

BASIC ASSESSMENT REPORT



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

(For official use only)

File Reference Number:

Application Number:

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. 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.
3. Where applicable **tick** the boxes that are applicable in the report.
4. An incomplete report may be returned to the applicant for revision.
5. 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.
6. This report must be handed in at offices of the relevant competent authority as determined by each authority.
7. No faxed or e-mailed reports will be accepted.
8. The report must be compiled by an independent environmental assessment practitioner.
9. 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.
10. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.

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. ACTIVITY DESCRIPTION

Describe the activity, which is being applied for, in detail¹:

Rand Water is a water services provider that purifies 3600 mega litres of water per day and distributes clean drinking water, free of harmful microorganisms and chemical contaminants, to 58 reservoirs, via 3000 km of pipelines, to 19 water services authorities. It services 11 million people in Gauteng and parts of Mpumalanga, North West and Free State Provinces. Rand Water relies on electricity supplied by Eskom Holding SOC Limited to be able to provide their service to industries and communities.

Rand Water currently owns the RWB Bloemendal substation that feeds from the 44kV ring from Struben DS. The existing substation is old and has 2 x 5MVA transformers installed which may not meet the energy demands given Rand Water’s plan to install new pumps at the pumping station. The proposed installation of new pumps will require higher fault level than currently available, while NMD will stay at 5.65MVA. Consequently Rand Water has applied to Eskom that the substation be upgraded to meet future demands. Subsequent to the feasibility studies Eskom proposed to rebuild the substation next to the existing one. The proposed new substation will be equipped with 2 x10MVA transformers. The proposed project will entail the following;

- Construction of a new substation next to the existing RWB Bloemendal substation to replace the old one
- Equipment of the substation with one 44kV line bay, 44kV bus bars (2xbays), 2 x MVA transformer bays
- Installation of 6.6kV links, dog box breaker and links on LV side of the transformers
- Installation of 1x44kV VT on 44kV bus bar
- Construction of a control building and installation of necessary control technology

The aforementioned project will be situated South-East of the regional road R42 to Nigel within the jurisdiction of the Lesedi Local Municipality. Access to the site will be through an approximately 200m long and 4m road from the R42.

The proposed project has identified two locality alternatives (sites) which were considered and assessed for the proposed substation. Both alternatives are located within Farm Bloemendal 283 IR Portion 14 as depicted in the map below.

¹ Please note that this description should not be a verbatim repetition of the listed activity as contained in the relevant Government Notice, but should be a brief description of activities to be undertaken as per the project description.

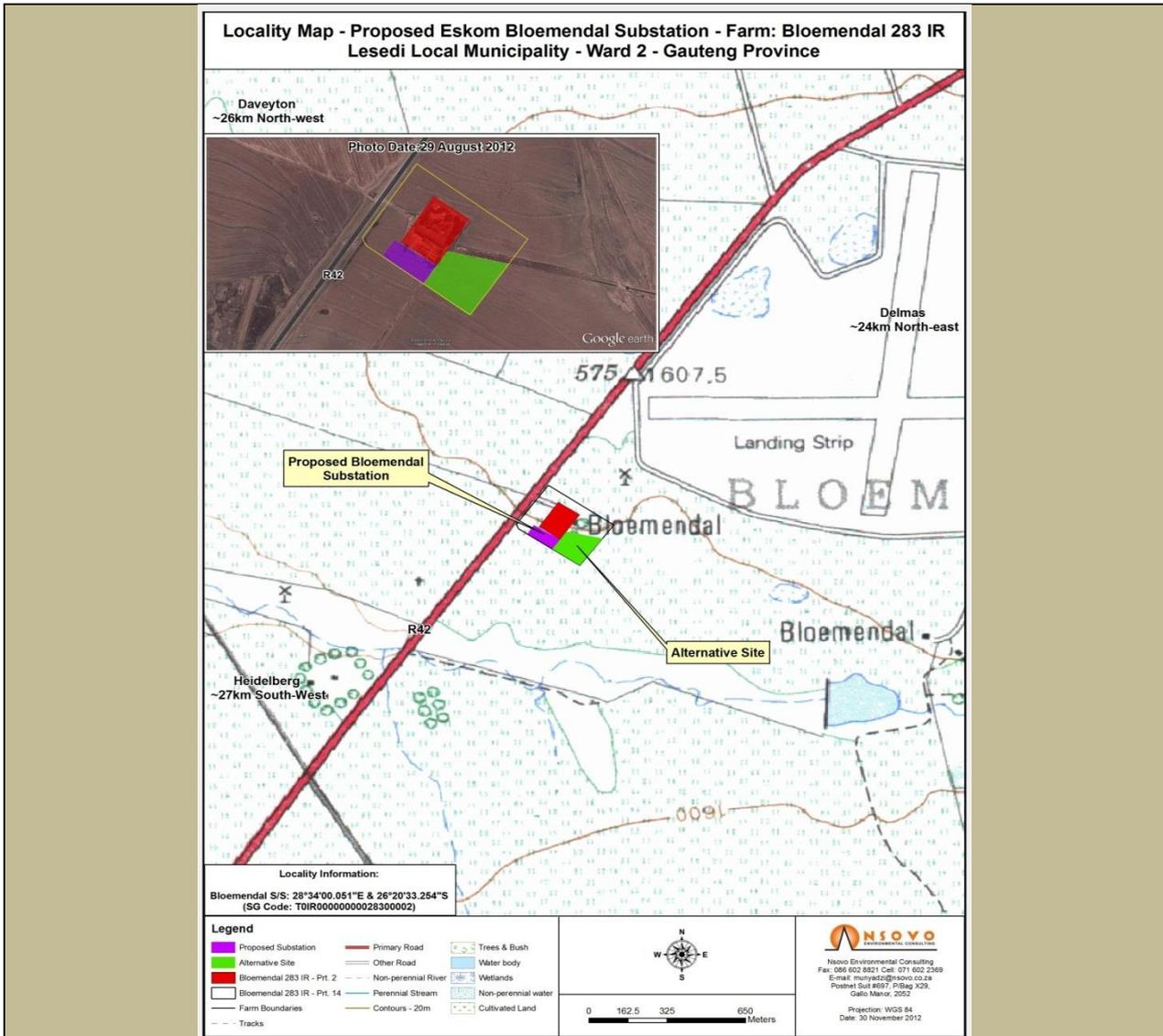


Figure 1: Locality Map for the proposed Bloemendal Substation (See Appendix A for a bigger map)

The proposed substation will be located on Rand Water owned property. The site falls within an area with high agricultural potential. At the time of the site visit there was barely any plant or tree on the proposed site, however, the soil was being prepared for cultivation (crop growing). Other activities in proximity to the site included the on-going construction of Randwater N10 pipeline. The sensitivity features noted in proximity to the site, although it is over 500m from the proposed site includes a non-perennial river and blue gum trees located southwards.

The proposed project is a listed activity under GNR 544 (Listing Notice 1) Activity 1.

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;

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Alternative S1 ² (preferred or only site alternative)	26°	20'33.254"	28°	34'00.051"
Alternative S2 (if any)	26°	20'34.664"	28°	34'06.051"
Alternative S3 (if any)	0	'	0	'

In the case of linear activities:

Alternative:

Latitude (S):

Longitude (E):

Alternative S1

- Starting point of the activity
- Middle/Additional point of the activity
- End point of the activity

Alternative S2 (if any)

- Starting point of the activity
- Middle/Additional point of the activity
- End point of the activity

Alternative S3 (if any)

- Starting point of the activity
- Middle/Additional point of the activity
- End point of the activity

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 250 meters along the route for each alternative alignment.

4. 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 A1³ (preferred activity alternative)

m ²

Alternative A2 (if any)

m ²

Alternative A3 (if any)

m ²

or, for linear activities:

Length of the activity:

Alternative:

Alternative A1 (

Alternative A2 (if any)

Alternative A3 (if any)

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

Alternative:

Size of the site/servitude:

Alternative A1 (preferred activity alternative)

0.528ha

Alternative A2 (if any)

1.2327ha

Alternative A3 (if any)

m ²

5. SITE ACCESS

² "Alternative S." refer to site alternatives.

³ "Alternative A.." refer to activity, process, technology or other alternatives.

Does ready access to the site exist?

The access road will primarily be the Regional road R42 to Nigel, while access to the site will be through the existing dirt road that is currently used for access to the existing substation.

YES	NO
✓	

If NO, what is the distance over which a new access road will be built

Describe the type of access road planned:

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.

6. SITE OR 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:

- 6.1 the scale of the plan which must be at least a scale of 1:500;
- 6.2 the property boundaries and numbers of all the properties within 50 metres of the site;
- 6.3 the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
- 6.4 the exact position of each element of the application as well as any other structures on the site;
- 6.5 the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure;
- 6.6 all trees and shrubs taller than 1.8 metres;
- 6.7 walls and fencing including details of the height and construction material;
- 6.8 servitudes indicating the purpose of the servitude;
- 6.9 sensitive environmental elements within 100 metres of the site or sites including (but not limited thereto):
 - rivers;
 - 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 invested with alien species);
- 6.10 for gentle slopes the 1 metre contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and
- 6.11 the positions from where photographs of the site were taken.

Locality map is attached as Appendix A.

7. 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 form. It must be supplemented with additional photographs of relevant features on the site, if applicable.

8 directional photographs have been attached as appendix C.

8. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of 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.

Facility Illustration attached as Appendix D.

9. ACTIVITY MOTIVATION

9(a) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	Undetermined. Cost estimations have not been calculated as they strongly depend on current construction costs and the site selected for use.		
What is the expected yearly income that will be generated by or as a result of the activity?	It is not expected that the proposed development will earn any income – it is primarily to provide reliable bulk services to the customer and community.		
Will the activity contribute to service infrastructure?	<table border="1" style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;">YES ✓</td> <td style="width: 50%; text-align: center;">NO</td> </tr> </table>	YES ✓	NO
YES ✓	NO		
Is the activity a public amenity?	<table border="1" style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;">YES</td> <td style="width: 50%; text-align: center;">NO ✓</td> </tr> </table>	YES	NO ✓
YES	NO ✓		
How many new employment opportunities will be created in the development phase of the activity?	During the development phase of the proposed project it is not envisaged that any direct employment will be created. Contractors will be appointed by the client, who will bring in their own working teams to complete the project.		
What is the expected value of the employment opportunities during the development phase?	This cannot be quantified as it is not foreseen that any additional employment will be generated by the project.		
What percentage of this will accrue to previously disadvantaged individuals?	None - it is not foreseen that any additional employment opportunities will be created by the project.		
How many permanent new employment opportunities will be created during the operational phase of the activity?	None – due to the nature of the project no permanent employees will be required on site to manage the operational phase.		

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What is the expected current value of the employment opportunities during the first 10 years?

No direct employment opportunities will be generated by the project, in any of the phases. However it is estimated that numerous indirect employment opportunities might be generated as a result of the additional bulk infrastructure which the project proposes to install in the area.

What percentage of this will accrue to previously disadvantaged individuals?

None –it is not foreseen that any additional employment opportunities will be generated by the project.

9(b) Need and desirability of the activity

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

NEED:			
1.	Was the relevant provincial planning department involved in the application?	YES ✓	NO
2.	Does the proposed land use fall within the relevant provincial planning framework?	YES ✓	NO
3.	If the answer to questions 1 and / or 2 was NO, please provide further motivation / explanation:		

DESIRABILITY:			
1.	Does the proposed land use / development fit the surrounding area?	YES ✓	NO
2.	Does the proposed land use / development conform to the relevant structure plans, SDF and planning visions for the area?	YES ✓	NO
3.	Will the benefits of the proposed land use / development outweigh the negative impacts of it?	YES ✓	NO
4.	If the answer to any of the questions 1-3 was NO, please provide further motivation / explanation:		
5.	Will the proposed land use / development impact on the sense of place?	YES	NO ✓
6.	Will the proposed land use / development set a precedent?	YES	NO ✓
7.	Will any person's rights be affected by the proposed land use / development?	YES	NO ✓
8.	Will the proposed land use / development compromise the "urban edge"?	YES	NO ✓
9.	If the answer to any of the question 5-8 was YES, please provide further motivation /		

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	explanation.

BENEFITS:			
1.	Will the land use / development have any benefits for society in general?	YES ✓	NO
2.	Explain: The proposed project will directly benefit Randwater as it will enable them increase capacity as intended. The increased capacity at the substation will directly benefit communities and other water users as they will be reliable supply.		
3.	Will the land use / development have any benefits for the local communities where it will be located?	YES ✓	NO
4.	Explain: The proposed project will improve the reliability of electricity supply to the customer (Randwater) as the construction will assist in the community receiving bulk water supply as it is understood that the customer has new pipelines construction projects underway within the proposed locality.		

10. 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:	Administering authority:	Date:
Republic of South Africa – Constitution, Act 108 of 1996	National Government	1996
National Environmental Management Act, Act 107 of 1998 (as amended in 2009)	National & Provincial Government	1998
Environmental Impact Assessment Regulations – of June 2010	National & Provincial Government	2010
National Environmental Management: Biodiversity Act, Act 10 of 2004	National & Provincial Government	2004
National Environmental Management: Air Quality Act, Act 39 of 2004	National & Provincial Government	2004
National Water Act, Act 36 of 1998	National & Provincial Government	1998
National Heritage Act, Act 25 of 1999	National & Provincial Government	1999
Development Facilitation Act, Act 67 of 1995	National & Provincial Government	1995

11. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

11(a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?

YES ✓	NO
Undetermined	

If yes, what estimated quantity will be produced per month?

How will the construction solid waste be disposed of (describe)?

Any solid waste produced on site will be collected in suitable containers and removed from site by means of waste disposal trucks. Further detail on solid waste management is provided in the Environmental Management Programme (EMPr). Solid waste could include the following:

- conductor off-cuts;
- concrete rubble from structure foundations;
- any vegetation cleared; and
- general waste produced by construction workers.

All waste will be taken to registered waste sites. Should any hazardous waste be produced, it shall be disposed of appropriately at a registered waste disposal site.

Where will the construction solid waste be disposed of (describe)?

Construction solid waste will be disposed of at the licensed local waste disposal sites (municipal waste stream). Construction wastes will be managed and disposed of in accordance with the attached Environmental Management Programme and may include:

- General waste, consisting of non-hazardous substances and substances that cannot be recycled. Examples include (but not limited to) construction rubble, excess construction materials that cannot be reused, and food waste. This will be disposed and collected in a waste skip and disposed of at a registered site.
- Re-usable construction material, which can be used at other construction sites will be carefully packaged and delivered to other sites for reuse.

Refuse will at all times be disposed of at a Department of Water Affairs (DWA) registered site, which is also approved of by the local authority. Refuse will not be burned or buried on or near the site.

Will the activity produce solid waste during its operational phase?

YES	NO
✓	
Undetermined	

If yes, what estimated quantity will be produced per month?

How will the solid waste be disposed of (describe)?

Waste will be collected and disposed of at a registered waste disposal site.

Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?

It is anticipated that waste will feed into the municipal waste stream, should there be any waste that does not feed into the municipal waste stream proper measures will be taken to ensure that it's disposed of appropriately at a registered disposal facility or reused and recycled if possible.

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.

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.

11(b) Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in

YES	NO
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a municipal sewage system?

	✓
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If yes, what estimated quantity will be produced per month?

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.

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:

Eskom will ensure that the correct amount of material is used while construction takes place, thereby reducing the production of waste.

11(c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

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 emissions in terms of type and concentration:

The only gaseous emissions will be from normal vehicle operation as well as limited dust generation due to vehicle movements' taking place during the construction phase. Dust emissions will have a low significance.

Low levels of dust emissions may also be created from excavations during the construction phase; this will be site specific and low in significance, provided that mitigation measures are in place.

Appropriate dust control measures such as dampening of surfaces will be put in place as may be required. Further detail on dust management is provided in the Environmental Management Programme.

11(d) 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:

Noise pollution will occur as a result of construction activities and increased traffic and the impact will be highly localised and of a temporary nature. Maintenance vehicles may generate noise during the operational phase; however it will be insignificant given the urban nature of the area. The potential noise impact can be mitigated by restricting operations to normal working hours, which will result in an impact of low significance. Further detail on noise management is provided in the Environmental Management Programme.

12. WATER USE

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

Municipal <input checked="" type="checkbox"/>	water board <input type="checkbox"/>	groundwater <input type="checkbox"/>	river, stream, dam or lake <input type="checkbox"/>	other <input type="checkbox"/>	the activity will not use water <input type="checkbox"/>
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Water will only be required during the construction phase for labourers and construction activities –this will be obtained from a municipal source.

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:

Does the activity require a water use permit from the Department of Water Affairs?

litres	
YES	NO <input checked="" type="checkbox"/>

If yes, please submit the necessary application to the Department of Water Affairs and attach proof thereof to this application if it has been submitted.

13. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

Not applicable.

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

Not applicable.

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

- 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 C and indicate the area, which is covered by each copy No. on the Site Plan.

Section C Copy No. (e.g. A):

- Paragraphs 1 - 6 below must be completed for each alternative.

- Has a specialist been consulted to assist with the completion of this section?

YES	NO <input checked="" type="checkbox"/>
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If YES, please complete the form entitled “Details of specialist and declaration of interest”

for each specialist thus appointed:

All specialist reports must be contained in Appendix D.

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Property description/physical address: Bloemendal, within the jurisdiction of Lesedi Local Municipality

(Farm name, portion etc.) Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application.

Farm Bloemendal 283 IR Portion 14

In instances where there is more than one town or district involved, please attach a list of towns or districts to this application.

Current land-use zoning: 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 or a consent use application required?

YES	NO
	✓

Must a building plan be submitted to the local authority?

YES	NO
	✓

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 indication of the project site position as well as the positions of the alternative sites, if any;
- 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)

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

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 S2 (if any):

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 S3 (if any):

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:

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2.1 Ridgeline	
2.2 Plateau	
2.3 Side slope of hill/mountain	
2.4 Closed valley	
2.5 Open valley	
2.6 Plain	✓
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 (tick the appropriate boxes)?

	Alternative S1:		Alternative S2 (if any):		Alternative S3 (if any):	
Shallow water table (less than 1.5m deep)	YES	NO ✓ Current area is developed and it is 680m from a non-perennial river	YES	NO ✓ Current area is developed and it is 410m from a non-perennial river	YES	NO
Dolomite, sinkhole or doline areas	YES	NO ✓ Geology is shale based	YES	NO ✓ Geology is shale based	YES	NO
Seasonally wet soils (often close to water bodies)	YES	NO ✓ Current area is developed and it is 680m from a non-perennial river	YES	NO ✓ Current area is developed and it is 680m from a non-perennial river	YES	NO
Unstable rocky slopes or steep slopes with loose soil	YES	NO ✓ No steep slopes or rocky hills.	YES	NO ✓ No steep slopes or rocky hills.	YES	NO
Dispersive soils (soils that dissolve in water)	YES	NO ✓	YES	NO ✓	YES	NO

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Soils with high clay content (clay fraction more than 40%)	YES	NO ✓ The clay content is below 40%	YES	NO ✓ The clay content is below 40%	YES	NO
Any other unstable soil or geological feature	YES	NO ✓ No steep slopes or rocky hills.	YES	NO ✓ No steep slopes or rocky hills.	YES	NO
An area sensitive to erosion	YES	NO ✓ Slope is very flat.	YES	NO ✓ Slope is very flat.	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).

Geotechnical Requirements:

According to a GIS scan the geotechnical suitability for the proposed site is moderate. The geology is shale based and there are no steep slopes or rocky hills.

4. GROUND COVER

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).

Natural veld - good condition ^E	Natural veld with scattered aliens ^E	Natural veld with heavy infestation	Veld dominated by alien species ^E	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.

5. LAND USE CHARACTER OF SURROUNDING AREA

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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:

5.1 Natural area	
5.2 Low density residential	
5.3 Medium density residential	
5.4 High density residential	
5.5 Informal residential ^A	
5.6 Retail commercial & warehousing	
5.7 Light industrial	
5.8 Medium industrial ^{AN}	
5.9 Heavy industrial ^{AN}	
5.10 Power station	
5.11 Office/consulting room	
5.12 Military or police base/station/compound	
5.13 Spoil heap or slimes dam ^A	
5.14 Quarry, sand or borrow pit	
5.15 Dam or reservoir	
5.16 Hospital/medical centre	
5.17 School	
5.18 Tertiary education facility	
5.19 Church	
5.20 Old age home	
5.21 Sewage treatment plant ^A	
5.22 Train station or shunting yard ^N	
5.23 Railway line ^N	
5.24 Major road (4 lanes or more) ^N	
5.25 Airport ^N	
5.26 Harbour	
5.27 Sport facilities	
5.28 Golf course	
5.29 Polo fields	
5.30 Filling station ^H	
5.31 Landfill or waste treatment site	
5.32 Plantation	
5.33 Agriculture	✓
5.34 River, stream or wetland	
5.35 Nature conservation area	
5.36 Mountain, koppie or ridge	
5.37 Museum	
5.38 Historical building	
5.39 Protected Area	
5.40 Graveyard	
5.41 Archaeological site	
5.42 Other land uses: Airstrip and Randwater Pump Station	✓

With regards to Section 5.42, it is understood that the Airstrip that is noted on the Locality Map (refer Appendix A) has been decommissioned and is currently used for agricultural purposes.

If any of the boxes marked with an "N" are ticked, how will this impact / be impacted upon by the proposed activity?

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

If YES, specify and explain:
If YES, specify:

If any of the boxes marked with an "H" are ticked, how will this impact / be impacted upon by the proposed activity.

If YES, specify and explain:
If YES, specify:

6. 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 Archaeological or palaeontological sites, on or close (within 20m) to the site?

YES	NO
	✓
Uncertain	

If YES, explain:

--

If uncertain, conduct a specialist investigation by a recognised specialist in the field to establish whether there is such a feature(s) present on or close to the site.

Briefly explain the findings of the specialist:

--

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 submit or, make sure that the applicant or a specialist submits the necessary application to SAHRA or the relevant provincial heritage agency and attach proof thereof to this application if such application has been made.

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT

The person conducting a public participation process must take into account any guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties of the application which is subjected to public participation by—

- (a) fixing a notice board (of a size at least 60cm by 42cm; and must display the required information in lettering and in a format as may be determined by the competent authority) at a place conspicuous to the public at the boundary or on the fence of—
 - (i) the site where the activity to which the application relates is or is to be undertaken; and
 - (ii) any alternative site mentioned in the application;
- (b) giving written notice to—
 - (i) the owner or person in control of that land if the applicant is not the owner or person in control of the land;
 - (ii) the occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
 - (iii) owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
 - (iv) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;
 - (v) the municipality which has jurisdiction in the area;
 - (vi) any organ of state having jurisdiction in respect of any aspect of the activity; and
 - (vii) any other party as required by the competent authority;
- (c) placing an advertisement in—
 - (i) one local newspaper; or
 - (ii) any official *Gazette* that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;
- (d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or local municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official *Gazette* referred to in subregulation 54(c)(ii); and
- (e) using reasonable alternative methods, as agreed to by the competent authority, in those instances where a person is desiring of but unable to participate in the process due to—
 - (i) illiteracy;
 - (ii) disability; or
 - (iii) any other disadvantage.

2. CONTENT OF ADVERTISEMENTS AND NOTICES

A notice board, advertisement or notices must:

- (a) indicate the details of the application which is subjected to public participation; and
- (b) state—
 - (i) that the application has been submitted to the competent authority in terms of these Regulations, as the case may be;
 - (ii) whether basic assessment or scoping procedures are being applied to the application, in the case of an application for environmental authorisation;
 - (iii) the nature and location of the activity to which the application relates;
 - (iv) where further information on the application or activity can be obtained; and
 - (iv) the manner in which and the person to whom representations in respect of the application may be made.

Public notices were placed on site and proof of such has been included in the report as Appendix F4.

3. PLACEMENT OF ADVERTISEMENTS AND NOTICES

Where the proposed activity may have impacts that extend beyond the municipal area where it is located, a notice must be placed in at least one provincial newspaper or national newspaper, indicating that an application will be submitted to the competent authority in terms of these regulations, the nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations in respect of the application can be made, unless a notice has been placed in any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of the EIA regulations.

Advertisements and notices must make provision for all alternatives.

An advertisement was placed on The Star newspaper. The advert was published on 09 November 2012 and proof of such has been attached hereto as Appendix F5. Furthermore, pre-identified stakeholders were consulted via post and fax and proof of such is attached hereto as Appendix F6 and F7. No comments have been received to date.

4. DETERMINATION OF APPROPRIATE MEASURES

The practitioner must ensure that the public participation is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement of local community structures such as Ward Committees, ratepayers associations and traditional authorities where appropriate. Please note that public concerns that emerge at a later stage that should have been addressed may cause the competent authority to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was inadequate.

5. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments and respond to each comment of the public before the application is submitted. The comments and responses must be captured in a comments and response report as prescribed in the EIA regulations and be attached to this application. The comments and response report must be attached under Appendix E.

A detailed Public Participation Report will be included as Appendix F1 and Issues and Response from all Interested and Affected Parties will be attached hereto as Appendix D.

Comments received from Stakeholders and Interested and Affected Parties as well as Ward Councillors

6. AUTHORITY PARTICIPATION

Please note that a complete list of all organs of state and or any other applicable authority with their contact details must be appended to the basic assessment report or scoping report, whichever is applicable.

A database of key stakeholders has been appended as Appendix F8.

Authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input.

List of authorities informed:

1. Gauteng Department of Agriculture and Rural Development (GDARD)
2. Gauteng Provincial Heritage Resources Agency (GPHRA)
3. Department of Water Affairs(DWA)
4. Department of Agriculture, Forestry and Fisheries (DAFF)
5. Ekurhuleni Local Municipality
6. Victor Khanye Local Municipality
7. Nkangala District Municipality
8. Lesedi Local Municipality
9. Mpumalanga Province: Department of Economic Development, Environment and Tourism
10. Mpumalanga Province: Department of Agriculture, Rural Development and Land Administration
11. Randwater Bulk Water Distribution

List of authorities from whom comments have been received:

Lesedi Local Municipality.

7. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for linear activities, or where deviation from the public participation requirements may be appropriate, the person conducting the public participation process may deviate from the requirements of that sub regulation to the extent and in the manner as may be agreed to by the competent authority.

Proof of any such agreement must be provided, where applicable.

Has any comment been received from stakeholders?

Yes	
✓	

If “YES”, briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

The comments received were submitted by Lesedi Local municipality and are as follows:

“The Municipality does not have any objection to the Draft report for the proposed bloemendal substation and loop-in line in respect of portion 14 of the farm Bloemendal 2831R; subject to the reservation that the applicant ensures compliance to the environmental authorisation. Once the authorisation is granted Lesedi Local Municipality will assist to enforce the conditions thereof. It is therefore vital to ensure that a copy of the authorisation from the Department be availed to the Lesedi Local Municipality as soon as approval is granted”

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. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

List the main issues raised by interested and affected parties.

Site Notices were placed on site. A newspaper advert was placed on the National paper (The Star (See Attached proof on Appendix F5)). Notification letters were also distributed to the interested and affected parties within a 100m radius from the project area. The purpose of these was to invite interested and affected parties to register and also to participate in the Basic Assessment process. The only comments received are indicated above on Section C 7.

Response from the practitioner to the issues raised by the interested and affected parties (A full response must be given in the Comments and Response Report that must be attached to this report as Annexure F

2. 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

List the potential direct, indirect and cumulative property/activity/design/technology/operational alternative related impacts (as appropriate) 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.

Impacts Resulting from the Planning and Design Phase

Direct Impacts:

Employment Creation

The planning and design of the proposed development requires input from various individuals, resulting in the employment opportunities for such persons. This additional employment would include both direct (e.g. Environmental Consultants, Engineers, Project Managers, Planners, etc.) and indirect (e.g. reviewing and commenting authorities such as the local authority planning authorities and the environmental authorities). The extent and magnitude of this impact is relatively low compared to the other economic impacts, and is typically restricted to a limited number of professionals. All the identified alternatives are likely to result in the same level of significance for this impact. The No-go Alternative would differ in that this impact would not occur.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Employment Creation	No	Positive	3	2	8	4	(30-60) Medium
	Yes	N/A	N/A	N/A	N./A	N/A	
Corrective Actions	<ul style="list-style-type: none"> No mitigation measures have been identified. 						

Indirect Impacts:

Cumulative Impacts:

No cumulative impacts were identified.

Alternative 1 (Preferred Route)

Impacts Resulting from the Construction Phase

Direct Impacts:

Agriculture

It is anticipated that approximately 0.5 hectares of land that is currently used for agricultural purposes will be taken up for the construction of the substation. Although the site is owned by Randwater and it is meant for such purposes there will be an impact on agriculture. Given the scale of the proposed project the potential impact on the production potential of the farm as a whole should be very small. It is further assumed that appropriate mitigation measures, like the conservation of the top-soil, the proper rehabilitation of the construction sites and the proper construction of service roads (i.e. to prevent erosion)

BASIC ASSESSMENT REPORT

will be implemented. The sensible placing of the substation, as far as the minimization of the negative impact on farming activities and thus farming income is concerned, and the synchronization of construction with the off-season of possible farming activities should further minimize the possible slight negative effect of the project. The impact will be site specific, long term and negative.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Loss of biodiversity and habitat	No	Negative	1	4	4	4	(30-60) Med
	Yes	Negative	1	4	2	4	<30 Low
Corrective Actions	<ul style="list-style-type: none"> Vegetation or Crop clearing should be limited to the development footprint. Topsoil must be conserved 						

Soils and erosion

The loss of topsoil in South Africa is a national concern and thus erosion control should be taken seriously. Ineffective storm water management systems can result in soil erosion. Where soils are highly erodible, adequate measures must be implemented to prevent undue soil erosion.

Extensive soil erosion is not expected during the construction of the Bloemendal substation, however, it is anticipated that occurrence of such might occur during wet seasons especially on the stockpiles (Topsoil and Subsoil).

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Soils and erosion	No	Negative	2	2	4	3	<30 Low
	Yes	Negative	1	1	2	1	<30 Low
Corrective Actions	<ul style="list-style-type: none"> Stockpiles should be piled up to 2m or less. Stockpiles should not be piled within a 32m distance from any river bank or within wetlands. Foundation excavations for each structure must be inspected by a competent person during construction. Excavation must not be left open for longer than three weeks. Construction must be preferably during the dry season 						

- In the event of significant erosion occurring, adequate corrective measures must be implemented to prevent any further soil loss.
- Proper storm water management measures must be put in place.

Impact on Traffic

During construction, increase in traffic is likely to result from delivery of construction materials to and from the construction works along the stretch of the line. The impact of increased traffic can be considered local in extent, short term in duration with the overall impact been *negative with low significance*. However with implementation of proper mitigation measures, it can be reduced to low significance.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Traffic	No	Negative	3	3	6	4	(30-60) Medium
	Yes	Negative	2	2	4	2	<30 Low
Corrective Actions	<ul style="list-style-type: none"> • The delivery of construction material and equipment should be limited to hours outside peak traffic times (including weekends) prevailing on the surrounding roads. • Delivery vehicles must comply with all traffic laws and bylaws. 						

Air pollution

Construction activities on the site will lead to land clearing and disturbance of the soil resulting in dust generation. During construction, movement of construction vehicles will present temporary, but important sources of respirable particulates and dust deposition. Given the nature and magnitude of the proposed project it is anticipated that very little dust will be generated from the construction activities. The potential impact on air quality will be short term and can be controlled. Proper implementation of recommended corrective measures will reduce the impact to *low significance*.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Air pollution	No	Negative	2	1	4	4	<30 =Low
	Yes	Negative	2	1	3	3	<30 =Low

Corrective Actions	<ul style="list-style-type: none"> • Unnecessary clearing of vegetation must be avoided. • All exposed surfaces subjected to dust generation must be managed with appropriate dust suppression methods including amongst others, the use of water tankers etc. • Vehicles travelling on the site should not be allowed to reach sufficient speeds so as to cause dust to rise from the roads. • Unnecessarily exposed surfaces should be rehabilitated after the construction period. • The amount of exposed soil at a particular time must be limited.
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Surface and groundwater pollution

During construction there is a risk that construction material may pollute the surface and/or ground water on site. The closest water source is a perennial river which is approximately 680m from the proposed site. Substances such as cement residue, bio fuels, and paints must be adequately controlled. In addition exposed surfaces during construction would provide a source of sediments to be taken up by storm water and resulting in down-stream sedimentation of water resources. Care must be taken during construction to prevent leaks and spillage of materials that may detrimentally affect water quality (especially fuels and chemicals). Adequate measures must be put in place to prevent runoff of construction debris to nearby streams or water bodies. If construction takes place during the rainy season, storm water will have to be managed appropriately to reduce the opportunities of construction debris being washed off. This impact is of *medium negative significance* and can be reduced to a *low significance*.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Surface and ground water pollution	No	Negative	3	3	6	3	(30-60)= Medium
	Yes	Negative	2	2	4	2	<30 = Low

Corrective Actions	<ul style="list-style-type: none"> • Adequate measures must be taken during construction to manage storm water runoff. • Storage of fuel on site must not be stored on site. Should the need arise to store fuel on site, it must be stored in bunded and caged areas. • Care must be taken not to spill fuels or oil during service or re-fuelling of construction equipment. During refuelling drip trays must be placed under the machinery or vehicle to prevent contamination of soil in case of spillages.
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- In the event of a spillage of a hazardous substance the requirements of the EMP must be implemented.
- Attempt should be made to schedule construction during the winter months (dry season).
- Possible leaks and spills of hazardous substances into the ground should be avoided at all times.
- In the event of a spillage of a hazardous substance the requirements of the EMP must be implemented.

Waste generation

During the construction phase there will be a variety of waste material produced. The building contractors must adhere to all proposed measures and provide adequate waste skips and bins around the site. Waste must be regularly removed from site and disposed of at appropriate waste disposal sites. The impact may be *negative, site specific, low in significance* and will last the duration of the construction and rehabilitation phase.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Waste generation and management	No	Negative	2	3	8	2	<30 Low
	Yes	Negative	1	2	6	2	<30 Low
Corrective Actions	<ul style="list-style-type: none"> • No waste will be buried on site or incorporated into the foundation trenches. • The work force must be encouraged to sort waste into recyclable and non-recyclable waste. • No burning of waste will be allowed on site. • Waste must be regularly removed from site and disposed of at a registered waste disposal facility. 						

Noise pollution

At present the land-use in the area is predominantly agricultural and partly commercial land uses. The ambient source of noise in the area is presently generated by traffic along the main road R42. There will be an increase in noise levels during the construction period emanating from construction vehicles, machinery and workers, which can be a nuisance during construction but it will be a manageable noise. The level of noise and extent will depend entirely on the prevailing construction activities within the site. The impact of noise will also be reduced to almost insignificant levels given the small scale of the development, the proposed locality which is far removed from other land owners as well as the short span of the construction period.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Noise pollution	No	Negative	2	1	4	3	<30 Low
	Yes	Negative	1	1	2	2	<30 Low
Corrective Actions	<ul style="list-style-type: none"> It must be ensured that all vehicles used during construction are appropriately maintained. Working hours must be restricted to daytime only (7am – 6pm). Noise levels should conform to the bylaws. 						

Fire hazards

Onsite storage of fuel and other flammable solvents, during construction, increase the risk of fire. It is anticipated that the uncontrolled fires on site could cause damage to infrastructure and the biophysical environment and impact on the social environment. This impact is considered to be of medium significance. Should the recommended mitigation measures be implemented, the significance of the impact will remain *negative but low in significance*.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Fire hazards	No	Negative	2	2	6	3	(30-60) medium
	Yes	Negative	2	1	4	2	<30 Low
Corrective Actions	<ul style="list-style-type: none"> Areas where flammable substances are kept must have proper warning signs on display (highly flammable, No smoking etc.) to warn personnel on site of risk associated with such areas. No burning of waste or cooking will be allowed on site. Contracting personnel must be well versed in the relevant existing fire and safety management procedures and activities on site. Implement fire hazard sensitive on- and offloading procedures. Designate a site safety official and ensure that personnel are adequately trained regarding fire hazards and procedures. 						

Impact on cultural and heritage resources

No heritage resources were recorded on the site. The potential impact of the proposed project on cultural heritage sites is considered to be low and therefore insignificant.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Cultural and heritage resources	No	Negative	2	1	2	2	<30=Low
	Yes	Negative	1	1	0	1	<30 = Low
Corrective Actions	<ul style="list-style-type: none"> Should there heritage or archaeological artefacts be discovered during construction or operational phase, all works must be stopped at the affected area and SAHRA must be contacted. 						

Indirect Impacts: None

Cumulative Impacts:

Socio-Economic Impact

This phase will also result in a positive socio-economic impact as the demand for equipment, building material and labour.

Equipment and building material should be sourced locally as far as possible. Secondary service provision such as food supply, toilet hire, equipment maintenance etc. would also stimulate the local economy during the construction phase. This is a positive impact of a short duration.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Cultural and heritage resources	No	Positive	3	4	8	5	(>60) = High
Corrective Actions	<ul style="list-style-type: none"> Contractors should by all means practise the localisation matrix while seeking for construction equipment or building materials. For minimal jobs, the appointed contractor should by all means consider the local residents for jobs that do not need any skill transfer. 						

Alternative 2

Environmental Impacts for this alternative during the construction phase will be similar to the impacts of the preferred alternatives.

No go Alternative

Direct Impacts: Should the proposed development not continue, none of the identified impacts would result.
 Indirect Impacts:
 Cumulative Impacts: None identified

IMPACTS ASSOCIATED WITH THE OPERATIONAL PHASE

Alternative 1: Site A

Impacts Associated with the Operational Phase

Direct Impacts:

Improved energy supply

In the short and longer term, the Bloemendal substation will have reliable power supply to meet future demands for the Randwater pump station, the reason being that the proposed project will strengthen the capacity of the substation. This is a *positive impact long term impact*.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Cultural and heritage resources	No	Positive	3	4	8	5	(>60) = High
Corrective Actions	<ul style="list-style-type: none"> Regular maintenance of the facility should be done continuously to ensure uninterrupted supply of energy. 						

Employment creation

The proposed development will have the capacity to produce considerable opportunities of employment mainly during the construction phase. During operation, employment opportunities will arise as a result of the actual maintenance work required to keep the facility running. The significance of this impact is anticipated to be *positive and medium in significance*.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Cultural and heritage resources	No	Positive	3	4	6	3	(30-60) = med
Corrective Actions	<ul style="list-style-type: none"> No mitigation 						

Indirect Impacts: None identified.

Cumulative Impacts: None identified.

Alternative 2: Site B

Impacts Associated with the Operational Phase

Direct Impacts:

Improved energy supply

In the short and longer term, the Bloemendal substation will have reliable power supply to meet future demands for the Randwater pump station, the reason being that the proposed cable will strengthen the network in the area. This is a *positive long term impact*.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Cultural and heritage resources	No	Positive	3	4	8	5	(>60) = High
Corrective Actions	Regular maintenance of the facility should be done continuously to ensure uninterrupted supply of energy.						

Employment creation

The proposed development will have the capacity to produce considerable opportunities of employment mainly during the construction phase. During operation, employment opportunities will arise as a result of the actual maintenance work required to keep the infrastructure running. The significance of this impact is anticipated to be *positive and medium in significance*.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Employment creation	No	Positive	3	4	8	4	>60 = High
	Yes						
Corrective Actions	No mitigation						

Indirect Impacts: None identified

Cumulative Impacts: None identified.

No-go alternative

Direct Impacts: None of the impacts identified for the proposed activity will occur (including positive and negative impacts) if the proposed activity does not proceed.

Indirect Impacts: None identified

Cumulative Impacts: None identified

IMPACTS ASSOCIATED WITH THE DECOMMISSIONING PHASE

At present it is not anticipated that the proposed infrastructure will ever be decommissioned. On-going maintenance and upgrades, where necessary will be carried out. In the unlikely event that decommissioning is necessary it is recommended that the potential impacts identified below are reviewed and a detailed decommissioning strategy and rehabilitation plan is prepared and implemented. **Impacts for decommissioning phase are similar for all three alternatives.**

Impacts Associated with the Decommissioning Phase

Direct Impacts

Waste

The decommissioning of the proposed project will contribute to large amounts of waste material that will be produced. The decommissioning will contribute to a large portion of bare soil being exposed to erosion if not rehabilitated properly. This waste material should be disposed of in an appropriate manner.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Employment creation	No	Negative	3	4	8	4	(30-60) = Medium
	Yes	Negative	3	2	6	3	(30-60) = Medium
Corrective Actions	<ul style="list-style-type: none"> Disposal of waste at a registered waste disposal site. Non-hazardous material should be recycled and utilised in other construction processes. An appropriate rehabilitation plan should be in place. 						

Dust generation

Decommissioning of the facility and other infrastructure may lead to an increased amount of airborne particles in the local atmosphere as the infrastructure is dismantled and transported to the disposal site. The significance of this impact will be of low negative significance.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Employment creation	No	Negative	2	1	4	4	(>30) = Low
	Yes	Negative	2	1	4	3	(>30) = Low

Corrective Actions	Use of dust suppression techniques to reduce the dust.
<p>Indirect Impacts: None Identified.</p> <p>Cumulative Impacts: None identified.</p>	

No-go alternative

Direct Impacts: None of the impacts identified for the proposed activity will occur. If the proposed infrastructure is not to be decommissioned, it will require continuous maintenance and the measures identified for the operational phase must be continued. Efforts for continual improvement must be encouraged.

Indirect Impacts: None identified

Cumulative Impacts: None identified

3. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity and its alternatives 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.

The identified site related impacts include soils and erosion, impacts on fauna and flora, ground and surface water. Most of the site related impacts are low in significance.

Alternative 1

Certain factors have been taken into account when assessing the impact of the proposed activity on the environment

FACTORS	COMMENTS
A transformation of a locality	No transformation of a locality is required.
Any environmental impact on the ecosystems of the locality	The proposed activity is not expected to have any long term impacts on the ecosystems of the locality. Mitigation measures are proposed to protect the surrounding aquatic ecology and water quality though there is no wetland or stream in close vicinity of the proposed site.
Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality;	No reduction of the environmental quality of the locality is expected in the longer term.
Any effect upon a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for	The proposed site contains no known heritage sites.

present or future generations	
Any impact on the habitat of protected fauna (within the meaning of the National Parks and Wildlife Act 1974);	The proposed site is not expected to have an impact on any habitat of protected fauna as it is predominantly agriculture.
Any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air;	No species of animal or plant is expected to be endangered by the proposed activities.
Any long-term effects on the environment	No long term effect on the environment is expected.
Any degradation of the quality of the environment;	Mitigation measures will be employed to ensure no significant degradation of the environment.
Any risk to the safety of the environment	No long term risk to the safety of the environment is expected.
Any pollution of the environment	The proposed activity is not expected to result in long term pollution of the environment. Mitigation measures are proposed to ensure pollution is restricted to short term localised effects.
Any environmental problems associated with the disposal of waste	No long term environmental problems are expected associated with the disposal of waste material.

PLANNING AND DEVELOPMENT PHASE

Impacts associated with the planning and development phase of the proposed activity include the creation of job opportunities for skilled engineers and planning professions. This positive impact will be definite and short term in duration. No significant negative impact has been associated with this phase and the proposed activity.

CONSTRUCTION PHASE

The positive impacts identified for this phase include job creation and a positive economic outlook for the municipality and the country at large, these impacts will be enhanced in order to maximise the benefits. Impacts associated with the construction phase of the proposed activity can be regarded as being of medium significance. The negative impacts include:

- visual impact from the construction which will be short term and low in significance;
- impact on agriculture which will be negative and low in significance
- air pollution during excavation and foundation digging will be a negative short term impact which is low in significance;
- The impact of traffic as a result low in significance and for the duration of the construction phase. With corrective measures in place none of the identified negative impacts are considered to be a fatal flaw.

OPERATIONAL PHASE

No significant negative impact can be associated with the operational phase of the proposed activity; impacts identified included minimal employment creation for maintenance purposes as well as reliable power supply.

DECOMMISSIONING PHASE

No significant impacts have been identified for the decommissioning phase of the proposed activity since decommissioning will not take place for the proposed activity in the foreseeable future. However, if decommissioning were to take place it will have a negative impact due to job losses, soil erosion and waste generation.

Alternative 2

PLANNING AND DEVELOPMENT PHASE

Impacts associated with the planning and development phase of the proposed activity includes the creation of job opportunities for skilled engineers and planning professions. This positive impact will be definite and short term in duration. No significant negative impact has been associated with this phase and the proposed activity as it is short term opportunities.

CONSTRUCTION PHASE

The positive impacts identified for this phase include job creation and a positive economic outlook for the municipality and the country at large, these impacts will be enhanced in order to maximise the benefits. Impacts associated with the construction phase of the proposed activity can be regarded as being of medium significance. The negative impacts include:

- visual impact from the construction activities which will be short term and low in significance;
- air pollution during excavation and foundation digging will be a negative short term impact which is low in significance;
- ecological impact is anticipated to also be rated low in significance given that the proposed site is agricultural fields and no ecological features of significance were noted on and in close proximity to the site.
- the impact of traffic as a result low in significance and for the duration of the construction phase. With corrective measures in place none of the identified negative impacts are considered to be a fatal flaw.

OPERATIONAL PHASE

No significant negative impact can be associated with the operational phase of the proposed activity; impacts identified include high maintenance cost as the site is slightly bigger than Alternative 1. The positive impacts associated with the operational phase include potential job creation during maintenance.

DECOMMISSIONING PHASE

No significant impacts have been identified for the decommissioning phase of the proposed activity since decommissioning will not take place for the proposed activity in the foreseeable future. However, if decommissioning were to take place it will have a negative impact due to job losses and waste, dust generation and soil erosion.

No-go alternative (compulsory)

The no-go alternative was assessed not to be an option given the economic and social benefits of the proposed project which far outweigh other identified impacts. If the no-go alternative is considered none of the identified impacts will be realised.

SECTION E. RECOMMENDATION OF PRACTITIONER

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):

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:

It is recommended that **Alternative 1** be approved. The site is preferred over the alternative 2 for the following reasons:

- The site is relatively smaller, which implies minimal disturbance on the agricultural fields;
- The site is easily accessible from the R42 as its closer and it offers the best alignment for the loop in line;
- The site is slightly distanced from the perennial river i.e. 680m away as compared to Alternative 2 which is 410m.

Environmental Management Programme (EMPr) has been prepared by the consultant and it is hoped that it will serve as the key reference of the EAPs recommendations jointly with Eskom’s policies that are already in place. The EMPr has included measures proposed to mitigate any adverse impacts of the activities and the monitoring. Some of the key recommendation include:

- Recommendations made by the Agricultural Specialist must be adhered to at all times.
- Areas outside of the footprint and reasonable construction access to be marked as no-go areas.
- Implement erosion control measures where applicable.
- Maintenance done on construction vehicles must be done off site.
- Rehabilitate the site in accordance with the EMPr after construction.
- Whilst the proposed project specifically is not anticipated to add significantly to the current ambient noise levels it is recommended that noise be reduced at all times
- It is recommended that should archaeological artefacts be discovered during excavations, all works must be stopped at the affected site and an archaeologist be contacted for further investigation.
- Ensure that the site is not within the 1:100 year flood line and further ensure strict compliance with the requirements of the National Water Act.
- The attached construction EMPr must be implemented and adhered to in order to minimise all potential negative impacts and to enhance positive impacts where applicable.

Is an EMP attached?	YES	NO
	✓	

The EMPr has been attached as Appendix E.

SECTION F: APPENDIXES

The following appendixes must be attached as appropriate:

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Comments and responses report

Appendix E: Environmental Management Plan (EMPr)

Appendix F: Public Participation Information

Appendix F1: Public Participation Report

Appendix F2: Background Information Document

Appendix F3: Site Notice

Appendix F4: Proof of Site Notice

Appendix F5: Proof of Newspaper Advertisement

Appendix F6: Notification Letters

Appendix F7: Notification Letters and Proof of Delivery

Appendix F8: Stakeholders and I&AP's Database

Appendix G: Specialist Report

Appendix G1: Agricultural Study

Appendix H: Correspondence To and From DEA

Appendix I: Company Profile and CV Team