

# ENVIRONMENTAL SCREENING –

ADDITIONAL INFORMATION

22kVa Electricity line, on the Farm Kalk Dam 70, Northern Cape

#### PREPARED FOR:

Eskom, Environmental screening for distribution activities

Danie

#### 1. INTRODUCTION

A 22kVa electricity line is planned for Mr. T. Faber and will stretch from portions of the farms, Kalk Dam 70, Roode Kopjies 69, Die Plaas 252, and Red Hill 68, situated in Northern Cape.

The line will be 1.6km in length. The Eskom's Distribution Environmental Screening Document has been completed for this proposed line. This document contains associated information pertaining the development of the 22kVa line.

Green-Box Consulting was appointed to consolidate all relevant information and present the information to Eskom.

This document also serves to present information to the SAHRA in terms of Section 38 (1) in order to confirm no important cultural heritage along the proposed line. A site inspection of the proposed line route revealed no important cultural heritage resources or graves found on or near the route of the proposed line.

Included in this document the following:

- 1. Distribution Environmental Screening Document;
- 2. Span Plan;
- 3. Site photos;
- 4. 1:50 000 topo cadastral location map;
- 5. Elevation map;
- 6. Environmental sensitivity map;
- 7. DEFF Screening report; and
- 8. NC Biodiversity Plan, 2016.

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# Annex B - Distribution Environmental Screening Document (DESD) (Informative)

#### Reticulation Powerlines and Ancillary Services

| Ratified and accepted by          |   |
|-----------------------------------|---|
| Environmental Practitioner        |   |
| Environmental Specialist          |   |
| Head of Engineering Survey        | ***********                             |
| (one signature please)            |   |
| Accepted by Land Owner/s/Users    | *************************************** |
| I have seen the completed docume  |   |
| recommendations made              |   |
|                                   | Assessor/s                              |
| Form completed by                 | Signature:                              |
| in consultation with :            | Signature:                              |
| CAPACITY (e.g. land owner, speci- | alist):                                 |
| DATE COMPLETED:                   |   |
|                                   |   |

#### Instructions

- 1. Fill the report in as neatly and completely as possible.
- 2. Where the question / statement is not applicable mark N/A.
- 3. Indicate sensitive areas on a map and/or spanning plans.
- 4. When in doubt, consult the Environmental Practitioner in your region.

The purpose of this DESD is to:

- Determine whether or not the project should be subject to R543-7, published in terms of the National Environmental management Act 107 of 1998.
- Identify and mitigate the negative impact of Eskom's activities to a minimum in line with both Legislation and Eskom's Environmental Policies.
- This report is a guide to Route Selection, Construction and Field Services.

NOTE Complete the report before the survey!!!

This is not an office exercise.

Extra sheets of paper may be added and referenced if insufficient space has been provided.

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# Annex B (continued)

### 1 Project description

| Project name/Su<br>Request   | * 22kVa power line Kalkdam 70 Area Portions of Kalk Dam 70, Roode Kopiles 69, Die Plaas 252 & Red Hil 69, Northern Cape  |
|--|--|
| Project number   | File number  |
| Rural scheme/<br>Feeder  | Eskom conductor line, 23.7439, -28.9204 <sub>Voltage</sub> 22kVa   |
| Supply from  | Eskom conductor line   |
| The state of the s | pole numbers for tee-off)  |
| Supply to  | Red Hill 68  |
| (Farm name, etc  |  |
| -  |  |
| 2 Properties   | traversed  |
| Farm name  | Kalk Dam 70  |
|  | nber and Division Sub-division   |
|  | nberLine length (m) 403m   |
| Farm name Ro   | ode Kopjies 69, Die Plaas 252, Red Hill 68   |
| Registration nur   | nber and Division  |
| Compilation nur  | nber   |
|  | ription of the surrounding area the distinution line of approximately 1.5km is located within the Schmiddorff Thomweld Vegetation type. The area   |
| topography can be diff   | ned with undulating plains with ridges and hills. The distribition line proposed will however be located on fainly flat area.  |
| There are no surface v   | safer courses applicable along the proposed distribution line. A non-pirental drainage line is located east of the distribution  |
| performance revenue to the contract of the con | ntial areas is located within the project area. Vegetation cover include the presence of invader trees. Some Wilgat trees  |
| can be find in the area  | , however none along the line alignment.   |
|  |  |
|  | osed project have an impact on or be constrained by any of the following environmental   |
| possible negativ   | propriate aspect, giving a description of the present state as well as an indication of the<br>re impact. Note that mitigating measures for these impacts are to be included in the<br>Management Programme. |

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|   |  |   | Annex<br>(continue  |  |   |   |  |
|---|--|---|---|--|---|---|--|
| 4 Physical e  | nvironment   |   |   |  |   |   |  |
| 4.1 Water: s  | treams rivers  | dams  | wetlands  | springs  | floodplains   | OTHER None  | 2                                      |
| Present condition   | The Contract of the Contract o | arthur beautiful a product to   | ASSESSMENT OF PERSONS ASSESSMENT  | A REAL PROPERTY AND ADDRESS OF THE PARTY AND A | A Del Control of Children and Add Late.                                   | proposed distributi<br>t the end point.                                     | on line alignment.                     |
| Potential impact  | (e.g. threat of po   | illution). No.  | impacts are fo  | oreseen  |   |   | #                                      |
|   |  |   |   |  |   |   | -                                      |
| 4.2 Soil:   | sandy  | roe   | iky   | claye  | У   | OTHER   | 0.                                     |
|   | The distribution   | . Sino falle wit  | hin the 1 Mars  | 1  |   |   | 2009992                                |
| Present condition   | The distribution   | I JULIE LANS WIL  | nin die Lidiosi   | ois soil class   | (shallow soils  | on hard or weather  | ring rock).                            |
|   |  |   | s foreseen on   |  |   | on hard or weather  | ring rock).                            |
| Potential impact  | (e.g. of erosion)  | No impact is  |   | soil condition   |   | OTHER Plain   | ring rock).                            |
| Potential impact 4,3 Topography Present condition   | (e.g. of erosion) y mountains n. The area is repr  | No impact is ridges   | s foreseen on<br>hills valley   | soil conditions ravines  | dongas<br>e plains are as:  | OTHER Plain   |  |
| Potential impact 4.3 Topography Present condition ridges and slopes                                   | (e.g. of erosion) y mountains n. The area is report koppies. Rock  | No impact is ridges.  | s foreseen on<br>hills valley<br>indulating plai<br>covered slope   | soil condition s ravines ns, within the s mainly con   | dongas<br>e plains are as:  | OTHER Plain<br>sociated dolerite si<br>spah and gravel-ric                  | lls forming -                          |
| Potential impact 4.3 Topography Present condition ridges and slopes Potential impact                  | (e.g. of erosion) y mountains n The area is report koppies. Rock (e.g. of erosion)   | No impact is ridges.  | s foreseen on<br>hills valley:<br>indulating plai<br>covered slope:<br>nent is howev  | soil condition s ravines ns, within the s mainly con   | dongas<br>e plains are assistute stony Mi                                 | OTHER Plain<br>sociated dolerite si<br>spah and gravel-ric                  | lls forming -<br>ch soil types (Mucina |
| Potential impact 4.3 Topography Present condition ridges and slopes Potential impact                  | (e.g. of erosion) y mountains  The area is report koppies. Rock (e.g. of erosion) ating measures:  | No impact is ridges. Considered by use and boulder of the alingur (see attach | s foreseen on<br>hills valley:<br>indulating plai<br>covered slope:<br>ment is howevered elevation in                       | soil conditions ravines  ns, within the s mainly con- er fairly flat a naps)   | dongas<br>dongas<br>e plains are as:<br>situte stony Mi<br>and no impacts | OTHER Plain<br>sociated dolerite si<br>spah and gravel-ric                  | lls forming -<br>ch soil types (Mucina |
| Potential impact 4.3 Topography Present condition ridges and slopes. Potential impact Comments/mitigi | (e.g. of erosion) y mountains  The area is report koppies. Rock (e.g. of erosion) ating measures:  | No impact is ridges. Considered by use and boulder of the alingur (see attach | s foreseen on<br>hills valley:<br>indulating plai<br>covered slope:<br>ment is howevered elevation in                       | soil conditions ravines  ns, within the s mainly con- er fairly flat a naps)   | dongas<br>dongas<br>e plains are as:<br>situte stony Mi<br>and no impacts | OTHER Plain<br>sociated dolerite si<br>spah and gravel-ric                  | lls forming -<br>ch soil types (Mucina |
| Potential impact 4.3 Topography Present condition ridges and slopes. Potential impact Comments/mitigi | (e.g. of erosion) y mountains  The area is report koppies. Rock (e.g. of erosion) ating measures:  | No impact is ridges. Considered by use and boulder of the alingur (see attach | s foreseen on<br>hills valley:<br>indulating plai<br>covered slope:<br>ment is howevered elevation in                       | soil conditions ravines  ns, within the s mainly con- er fairly flat a naps)   | dongas<br>dongas<br>e plains are as:<br>situte stony Mi<br>and no impacts | OTHER Plain<br>sociated dolerite si<br>spah and gravel-ric                  | lls forming -<br>ch soil types (Mucina |
| Potential impact 4.3 Topography Present condition ridges and slopes. Potential impact Comments/mitigi | (e.g. of erosion) y mountains n The area is reprof koppies. Rock (e.g. of erosion) sting measures: arance must be in   | No impact is ridges Cresented by use and boulder of The alingnridge attach    | s foreseen on<br>hills valley:<br>indulating plai<br>covered slope:<br>nent is howeved<br>ed elevation in<br>avoid possibil | soil condition s ravines ns, within the s mainly con- er fairly flat a naps)   | dongas<br>dongas<br>e plains are as:<br>situte stony Mi<br>and no impacts | OTHER Plain<br>sociated dolerite si<br>spah and gravel-ric<br>is foreseen - | lls forming -<br>ch soil types (Mucina |

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|  |   | 100   | nnex B   |   |   |        |
|--|---|---|--|---|---|--------|
| 5 Natural env  | rironment   |   |  |   |   |        |
| 5.1 Flora:   | indigenous  | protecte  | exc exc  | otic O  | THER  |        |
|  |   |   |  |   | Vegetation type - Schmi                       |        |
| NC Biodiversity plan ide<br>Potential impact<br>The vegetation type is o | offy the line as being in<br>(e.g. permit appl<br>onsidered least Threate | both a Critical Blodiversh<br>ications<br>ned. No protected trees | ty and Ecological Suppor<br>are located within the all | f Areas (see blodiversity)<br>gnment,           | ak-en-Steek, Witgat - trees<br>map attached). |        |
| 5.2 Fauna:   | tgat trees need to be re-   |   | through DAFF will be re                                |   | R   |        |
|  |   |   |  |   |   |        |
| Brief description  |   |   |  |   |   |        |
| Small mammals can be   | expected in the area, in  | cluding terrestrial rodents                                       | s, and shrews. Larger m                                | res, etc., mention<br>annals will also be prese | erit.   |        |
| Potential impact<br>No significant impacts to                            | (e.g. threat of ele<br>preseen, as the distribut                          | ectropution, collis<br>on line is of small magni                  | sion, etc)<br>tude, construction will be               | of short duration.                              |   |        |
|  |   |   |  |   |   |        |
| Comments/mitiga  |   |   |  | Market Street Street Company                    | me  | asures |
| No specific mitigation m   | easures is required. It is  | nowever recommended   | that bush clearance be                                 | Kept to a minimum.                              |   |        |
|  |   |   |  |   |   |        |
|  | partition the state of  |   |  |   |   |        |
|  |   |   |  |   |   |        |
| 6 Social envi  | ronment   |   |  |   |   |        |
| 6.1 Restricted areas:  | nature/game<br>reserves   | hiking traifs   | tourism route  | s parks   | recreational<br>areas                         |        |
| Residential-<br>areas  | green belts   | sacred/holy<br>grounds  | OTHER None   |   |   |        |

Brief description No residential areas are located within the visinity of the project. The distribution line is proposed on farm land.

| Cocomient Classing  | tion: Controlled D   | Macipaure  |  |   |   |  |
|---|--|--|--|---|---|--|
| ENVIRONMENTA  | IMPACT ASS   | ESSMENT FOR  | Unique Ide   | ntifier;  | 240-72597722                            |  |
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|   |  | Annex I  | 3  |   |   |  |
| Detectation   | Markova potencia   | (continued   |  |   |   |  |
| Potential impact e.g.   | threat of encroac  |  |  |   |   |  |
| 6.2 Visual aesthetic  | s: easily seen   | Chidae   |  |   |   |  |
| ore produit destriction   | e. casily seen   | hidder   |  | partially   |   |  |
|   |  |  |  |   |   |  |
|   |  |  |  | _   |   |  |
| Brief deposition The  | ishthution line will be loca   | ated within an area covered by   | trees servino as natural some  | en. There are fi  | other no residential areas              |  |
| proximity to the line. The R385   | A CONTRACTOR OF THE PROPERTY OF THE PARTY OF | PARKET PROCESSOR PROCESSOR AND ADDRESS OF THE PARKET PROCESSOR AND ADDRESS OF THE PARKET PARKET PROCESSOR AND ADDRESS OF THE PARKET PAR | rees serving as natural scre   | en, inere are it  | strier no respential areas              |  |
| 2010/03/19/10/00/00 X 00 00 11/10/10  | erences construences cons  | **************************************   |  |   |   |  |
|   |  |  |  |   |   |  |
|   |  |  |  |   |   |  |
| Potential impact Nov  | sual impacts is foreseen.  |  |  |   |   |  |
|   |  |  |  |   |   |  |
|   |  |  |  |   | *************************************** |  |
|   |  | archaeological   | monuments  | palaeon   | tological                               |  |
|   | : cultural significance  | archaeological<br>objects  |  | objects   | 0.00                                    |  |
|   | : cultural   | archaeological   | monuments<br>ruins   | A TOTAL PROPERTY.   | 0.00                                    |  |
| 5.3 Natural heritage  Note: Should any Resource Act. No 25.   | cultural<br>significance<br>graves   | archaeological<br>objects<br>meteorites<br>resource as listed a  | ruins  | OTHER   | NA                                      |  |
| Note: Should any<br>Resource Act, No 25<br>he SAHRA, If line o  | cultural<br>significance<br>graves<br>natural heritage<br>of 1999 be identifinaccess road let  | archaeological<br>objects<br>meteorites<br>resource as listed i<br>fied, the requirement<br>right exceeds 300m   | ruins<br>above, or as defin<br>s of Act 25 of 1999<br>SAHRA shall be n | OTHER   | NA                                      |  |
| Note: Should any<br>Resource Act, No 25<br>he SAHRA, If line o  | cultural<br>significance<br>graves<br>natural heritage<br>of 1999 be identifinaccess road let  | archaeological<br>objects<br>meteorites<br>resource as listed i<br>fied, the requirement<br>right exceeds 300m   | ruins<br>above, or as defin<br>s of Act 25 of 1999<br>SAHRA shall be n | OTHER   | NA                                      |  |
| Note: Should any<br>Resource Act, No 25-<br>he SAHRA. If line o   | : cultural<br>significance<br>graves<br>natural heritage<br>of 1999 be identif<br>access road les  | archaeological<br>objects<br>meteorites<br>resource as listed i<br>fied, the requirement<br>right exceeds 300m   | ruins<br>above, or as defin<br>s of Act 25 of 1999<br>SAHRA shall be n | OTHER   | NA                                      |  |
| Note: Should any<br>Resource Act, No 25,<br>he SAHRA, If line of<br>Potential impact Environments/mitigating                                  | : cultural<br>significance<br>graves<br>natural heritage<br>of 1999 be identif<br>r access road les  | archaeological objects meteorites resource as listed if the requirement of the exceeds 300m at submitted on SAI-RIS for continuous control of the exceeds and the exceeds are submitted on SAI-RIS for control of the exceeds are submitted on the exceeds are submi | ruins above, or as defins of Act 25 of 1999 SAHRA shall be n           | objects<br>OTHER.<br>ed in the<br>shall be foll<br>otified. | NA                                      |  |
| Note: Should any<br>Resource Act, No 25-<br>he SAHRA. If line o   | : cultural<br>significance<br>graves<br>natural heritage<br>of 1999 be identif<br>r access road les  | archaeological objects meteorites resource as listed if the requirement of the exceeds 300m at submitted on SAI-RIS for continuous control of the exceeds and the exceeds are submitted on SAI-RIS for control of the exceeds are submitted on the exceeds are submi | ruins above, or as defins of Act 25 of 1999 SAHRA shall be n           | objects<br>OTHER.<br>ed in the<br>shall be foll<br>otified. | NA                                      |  |
| Note: Should any<br>Resource Act, No 25<br>he SAHRA. If line of<br>Potential impact Environments/mitigating<br>Should any of the above be de- | : cultural<br>significance<br>graves<br>natural heritage<br>of 1999 be identif<br>r access road ler<br>nmental Screening report  | archaeological objects meteorites resource as listed if the requirement of the exceeds 300m at submitted on SAI-RIS for continuous control of the exceeds and the exceeds are submitted on SAI-RIS for control of the exceeds are submitted on the exceeds are submi | ruins above, or as defines of Act 25 of 1999 SAHRA shall be nowent.    | objects<br>OTHER.<br>ed in the<br>shall be foll<br>otified. | NA                                      |  |
| Note: Should any Resource Act, No 25 he SAHRA. If line of Potential impact Environments/mitigating Should any of the stove be de-             | : cultural<br>significance<br>graves<br>natural heritage<br>of 1999 be identif<br>r access road ler<br>nmental Screening report  | archaeological objects meteorites resource as listed in field, the requirement on the exceeds 300m is submitted on SANRIS for contract the project must stop and en  | ruins above, or as defines of Act 25 of 1999 SAHRA shall be nowent.    | objects<br>OTHER.<br>ed in the<br>shall be foll<br>otified. | NA                                      |  |
| Note: Should any Resource Act, No 25 he SAHRA. If line of Comments/mitigating Should any of the above be de-                                  | : cultural<br>significance<br>graves<br>natural heritage<br>of 1999 be identif<br>r access road ler<br>nmental Screening report  | archaeological objects meteorites resource as listed in field, the requirement on the exceeds 300m is submitted on SANRIS for contract the project must stop and en  | ruins above, or as defines of Act 25 of 1999 SAHRA shall be nowent.    | objects<br>OTHER.<br>ed in the<br>shall be foll<br>otified. | NA                                      |  |
| Note: Should any Resource Act, No 25- he SAHRA. If line or Potential impact Environments/mitigating Should any of the above be life.          | : cultural<br>significance<br>graves<br>natural heritage<br>of 1999 be identif<br>r access road ler<br>nmental Screening report  | archaeological objects meteorites resource as listed in field, the requirement on the exceeds 300m is submitted on SANRIS for contract the project must stop and en  | ruins above, or as defines of Act 25 of 1999 SAHRA shall be nowent.    | objects<br>OTHER.<br>ed in the<br>shall be foll<br>otified. | National Heritage<br>lowed by notifying |  |

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# Annex B (continued)

| Potential impact No sign    | ificant impacts are f      | oreseen, the line is re                           | latively short (1.5km). |              |            |
|-----------------------------|----------------------------|---|-------------------------|--------------|------------|
| .1.1 Commercial:            | factories                  |   | shops                   | OTHER        | None       |
| Brief description No com    | rercial landuses are<br>ct | applicable.                                       |                         |              |            |
|                             |                            |   |                         |              |            |
| 1.1.2 Infrastructure:       | foads<br>pipelines         | railways<br>sewage                                | communications<br>OTHER | power lines  | air fields |
| Brief description: Arms to  |                            | te there are no infrasi<br>farm stread is located |                         | scess backs. |            |
| otential impact. No mpa     |                            |   |                         |              |            |
| Comments/mitigating<br>None | measures:                  |   |                         |              |            |
|                             |                            |   |                         |              |            |

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|--|--|---|
| What impact will th<br>t. Physical   | is project have on elements 4  | t to 7?   |
| No impact (0)  | Medium impact (2)  | High impact (4)   |
| 2. Natural   |  |   |
| No impact (0)  | Medium impact (2)  | High impact (4)   |
| 3. Social  |  |   |
| No impact (0)  | Medium impact (2)  | High impact (4)   |
| -  | 0 2<br>mpact Medium imp  | act High impact   |
|  |  |   |
| If the overall imp<br>Environmental Sen<br>Alternatives  | pact is between 2 and 4, ior Superintendent,                               | contact the Environmental Management Officer or the                                 |
| If the overall imp<br>Environmental Sen<br>Alternatives<br>Have alternative ro   | pact is between 2 and 4, ior Superintendent,                               |   |
| If the overall imp<br>Environmental Sen<br>Alternatives  | pact is between 2 and 4, ior Superintendent,                               | contact the Environmental Management Officer or the                                 |
| If the overall imp<br>Environmental Sen<br>Alternatives<br>Have alternative ro   | pact is between 2 and 4, ior Superintendent,                               | contact the Environmental Management Officer or the                                 |
| If the overall imp Environmental Sen Alternatives Have alternative ro Yes No X Detailed study                              | pact is between 2 and 4, ior Superintendent,                               | contact the Environmental Management Officer or the relevant land owner/s or users? |
| If the overall imp Environmental Sen Alternatives Have alternative ro Yes No X Detailed study Is an environmental Yes      | nact is between 2 and 4, ior Superintendent.  utes been discussed with the | contact the Environmental Management Officer or the relevant land owner/s or users? |
| If the overall imp Environmental Sen Alternatives Have alternative ro Yes No   Detailed study Is an environmental          | nact is between 2 and 4, ior Superintendent.  utes been discussed with the | contact the Environmental Management Officer or the relevant land owner/s or users? |
| If the overall imp Environmental Sen Alternatives Have alternative ro Yes No X Detailed study Is an environmental Yes No X | nact is between 2 and 4, ior Superintendent.  utes been discussed with the | contact the Environmental Management Officer or the relevant land owner/s or users? |
| If the overall imp Environmental Sen Alternatives Have alternative ro Yes No X Detailed study Is an environmental Yes No X | act is between 2 and 4, ior Superintendent.  utes been discussed with the  | contact the Environmental Management Officer or the relevant land owner/s or users? |

X Note that a environmental screening assessment was submitted on SAHRIS, 21 August 2020.

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### Annex C - Environmental Management Plan

#### 1 General conditions

- 1.1 The Eskom project manager or co-ordinator shall be responsible for ensuring that the land owners have been informed before any work is carried out on site. Contractors shall find out if the landowners have been informed before moving onto site.
- 1,2 No fences, gates or locks shall be damaged to obtain access onto a line route. Arrangements shall be made in advance to obtain permission for access.
- 1.3 Use of private roads shall be arranged in advance. Any damage to private roads shall be repaired at the contractor's expense and to the satisfaction of the landowner. This shall be the responsibility of the project manager or co-ordinator.
- 1.4 Gates shall be left as they are found, i.e. closed gates shall be kept closed and open gates shall be left open. Gates to adjacent properties or onto public roads shall be closed at all times. Any Eskom gates installed on the line route shall be kept closed and locked except while stringing is taking place. Open gates shall be guarded to prevent animals straying and unauthorised persons and vehicles entering into adjacent camps or properties.
- 1.5 Permission shall be obtained from landowners before any water is used.
- 1.6 No fires shall be lit on private property. If fires are lit on Eskom's property or in the construction camp, provision shall be made that no accidental fires are started. No firewood shall be collected in the yeld.
- 1.7 If activities that can cause a fire are carried out, fire extinguishers shall be available on site and in the construction camp.
- 1.8 No property may be accessed after normal working hours except with the permission of the landowner. Privacy shall be respected at all times.
- 1.9 Eskom, Eskom's contractors and their employees shall at all times be courteous towards landowners, tenants and the local community.
- 1.10 Eskom, Eskom's contractors and their employees shall not cause damage to property, crops or animals. Activities that may cause conflict with landowners, tenants, the local work force or the local community shall be avoided. Should conflict arise it shall be immediately reported to the Eskom project manager or co-ordiator.
- 1.11 Vehicles shall be driven at a moderate speed on private roads and stay within the statutory speed limit on public roads.
- 1.12 All movement of vehicles shall take place on the established Eskom servitude road or on private roads as agreed in advance. Keep to existing tracks. No movement shall take place through the veld. Special care shall be taken to prevent excess damage during wet weather.

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#### Annex C

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- 1.13 If any vehicle should get stuck, the damage shall be repaired immediately so that no deep ruts remain.
- 1.14 Any damage to private property shall immediately be reported to Eskom and the owner. The damage shall be rectified immediately if possible and/or appropriate compensation shall be paid to the owner at the discretion of the project manager/co-ordinator in consultation with the property owner. A record of damages and rectifying action shall be kept. The landowner's satisfaction with the outcome of rectifying action shall be obtained in writing.
- 1.15 A proper system of waste management shall be instituted in the construction camp. This entails that sufficient waste bins are available on site and in the construction camp. The waste shall be dumped at an approved waste disposal site. No containers, scrap metal, conductor etc. shall be left on site.
  - All scrap shall be removed and taken to an appropriate disposal site. No oil, diesel or other chemicals shall be spilled or discarded anywhere. If an accidental spill occurs, it shall be reported immediately and cleaned to the satisfaction of Eskom and the landowner. No waste shall be left in the veld or on the line route.
- 1.16 Washing and toilet facilities shall be provided on site and in the construction camp. The facilities shall comply with Eskom standards and shall have the approval of the fandowner.
- 1.17 No human excrement shall be left in the veld. If no tollet facilities are available such waste shall be buried immediately.
- 1.18 Herbicides shall only be applied with Eskom's permission and in accordance with the Eskom Policy on Herbicides ESKPBAAD4.
- 1.19 Camp and office sites shall be dismantled and removed after completion of the construction phase of the project. The site shall be rehabilitated to as close as possible to its original condition to the satisfaction of the landowner, which shall be in writing.
- 1.20 All excavations shall be enclosed to prevent animals or people from accidentally falling into excavations.
- 1.21 No trees shall be cut or removed without prior permission from the landowner. Permits shall be obtained for the cutting and removal protected trees (protected trees shall be dealt with in 2, Special conditions).
- 1.22 Should any natural heritage object be found, or exposed during excavations, all work shall be terminated immediately and the finding reported to the Project Manager who shall inform the Eskom Environmental Practitioner and the SAHRA.

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#### Annex C (continued)

### 2 Special conditions

| (Specific | issues | identified | during | the | scoping | 88 | needing | attention | i.e. | erosion | berms, | bird | flappers. |
|-----------|--------|------------|--------|-----|---------|----|---------|-----------|------|---------|--------|------|-----------|
| protected | trees. | etc.).     |        |     |         |    |         |           |      |         |        |      |           |

| protected trees, etc.).             |  |                               |                   |
|-------------------------------------|--|-------------------------------|-------------------|
| Should any protected tree species I | be affected, prior permit application must be su | emitted to DAFF for approval. |                   |
| Bush clearance must be kept to a    | minimum to mitigate against soil erosio.         |                               |                   |
| ,                                   |  |                               | ***************** |
|                                     |  |                               |                   |

### TYPICAL MITIGATION MEASURES

| ENVIRONMENTAL CONCERNS   | MITIGATION MEASURES   |
|--|---|
| AGRICULTURE  |   |
| Loss of standing crop due to access road<br>and tower work site. | Ilmit width of access and size of tower site.     avoidance of crop areas.     monetary compensation for crop loss.     time construction to avoid growing season.  |
| Soil Compaction  | scheduling activities to times of the year when soils are least susceptible to compaction.     stop activities when ground conditions are poor.     use of equipment with low bearing capacity.     chisel ploughing.   |
| Construction of new lines  | - locate access roads along existing traffic routs.   |
| Topsoil – subsoil mixing/spil rutting                            | scheduling activities.     stop activity when ground conditions are poor.     use of equipment with low bearing capacity.     use of gravel roads.     addition of manures to offset fertility loss.     compensation for reduced soil pEAuctivity.     removal of spoil and/or bentonite from foundation operations.     Segregation of topsoil and subsoil. |
| Disturbance to farm operations                                   | <ul> <li>maintain contact with landowner/tenant regarding preferences.</li> </ul>   |
| Lass of livestock  | - employ noise control measures near sensitive livestock Construction of farm gates Securing farm gates Clean-up construction materials which could be ingested Compensation for lost, injured livestock.   |
| SOCIAL IMPACTS   |   |
| Mud and Dust   | wetting down dry soils.     chemical control of dust.     cleaning roads to remove mud.     temporary planting of grasses.  |

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#### Annex C (continued)

| Aesthetics  | screen with natural of planted vegetation restoration.     avoid linear access down the right-of-way.     addition of topsoil to gravel access roads.     hearding construction sites.     installation of landscaping in advance of site completion.                                   |
|---|---|
| Inconvenience   | select route and method of installation to suit landowners' conditions.     select timing of activity.  |
| Heritage resources  | avoidance/isolation.     design measures to make facility less obtrusive.     screening.     alternate methods of equipment.     protection by use of enclosures, barrier fending covering.     salvage in conjunction with SAHRA.     relocation in conjunction with SAHRA.            |
| Tourism and recreation resources  | design measures to make facility less obtrusive of disruptive.     screening and restoration.     minimise noise and dust.     safety precautions to protect the public.     scheduling to avoid peak use periods.  |
| WATER QUALITY   |   |
| Sedimentation of streams due to<br>erosion from the right-of way,                                   | minimise use of slopes adjacent to streams during soils testing, construction and maintenance.     maintain a cover crop.     retain buffers.   |
| Stream bank erosion.  | mechanical erosion control.     retain shrubby stream bank vegetation and selectively out or prune trees during line clearing/maintenance.     selective spraying of herbicides.     Mechanical erosion control.  |
| Impedance of natural flow<br>streams/others surface waters.<br>Ponding or channelization of surface | use and maintenance of appropriate stream crossing device.     timing activities to stable ground conditions.   |
| waters due to rutting.  | - use of gravel roads.  |
| Contamination of surface or ground<br>waters through spills or leaks of toxic<br>substances.        | spill control material and procedures readily available.     site selection where possible.   |
| Soil compaction/topsoil-subsoil mixing.   | avoidance of rutting by vehicles where possible.     construction timing.     use of gravel roads.     use of vehicles with low bearing pressures.     stop activities when ground conditions are poor.   |
| Wind/water erosion.   | avoidance of areas with high erosion potential.     timing activities to the most stable ground conditions.     slope stabilisation.     mechanical erosion control.     vegetation erosion control.     recompaction of trenches.     avoid trenching parallel to the fall of a slope. |

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#### Annex C (continued)

| Contamination by petrochemicals.  | spill control material and procedures made readily<br>available.     restoration methods investigated.   |
|---|--|
| FAUNA & FLORA   |  |
| Loss of habitat, breeding and/or food source for terrestrial wildlife.                      | environmental mapping to identify sensitive areas.     avoidance of areas containing rare/endangered species.     construction and maintenance activities to be timed where possible to avoid peak breading periods,     the creation of "edge" (may be considered a positive impact.)     promotion of wildlife habitat through vegetation control.     avoid the filling of small wetlands.     use design with low risk to wildlife electrocution or collision     fit bird flight divertors to powerlines in bird migration areas. |
| Changes in composition of vegetation as a result of disturbance.                            | construction timing to minimise soil disturbance     restoration of soils to a stable condition.   |
| Removal or burial of stream bottom habitat<br>and increased furbidity due to sedimentation. | - minimise erosion from the right-of-way by maintaining a cover crop mechanical erosion control minimise stream bank erosion by retaining shrubby bank vegetation and selective cutting, pruning of trees near watercourses installation of sediment fraps when necessary.   |
| Possible loss of wildliferfish migration/travel routes.                                     | avoid filling small wetlands servings as staging areas for waterfowl migration.     Installation and maintenance of a proper stream crossing device.     time construction activities to avoid disturbance to migrating fish and wildlife or during breeding.     Follow Eskom standards for the application of herbicides near watercourses.     Preserve and/or augment existing natural corridor crossings; investigate tower placement to optimise degrances to preserve existing vegetation.                                      |
| IntEAuction of exotic plant species resulting<br>from vegetative erosion control.           | - use of native species for erosion control.   |
| Vegetation stress due to nutrient loss as a result of soil deterioration.                   | <ul> <li>erosion control measures.</li> </ul>  |
| Changes in vegetation due to soil disturbance (topsoil-subsoil mixing).                     | <ul> <li>time construction/clearing to take advantage of<br/>stable soil conditions.</li> </ul>  |

### **SPAN PLAN**



### **SITE PHOTOS**



Photo 1: Typical landscape of line route

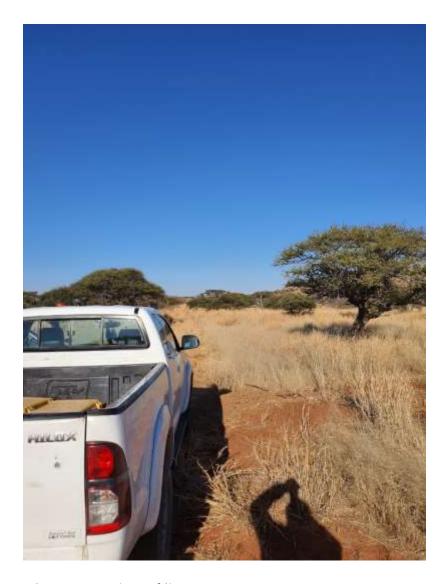
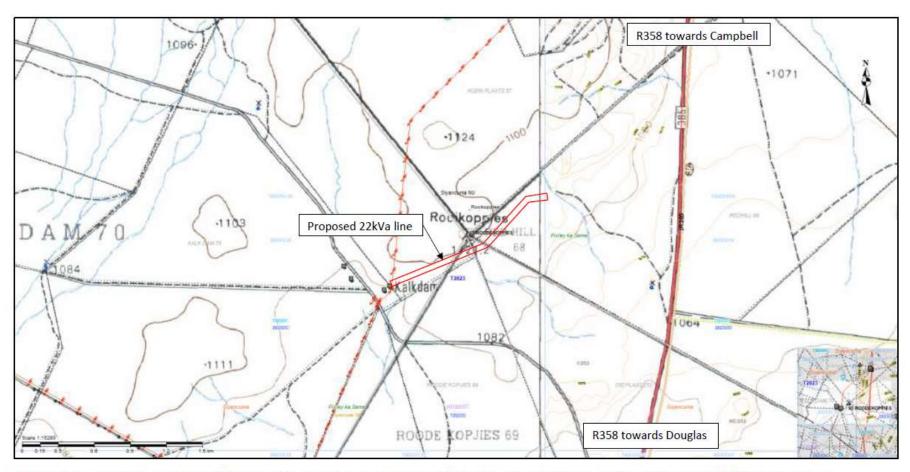


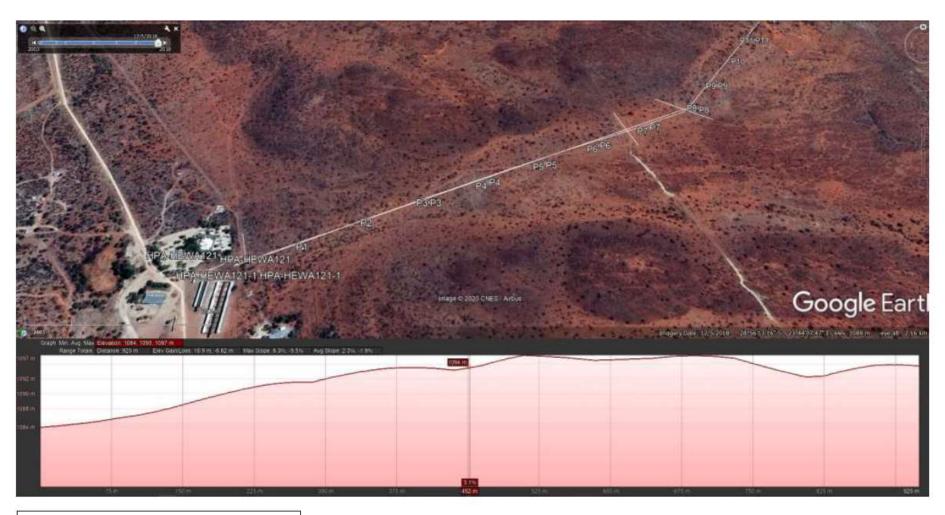
Photo 2: Section of line route

### 1:50 000 TOPO CADASTRAL LOCATION MAP



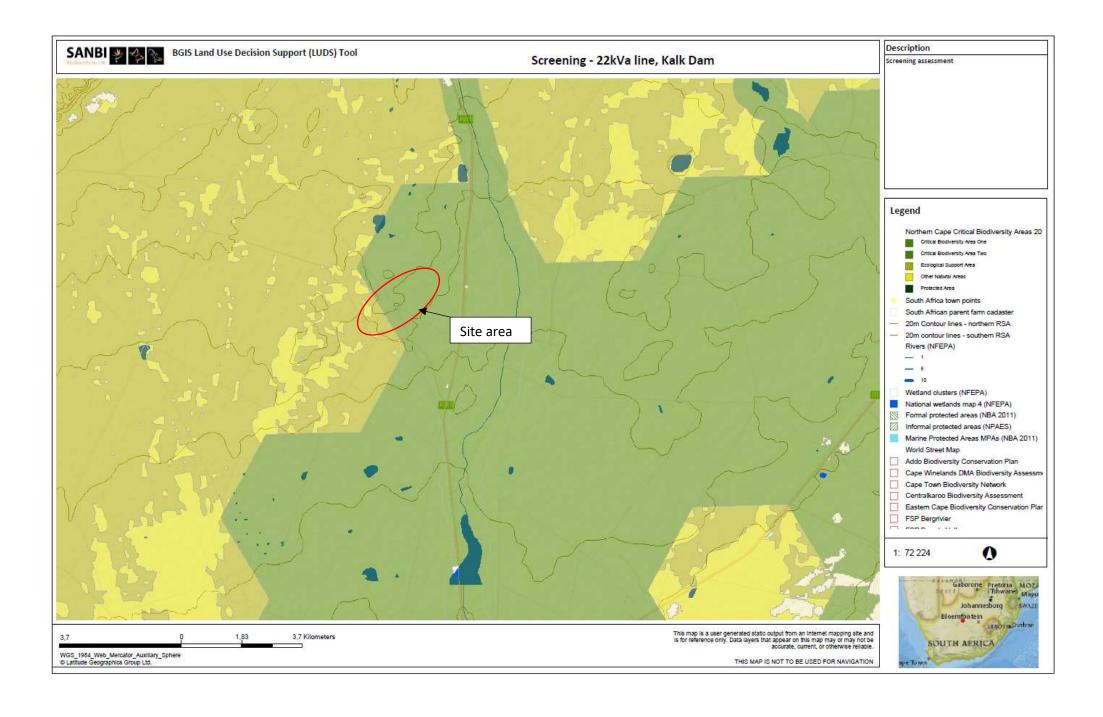
1:50 000 Topo-cadastral map: 1.6km, 22kVa powerline, on a portion of the farms Kalk Dam 70, Roode Kopjies 69, Die Plaas 252, and Red Hill 68, Northern Cape

### **ELEVATION MAP**



Elevation of first section: Average slope at 2.3%

### **ENVIRONMENTAL SENSITIVITY MAP**



### **DEFF SCREENING REPORT**

See attached separate document

# **NC BIODIVERSITY PLAN, 2016**

