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|  | (For official use only) |
| File Reference Number: |  |
| Application Number: | DEA Ref number 14/12/16/3/3/1/1039 |
| Date Received: |  |

Basic assessment report in terms of the Environmental Impact Assessment Regulations, 2010, promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

Kindly note that:

1. This basic assessment report is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2010 and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for.
2. This report format is current as of 1 September 2012. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority
3. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
4. Where applicable tick the boxes that are applicable in the report.
5. An incomplete report may be returned to the applicant for revision.
6. The use of “not applicable” in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
7. This report must be handed in at offices of the relevant competent authority as determined by each authority.
8. No faxed or e-mailed reports will be accepted.
9. The signature of the EAP on the report must be an original signature.
10. The report must be compiled by an independent environmental assessment practitioner.
11. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
12. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.
13. Should a specialist report or report on a specialised process be submitted at any stage for any part of this application, the terms of reference for such report must also be submitted.
14. Two (2) colour hard copies and one (1) electronic copy of the report must be submitted to the competent authority.
15. Shape files (.shp) for maps must be included on the electronic copy of the report submitted to the competent authority.

1. SCOPE OF PROJECT

Eskom Holdings SOC Ltd (the Applicant) commissioned Texture Environmental Consultants (the Environmental Assessment Practitioner) to undertake an Environmental Impact Assessment for the following project.

Eskom Limpopo Operating Unit, Land Development (Eskom) plans to construct the Pienaars River Customer Network Centre (CNC) consisting of inter alia a new office building, accommodation, a technical service centre, an equipment store, a general store, a guard house, 59 parking bays, a wash bay, a 103 680 litre fuel tank, a chemical sewer plant and the erection of a new transformer storage plinth, a drainage sump and an oil bund in the vicinity of Pienaarsrivier in the Limpopo Province.

2. Legal RequirementS

An application for environmental authorisation is submitted to the National Department of Environmental Affairs (DEA) in terms of the National Environmental Management Act 107 of 1998 (NEMA), and the Environmental Impact Assessment Regulations published in GNR 543/2010- GNR 546/2010 of 18 June in terms of section 24(5) of the Act.

This document constitutes the Basic Assessment Report prepared in support of an environmental authorisation application. In addition to the statutory provisions in the NEMA more fully referred to herein below, other legislation and guidelines that have been considered in the preparation of the Report, includes relevant legislation on all levels including the constitutional, national, provincial and local level.

The overarching principle of the National Environmental Management Act 1998 (Act 107 of 1998) (NEMA) is sustainable development. It defines sustainability as meaning the integration of social, economic and environmental factors into planning, implementation and decision making so as to ensure the development serves present and future generations.

Section 2 of NEMA (Act no 107 of 1998) provides for National Environmental Management Principles. These principles include inter alia:

* Environmental management must place people and their needs at the forefront of its concern.
* Development must be socially, environmentally and economically sustainable.
* Environmental management must be integrated, acknowledging that all elements of the environment are linked and interrelated.
* Equitable access to environmental resources, benefits and services to meet basic human needs and ensure human wellbeing must be pursued.
* The participation of all Interested and Affected Parties (I&APs) in environmental governance must be promoted.
* Decisions must take into account the interests, needs and values of all I&APs.
* The social, economic and environmental impacts of activities, including disadvantages and benefits, must be considered, assessed and evaluated, and decisions must be appropriate in the light of such consideration and assessment.
* The environment is held in public trust for the people, the beneficial use of environmental resources must serve the public interest and the environment must be protected as the people’s common heritage.

The Environmental Impact Assessment (EIA) process to be undertaken in respect of the authorisation process of the proposed project is in compliance with the NEMA read with the Environmental Impact Assessment Regulations of 2010 (Government Notice No’s R543, 544, 545 and 546 of 2010). The proposed development involves ‘listed activities’, as identified in terms of the NEMA and in terms of section 24(1), the potential consequences for or impacts on the environment of inter alia listed activities must be considered, investigated, assessed and reported on to the competent authority except in respect of those activities that may commence without having to obtain an environmental authorisation in terms of the NEMA.

As stated above, an environmental authorisation application has been submitted to the DEA for consideration. The following activities as listed in Listing Notice 1 were identified as applicable to the proposed construction of the project:

|  |  |
| --- | --- |
| Listed Activity | Activity/Project Description |
| GN 544, June 2010, Number 13  The construction of facilities or infrastructure for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 but not exceeding 500 cubic metres; | A 103 680 litre (103,68 cubic metres) diesel tank will be erected on the site of the Customer Network Centre (CNC).  (One cubic meter equals 1000 liters) |
| GN 544, June 2010, Number 23  The transformation of undeveloped, vacant or derelict land to  (i) residential, retail, commercial, recreational, industrial or institutional use, inside an urban area, and where the total area to be transformed is 5 hectares or more, but less than 20 hectares, or  (ii) residential, retail, commercial, recreational, industrial or institutional use, outside an urban area and where the total area to be transformed is bigger than 1 hectare but less than 20 hectares;  except where such transformation takes place for linear activities. | The proposed Customer Network Centre will be constructed on land of approximately 3 hectares near Pienaars River. |

3. Study approach

The approach followed by the consultants was based on the specifications for the undertaking of a Basic Assessment as provided in the document “Companion to the EIA Regulations, Integrated Environmental Management Guideline Series 5, Department of Environmental Affairs, 2010”.

The study approach followed by the Consultants, in short, entailed the following steps:

* Preliminary site investigations to determine the scope of works of the project and to familiarise with the sites were done by the EAP and Eskom in August 2013.
* An application for a Basic Assessment was submitted to DEA and the project was issued with reference number DEA Ref 14/12/16/3/3/1/1039 on 19 September 2013.
* Specialist ecological input was obtained to investigate the flora, fauna and the general biophysical environment in an attempt to identify the potential impacts of the project.
* The proposed development is covered by the National Heritage Resources Act which incorporates heritage impact assessments in the Environmental Impact Assessment process. A Phase 1 Heritage Impact Assessment was therefore done by a specialist to identify the potential impact on heritage resources.
* The National Heritage Resources Act 25 of 1999 in addition requires that all heritage resources, that is, all places or objects of aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance be protected. Fossil heritage of national and international significance is found within all provinces of the RSA. Therefore a Palaeontological Assessment was also commissioned.
* Input from an avifauna specialist was obtained to determine the impact of the proposed project on birds.
* During the months of August 2013 - March 2014 the EAP, the ecologist, the bird impact specialist, the archaeologist/cultural heritage management consultant, conducted additional site investigations.
* The Public Participation Programme (PPP) started in March 2014 and continued until May 2014. It included the identification of key stakeholders, the distribution of information letters with a request for comment, as well as advertising of the project in the local press and on site.
* Contact was established with landowner(s) to notify them of the proposed project.
* The Public Participation Programme allows for informed and responsible decision-making by all interested and affected parties. The authorities from whom comments have been received are as follows:
* Limpopo Dept of Economic Development, Environment & Tourism: Environmental Impact Management
* Dept of Water Affairs
* A draft Basic Assessment Report was compiled with the main aim to identify issues, potential impacts and potential alternatives associated with this project. It included a description of the status quo of all relevant environmental components as well as the proceedings of the PPP and communication with registered Interested & Affected Parties (I&APs).
* The draft Basic Assessment Report was distributed on ?? April 2014 to the following stakeholders for their comment :
* Department of Water Affairs: Water Resources & Water Quality Management
* South African Heritage Resources Authority (via SAHRIS)
* Limpopo Heritage Resource Authority / LIHRA
* Limpopo Department of Economic Development, Environment and Tourism: Environmental Impact Management
* Department of Agriculture, Forestry and Fisheries
* Department of Minerals and Energy
* Road Agency Limpopo
* Department of Roads and Transport
* Department of Cooperative Governance, Human Settlement and Traditional Affairs: Spatial and Human Settlement Planning
* Department of Rural Development and Land Reform: Land Reform Office
* Department of Rural Development and Land Reform: Land Claims Commissioner
* Transvaal Landbou Unie SA
* Cullinan Boere Vereniging
* Pretoria Landbou Unie
* Waterberg Landbou Unie
* Endangered Wildlife Trust
* Wildlife and Environmental Society of SA
* Agri SA
* Agri Limpopo
* Bela-Bela Local Municipality
* Waterberg District Municipality
* SA Civil Aviation Authority
* Eskom Holdings SOC Ltd - Transmission
* Eskom Holdings SOC Ltd - Limpopo Operating Unit, Distribution
* Landowners
* Copies of the draft BAR were submitted to the following key stakeholders:
* Bela-Bela Local Municipality, Municipal Offices, Chris Hani Drive, BELA-BELA, 0480. For Attention: Mr L N Nyambeni, Manager Technical Services cc Mrs D Masa Head of Department: Social and Community Services; Mr M M Maluleka, Municipal Manager.
* Limpopo Province Department of Economic Development, Environment and Tourism, Modimole Office, 85 River Street, Modimole. Tel 014 7175202. For Attention: Mr L Mahlaule.
* The Librarian, Bela Bela Municipality: Library Chris Hani Drive BELA-BELA 0480 For Attention Ms M Raditsa Tel 014 736 8052.
* Limpopo Province Department of Economic Development, Environment and Tourism: Environmental Management, Corner of Suid and Dorp Streets, POLOKWANE, 0700. For attention: Ms T P Malungani cc Mr V M Mongwe.
* South African Heritage Resource Agency, 111 Harrington Street, CAPE TOWN, 8000. For Attention: Mr Philip Hine - submitted via SAHRIS/email).
* Department of Water Affairs 22 Rooth Street Bronkhorstspruit  For Attention Mr S Macevele Deputy Director: Water Quality Olifants Water Management Area Tel 013 932 2061.
* Department of Agriculture, Fisheries and Forestry Waterberg District 110 Munnik Street Makhado For Attention: Mr Dlamini Nosipho Tel 015 519 3300/084 501 3563.
* Eskom Holdings SOC Ltd, Limpopo Operating Unit, Distribution, Land Development, Room T122, 92 Hans van Rensburg Street, POLOKWANE. For Attention: Nkateko Msimango.
* The due date for comment to the draft Basic Assessment Report is ?? June 2014. This allows for a comment period of 40 days.
* In addition, notification of an information meeting on 16 May 2014 was submitted to all I&APs. The purpose of the meeting is to furnish the landowners, and other interested parties with information regarding the extent of the project, the proposed alternatives, and the extent of the Environmental Impact Assessment Process. Information and maps will be presented at the meeting.
* Subsequently, a final Basic Assessment Report (BAR) will be compiled and submitted to I&APs for comment.
* Finally, the final BAR will be submitted to DEA for a decision regarding authorisation of the project. This report will include all concerns raised to the draft and final BARs and the responses thereto. The Consultants (EAPs) will ensure that all concerns raised are addressed in appropriate detail in the final Basic Assessment Report.

**Section A: Activity information**

|  |  |  |
| --- | --- | --- |
| Has a specialist been consulted to assist with the completion of this section? | YES | NO |
| If YES, please complete the form entitled “Details of specialist and declaration of interest”  for appointment of a specialist for each specialist thus appointed. | | |

*Any specialist reports must be contained in Appendix D.*

1. PROJECT DESCRIPTION

*Describe the project associated with the listed activites applied for.*

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# 1.1 Background

Eskom Limpopo Operating Unit, Land Development (Eskom) plans to construct the Pienaars River Customer Network Centre (CNC) in the vicinity of Pienaars River in the Limpopo Province.

The proposed Pienaarsrivier Customer Network Centre will facilitate the rendering of services and maintenance by Eskom officials to existing customers and structures as, inter alia, emergency personnel will be based at the CNC and will be close at hand in case of any electricity problems.

The full scope of work includes the construction of:

* new office building including electrification and plumbing and interior;
* stand-by accommodation for staff
* technical service centre
* enclosed equipment and general store;
* 2.400mm high steel palisade fence;
* 59 parking bays;
* wash bay;
* 103 680 litre fuel tank;
* chemical sewer plant;
* new transformer storage plinth, drainage sump and oil bund
* 21 meter lighting;
* new guardhouse.

A Basic Assessment (BA) process for this proposed project is currently being undertaken by Texture Environmental Consultants. The listed activities for the proposed project are the following:

|  |  |
| --- | --- |
| Listed Activity | Activity/Project Description |
| GN 544, June 2010, Number 13  The construction of facilities or infrastructure for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 but not exceeding 500 cubic metres; | A 103 680 litre (103,68 cubic metres) diesel tank will be erected on the site of the Customer Network Centre (CNC).  (One cubic meter equals 1000 liters) |
| GN 544, June 2010, Number 23  The transformation of undeveloped, vacant or derelict land to  (i) residential, retail, commercial, recreational, industrial or institutional use, inside an urban area, and where the total area to be transformed is 5 hectares or more, but less than 20 hectares, or  (ii) residential, retail, commercial, recreational, industrial or institutional use, outside an urban area and where the total area to be transformed is bigger than 1 hectare but less than 20 hectares;  except where such transformation takes place for linear activities. | The proposed Customer Network Centre will be constructed on land of approximately 3 hectares near Pienaars River. |

1.2 Locality and Regional Context

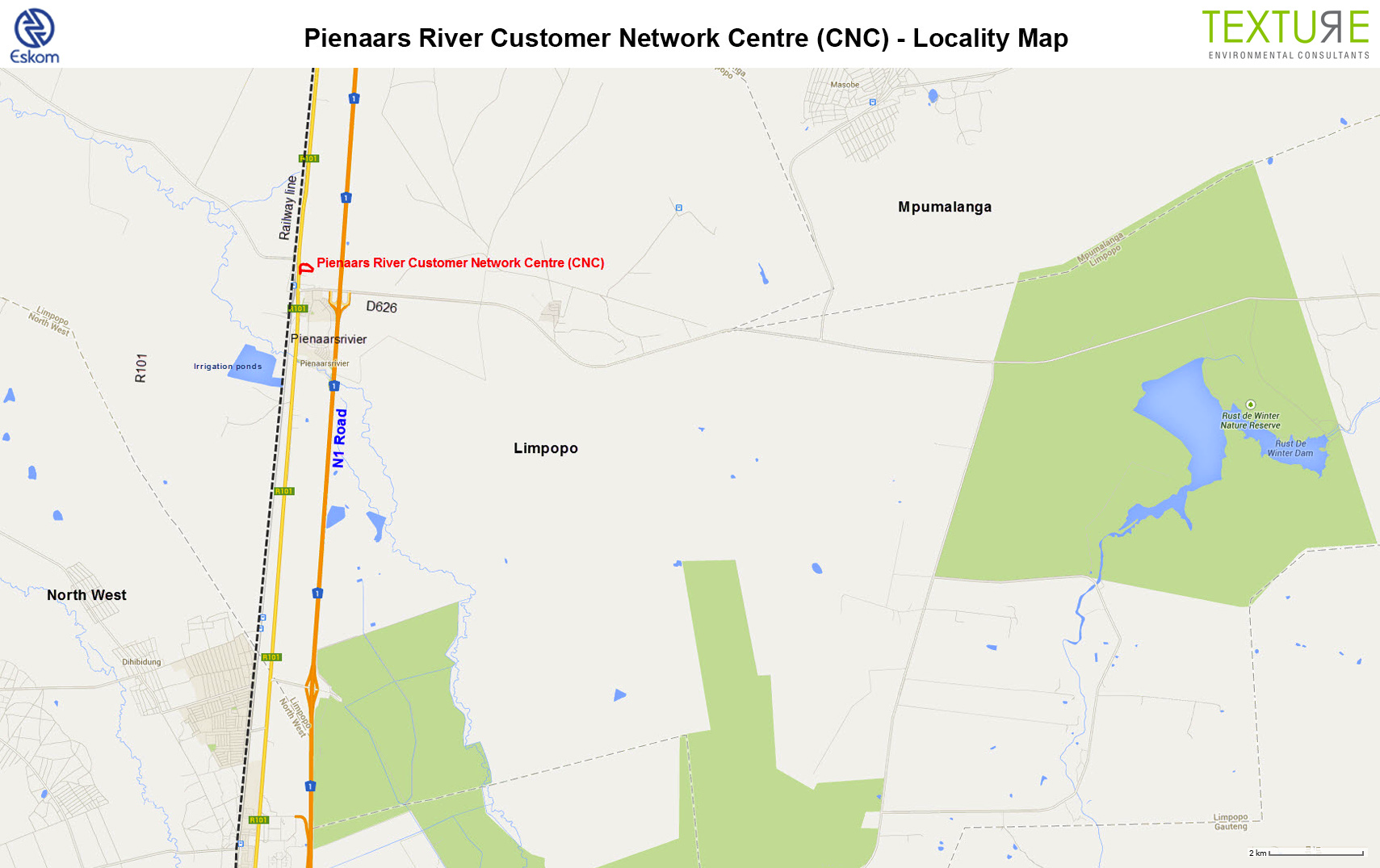
The Eskom Project is located approximately 35km to the south of the town of Bela Bela and is situated on the eastern shoulder of the R101 which runs from Pretoria in the south to Bela Bela in the north. The project area is located on the southern edge of the Springbok Flats and therefore is a level piece of land (1:50 000 Topographical base map 2528AB).

The Project Area is covered with acacia and other bushveld trees where the veld has not been disturbed. The tree and grass plain (savannah veld) of the Springbokflats was home to a wide range of antelope and other game in the past. The landscape is flat where the two alternatives for the proposed CNC will be established.

The larger Project Area has been transformed during the last decades, firstly as a result of the development of Pienaarsrivier as an agricultural hub between Pretoria and the far north and subsequently as a result of the development of business infrastructure as well as residential townships in Pienaarsrivier.

There are significant sources of disturbance at the proposed sites - a railway line on the northern boundary, the R101 provincial road borders the western border of the sites, there is a church and a SAPS office (significant vehicle and pedestrian traffic) located to the south of the site and finally a stone crushing plant and the N1 highway to the east. There is also significant existing infrastructure on the piece of property where the proposed sites are located - road and railway infrastructure, distribution power lines and telephone lines. Refer to the maps in Appendix A1- A3.

The Eskom Project Area where the two alternatives for the CNC will be established cannot be described as pristine pieces of land any longer. Both pieces of land have been affected as a result of developmental activities outlined above although a few indigenous trees still exist on both Alternative 01 and Alternative 02.



Location Map

Macintosh HD:Users:riapretorius:Documents:Work:Eskom projekte:Eskom CNC Pienaarsrivier:Pienaars River locality map 1-50 000 12 Apr14.pdf

Site map

1.3 Property descriptions

The proposed location for the site for the Pienaarsrivier CNC is on the farm Vaalboschbult 66 JR portion 32 near Pienaarsrivier in the Bela-Bela Local Municipality in the Limpopo Province.

1.4 Need for the project

The Eskom Conversion Act, 2001 (Act No. 13 of 2001) establishes Eskom as a State Owned Company (SOC) with the Government of South Africa as the only shareholder, represented by the Minister of Public Enterprises. The main objective of Eskom is to “provide energy and related services including the generation, transmission, distribution and supply of electricity, and to hold interests in other entities”.

The proposed Pienaarsrivier Customer Network Centre will facilitate the rendering of services and maintenance by Eskom officials to existing customers and structures as, inter alia, emergency personnel will be based at the CNC and will be close at hand in case of any electricity problems.

Eskom therefore proposes to construct the Pienaarsrivier Customer Network Centre (CNC) to improve the rendering of services and maintenance to the area.

(Refer to the Eskom Scope of work, in Appendix C1, for more information).

1.5 Project components

The full scope of work includes the construction of:

* new office building including electrification and plumbing and interior;
* stand-by accommodation for staff
* technical service centre
* enclosed equipment and general store;
* 2.400mm high steel palisade fence;
* 59 parking bays;
* wash bay;
* 103 680 litre fuel tank;
* chemical sewer plant;
* new transformer storage plinth, drainage sump and oil bund
* 21 meter lighting;
* new guardhouse.

The relevant listed activities for the proposed project are the following:

1. The CNC will be constructed on a site of approximately 3 hectares.

The project involves identification of a site of at least 2 hectares on which Eskom would be able to construct a Customer Network Centre. The physical size of the footprint/developed areas will be approximately 1830.64 m2. The coverage of the site will be approximately 16%.

|  |  |
| --- | --- |
| Listed Activity | Activity/Project Description |
| GN 544, June 2010, Number 23  The transformation of undeveloped, vacant or derelict land to  (i) residential, retail, commercial, recreational, industrial or institutional use, inside an urban area, and where the total area to be transformed is 5 hectares or more, but less than 20 hectares, or  (ii) residential, retail, commercial, recreational, industrial or institutional use, outside an urban area and where the total area to be transformed is bigger than 1 hectare but less than 20 hectares;  except where such transformation takes place for linear activities. | The proposed Customer Network Centre will be constructed on land of approximately 3 hectares near Pienaars River. |

1. A diesel tank of 103 680 litre will be erected on the site

|  |  |
| --- | --- |
| Listed Activity | Activity/Project Description |
| GN 544, June 2010, Number 13  The construction of facilities or infrastructure for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 but not exceeding 500 cubic metres; | A 103 680 litre (103,68 cubic metres) diesel tank will be erected on the site of the Customer Network Centre (CNC).  (One cubic meter equals 1000 liters) |

2. FEASIBLE AND REASONABLE ALTERNATIVES

*“alternatives”, in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to—*

*(a) the property on which or location where it is proposed to undertake the activity;*

*(b) the type of activity to be undertaken;*

*(c) the design or layout of the activity;*

*(d) the technology to be used in the activity;*

*(e) the operational aspects of the activity; and*

*(f) the option of not implementing the activity.*

*Describe alternatives that are considered in this application as required by Regulation 22(2)(h) of GN R.543. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity (NOT PROJECT) could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed.*

*The determination of whether site or activity (including different processes, etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the, competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.*

*The identification of alternatives should be in line with the Integrated Environmental Assessment Guideline Series 11, published by the DEA in 2004. Should the alternatives include different locations and lay-outs, the co-ordinates of the different alternatives must be provided. The co-ordinates should be in degrees, minutes and seconds. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.*

THE FOLLOWING ALTERNATIVES HAVE BEEN IDENTIFIED AND ARE DESCRIBED AS FOLLOWS:

2.1 NO-GO ALTERNATIVE

It is suggested that to maintain the status quo is not the best option for the macro environment. This project is part of Eskom’s implementation of a Master Plan for the rendering of services and maintenance by Eskom officials to existing customers and structures. Inter alia, emergency personnel will be based at the CNC and will be close at hand in case of any problems in the distribution network. Should this application not be approved then the support to the broader area will be unreliable and this can result in blackouts and major disturbances in energy provision.

The natural environment of the study area has been moderately impacted upon. It is also situated within the small town of Pienaarsrivier and as such is subject to many of the impacts associated with low levels of urbanisation. Historically, the ground has being lightly cultivated and grazed, but not on a commercial scale.

No habitats or areas are seen as sensitive (no-go zones). There are no wetlands within the study area or within a 500m radius of the study area. There are no suitable habitats for red data faunal or floral species as such. The only sensitive (no-go zone) is seen as the camelthorn tree within the study area. This tree has to be protected and left undisturbed. Besides this area, there are no other sensitive (no-go) areas. However, the fact that the veldtype in which the study area is situated (Springbokvlakte thornveld) is endangered and poorly protected means that any development within the study area needs to be well designed carefully constructed and minimised.

Taking the above into consideration and all mitigating measures put forward, then there are no ‘fatal flaws’ seen and the project may go-ahead. In other words, if all recommendations and mitigating measures are put in place the project can go ahead. The No-Go development alternative is not considered the responsible way to manage the site(s).

2.2 ACTIVITY ALTERNATIVES:

2.2.1 Agriculture

* The Springbokvlakte is a region known for its rich, turf soils and as been well cultivated and utilised over the years. The primary agricultural activity is cultivation of mielies (maize). Other agricultural activities include cattle and winter crops such as wheat.
* The study area itself is small and situated within an urbanised area.
* The study site is presently a small piece of un-utilised veld that is lying fallow. No extensive or even medium term agricultural activities of any sort have taken place on the site over the years.
* The agricultural potential of the study area can be seen as very low arable to very low-grazing. In other words, the agricultural potential for the local area (or loss thereof caused by the construction of a customer network centre) is negligible.
* It is therefore submitted that agriculture could not be considered as an alternative activity on the site.

2.3 LOCATION/SITE ALTERNATIVES

2.3.1 Description of Site Alternative 1 and 2

Eskom is planning the construction of a number of customer network centres around the country. The need for one has been identified for the Pienaarsrivier district. The size of the ground needed is approximately 2ha, although only about 20-30% will be developed in terms of buildings.

Two alternatives (options) for the site of the CNC were identified and investigated. Alternative 1 is to the immediate north of Alternative 2.

The GPS coordinates for specific locations within the study site are as follows:

* Alternative 1 (centre point): 25°12'2.67"S; 28°17'48.88"E.
* Alternative 2 (centre point): 25°12'6.39"S; 28°17'50.45"E.

Refer to Appendix A3 for the project map indicating the Site Alternatives.

The land use on the two site alternatives is that of un-utilised thornveld. The area can however, be best described as a low-level urbanised area.

The study area and both Alternative sites are flat to very flat, with no koppies, rocky ridges or kloofs (steep valleys). The study area slopes slightly from east to west. The centre area is fairly flat, with a slight slope to the north and to the south.

No large perennial rivers are found in the immediate area or the study area. The closest river is the Pienaars River, which is approximately 1,7km to the west and south of the study area. No wetlands, drainage lines or other watercourses are present in the study area. No large bodies of open water such as dams or even farms dams are present in the study area or in the local area.

There is very little difference between Alternative 1 and Alternative 2 in terms of the natural environment. Alternative 1 has a camelthorn tree on it that needs to be protected. However, Alternative 2 has more large trees on site and therefore potentially more trees would need to be removed.

A comparison between the two Alternatives, as to the number of ecologically sensitive units each one potentially impacts on, is shown below.

Table: Comparison of Potential Impacts by Alternative Options

|  |  |  |
| --- | --- | --- |
| Ecological Sensitive Units | Alternative 1 | Alternative 2 |
| Areas of High ecological sensitivity | 0 | 0 |
| No-Go areas in close proximity | 1 | 1 |
| No. of river & stream crossings | 0 | 0 |
| No. of major drainage line crossings | 0 | 0 |
| Rocky outcrops in corridor | 0 | 0 |
| Ridges in corridor | 0 | 0 |
| Floodplains encountered | 0 | 0 |
| Wetlands encountered | 0 | 0 |
| Total impacts per route | 1 | 1 |

2.3.2 Property descriptions

The proposed location for the Alternative 1 site as well as for the Alternative 2 site for the Pienaarsrivier CNC are on the farm Vaalboschbult 66 JR portion 32 near Pienaarsrivier in the Bela-Bela Local Municipality in the Limpopo Province.

2.3.3 Co-ordinates:

The alternatives for the project are found at approximately:

Alternative 1 Bend Coordinates

|  |  |
| --- | --- |
| Longitude (Degrees Minutes Seconds) | Latitude (Degrees Minutes Seconds) |
| 28° 17' 44.47" E | 25° 12' 6.43" S |
| 28° 17' 44.61" E | 25° 12' 4.23" S |
| 28° 17' 53.41" E | 25° 12' 4.75" S |
| 28° 17' 53.88" E | 25° 12' 3.49" S |
| 28° 17' 50.50" E | 25° 12' 0.56" S |
| 28° 17' 49.32" E | 25° 12' 0.07" S |
| 28° 17' 48.95" E | 25° 12' 0.39" S |
| 28° 17' 46.80" E | 25° 12' 0.10" S |
| 28° 17' 45.08" E | 25° 12' 0.60" S |
| 28° 17' 44.33" E | 25° 12' 1.35" S |
| 28° 17' 44.06" E | 25° 12' 6.41" S |

Alternative 2 Bend Coordinates

|  |  |
| --- | --- |
| Longitude (Degrees Minutes Seconds) | Latitude (Degrees Minutes Seconds) |
| 28° 17' 53.37" E | 25° 12' 4.80" S |
| 28° 17' 52.16" E | 25° 12' 8.35" S |
| 28° 17' 48.19" E | 25° 12' 8.10" S |
| 28° 17' 48.44" E | 25° 12' 6.41" S |
| 28° 17' 47.97" E | 25° 12' 6.04" S |
| 28° 17' 44.51" E | 25° 12' 6.41" S |
| 28° 17' 44.65" E | 25° 12' 4.27" S |

2.3.4 Specialist input

Specialist input was obtained to investigate the impact of the various alternative routes that could accomplish the purpose of the project. The specialist input is summarised as follows:

2.3.4.1 Ecological Status Report

The ecological status report identified the following:

(Refer to the full Ecological Status Report in Appendix D1)

Conservation status

The study site is situated within Springbokvlakte Thornveld, which is part of the Central Bushveld Bioregion and the Savanna Biome.

The conservation status of the Springbokvlakte Thornveld is considered Endangered. Only 1% is statutorily conserved, mainly in the Mkombo Nature Reserve. Roughly three times this area is conserved in a number of other reserves. At least 49% of the veldtype has already been transformed, including about 45% cultivated and 3% urbanised.

Species of conservation concern

No floral or faunal species of conservation concern (which include red data species) were found on the study site during field investigations. None are considered to occur.

No species of conservation concern were observed during field investigations. However, a few camelthorn (Acacia erioloba) trees were found on and close to the study site. This is a protected tree (species of conservation concern) and cannot be moved or disturbed at all without proper supervision and/or authorisation. The Ecological Sensitivity map in Appendix A4 shows the location of two camelthorn trees (C1 & C2). Both of these camelthorn trees will need to be clearly marked and enclosed prior to commencement with construction so that they are visible to construction crews and machine operators. Other identified camelthorn trees fall way outside of the study site or access areas. A few other large acacia thorn trees (*Acacia mellifera & Acacia nilotica*) have also been marked and it is strongly recommended that if possible these trees not be removed (T1-T9). The gps coordinates for the exact positions of the camelthorns and other acacia trees are given in the Ecological Sensitivity map in Appendix A4.

Ecological sensitivity

The only identified distinct habitat type on the study site is thornveld. No ecological communities in the study area were found to have a high ecological sensitivity and deemed as ‘No-Go’ zones. The exception being the camelthorn tree identified on site. Camelthorn (*Acacia erioloba*) is a protected tree species.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Ecological Community | Floristic Sensitivity | Faunal Sensitivity | Ecological Sensitivity | Development  Go-Ahead |
| Thornveld | Medium | Medium/Low | Medium | Go-But |

## Surface water in the region and study area

No large perennial rivers are found in the immediate area or the study area. the closest river is the Pienaars River, which is approximately 1,7km to the west and south of the study area. No wetlands, drainage lines or other watercourses are present in the study area. No large bodies of open water such as dams or even farms dams are present in the study area or in the local area.

The study area for the Pienaarsrivier CNC falls within Primary Drainage Area A.

Go, No-Go Option

From an environmental viewpoint no fatal flaws (no-go options) were identified. If all recommended mitigating measures are enforced then the project has go-ahead in terms of the ecological component of the project.

Proposed alternative route recommendations

There is very little difference between Alternative 1 and Alternative 2 in terms of the natural environment. Alternative 1 has a camelthorn tree on it that needs to be protected. However, Alternative 2 has more large trees on site and therefore potentially more trees would need to be removed.

Therefore, taking all pertinent issues relating to the natural environment into account, as well as the specialist’s views during site investigations the Ecological recommended alternative for the proposed project is: Alternative 1

Impacts

The nature of the impact on the natural environment is the proposed construction and establishment of a customer network centre (CNC). The biggest impact will be during the construction phase when the buildings and parking lot are built. Thereafter, the impacts will still be significant and lasting and will include the buildings and continual movement of people in the area. The fact that the area will be fenced will have significant impact on the movement of any terrestrial species should they venture through the area.

The footprint of the proposed project is relatively small and in a low urbanised and farming area and will not have any significant negative impacts on other activities.

Impact on thornveld

The impact of the activities associated with the project is initially seen as high. The main reasons are that buildings and parking lots will be constructed and the terrain will be fenced. This creates a more definite footprint on the natural environment. This is aggravated by the fact that the veldtype in which the study site is situated is viewed as endangered. There is also a protected camelthorn tree on the preferred site (Alternative 1).

However, the reality is that the identified sites are within impacted veld that is within the town of Pienaarsrivier, albeit outside the outer edge. The site is almost surrounded by built up environment, which offsets the impacts on the natural veld where there is presently little or no human impact.

General Impacts

General impacts rated before and after mitigating measures are implemented

|  |  |  |
| --- | --- | --- |
| Issue | Significance rating before and after mitigation | |
| Before | After |
| Farming Related & Other Issues | | |
| Access to properties | Low | Low |
| Access roads (damage, blocking) | Medium | Medium |
| Loss of agricultural potential | Low | Low |
| Loss of cultivation potential | Low | Low |
| Loss of grazing potential | Low | Low |
| Impacts on seasonal activities | Low | Low |
| Natural Environment | | |
| Erosion | Low | Low |
| Impact on flora | Medium | Medium |
| Impact on fauna | Low | Low |
| Impact on watercourses | Low | Low |
| Impact on wetlands | Low | Low |
| Importation of alien vegetation | Low | Low |
| Impact of herbicides | Low | Low |
| Impact on conservation areas | Low | Low |

Mitigation of Impacts

## Construction phase

* No area for a campsite or temporary storage site should be selected where it would be necessary to cut down any trees or clear any shrub land whatsoever, not even alien species.
* Any selected temporary site (accommodation and storage) preferably must be on the demarcated site itself.
* No site within 100m of a river, stream or major drainage line may be used for temporary accommodation or storage. However, in the case of this project it is not an issue.
* No indigenous trees or shrubs outside of the selected CNC site may be removed.
* No additional access roads to the CNC site for equipment transport and day-to-day vehicles may be constructed. Only existing roads to be used.
* Dust will be an issue during construction. A church building is nearby, as well as residential houses. Therefore, water trucks must be used daily on roads and construction sites to dampen dust.
* No trees above 2m on the selected CNC site may be removed without written consent from a botanist or ecologist. Protected trees do occur on the sites.
* An on going programme must be implemented to mechanically control alien plant species that invade the disturbed soils within the CNC site.
* Mechanical control of alien species to be implemented within three (3) months of completion of construction of the powerline. Thereafter ever six months.
* No chemical control (herbicides) to be used in the control of alien plants. All control of weeds to be mechanical in nature.
* Only locally indigenous trees to be planted on CNC site (if landscaping is to be done).
* All construction material, equipment and any foreign objects brought into the area by contractors and staff to be removed immediately after construction.
* Removal of all waste construction material to an approved waste disposal site. And only by an official registered waste removal company. Eskom to ensure that the company does remove waste to a registered site and does not dump illegally.
* A 5m buffer zone (no-go zone) around the two identified camelthorn trees to be implemented. Orange barrack netting to be erected around these trees and maintained during the entire construction phase.

## 

## General Recommendations

### Construction phase

* Camp site, storage facilities and other necessary temporary structures to preferably be erected within the confines of the CNC site.
* No open fires to be allowed outside of designated sites.
* Collection of wood for fires and cooking from out of the surrounding veld is prohibited.
* A designated area for camp fires and cooking needs to be made. Should open fires be used then an area of at least 2m by 2m needs to be cleared of any flammable materials such as grass.
* No material or machinery to be stored or placed in the open veld outside the designated area of the CNC site.
* Proper and adequate containers (rubbish bins) to be placed in campsites for the temporary disposal of food waste and general litter generated by construction workers. These containers need to close securely to avoid items (eg. Paper and plastic) been blown into the veld, etc. Proper waste management is essential.
* Containers for food and general waste to be removed weekly to avoid bins overflowing their capacity.
* Under no circumstances may any sewage, waste food or general litter be dumped, or buried in the veld.
* No concrete to be allowed to be mixed in the veld. Only premixed cement to be used and only to be transported onto site in registered concrete trucks.
* All construction activities and movement of people and machinery to remain within the designated CNC site, as far as possible and within reason.

### Completion phase

* All leftover construction material, equipment, refuge, etc. needs to be completely removed after construction. This immediately after completion of construction, as well as on a continual basis during construction.
* Removal of all waste construction material must be to an approved waste disposal site only.
* Proper and complete take down and removal of all temporary accommodation sites, storage sites, etc. needs to take place immediately after the completion of the project. This includes all litter (paper, plastic, bottles, etc.).
* All disturbed sites and surfaces to be rehabilitated. Rehabilitation work to start during and immediately on completion of the project.
* No unused piles of sand, soil or construction materials of any kind whatsoever to be left in the powerline corridors, or at temporary construction or storage sites.

### Maintenance phase

* During any maintenance activities all storage of equipment, temporary structures, etc must all be within the CNC site itself.
* No new veld or areas outside of the CNC terrain may be used for storage.
* No new veld or areas outside of the CNC terrain may be used (even on a temporary basis) for the holding of rubbish or other removed materials whatsoever.
* All storage and temporary dumping sites to be within the CNC terrain and only on disturbed areas. These disturbed areas could include paving and/or parking lots.

2.3.4.2 Bird Impact Assessment

The Bird Impact Assessment indicated the following:

(Refer to the full Bird Impact Assessment Report in Appendix D2)

The study area has been transformed for decades to accommodate a change in land use (i.e. industrial, urban and agriculture) which reduced the number and variety of bird species originally inhabiting the area on account of the loss of habitat and decline in food availability. In the case of the larger Red Data bird species, this has resulted in these species long since disappearing from the study area for all practical reasons. It is therefore not envisaged that any Red Data species will be permanently displaced from the study area by the habitat transformation that will take place at the site of the proposed CNC, irrespective of which alternative is ultimately used. The avifauna that will be directly affected by the loss of habitat are the birds breeding and foraging in the 3ha area that will be taken up by the CNC. These are almost entirely made up of smaller, non-threatened passerines, with the exception of a few non-threatened raptors and terrestrial species. In this instance, the impact should not materially threaten the local or regional populations of any of these species, due to the small size of the development.

## Vegetation types and bird habitat

1 Woodland

Arid woodland (which forms part of the savanna biome and also encompasses Springbokvlakte Thornveld) is historically the dominant vegetation type in the study area and consists of a grassy under-storey and a distinct woody upper-storey of trees and tall shrubs. In the study area, the woodland has been extensively disturbed and consists mostly of open (on old cleared lands) to dense (especially along the Pienaaarsrivier) Acacia woodland. Large areas of woodland have been completely cleared in the past and now consist of grassland.

The Red Data species have all but disappeared from the study area, due to habitat transformation. The natural vegetation in the area itself where the new CNC is to be constructed originally comprised natural woodland, but the woody element has largely been cleared sometime in the past, and it now consists mostly of grassland with low shrub in places and a few isolated trees. None of the Red Data species are likely to be attracted to the remaining natural woodland in the study area except Red-billed Oxpecker, which might be attracted to livestock.

2 Agriculture

There are no cultivated lands within the study area itself, but there are agricultural lands just south of the study area, which are irrigated with water from the Pienaarsrivier. In general agricultural monocultures are less important for the Red Data species that might still occur in the study area, as it lacks the structural variety of the original woodland. Of more potential importance for Red Data species in the study area are old lands where the woody elements were cleared in the past and where vegetation has re-established. These areas now resemble open woodland with extensive grass cover, which is the dominant habitat type at both alternative sites of the proposed CNC. Species that might benefit from the clearing of the original woodland are Secretarybird, Black-winged Pratincole, Lanner Falcon, Lesser Kestrel, African Grass-Owl and African Marsh-Harrier.

3 River, dams and wetlands

The only river in the area is the Pienaarsrivier. Rivers are important habitat for birds in that they act as corridors of microhabitat for waterbirds, while the riparian vegetation on the banks provide cover for skulking species such as African Finfoot. The project does not impact directly on the river, as the riverine vegetation is located largely outside the study area. The two alternative sites for the CNC itself are located approximately 1.6km away from the river at its closest point. There is a dam located approximately 2km from the proposed CNC sites which most likely acts as a focal point for waterbirds. Red Data species that could be attracted to the dam include Greater Flamingo, Yellow-billed Stork, Greater Painted-snipe, Black Stork and African Openbill. The CNC is not expected to impact directly on any birds attracted to the aforesaid dam.

4 Urban and industrial infrastructure

The study area contains the small town of Pienaarsrivier. There are significant sources of disturbance at the proposed sites - a railway line on the northern boundary, the R101 provincial road borders the western border of the sites, there is a church and a SAPS office (significant vehicle and pedestrian traffic) located to the south of the site and finally a stone crushing plant and the N1 highway to the east. There is also significant existing infrastructure on the piece of property where the proposed sites are located - road and railway infrastructure, distribution power lines and telephone lines. All of this makes the occurrence of sensitive Red Data species highly unlikely due to disturbance and habitat fragmentation.

## Assessment of impacts

1 Displacement through habitat transformation and disturbance

During the construction phase and maintenance of the proposed CNC, habitat destruction and transformation inevitably takes place. This happens with the construction of access roads, and the actual construction of the CNC infrastructure, which will result in the total transformation of an area of approximately 3ha. These activities will have an impact on birds breeding, foraging and roosting in or in close proximity of the site, through the modification of habitat and disturbance during the construction activities, which will result in the displacement of birds from the area.

Historically (i.e. before the establishment of the current infrastructure and agriculture) the area surrounding the proposed CNC comprised entirely of undisturbed woodland. As a result it could have supported a number of large Red Data species, particularly raptor species such as Martial Eagle, Tawny Eagle, Bateleur, Lappet-faced Vulture and also non-raptors such as Southern Ground Hornbill and Kori Bustard. However the study area has been transformed for decades to accommodate a change in land use (i.e. industrial, urban and agriculture) which reduced the number and variety of species originally inhabiting the area on account of the loss of habitat and decline in food availability. In the case of the larger Red Data species, this has resulted in these species long since disappearing from the study area for all practical reasons. It is therefore not envisaged that any Red Data species will be permanently displaced from the study area by the habitat transformation that will take place at the site of the proposed CNC, irrespective of which alternative is ultimately used. The avifauna that will be directly affected by the loss of habitat are the birds breeding and foraging in the 3ha area that will be taken up by the CNC. These are almost entirely made up of smaller, non-threatened passerines, with the exception of a few non-threatened raptors and terrestrial species. In this instance, the impact should not materially threaten the local or regional populations of any of these species, due to the small size of the development.

Mitigations

Potential mitigations for the identified impacts are shown in the table below.

TABLE : Potential mitigations for the identified impacts

*Construction Phase*

|  |  |
| --- | --- |
| Impact | Mitigation |
| Habitat destruction | The construction activities must be restricted to the actual footprint of the development. Measures must be put in place to ensure that construction personnel are prevented from accessing the property outside the actual construction site. Care must be taken to ensure that the habitat destruction is kept to what is absolutely necessary for the construction of the CNC. |

Comparison of alternatives

None of the options emerges as a clear preferred alternative from a bird impact perspective. The reason for that is that the two options are all clustered in the same area, and of comparable size, meaning that the envisaged impacts are likely to be very similar. Any of the two options are therefore regarded as potentially suitable, provided appropriate mitigation is implemented.

Conclusion

The construction of the proposed Pienaars River CNC will pose a limited threat to the birds occurring in the vicinity of the new infrastructure primarily through habitat destruction and disturbance. However, the impact of habitat transformation associated with the construction of the CNC should be low and should only affect non-Red Data species resident or foraging at the site itself, and not local or regional populations.

2.3.4.3 Heritage Impact Assessment

The main findings of the Heritage Impact Assessment are summarised as follows:-

(Refer to Appendix D3 of the BAR for the full report)

The Phase I HIA study for the proposed Eskom Project did not reveal the presence of any of the types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999) in the Eskom Project Area. There is consequently no reason from a heritage point of view why the Eskom Project should not continue. Both Alternative 01 as well as Alternative 02 seems to be suitable from a heritage point of view for the construction of the proposed Pienaars River CNC.

Mitigation

If any heritage resources of significance is exposed during the Eskom Project the South African Heritage Resources Authority (SAHRA) should be notified immediately, all development activities must be stopped and an archaeologist accredited with the Association for Southern African Professional Archaeologist (ASAPA) should be notify in order to determine appropriate mitigation measures for the discovered finds. This may include obtaining the necessary authorisation (permits) from SAHRA to conduct the mitigation measures.

2.3.4.4 Palaeontological Impact Assessment

The main findings of the Palaeontological Impact Assessment are as follows:-

(Refer to Appendix D4 of the BAR for the full report)

The National Heritage Resources Act 25 of 1999 requires that all heritage resources, that is, all places or objects of aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance are protected. Fossil heritage of national and international significance is found within all provinces of South Africa. Heritage resources may not be excavated, damaged, destroyed or otherwise impacted by any development without prior assessment and without a permit from the relevant heritage resources authority.

Summary of findings

The development is taking place in an area covered by mostly the Karoo dolerites of the Karoo Dolerite Suite intrusive into the Irrigasie Formation of the Karoo Supergroup. It is early Jurassic, Mesozoic in age. The development site is situated in town at the crossing of two roads.

Fossils in South Africa mainly occur in rocks of sedimentary nature and not in rocks from igneous or metamorphic nature. Therefore, if there is the presence of Karoo Supergroup strata the palaeontological sensitivity is generally LOW to VERY HIGH, but here locally ZERO. An exemption letter is issued.

Recommendation

* There is no objection to the development of the construction of the Eskom Project. It is not necessary to request a Phase 1 Palaeontological Impact Assessment to determine whether the erection of buildings, planting of pylons or the erection of a substation will affect fossiliferous outcrops as the palaeontological sensitivity is ZERO. A Phase 2 Palaeontological Mitigation will only be required if during excavation of the development comes across fossiliferous outcrops.
* Both Alternatives are viable as their impact on the palaeontological heritage are equal.

Mitigation

* The following should be conserved: if any palaeontological material is exposed during digging, excavating, drilling or blasting and SAHRA must be notified. All development activities must be stopped and a palaeontologist should be called in to determine proper mitigation measures.

2.4 CONCLUSION

Alternative sites have been investigated for the project. As can be seen from the discussions, both sites are acceptable if the proposed mitigations are implemented. The ecological assessment favours Site Alternative 1 due to the fact that Alternative 2 has more large trees on site and therefore potentially more trees would need to be removed.

The final decision between Route 1 or 2 should be made on the accumulative weight of other parameters such as feedback from public participation, land tenure issues, construction costs, etc. Currently, Alternative 1 is preferred as the final Site Alternative due to the recommendation as stipulated in the ecological assessment as well as the support of the landowner for Alternative 1.

The affected property for the proposed Site Alternative 1 is the farm Vaalboschbult 66 JR portion 32 near Pienaarsrivier in the Bela-Bela Local Municipality in the Limpopo Province.

*Paragraphs 3 – 13 below should be completed for each alternative.*

The areas where the alternatives for the proposed line are located do not contain any specific features that will make them critically different from the surrounding areas and from one another. The contents of Paragraph 3-13 below would therefore be the same for Site Alternatives 1 and 2.

3. Physical size of the activity

Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints):

|  |  |  |
| --- | --- | --- |
| Alternative: |  | Size of the activity: |
| Alternative A1[[1]](#footnote-1) (preferred alternative) |  | 1 830.64 m2 |
| Alternative A2 (if any) |  | 1 830.64 m2 |

or, for linear activities: N/A

|  |  |  |
| --- | --- | --- |
| Alternative: |  | Length of the activity: |
| Alternative 1 (preferred alternative) |  |  |
| Alternative 2 |  |  |

Indicate the size of the alternative sites or servitudes (within which the above footprints will occur):

|  |  |  |
| --- | --- | --- |
| Alternative: |  | Size of the site/ servitude: |
| Alternative 1 (preferred alternative) |  | 29 814,5 m2 |
| Alternative 2 |  | 19 779,2 m2 |

4. Site Access

|  |  |  |  |
| --- | --- | --- | --- |
| Does ready access to the site exist? | YES | | NO |
| If NO, what is the distance over which a new access road will be built | m | | |
| Describe the type of access road planned: |  |  | |
| No new access to the site is planned. During construction all vehicle movement must be along existing roads. | | | |

*Include the position of the access road on the site plan and required map, as well as an indication of the road in relation to the site.*

5. LOCALITY MAP

*An A3 locality map must be attached to the back of this document, as Appendix A. The scale of the locality map must be relevant to the size of the development (at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map). The map must indicate the following:*

* *an accurate indication of the project site position as well as the positions of the alternative sites, if any;*
* *indication of all the alternatives identified;*
* *closest town(s;)*
* *road access from all major roads in the area;*
* *road names or numbers of all major roads as well as the roads that provide access to the site(s);*
* *all roads within a 1km radius of the site or alternative sites; and*
* *a north arrow;*
* *a legend; and*
* *locality GPS co-ordinates (Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection).*

6. LAYOUT/ROUTE PLAN

*A detailed site or route plan(s) must be prepared for each alternative site or alternative activity. It must be attached as Appendix A to this document.*

*The site or route plans must indicate the following:*

* *the property boundaries and numbers of all the properties within 50 metres of the site;*
* *the current land use as well as the land use zoning of the site;*
* *the current land use as well as the land use zoning each of the properties adjoining the site or sites;*
* *the exact position of each listed activity applied for (including alternatives);*
* *servitude(s) indicating the purpose of the servitude;*
* *a legend; and*
* *a north arrow.*

7. Sensitivity map

*The layout/route plan as indicated above must be overlain with a sensitivity map that indicates all the sensitive areas associated with the site, including, but not limited to:*

* *watercourses;*
* *the 1:100 year flood line (where available or where it is required by DWA);*
* *ridges;*
* *cultural and historical features;*
* *areas with indigenous vegetation (even if it is degraded or infested with alien species); and*
* *critical biodiversity areas.*

*The sensitivity map must also cover areas within 100m of the site and must be attached in Appendix A.*

8. Site PHOTOGRAPHS

*Colour photographs from the centre of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under Appendix B to this report. It must be supplemented with additional photographs of relevant features on the site, if applicable.*

9. FACILITY ILLUSTRATION

*A detailed illustration of the activity must be provided at a scale of at least 1:200 as Appendix C for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity.*

10. ACTIVITY MOTIVATION

Motivate and explain the need and desirability of the activity (including demand for the activity):

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. Is the activity permitted in terms of the property’s existing land use rights? | YES | NO | | Please explain |
| There will be a change in the land use of the property. | | | | |
| 1. Will the activity be in line with the following? | | | | |
| (a) Provincial Spatial Development Framework (PSDF) | YES | NO | | Please explain |
| The Province identified key sectors namely Agriculture, Mining, Tourism, and Manufacturing; as well as the existing opportunities identified in the Municipality, that will assist to stimulate economic growth poverty reduction and overall economic impact. All these activities will need support in supply of energy. | | | | |
| (b) Urban edge / Edge of Built environment for the area | YES | NO | | Please explain |
| The project will not compromise the integrity of the urban edge. | | | | |
| (c) Integrated Development Plan (IDP) and Spatial Development Framework (SDF) of the Local Municipality (e.g. would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?). | YES | NO | | Please explain |
| |  | | --- | | The Bela-Bela Local Municipality is situated in the Waterberg District Municipality within the Southern part of the Limpopo Province. The Waterberg District Municipality is comprised of six local municipalities, namely Bela Bela, Lephalale, Modimolle, Mogalakwena, Mookgophong and Thabazimbi.  The total municipal area of the Bela-Bela Local Municipality (both urban and rural) is 4000 square km. The Municipality share borders with Gauteng, Mpumalanga and North West Provinces. The Bela-Bela Municipal Area includes two formal towns, namely Bela-Bela Town and Pienaarsrivier as well as other smaller settlements such as Settlers, Radium/Masakhane, Rapotokwane, Vingerkraal and Tsakane.  It has a population of close to 100 000 with the Tourism industry being the main driver of the Local Economy and by far, the largest contributor to the District's GDP.  Promotion and marketing of tourism is one of the key areas that the Local Municipality intends to develop. Local economic development requires acceptable levels of infrastructure to thrive. Infrastructure provision such as water, sanitation, waste management, communication, electricity, etc. should support tourism facilities such as hotels, game lodges and golf estates as far as possible. The development of municipal infrastructure will assist local business to thrive and attract more tourists and have agricultural products transported to markets, processed and exported to other countries.  Infrastructure development should be provided in time and maintained regularly. The service industry strives within an environment where there are good roads, communication, electricity, water, and sanitation networks. These and other issues will make the environment conducive to do business and create jobs and grow the local economy. |   The development of Bela Bela SDF was also informed by the *basic principle to promote development and land-uses which will contribute to efficiency, sustainability and viable communities* over the long term to stimulate economic activity in a sensible manner. These can be briefly highlighted as follows:-   1. Ensure protection of the natural environment and optimal usage of limited natural resources in Bela-Bela:  * Amongst others it highlighted the target to define environmental sensitive areas, nature conservation areas and areas where certain land-uses should be avoided in order to protect the environment.  1. Ensure sustainable economic growth of Bela-Bela Local Municipality:  * One of the targets is to develop the Bela-Bela Local Municipality area as an attractive, unique and preferred tourism destination  1. Creating sustainable human settlements and quality urban environments for all communities:  * Ensure that affordable and sustainable services and infrastructure are available for all communities that promote the optimum utilization of scarce resources; * Built habitable and safe communities where homes area safe and places of work are productive.   Further to the above, the *lack of municipal infrastructure* is regarded as a critical impediment to ensuring a dignified quality of life for the majority of the population. Especially critical is the situation with regard to water, sanitation, housing, roads and stormwater and electricity.  Relevance  The proposed activity will provide support to electrical infrastructure that will contribute to sustainable economic growth, provide for sustainable human settlements and support the tourism industry. | | | | |
| (d) Approved Structure Plan of the Municipality | YES | NO | | Please explain |
| The development will not conflict/compromise the structure plan of the municipality. | | | | |
| (e) An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?) | YES | NO | | Please explain |
|  | | | | |
| (f) Any other Plans (e.g. Guide Plan) | YES | NO | | Please explain |
|  | | | | |
| 1. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)? | YES | NO | | Please explain |
| Refer to 1(c) | | | | |
| 1. Does the community/area need the activity and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate.) | YES | NO | | Please explain |
| South Africa is coming out of the economic downturn but inadequate power supply could undermine the country’s economic recovery and ability to create new jobs. A World Bank loan was granted and offers low-cost capital with long repayment periods. In addition the loan offers a chance to borrow for renewable technologies.  In 2003 the Government of South Africa (GoSA) launched the Free Basic Electricity (FBE) policy that provides 50 kilowatt hours (KWh) of free electricity per month to poor families. For a sense of scale, 1 kWh can run a small business kiosk for a day; 50 kWh per month is enough to light 3 lamps and run a small appliance (water heater, TV, or refrigerator). Local governments decide who qualifies for free basic services under criteria set for registering households. Today Eskom provides free basic electricity to 27% of its customer households.  The FBE system is supplemented by cross-subsidies from large customers to households using less than 350 KWh/months. The tariffs for this category of customers are usually 25% lower than for customers who consume more than 350 kWh/month.  The current Environmental Impact Assessment application is part of a broader scope of work to improve Eskom’s network performance. | | | | |
| 1. Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development? (Confirmation by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.) | YES | NO | | Please explain |
| 1 Water supply  The Water to the proposed development will be supplied from the water reticulation of the Local Municipality. Note that no construction could commence without sufficient official proof that the water supply for the development is secure.  2 Sewage  A chemical sewer plant will be constructed on site with a daily throughput capacity that is lower than the threshhold of 2000 cubic metres. Therefor the relevant listed activity is not triggered.  3 Waste management  An integrated waste management approach must be implemented that is based on waste minimisation and must incorporate reduction, recycling, re-use and disposal where appropriate.  Any solid waste that cannot be recycled shall be disposed of at an appropriate landfill site licensed in terms of section 20 (b) of the National Environment Management Waste Act, 2008 (Act No 59 of 2008).  The collection of solid waste will be carried out by a private company to be appointed by Eskom for this purpose. The solid waste will be transported to the appropriate solid waste disposal site of Bela-Bela Local Municipality - To be advised by the Local Municipality. A letter of agreement between the developer and the Permit Holder of the waste disposal site to be kept on site.  These above measures are included as requirements in the EMPr under the headings “Waste Mangement“. Also refer to the other mitigation measures under the same headings.  4 Stormwater drainage  A piped stormwater system is proposed. A storm water management plan that conforms to the requirements of the Department of Water Affairs as well as the Local Municipality has to be compiled by a civil engineer for approval by the above-mentioned authorities.  5 Electricity  There is an existing Eskom network in the vicinity of the proposed development. The availability of the required supply will have to be confirmed by Eskom. | | | | |
| 1. Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.) | YES | NO | | Please explain |
| Refer to above responses. | | | | |
| 1. Is this project part of a national programme to address an issue of national concern or importance? | YES | NO | | Please explain |
| Over the past 20 years, South Africa and Eskom have increased access to electricity from 34% to 81%. The Government of South Africa has an annual budget for rural electrification and a program in place to connect the remaining 19% of households by 2014. In addition to household needs, demand is also growing from commercial and small industrial developments as well as schools and health services in rural areas. This project aims to strengthen the Eskom Distribution networks in providing a more efficient support service closer to the customer. | | | | |
| 1. Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context.) | YES | NO | | Please explain |
| The project entails the identification of a potential site for the construction of a Customer Network Centre.  The following is relevant:   * The Customer centre should be in close vicinity to the customers. Eskom identified this area/site as suitable and in line with the technical requirements for the CNC. The CNC has to be close to the customer network it is proposed to support. * Eskom relies on the goodwill of landowners to obtain property for the construction of the Customer Network Centre. Land is not always easily available and it is challenging to find a willing seller of land. Further, the land has to fit the technical parameters for the CNC. * During the course of the EIA, all affected landowners were identified and consulted with regarding the proposed project. The landowner indicated their agreement to the centre or their willingness to enter into further negotiations. * The final decision between Routes/locations should be made on the accumulative weight of all the above parameters and in addition such as feedback from public participation, land tenure issues, construction costs, etc. | | | | |
| 1. Is the development the best practicable environmental option for this land/site? | YES | NO | | Please explain |
| Refer to the above. Specialist inputs guided the decision. | | | | |
| 1. Will the benefits of the proposed land use/development outweigh the negative impacts of it? | YES | NO | | Please explain |
| Chronic power problems take a heavy toll on society. Without reliable energy, the basic services that people in rich countries take for granted cannot be offered. Since South Africa’s electricity crisis began in December 2007, it has been obvious that without an immediate increase in its energy supply South Africa’s economy will suffer, public services will become more expensive, and businesses will have to scale back. Failing to address South Africa’s energy crisis will have dire consequences for the poor, for industry, and for neighbouring countries. | | | | |
| 1. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)? | YES | NO | | Please explain |
| Eskom Distibution has a master plan for electricity strenghtening/supply. Similar activities will be conducted in future, as well as possible energy supply projects conducted by the local municipality. | | | | |
| 1. Will any person’s rights be negatively affected by the proposed activity/ies? | YES | NO | | Please explain |
| During the course of an EIA, all affected landowners are identified and consulted with regarding the proposed project. One-on-one meetings were conducted with affected landowner(s) to address their specific requirements. All landowner(s) indicated their agreement or their willingness to enter into further negotiations. | | | | |
| 1. Will the proposed activity/ies compromise the “urban edge” as defined by the local municipality? | YES | NO | | Please explain |
| The project will not compromise the integrity of the urban edge. | | | | |
| 1. Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPS)? | YES | NO | | Please explain |
| "SIP 10: Electricity transmission and distribution for all: Expand the transmission and distribution network to address historical imbalances, provide access to electricity for all and support economic development."  The current project contribute to the above SIP. The project provides support to the distribution network in the area and thus supports economic development. | | | | |
| 1. What will the benefits be to society in general and to the local communities? | | | Please explain | |
| The project will assist to stimulate economic growth and poverty reduction. | | | | |
| 1. Any other need and desirability considerations related to the proposed activity? | | | Please explain | |
| No. | | | | |
| 1. How does the project fit into the National Development Plan for 2030? | | | Please explain | |
| The National Development Plan aims to elimate poverty and reduce inequality by 2030. In short, the plan amongst others, aims by 2030 to produce sufficient energy to support industry at competitive prices, ensuring access for poor households, while reducing carbon emissions per unit or power by about one-third. This current EIA application fits into the National Development Plan for 2030 in addressing the first two targets as described above.  Further to the above, the Plan in specific stipulates the following objectives to improve the economic infrastruture:  The proportion of people with access to the electricity grid should rise to at least 90 percent by 2030, with non-grid options available to the rest. This current EIA application supports the customers/users with access to the grid. | | | | |
| 18. Please describe how the general objectives of Integrated Environmental Management (IEM) as set out in section 23 of NEMA have been taken into account. | | | | |
| |  |  |  | | --- | --- | --- | | IEM as set out in NEMA section 23 | How has it been taken into account? | | | a) Promote the integration of the Principles of NEMA in terms of section 2 into the making of all decisions that may have a significant effect on the environment; | See 19. below | | | b) Identify, predict and evaluate the actual and potential impacts on the environment, socio-economic conditions and cultural heritage, the risks and consequences and alternatives and options for mitigation of activities, with a view to minimizing negative impacts, maximizing benefits, and promoting compliance with the principles of environmental management as set out in Section 2; | See section F: Impact Assessment. | | | c) Ensure that the effects of activities on the environment receive adequate consideration before actions are taken in connection with them; | See section F: Impact Assessment. | | | d) Ensure adequate and appropriate opportunity for public participation in decisions that may affect the environment; | Details of the public announcements and engagements already made are recorded in Section E: Public Participation as well as in the Comments and Responses Report. | | e) Ensure the consideration of environmental attributes in management and decision-making which may have a significant effect on the environment; and | See section F: Impact Assessment. | | | f) Identify and employ the modes of environmental management best suited to ensuring that a particular activity is pursued in accordance with the principles of environmental management as set out in Section 2 of NEMA. | See EMPr attached as Appendix G. | | | | | | |

|  |  |
| --- | --- |
| 1. Please describe how the principles of environmental management as set out in section 2 of NEMA have been taken into account. | |
| NEMA Principle | How has it been taken into account? |
| 2) Environmental management must place people and their needs at the forefront of its concern and serve their physical, psychological, developmental, cultural and social interests equitably. | The EAP has recognised the advantages and disadvantages of the alternative sites in terms of the effects its usage would have on people (see Appendix F: Impact assessment). |
| 3) Development must be socially, environmentally and economically sustainable. | The social, environmental and economic impacts of the use of the sites have been evaluated in the Environmental Impact Assessment. |
| 4) a) Sustainable development requires the consideration of all relevant factors including; |  |
| (i) That the disturbance of ecosystems and loss of biological diversity are avoided, or where they cannot be altogether avoided, are minimised and remedied | The impact of the alternatives on biodiversity have been shown to be of low significance (see Section B:9). |
| (ii) That pollution and degradation of the environment are avoided or, where they cannot be altogether avoided, are minimised and remedied | Means to avoid or mitigate pollution have been described in the Environmental Management Programme (EMPr). |
| (iii) That the disturbance of landscapes and sites that constitute the nation’s cultural heritage is avoided, or where is cannot be altogether avoided, is minimised and remedied | The cultural value/features of the sites have been assessed (see Appendices D3 and D4). |
| (iv) That waste is avoided, or where it cannot be altogether avoided, minimised and reused or recycled where possible and otherwise disposed of in a responsible manner | Waste management measures have been suggested in the EMPr. |
| (v) That the use and exploitation of non-renewable natural resources is responsible and equitable and takes into account the consequences of the depletion of the resource | This principle is not of key relevance in this particular project as well as not within the scope of this project. |
| (vi) That the development, use and exploitation of renewable resources and the ecosystems of which they are part do not exceed the level beyond which their integrity is jeopardised | This principle is not of key relevance in this particular project as well as not within the scope of this project. |
| (vii) That a risk averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions; and | A cautious approach was applied and recommendations informed by specialist's input. |
| (viii) That the negative impacts on the environment and on people’s environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied. | The EMPr sets out possible measures to prevent or minimise impacts. |
| b) Environmental management must be integrated, acknowledging that all elements of the environment are linked and interrelated, and it must take into account the effects of decisions on all aspects of the environment and all people in the environment by pursuing the selection of the best practicable environmental option. | This assessment acknowledges the need for integrated environmental management and evaluates the potential consequences of use of these sites on people and the environment. |
| c) Environmental justice must be pursued so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons. | The affected parties have been identified and the equity of these impacts assessed. Thorough consultation took place between landowners and the EAP (EIA team). |
| d) Equitable access to environmental resources, benefits and services to meet basic human needs and ensure human wellbeing must be pursued and special measures may be taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination. | This project aims to provide for basic human needs and wellbeing. |
| e) Responsibility for the environmental health and safety consequences of a policy, programme, project, product, process, service or activity exists throughout its life cycle. | The health and safety consequences of the use of the sites for support for electricity distribution are evaluated in the assessment. |
| f) The participation of all interested and affected parties in environmental governance must be promoted, and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, and participation by vulnerable and disadvantaged persons must be ensured. | Participation opportunities have been provided. |
| g) Decisions must take into account the interests, needs and values of all interested and affected parties, and this includes recognising all forms of knowledge, including traditional and ordinary knowledge. | The interests, needs and values of interested and affected parties are being determined through participation processes and reflected in the assessment of the impacts. |
| h) Community wellbeing and empowerment must be promoted through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means. | The EMPr makes suggestions for environmental awareness raising with regards to the contruction workers. |
| i) The social, economic and environmental impacts of activities, including disadvantages and benefits, must be considered, assessed and evaluated, and decisions must be appropriate in the light of such consideration and assessment. | The environmental assessment fulfills this role and should inform decision making. |
| j) The right of workers to refuse work that is harmful to human health or the environment and to be informed of dangers must be respected and protected. | This priniciple is not of particular relevance in this project. |
| k) Decisions must be taken in an open and transparent manner and access to information must be provided in accordance with the law. | Decisions are to be taken by the relevant state department. The reasons for these decisions are expected to be documented and accessible. |
| l) There must be intergovernmental coordination and harmonisation of policies, legislation and actions relating to the environment | Intergovernmental coordination is being pursued through the NEMA process. |
| m) Actual or potential conflicts of interest between organs of state should be resolved through conflict resolution procedures. | Noted. |
| n) Global and international responsibilities relating to the environment must be discharged in the national interest. | Noted. This project is of local and regional relevance. |
| o) The environment is held in public trust for the people, the beneficial use of environmental resources must serve the public interest and the environment must be protected as the people’s common heritage. | The IEM process and environmental impact assessment for this project recognise the need to protect people’s common heritage. |
| p) The costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further pollution, environmental damage or adverse health effects must be paid for by those responsible for harming the environment. | Noted. The EMPr makes suggestions for prevention of pollution. |
| q) The vital role of women and youth in environmental management and development must be recognised and their full participation therein must be promoted. | Noted. |
| r) Sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetland and similar systems require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure. | No ecological communities in the study area were found to have a high ecological sensitivity. |

11. Applicable legislation, policies and/or guidelines

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations, if applicable:

|  |
| --- |
| Title of legislation, policy or guideline: |
| The following legislation is applicable to the proposed project:  National Environmental Management Act (Act No 107 of 1998) – NEMA EIA Regulations of 2010  Limpopo Environmental Management Act (7 of 2003), published 30 April 2004, Provincial Gazette No.997  National Heritage Resources Act, 1999 (Act No 25 of 1999)  All provisions of the Occupational Health and Safety Act, 1993 (Act No 85 of 1993)  All provisions of the National Water Act, 1998 (Act No 36 of 1998)  National Environmental Management: Biodiversity Act, 2004 (Act No 10 of 2004)  National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) (NEMPAA).  National Environmental Management: Waste Act (Act 59 of 2008) (NEMWA)  Minerals and Petroleum Resources Development Act, 2002 (Act No 28 of 2002) administered by Department of Minerals and Energy  National Forests Act (Act No 84 of 1998)  Protected species – provincial ordinances  Conservation of Agricultural Resources Act (Act No 43 of 1983)  National Veld and Forest Fire Act (Act No 101 of 1998)  Soil Conservation Act, 1969 (Act No 76 of 1969)  Civil Aviation Technical Standards (CATS) |

12. Waste, effluent, emission and noise management

12(a) Solid waste management

|  |  |  |  |
| --- | --- | --- | --- |
| Will the activity produce solid construction waste during the construction/initiation phase? | | YES | NO |
| If yes, what estimated quantity will be produced per month? | | 2,5m3 | |
| How will the construction solid waste be disposed of (describe)? | |  |  |
| The disposal of any construction waste will be the responsibility of the developer and should be done at least twice a week. A letter of agreement between the developer and the Permit Holder of the waste disposal site shall be kept on site. | | | |
| Where will the construction solid waste be disposed of (describe)? | |  |  |
| An integrated waste management approach must be implemented that is based on waste minimisation and must incorporate reduction, recycling, re-use and disposal where appropriate.  Any solid waste that cannot be recycled shall be disposed of at an appropriate landfill site licensed in terms of section 20 (b) of the National Environment Management Waste Act, 2008 (Act No 59 of 2008).  These above measures are included as requirements in the EMPr under the headings “Waste Mangement“. Also refer to the other mitigation measures under the same headings. | | | |
| Will the activity produce solid waste during its operational phase? | | YES | NO |
| If yes, what estimated quantity will be produced per month? | | ?m3 | |
| How will the solid waste be disposed of (describe)? | |  | |
| An integrated waste management approach must be implemented that is based on waste minimisation and must incorporate reduction, recycling, re-use and disposal where appropriate.  Any solid waste that cannot be recycled shall be disposed of at an appropriate landfill site licensed in terms of section 20 (b) of the National Environment Management Waste Act, 2008 (Act No 59 of 2008). | | | |
| If the solid waste will be disposed of into a municipal waste stream, indicate which registered landfill site will be used. | | | |
| Appropriate Landfill site in Bela-Bela Local Municipality - To be advised by the Local Municipality. A letter of agreement between the developer and the Permit Holder of the waste disposal site to be kept on site. | | | |
| Where will the solid waste be disposed of if it does not feed into a municipal waste stream (describe)? | | | |
| N/A | | | |
| If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA. | | | |
| Can any part of the solid waste be classified as hazardous in terms of the relevant legislation? | YES | | NO |
| If yes, inform the competent authority and request a change to an application for scoping and EIA. An application for a waste permit in terms of the NEMWA must also be submitted with this application. | | | |
| Is the activity that is being applied for a solid waste handling or treatment facility? | YES | | NO |
| If yes, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA. An application for a waste permit in terms of the NEMWA must also be submitted with this application. | | | |

12(b) Liquid effluent

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system? | | | | YES | NO |
| If yes, what estimated quantity will be produced per month? | | | | m3 | |
| Will the activity produce any effluent that will be treated and/or disposed of on site? | | | | YES | NO |
| *If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.*  A chemical sewer plant will be constructed on site with a daily throughput capacity that is lower than the threshhold of 2000 cubic metres. Therefor the relevant listed activity is not triggered. | | | | | |
| Will the activity produce effluent that will be treated and/or disposed of at another facility? | | | | YES | NO |
| If yes, provide the particulars of the facility: | | | |  |  |
| Facility name: |  | | | | |
| Contact person: |  | | | | |
| Postal address: |  | | | | |
| Postal code: |  | | | | |
| Telephone: |  | Cell: |  | | |
| E-mail: |  | Fax: |  | | |
| Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any: | | | | | |
|  | | | | | |

12(c) Emissions into the atmosphere

|  |  |  |
| --- | --- | --- |
| Will the activity release emissions into the atmosphere other than exhaust emissions and dust associated with construction phase activities? | YES | NO |
| If yes, is it controlled by any legislation of any sphere of government? | YES | NO |
| If yes, the applicant must consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA. |  |  |
| If no, describe the emissions in terms of type and concentration: |  |  |
| Dust emissions are expected as result of the construction phase activities. Mitigating measures are proposed and included in the EMPr to limit impact. | | |

12(d) Waste permit

|  |  |  |
| --- | --- | --- |
| Will any aspect of the activity produce waste that will require a waste permit in terms of the NEM:WA? | YES | NO |

If YES, please submit evidence that an application for a waste permit has been submitted to the competent authority.

12(e) Generation of noise

|  |  |  |
| --- | --- | --- |
| Will the activity generate noise? | YES | NO |
| If yes, is it controlled by any legislation of any sphere of government? | YES | NO |
| If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA. |  |  |
| If no, describe the noise in terms of type and level: |  |  |
| Generation of noise is expected to occur during the construction phase, but it will be a low level of noise and will occur for a limited time only. Measures, as included in the EMPr, will be implemented to avoid or minimise generation of noise during construction. | | |

13. WATER USE

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box(es):

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| municipal | water board | groundwater | river, stream, dam or lake | other | the activity will not use water | | |
| If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate | | | | | | | |
| the volume that will be extracted per month: | | | | | | litres | |
| Does the activity require a water use authorisation (general authorisation or water use license) from the Department of Water Affairs? | | | | | | YES | NO |
| If yes, please provide proof that the application has been submitted to the Department of Water Affairs. | | | | | | | |

Relevant to this project:

The Water to the proposed development will be supplied from the water reticulation of the Local Municipality. Note that no construction could commence without sufficient official proof that the water supply for the development is secure.

Measures that could be taken to ensure the optimal reuse or recycling of waste water, are the following: Grey water could feed back into the toilet systems. Grey water could also be used to irrigate the landscaping of the proposed development

14. ENERGY EFFICIENCY

|  |
| --- |
| Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient: |
| The following measures are proposed :   * Low voltage or CFLs (compact fluorescent lights) and LEDs (light emitting diodes) should be incorporated into the architectural designs of the buildings and incandescent light bulbs must be used. * Low-energy lamps must also be used for exterior lighting * Solar panels could be used for supplementary power supply * The following is recommended for the hot water systems at each unit: * Geyser blankets could be installed * At least the first 1.5m of hot water outlet pipes could be insulated * A geyser-timer unit be installed |
| Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any: |
| The requirement for energy sufficiency and alternative energy sources will be communicated with the project architects during the design phase of the project. |

**Section B: SITE/area/PROPERTY description**

*Important notes:*

1. *For linear activities (pipelines, etc) as well as activities that cover very large sites, it may be necessary to complete this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section B and indicate the area, which is covered by each copy No. on the Site Plan.*
2. *Paragraphs 1 - 6 below must be completed for each alternative.*

|  |  |  |
| --- | --- | --- |
| 1. Has a specialist been consulted to assist with the completion of this section? | YES | NO |
| If YES, please complete the form entitled “Details of specialist and declaration of interest” for each specialsit thus appointed and attach it in Appendix I. Attached to the application form | | |
| All specialist reports must be contained in Appendix D. | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Property description/ physical address: |  | Limpopo Province  Waterberg District Municipality  Bela-Bela Local Municipality  The affected property for the proposed Site Alternative 1:  Vaalboschbult 66 JR portion 32 - TOJR00000000006600032  The affected property for the proposed Site Alternative 2:  Vaalboschbult 66 JR portion 32 - TOJR00000000006600032 | | | |
|  |  | Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application including the same infomation as indicated above. | | | |
| Current land-use zoning as per local municipality/IDP records: |  | Agricultural | | | |
|  |  | In instances where there is more than one current land-use zoning, please attach a list of current land use zonings that also indicate which portions each use pertains to, to this application. | | | |
| Is a change of land-use application required? | | | YES | NO |
| Is a consent use application required? | | | YES | NO |
| Must a building plan be submitted to the local authority? | | | YES | NO |

Is there a Town planner involved??

|  |
| --- |
|  |
| Section B Copy No. A: | Alternative 1, Alternative 2 |

Note: The area where the Alternative 1 route is located does not contain any specific features that will make the site critically more different than the Alternative 2 route. Paragraphs 1 - 6 below are therefore exactly the same for both alternatives.

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative 1:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Flat | 1:50 – 1:20 | 1:20 – 1:15 | 1:15 – 1:10 | 1:10 – 1:7,5 | 1:7,5 – 1:5 | Steeper than 1:5 |

Alternative 2:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Flat | 1:50 – 1:20 | 1:20 – 1:15 | 1:15 – 1:10 | 1:10 – 1:7,5 | 1:7,5 – 1:5 | Steeper than 1:5 |

2. location in landscape

Indicate the landform(s) that best describes the site:

2.1 Ridgeline

2.2 Plateau

2.3 Side slope of hill/mountain

2.4 Closed valley

2.5 Open valley

2.6 Plain - Alt1 & Alt2

2.7 Undulating plain/low hills

2.8 Dune

2.9 Seafront

3. GroundwateR, Soil and Geological stability of the site

Is the site(s) located on any of the following?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Alternative 1 | | Alternative 2 | |
| Shallow water table (less than 1.5m deep) | YES | NO | YES | NO |
| Dolomite, sinkhole or doline areas | YES | NO | YES | NO |
| Seasonally wet soils (often close to water bodies) | YES | NO | YES | NO |
| Unstable rocky slopes or steep slopes with loose soil | YES | NO | YES | NO |
| Dispersive soils (soils that dissolve in water) | YES | NO | YES | NO |
| Soils with high clay content (clay fraction more than 40%) | YES | NO | YES | NO |
| Any other unstable soil or geological feature | YES | NO | YES | NO |
| An area sensitive to erosion | YES | NO | YES | NO |

*If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted).*

4. Groundcover

Indicate the types of groundcover present on the site. The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Alternative 1

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Natural veld - good conditionE | Natural veld with scattered aliensE | Natural veld with heavy alien infestationE | Veld dominated by alien speciesE | Gardens |
| Sport field | Cultivated land | Paved surface | Building or other structure | Bare soil |

Alternative 2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Natural veld - good conditionE | Natural veld with scattered aliensE | Natural veld with heavy alien infestationE | Veld dominated by alien speciesE | Gardens |
| Sport field | Cultivated land | Paved surface | Building or other structure | Bare soil |

*If any of the boxes marked with an “E “is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn’t have the necessary expertise.*

1. SURFACE WATER

Indicate the surface water present on and or adjacent to the site and alternative sites?

|  |  |  |  |
| --- | --- | --- | --- |
| Perennial River | YES | NO | UNSURE |
| Non-Perennial River | YES | NO | UNSURE |
| Permanent Wetland | YES | NO | UNSURE |
| Seasonal Wetland | YES | NO | UNSURE |
| Artificial Wetland | YES | NO | UNSURE |
| Estuarine / Lagoonal wetland | YES | NO | UNSURE |

*If any of the boxes marked YES or UNSURE is ticked, please provide a description of the relevant watercourse.*

|  |
| --- |
| Perrenial river – Elands River which flows into Rust de Winter Dam. Just outside of study area to the south |
| Non-Perennial river – n/a/ |
| Permanent wetlands – n/a |
| Seasonal wetlands – n/a |
| Artificial wetlands – n/a |

1. Land use character of surrounding area

Indicate land uses and/or prominent features that does currently occur within a 500m radius of the site and give description of how this influences the application or may be impacted upon by the application:

6.1 Natural area - Alt1 and Alt2

6.2 Low density residential - Alt1 and Alt2

6.3 Medium density residential

6.4 High density residential

6.5 Informal residentialA

6.6 Retail commercial & warehousing

6.7 Light industrial

6.8 Medium industrial AN

6.9 Heavy industrial AN

6.10 Power station

6.11 Office/consulting room

6.12 Military or police base/station/compound - Alt 1 and Alt 2

6.13 Spoil heap or slimes damA

6.14 Quarry, sand or borrow pit

6.15 Dam or reservoir

6.16 Hospital/medical centre

6.17 School - Alt 1 and Alt 2

6.18 Tertiary education facility

6.19 Church - Alt 1 and Alt 2

6.20 Old age home

6.21 Sewage treatment plantA

6.22 Train station or shunting yard N

6.23 Railway line N Alt 1 and Alt 2

6.24 Major road (4 lanes or more) N

6.25 Airport N

6.26 Harbour

6.27 Sport facilities - Alt 1 and Alt 2

6.28 Golf course

6.29 Polo fields

6.30 Filling stationH

6.31 Landfill or waste treatment site

6.32 Plantation

6.33 Agriculture - Alt 1 and Alt 2 (grazing - cattle)

6.34 River, stream or wetland

6.35 Nature conservation area - Alt1 and Alt2- Rust de Winter Nature Reserve

6.36 Mountain, koppie or ridge

6.37 Museum

6.38 Historical building

6.39 Protected Area - Rust de Winter Nature Reserve is legislated under NEMPAA

6.40 Graveyard

6.41 Archaeological site

6.42 Other land uses (describe)

*If any of the boxes marked with an “N “are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:*

|  |
| --- |
| No Impact. A railway line runs to the immediate north of the study site. Proposed Alt 1 & Alt 2. |

*If any of the boxes marked with an "An" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:*

|  |
| --- |
| N/A |

*If any of the boxes marked with an "H" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:*

|  |
| --- |
| N/A |

Does the proposed site (including any alternative sites) fall within any of the following:

|  |  |  |
| --- | --- | --- |
| Critical Biodiversity Area (as per provincial conservation plan) | YES | NO |
| Core area of a protected area? | YES | NO |
| Buffer area of a protected area? | YES | NO |
| Planned expansion area of an existing protected area? | YES | NO |
| Existing offset area associated with a previous Environmental Authorisation? | YES | NO |
| Buffer area of the SKA? | YES | NO |

*If the answer to any of these questions was YES, a map indicating the affected area must be included in Appendix A.*

1. Cultural/Historical Features

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including | | | YES | NO |
| Archaeological or palaeontological sites, on or close (within 20m) to the site? | | | Uncertain | |
| If YES, explain: | Refer to the Heritage Impact Assessment in Appendix D3 and summary in 2.3.4.3.  Refer to Palaeontological assessment in Appendix D4 and summary in 2.3.4.4. | | | |
| If uncertain, conduct a specialist investigation by a recognised specialist in the field (archaeology or palaeontology) to establish whether there is such a feature(s) present on or close to the site. | | | | |
| Briefly explain the findings of the specialist: | | Refer to below. | | |
| Will any building or structure older than 60 years be affected in any way? | | | YES | NO |
| Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)? | | | YES | NO |
| If yes, please provide proof that this permit application has been submitted to SAHRA or the relevant provincial authority. | | | | |

The main findings of the Heritage Impact Assessment and the Palaeontological desktop study are summarised as follows:-

* Both Alternative 1 and Alternative 2 for the proposed site are viable from a heritage as well as a palaeontological impact assessment point of view.
* If any evidence of archaeological sites or remains (eg, remnants of stone-made structures, indigenous ceramics, bones, stone artefacts, ostrich eggshell fragments, marine shell and charcoal/ash concentrations), unmarked human burials, fossils or other categories of heritage resources are found during the proposed activities, SAHRA APM Unit (Jenna Lavin/Colette Scheermeyer 021 462 4502) must be alerted immediately, and a professional archaeologist or palaeontologist, depending on the nature of the finds, must be contacted as soon as possible to inspect the findings. If the newly discovered heritage resources prove to be of archaeological or palaeontological significance, a Phase 2 rescue operation might be necessary.

1. SOCIO-ECONOMIC CHARACTER

a) Local Municipality

Please provide details on the socio-economic character of the local municipality in which the proposed site(s) are situated.

Level of unemployment:

|  |
| --- |
| The active labour force is estimated at 36 069 in 2009- individuals who are between the ages of 18 – 64. Approximately 23% of the active labour force is unemployed. The unemployment rate in Bela Bela Municipal Area is similar to unemployment in the Province, but the labour force participation rate in the municipality is considerably higher than that of the Province. This could be the result of labour migration out of Bela Bela in search of work in Gauteng, particularly among younger adult members of the households. Although the labour force participation rate is currently at 58.2%, Bela Bela still needs more efforts to develop a better economically functioning environment that should create more job opportunities and that is critical since the dependency ratio is quite high based on the structure of the population (i.e. dominance of the population group that is dependant on the active labour force to provide for their needs). |

Economic profile of local municipality:

|  |
| --- |
| Further to the above discussed unemployment profile, approximately 11% (1 534HH) of the households is dependant on an income which is below R 12 000 per annum (i.e. less than R 1 100 per month). According to the municipalities indigent policy these households can be classified as very poor and they need to be subsidies in the provision of basic services. The sustainable community economic development projects/ programmes should be utilized to fast track the mandate by ASGISA to Half Poverty by 2014. |

Level of education:

|  |
| --- |
| The education profile in Bela Bela is another area of concern. Approximately 16% of the adult population (18 – 85+) can be considered as illiterate since they did not obtain any schooling. The majority of the population (28%) had obtained education to the secondary level and approximately 17% of the population comprises of the matriculants who can be classified as semi – skilled. There are relatively few people who can be considered as skilled and who were able to reach the tertiary level of education, these individuals account for 7% of the population. |

b) Socio-economic value of the activity

|  |  |  |
| --- | --- | --- |
| What is the expected capital value of the activity on completion? | Unknown | |
| What is the expected yearly income that will be generated by or as a result of the activity? | R0 | |
| Will the activity contribute to service infrastructure? | YES | NO |
| Is the activity a public amenity? | YES | NO |
| How many new employment opportunities will be created in the development and construction phase of the activity/ies? | unknown | |
| What is the expected value of the employment opportunities during the development and construction phase? | unknown | |
| What percentage of this will accrue to previously disadvantaged individuals? | unknown | |
| How many permanent new employment opportunities will be created during the operational phase of the activity? | 0 | |
| What is the expected current value of the employment opportunities during the first 10 years? | R0 | |
| What percentage of this will accrue to previously disadvantaged individuals? | 0% | |

9. Biodiversity

*Please note: The Department may request specialist input/studies depending on the nature of the biodiversity occurring on the site and potential impact(s) of the proposed activity/ies. To assist with the identification of the biodiversity occurring on site and the ecosystem status consult* [*http://bgis.sanbi.org*](http://bgis.sanbi.org) *or* [*BGIShelp@sanbi.org*](mailto:BGIShelp@sanbi.org)*. Information is also available on compact disc (cd) from the Biodiversity-GIS Unit, Ph (021) 799 8698. This information may be updated from time to time and it is the applicant/ EAP’s responsibility to ensure that the latest version is used. A map of the relevant biodiversity information (including an indication of the habitat conditions as per (b) below) and must be provided as an overlay map to the property/site plan as Appendix D to this report.*

a) Indicate the applicable biodiversity planning categories of all areas on site and indicate the reason(s) provided in the biodiversity plan for the selection of the specific area as part of the specific category)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Systematic Biodiversity Planning Category | | | | If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan |
| Critical Biodiversity Area (CBA) | Ecological Support Area (ESA) | Other Natural Area (ONA) | No Natural Area Remaining (NNR) | NNR – Urban (houses, church); Cultivated areas, grazed areas. |
| ONA – Predominantly thornveld of low and moderate sensitivity |
| No areas identified as CBA or ESA |

b) Indicate and describe the habitat condition on site

|  |  |  |
| --- | --- | --- |
| Habitat Condition | Percentage of habitat condition class (adding up to 100%) | Description and additional Comments and Observations  (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing, harvesting regimes etc). |
| Natural | 10% | No pristine thornveld. |
| Near Natural  (includes areas with low to moderate level of alien invasive plants) | 90% | Low to medium levels of impact on the veld. Low levels of movement of people through the area. On urban edge of low urbanised area. Low levels of debris and litter including coal. |
| Degraded  (includes areas heavily invaded by alien plants) | 0% | Not much alien infestation in thornveld. A few alien trees and scattered alien herbs such as fleabane, khakibos, blackjacks. |
| Transformed  (includes cultivation, dams, urban, plantation, roads, etc) | 0% | No totally transformed areas within the study site. |

c) Complete the table to indicate:

(i) the type of vegetation, including its ecosystem status, present on the site; and

(ii) whether an aquatic ecosystem is present on site.

| Terrestrial Ecosystems | | Aquatic Ecosystems | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Ecosystem threat status as per the National Environmental Management: Biodiversity Act (Act No. 10 of 2004) | Critical | Wetland (including rivers, depressions, channelled and unchanneled wetlands, flats, seeps pans, and artificial wetlands) | | | Estuary | | Coastline | |
| Endangered |
| Vulnerable |
| Least Threatened |
| YES | NO | UNSURE | YES | NO | YES | NO |

d) Please provide a description of the vegetation type and/or aquatic ecosystem present on site, including any important biodiversity features/information identified on site (e.g. threatened species and special habitats)

|  |
| --- |
| Terrestrial Ecosystems:  Study area only in Springbokvlakte Thornveld. Seen as endangered (EN) by SANBI and Mucina & Rutherfor (2006). No specific sensitive habitats occuring within the site themselves, except two camelthorn trees (Acacia eriolobo) which are protected trees. |
| Aquatic Ecosystems:  No aquatic ecosystems present. Including wetlands, streams, rivers and drainage lines. |

**Section C: public participation**

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, technical experts, governmental authorities, and systematically identified I&APs.

Texture has taken cognisance of the requirements for public participation in terms of the current 2010 EIA Regulations, and has ensured that the public participation principles are upheld. A successful Public Participation Programme (PPP) is one that is inclusive, actively engages the public and provides ample opportunity for the public to participate in the process. This document provides an overview of the PPP undertaken as part of the BA process for the proposed project.

The purpose of the PPP is to ensure that the issues, inputs and concerns of Interested and Affected Parties (&IAPs) are taken into account during the decision-making process. This requires the identification of I&APs (including authorities, technical specialists and the public), communication of the process and findings to these I&APs and the facilitation of their input and comment on the process and environmental impacts, including issues and alternatives that are to be investigated. The steps taken during the execution of the PPP undertaken for this project are detailed in the section that follows.

1. ADVERTISEMENTS AND NOTICES

1.1 Advertisements

In fulfilment of the EIA Regulations, G.N. R543 Section 54, advertisements were placed in the following newspapers:

* Beeld on 28 February 2014 to notify of the proposed project.

Refer to Appendix E1a: Proof of newspaper ads.

|  |  |
| --- | --- |
| Publication name | Beeld |
| Date published | 28 February 2014 |

1.2 Public Notices (Poster)

A2 laminated on-site notices/posters informing I&APs of the application were placed at key points. Two of these posters, in English and Afrikaans, were placed, at the following locations:

(Refer to Appendix E1b: Proof of site notices)

|  |  |
| --- | --- |
| Site notice position | On the fence of the church grounds with church in background. |
| At southern gate entrance to church grounds. |
| Date placed | 29 August 2013 |

2. Determination of appropriate measures

* *Provide details of the measures taken to include all potential I&APs as required by Regulation 54(2)(e) and 54(7) of GN R.543.*
* *Include proof that the key stakeholder (other than organs of state), identified in terms of Regulation 54(2)(b) of GN R.543, received written notification of the proposed activities - as Appendix E2.*
* *Include proof that the Authorities and Organs of State identified as key stakeholders received written notification of the proposed activities - as Appendix E4.*

2.1 Public notification

A consultation process was undertaken with the intent of informing key community stakeholders, comprising any Tribal Authorities, the Municipal structures and the local communities (directly affected people) about the proposed development and the Basic Assessment process underway.

2.1.1 Identification of Interested and Affected Parties

* The PPP for the project was initiated with the development of a comprehensive I&AP database. The list of I&APs was updated on a regular basis during the course of the project. Refer to Appendix E5a: Register of Interested and Affected Parties for a complete list.
  + Department of Water Affairs: Water Resources & Water Quality Management
  + South African Heritage Resources Authority (via SAHRIS)
  + Limpopo Heritage Resource Authority / LIHRA
  + Limpopo Department of Economic Development, Environment and Tourism: Environmental Impact Management
  + Department of Agriculture, Forestry and Fisheries
  + Department of Minerals and Energy
  + Road Agency Limpopo
  + Department of Roads and Transport
  + Department of Cooperative Governance, Human Settlement and Traditional Affairs: Spatial and Human Settlement Planning
  + Department of Rural Development and Land Reform: Land Reform Office
  + Department of Rural Development and Land Reform: Land Claims Commissioner
  + Rust de Winter Nature reserve
  + Transvaal Landbou Unie SA
  + Cullinan Boere Vereniging
  + Pretoria Landbou Unie
  + Endangered Wildlife Trust
  + Wildlife and Environmental Society of SA
  + Agri SA
  + Agri Limpopo
  + Bela-Bela Local Municipality
  + Waterberg District Municipality
  + SA Civil Aviation Authority
  + Eskom Holdings SOC Ltd - Transmission
  + Eskom Holdings SOC Ltd - Limpopo Operating Unit, Distribution
  + Landowners

2.1.2 Background Information Document

A Background Information Document (BID) was compiled, which provided a description of the proposed project and information on the BA process to be followed. The purpose of this document was to inform all I&APs about the project and afford them an opportunity to comment.

Notification of the project was emailed to the relevant authorities, affected landowners and relevant organisations on 1 March 2014. Copies of the notification letters to key stakeholders are included as Appendix E2a and to authorities and organs of state in Appendix E4a.

2.1.3 Landowner notification

Eskom relies on the goodwill of landowners to obtain an appropriate site. Contact details of all landowners impacted by the project were obtained using Windeed or by investigation by foot. In addition all landowners, not directly affected by the development, but within a 100 meters from the site, were identified. On 15 April 2014 these properties were notified of the project. Letters with project information and a request for comment were hand delivered.

2.2 Meetings and site visits

2.2.1 Public meetings

Notification to all I&APs of an information meeting will commence on 18 April 2014. The meeting will be conducted on 16 May 2014 in Pienaars River at the "Nederduitsch Hervormde Kerk van Afrika".

The purpose of this meeting is to furnish all interested parties with information regarding the extent of the project, the proposed alternatives, and the extent of the Environmental Impact Assessment Process. Project posters with information and maps of the site and facility will be presented at the meeting.

2.2.2 Focus group meetings / One-on-one meetings

Key stakeholders were identified at the beginning of the PPP, these included: Key stakeholders, commenting authorities and landowners. Discussions took place with the landowner(s) to determine their requirements/support of the project. (refer to Appendix E5b for the register of landowners).

On 15 April 2014 a meeting took place with the Nederduits Hervormde Kerk, Pienaarsrivier to establish any requirements that the affected landowner might have.

2.3 Distribution of Draft Basic Assessment Report for comment

On ???? May 2014 copies of the Draft Basic Assessment Report (BAR), inclusive of the executive summary, were submitted for review to the following relevant authorities and key I&APs. Comment is due by ?????June 2014.

* + Department of Water Affairs: Water Resources & Water Quality Management
  + South African Heritage Resources Authority (via SAHRIS)
  + Limpopo Heritage Resource Authority / LIHRA
  + Limpopo Department of Economic Development, Environment and Tourism: Environmental Impact Management
  + Department of Agriculture, Forestry and Fisheries
  + Department of Minerals and Energy
  + Road Agency Limpopo
  + Department of Roads and Transport
  + Department of Cooperative Governance, Human Settlement and Traditional Affairs: Spatial and Human Settlement Planning
  + Department of Rural Development and Land Reform: Land Reform Office
  + Department of Rural Development and Land Reform: Land Claims Commissioner
  + Transvaal Landbou Unie SA
  + Cullinan Boere Vereniging
  + Pretoria Landbou Unie
  + Endangered Wildlife Trust
  + Wildlife and Environmental Society of SA
  + Agri SA
  + Agri Limpopo
  + Bela-Bela Local Municipality
  + Waterberg District Municipality
  + SA Civil Aviation Authority
  + Eskom Holdings SOC Ltd - Transmission
  + Eskom Holdings SOC Ltd - Limpopo Operating Unit, Distribution
  + Landowners

Copies of the draft BAR were submitted via courier to the following key stakeholders:

* Bela-Bela Local Municipality, Municipal Offices, Chris Hani Drive BELA-BELA 0480. For Attention: Mr L N Nyambeni Manager Technical Services cc Mrs D Masa Head of Department: Social and Community Services; Mr M M Maluleka, Municipal Manager;
* Limpopo Province Department of Economic Development, Environment and Tourism, Modimole Office 85 River Street Modimole Tel 014 7175202 For Attention: Mr L Mahlaule
* The Librarian, Bela Bela Municipality: Library Chris Hani Drive BELA-BELA 0480 For Attention Ms M Raditsa Tel 014 736 8052
* Limpopo Province Department of Economic Development, Environment and Tourism: Environmental Management, Corner of Suid and Dorp Streets, POLOKWANE, 0700. For attention: Ms T P Malungani cc Mr V M Mongwe
* South African Heritage Resource Agency, 111 Harrington Street, CAPE TOWN, 8000. For Attention: Mr Philip Hine - submitted via SAHRIS/email)
* Department of Water Affairs 22 Rooth Street Bronkhorstspruit  For Attention Mr S Macevele Deputy Director: Water Quality Olifants Water Management Area Tel 013 932 2061
* Department of Agriculture, Fisheries and Forestry Waterberg District 110 Munnik Street Makhado For Attention: Mr Dlamini Nosipho Tel 015 519 3300/084 501 3563
* Eskom Holdings SOC Ltd, Limpopo Operating Unit, Distribution, Land Development, Room T122, 92 Hans van Rensburg Street, POLOKWANE. For Attention: Nkateko Msimango

2.4 Distribution of Final Basic Assessment Report for comment

In order to give effect to regulation 56(2), before submitting the final basic assessment report to the Department, the EAP will give registered interested and affected parties access to, and an opportunity to comment on the final report, in writing within 21 days.

2.5 Submission of Final Basic Assessment Report to DEA

Subsequently, the Final Basic Assessment Report (BAR) will be submitted for review to the Department of Environmental Affairs.

3. Issues raised by interested and affected parties

|  |  |
| --- | --- |
| Summary of main issues raised by I&APs | Summary of response from EAP |
| Dept of Economic Development, Environment and Tourism acknowledged receipt of the application and will comment after receiving the report. | Noted |
| Dept of Water Affairs informed on the details of the new Chief Director, Limpopo | Noted |
| A representative of the landowner, Nederduits Hervormde Kerk, Pienaarsrivier, registered as I&AP. | Registered |

4. Comments and response report

*The comments and responses must be captured in a comments and response report as prescribed in the EIA regulations and be attached to the Final BAR as Appendix E3.*

The Public Participation Programme allowed for informed and responsible decision-making by all interested and affected parties. A summary of I&AP comments and the consultant's responses to these comments are provided below. The original I&AP comments are included in Appendix E3.

List of authorities from whom comments have been received:

Dept of Economic Development, Environment and Tourism

Dept of Water Affairs

4.1 Comments received in the notification phase

This section of the report synthesises the issues and concerns identified by interested and affected parties and various stakeholders during the public participation process and can be summarised as follows:

4.1.1 Verbal Comment received

4.1.1.1 Landowner, Nederduits Hervormde Kerk, Pienaarsrivier

The following comments were received at the meeting of the landowner with the EAPs on 15 April 2014 in Pienaars River:

Comment:

*Response:*

4.1.2 Written Comment received

(The original I&AP comments are included in Appendix E3)

Limpopo Department of Economic Development, Environment and Tourism, Environmental Impact Management

Comment:

The Department acknowledges receipt of the application form and will comment after receiving the report.

*Response:*

*Noted*

Limpopo Department of Water Affairs

13 February 2014

Comment:

The Director, Water Regulation, informed that Mr Matukane has retired from the Department and that Mrs Lucy Kobe is currently the Chief Director. All correspondence must be directed to her.

*Response:*

*Noted*

4.3 Conclusion of Public Participation Programme for the Basic Assessment Report

* The Public Participation Programme (PPP) started in March 2014 and continued until May 2014. It included the identification of key stakeholders, the distribution of information letters with a request for comment, as well as advertising of the project in the local press and on site.
* A meeting was conducted with the relevant landowner(s) to address their specific requirements.
* In addition, notification of an information meeting on 16 May 2014 will be submitted to all stakeholders. The purpose of the meeting will be to furnish interested parties with information regarding the extent of the project, the proposed alternatives, and the extent of the Environmental Impact Assessment Process. Project posters with information and maps will be presented at the meeting. Verbal as well as written comment will be requested at the meeting.
* A draft Basic Assessment Report was compiled with the main aim to identify issues, potential impacts and potential alternatives associated with this project. It included a description of the status quo of all relevant environmental components as well as the proceedings of the PPP and communication with registered Interested & Affected Parties (I&APs).
* The draft Basic Assessment Report (BAR) was distributed on ??? May 2014 with a due date for comment by ??? June 2014. This allows for a comment period of 40 days.
* In order to give effect to regulation 56(2), before submitting the final basic assessment report to the Department, the EAP should give registered interested and affected parties access to, and an opportunity to comment on the final report, in writing within 21 days.
* Subsequently, the final Basic Assessment Report (BAR) will be submitted to I&APs for comment allowing for a 21-day commenting period.
* Subsequent to that, the final BAR will be submitted to DEA. The final BAR will include all concerns raised to the draft and final BARs and the responses thereto. The Consultants (EAPs) will ensure that all concerns raised are addressed in appropriate detail in the final Basic Assessment Report.

5. AUTHORITY PARTICIPATION

*Authorities and organs of state identified as key stakeholders.*

*Proof that the Authorities and Organs of State received written notification of the proposed activities is attached as Appendix E4.*

6. CONSULTATION WITH OTHER STAKEHOLDERS

*A list of registered I&APs is included as Appendix E5.*

*Copies of correspondence and minutes of meetings held are included in Appendix E6.*

**Section D: Impact Assessment**

*The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2010, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.*

1. Impacts that may result fRom the planning and design, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE phaseS AS WELL AS PROPOSED MANAGEMENT OF identified IMPACTS AND PROPOSED mitigation measures

*Provide a summary and anticipated significance of the potential direct, indirect and cumulative impacts that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed. This impact assessment must be applied to all the identified alternatives to the activities identified in Section A(2) of this report.*

Refer to the below summary as well as Appendix F for a complete impact assessment in terms of Regulation 22(2)(i) of GN R.543.

2. Environmental impact statement

Taking the assessment of potential impacts into account, the following environmental impact statement could sum up the impact that the proposed activity may have on the environment after the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

As mentioned in this report, due to the physical nature of the power lines, the overall impact is seen to be minimal over the medium- to long-term. The initial (short-term) construction phase will naturally have a higher impact on the environment, but this is still very low.

It is evident that the biggest impact of the project on the environment is expected to occur during the construction phase. It is expected that with the proposed mitigation of impacts and the implementation of the Environmental Management Programme, the expected negative impact could be mitigated to acceptable measures.

EVALUATION METHOD FOLLOWED

The nature and extent of expected negative impacts are described directly under the heading for each impact.

Below this description for each impact, a table has been designed to facilitate evaluation of the expected negative impact in terms of significance (intensity), duration, probability and significance after mitigation.

The numerical values used for “Impact Severity” (significance / intensity) relates to the potential severity of the proposed project on the specific environmental component without any mitigation and is being evaluated and rated on a scale from 0 to 4 where the following values apply :

0 = no impact

1= low impact

2 = medium impact

3 = significant impact

4 = severe impact

The duration of the expected negative impact is supplied as either “temporary” - 0-3 years (generally during construction) or “permanent”. The probability that the expected negative impact would occur if not mitigated is rated as “low”, “medium” or “high”. The negative impacts are also evaluated in terms of the effectiveness with which it could be mitigated: “Severity of Impact after Mitigation” is rated on a scale from 0 to 4, with a severe impact after mitigation receiving a rating of 4 (and can therefore influence the viability of the project) and no impact after mitigation receiving a rating of 0.

2.1. Impacts that may result fRom the planning and design phase

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Impact on natural habitat | Site | Extent | Duration | Probability | Severity/  Significance  without  mitigation | Severity/  Significance  with  mitigation | Proposed mitigation |
| Alternative 1 | Local | Permanent | Low | 2 | 1 | The Alternative 1 is recommended for construction.  Both Route Alternative 1 and Alternative 2, have low ecological sensitivity. Alternative 2 has more indigenous trees that will be impacted on.  Before the clearing of the site, the appropriate permits must be obtained from the Department of Agriculture, Forestry and Fisheries (DAFF) for the removal of plants listed in the Ntional Forest Act 87 of 1998 and from the relevant provincial department for the destruction of species protected in terms of the specific provincial legislation.  No trees above 2m on the selected CNC site may be removed without written consent from a botanist or ecologist. Protected trees do occur on the sites.  A 5m buffer zone (no-go zone) around the two identified camelthorn trees to be implemented. Orange barrack netting to be erected around these trees and maintained during the entire construction phase.  No area for a campsite or temporary storage site should be selected where it would be necessary to cut down any trees or clear any shrub land whatsoever, not even alien species.  It is recommended that landscaping with a strong indigenous only approach should be followed.  Any selected temporary site (accommodation and storage) preferably must be on the demarcated site itself. |
| Alternative 2 | Local | Permanent | Low | 3 | 1 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Visual Impact | Site | Extent | Duration | Probability | Severity/  Significance  without  mitigation | Severity/  Significance  with  mitigation | Proposed mitigation |
| Alternative 1 | Local | Permanent | Medium | 2 | 1 | The site is almost surrounded by built up environment, which offsets the impacts on the natural veld where there is presently little or no human impact.  The general aim with landscaping should be to integrate it with the natural environment of the site and its surrounding area. Therefore, indigenous landscaping, combined with the eradication of alien vegetation, will conserve and enhance the natural character of the site and its surrounds.  The establishment of indigenous landscaped gardens and rehabilitation of the natural areas will contribute to the biodiversity of fauna in the area, which would add to the aesthetic experience of the site.  More detail with regards to landscaping principles and recommendations are stipulated in the Environmental Management Plan. |
| Alternative 2 | Local | Permanent | Medium | 2 | 1 |

2.2 IMPACTS THAT MAY RESULT FROM THE CONSTRUCTION PHASE

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Impact on Natural  habitat | Site | Extent | Duration | Probability | Significance  without  mitigation | Significance  with  mitigation | Proposed mitigation |
| Alternative 1 | Local | Temporary | High | 2 | 1 | Vegetation clearing and construction activites must be limited to the authorised development footprint. Mitigation measures must be implemented to reduce the risk of erosion and the invasion of alien species.  Camp site, storage facilities and other necessary temporary structures to preferably be erected within the confines of the CNC site.  No open fires to be allowed outside of designated sites.  Collection of wood for fires and cooking from out of the surrounding veld is prohibited.  A designated area for camp fires and cooking needs to be made. Should open fires be used then an area of at least 2m by 2m needs to be cleared of any flammable materials such as grass.  No material or machinery to be stored or placed in the open veld outside the designated area of the CNC site. |
| Alternative 2 | Local | Temporary | High | 2 | 1 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Social Impact | Site | Extent | Duration | Probability | Significance  without  mitigation | Significance  with  mitigation | Proposed mitigation |
| Alternative 1 | Local | Temporary | High | 3 | 1 | All affected landowners were consulted; and the negotiator will confirm details for acquisition and compensation. |
| Alternative 2 | Local | Temporary | High | 3 | 1 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Impact on  Avifauna | Site | Extent | Duration | Probability | Significance  without  mitigation | Significance  with  mitigation | Proposed mitigation |
| Alternative 1 | Local | Temporary | High | 1 | 1 | The construction activities must be restricted to the actual footprint of the development. Measures must be put in place to ensure that construction personnel are prevented from accessing the property outside the actual construction site. Care must be taken to ensure that the habitat destruction is kept to what is absolutely necessary for the construction of the CNC. |
| Alternative 2 | Local | Temporary | High | 1 | 1 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Risk of surface  and  ground water  pollution | Site | Extent | Duration | Probability | Significance  without  mitigation | Significance  with  mitigation | Proposed mitigation |
| Alternative 1 | Local | Temporary | Medium | 2 | 1 | Mitigation measures are included in EMPr to minimize impact of construction camp, waste and sewage. |
| Alternative 2 | Local | Temporary | Medium | 2 | 1 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Erosion | Site | Extent | Duration | Probability | Significance  without  mitigation | Significance  with  mitigation | Proposed mitigation |
| Alternative 1 | Local | Temporary | Low | 2 | 1 | Refer to EMPr for erosion control measures.  Erosion and loss of soil must be prevented by minimizing the construction site exposed to surface water run-off. Where necessary erosion stabilizing actions such as gabions or re-vegetation must be implemented to prevent further habitat deterioration.Construction must include appropriate design measures that allow surface and subsurface movement of water along drainage lines so as to not impede natural surface and subsurface flows. Drainage measures must promote the dissipation of storm water run-off. |
| Alternative 2 | Local | Temporary | Low | 2 | 1 |

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| Solid waste | Site | Extent | Duration | Probability | Significance  without  mitigation | Significance  with  mitigation | Proposed mitigation |
| Alternative 1 | Local | Temporary | Medium | 2 | 1 | The construction teams should ensure that all waste is removed from the site and that they recycle the items that can be used again.  Any waste that cannot be recycled will be transported to the appropriate landfill site licensed in terms of section 20 (b) of the National Environment Management Waste Act, 2008 (Act No 59 of 2008). A copy of the service agreement, to verify the disposal sites that will be accepting the waste, should be kept on site. |
| Alternative 2 | Local | Temporary | Medium | 2 | 1 |

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| Impact  of  labour  ers | Site | Extent | Duration | Probability | Significance  without  mitigation | Significance  with  mitigation | Proposed mitigation |
| Alternative 1 | Local | Temporary | Low | 2 | 1 | Mitigation measures to counter impact on the natural environment and limit potential for crime include specifications in terms of control of construction workers (i.e. provision of toilet and cooking facilities, provision of either accommodation facilities or transport facilities, implementation of Environmental Educational Programmes, etc.). Accommodation for labourers must either be limited to guarding personnel on the construction site (with labourers transported to and from existing neighbouring towns) or a separate fenced and controlled area where proper accommodation and relevant facilities are provided.  Eskom and the contractors should maximise the use of local labour where possible by developing a strategy to involve local labour in the contractor teams and construction process. |
| Alternative 2 | Local | Temporary | Low | 2 | 1 |

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| Employ  ment oppurtunities | Site | Extent | Duration | Probability | Significance  without  mitigation | Significance  with  mitigation | Proposed mitigation |
| Alternative 1 | Local | Temporary | Medium | 2 | 1 | It should be ensured that contractors use local skills, or train semi-skilled people or re-skill appropriate candidates for employment purposes where possible.  The applicant must train safety representatives, managers and workers in workplace safety. All applicable safety standards and regulations, including for subcontractors must be enforced. |
| Alternative 2 | Local | Temporary | Medium | 2 | 1 |

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| Local Procurement | Site | Extent | Duration | Probability | Significance  without  mitigation | Significance  with  mitigation | Proposed mitigation |
| Alternative 1 | Local | Temporary | Medium | 2 | 2 | Local procurement should be aimed at as far as possible.  Local sourcing of materials would assist in providing more economic and employment opportunities for the local people. |
| Alternative 2 | Local | Temporary | Medium | 2 | 2 |

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| Local Econo  mic Benefits | Site | Extent | Duration | Probability | Significance  without  mitigation | Significance  with  mitigation | Proposed mitigation |
| Alternative 1 | Regional | Temporary | Medium | 2 | 2 | Maximise the use of local labour even if the number of locals that would be employed would be limited.  Accommodate, but regulate the activities of vendors in the vicinity of the construction areas and at the construction camps. |
| Alternative 2 | Regional | Temporary | Medium | 2 | 2 |

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| Daily living  and  moving  patterns | Site | Extent | Duration | Probability | Significance  without  mitigation | Significance  with  mitigation | Proposed mitigation |
| Alternative 1 | Local | Temporary | Medium | 2 | 1 | Property owners that would be affected by the construction should be consulted prior to the construction phase with regards to the construction schedules, transportation corridors, construction of additional access roads and construction methods to be used.  Eskom should keep the construction of access roads to a minimum and rather use the existing infrastructure, as the construction and maintenance of these roads are very costly, impact on the residents’ daily living and movement patterns, and create a potential for erosion. |
| Alternative 2 | Local | Temporary | Medium | 2 | 1 |

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| Impact on Safety  and Security | Site | Extent | Duration | Probability | Significance  without  mitigation | Significance  with  mitigation | Proposed mitigation |
| Alternative 1 | Local | Temporary | Medium | 2 | 1 | Safety measures are included in the EMPr. |
| Alternative 2 | Local | Temporary | Medium | 2 | 1 |

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| Impact  of dust  pollution | Site | Extent | Duration | Probability | Significance  without  mitigation | Significance  with  mitigation | Proposed mitigation |
| Alternative 1 | Local | Temporary | Medium | 2 | 1 | Dust will be an issue during construction. A church building is nearby, as well as residential houses. Therefore, water trucks must be used daily on roads and construction sites to dampen dust.  Appropriate dust suppression techniques must be implemented on all exposed surfaces to minimise and control airborne dust. Such measures must be include wet suppression, chemical stabilisation, the use of a wind fence, covering surfaces with straw chippings and re-vegetation of open areas. |
| Alternative 2 | Local | Temporary | Medium | 2 | 1 |

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| Impact  on  cultural  heritage  resources | Site | Extent | Duration | Probability | Significance  without  mitigation | Significance  with  mitigation | Proposed mitigation |
| Alternative 1 | Local | Temporary | Medium | 2 | 1 | If archaeological/ palaeontological or other types of heritage resources are uncovered during construction/ground clearance activities SAHRA (Mrs Colette Scheermeyer/Mr Phillip Hine, tel: 021 462 4502) and a professional archaeologists/ palaeontologist dependent on the finds must be alerted immediately to inspect the finds. A rescue excavation may be required if the identified heritage resource/s is deemed to be significant. |
| Alternative 2 | Local | Temporary | Medium | 2 | 1 |

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| Visual  Impact | Site | Extent | Duration | Probability | Significance  without  mitigation | Significance  with  mitigation | Proposed mitigation |
| Alternative 1 | Local | Temporary | Medium | 2 | 1 | Landscaping plays a crucial factor in reducing the visual impact of a development and proper planning is therefore required. The following guidelines should apply:  The general aim with landscaping should be to integrate it with the natural environment of the site and its surrounding area. Therefore, indigenous landscaping, combined with the eradication of alien vegetation, will conserve and enhance the natural character of the site and its surrounds.  The establishment of indigenous landscaped gardens and rehabilitation of the natural areas will contribute to the biodiversity of fauna in the area, which would add to the aesthetic experience of the site.  More detail with regards to landscaping principles and recommendations are stipulated in the Environmental Management Plan. |
| Alternative 2 | Local | Temporary | Medium | 2 | 1 |

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| Loss  of  agricul  tural  land | Site | Extent | Duration | Probability | Significance  without  mitigation | Significance  with  mitigation | Proposed mitigation |
| Alternative 1 | Local | Permanent | Low | 1 | 1 | The agricultural potential of the study area can be seen as very low arable to very low-grazing. In other words, the agricultural potential for the local area (or loss thereof caused by the construction of a customer network centre) is negligible. |
| Alternative 2 | Local | Permanent | Low | 1 | 1 |

2.3 IMPACTS THAT MAY RESULT FROM THE OPERATIONAL PHASE

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| Impacts to  avi-fauna | Site | Extent | Duration | Probability | Significance  without  mitigation | Significance  with  mitigation | Proposed mitigation |
| Alternative 1 | Local | Long term | Low | 1 | 1 | The impact of habitat transformation should be low and should only affect non-Red Data species resident or foraging at the site itself, and not local or regional populations |
| Alternative 2 | Local | Long term | Low | 1 | 1 |

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| Impact of alien  vegetation | Site | Extent | Duration | Probability | Significance  without  mitigation | Significance  with  mitigation | Proposed mitigation |
| Alternative 1 | Local | Long term | High | Medium | Low | Removal of alien invasive species or other vegetation and follow-up procedures must be in accordance with the Conservation of Agricultural Resources Act, 1983 (Act 43 of 1983).  Mechanical control of alien species to be implemented within three (3) months of completion of construction of the powerline. Thereafter ever six months.  No chemical control (herbicides) to be used in the control of alien plants. All control of weeds to be mechanical in nature.  Cleared alien vegetation must not be dumped on adjacent intact vegetation during clearing, but should be temporarily stored in a demarcated area. |
| Alternative 2 | Local | Long term | High | Medium | Low |

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| Visual Impact | Site | Extent | Duration | Probability | Significance  without  mitigation | Significance  with  mitigation | Proposed mitigation |
| Alternative 1 | Local | Long term | Low | Low | Low | The site is almost surrounded by built up environment.  Visual impact is considered to be insignificant |
| Alternative 2 | Local | Long term | Low | Low | Low |

2.4 Impacts that may result from the decomissioning and closure phase

It is not envisaged that the CNC will be decommissioned. Eskom is currently experiencing an increased demand for the supply and distribution of additional electricity in the project area.

It is generally assumed that the decommissioning process is the reverse of the construction process and as such the indicated impacts will also be relevant to decommissioning phase.

Nuisance Factors

These are likely to be of most significance during the construction phase and include noise and dust pollution. The magnitude of these potential impacts will be dependent on a number of factors including proximity of construction sites to settlements, other public amenities including roads, location of the construction camp site. These impacts are addressed under the impacts that may result from the construction phase. In addition the EMPr proposes appropriate measures to address these.

Waste management

Waste generated has to be managed accordingly and entails correct on-site storage, transportation and disposal. Waste has to be categorised between nonhazardous and hazardous waste, which require different disposal methods. These are to be stipulatedin the EMPr. Waste generated includes domestic waste, construction rubble, unused or damaged material etc. The disposal of materials will have to be at appropriate landfill sites licensed in terms of section 20(b) of the National Environment Management Waste Act 59 of 2008. A copy of the service agreement, to verify the disposal sites that will be accepting the waste, to be kept onsite.

Soil Erosion

The removal of the land cover during construction will expose surface soils to erosion which will result in the loss of topsoil, soil nutrients, sedimentation of nearby water systems and the creation of gullies. The rate of soil erosion is generally accelerated in areas with slopes greater than 20º and along un-vegetated slopes.

If decommisioning of this project is required, then the potential for erosion based on the soil composition across the study area will have to be determined as well as possibly areas of high risk in terms of the slope. Once the decommissioning is completed, the contractor has to obtain written consent from the relevant landowner that the construction site, construction areas, access routes, etc are sufficiently and adequately rehabilitated to the landowner’s satisfaction.

Soil Contamination

Incidents of soil contamination due to accidental spillages of various contaminants such as fuel, lubricants and paints are likely during construction. Such incidents have a potential to pollute surface and underground water sources through run-off and seepage. The construction EMPr outlines appropriate measures and procedures to address these effects. These measures are also applicable to decommissioning.

2.5 CUMULATIVE Impacts

Cumulative effects are caused by the accumulation and interaction of multiple stresses affecting the parts and the functions of ecosystems. For our purpose, cumulative effects are defined as the changes to the environment caused by an activity in combination with other past, present, and reasonably foreseeable human activities.

The magnitude, extent and duration of environmental effects depend on the characteristics of a development activity in a particular location.

The cumulative effect for constructing the CNC will be low. In time the overall cumulative impact on this area is likely to increase as agriculture, urbanisation and other Eskom developments are placing pressure on the habitat. It is thus critical that major role players in the region’s economy create long term strategic plans that will accommodate and enhance a wide range of economic activities.

Equally important is the need for Eskom to align all the projects that are planned for the area in order to minimise the potential negative impacts and enhance potential positive outcomes. It is therefore crucial for Eskom to liaise very closely with the various municipalities to mainstream Eskom projects into the Integrated Development Plans (IDPs) and Spatial Development Frameworks (SDFs) of the respective municipalities.

Municipal Infrastructure

The extra pressure that this development could place on the existing municipal infrastructure for waste as well as water provisions could be significant when seen together with other developments within the greater municipal area.

A Services Agreement will however be entered into between the Applicant and the local municipality in which the municipality will confirm that sufficient capacity exist to service the development. Such an agreement will only be possible if the municipality take the existing and future developments within the area into consideration. The cumulative effect of waste and water volumes will therefore be catered for.

CONCLUSION

Alternative sites have been investigated for the project. As can be seen from the discussions, both sites are acceptable if the proposed mitigations are implemented. The ecological assessment favours Site Alternative 1 due to the fact that Alternative 2 has more large trees on site and therefore potentially more trees would need to be removed.

The final decision between Route 1 or 2 should be made on the accumulative weight of other parameters such as feedback from public participation, land tenure issues, construction costs, etc. Currently, Alternative 1 is preferred as the final Site Alternative due to the recommendation as stipulated in the ecological assessment as well as the support of the landowner for Alternative 1.

The affected property for the proposed Site Alternative 1 is the farm Vaalboschbult 66 JR portion 32 near Pienaarsrivier in the Bela-Bela Local Municipality in the Limpopo Province.

**SECTION E. Recommendation of practitioner**

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| Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)? | YES | NO |

*If “NO”, indicate the aspects that should be assessed further as part of a Scoping and EIA process before a decision can be made (list the aspects that require further assessment):*

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*If “YES”, please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application:*

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| --- | --- | --- |
| Alternative sites have been investigated for the project. As can be seen from the discussions, both sites are acceptable if the proposed mitigations are implemented. The ecological assessment favours Site Alternative 1 due to the fact that Alternative 2 has more large trees on site and therefore potentially more trees would need to be removed.  The final decision between Route 1 or 2 should be made on the accumulative weight of other parameters such as feedback from public participation, land tenure issues, construction costs, etc. Currently, **Alternative 1 is preferred as the final Site Alternative** due to the recommendation as stipulated in the ecological assessment as well as the support of the landowner for Alternative 1.  Before the clearing of the site, the appropriate permits must be obtained from the Department of Agriculture, Forestry and Fisheries (DAFF) for the removal of plants listed in the Ntional Forest Act 87 of 1998 and from the relevant provincial department for the destruction of species protected in terms of the specific provincial legislation.  No trees above 2m on the selected CNC site may be removed without written consent from a botanist or ecologist. Protected trees do occur on the sites.  A 5m buffer zone (no-go zone) around the two identified camelthorn trees to be implemented. Orange barrack netting to be erected around these trees and maintained during the entire construction phase.  The affected property for the proposed Site Alternative 1 is the farm Vaalboschbult 66 JR portion 32 near Pienaarsrivier in the Bela-Bela Local Municipality in the Limpopo Province. | | |
| Is an EMPr attached? | YES | NO |

*The EMPr must be attached as Appendix G.*

*The details of the EAP who compiled the BAR and the expertise of the EAP to perform the Basic Assessment process must be included as Appendix H.*

*If any specialist reports were used during the compilation of this BAR, please attach the declaration of interest for each specialist in Appendix I.*

*any other information relevant to this application and not previously included must be attached in Appendix J.*

Ria Pretorius

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NAME OF EAP

???? May 2014

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SIGNATURE OF EAP DATE

1. “Alternative A..” refer to activity, process, technology or other alternatives. [↑](#footnote-ref-1)