due to construction workers poaching firewood / wildlife, the cumulative effect is medium and can put considerable pressure on ecosystem services. However, with mitigation the cumulative impacts are low.									
	iv). There is risk of spread of infectious diseases, particularly STIs and COVID-19 by construction workers and the influx of sex workers.  Impact Status: Negative Degree to which the impact can cause loss to natural resources: Low	Probable 3 + 1 = 4	Irreversible Effects of COVID-19 and STIs can result in death or long-term illness	4 Harmful	9 x 4 = 36	3 + 2 = 5	High	Low	6 x 3 = 18  Low risk

Activity	Possible Impacts and Impact Status	Impact Probability Activity Frequency + Impact Frequency	Reversibility	Severity	Significance prior to mitigation Consequence x Probability	Spatial Scale + Duration	Cumulative Impacts prior to Mitigation	Cumulative Impacts after Mitigation	Significance Rating after Mitigation or Enhancement Consequence x Probability
	Degree to which the impact can be mitigated: -High. Confidence rating: High								
Mitigation/Enhancement Measures: All workers will be tested for COVID-19 before commencing work. Priority for casual and unskilled labour will be given to local communities. Married workers to be allowed to periodically travel to their families if they are far from the project area.									
Cumulative Impacts: Given the recent rampage in COVID-19 in South Africa, the cumulative effect of allowing workers from different places to start work untested for the infection is high. However, with precautionary measures in place, the cumulative impact is low.									
1. Waste generation	i). Contractor camps produce solid waste which may distort the environment or attract vectors such as rodents and mosquitos that spread diseases.  <i>Impact Status: Negative Degree to which the impact can cause loss to natural resources: Low. Degree to which the impact can be mitigated: -High Confidence rating: High</i>	Probable 4 + 4 = 8	Reversible but at a cost	4 Harmful	$7 \times 8 = 56$	$2 + 1 = 3$	Low	None	$5 \times 5 = 25$  Moderate risk
Mitigation/Enhancement Measures:									

<p>(a) Proper waste segregation bins will be put in place in contractor camps.          (b) Waste will be collected regularly on approved sites.</p>															
<p>Cumulative Impacts:          Prior to mitigation, cumulative impact is low since there is no known activity in the area producing and managing waste in an inappropriate manner.</p>															
<p>ii). There is high likelihood of spread of diseases such as cholera if there is no proper provision of ablution facilities.</p> <p><i>Impact Status: Negative Degree to which the impact can cause loss to natural resources: Low. Degree to which the impact can be mitigated: -High. Confidence rating: High</i></p>															
Probable 5 + 3 = 8		Reversible		4 Harmful		7 x 8 = 56		2 + 1 = 3		Low		None		5 x 6 = 30  Moderate risk	
<p>Mitigation/Enhancement Measures:          (a) Proper ablution facilities such as portable toilets will be provided with daily emptying and cleaning.          (b) Use of bush toilets by workers will be prohibited.</p>															
<p>Cumulative Impacts:          At the moment, there is no evidence of use of bush toilets by locals or any cases of spread of sanitation related illnesses in the project area. As such, the cumulative impact will be low prior to mitigation.</p>															



**Table 1.15:** Assessment of identified potentially significant impact and risk during operational phase.

Activity / Factor	Possible Impacts and Impact Status	Impact Probability ; Activity Frequency + Impact Frequency	Reversibility	Severity	Significance prior to mitigation; <i>Consequence x Probability</i>	Spatial Scale + Duration	Cumulative impacts Prior to Mitigation	Cumulative impacts after Mitigation	Significance Rating after Mitigation or Enhancement <i>Consequence x Probability</i>
1. Provision of Electricity	i). The power line deviation will ensure better power provision and more coverage to meet the increase in power demand.  <i>Impact status: Positive</i> <i>Degree to which the impact can cause loss to natural resources: None.</i> <i>Degree to which the impact can be mitigated: -High.</i> <i>Confidence rating: High</i>	Probable 5 + 5 = 10	Permanent	5 Extremely beneficial	14 x 10 = 140	4 + 5 = 9	High	High	15 x 10 = 150 High risk
	Mitigation / Enhancement Measures: (a) The power line will be regularly maintained to make sure that it remains operational at peak performance.								
	Cumulative benefits: Considering that the area is an agricultural hub with need for power and the drive by Eskom and other IPPs to increase power generation and access across SADC, the cumulative benefits are high								
	ii). There is likely going to be an increase in power exports and economic production in agriculture and other sectors	Definite 5 + 5 = 10	Permanent	4 Beneficial	13 x 10 = 130	4 + 5 = 9	High	High	15 x 10 = 150 High risk

Activity / Factor	Possible Impacts and Impact Status	Impact Probability ; Activity Frequency + Impact Frequency	Reversibility	Severity	Significance prior to mitigation; <i>Consequence x Probability</i>	Spatial Scale + Duration	Cumulative impacts Prior to Mitigation	Cumulative impacts after Mitigation	Significance Rating after Mitigation or Enhancement <i>Consequence x Probability</i>
	<p>such as mining and manufacturing due to more efficient power distribution and transmission.</p> <p><i>Impact status: Positive</i>  <i>Degree to which the impact can cause loss to natural resources: Low.</i>  <i>Degree to which the impact can be mitigated: -High.</i>  <i>Confidence rating: High</i></p>								
<p>Mitigation / Enhancement Measures:  (a) The power lines will be regularly maintained to make sure that it remains operational at peak performance.</p>									
<p>Cumulative impacts:  Given that with the drive by Eskom and other IPPs to increase power generation and access across SADC, the cumulative benefits are high.</p>									
	<p>v). With more efficient power distribution in the community and the region, deforestation will decrease due to a stable power supply.</p> <p><i>Impact status: Positive</i></p>	<p>Definite  5 + 5 = 10</p>	<p>Permanent.</p>	<p>4  Beneficial</p>	<p>12 x 10 = 120</p>	<p>3 + 5 = 8</p>	<p>High</p>	<p>High</p>	<p>14 x 10 = 140  High risk</p>

Activity / Factor	Possible Impacts and Impact Status	Impact Probability ; Activity Frequency + Impact Frequency	Reversibility	Severity	Significance prior to mitigation; <i>Consequence</i> x <i>Probability</i>	Spatial Scale + Duration	Cumulative impacts Prior to Mitigation	Cumulative impacts after Mitigation	Significance Rating after Mitigation or Enhancement <i>Consequence</i> x <i>Probability</i>
	<i>Degree to which the impact can cause loss to natural resources: Low.</i> <i>Degree to which the impact can be mitigated: -High.</i> <i>Confidence rating: High</i>								
Mitigation / Enhancement Measures: (a) The power line will be regularly maintained to make sure that it remains operational at peak performance. (b) Use of electricity and other off-grid renewable power alternatives such as solar will be encouraged to reduce deforestation.									
Cumulative impacts: Considering SADC's effort to reduce deforestation, the cumulative benefit of the power line being operational is high as this complement towards deforestation reduction efforts.									
2. Power line operations	i). Avifauna, especially birds, can get electrocuted by power lines.  <i>Impact status: Negative</i> <i>Degree to which the impact can cause loss to natural resources: Low.</i> <i>Degree to which the impact can be mitigated: -High.</i> <i>Confidence rating: High</i>	Probable 2 + 4 = 6	Reversible but with considerable resource and time consumption.	4 Harmful	11 x 6 = 66	2 + 5 = 7	Low	None	6 x 4 = 24  Moderate risk

Activity / Factor	Possible Impacts and Impact Status	Impact Probability ; Activity Frequency + Impact Frequency	Reversibility	Severity	Significance prior to mitigation; <i>Consequence</i> x <i>Probability</i>	Spatial Scale + Duration	Cumulative impacts Prior to Mitigation	Cumulative impacts after Mitigation	Significance Rating after Mitigation or Enhancement <i>Consequence</i> x <i>Probability</i>
Mitigation / Enhancement Measures: (a) Bird deterrent spikes can be used if there is high bird mortality rate due to electrocution. (b) Bird feeding and watering sites can be established far from the power line to limit avifaunal activity nearby.									
Cumulative impacts: At the moment, there are no known activities or causes resulting in bird deaths. As such, there are expected to be no cumulative impacts.									
	ii). Electrocution of humans can occur resulting in death or permanent disability.  <i>Impact Status: Negative Degree to which the impact can cause loss to natural resources: Low. Degree to which the impact can be mitigated: -High. Confidence rating: High</i>	Improbable 1  + 4 = 5	Irreversible.	5 Very harmful	12 x 5 = 60	2 + 5 = 7	None	None	10 x 4 = 40  Moderate risk
Mitigation / Enhancement Measures: (a) Warning signage will be put at the power line to warn the public about the high risk of death due to electrocution.									
Cumulative impacts: There are no activities or infrastructure causing electrocution or death by such in the area, therefore there will be no cumulative impacts.									
	iv). Vandalism of power line equipment can interrupt power	1 + 2 = 3	Reversible. Powerline equipment	5 Very harmful	7 x 3 = 21	1 + 1 = 2	Low	Low	2 x 3 = 6  Low risk

Activity / Factor	Possible Impacts and Impact Status	Impact Probability ; Activity Frequency + Impact Frequency	Reversibility	Severity	Significance prior to mitigation; <i>Consequence x Probability</i>	Spatial Scale + Duration	Cumulative impacts Prior to Mitigation	Cumulative impacts after Mitigation	Significance Rating after Mitigation or Enhancement <i>Consequence x Probability</i>
	<p>supply or result in electrocution and death of perpetrators.</p> <p><i>Impact Status: Negative Degree to which the impact can cause loss to natural resources: Low.</i></p> <p><i>Degree to which the impact can be mitigated: -High.</i></p> <p><i>Confidence rating: High</i></p>		can be replaced.						
	<p>Mitigation / Enhancement Measures:</p> <p>(a) Electrocution warning signs can deter would-be offenders.</p> <p>Cumulative impacts:</p> <p>Currently, there have been no reports of vandalism at the existing power line due to thieves or mischief. There are expected to be no cumulative impacts.</p>								

**Table 1.16:** Assessment of identified potentially significant impact and risk during decommissioning phase.

Activity / Factor	Possible Impacts and Impact Status	Impact Probability ; Activity Frequency + Impact Frequency	Reversibility	Severity	Significance prior to mitigation; <i>Consequence x Probability</i>	Spatial Scale + Duration	Cumulative impacts Prior to Mitigation	Cumulative impacts after Mitigation	Significance Rating after Mitigation or Enhancement <i>Consequence x Probability</i>
1. Closure of power lines	i). Metal frames and cables from power line infrastructure can distort natural look of the environment.  <i>Impact status: Negative Degree to which the impact can cause loss to natural resources: None. Degree to which the impact can be mitigated: -High. Confidence rating: High</i>	Probable 4 + 2 = 6	Permanent	3 Slightly harmful	8 x 6 = 48	2 + 3 = 5	None	None	8 x 4 = 32 Low risk
	Mitigation / Enhancement Measures: (a) Metal frames and cables from the power lines can be reused elsewhere or sold to recyclers.								
	Cumulative benefits: There is expected to be no material distorting the natural look of the environment around the power lines. As such, there will be no cumulative impacts.								
	ii). Concrete foundations can leave land degraded after removal of equipment.  <i>Impact status: Negative</i>	Definite 4 + 3 = 7	Reversible	4 Harmful	9 x 7 = 63	2 + 3 = 5	None	None	8 x 6 = 48 Moderate risk

Activity / Factor	Possible Impacts and Impact Status	Impact Probability ; Activity Frequency + Impact Frequency	Reversibility	Severity	Significance prior to mitigation; <i>Consequence x Probability</i>	Spatial Scale + Duration	Cumulative impacts Prior to Mitigation	Cumulative impacts after Mitigation	Significance Rating after Mitigation or Enhancement <i>Consequence x Probability</i>
	<i>Degree to which the impact can cause loss to natural resources: Low. Degree to which the impact can be mitigated: -High. Confidence rating: High</i>								
Mitigation / Enhancement Measures: (a) Rubble from power line foundations will be used to fill concrete foundations.									
Cumulative impacts: Since there are no identified existing activities causing land degradation along the power lines, there are expected to be no cumulative impacts.									
	iii). Dust is generated during demolition work. This can cause respiratory irritation if inhaled.  <i>Impact status: Negative Degree to which the impact can cause loss to natural resources: Low. Degree to which the impact can be mitigated: -High. Confidence rating: High</i>	Definite 5 + 2 = 7	Reversible	3 Slightly harmful	$6 \times 7 = 42$	$2 + 1 = 3$	Low	Low	$5 \times 5 = 30$  Low risk
Mitigation / Enhancement Measures:									

Activity / Factor	Possible Impacts and Impact Status	Impact Probability ; Activity Frequency + Impact Frequency	Reversibility	Severity	Significance prior to mitigation; <i>Consequence</i> x <i>Probability</i>	Spatial Scale + Duration	Cumulative impacts Prior to Mitigation	Cumulative impacts after Mitigation	Significance Rating after Mitigation or Enhancement <i>Consequence</i> x <i>Probability</i>
(a) During demolition, workers will be provided with respirators and goggles to protect against dust. Cumulative impacts: There is likely to be presence of natural dust due to power line servitude being void of vegetation. Viewed together with dust generation due to demolition, the cumulative effect would be low.									
	iv). Loss of employment and income will occur.  <i>Impact status: Negative Degree to which the impact can cause loss to natural resources: Low.</i> <i>Degree to which the impact can be mitigated: -High.</i> <i>Confidence rating: High</i>	Probable 4 + 2 = 6	Reversible	4 Harmful	11 x 6 = 66	2 + 5 = 7	Medium	Low	6 x 4 = 24  Moderate risk
Mitigation / Enhancement Measures: (a) Power line maintenance workers can be deployed elsewhere within Eskom. (b) Retrenched workers can be assisted with advice and guidance on how to start profitable businesses with their retrenchment packages if they wish to do so.									
Cumulative impacts: More livelihoods will be lost downstream due to the decommissioning of the power lines. As such, the cumulative effect will be high.									
	v). Noise and vibration are produced during demolition and	Probable 3 + 5 = 8	Reversible.	2 Potentially harmful	6 x 8 = 48	3 + 1 = 4	None	None	5 x 6 = 30  Low risk



Activity / Factor	Possible Impacts and Impact Status	Impact Probability ; Activity Frequency + Impact Frequency	Reversibility	Severity	Significance prior to mitigation; <i>Consequence x Probability</i>	Spatial Scale + Duration	Cumulative impacts Prior to Mitigation	Cumulative impacts after Mitigation	Significance Rating after Mitigation or Enhancement <i>Consequence x Probability</i>
	<p>these can be a nuisance to nearby communities.</p> <p><i>Impact Status: Negative Degree to which the impact can cause loss to natural resources: Low.</i></p> <p><i>Degree to which the impact can be mitigated: -High.</i></p> <p><i>Confidence rating: High</i></p>								
<p>Mitigation measures:</p> <p>(a) Nearby communities will be informed of demolition activities before they commence as this reduces irritation.</p> <p>(b) Demolition works will not be carried out at night.</p>									
<p>Cumulative impacts:</p> <p>At the moment, there are no other activities causing noise and vibration near the existing power line there will be no cumulative impacts.</p>									

## 8. SUMMARY OF FINDINGS AND IMPACT MANAGEMENT MEASURES

### 8.1. Record of Proposed Impact Management Outcomes for Developments

The Compliance Statements derived from various Environmental Sensitivity Themes as generated by the Web Based Environmental Screening Tools for which summaries are provided below as Annexure 7.

### 8.2. Agricultural Compliance Statement Theme

The proposed Gingindlovu-Mbongolwane Powerline Deviation is regarded as a permissible development within the region of the project assessment zone that was evaluated for the purpose of producing the Agricultural Compliance Report based on the data analysis and impact assessment discussed above.

The soils are humic, clayey, rich, and between 50 and 80 cm deep in the study area. They are underlain by a metamorphic rock that has undergone significant weathering and is rich in amphibolite. At the foot slope (i.e., close to the geo-structural born wetland that borders the north of the site), a red-brownish subsoil that shows at more than 1m depth the influence of a seasonal fluctuating water table overlies the clayey humic surface horizon of about 50 cm depth. The area under study has topsoil of the melanic type, with a depth of around 50 cm. The top portion of the site has a thin B horizon, which lies beneath the melanic A horizon.

It is anticipated that the construction phase will have very low impacts that range from low to very low and that through the consistent implementation of the recommendation mitigation measures, these impacts can all be reduced to very low since it is only two structures. Impacts during the operational phase are associated with maintenance of the infrastructure as well as possible repairs that may be required in the case of equipment failure.

Given that the Gingindlovu-Mbongolwane Powerline deviation infrastructure will be two structures of about 300 metres apart in a built-up residential area onsite, we hereby certify that all practicable steps have been taken to prevent or minimize fragmentation and disturbance of agricultural activities, provided that the mitigation measures recommended in this report are carried out.

Our expert view is that this application should be approved if the mitigation measures are adopted to prevent soil erosion and soil pollution and to lessen effects on the veld quality of the affected farm sections. The project infrastructure should also stay within the 500-meter project assessment zone, but its placement anywhere within the assessment

zone has already been evaluated for impacts, mitigations, and ratings; therefore, regardless of its exact location within the 500-meter project assessment zone, it is considered acceptable from the perspective of agricultural impact.

### **8.3. The Terrestrial Animal Species Compliance Statement**

*Physophorina livingstonii* and *Arytropteris basalis* although present in the general Gingindlovu area, they were not found in the Gingindlovu-Mbongolwane Powerline deviation site, this is despite being present in the broader Gingindlovu area. None of these were located in the research region for the Gingindlovu-Mbongolwane Powerline Deviation study area. All of the sightings are in the traditional floodplain habitat for this species, demonstrating its remarkable fidelity to certain riparian communities connected to the region's main drainage systems. The Gingindlovu-Mbongolwane Powerline Deviation site area did not contain any such places; thus, the location is regarded as having poor sensitivity for this species.

As a result, the DFFE Screening Tool results indicating that the site has medium sensitivity for the *Arytropteris basalis* and *Physophorina livingstonii* is refuted and the site verification supports the finding that the site has low sensitivity for the *Arytropteris basalis* and *Physophorina livingstonii* and for terrestrial mammals more generally. Thus, in terms of the *Arytropteris basalis* and *Physophorina livingstonii* and other mammals of potential concern, there are no reasons that the Gingindlovu-Mbongolwane Powerline Deviation Project site should not proceed into the development phase. In the main, the whole deviation is occurring within a residential developed area and have also been completely transformed into sugarcane plantation.

### **8.4. Aquatic biodiversity species sensitivity theme compliance statement**

It is obvious that the watercourse that is located in the study area is located 100 meters away from the first bending point, which is lattice structure No. 20, and that they are separated by the sugarcane plantation. This is why the Gingindlovu-Mbongolwane Powerline Deviation site is rated aquatic biodiversity theme sensitivity as low sensitivity by the National Web-based Environmental Screening Tool. The research area is very transient and does not support surface water flows, soil saturation hydroperiods, or wetland conditions for long enough to support aquatic life. As a result, the system is not thought to sustain riparian or wetland habitat. A 'low sensitivity rating' for aquatic biodiversity in the study area is therefore motivated, in line with the protocol.

## **8.5. Civil Aviation sensitivity theme compliance statement**

The South African Civil Aviation Authority (SACAA) has been identified as a key stakeholder on the project database and will be afforded an opportunity to provide comments of the Scoping Report during the 30- day review and comment period. Should additional requirements be requested, these will be addressed in the EIA phase of the project.

The development will not have an unacceptable negative impact on civil aviation installations. The CAA will continue to be notified of the application process and afforded the opportunity to raise comment which can further confirm / dispute the findings of the screening tool. The project is hereby recommended since it will not in any way interfere with any normal operation of any aerodrome.

## **9. ENVIRONMENTAL IMPACT STATEMENT**

This section provides an overview of the major conclusions of the impact assessment studies and the development and mitigation procedures to be used on or close to sensitive ecosystems.

### **9.1. Key Findings of the Impact Assessment in Summary**

The project entails the deviation from the authorised route for the construction of two steel electrical lattice structure poles (Structure 20 and 21). Since the project is smaller in scale, Compliance Statements found out that there shouldn't be any significant environmental problems during design, construction, or operation and decommissioning. To guarantee that the intended operations do not harm the environment, however, mitigating measures were advised. Limited bush clearing and alien vegetation removal are among the recommended mitigation measures.

No major heritage resources were discovered onsite; hence no mitigation is needed before construction. However, if any sites are found during construction, a Chance Find Procedure will be put into place for the project.

### **9.1. Summary of impacts and risks**

The identified project risks and consequences are listed below. This covers both favourable and unfavourable effects on the planning and execution phases. There are no substitutes for the project.

#### **9.1.1 Positive Impacts**

The following positive impacts were identified:

- a. All nearby villages will benefit from a steady supply of electricity as a result of the proposed initiatives, which will reinforce electricity throughout the entire Gingindlovu and Mbongolwane region. As a result, the development will lead to residential electrification, raising the community's level of living. Due to fewer blackouts, the problem of blackouts will also be resolved, along with economic progress.
- b. Many local labourers will be able to obtain temporary employment. Although women, young people, and those with impairments will, however, be given preference when it comes to work. Additionally, Eskom's Supplier development and localisation will enable local small business to thrive through minor contract.
- c. Prolonged power cuts will be eliminated.
- d. Industries that could not be started due to lack of power can now be instituted.
- e. The regional economy will also be boosted since there will be sufficient electricity to be able to conduct business.
- f. It will also enhance better Eskom image to the locals.

#### 9.1.1 Negative Impacts

The following negative impacts were identified:

- Degradation of sensitive areas
- Dust nuisance from hole excavations, vegetation clearing and dirt roads.
- Safety: Risk of injuries and spread of infectious diseases such as HIV and other STIs
- Soil and water contamination
- Spread of alien invasive species and possible damage to endangered vegetation
- Vegetation and Biodiversity loss
- Water and Soil pollution

### 10. CONDITIONAL TO ASSESSMENT FINDINGS TO BE INCLUDED AS CONDITIONS FOR AUTHORISATIONS

As part of the Environmental Authorisation conditions, an Independent Environmental Control Officer (ECO) must be appointed to oversee the construction activities in line with the legally binding Environmental Management Programme (EMPr) so that the contractor will comply with all set conditions.

### 11. ASSUMPTIONS, UNCERTAINTIES AND KNOWLEDGE GAPS RELATING TO ASSESSMENT AND MITIGATION MEASURES

The Impact assessment assumes that all information provided by Interested and Affected parties during the public participation process is correct. The EAP ensured that Compliance Statement Sensitivity Themes were conducted as per the gazetted relevant protocols as published. The heritage and military sensitivity themes do not have official protocol, therefore, only the confirmation or dispute of the web based environmental screening tool and best practice were

followed. Both Archaeology and Military sensitive themes will not be negatively impacted. Hence it is here by recommended that the Deviation of Gingindlovu-Mbongolwane Powerline Project find favour and be approved by DFFE as it will not pose significant environmental damage. Also considering that, the rest of the project construction has already commenced, and

The EAP is satisfied and hereby confirms that there is sufficient evidence to foresee potential repercussions and avert them using all the data amassed throughout Site Investigation and Compliance Statements studies. Several steps were taken in the conversion of spatial data to final output drawings, and although while care was taken to maintain accuracy, these procedures may have had an impact on the demarcated areas' accuracy. No assumptions should be made unless opinions are specifically indicated and provided.

## **12. REASONED OPINION OR CONDITIONS AS TO WHETHER THE PROPOSED ACTIVITY SHOULD BE AUTHORISED**

The EAP believes that, given the Compliance statements available and the impact study completed, any potential negative effects resulting from the project may be properly prevented or mitigated with good planning and rehabilitation. Under the condition that the mitigation strategies and recommendations in this report are implemented, the proposed project should be approved. These best practices make guarantee that project advantages are realized while minimizing and avoiding negative effects.

## **13. FINANCIAL PROVISION FOR REHABILITATION AND CLOSURE**

The rehabilitation after construction activities will be provided through the construction and operational costs. Due to the permanent nature of this development, closure is highly unlikely, therefore closure does not form part of this project since it is designed with a life span of 300 years.

## **14. SPECIFIC INFORMATION REQUIRED BY THE COMPETENT AUTHORITY**

The project must adhere to all other Eskom requirements, when applicable, as well as the mitigation and avoidance strategies mentioned in this report. The EMPr (Volume 2 of this study) contains information on the proposed monitoring reports and timetables for environmental management.

The EAP believes that if authorization is given, the proponent should cooperate with the competent authority to create a comprehensive approach to environmental protection, ensuring that the intended and unintended advantages of the project are maximized while the negative effects are minimized.

## 15. CONCLUSION AND RECOMMENDATIONS

The Strategic Transmission Corridors (EGI) are designated by Government Notice No. 114 in Government Gazette No. 41445 and include the proposed site for the Gingindlovu-Mbongolwane 132kV powerline deviation site region. EGI identified five strategic transmission corridors that are crucial for the planning of electricity transmission and distribution infrastructure. It also outlined the process to follow when requesting environmental authorization for electricity transmission and distribution expansion in these corridors. Gingindlovu-Mbongolwane 132kV powerline is one the most significant development that is suited to EGI core and is because it was designed to bolster the area's deficient energy supply and construction of the project has already commenced and a decision by the competent authority to grant the powerline deviation is of paramount importance under the circumstance.

Despite the fact that the web-based environmental screening tool suggested a number of potential habitats, threatened or endangered plant and animal species, and more species based on historical data of the general area from SANBI databases, none were found during site field investigations. The area has undergone a significant transformation from natural habitat to agricultural landscape dominated by sugarcane plantation, crops cultivation and residential dwellings.

A site visit have found that the powerline deviation site is significantly deteriorated and transformed, making it unlikely to support significant levels of biodiversity and to a certain extent not indicative of the environmental sensitivities discovered during the desktop assessment and also disputed some of the stated environmental sensitivities themes that were suggested by the web based Environmental screening tool from Very high, High and Mediums to the relevant Low sensitivities that represent the correct current land use. On the same note, some environmental sensitivities were confirmed to be either a Very High, High, Medium or Low Sensitivity as suggested by the web based environmental screening tool as they truly represent the current land use on site.

Nonetheless, no Species of Conservation Concern (SCC) (animal and flora species) could conceivably exist, even though most of them have a low probability of doing so. The precautionary approach would assume the presence of the listed species, however considering the site visit findings and the presence of the residential dwelling surrounding the site, any of their presence is highly negligible. Gingindlovu-Mbongolwane 132kV powerline deviation location is characterised by heavily transformed habitat and ecosystem from natural state to agricultural field and was found not to have the Species of Conservation Concern and nevertheless seldom present throughout the site. The presence of sugar cane plantation throughout and the presence of the residential dwellings contribute significantly to the fact that the presence of SCC be highly unlikely.

There powerline deviation development's is not envisaged to have significant potential effects on ecological processes due to the fact that the overall area is significantly transformed, and it is not located within the close proximity of any conservation area.

#### **15.1. Environmental Impact Statement:**

The proposed Gingindlovu-Mbongolwane 132kV powerline deviation site is viewed as generally appropriate for the supply and electricity strengthening in the area as electricity demand is increasing exponentially. The powerline deviation may have some localised minimum impact on the pole position, but there are not any specific long-term effects that are likely to be connected to the Gingindlovu-Mbongolwane 132kV powerline deviation that can't be avoided or mitigated to a manageable level by the already approved EMPr.

After the proposed construction's footprint has been evaluated by the site visit: Gingindlovu-Mbongolwane 132kV powerline deviation project is hereby recommended to be approved by DFFE on a condition that the contractor to fully:

- comply with the generic environmental management programme (EMPR) for the development and expansion of Gingindlovu-Mbongolwane 132kV powerline deviation infrastructure for the transmission and distribution of electricity.
- The telecommunication mast is not going to interfere with the Eshowe FAES Aerodrome located 7km away as it is not on the fly path of landing at the aerodrome, and it is also hereby recommended to be approved as the substation has already been approved. The likelihood of impact that it may bring was that of visual impact, which will be offset by the construction of the many gantries in the substation and the lattice structures (30m high) that will be feeding the substation with electricity from Gingindlovu substation.



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***APPENDIX 3:***

**LIST AND CONTACT DETAILS OF LAND OWNERS**

## LIST OF LANDOWNERS

1	Name of the landowner:	Nzuza Ndabazwe Vitalis		
	Name of contact person for landowner (if other):	Nzuza Ndabazwe Vitalis		
	Postal address:	P.O.Box 309, Gingindlovu		
	Postal code:	3800	Cell:	076 888 6222
	Telephone:		Fax:	
	E-mail:	Uphindo.nzuza@outlook.com		

***APPENDIX 4:***

**LIST AND CONTACT DETAILS OF PROVINCIAL ENVIRONMENTAL AUTHORITY  
AND LOCAL MUNICIPALITY**

LIST AND CONTACT DETAILS OF PROVINCIAL ENVIRONMENTAL AUTHORITY  
AND LOCAL MUNICIPALITY

1	Provincial Environmental Authority:	Kwazulu-Natal Department of Economic Development, Tourism and Environmental Affairs		
	Name of contact person:	Mr. Muziwandile Mdamba		
	Postal address:	Next to sports complex in Veld en Vlei, corner Aloe & Loop Street, Richards Bay		
	Postal code:		Cell:	082 822 2582
	Telephone:	(035) 780 0313	Fax:	(035) 780 0315
	E-mail:	muziwandile.mdamba@kznedtea.gov.za		
2	Local Municipality:	uMlalazi Local Municipality		
	Name of contact person in (Environmental Section)	Mr Abraham Phiri		
	Postal address:	P.O.Box 37, Eshowe, 3815		
	Postal code:		Cell:	
	Telephone:	035 473 3401	Fax:	
	E-mail:	abrahamp@umlalazi.org.za		

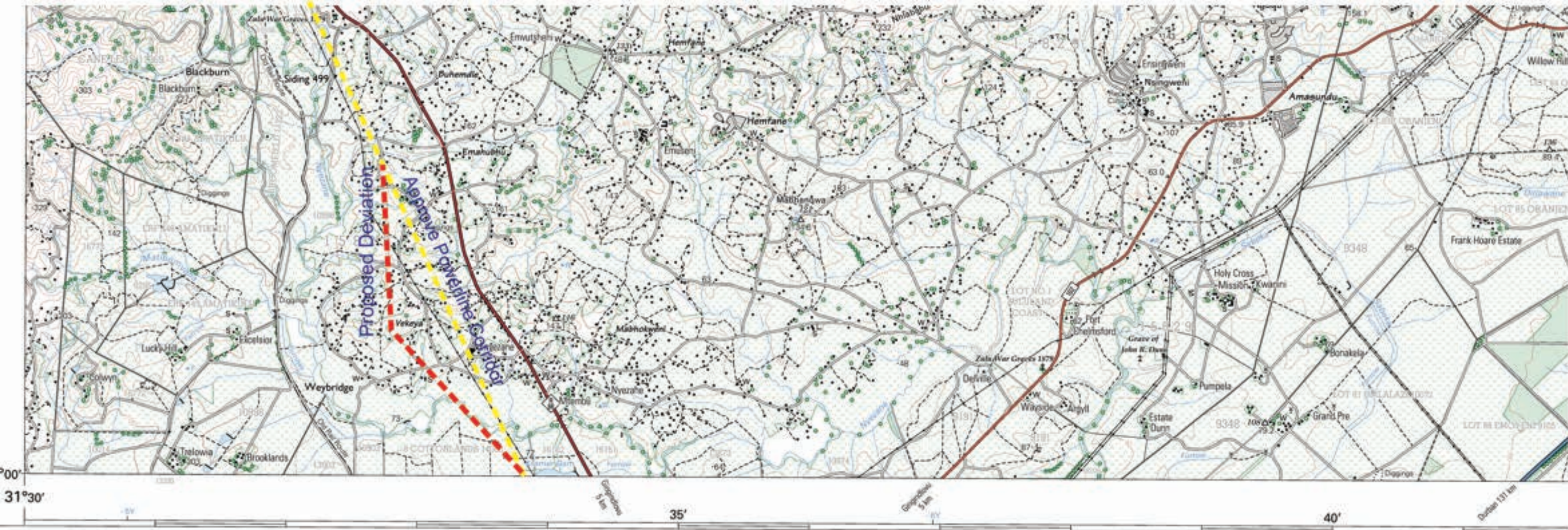


***APPENDIX 5:***

**LIST OF SGIDS / COORDINATES OF THE BOUNDARY OF THE PROPERTY OR PROPERTIES**



***APPENDIX 6:***  
**LOCALITY MAP**



# LEGEND

- Proposed Powerline Deviation.....
- 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



Mean magnetic declination 23°22' West of True North (May 2011).  
 Mean annual change 5' Westwards (May 2011 – April 2012).  
 Sourced from "NOAA National Geophysical Data Center".

Gemiddelde magnetiese deklinasie 23°22' Wes van Ware Noord (Mei 2011).  
 Gemiddelde jaarlikse verandering 5' Weswaarts (Mei 2011 – April 2012).  
 Verkry vanaf "NOAA National Geophysical Data Center".

Heights are in metres above mean sea level  
 Hoogtes is in meter bo gemiddelde seespieël

CONTOUR INTERVAL 20 METRES KONTOERTUSSENRUIMTE 20 METER

Gauss Conform Projection, Central Meridian 31° East.  
 Hartbeesthoek 94 Datum (WGS84 Ellipsoid)

### INDEX TO SHEETS



***APPENDIX 7:***

**FINAL PRE-NEGOTIATED ROUTE PLAN OF THE ELECTRICITY GRID INFRASTRUCTURE  
AND/OR LOCATION OF ANY RELEVANT SUBSTATIONS**

# Vekeya

Structure No 21

Ngobie's Corner

Mabhokweni

Vekeya

Structure No 20

# R609

Image © 2024 Airbus

Kramer Dam

Google Earth

720 m

## LEGEND



FINAL PRE-NEGOTIATED ROUTE PLAN OF THE ELECTRICITY GRID INFRASTRUCTURE



## Scale

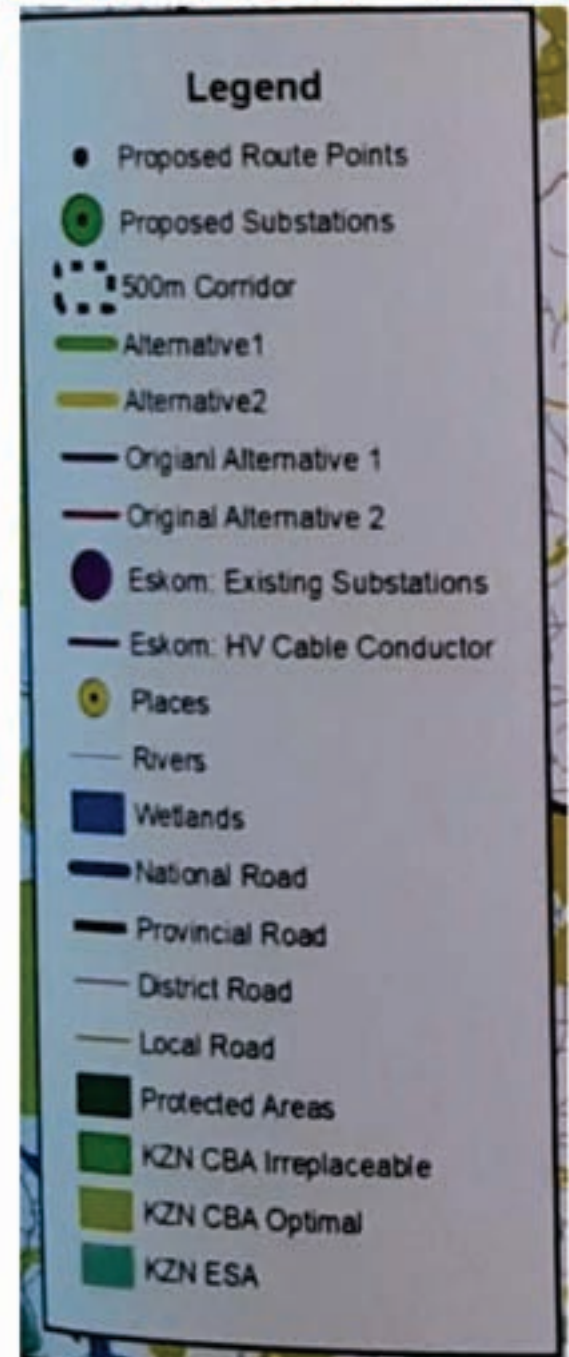
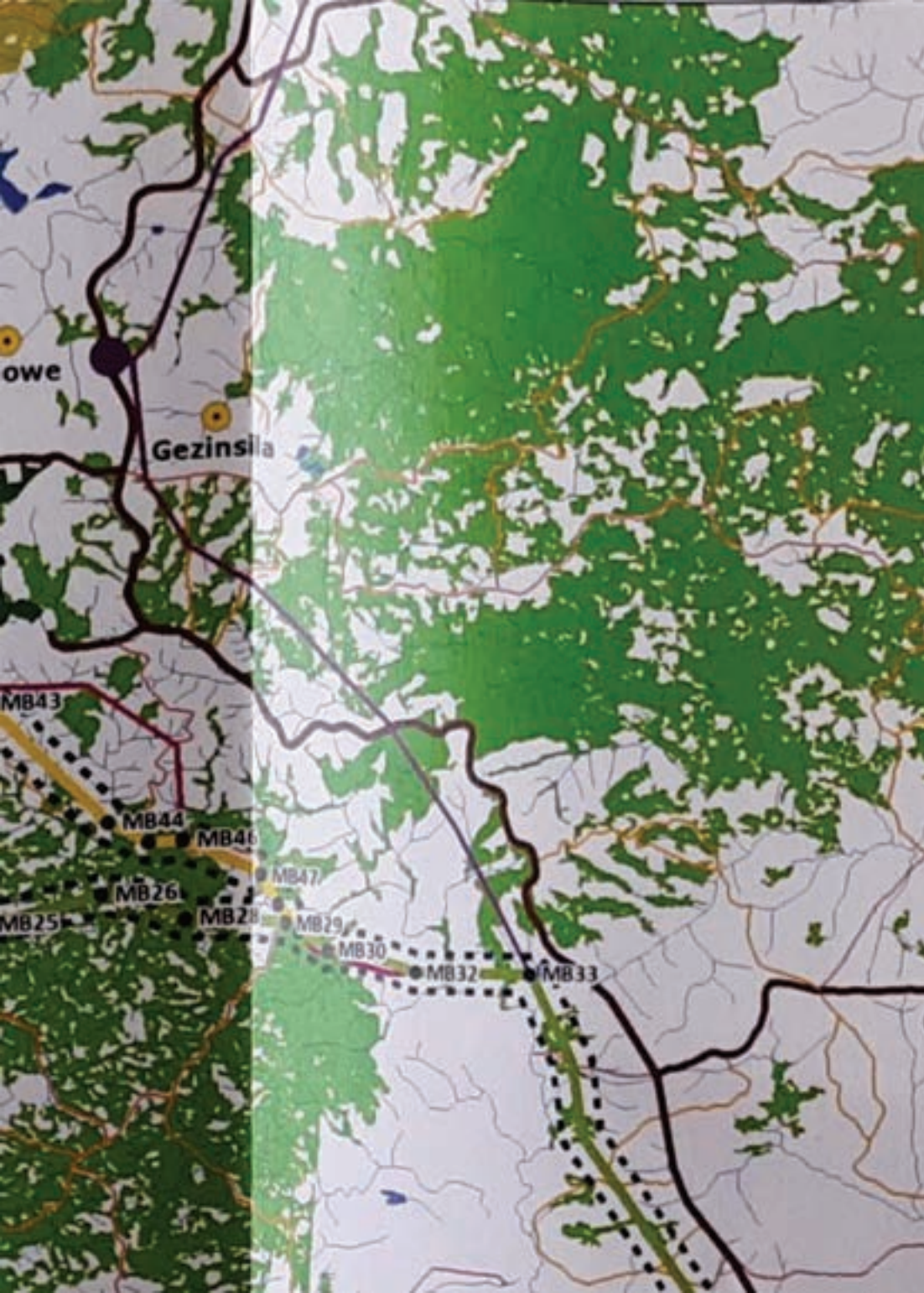
720m



OURBIOSPHERE  
ENVIRONMENTAL

***APPENDIX 8:***  
**SENSITIVITY MAP**

# LEGEND





## APPENDIX 9:

### DECLARATION OF THE PROPONENT COMMITMENT TO IMPLEMENT THE STANDARD<sup>30</sup>

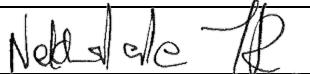
I, T.Nekhalale\_Eskom Representative, hereby declare that:

- I am the proponent in this registration;
- I have appointed an Environmental Assessment Practitioner (EAP) to act as the independent EAP for this registration;
- I have taken all reasonable steps to verify whether the EAP and specialist/s appointed are independent and have relevant expertise, including knowledge of the Act, the EIA Regulations and any guidelines that have relevance to the proposed activity;
- I have provided the EAP and specialists with access to all information at my disposal that is relevant to the registration;
- I am responsible for the costs incurred in complying with the Standard, including but not limited to –
  - costs incurred in connection with the appointment of the EAP or any person contracted by the EAP; and
  - costs incurred in respect of the undertaking of any process required in terms of the Standard;
- I hereby indemnify the Government of the Republic of South Africa, the competent authority and all its officers, agents and employees, from any liability arising out of the content of any registration, any procedure or any action which I as the proponent or the EAP is responsible for in terms of the Standard;
- I will not hold the competent authority responsible for any costs that may be incurred in proceeding with an activity prior to obtaining confirmation of registration or prior to an appeal being decided in terms of the National Appeal Regulations;
- I have performed all obligations as expected from a proponent in terms of the Standard;
- I have read the completed registration form and supporting documents and hereby confirm that the information provided is, to the best of my knowledge, true and correct;
- All the particulars furnished by me in this form are true and correct;
- I have not commenced with the project as described in paragraph 1.3 of Chapter 1 of this Standard and will not commence until a registration number has been received as contemplated in the *Standard for the Development of Power Lines and Substations within Identified Geographical Areas Revision 1*; and
- I am fully aware of my responsibilities in terms of the *Standard for the development of Power Lines and Substations within Identified Geographical Areas Revision 1* in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and failure to comply with these requirements may constitute an offence. I am aware of what constitutes an offence in terms of the Standard and that a person convicted of an offence is liable to the penalties as contemplated in section 49B of the Act.

Proponent (Name and Surname) Tshililo Nekhalale

Name of Company (If Applicable) Eskom Holdings Soc Limited\_CentralEast Cluster (KZN)

Designation Land Development Environmental Manager

Signature<sup>31</sup> 

Date 02 Feb 2024 Place 02 Feb 2024 New Germany

<sup>30</sup> This registration form must be signed by the proponent.

<sup>31</sup> Only original signatures will be accepted. No scanned, copied or faxed signatures will be accepted. An EAP may not sign on behalf of the proponent.

Commissioner of Oaths Mfanafuthi Bethuel Ndwandwe

Designation Senior Survey Technician

Signature 

Date 02/02/2024 Place New Germany

MFANAFUTHI BETHUEL NDWANDWE  
COMMISSIONER OF OATHS  
SURVEY TECHNICIAN  
REPUBLIC OF SOUTH AFRICA  
ESKOM, VALLEY VIEW ROAD, NEW GERMANY



\_\_\_\_\_  
Commissioner of Oaths Stamp

This document is certified a  
true copy of the original

**APPENDIX 10:**

**DECLARATION OF THE PROPONENT COMMITMENT TO IMPLEMENT THE GENERIC AND WHERE RELEVANT THE SITE SPECIFIC ENVIRONMENTAL MANAGEMENT PROGRAMME**

I, T.Nekhalale\_Eskom Representative, the proponent, affirm that I will abide by and comply with the prescribed impact management outcomes and impact management actions as stipulated in Part B: Section 1 / Part C [delete what is not applicable] of the Generic Environmental Management Programmes for the Development and Expansion of Overhead Electricity Transmission and Distribution Infrastructure and for the Development and Expansion of Substation (as published under Government Notice No. 435 in Government Gazette No. 42323 of 22 March 2019.).


I declare that I have the understanding that the impact management outcomes and impact management actions are legally binding.

I affirm that I will provide written notice of commencement of construction to the competent authority 14 days prior to the date on which the activity will commence in order to facilitate compliance inspections.

Proponent (Name and Surname) Tshililo Nekhalale

Name of Company (If Applicable) Eskom Holdings Soc Limited\_CentralEast Cluster (KZN)

Designation Land Development Environmental Manager\_CentralEast Cluster (KZN)

Signature<sup>32</sup> 

Date 02 Feb 2024 Place New Germany

<sup>32</sup> An EAP may not sign on behalf of the proponent.

**APPENDIX 11:**

**DECLARATION OF EAP AND UNDERTAKING UNDER OATH OR AFFIRMATION**

**Declaration of EAP**


I, Musa netshivhambe, declare that –

- I act as the independent environmental assessment practitioner in the Standard registration process;
- I have expertise in conducting environmental impact assessments, including knowledge of the Act, the *Standard for the Development of Power Lines and Substations within Identified Geographical Areas Revision 1*, the Regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the National Environmental Management Act, 1998 (Act No.107 of 1998) the *Standard for the Development of Electricity Power Lines and Substations within Identified Geographical Areas Revision 1*, the Regulations and all other applicable legislation;
- I have performed the work relating to the Standard registration process in an objective manner;
- I have taken into account, to the extent possible; the requirements of the *Standard for the Development of Power Lines and Substations within Identified Geographical Areas Revision 1*, matters listed in Regulation 13 of the Environmental Impact Assessment (EIA) Regulations, 2014 (as amended) when preparing the Standard registration process; and the reports relating to the Standard registration process;
- I have disclosed to the Proponent all material information in my possession that reasonably has or may have the potential of influencing the Standard registration process; and the objectivity of any report, plan or document to be prepared by myself to support the registration process, unless access to that information is protected by law, in which case, I have indicated that such information exists and will be provided to the competent authority as part of the registration process; and
- I have performed all obligations as expected from an environmental assessment practitioner in terms of the *Standard for the Development of Power Lines and Substations within Identified Geographical Areas Revision 1* and the EIA Regulations, 2014 (as amended).

**Disclosure of vested Interest (delete whichever is not applicable)**

- I do not have any vested interest (either business, financial, personal or other) in the proposed activity proceeding other than remuneration for work performed in terms of the Standard;
- I have a vested interest in the proposed activity proceeding, such vested interest being:

\_\_\_\_\_  
Not Applicable  
\_\_\_\_\_

  
\_\_\_\_\_  
Signature of the Environmental Assessment Practitioner

Ourbiosphere Environmental (Pty) Ltd  
\_\_\_\_\_  
Name of Company

Date

**Undertaking under Oath or Affirmation**

I, Musa netshivhambe, swear under oath / affirm that all the information submitted or to be submitted for the purposes of this registration is true and correct.

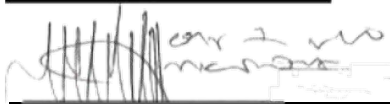


\_\_\_\_\_  
Signature of the Environmental Assessment Practitioner

Ourbiosphere Environmental ty) Ltd

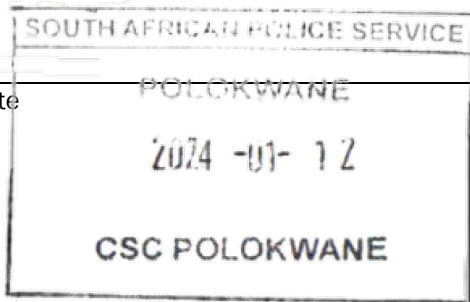
\_\_\_\_\_  
Name of Company

Date: 29 January 2024



\_\_\_\_\_  
Signature of the Commissioner of Oaths

Date



***APPENDIX 12:***

**CURRICULUM VITAE OF THE EAP AND SPECIALISTS**

## CURRICULUM VITAE OF MUSATONDWA JUSTICE NETSHIVHAMBE

First Names : Musatondwa Justice  
Surname : Netshivhambe  
SACNASP Reg: : 200076/12  
Gender : Male  
Date of birth : 1979-03-31  
Identity number : 7903315306082  
Nationality : South African  
Health : Good  
Criminal offence : None  
Marital Status : Married  
Driver's license : Code 08 and 10  
Address : ERF4911  
Bendor Park Ext 92  
Polokwane  
Cell phone : 0739779414  
Fax : 086 567 5523  
Email : [musa@ourbiosphere.co.za](mailto:musa@ourbiosphere.co.za)

### KEY COMPETENCES

- Environmental Management Systems (ISO 14001) Development, Implementation, Compliance, Auditing and Review
- Integrated Environmental Management (IEM) tools including EIA and SEA (Including the compilation of Scoping reports, Basic assessment reports, Environmental Management Plans, Strategic Environmental Impacts Assessments, and Application for Exceptions);
- Occupational Health and Safety
- Vegetation Management
- Tree Identification
- Remote Sensing application to natural resource studies
- National Forest Management Act, Act 84 of 1998

<b>EDUCATION</b>		
MEnvSc (Master of Environmental Sciences)	University of Venda	2007
BEnvM (Bachelor of Environmental Management)	University of Venda	2003
Grade 12 (Matriculation)	Tondalushaka Secondary School	1998
<b>MASTERS' RESEARCH TOPIC:</b>		
An investigation into potential plants that can hyperaccumulate toxic heavy metals in contaminated areas.		
<b>OTHER COURSES AND WORKSHOPS ATTENDED</b>		
Geographical Information Systems		2005
Participatory Rural Appraisal		2004
Natural Resource and Environmental Economics		2003
<b>AWARDS</b>		
Vice Chancellor Best Student Award		2002
<b>EMPLOYMENT AND EXPERIENCE RECORD</b>		
PERIOD	POSITION & COMPANY	RESPONSIBILITIES
July 2014- Present	Environmental Consulting Manager Ourbiosphere Environmental (Pty) Ltd	<ul style="list-style-type: none"> <li>▪ Compliance Management Plans</li> <li>▪ Construction monitoring (Environmental Control Officer)</li> <li>▪ Contaminated Site Management Services</li> <li>▪ Tree identification</li> <li>▪ Bioregional Plans</li> <li>▪ Corporate Sustainability Strategy Services</li> <li>▪ Environmental and Sustainability Training</li> <li>▪ Environmental compliance training</li> <li>▪ Environmental damage assessments</li> <li>▪ Environmental Due Diligence Services</li> <li>▪ Environmental Impact Assessments (EIAs)</li> <li>▪ Environmental Management Systems (ISO14001:2004)</li> <li>▪ Environmental Planning</li> <li>▪ Environmental, Health and Safety Legal Compliance</li> </ul>



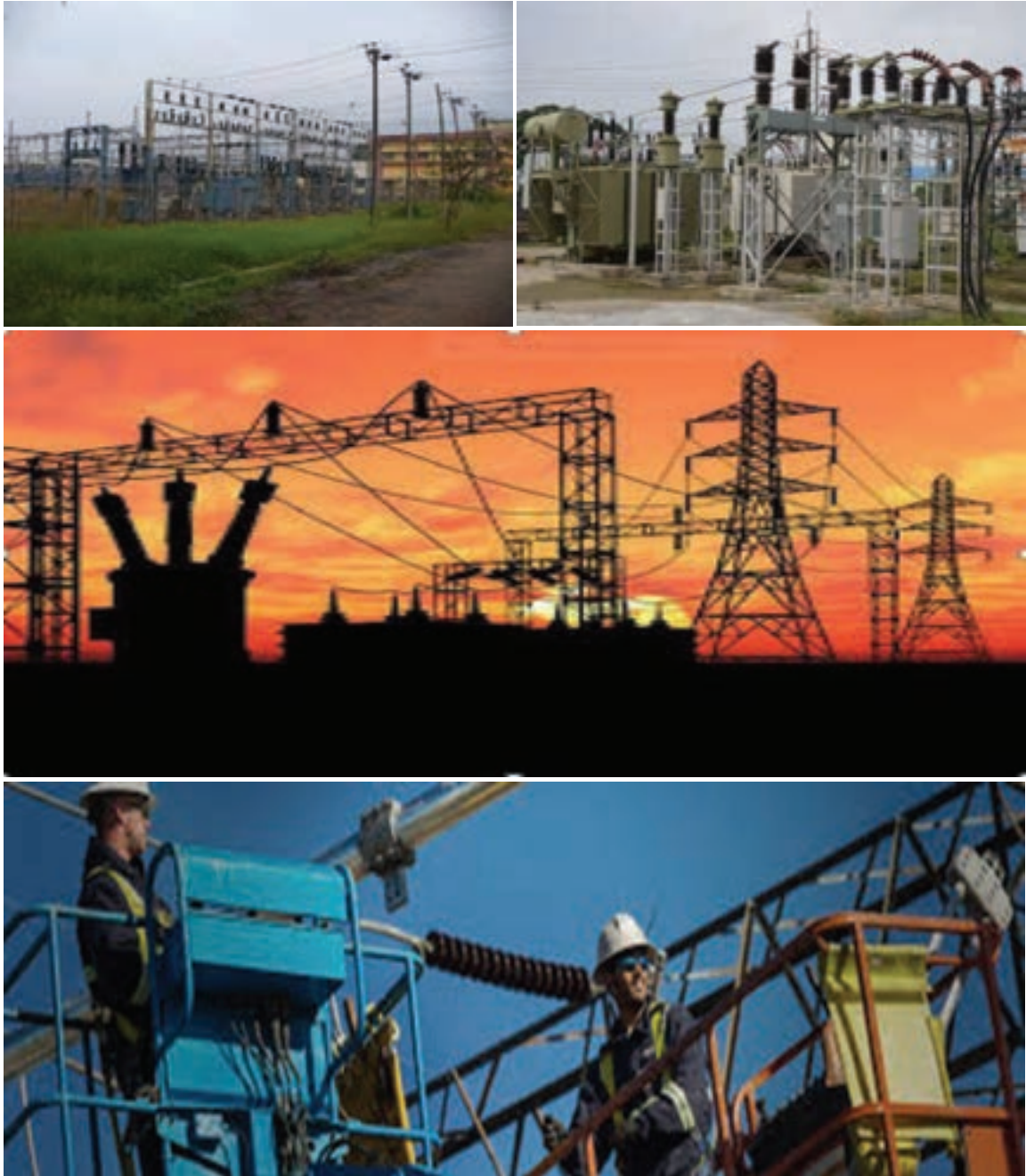
		<ul style="list-style-type: none"> <li>▪ Environmental, Social and Health Management and Action Plans</li> <li>▪ Impact Assessment and Planning Services</li> <li>▪ Gap analysis</li> <li>▪ Permitting Requirements Analyses and Support</li> <li>▪ Product Life Cycle Assessment and Management</li> <li>▪ Public Consultation and Stakeholder Engagement</li> <li>▪ Site and Route Selection Studies</li> <li>▪ Solid and Hazardous Waste Management</li> <li>▪ Strategic Environmental Assessments (SEAs)</li> <li>▪ Sustainability and Strategic Consulting</li> <li>▪ Tree identification and Training</li> <li>▪ Vegetation Management</li> <li>▪ Vegetation mapping and assessments</li> <li>▪ Water and Waste Licensing and Management Plans</li> <li>▪ Wetland mitigation planning</li> <li>▪ Wetlands Management and Delineations</li> </ul>
<i>November 2011 - August 2014</i>	<i>Senior Environmental Supervisor, Eskom, Limpopo Operating Unit</i>	<p><i>Supervision and team leadership for the sub -section</i></p> <ul style="list-style-type: none"> <li>▪ Financial management and Staff Development</li> <li>▪ Safety &amp; Risk Management and emergency preparedness Stakeholder management Ensure Environmental Management compliance</li> <li>▪ Provide Environmental Management Service to the Business</li> <li>▪ Environmental Impact Assessments</li> <li>▪ Environmental Management Systems (ISO14001:2004)</li> <li>▪ Strategic Environmental Assessments</li> </ul>
December 2008- October 2011	Environmental Management Officer, Eskom Distribution Division	<p><i>Environmental Management Systems</i></p> <ul style="list-style-type: none"> <li>▪ Assist in developing, implementing and monitoring compliance</li> <li>▪ Responsible for Managing Environmental Consultant carrying-out environmental Authorizations for projects;</li> <li>▪ Monitoring compliance of projects buy contractors; developing</li> </ul>

		<p><i>Environmental Management Programmes (EMPs);</i></p> <ul style="list-style-type: none"> <li>▪ Provide environmental training and awareness to employees</li> <li>▪ Investigating environmental incidences;</li> <li>▪ Preparing reports and liaising with various statutory bodies</li> </ul> <p><i>Conducts Environmental Impact studies:</i></p> <ul style="list-style-type: none"> <li>▪ Collating data and identifying sensitive areas</li> <li>▪ Consulting with Statutory Authorities, landowners, pressure groups and interested and affected parties</li> <li>▪ Researching and evaluating all Environmental data</li> <li>▪ Integrating ESKOM proposals and its consequence with environmental findings and compiling recommendations</li> <li>▪ Manipulating Environmental and Technical Data</li> <li>▪ Assisting in final selection of routes or sites which will result in minimum Environmental impact</li> </ul> <p><i>Develops Environmental Management Plans:</i></p> <ul style="list-style-type: none"> <li>▪ Developing guidelines for construction, operational and maintenance methods</li> </ul> <p><i>Communicating all records of decision</i></p> <ul style="list-style-type: none"> <li>▪ Auditing and monitoring the implementation action on the environment as recommended in the management plan</li> </ul>
<p>September 2007- December 2008</p>	<p><b>Head:</b> Mabesa Environmental Impact Management Services</p>	<p><i>Responsible for conducting for:</i></p> <ul style="list-style-type: none"> <li>▪ ISO 14001 (Environmental Management Systems)</li> <li>▪ Environmental Impacts Assessments (EIA) for specific development activities, meeting environmental obligations at the inception of the appropriate projects</li> <li>▪ Public Participation Process</li> <li>▪ Project Management involving the co-ordination of multidisciplinary processes and reports</li> <li>▪ Ecological Assessments and Surveys</li> <li>▪ Impact Evaluation and Significance Rating</li> </ul>

		<ul style="list-style-type: none"> <li>▪ Environmental Management System (ISO 14001)</li> <li>▪ Safety, Health, Environment and Quality (SHE)</li> <li>▪ Environmental Mitigation and Control</li> <li>▪ Identification and mapping of rural land use</li> <li>▪ Fauna and Flora Investigations (Biodiversity)</li> <li>▪ Environmental Risk and Liabilities Assessments</li> <li>▪ Environmental Policy Formulation and Implementation</li> <li>▪ Environmental Management Plans for development projects during construction, rehabilitation and operational phases</li> <li>▪ Advice on Invasive Alien Plant Eradication</li> <li>▪ Environmental Awareness and Capacity Building/Training</li> </ul>
December 2006 – August 2007	<b>Associate Environmental Consultant:</b> Marsh Environmental Services (A Division of Marsh and McLennan Companies)	Environmental Impact Assessments (EIAs), including scoping reports, basic assessment reports, application for exemptions, public participation process, Stakeholders engagement, environmental planning, and landscape rehabilitation
September 2006 – November 2006	<b>Associate Environmental Scientist Intern:</b> Council for Scientific and Industrial Research (CSIR)	<b>Responsible for assisting the Senior Consultant with the:</b> <ul style="list-style-type: none"> <li>▪ Assessment of the feasibility, and potential environmental impacts of new rural land use systems;</li> <li>▪ Development of indicators of environmental sustainability for rural land use systems</li> <li>▪ Assessment and monitoring sustainability of rural land use systems using relevant indicators;</li> <li>▪ Identification of sustainability challenges and obstacles related to rural land use; and searching for their solutions;</li> <li>▪ Development and implementation of practical and affordable strategies for achieving environmental sustainability in rural land use systems;</li> </ul>

		<ul style="list-style-type: none"> <li>▪ Development of rural land use models that integrate high economic productivity and environmental sustainability</li> </ul>
January 2003 – July 2006	Junior Lecturer: University of Venda (School of Environmental Sciences)	<p>Responsibilities included:</p> <ul style="list-style-type: none"> <li>▪ Teaching and supervising undergraduate students on Environmental/Ecology and Resource Management modules in Environmental Sciences</li> <li>▪ Developing curriculum for programmes for undergraduate degrees and diplomas in environmental management</li> <li>▪ Providing leadership in Community Based Conservation Activities related to environmental management</li> <li>▪ Undertaking research on Waste Management and Pollution and consultancy work in Environmental Impact Assessments for both Private and government departments</li> <li>▪ Providing leadership to undergraduate student in field classes in Environmental Management</li> <li>▪ Assisting the HOD in providing strategic direction to the department (staff and students)</li> </ul>
<b>INVOLVEMENT IN INTERNATIONAL INITIATIVES</b>		
2003 – 2004		Part of the team and student leader for the Virginia (USA) and Venda (South Africa) weekly academic seminar series conducted <i>via</i> video conferencing facilities:
2005		Attended the summer classes offered by the University of Virginia (United States)

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



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## INTRODUCTION

### 1. Background

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

### 2. Purpose

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

### 3. Objective

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

### 4. Scope

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

## 5. Structure of this document

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

Part	Section	Heading	Content
A		Provides general guidance and information and is <b>not legally binding</b>	Definitions, acronyms, roles & responsibilities and documentation and reporting.
B	1	Pre-approved generic EMPr template	<p>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 substation infrastructure for the transmission and distribution of electricity, which are presented in the form of a template that has been pre-approved.</p> <p>The template in this section is to be completed by the contractor, with each completed page signed and dated by the holder of the EA prior to commencement of the activity.</p> <p>Where an impact management outcome is not relevant, the words "not applicable" can be inserted in the template under the "responsible persons" column.</p> <p>Once completed and signed, the template represents the EMPr for the activity approved by the CA and is legally binding. The template <b>is not required</b> to be submitted to the CA as once the generic EMPr is gazetted for implementation, it has been approved by the CA.</p> <p>To allow interested and affected parties access to the pre-approved EMPr template for consideration through the 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.</p>
	2	Site specific information	Contains preliminary infrastructure layout and a declaration that the applicant/holder of the EA

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## PART A – GENERAL INFORMATION

### 1. DEFINITIONS

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

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

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

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

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

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

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

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

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

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

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

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

“**works**” means the works to be executed in terms of the Contract

## 2. ACRONYMS and ABBREVIATIONS

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

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

The effective implementation of this 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)	<p><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.</p> <p><u>Responsibilities</u></p> <ul style="list-style-type: none"> <li>- Be fully conversant with the conditions of the EA;</li> <li>- Ensure that all stipulations within the EMPr are communicated and adhered to by the Developer and its Contractor(s);</li> <li>- Issuing of site instructions to the Contractor for corrective actions required;</li> <li>- Monitor the implementation of the EMPr throughout the project by means of site inspections and meetings. Overall management of the project and EMPr implementation; and</li> <li>- Ensure that periodic environmental performance audits are undertaken on the project implementation.</li> </ul>



Responsible Person(s)	Role and Responsibilities
Developer Site Supervisor (DSS)	<p><u>Role</u> The DSS reports directly to the DPM, oversees site works, liaises with the contractor(s) and the ECO. The DSS is responsible for the day to day implementation of the EMPr and for ensuring the compliance of all contractors with the conditions and requirements stipulated in the EMPr.</p> <p><u>Responsibilities</u></p> <ul style="list-style-type: none"> <li>- Ensure that all contractors identify a contractor's Environmental Officer (cEO);</li> <li>- Must be fully conversant with the conditions of the EA. Oversees site works, liaison with Contractor, DPM and ECO;</li> <li>- Must ensure that all landowners have the relevant contact details of the site staff, ECO and cEO;</li> <li>- Issuing of site instructions to the Contractor for corrective actions required;</li> <li>- Will issue all non-compliances to contractors; and</li> <li>- Ratify the Monthly Environmental Report.</li> </ul>
Environmental Control Officer (ECO)	<p><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.</p> <p>The ECO provides feedback to the DSS and Project Manager, who in turn reports back to the Contractor and potential and Registered Interested &amp; Affected Parties' (RI&amp;AP's), as required. Issues of non-compliance raised by the ECO must be taken up by the Project Manager, and resolved with the Contractor as per the conditions of his contract. Decisions regarding environmental procedures, specifications and requirements which have a cost implication (i.e. those that are deemed to be a variation, not allowed for in the</p>

Responsible Person(s)	Role and Responsibilities
	<p>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.</p> <p><u>Responsibilities</u>                      The responsibilities of the ECO will include the following:</p> <ul style="list-style-type: none"> <li>- Be aware of the findings and conclusions of all EA related to the development;</li> <li>- Be familiar with the recommendations and mitigation measures of this EMPr;</li> <li>- Be conversant with relevant environmental legislation, policies and procedures, and ensure compliance with them;</li> <li>- Undertake regular and comprehensive site inspections / audits of the construction site according to the generic EMPr and applicable licenses in order to monitor compliance as required;</li> <li>- Educate the construction team about the management measures contained in the EMPr and environmental licenses;</li> <li>- Compilation and administration of an environmental monitoring plan to ensure that the environmental management measures are implemented and are effective;</li> <li>- Monitoring the performance of the Contractors and ensuring compliance with the EMPr and associated Method Statements;</li> <li>- In consultation with the 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;</li> <li>- Liaison between the DPM, Contractors, authorities and other lead stakeholders on all environmental concerns;</li> <li>- Compile a regular environmental audit report highlighting any non-compliance issues as well as satisfactory or exceptional compliance with the EMPr;</li> <li>- Validating the regular site inspection reports, which are to be prepared by the contractor Environmental Officer (cEO);</li> <li>- Checking the cEO's record of environmental incidents (spills, impacts, legal transgressions etc.) as well as corrective and preventive actions taken;</li> <li>- Checking the cEO's public complaints register in which all complaints are recorded, as well as action taken;</li> </ul>

Responsible Person(s)	Role and Responsibilities
<p>developer Environmental Officer (dEO)</p>	<ul style="list-style-type: none"> <li>- Assisting in the resolution of conflicts;</li> <li>- Facilitate training for all personnel on the site – this may range from carrying out the training, to reviewing the training programmes of the Contractor;</li> <li>- In case of non-compliances, the ECO must first communicate this to the Senior Site Supervisor, who has the power to ensure this matter is addressed. Should no action or insufficient action be taken, the ECO may report this matter to the authorities as non-compliance;</li> <li>- Maintenance, update and review of the EMPr;</li> <li>- Communication of all modifications to the EMPr to the relevant stakeholders.</li> </ul> <p><u>Role</u>                      The dEOs will report to the Project Manager and are responsible for implementation of the EMPr, environmental monitoring and reporting, providing environmental input to the Project Manager and Contractor’s Manager, liaising with contractors and the landowners as well as a range of environmental coordination responsibilities.</p> <p><u>Responsibilities</u></p> <ul style="list-style-type: none"> <li>- Be fully conversant with the EMPr;</li> <li>- Be familiar with the recommendations and mitigation measures of this EMPr, and implement these measures;</li> <li>- Ensure that all stipulations within the EMPr are communicated and adhered to by the Employees, Contractor(s) ;</li> <li>- Confine the development site to the demarcated area;</li> <li>- Conduct environmental internal audits with regards to EMPr and authorisation compliance (on cEO);</li> <li>- Assist the contractors in addressing environmental challenges on site;</li> <li>- Assist in incident management;</li> <li>- Reporting environmental incidents to developer and ensuring that corrective action is taken, and lessons learnt shared;</li> <li>- Assist the contractor in investigating environmental incidents and compile investigation reports;</li> <li>- Follow-up on pre-warnings, defects, non-conformance reports;</li> </ul>

Responsible Person(s)	Role and Responsibilities
	<ul style="list-style-type: none"> <li>- Measure and communicate environmental performance to the Contractor;</li> <li>- Conduct environmental awareness training on site together with ECO and cEO;</li> <li>- Ensure that the necessary legal permits and / or licenses are in place and up to date;</li> <li>- Acting as Developer's Environmental Representative on site and work together with the ECO and contractor;</li> </ul>
Contractor	<p><u>Role</u></p> <p>The Contractor appoints the cEO and has overall responsibility for ensuring that all work, activities, and actions linked to the delivery of the contract are in line with the EMPr and that Method Statements are implemented as described. External contractors must ensure compliance with this EMPr while performing the onsite activities as per their contract with the Project Developer. The contractors are required, where specified, to provide Method Statements setting out in detail how the impact management actions contained in the EMPr will be implemented during the development or expansion of substation infrastructure for the transmission and distribution of electricity activities.</p> <p><u>Responsibilities</u></p> <ul style="list-style-type: none"> <li>- project delivery and quality control for the development services as per appointment;</li> <li>- employ a suitably qualified person to monitor and report to the Project Developer's appointed person on the daily activities on-site during the construction period;</li> <li>- ensure that safe, environmentally acceptable working methods and practices are implemented and that equipment is properly operated and maintained, to facilitate proper access and enable any operation to be carried out safely;</li> <li>- attend on site meeting(s) prior to the commencement of activities to confirm the procedure and designated activity zones;</li> <li>- ensure that contractors' staff 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.</li> </ul>

Responsible Person(s)	Role and Responsibilities
contractor Environmental Officer (cEO)	<p><u>Role</u>                      Each Contractor affected by the EMPr should appoint a cEO, who is responsible for the on-site implementation of the EMPr (or relevant sections of the EMPr). The Contractor's representative can be the site agent; site engineer; a dedicated environmental officer; or an independent consultant. The Contractor must ensure that the Contractor's Representative is suitably qualified to perform the necessary tasks and is appointed at a level such that she/he can interact effectively with other site Contractors, labourers, the Environmental Control Officer and the public. As a minimum the cEO shall meet the following criteria:</p> <p><u>Responsibilities</u></p> <ul style="list-style-type: none"> <li>- Be on site throughout the duration of the project and be dedicated to the project;</li> <li>- Ensure all their staff are aware of the environmental requirements, conditions and constraints with respect to all of their activities on site;</li> <li>- Implementing the environmental conditions, guidelines and requirements as stipulated within the EA, EMPr and Method Statements;</li> <li>- Attend the Environmental Site Meeting;</li> <li>- Undertaking corrective actions where non-compliances are registered within the stipulated timeframes;</li> <li>- Report back formally on the completion of corrective actions;</li> <li>- Assist the ECO in maintaining all the site documentation;</li> <li>- Prepare the site inspection reports and corrective action reports for submission to the ECO;</li> <li>- Assist the ECO with the preparing of the monthly report; and</li> <li>- Where more than one Contractor is undertaking work on site, each company appointed as a Contractor will appoint a cEO representing that company.</li> </ul>

#### 4. ENVIRONMENTAL DOCUMENTATION REPORTING AND COMPLIANCE

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

##### 4.1 Document control/Filing system

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

##### 4.2 Documentation to be available

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

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

##### 4.3 Weekly Environmental Checklist

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

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

#### 4.4 Environmental site meetings

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

#### 4.5 Required Method Statements

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

The method statement must cover applicable details with regard to:

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

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

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

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

#### 4.6 Environmental Incident Log (Diary)

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

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

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

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

The Environmental Incident Log will be captured in the EAR.

#### 4.7 Non-compliance

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

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



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

#### 4.8 Corrective action records

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

#### 4.9 Photographic record

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

The Contractor shall:

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

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

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

#### 4.10 Complaints register

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

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

#### 4.11 Claims for damages

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

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

#### 4.12 Interactions with affected parties

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

The ECOs shall:

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

#### 4.13 Environmental audits

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

The ECOs must prepare a monthly EAR. The report will be 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 substation infrastructure for the transmission and distribution of electricity. There is a list of aspects identified for the development or expansion of substation infrastructure for the transmission and distribution of electricity, and for each aspect a set of prescribed impact management outcomes and associated impact management actions have been identified. Holders of EAs are responsible to ensure the implementation of these outcomes and actions for all projects as a minimum requirement, in order to mitigate the impact of such aspects identified for the development or expansion of substation infrastructure for the transmission and distribution of electricity.

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

The completed template must be signed and dated on each page by both the contractor and the holder of the EA prior to commencement of the activity. The method statements prepared and agreed to by the holder of the EA must be appended to the template as Appendix 1. Each method statement must also be duly signed and dated on each page by the contractor 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
<ul style="list-style-type: none"> <li>- All staff must receive environmental awareness training prior to commencement of the activities;</li> <li>- The Contractor must allow for sufficient sessions to train all personnel with no more than 20 personnel attending each course;</li> <li>- Refresher environmental awareness training is available as and when required;</li> <li>- All staff are aware of the conditions and controls linked to the EA and within the EMPr and made aware of their individual roles and responsibilities in achieving compliance with the EA and EMPr;</li> <li>- The Contractor must erect and maintain information posters at key locations on site, and the posters must include the following information as a minimum:                             <ul style="list-style-type: none"> <li>a) Safety notifications; and</li> <li>b) No littering.</li> </ul> </li> <li>- Environmental awareness training must include as a minimum the following:                             <ul style="list-style-type: none"> <li>a) Description of significant environmental impacts, actual or potential, related to their work activities;</li> <li>b) Mitigation measures to be implemented when carrying out specific activities;</li> </ul> </li> </ul>						

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

<p><b>Impact management outcome:</b> Impacts on the environment are minimised during site establishment and the development footprint are kept to demarcated development area.</p>							
Impact Management Actions		Implementation			Monitoring		
		Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>- A method statement must be provided by the contractor prior to any onsite activity that includes the layout of the construction camp in the form of a plan showing the location of key infrastructure and services (where applicable), including but not limited to offices, overnight vehicle parking areas, stores, the workshop, stockpile and lay down areas, hazardous materials storage areas (including fuels), the batching plant (if one is located at the construction camp), designated access routes, equipment cleaning areas and the placement of staff accommodation, cooking and ablution facilities, waste and wastewater management;</li> <li>- 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;</li> <li>- Sites must be located where possible on previously disturbed areas;</li> <li>- The camp must be fenced in accordance with <b>Section 5.5: Fencing and gate installation</b>; and</li> <li>- The use of existing accommodation for contractor staff, where possible, is encouraged.</li> </ul>							

**5.3 Access restricted areas**

<b>Impact management outcome:</b> Access to restricted areas prevented.						
<b>Impact Management Actions</b>	<b>Implementation</b>			<b>Monitoring</b>		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>- Identification of access restricted areas is to be informed by the environmental assessment, site walk through and any additional areas identified during development;</li> <li>- Erect, demarcate and maintain a temporary barrier with clear signage around the perimeter of any access restricted area, colour coding could be used if appropriate; and</li> <li>- Unauthorised access and development related activity inside access restricted areas is prohibited.</li> </ul>						

**5.4 Access roads**

<b>Impact management outcome:</b> Minimise impact to the environment through the planned and restricted movement of vehicles on site.						
<b>Impact Management Actions</b>	<b>Implementation</b>			<b>Monitoring</b>		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>- An access agreement must be formalised and signed by the DPM, Contractor and landowner before commencing with the activities;</li> </ul>						



<ul style="list-style-type: none"> <li>- 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</li> <li>- All contractors must be made aware of all these access routes.</li> <li>- Any access route deviation from that in the written agreement must be closed and re-vegetated immediately, at the contractor's expense;</li> <li>- Maximum use of both existing servitudes and existing roads must be made to minimize further disturbance through the development of new roads;</li> <li>- In circumstances where private roads must be used, the condition of the said roads must be recorded in accordance with <b>section 4.9: photographic record</b>; prior to use and the condition thereof agreed by the landowner, the DPM, and the contractor;</li> <li>- Access roads in flatish areas must follow fence lines and tree belts to avoid fragmentation of vegetated areas or croplands</li> <li>- Access roads must only be developed on a pre-planned and approved roads.</li> </ul>						
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**5.5 Fencing and Gate installation**

<p><b>Impact management outcome:</b> Minimise impact to the environment and ensure safe and controlled access to the site through the erection of fencing and gates where required.</p>						
<p><b>Impact Management Actions</b></p>			<p><b>Implementation</b></p>		<p><b>Monitoring</b></p>	
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance

<ul style="list-style-type: none"> <li>- Use existing gates provided to gain access to all parts of the area authorised for development, where possible;</li> <li>- Existing and new gates to be recorded and documented in accordance with <b>section 4.9: photographic record</b>;</li> <li>- All gates must be fitted with locks and be kept locked at all times during the development phase, unless otherwise agreed with the landowner;</li> <li>- At points where the line crosses a fence in which there is no suitable gate within the extent of the line servitude, on the instruction of the DPM, a gate must be installed at the approval of the landowner;</li> <li>- Care must be taken that the gates must be so erected that there is a gap of no more than 100 mm between the bottom of the gate and the ground;</li> <li>- Where gates are installed in jackal proof fencing, a suitable reinforced concrete sill must be provided beneath the gate;</li> <li>- Original tension must be maintained in the fence wires;</li> <li>- All gates installed in electrified fencing must be re-electrified;</li> <li>- All demarcation fencing and barriers must be maintained in good working order for the duration of the development activities;</li> <li>- Fencing must be erected around the camp, batching plants, hazardous storage areas, and all designated access restricted areas, where applicable;</li> <li>- Any temporary fencing to restrict the movement of life-stock must only be erected with the permission of the land owner.</li> <li>- All fencing must be developed of high quality material bearing the SABS mark;</li> <li>- The use of razor wire as fencing must be avoided;</li> </ul>						
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<ul style="list-style-type: none"> <li>- 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;</li> <li>- On completion of the development phase all temporary fences are to be removed;</li> <li>- The contractor must ensure that all fence uprights are appropriately removed, ensuring that no uprights are cut at ground level but rather removed completely.</li> </ul>					
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**5.6 Water Supply Management**

<p><b>Impact management outcome:</b> Undertake responsible water usage.</p>								
<p><b>Impact Management Actions</b></p>			<p><b>Monitoring</b></p>					
			<p>Responsible person</p>	<p>Method of implementation</p>	<p>Timeframe for implementation</p>	<p>Responsible person</p>	<p>Frequency</p>	<p>Evidence of compliance</p>
<ul style="list-style-type: none"> <li>- 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;</li> <li>- The Contractor must ensure the following:                             <ul style="list-style-type: none"> <li>a. The vehicle abstracting water from a river does not enter or cross it and does not operate from within the river;</li> <li>b. No damage occurs to the river bed or banks and that the abstraction of water does not entail stream diversion activities; and</li> <li>c. All reasonable measures to limit pollution or sedimentation of the downstream watercourse are implemented.</li> </ul> </li> <li>- Ensure water conservation is being practiced by:                             <ul style="list-style-type: none"> <li>a. Minimising water use during cleaning of equipment;</li> </ul> </li> </ul>								

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.					

**5.7 Storm and waste water management**

<b>Impact management outcome:</b> 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
<ul style="list-style-type: none"> <li>- Runoff from the cement/ concrete batching areas must be strictly controlled, and contaminated water must be collected, stored and either treated or disposed of off-site, at a location approved by the project manager;</li> <li>- All spillage of oil onto concrete surfaces must be controlled by the use of an approved absorbent material and the used absorbent material disposed of at an appropriate waste disposal facility;</li> <li>- Natural storm water runoff not contaminated 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;</li> <li>- Water that has been contaminated with suspended solids, such as soils and silt, may be released into watercourses or water bodies only once all suspended solids have been removed from the water by settling out these solids in settlement ponds. The release of settled water back into the</li> </ul>						

environment must be subject to the Project Manager's approval and support by the ECO.							
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**5.8 Solid and hazardous waste management**

<b>Impact management outcome:</b> Wastes are appropriately stored, handled and safely disposed of at a recognised waste facility.							
<b>Impact Management Actions</b>				<b>Monitoring</b>			
<b>Implementation</b>		<b>Monitoring</b>		<b>Implementation</b>		<b>Monitoring</b>	
Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance		
<ul style="list-style-type: none"> <li>- All measures regarding waste management must be undertaken using an integrated waste management approach;</li> <li>- Sufficient, covered waste collection bins (scavenger and weatherproof) must be provided;</li> <li>- A suitably positioned and clearly demarcated waste collection site must be identified and provided;</li> <li>- The waste collection site must be maintained in a clean and orderly manner;</li> <li>- Waste must be segregated into separate bins and clearly marked for each waste type for recycling and safe disposal;</li> <li>- Staff must be trained in waste segregation;</li> <li>- Bins must be emptied regularly;</li> <li>- General waste produced onsite must be disposed of at registered waste disposal sites/ recycling company;</li> <li>- Hazardous waste must be disposed of at a registered waste disposal site;</li> <li>- Certificates of safe disposal for general, hazardous and recycled waste must be maintained.</li> </ul>							

**5.9 Protection of watercourses and estuaries**

<b>Impact management outcome:</b> Pollution and contamination of the watercourse environment and or estuary erosion are prevented.						
<b>Impact Management Actions</b>	<b>Implementation</b>			<b>Monitoring</b>		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>- All watercourses must be protected from direct or indirect spills of pollutants such as solid waste, sewage, cement, oils, fuels, chemicals, aggregate tailings, wash and contaminated water or organic material resulting from the Contractor's activities;</li> <li>- In the event of a spill, prompt action must be taken to clear the polluted or affected areas;</li> <li>- Where possible, no development equipment must traverse any seasonal or permanent wetland</li> <li>- No return flow into the estuaries must be allowed and no disturbance of the Estuarine functional Zone should occur;</li> <li>- Development of permanent watercourse or estuary crossing must only be undertaken where no alternative access to tower position is available;</li> <li>- There must not be any impact on the long term morphological dynamics of watercourses or estuaries;</li> <li>- Existing crossing points must be favored over the creation of new crossings (including temporary access)</li> <li>- When working in or near any watercourse or estuary, the following environmental controls and consideration must be taken:                         <ul style="list-style-type: none"> <li>a) Water levels during the period of construction;</li> </ul> </li> </ul>						

<p>No altering of the bed, banks, course or characteristics of a watercourse</p> <p>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;</p> <p>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</p> <p>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.</p>						
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**5.10 Vegetation clearing**

<p><b>Impact management outcome:</b> Vegetation clearing is restricted to the authorised development footprint of the proposed infrastructure.</p>								
<p><b>Impact Management Actions</b></p>			<p><b>Monitoring</b></p>					
<p><b>General:</b></p> <ul style="list-style-type: none"> <li>- Indigenous vegetation which does not interfere with the development must be left undisturbed;</li> <li>- Protected or endangered species may occur on or near the development site. Special care should be taken not to damage such species;</li> </ul>			<p>Responsible person</p>	<p>Method of implementation</p>	<p>Timeframe for implementation</p>	<p>Responsible person</p>	<p>Frequency</p>	<p>Evidence of compliance</p>

<ul style="list-style-type: none"> <li>- Search, rescue and replanting of all protected and endangered species likely to be damaged during project development must be identified by the relevant specialist and completed prior to any development or clearing;</li> <li>- Permits for removal must be obtained from the relevant CA prior to the cutting or clearing of the affected species, and they must be filed;</li> <li>- 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;</li> <li>- Trees felled due to construction must be documented and form part of the Environmental Audit Report;</li> <li>- Rivers and watercourses must be kept clear of felled trees, vegetation cuttings and debris;</li> <li>- Only a registered pest control operator may apply herbicides on a commercial basis and commercial application must be carried out under the supervision of a registered pest control operator, supervision of a registered pest control operator or is appropriately trained;</li> <li>- A daily register must be kept of all relevant details of herbicide usage;</li> <li>- No herbicides must be used in estuaries;</li> <li>- All protected species and sensitive vegetation not removed must be clearly marked and such areas fenced off in accordance to <b>Section 5.3: Access restricted areas</b>.</li> </ul> <p>Alien invasive vegetation must be removed and disposed of at a licensed waste management facility.</p>						
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**5.11 Protection of fauna**

<b>Impact management outcome:</b> Disturbance to fauna is minimised.		<b>Implementation</b>				<b>Monitoring</b>		
<b>Impact Management Actions</b>		Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance	
<ul style="list-style-type: none"> <li>- No interference with livestock must occur without the landowner's written consent and with the landowner or a person representing the landowner being present;</li> <li>- The breeding sites of raptors and other wild birds species must be taken into consideration during the planning of the development programme;</li> <li>- Breeding sites must be kept intact and disturbance to breeding birds must be avoided. Special care must be taken where nestlings or fledglings are present;</li> <li>- Special recommendations of the avian specialist must be adhered to at all times to prevent unnecessary disturbance of birds;</li> <li>- No poaching must be tolerated under any circumstances. All animal dens in close proximity to the works areas must be marked as Access restricted areas;</li> <li>- No deliberate or intentional killing of fauna is allowed;</li> <li>- 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</li> <li>- 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.</li> </ul>								

**5.12 Protection of heritage resources**

<b>Impact management outcome:</b> Impact to heritage resources is minimised.						
<b>Impact Management Actions</b>		<b>Implementation</b>			<b>Monitoring</b>	
<ul style="list-style-type: none"> <li>- Identify, demarcate and prevent impact to all known sensitive heritage features on site in accordance with the No-Go procedure in <b>Section 5.3: Access restricted areas</b>;</li> <li>- Carry out general monitoring of excavations for potential fossils, artefacts and material of heritage importance;</li> <li>- All work must cease immediately, if any human remains and/or other archaeological, palaeontological 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.</li> </ul>		Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency

**5.13 Safety of the public**

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

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

**5.14 Sanitation**

<p><b>Impact management outcome:</b> Clean and well maintained toilet facilities are available to all staff in an effort to minimise the risk of disease and impact to the environment.</p>						
Implementation			Monitoring			
<p><b>Impact Management Actions</b></p> <ul style="list-style-type: none"> <li>- Mobile chemical toilets are installed onsite if no other ablation facilities are available;</li> <li>- The use of ablation facilities and or mobile toilets must be used at all times and no indiscriminate use of the veld for the purposes of ablations must be permitted under any circumstances;</li> </ul>	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance

<ul style="list-style-type: none"> <li>- Where mobile chemical toilets are required, the following must be ensured:</li> </ul>								
<ul style="list-style-type: none"> <li>a) Toilets are located no closer than 100 m to any watercourse or water body;</li> </ul>								
<ul style="list-style-type: none"> <li>b) Toilets are secured to the ground to prevent them from toppling due to wind or any other cause;</li> </ul>								
<ul style="list-style-type: none"> <li>c) No spillage occurs when the toilets are cleaned or emptied and the contents are managed in accordance with the EMP; and</li> </ul>								
<ul style="list-style-type: none"> <li>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;</li> </ul>								
<ul style="list-style-type: none"> <li>e) Toilets are emptied before long weekends and workers holidays, and must be locked after working hours;</li> </ul>								
<ul style="list-style-type: none"> <li>f) Toilets are serviced regularly and the ECO must inspect toilets to ensure compliance to health standards;</li> </ul>								
<ul style="list-style-type: none"> <li>- A copy of the waste disposal certificates must be maintained.</li> </ul>								

**5.15 Prevention of disease**

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

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

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

5.17 Hazardous substances

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

<ul style="list-style-type: none"> <li>- The Contractor must ensure that diesel and other liquid fuel, oil and hydraulic fluid is stored in appropriate storage tanks or in bowers;</li> <li>- The tanks/ bowers 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/ bowers (110% statutory requirement plus an allowance for rainfall);</li> <li>- The floor of the bund must be sloped, draining to an oil separator;</li> <li>- Provision must be made for refueling at the storage area by protecting the soil with an impermeable groundcover. Where dispensing equipment is used, a drip tray must be used to ensure small spills are contained;</li> <li>- All empty externally dirty drums must be stored on a drip tray or within a banded area;</li> <li>- No unauthorised access into the hazardous substances storage areas must be permitted;</li> <li>- No smoking must be allowed within the vicinity of the hazardous storage areas;</li> <li>- Adequate fire-fighting equipment must be made available at all hazardous storage areas;</li> <li>- Where refueling away from the dedicated refueling station is required, a mobile refueling unit must be used. Appropriate ground protection such as drip trays must be used;</li> <li>- An appropriately sized spill kit kept onsite relevant to the scale of the activity/s involving the use of hazardous substance must be available at all times;</li> <li>- The responsible operator must have the required training to make use of the spill kit in emergency situations;</li> </ul>						
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<ul style="list-style-type: none"> <li>- An appropriate number of spill kits must be available and must be located in all areas where activities are being undertaken;</li> <li>- In the event of a spill, contaminated soil must be collected in containers and stored in a central location and disposed of according to the National Environmental Management: Waste Act 59 of 2008. Refer to <b>Section 5.7</b> for procedures concerning <b>storm and waste water management</b> and <b>5.8</b> for <b>solid and hazardous waste management</b>.</li> </ul>					
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**5.18 Workshop, equipment maintenance and storage**

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



<p>/ 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: <b>Storm and waste water management.</b></p>						
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**5.19 Batching plants**

<p><b>Impact management outcome:</b> Minimise spillages and contamination of soil, surface water and groundwater.</p>							
<p><b>Impact Management Actions</b></p>			<p><b>Monitoring</b></p>				
<p><b>Implementation</b></p>			<p>Responsible person</p>	<p>Method of implementation</p>	<p>Timeframe for implementation</p>	<p>Responsible person</p>	
						<p>Frequency</p>	<p>Evidence of compliance</p>
<ul style="list-style-type: none"> <li>- Concrete mixing must be carried out on an impermeable surface;</li> <li>- Batching plants areas must be fitted with a containment facility for the collection of cement laden water.</li> <li>- Dirty water from the batching plant must be contained to prevent soil and groundwater contamination</li> <li>- Bagged cement must be stored in an appropriate facility and at least 10 m away from any water courses, gullies and drains;</li> <li>- A washout facility must be provided for washing of concrete associated equipment. Water used for washing must be restricted;</li> <li>- Hardened concrete from the washout facility or concrete mixer can either be reused or disposed of at an appropriate licenced disposal facility;</li> <li>- Empty cement bags must be secured with adequate binding material if these will be temporarily stored on site;</li> </ul>							

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

<p><b>Impact management outcome:</b> Dust prevention measures are applied to minimise the generation of dust.</p>						
<p><b>Impact Management Actions</b></p>			<p><b>Implementation</b></p>		<p><b>Monitoring</b></p>	
<ul style="list-style-type: none"> <li>- Take all reasonable measures to minimise the generation of dust as a result of project development activities to the satisfaction of the ECO;</li> <li>- Removal of vegetation must be avoided until such time as soil stripping is required and similarly exposed surfaces must be re-vegetated or stabilised as soon as is practically possible;</li> <li>- Excavation, handling and transport of erodible materials must be avoided under high wind conditions or when a visible dust plume is present;</li> <li>- During high wind conditions, the ECO must evaluate the situation and make recommendations as to whether dust-damping measures are adequate, or whether working will cease altogether until the wind speed drops to an acceptable level;</li> </ul>						

<ul style="list-style-type: none"> <li>- Where possible, soil stockpiles must be located in sheltered areas where they are not exposed to the erosive effects of the wind;</li> <li>- Where erosion of stockpiles becomes a problem, erosion control measures must be implemented at the discretion of the ECO;</li> <li>- Vehicle speeds must not exceed 40 km/h along dust roads or 20 km/h when traversing unconsolidated and non-vegetated areas;</li> <li>- Straw stabilisation must be applied at a rate of one bale/10 m<sup>2</sup> and harrowed into the top 100 mm of top material, for all completed earthworks;</li> <li>- For significant areas of excavation or exposed ground, dust suppression measures must be used to minimise the spread of dust.</li> </ul>						
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**5.21 Blasting**

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

**5.22 Noise**

<b>Impact Management outcome:</b> Prevent unnecessary noise to the environment by ensuring that noise from development activity is mitigated.					
<b>Impact Management Actions</b>					
<b>Implementation</b>		<b>Monitoring</b>			
Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>- The Contractor must keep noise level within acceptable limits, Restrict the use of sound amplification equipment for communication and emergency only;</li> <li>- All vehicles and machinery must be fitted with appropriate silencing technology and must be properly maintained;</li> <li>- Any complaints received by the Contractor regarding noise must be recorded and communicated. Where possible or applicable, provide transport to and from the site on a daily basis for construction workers;</li> <li>- 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.</li> </ul>					

**5.23 Fire prevention**

<b>Impact management outcome:</b> Prevention of uncontrollable fires.	
<b>Impact Management Actions</b>	
<b>Implementation</b>	<b>Monitoring</b>

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

**5.24 Stockpiling and stockpile areas**

**Impact management outcome:** Reduce erosion and sedimentation as a result of stockpiling.

**Impact Management Actions**

**Implementation**

**Monitoring**

	Implementation				Evidence of compliance
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	
<ul style="list-style-type: none"> <li>- All material that is excavated during the project development phase (either during piling (if required) or earthworks) must be stored appropriately on site in order to minimise impacts to watercourses, watercourses and water bodies;</li> <li>- All stockpiled material must be maintained and kept clear of weeds and alien vegetation growth by undertaking regular weeding and control methods;</li> </ul>					

<ul style="list-style-type: none"> <li>- Topsoil stockpiles must not exceed 2 m in height;</li> <li>- During periods of strong winds and heavy rain, the stockpiles must be covered with appropriate material (e.g. cloth, tarpaulin etc.);</li> <li>- Where possible, sandbags (or similar) must be placed at the bases of the stockpiled material in order to prevent erosion of the material.</li> </ul>						
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**5.25 Civil works**

<p><b>Impact management outcome:</b> Impact to the environment minimised during civil works to create the substation terrace.</p>						
<p><b>Impact Management Actions</b></p>	<p><b>Implementation</b></p>			<p><b>Monitoring</b></p>		
	<p>Responsible person</p>	<p>Method of implementation</p>	<p>Timeframe for implementation</p>	<p>Responsible person</p>	<p>Frequency</p>	<p>Evidence of compliance</p>
<ul style="list-style-type: none"> <li>- Where terracing is required, topsoil must be collected and retained for the purpose of re-use later to rehabilitate disturbed areas not covered by yard stone;</li> <li>- Areas to be rehabilitated include terrace embankments and areas outside the high voltage yards;</li> <li>- Where required, all sloped areas must be stabilised to ensure proper rehabilitation is effected and erosion is controlled;</li> <li>- These areas can be stabilised using design structures or vegetation as specified in the design to prevent erosion of embankments. The contract design specifications must be adhered to and implemented strictly;</li> <li>- Rehabilitation of the disturbed areas must be managed in accordance with <b>Section 5.35: Landscaping and rehabilitation</b>;</li> </ul>						

<ul style="list-style-type: none"> <li>- All excess spoil generated during terracing activities must be disposed of in an appropriate manner and at a recognised landfill site; and</li> <li>- Spoil can however be used for landscaping purposes and must be covered with a layer of 150 mm topsoil for rehabilitation purposes.</li> </ul>						
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**5.26 Excavation of foundation, cable trenching and drainage systems**

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

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

<b>Impact management outcome:</b> No environmental degradation occurs during the installation of foundation, cable trenching and drainage system.					
Impact Management Actions			Monitoring		
Implementation		Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
Responsible person	Method of implementation				
<ul style="list-style-type: none"> <li>- Batching of cement to be undertaken in accordance with <b>Section 5.19: Batching plants</b>; and</li> <li>- Residual solid waste must be disposed of in accordance with <b>Section 5.8: Solid waste and hazardous management</b>.</li> </ul>					

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

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



<ul style="list-style-type: none"> <li>- Residual solid waste must be recycled or disposed of in accordance with <b>Section 5.8: Solid waste and hazardous management</b>.</li> </ul>					
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**5.29 Steelwork Assembly and Erection**

<p><b>Impact management outcome:</b> No environmental degradation occurs as a result of steelwork assembly and erection.</p>						
<p><b>Impact Management Actions</b></p>			<p><b>Implementation</b></p>		<p><b>Monitoring</b></p>	
			Responsible person	Method of implementation	Timeframe for implementation	Responsible person
<ul style="list-style-type: none"> <li>- During assembly, care must be taken to ensure that no wasted/unused materials are left on site e.g. bolts and nuts</li> <li>- Emergency repairs due to breakages of equipment must be managed in accordance with <b>Section 5. 18: Workshop, equipment maintenance and storage</b> and <b>Section 5.16: Emergency procedures</b>.</li> </ul>						

**5.30 Cabling and Stringing**

<p><b>Impact management outcome:</b> No environmental degradation occurs as a result of stringing.</p>						
<p><b>Impact Management Actions</b></p>			<p><b>Implementation</b></p>		<p><b>Monitoring</b></p>	
			Responsible person	Method of implementation	Timeframe for implementation	Responsible person

<ul style="list-style-type: none"> <li>- Residual solid waste (off cuts etc.) shall be recycled or disposed of in accordance with <b>Section 6.8: Solid waste and hazardous Management</b>;</li> <li>- Management of equipment used for installation shall be conducted in accordance with <b>Section 5.18: Workshop, equipment maintenance and storage</b>;</li> <li>- Management hazardous substances and any associated spills shall be conducted in accordance with <b>Section 5.17: Hazardous substances</b>.</li> </ul>						
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**5.31 Testing and Commissioning (all equipment testing, earthing system, system integration)**

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

**5.32 Socio-economic**

<p><b>Impact management outcome: enhanced socio-economic development.</b></p>	
<p><b>Impact Management Actions</b></p>	<p><b>Implementation</b></p>
<p><b>Monitoring</b></p>	

	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>- Develop and implement communication strategies to facilitate public participation;</li> <li>- Develop and implement a collaborative and constructive approach to conflict resolution as part of the external stakeholder engagement process;</li> <li>- Sustain continuous communication and liaison with neighboring owners and residents</li> <li>- Create work and training opportunities for local stakeholders; and</li> <li>- 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.</li> </ul>						

**5.33 Temporary closure of site**

<p><b>Impact management outcome:</b> Minimise the risk of environmental impact during periods of site closure greater than five days.</p>						
<p><b>Impact Management Actions</b></p>						
<p><b>Implementation</b></p>			<p><b>Monitoring</b></p>			
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>- Bunds must be emptied (where applicable) and need to be undertaken in accordance with the impact management actions included in <b>sections 5.17: Hazardous substances and 5.18: Workshop, equipment maintenance and storage;</b></li> <li>- Hazardous storage areas must be well ventilated;</li> </ul>						

<ul style="list-style-type: none"> <li>- Fire extinguishers must be serviced and accessible. Service records to be filed and audited at last service;</li> <li>- Emergency and contact details displayed must be displayed;</li> <li>- Security personnel must be briefed and have the facilities to contact or be contacted by relevant management and emergency personnel;</li> <li>- Night hazards such as reflectors, lighting, traffic signage etc. must have been checked;</li> <li>- Fire hazards identified and the local authority must have been notified of any potential threats e.g. large brush stockpiles, fuels etc.;</li> <li>- Structures vulnerable to high winds must be secured;</li> <li>- Wind and dust mitigation must be implemented;</li> <li>- Cement and materials stores must have been secured;</li> <li>- Toilets must have been emptied and secured;</li> <li>- Refuse bins must have been emptied and secured;</li> <li>- Drip trays must have been emptied and secured.</li> </ul>						
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**5.34 Dismantling of old equipment**

<p><b>Impact management outcome:</b> Impact to the environment to be minimised during the dismantling, storage and disposal of old equipment commissioning.</p>						
<p><b>Impact Management Actions</b></p>			<p><b>Implementation</b></p>		<p><b>Monitoring</b></p>	
<ul style="list-style-type: none"> <li>- All old equipment removed during the project must be stored in such a way as to prevent pollution of the environment;</li> </ul>	<p>Responsible person</p>	<p>Method of implementation</p>	<p>Timeframe for implementation</p>	<p>Responsible person</p>	<p>Frequency</p>	<p>Evidence of compliance</p>

<ul style="list-style-type: none"> <li>- Oil containing equipment must be stored to prevent leaking or be stored on drip trays;</li> <li>- All scrap steel must be stacked neatly and any disused and broken insulators must be stored in containers;</li> <li>- Once material has been scrapped and the contract has been placed for removal, the disposal Contractor must ensure that any equipment containing pollution causing substances is dismantled and transported in such a way as to prevent spillage and pollution of the environment;</li> <li>- The Contractor must also be equipped to contain and clean up any pollution causing spills; and</li> <li>- Disposal of unusable material must be at a licensed waste disposal site.</li> </ul>							
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**5.35 Landscaping and rehabilitation**

<p><b>Impact management outcome:</b> Areas disturbed during the development phase are returned to a state that approximates the original condition.</p>						
Impact Management Actions		Implementation			Monitoring	
<ul style="list-style-type: none"> <li>- All areas disturbed by construction activities must be subject to landscaping and rehabilitation; All spoil and waste must be disposed of to a registered waste site;</li> <li>- All slopes must be assessed for contouring, and to contour only when the need is identified in accordance with the Conservation of Agricultural Resources Act, No 43 of 1983</li> </ul>	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance

<ul style="list-style-type: none"> <li>- All slopes must be assessed for terracing, and to terrace only when the need is identified in accordance with the Conservation of Agricultural Resources Act, No 43 of 1983;</li> <li>- 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;</li> <li>- Where new access roads have crossed cultivated farmlands, that lands must be rehabilitated by ripping which must be agreed to by the holder of the EA and the landowners;</li> <li>- Rehabilitation of access roads outside of farmland;</li> <li>- Indigenous species must be used for with species and/grasses to where it compliments or approximates the original condition;</li> <li>- Stockpiled topsoil must be used for rehabilitation (refer to <b>Section 5.24: Stockpiling and stockpiled areas</b>);</li> <li>- Stockpiled topsoil must be evenly spread so as to facilitate seeding and minimise loss of soil due to erosion;</li> <li>- Before placing topsoil, all visible weeds from the placement area and from the topsoil must be removed;</li> <li>- Subsoil must be ripped before topsoil is placed;</li> <li>- The rehabilitation must be timed so that rehabilitation can take place at the optimal time for vegetation establishment;</li> <li>- Where impacted through construction related activity, all sloped areas must be stabilised to ensure proper rehabilitation is effected and erosion is controlled;</li> <li>- Sloped areas stabilised using design structures or vegetation as specified in the design to prevent erosion of embankments. The contract design specifications must be adhered to and implemented strictly;</li> <li>- Spoil can be used for backfilling or landscaping as long as it is covered by a minimum of 150 mm of topsoil.</li> </ul>					
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<p>- 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:</p> <ul style="list-style-type: none"> <li>a) Annual and perennial plants are chosen;</li> <li>b) Pioneer species are included;</li> <li>c) Species chosen must be indigenous to the area with the seeds used coming from the area;</li> <li>d) Root systems must have a binding effect on the soil;</li> <li>e) The final product must not cause an ecological imbalance in the area</li> </ul>						
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**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:

Name of applicant:

Tel No:

Fax No:

Postal Address:

Physical Address:

## 7.1.2 Details and expertise of the EAP:

Name of applicant:

Tel No:

Fax No:

E-mail address:

Expertise of the EAP (Curriculum Vitae included):

## 7.1.3 Project name:

## 7.1.4 Description of the project:

## 7.1.5 Project location:

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

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

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



**7.3 Sub-section 3: Declaration**

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

Signature Proponent/applicant/ holder of EA

Date:

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

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

## PART C

### 8 SITE SPECIFIC ENVIRONMENTAL ATTRIBUTES

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

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

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

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



**environmental affairs**

Department:  
Environmental Affairs  
REPUBLIC OF SOUTH AFRICA

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## INTRODUCTION

### 1. Background

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

### 2. Purpose

This document constitutes a generic EMPr relevant to applications for the development or expansion of 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 <b>not legally binding</b>	Definitions, acronyms, roles & responsibilities and documentation and reporting.
B	1	Pre-approved generic EMPr template	<p>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.</p> <p>The template in this section is to be completed by the contractor, with each completed page signed and dated by the holder of the EA prior to commencement of the activity.</p> <p>Where an impact management outcome is not relevant, the words "not applicable" can be inserted in the template under the "responsible persons" column.</p> <p>Once completed and signed, the template represents the EMPr for the activity approved by the CA and is legally binding. The template <b>is not required</b> to be submitted to the CA as once the generic EMPr is gazetted for implementation, it has been approved by the CA.</p> <p>To allow interested and affected parties access to the pre-approved EMPr template for consideration through the 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.</p>
	2	Site specific information	Contains preliminary infrastructure layout and a declaration that the applicant/holder of the EA will comply with the pre-approved generic EMPr template contained in <u>Part B: Section 1</u> , and understands that the impact management

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

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 <u>Part B: section 1</u> .
		Appendix 1	Contains the method statements to be prepared prior to commencement of the activity. The method statements are <b>not required</b> to be submitted to the competent authority.

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

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

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

The completed template must be signed and dated by the holder of the EA prior to commencement of the activity. The method statements prepared and agreed to by the holder of the EA must be appended to the template as 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

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

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

The effective implementation of this 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**

<b>Responsible Person (s)</b>	<b>Role and Responsibilities</b>
Developer's Project Manager (DPM)	<p><u>Role</u> The Project Developer is accountable for ensuring compliance with the EMPr and any conditions of approval from the 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.</p> <p><u>Responsibilities</u></p> <ul style="list-style-type: none"> <li>- Be fully conversant with the conditions of the EA;</li> <li>- Ensure that all stipulations within the EMPr are communicated and adhered to by the Developer and its Contractor(s);</li> <li>- Issuing of site instructions to the Contractor for corrective actions required;</li> <li>- Monitor the implementation of the EMPr throughout the project by means of site inspections and meetings. Overall management of the project and EMPr implementation; and</li> <li>- Ensure that periodic environmental performance audits are undertaken on the project implementation.</li> </ul>
Developer Site Supervisor (DSS)	<p><u>Role</u></p>

Responsible Person (s)	Role and Responsibilities
Environmental Control Officer (ECO)	<p>The DSS reports directly to the DPM, oversees site works, liaises with the contractor(s) and the ECO. The DSS is responsible for the day to day implementation of the EMPr and for ensuring the compliance of all contractors with the conditions and requirements stipulated in the EMPr.</p> <p><u>Responsibilities</u></p> <ul style="list-style-type: none"> <li>- Ensure that all contractors identify a contractor's Environmental Officer (cEO);</li> <li>- Must be fully conversant with the conditions of the EA. Oversees site works, liaison with Contractor, DPM and ECO;</li> <li>- Must ensure that all landowners have the relevant contact details of the site staff, ECO and cEO;</li> <li>- Issuing of site instructions to the Contractor for corrective actions required;</li> <li>- Will issue all non-compliances to contractors; and</li> <li>- Ratify the Monthly Environmental Report.</li> </ul>
	<p><u>Role</u></p> <p>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.</p> <p>The ECO provides feedback to the DSS and Project Manager, who in turn reports back to the Contractor and potential and Registered Interested &amp; Affected Parties' (RI&amp;AP's), as required. Issues of non-compliance raised by the ECO must be taken up by the Project Manager, and resolved with the Contractor as per the conditions of his contract. Decisions regarding environmental procedures, specifications and requirements which have a cost implication (i.e. those that are deemed to be a variation, not allowed for in the Performance Specification) must be endorsed by the Project Manager. The ECO must also, as specified by the EA, report to the relevant CA as and when required.</p>



Responsible Person (s)	Role and Responsibilities
	<p><u>Responsibilities</u></p> <p>The responsibilities of the ECO will include the following:</p> <ul style="list-style-type: none"> <li>- Be aware of the findings and conclusions of all EA related to the development;</li> <li>- Be familiar with the recommendations and mitigation measures of this EMPr;</li> <li>- Be conversant with relevant environmental legislation, policies and procedures, and ensure compliance with them;</li> <li>- Undertake regular and comprehensive site inspections / audits of the construction site according to the generic EMPr and applicable licenses in order to monitor compliance as required;</li> <li>- Educate the construction team about the management measures contained in the EMPr and environmental licenses;</li> <li>- Compilation and administration of an environmental monitoring plan to ensure that the environmental management measures are implemented and are effective;</li> <li>- Monitoring the performance of the Contractors and ensuring compliance with the EMPr and associated Method Statements;</li> <li>- In consultation with the 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;</li> <li>- Liaison between the DPM, Contractors, authorities and other lead stakeholders on all environmental concerns;</li> <li>- Compile a regular environmental audit report highlighting any non-compliance issues as well as satisfactory or exceptional compliance with the EMPr;</li> <li>- Validating the regular site inspection reports, which are to be prepared by the contractor Environmental Officer (cEO);</li> <li>- Checking the cEO's record of environmental incidents (spills, impacts, legal transgressions etc) as well as corrective and preventive actions taken;</li> <li>- Checking the cEO's public complaints register in which all complaints are recorded, as well as action taken;</li> <li>- Assisting in the resolution of conflicts;</li> <li>- Facilitate training for all personnel on the site – this may range from carrying out the training, to reviewing the training programmes of the Contractor;</li> <li>- In case of non-compliance, the ECO must first communicate this to the Senior Site Supervisor, who has the power to ensure this matter is addressed. Should no action or insufficient action be taken, the ECO may report this matter to the authorities as non-compliance;</li> <li>- Maintenance, update and review of the EMPr;</li> <li>- Communication of all modifications to the EMPr to the relevant stakeholders.</li> </ul>

Responsible Person (s)	Role and Responsibilities
<p>developer Environmental Officer (dEO)</p>	<p><u>Role</u> The dEOs will report to the Project Manager and are responsible for implementation of the EMPr, environmental monitoring and reporting, providing environmental input to the Project Manager and Contractor's Manager, liaising with contractors and the landowners as well as a range of environmental coordination responsibilities.</p> <p><u>Responsibilities</u></p> <ul style="list-style-type: none"> <li>- Be fully conversant with the EMPr;</li> <li>- Be familiar with the recommendations and mitigation measures of this EMPr, and implement these measures;</li> <li>- Ensure that all stipulations within the EMPr are communicated and adhered to by the Employees, Contractor(s) ;</li> <li>- Confine the development site to the demarcated area;</li> <li>- Conduct environmental internal audits with regards to EMPr and authorisation compliance (on cEO);</li> <li>- Assist the contractors in addressing environmental challenges on site;</li> <li>- Assist in incident management;</li> <li>- Reporting environmental incidents to developer and ensuring that corrective action is taken, and lessons learnt shared;</li> <li>- Assist the contractor in investigating environmental incidents and compile investigation reports;</li> <li>- Follow-up on pre-warnings, defects, non-conformance reports;</li> <li>- Measure and communicate environmental performance to the Contractor;</li> <li>- Conduct environmental awareness training on site together with ECO and cEO;</li> <li>- Ensure that the necessary legal permits and / or licenses are in place and up to date;</li> <li>- Acting as Developer's Environmental Representative on site and work together with the ECO and contractor;</li> </ul>
<p>Contractor</p>	<p><u>Role</u> The Contractor appoints the cEO and has overall responsibility for ensuring that all work, activities, and actions linked to the delivery of the contract are in line with the EMPr and that Method Statements are implemented as described. External contractors must ensure compliance with this EMPr while performing the onsite activities as per their contract with the Project Developer. The contractors are required, where</p>

Responsible Person (s)	Role and Responsibilities
	<p>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.</p> <p><u>Responsibilities</u></p> <ul style="list-style-type: none"> <li>- project delivery and quality control for the development services as per appointment;</li> <li>- employ a suitably qualified person to monitor and report to the Project Developer's appointed person on the daily activities on-site during the construction period;</li> <li>- ensure that safe, environmentally acceptable working methods and practices are implemented and that equipment is properly operated and maintained, to facilitate proper access and enable any operation to be carried out safely;</li> <li>- attend on site meeting(s) prior to the commencement of activities to confirm the procedure and designated activity zones;</li> <li>- ensure that contractors' staff 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.</li> </ul>
contractor Environmental Officer (cEO)	<p><u>Role</u></p> <p>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:</p> <p><u>Responsibilities</u></p> <ul style="list-style-type: none"> <li>- Be on site throughout the duration of the project and be dedicated to the project;</li> <li>- Ensure all their staff are aware of the environmental requirements, conditions and constraints with respect to all of their activities on site;</li> <li>- Implementing the environmental conditions, guidelines and requirements as stipulated within the EA, EMPr and Method Statements;</li> <li>- Attend the Environmental Site Meeting;</li> </ul>

Responsible Person (s)	Role and Responsibilities
	<ul style="list-style-type: none"> <li>- Undertaking corrective actions where non-compliances are registered within the stipulated timeframes;</li> <li>- Report back formally on the completion of corrective actions;</li> <li>- Assist the ECO in maintaining all the site documentation;</li> <li>- Prepare the site inspection reports and corrective action reports for submission to the ECO;</li> <li>- Assist the ECO with the preparing of the monthly report; and</li> <li>- Where more than one Contractor is undertaking work on site, each company appointed as a Contractor will appoint a cEO representing that company.</li> </ul>

#### 4. ENVIRONMENTAL DOCUMENTATION REPORTING AND COMPLIANCE

To ensure accountable and demonstrated implementation of the EMPr, a number of reporting systems, documentation controls and compliance mechanisms must be in place for all 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 contractor 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
<ul style="list-style-type: none"> <li>- All staff must receive environmental awareness training prior to commencement of the activities;</li> <li>- The Contractor must allow for sufficient sessions to train all personnel with no more than 20 personnel attending each course;</li> <li>- Refresher environmental awareness training is available as and when required;</li> <li>- All staff are aware of the conditions and controls linked to the EA and within the EMPr and made aware of their individual roles and responsibilities in achieving compliance with the EA and EMPr;</li> <li>- The Contractor must erect and maintain information posters at key locations on site, and the posters must include the following information as a minimum: a) Safety notifications; and b) No littering.</li> <li>- 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;</li> </ul>						

<p>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.</p>							
<ul style="list-style-type: none"> <li>- A record of all environmental awareness training courses undertaken as part of the EMP must be available;</li> <li>- Educate workers on the dangers of open and/or unattended fires;</li> <li>- A staff attendance register of all staff to have received environmental awareness training must be available.</li> <li>- Course material must be available and presented in appropriate languages that all staff can understand.</li> </ul>							

**5.2 Site Establishment development**

<p><b>Impact management outcome:</b> Impacts on the environment are minimised during site establishment and the development footprint are kept to demarcated development area.</p>							
<p><b>Implementation</b></p>				<p><b>Monitoring</b></p>			
<p>Responsible person</p>	<p>Method of implementation</p>	<p>Timeframe for implementation</p>	<p>Responsible person</p>	<p>Frequency</p>	<p>Evidence of compliance</p>		

<p>– 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;</p> <p>– 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;</p> <p>– Sites must be located where possible on previously disturbed areas;</p> <p>– The camp must be fenced in accordance with <b>Section 5.5: Fencing and gate installation</b>; and</p> <p>– The use of existing accommodation for contractor staff, where possible, is encouraged.</p>	

**5.3 Access restricted areas**

<b>Impact management outcome:</b> Access to restricted areas prevented.						
<b>Impact Management Actions</b>						
<b>Implementation</b>		<b>Monitoring</b>				
Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance	
<ul style="list-style-type: none"> <li>- Identification of access restricted areas is to be informed by the environmental assessment, site walk through and any additional areas identified during development;</li> <li>- Erect, demarcate and maintain a temporary barrier with clear signage around the perimeter of any access restricted area, colour coding could be used if appropriate; and</li> <li>- Unauthorised access and development related activity inside access restricted areas is prohibited.</li> </ul>						

**5.4 Access roads**

<b>Impact management outcome:</b> Minimise impact to the environment through the planned and restricted movement of vehicles on site.						
<b>Impact Management Actions</b>						
<b>Implementation</b>		<b>Monitoring</b>				
Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance	
<ul style="list-style-type: none"> <li>- Access to the servitude and tower positions must be negotiated with the relevant landowner and must fall within the assessed and authorised area;</li> </ul>						

	<ul style="list-style-type: none"> <li>- An access agreement must be formalised and signed by the DPM, Contractor and landowner before commencing with the activities;</li> <li>- The access roads to tower positions must be signposted after access has been negotiated and before the commencement of the activities;</li> <li>- 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</li> <li>- All contractors must be made aware of all these access routes.</li> <li>- Any access route deviation from that in the written agreement must be closed and re-vegetated immediately, at the contractor's expense;</li> <li>- Maximum use of both existing servitudes and existing roads must be made to minimize further disturbance through the development of new roads;</li> <li>- In circumstances where private roads must be used, the condition of the said roads must be recorded in accordance with <b>section 4.9: photographic record</b>; prior to use and the condition thereof agreed by the landowner, the DPM, and the contractor;</li> <li>- Access roads in flatfish areas must follow fence lines and tree belts to avoid fragmentation of vegetated areas or croplands</li> <li>- Access roads must only be developed on pre-planned and approved roads.</li> </ul>



**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
<ul style="list-style-type: none"> <li>- Use existing gates provided to gain access to all parts of the area authorised for development, where possible;</li> <li>- Existing and new gates to be recorded and documented in accordance with <b>section 4.9: photographic record</b>;</li> <li>- All gates must be fitted with locks and be kept locked at all times during the development phase, unless otherwise agreed with the landowner;</li> <li>- At points where the line crosses a fence in which there is no suitable gate within the extent of the line servitude, on the instruction of the DPM, a gate must be installed at the approval of the landowner;</li> <li>- Care must be taken that the gates must be so erected that there is a gap of no more than 100 mm between the bottom of the gate and the ground;</li> <li>- Where gates are installed in jackal proof fencing, a suitable reinforced concrete sill must be provided beneath the gate;</li> <li>- Original tension must be maintained in the fence wires;</li> <li>- All gates installed in electrified fencing must be re-electrified;</li> <li>- All demarcation fencing and barriers must be maintained in good working order for the duration of overhead transmission and distribution electricity infrastructure development activities;</li> </ul>						

<ul style="list-style-type: none"> <li>- Fencing must be erected around the camp, batching plants, hazardous storage areas, and all designated access restricted areas, where appropriate and would not cause harm to the sensitive flora;</li> <li>- Any temporary fencing to restrict the movement of life-stock must only be erected with the permission of the land owner.</li> <li>- All fencing must be developed of high quality material bearing the SABS mark;</li> <li>- The use of razor wire as fencing must be avoided;</li> <li>- Fenced areas with gate access must remain locked after hours, during weekends and on holidays if staff is away from site. Site security will be required at all times;</li> <li>- On completion of the development phase all temporary fences are to be removed;</li> <li>- The contractor must ensure that all fence uprights are appropriately removed, ensuring that no uprights are cut at ground level but rather removed completely.</li> </ul>					
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**5.6 Water Supply Management**

<p><b>Impact management outcome:</b> Undertake responsible water usage.</p>						
<p><b>Impact Management Actions</b></p>			<p><b>Implementation</b></p>		<p><b>Monitoring</b></p>	
<ul style="list-style-type: none"> <li>- 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;</li> <li>- The Contractor must ensure the following:</li> </ul>	<p>Responsible person</p>	<p>Method of implementation</p>	<p>Timeframe for implementation</p>	<p>Responsible person</p>	<p>Frequency</p>	<p>Evidence of compliance</p>

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

<p><b>Impact management outcome:</b> Impacts to the environment caused by storm water and wastewater discharges during construction are avoided.</p>					
<p><b>Implementation</b></p>			<p><b>Monitoring</b></p>		
<p>Responsible person</p>	<p>Method of implementation</p>	<p>Timeframe for implementation</p>	<p>Responsible person</p>	<p>Frequency</p>	<p>Evidence of compliance</p>
<p>–</p>	<p>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;</p>	<p>–</p>	<p>–</p>	<p>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;</p>	

<ul style="list-style-type: none"> <li>- 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;</li> <li>- Water that has been contaminated with suspended solids, such as soils and silt, may be released into watercourses or water bodies only once all suspended solids have been removed from the water by settling out these solids in settlement ponds. The release of settled water back into the environment must be subject to the Project Manager's approval and support by the ECO.</li> </ul>						
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**5.8 Solid and hazardous waste management**

<p><b>Impact management outcome:</b> Waste is appropriately stored, handled and safely disposed of at a recognised waste facility.</p>						
<p><b>Impact Management Actions</b></p>			<p><b>Implementation</b></p>			<p><b>Monitoring</b></p>
	<p>Responsible person</p>	<p>Method of implementation</p>	<p>Timeframe for implementation</p>	<p>Responsible person</p>	<p>Frequency</p>	<p>Evidence of compliance</p>
<ul style="list-style-type: none"> <li>- All measures regarding waste management must be undertaken using an integrated waste management approach;</li> <li>- Sufficient, covered waste collection bins (scavenger and weatherproof) must be provided;</li> <li>- A suitably positioned and clearly demarcated waste collection site must be identified and provided;</li> <li>- The waste collection site must be maintained in a clean and orderly manner;</li> <li>- Waste must be segregated into separate bins and clearly marked for each waste type for recycling and safe disposal;</li> </ul>						

<ul style="list-style-type: none"> <li>- Staff must be trained in waste segregation;</li> <li>- Bins must be emptied regularly;</li> <li>- General waste produced onsite must be disposed of at registered waste disposal sites/ recycling company;</li> <li>- Hazardous waste must be disposed of at a registered waste disposal site;</li> <li>- Certificates of safe disposal for general, hazardous and recycled waste must be maintained.</li> </ul>					
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**5.9 Protection of watercourses and estuaries**

<p><b>Impact management outcome:</b> Pollution and contamination of the watercourse environment and or estuary erosion are prevented.</p>						
<p><b>Impact Management Actions</b></p>			<p><b>Implementation</b></p>		<p><b>Monitoring</b></p>	
			Responsible person	Method of implementation	Timeframe for implementation	Evidence of compliance
<ul style="list-style-type: none"> <li>- All watercourses must be protected from direct or indirect spills of pollutants such as solid waste, sewage, cement, oils, fuels, chemicals, aggregate tailings, wash and contaminated water or organic material resulting from the Contractor's activities;</li> <li>- In the event of a spill, prompt action must be taken to clear the polluted or affected areas;</li> <li>- Where possible, no development equipment must traverse any seasonal or permanent wetland</li> <li>- No return flow into the estuaries must be allowed and no disturbance of the Estuarine Functional Zone should occur;</li> <li>- Development of permanent watercourse or estuary crossing must only be undertaken where no alternative access to tower position is available;</li> </ul>						

<ul style="list-style-type: none"> <li>- There must not be any impact on the long term morphological dynamics of watercourses or estuaries;</li> <li>- Existing crossing points must be favored over the creation of new crossings (including temporary access)</li> <li>- When working in or near any watercourse or estuary, the following environmental controls and consideration must be taken:             <ul style="list-style-type: none"> <li>a) Water levels during the period of construction; No altering of the bed, banks, course or characteristics of a watercourse</li> <li>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;</li> <li>c) Where earthwork is being undertaken in close proximity to any watercourse, slopes must be stabilised using suitable materials, i.e. sandbags or geotextile fabric, to prevent sand and rock from entering the channel; and</li> <li>d) Appropriate rehabilitation and re-vegetation measures for the watercourse banks must be implemented timeously. In this regard, the banks should be appropriately and incrementally stabilised as soon as development allows.</li> </ul> </li> </ul>						
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**5.10 Vegetation clearing**

<p><b>Impact management outcome:</b> Vegetation clearing is restricted to the authorised development footprint of the proposed infrastructure.</p>								
<p><b>Impact Management Actions</b></p>			<p><b>Implementation</b></p>			<p><b>Monitoring</b></p>		
			<p>Responsible person</p>	<p>Method of implementation</p>	<p>Timeframe for implementation</p>	<p>Responsible person</p>	<p>Frequency</p>	<p>Evidence of compliance</p>

<p><b>General:</b></p> <ul style="list-style-type: none"> <li>- Indigenous vegetation which does not interfere with the development must be left undisturbed;</li> <li>- Protected or endangered species may occur on or near the development site. Special care should be taken not to damage such species;</li> <li>- Search, rescue and replanting of all protected and endangered species likely to be damaged during project development must be identified by the relevant specialist and completed prior to any development or clearing;</li> <li>- 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;</li> <li>- 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;</li> <li>- Trees felled due to construction must be documented and form part of the Environmental Audit Report;</li> <li>- Rivers and watercourses must be kept clear of felled trees, vegetation cuttings and debris;</li> <li>- Only a registered pest control operator may apply herbicides on a commercial basis and commercial application must be carried out under the supervision of a registered pest control operator, supervision of a registered pest control operator or is appropriately trained;</li> <li>- A daily register must be kept of all relevant details of herbicide usage;</li> <li>- No herbicides must be used in estuaries;</li> </ul>						
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<p>- All protected species and sensitive vegetation not removed must be clearly marked and such areas fenced off in accordance to <b>Section 5.3: Access restricted areas.</b></p> <p><b>Servitude:</b></p> <ul style="list-style-type: none"> <li>- 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;</li> <li>- 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 land owner and the EA holder</li> <li>- 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;</li> <li>- Vegetation must be trimmed where it is likely to intrude on the minimum vegetation clearance distance (MVCD) or will intrude on this distance before the next scheduled clearance. MVCD is determined from SANS 10280;</li> <li>- Debris resulting from clearing and pruning must be disposed of at a recognised waste disposal facility, unless the landowners wish to retain the cut vegetation;</li> <li>- In the case of the development of new overhead transmission and distribution infrastructures, a one metre "trace-line" must be cut through the vegetation for stringing purposes only and no vehicle access must be cleared along the "trace-line". Alternative methods of stringing which limit impact to the environment must always be considered.</li> </ul>						
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## 5.11 Protection of fauna

Impact management outcome: Minimise disturbance to fauna.		Monitoring				
Impact Management Actions	Implementation			Responsible person	Frequency	Evidence of compliance
	Responsible person	Method of implementation	Timeframe for implementation			
<ul style="list-style-type: none"> <li>- No interference with livestock must occur without the landowner's written consent and with the landowner or a person representing the landowner being present;</li> <li>- The breeding sites of raptors and other wild birds species must be taken into consideration during the planning of the development programme;</li> <li>- Breeding sites must be kept intact and disturbance to breeding birds must be avoided. Special care must be taken where nestlings or fledglings are present;</li> <li>- Nesting sites on existing parallel lines must documented;</li> <li>- Special recommendations of the avian specialist must be adhered to at all times to prevent unnecessary disturbance of birds;</li> <li>- Bird guards and diverters must be installed on the new line as per the recommendations of the specialist;</li> <li>- 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;</li> <li>- No deliberate or intentional killing of fauna is allowed;</li> <li>- 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</li> <li>- No Threatened or Protected species (ToPs) and/or protected fauna as listed according NEMBA (Act No. 10 of 2004) and</li> </ul>						

relevant provincial ordinances may be removed and/or relocated without appropriate authorisations/permits.							
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**5.12 Protection of heritage resources**

<b>Impact management outcome:</b> Minimise impact to heritage resources.							
<b>Impact Management Actions</b>				<b>Monitoring</b>			
				<b>Implementation</b>			
				Responsible person	Method of implementation	Timeframe for implementation	Evidence of compliance
<ul style="list-style-type: none"> <li>- Identify, demarcate and prevent impact to all known sensitive heritage features on site in accordance with the No-Go procedure in <b>Section 5.3: Access restricted areas</b>;</li> <li>- Carry out general monitoring of excavations for potential fossils, artefacts and material of heritage importance;</li> <li>- All work must cease immediately, if any human remains and/or other archaeological, palaeontological 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.</li> </ul>							

### 5.13 Safety of the public

<b>Impact management outcome:</b> All precautions are taken to minimise the risk of injury, harm or complaints.					
<b>Implementation</b>			<b>Monitoring</b>		
Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
	<ul style="list-style-type: none"> <li>- Identify fire hazards, demarcate and restrict public access to these areas as well as notify the local authority of any potential threats e.g. large brush stockpiles, fuels etc.;</li> <li>- All unattended open excavations must be adequately fenced or demarcated;</li> <li>- Adequate protective measures must be implemented to prevent unauthorised access to and climbing of partly constructed towers and protective scaffolding;</li> <li>- Ensure structures vulnerable to high winds are secured;</li> <li>- Maintain an incidents and complaints register in which all incidents or complaints involving the public are logged.</li> </ul>				

### 5.14 Sanitation

<b>Impact management outcome:</b> Clean and well maintained toilet facilities are available to all staff in an effort to minimise the risk of disease and impact to the environment.					
<b>Implementation</b>			<b>Monitoring</b>		
Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance

<ul style="list-style-type: none"> <li>- Mobile chemical toilets are installed onsite if no other ablu- tion facilities are available;</li> <li>- The use of ablu- tion facilities and or mobile toilets must be used at all times and no indiscriminate use of the veld for the purposes of ablu- tions must be permitted under any circumstances;</li> <li>- Where mobile chemical toilets are required, the following must be ensured:             <ul style="list-style-type: none"> <li>a) Toilets are located no closer than 100 m to any watercourse or waterbody;</li> <li>b) Toilets are secured to the ground to prevent them from toppling due to wind or any other cause;</li> <li>c) No spillage occurs when the toilets are cleaned or emptied and the contents are managed in accordance with the EMPr;</li> <li>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;</li> <li>e) Toilets are emptied before long weekends and workers holidays, and must be locked after working hours;</li> <li>f) Toilets are serviced regularly and the ECO must inspect toilets to ensure compliance to health standards;</li> </ul> </li> <li>- A copy of the waste disposal certificates must be maintained.</li> </ul>	
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**AIDS HELPLINE: 0800-0123-22 Prevention is the cure**

**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
<ul style="list-style-type: none"> <li>- Undertake environmentally-friendly pest control in the camp area;</li> <li>- Ensure that the workforce is sensitised to the effects of sexually transmitted diseases, especially HIV AIDS;</li> <li>- The Contractor must ensure that information posters on AIDS are displayed in the Contractor Camp area;</li> <li>- Information and education relating to sexually transmitted diseases to be made available to both construction workers and local community, where applicable;</li> <li>- Free condoms must be made available to all staff on site at central points;</li> <li>- Medical support must be made available;</li> <li>- Provide access to Voluntary HIV Testing and Counselling Services.</li> </ul>						

**5.16 Emergency procedures**

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



## 5.17 Hazardous substances

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

	<ul style="list-style-type: none"> <li>- The Contractor must ensure that diesel and other liquid fuel, oil and hydraulic fluid is stored in appropriate storage tanks or in bowzers;</li> <li>- The tanks/ bowzers must be situated on a smooth impermeable surface (concrete) with a permanent bund. The impermeable lining must extend to the crest of the bund and the volume inside the bund must be 130% of the total capacity of all the storage tanks/ bowzers (110% statutory requirement plus an allowance for rainfall);</li> <li>- The floor of the bund must be sloped, draining to an oil separator;</li> <li>- Provision must be made for refueling at the storage area by protecting the soil with an impermeable groundcover. Where dispensing equipment is used, a drip tray must be used to ensure small spills are contained;</li> <li>- All empty externally dirty drums must be stored on a drip tray or within a banded area;</li> <li>- No unauthorised access into the hazardous substances storage areas must be permitted;</li> <li>- No smoking must be allowed within the vicinity of the hazardous storage areas;</li> <li>- Adequate fire-fighting equipment must be made available at all hazardous storage areas;</li> <li>- Where refueling away from the dedicated refueling station is required, a mobile refueling unit must be used. Appropriate ground protection such as drip trays must be used;</li> <li>- An appropriately sized spill kit kept onsite relevant to the scale of the activity/s involving the use of hazardous substance must be available at all times;</li> <li>- The responsible operator must have the required training to make use of the spill kit in emergency situations;</li> </ul>

<ul style="list-style-type: none"> <li>- An appropriate number of spill kits must be available and must be located in all areas where activities are being undertaken;</li> <li>- In the event of a spill, contaminated soil must be collected in containers and stored in a central location and disposed of according to the National Environmental Management Waste Act 59 of 2008. Refer to <b>Section 5.7</b> for procedures concerning <b>storm and waste water management</b> and <b>5.8</b> for <b>solid and hazardous waste management</b>.</li> </ul>								
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**5.18 Workshop, equipment maintenance and storage**

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

<p>/ water separator where maintenance work on vehicles and equipment can be performed;</p> <ul style="list-style-type: none"> <li>- Water drainage from the workshop must be contained and managed in accordance <b>Section 5.7: storm and waste water management.</b></li> </ul>						
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**5.19 Batching plants**

<p><b>Impact management outcome:</b> Minimise spillages and contamination of soil, surface water and groundwater.</p>							
<p><b>Impact Management Actions</b></p>			<p><b>Monitoring</b></p>				
	<p><b>Implementation</b></p>	<p>Responsible person</p>	<p>Method of implementation</p>	<p>Timeframe for implementation</p>	<p>Responsible person</p>	<p>Frequency</p>	<p>Evidence of compliance</p>
<ul style="list-style-type: none"> <li>- Concrete mixing must be carried out on an impermeable surface;</li> <li>- Batching plants areas must be fitted with a containment facility for the collection of cement laden water.</li> <li>- Dirty water from the batching plant must be contained to prevent soil and groundwater contamination</li> <li>- Bagged cement must be stored in an appropriate facility and at least 10 m away from any water courses, gullies and drains;</li> <li>- A washout facility must be provided for washing of concrete associated equipment. Water used for washing must be restricted;</li> <li>- Hardened concrete from the washout facility or concrete mixer can either be reused or disposed of at an appropriate licenced disposal facility;</li> <li>- Empty cement bags must be secured with adequate binding material if these will be temporarily stored on site;</li> </ul>							

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

<p><b>Impact management outcome:</b> Dust prevention measures are applied to minimise the generation of dust.</p>						
Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>- Take all reasonable measures to minimise the generation of dust as a result of project development activities to the satisfaction of the ECO;</li> <li>- Removal of vegetation must be avoided until such time as soil stripping is required and similarly exposed surfaces must be re-vegetated or stabilised as soon as is practically possible;</li> <li>- Excavation, handling and transport of erodible materials must be avoided under high wind conditions or when a visible dust plume is present;</li> <li>- During high wind conditions, the ECO must evaluate the situation and make recommendations as to whether dust-damping measures are adequate, or whether working will</li> </ul>						

<p>cease altogether until the wind speed drops to an acceptable level;</p> <ul style="list-style-type: none"> <li>- Where possible, soil stockpiles must be located in sheltered areas where they are not exposed to the erosive effects of the wind;</li> <li>- Where erosion of stockpiles becomes a problem, erosion control measures must be implemented at the discretion of the ECO;</li> <li>- Vehicle speeds must not exceed 40 km/h along dust roads or 20 km/h when traversing unconsolidated and non-vegetated areas;</li> <li>- Straw stabilisation must be applied at a rate of one bale/10 m<sup>2</sup> and harrowed into the top 100 mm of top material, for all completed earthworks;</li> <li>- For significant areas of excavation or exposed ground, dust suppression measures must be used to minimise the spread of dust.</li> </ul>	
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**5.21 Blasting**

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

**5.22 Noise**

<b>Impact Management outcome:</b> Unnecessary noise is prevented by ensuring that noise from construction activities is mitigated.					
<b>Impact Management Actions</b>					
<b>Implementation</b>		<b>Monitoring</b>			
Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>- The Contractor must keep noise level within acceptable limits. Restrict the use of sound amplification equipment for communication and emergency only;</li> <li>- All vehicles and machinery must be fitted with appropriate silencing technology and must be properly maintained;</li> <li>- Any complaints received by the Contractor regarding noise must be recorded and communicated. Where possible or applicable, provide transport to and from the site on a daily basis for construction workers;</li> <li>- 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.</li> </ul>					

**5.23 Fire prevention**

<b>Impact management outcome:</b> Prevention of uncontrollable fires.	
<b>Impact Management Actions</b>	
<b>Implementation</b>	<b>Monitoring</b>

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

**5.24 Stockpiling and stockpile areas**

<p><b>Impact management outcome:</b> Erosion and sedimentation as a result of stockpiling are reduced.</p>					
Implementation			Monitoring		
Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>- All material that is excavated during the project development phase (either during piling (if required) or earthworks) must be stored appropriately on site in order to minimise impacts to watercourses, watercourses and water bodies;</li> <li>- All stockpiled material must be maintained and kept clear of weeds and alien vegetation growth by undertaking regular weeding and control methods;</li> <li>- Topsoil stockpiles must not exceed 2 m in height;</li> </ul>					



<ul style="list-style-type: none"> <li>- During periods of strong winds and heavy rain, the stockpiles must be covered with appropriate material (e.g. cloth, tarpaulin etc.);</li> <li>- Where possible, sandbags (or similar) must be placed at the bases of the stockpiled material in order to prevent erosion of the material.</li> </ul>						
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**5.25 Finalising tower positions**

<p><b>Impact management outcome:</b> No environmental degradation occurs as a result of the survey and pegging operations.</p>						
<p><b>Impact Management Actions</b></p>			<p><b>Implementation</b></p>		<p><b>Monitoring</b></p>	
<ul style="list-style-type: none"> <li>- No vegetation clearing must occur during survey and pegging operations;</li> <li>- No new access roads must be developed to facilitate access for survey and pegging purposes;</li> <li>- Project manager, botanical specialist and contractor to agree on final tower positions based on survey within assessed and approved areas;</li> <li>- 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.</li> </ul>	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance

**5.26 Excavation and Installation of foundations**

<p><b>Impact management outcome:</b> No environmental degradation occurs as a result of excavation or installation of foundations.</p>
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Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>- All excess spoil generated during foundation excavation must be disposed of in an appropriate manner and at a recognised disposal site, if not used for backfilling purposes;</li> <li>- Spoil can however be used for landscaping purposes and must be covered with a layer of 150 mm topsoil for rehabilitation purposes;</li> <li>- Management of equipment for excavation purposes must be undertaken in accordance with <b>Section 5.18: Workshop equipment maintenance and storage</b>; and</li> <li>- Hazardous substances spills from equipment must be managed in accordance with <b>Section 5.17: Hazardous substances</b>.</li> <li>- Batching of cement to be undertaken in accordance with <b>Section 5.19 : Batching plants</b>;</li> <li>- Residual cement must be disposed of in accordance with <b>Section 5.8: Solid and hazardous waste management</b>.</li> </ul>						

**5.27 Assembly and erecting towers**

<p><b>Impact management outcome:</b> No environmental degradation occurs as a result of assembly and erecting of towers.</p>						
Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>- Prior to erection, assembled towers and tower sections must be stored on elevated surface (suggest wooden blocks) to minimise damage to the underlying vegetation;</li> </ul>						

<ul style="list-style-type: none"> <li>- In sensitive areas, tower assembly must take place off-site or away from sensitive positions;</li> <li>- The crane used for tower assembly must be operated in a manner which minimises impact to the environment;</li> <li>- The number of crane trips to each site must be minimised;</li> <li>- Wheeled cranes must be utilised in preference to tracked cranes;</li> <li>- Consideration must be given to erecting towers by helicopter or by hand where it is warranted to limit the extent of environmental impact;</li> <li>- Access to tower positions to be undertaken in accordance with access requirements in specified in Section 8.4: Access Roads;</li> <li>- Vegetation clearance to be undertaken in accordance with general vegetation clearance requirements specified in Section 8.10: Vegetation clearing;</li> <li>- No levelling at tower sites must be permitted unless approved by the Development Project Manager or Developer Site Supervisor;</li> <li>- Topsoil must be removed separately from subsoil material and stored for later use during rehabilitation of such tower sites;</li> <li>- Topsoil must be stored in heaps not higher than 1m to prevent destruction of the seed bank within the topsoil;</li> <li>- Excavated slopes must be no greater than 1:3, but where this is unavoidable, appropriate measures must be undertaken to stabilise the slopes;</li> <li>- 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;</li> <li>- Only existing disturbed areas are utilised as spoil areas;</li> </ul>						
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<ul style="list-style-type: none"> <li>- Drainage is provided to control groundwater exit gradient with the spill areas such that migration of fines is kept to a minimum;</li> <li>- Surface water runoff is appropriately channeled through or around spoil areas;</li> <li>- 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;</li> <li>- The surface of the spoil is appropriately rehabilitated in accordance with the requirements specified in Section 5.29: Landscaping and rehabilitation;</li> <li>- 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.</li> </ul>						
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**5.28 Stringing**

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

Impact Management Actions		Implementation			Monitoring		
Impact Management Actions	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance	
	<ul style="list-style-type: none"> <li>- Where possible, previously disturbed areas must be used for the siting of winch and tensioner stations. In all other instances,</li> </ul>						

<p>the siting of the winch and tensioner must avoid Access restricted areas and other sensitive areas;</p> <ul style="list-style-type: none"> <li>- The winch and tensioner station must be equipped with drip trays in order to contain any fuel, hydraulic fuel or oil spills and leaks;</li> <li>- Refueling of the winch and tensioner stations must be undertaken in accordance with Section 5.17: Hazardous substances;</li> <li>- 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".</li> </ul> <p>Vegetation clearing must be undertaken by hand, using chainsaws and hand held implements, with vegetation being cut off at ground level. No tracked or wheeled mechanised equipment must be used;</p> <ul style="list-style-type: none"> <li>- Alternative methods of stringing which limit impact to the environment must always be considered e.g. by hand or by using a helicopter;</li> <li>- Where the stringing operation crosses a public or private road or railway line, the necessary scaffolding/ protection measures must be installed to facilitate access. If, for any reason, such access has to be closed for any period(s) during development, the persons affected must be given reasonable notice, in writing;</li> <li>- No services (electrical distribution lines, telephone lines, roads, railways lines, pipelines fences etc.) must be damaged because of stringing operations. Where disruption to services is unavoidable, persons affected must be given reasonable notice, in writing;</li> </ul>						
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<ul style="list-style-type: none"> <li>- Where stringing operations cross cultivated land, damage to crops is restricted to the minimum required to conduct stringing operations, and reasonable notice (10 work days minimum), in writing, must be provided to the landowner;</li> <li>- Necessary scaffolding protection measures must be installed to prevent damage to the structures supporting certain high value agricultural areas such as vineyards, orchards, nurseries.</li> </ul>					
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**5.29 Socio-economic**

<p><b>Impact management outcome:</b> Socio-economic development is enhanced.</p>						
<p><b>Impact Management Actions</b></p>			<p><b>Implementation</b></p>		<p><b>Monitoring</b></p>	
<ul style="list-style-type: none"> <li>- Develop and implement communication strategies to facilitate public participation;</li> <li>- Develop and implement a collaborative and constructive approach to conflict resolution as part of the external stakeholder engagement process;</li> <li>- Sustain continuous communication and liaison with neighboring owners and residents</li> <li>- Create work and training opportunities for local stakeholders; and</li> <li>- 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.</li> </ul>	<p>Responsible person</p>	<p>Method of implementation</p>	<p>Timeframe for implementation</p>	<p>Responsible person</p>	<p>Frequency</p>	<p>Evidence of compliance</p>

**5.30 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
<ul style="list-style-type: none"> <li>- Bunds must be emptied (where applicable) and need to be undertaken in accordance with the impact management actions included in <b>sections 5.17: management of hazardous substances</b> and <b>5.18 workshop, equipment maintenance and storage</b>;</li> <li>- Hazardous storage areas must be well ventilated;</li> <li>- Fire extinguishers must be serviced and accessible. Service records to be filed and audited at last service;</li> <li>- Emergency and contact details displayed must be displayed;</li> <li>- Security personnel must be briefed and have the facilities to contact or be contacted by relevant management and emergency personnel;</li> <li>- Night hazards such as reflectors, lighting, traffic signage etc. must have been checked;</li> <li>- Fire hazards identified and the local authority must have been notified of any potential threats e.g. large brush stockpiles, fuels etc.;</li> <li>- Structures vulnerable to high winds must be secured;</li> <li>- Wind and dust mitigation must be implemented;</li> <li>- Cement and materials stores must have been secured;</li> <li>- Toilets must have been emptied and secured;</li> <li>- Refuse bins must have been emptied and secured;</li> <li>- Drip trays must have been emptied and secured.</li> </ul>						

**5.31 Landscaping and rehabilitation**

<b>Impact management outcome:</b> Areas disturbed during the development phase are returned to a state that approximates the original condition.						
<b>Impact Management Actions</b>	<b>Implementation</b>			<b>Monitoring</b>		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
<ul style="list-style-type: none"> <li>- 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;</li> <li>- All slopes must be assessed for contouring, and to contour only when the need is identified in accordance with the Conservation of Agricultural Resources Act, No 43 of 1983</li> <li>- All slopes must be assessed for terracing, and to terrace only when the need is identified in accordance with the Conservation of Agricultural Resources Act, No 43 of 1983;</li> <li>- 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;</li> <li>- Where new access roads have crossed cultivated farmlands, that lands must be rehabilitated by ripping which must be agreed to by the holder of the EA and the landowners;</li> <li>- Rehabilitation of tower sites and access roads outside of farmland;</li> <li>- Indigenous species must be used for with species and/grasses to where it compliments or approximates the original condition;</li> </ul>						



<ul style="list-style-type: none"> <li>- Stockpiled topsoil must be used for rehabilitation (refer to Section <b>5.24: Stockpiling and stockpiled areas</b>);</li> <li>- Stockpiled topsoil must be evenly spread so as to facilitate seeding and minimise loss of soil due to erosion;</li> <li>- Before placing topsoil, all visible weeds from the placement area and from the topsoil must be removed;</li> <li>- Subsoil must be ripped before topsoil is placed;</li> <li>- The rehabilitation must be timed so that rehabilitation can take place at the optimal time for vegetation establishment;</li> <li>- Where impacted through construction related activity, all sloped areas must be stabilised to ensure proper rehabilitation is effected and erosion is controlled ;</li> <li>- Sloped areas stabilised using design structures or vegetation as specified in the design to prevent erosion of embankments. The contract design specifications must be adhered to and implemented strictly;</li> <li>- Spoil can be used for backfilling or landscaping as long as it is covered by a minimum of 150 mm of topsoil.</li> <li>- 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:             <ul style="list-style-type: none"> <li>a) Annual and perennial plants are chosen;</li> <li>b) Pioneer species are included;</li> <li>c) Species chosen must be indigenous to the area with the seeds used coming from the area;</li> <li>d) Root systems must have a binding effect on the soil;</li> <li>e) The final product must not cause an ecological imbalance in the area</li> </ul> </li> </ul>						
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## 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:

Name of applicant:

Tel No:

Fax No:

Postal Address:

Physical Address:

## 7.1.2 Details and expertise of the EAP:

Name of applicant:

Tel No:

Fax No:

E-mail address:

Expertise of the EAP (Curriculum Vitae included):

## 7.1.3 Project name:

## 7.1.4 Description of the project:

## 7.1.5 Project location:

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

## 7.1.6 Preliminary technical specification of the overhead transmission and distribution:

- Length
- Tower parameters
  - Number and types of towers
  - Tower spacing (mean and maximum)
  - Tower height (lowest, mean and height)
  - Conductor attachment height (mean)
  - Minimum ground clearance

**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

**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 or commencement of construction to facilitate compliance inspections.

Signature Proponent/applicant/ holder of EA

Date:

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

Should the EA be transferred 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.

**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.