

Makoya Supply Chain Holdings (Pty) Ltd

DRAFT BASIC ASSESSMENT REPORT FOR BLINKPAN SIDING AIR EMISSIONS, MPUMALANGA PROVINCE

Submitted to:

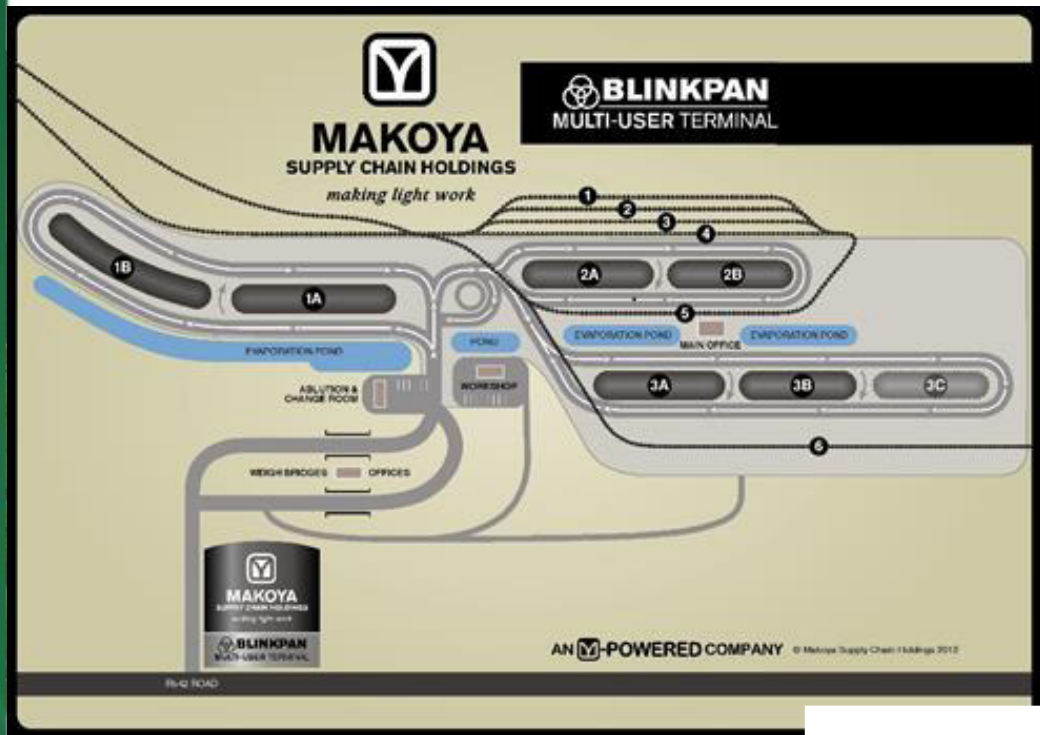
Mpumalanga Department of Economic Development, Environment and Tourism

Attention: Ms Okwethu-Kuhle Fakude (Case Officer)

Email: oqfakude@mpg.gov.za

17/2/3N-315

NDM/AEL/MP331/13/04



REPORT

Report Number:

NEMA BA-REP-024/13_14

Revision:

AA/ April 2014

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Makoya Supply Chain Holdings (Pty) Ltd

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ENVAAS

EXECUTIVE SUMMARY

1. Introduction and Project Description

Environmental Assurance was appointed by Makoya Supply Chain Holdings (Pty) Ltd to apply for Environmental Authorisation for the proposed increase in coal stored at the Blinkpan Railway Siding, located in Blinkpan, Mpumalanga Province. The application is being made in terms of the National Environmental Management Act, Act No. 107 of 1998 (as amended) [NEMA] and the Environmental Impact Assessment Regulations (2010) (as amended and corrected) [EIA Regulations].

The Competent Authority is the Mpumalanga Department of Economic Development, Environment and Tourism and the application is required since the proposed development triggers activities which are listed in terms of the NEMA EIA Regulations.

Environmental Assurance (Pty) Ltd has been appointed by Makoya Supply Chain Holdings (Pty) Ltd to complete the Basic Assessment Process for the following development proposal:

Up to now Blinkpan has not been storing coal in quantities of more than 100 000 tonnes at a time, but does have the capacity to store and handle more than 100 000 tonnes. It is the intention of the applicant to increase the amount of coal stored and handled to above 100 000 tonnes. In terms of Section 21 of the National Environmental Management: Air Quality Act (Act. No. 39 of 2004) [NEM: AQA], Regulation 14, Category 5 (1) Subcategory 5.1: Storage and Handling of ore and coal, an atmospheric emissions license need to be applied for, for storage and handling of more than 100 000 tonnes of coal. In turn triggering the listed activity in terms of NEMA and the EIA Regulations.

2. Legislative Requirements

NATIONAL ENVIRONMENTAL MANAGEMENT ACT (NO. 107 OF 1998) (AS AMENDED) AND THE ENVIRONMENTAL IMPACT ASSESSMENT (EIA) REGULATIONS OF 2010:

The National Environmental Management Act, Act 107 of 1998 (as amended) [NEMA] strives to regulate national environmental management policy and is focussed primarily on co-operative governance, public participation and sustainable development. NEMA makes provisions for co-operative environmental governance by establishing principles for decision making on matters affecting the environment, institutions that will promote co-operative governance and procedures for co-ordinating environmental functions exercised by Organs of State and to provide for matters connected therewith.

The proposed construction and operational activities associated with the technical training college development falls within the ambit of the scheduled activities listed in Government Notice (GN) No. 544 and therefore requires compliance with the EIA Regulations of 2010, promulgated in terms of the National Environmental Management Act, Act 107 of 1998 (as amended). The proposed activity requires a Basic Assessment process as listed activity 2 under Government Notice No R. 544 are triggered.

NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT (ACT NO. 39 OF 2004):

In terms of Section 21 of the National Environmental Management Act: Air Quality Act (Act. No. 39 of 2004) [NEM: AQA), Regulation 14, Category 5 (1) Subcategory 5.1: Storage and handling of ore and coal, an atmospheric emissions license need to be applied for, for storage and handling of more than 100 000 tonnes of coal.

OTHER LEGISLATION

The requirements of the following legislation have also been considered in this Application for Environmental Authorisation:

- Constitution of South Africa (Act No. 108 of 1996);
- National Environmental Management: Waste Management Act (Act No. 59 of 2008);
- National Environmental Management: Biodiversity Act (Act No.10 of 2004);
- National Veld and Forest Fire Act (Act No. 101 of 1998);
- National Water Act (Act No. 36 of 1998) as amended (NWA);
- Animals Protection Act (Act No. 71 of 1962);
- Societies for the Prevention of cruelty to Animals Act (Act No. 169 of 1993);
- National Heritage Resource Act (Act No. 25 of 1999);
- Conservation of Agricultural Resources Act (Act 43 of 1983);
- Promotion of Access to Information Act (Act No. 2 of 2000)
- Occupational Health and Safety Act (Act No. 85 of 1993); and
- Provincial and local bylaws, policies and frameworks.

3. Receiving Environment

The Blinkpan Railway Siding is located on the remaining extent of portion 12 as well as on portions 13, 27, 29, 30 and 31 of the Farm Koomfontein 27 IS. It is located approximately 30 km south-east of Emalahleni, Steve Tshwete Local Municipality, Nkangala District, Mpumalanga Province and forms part of the quaternary catchment B11B which falls within the Olifants primary water management area. The site is in close proximity to Koomfontein and Goedehoop Mines as well as the Komati Power Station.

4. Alternatives

Alternatives are defined in the NEMA EIA Regulations (2010) as “*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; and (e) the operational aspects of the activity and (f) the option of not implementing the activity*”.

For the purpose of this application, the following Alternatives were considered (with Alternative 1 (the preferred alternative) assessed):

- **Location / Property Alternatives:** Existing Location (Alternative 1). No site alternatives were identified or assessed as the infrastructure and the capacity for the activity already exists;
- **Design / Layout Alternatives:** Existing Layout (Alternative 1). No layout alternatives were identified or assessed as the infrastructure and the capacity for the activity already exists;

- **Technology Alternatives:** Existing Technology (Alternative 1). No technology alternatives have been identified or assessed as the infrastructure and capacity for the activity already exists;
- **Other alternatives (e.g. scheduling, demand, input, scale and design alternatives):** Existing longitudinal stockpile design vs. circular pile layout;
- **No-Go Alternative:** Compulsory.

TABLE 1: Summary of the qualitative and quantitative advantages and disadvantages of the alternatives

ALTERNATIVE	ADVANTAGES	DISADVANTAGES
Property Alternative 1 (Preferred and only alternative assessed)	<ul style="list-style-type: none"> ✓ The site is existing and all the infrastructure and facilities are in place already; and ✓ The location is ideal due to the close proximity to the railway line. 	<ul style="list-style-type: none"> ◇ There are no disadvantages to the current location.
Other alternatives (e.g. scheduling, demand, input, scale and design alternatives): Alternative 1 Existing longitudinal stockpile design (preferred alternative)	<ul style="list-style-type: none"> ✓ No additional cost involved as the site is already adjusted to longitudinal stockpiles; ✓ Lower rate of potential spontaneous combustion; and ✓ The pile lengths can be extended easily and are only limited by the site size. Therefore expansion of the yard is uncomplicated. 	<ul style="list-style-type: none"> ◇ Longer conveyor belts; and ◇ Lower storage area.
Other alternatives (e.g. scheduling, demand, input, scale and design alternatives): Alternative 2 Circular pile layout	<ul style="list-style-type: none"> ✓ Shorter conveyor belts; and ✓ Higher storage area. 	<ul style="list-style-type: none"> ◇ An additional cost would be involved to adjust the existing site to accommodate circular pile layout of stockpiles; ◇ Higher rate of potential spontaneous combustion; and ◇ Difficult to expand storage capacity;

5. Public Participation

The Public Participation Process (PPP) undertaken for the proposed development is in accordance with the requirements of Regulations 54 – 57 of the Environmental Impact Assessment Regulations (2010) of NEMA and it forms an integral part of the Basic Assessment process.

The PPP tasks conducted to date include:

- Identification of key interested and affected parties (affected and adjacent landowners) and other stakeholders (Organs of State and other parties);
- Formal notification of the application to interested and affected parties (including all affected and adjacent landowners) and other stakeholders on 10 April 2014, by means of publications in two different newspapers;

site notices erected at visible locations close to the site; and notifications sent directly to identified I&APs and other stakeholders by e-mail / fax / letter; and

- The Draft Basic Assessment Report (DBAR) and Environmental Management Programme (EMPr) are released to the public and all relevant Organs of State and authorities for review and comment for 40 calendar days (10 April 2014 to 26 May 2014).

All I&AP registrations and comments received is formerly recorded in the Comments and Responses Report and will be distributed with the Final Basic Assessment Reports.

4. Environmental Impact Statement

The following key issues and potential impacts (direct and cumulative), was identified:

- Soil degradation;
- Ground water pollution and depletion;
- Surface water pollution and alteration of hydraulic characteristics of the area;
- Potential for spreading of alien invasive plant species;
- Loss of fauna and flora;
- Visual impacts;
- Noise impacts;
- Additional waste generation;
- Increased traffic on adjacent roads and associated impacts;
- Health and Safety Impacts;
- Decrease in air quality; and
- Increased availability of electricity (Positive);

The most significant negative impact is decreased air quality of the surrounding area, as a result of the additional coal to be stored and transferred. This impact as well as all other impacts identified above can however be mitigated to acceptable levels, resulting in a low overall negative impact arising from the proposed activity.

The increased availability of electricity to society as a result of the proposed activity, is a positive impact of high significance.




The alternative to the proposed longitudinal stockpiles, circular layout piles, have been assessed and found feasible, however compared to the longitudinal stockpile design, it is not the recommended option. The circular stockpile design will have a negative impact of higher significance than the proposed longitudinal stockpile design.

Overall it can be stated that the proposed development will have negative impacts on the environment. However the significance of the positive impact of the proposed development outweighs the negative impacts, provided that the mitigation measures detailed in the EMPr are implemented and strictly monitored.

5. Conclusion and Recommendations

A variety of mitigation measures have been identified in the EMPr that will serve to mitigate the scale, intensity, duration or significance of the potential negative impacts identified to be applied during the operational and decommissioning phases of the project. The proposed mitigatory measures, if implemented, will reduce the significance

of the majority of the identified impacts. It is therefore the recommendation of Environmental Assurance, based on the assessment of the current available information, that the Draft Basic Assessment Report for the proposed development should be accepted by the Competent Authority. This authorisation should be in line with sensitive planning, design and good environmental management. The negative impacts of the proposed activity can be mitigated to acceptable levels.

	Originated By:	Reviewed By:	Approved By:
Name:	Louisa Marais	Retha Weir	Judith Mlanda
Designation:	Environmental Consultant	Quality Reviewer	Authorisations Manager
Signature:			
Date:	24/03/2014	27/03/2014	5/04/2014

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. 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.

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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.

SECTION A: ACTIVITY INFORMATION

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

YES	NO
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 If YES, please complete the form entitled "Details of specialist and declaration of interest" for the specialist appointed and attach in Appendix I.

1. PROJECT DESCRIPTION

a) Describe the project associated with the listed activities applied for

Blinkpan Railway Siding is operated by Makoya Supply Chain Holdings (Pty) Ltd and is located approximately 30 km south-east of Emalahleni, Mpumalanga Province. The site is in close proximity to Koorfontein and Goedehoop Mines.

The site serves as a transfer station for final coal product, therefore no mining activities are undertaken here: Blinkpan Siding's full operations encompasses loading wagons with coal from the surrounding mines for transportation by rail to Eskom's Power Stations, the Richards Bay Coal Export Terminal as well as other ports and coal consumers. The siding receives final product for distribution to Majuba and Camden Power Stations respectively.

Up to now Blinkpan has not been storing coal in quantities of more than 100 000 tonnes at a time, but does have the capacity to store and handle more than 100 000 tonnes. It is the intention of the applicant to increase the amount of coal stored and handled to above 100 000 tonnes. In terms of Section 21 of the National Environmental Management: Air Quality Act (Act. No. 39 of 2004) [NEM: AQA), Regulation 14, Category 5 (1) Subcategory 5.1: Storage and Handling of ore and coal, an atmospheric emissions license need to be applied for, for storage and handling of more than 100 000 tonnes of coal. In turn triggering the listed activity in terms of NEMA and the EIA Regulations, 2010.

b) Provide a detailed description of the listed activities associated with the project as applied for

Listed activity as described in GN R.544, 545 and 546	Description of project activity
<p>GN R.544 Item 2: The construction of facilities or infrastructure for the storage of coal or ore that requires an atmospheric emissions license in terms of the National Environmental Management: Air Quality Act (Act No. 39 of 2004)</p>	<p>Blinkpan currently stores less than 100 000 tonnes of coal, but has the capacity to store more than 100 000 tonnes. It is the intention of the applicant to increase the amount of coal stored to above 100 000 tonnes. Therefore an atmospheric emissions license in terms of Section 21 of the NEM: AQA is required, triggering the listed activity in terms of NEMA and the EIA Regulations, 2010.</p>

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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.

a) Site alternatives

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)
Existing Blinkpan Siding	26° 06' 08.36" S	29° 24' 09.58"
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
No site alternatives were identified or assessed as the infrastructure and the capacity for the activity already exists		
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)
No site alternatives were identified or assessed as the infrastructure and the capacity for the activity already exists		

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In the case of linear activities:

Alternative:	Latitude (S):	Longitude (E):
Alternative S1 (preferred)		
• 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.

In the case of an area being under application, please provide the co-ordinates of the corners of the site as indicated on the lay-out map provided in Appendix A.

b) Lay-out alternatives

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)
Existing Blinkpan Siding	26° 06' 08.36" S	29° 24' 09.58"
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
No lay-out alternatives have been identified or assessed as the infrastructure and capacity for the activity already exists		
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)
No lay-out alternatives have been identified or assessed as the infrastructure and capacity for the activity already exists		

c) Technology alternatives

No technology alternatives have been identified or assessed as the infrastructure and capacity for the activity already exists

Alternative 1 (preferred alternative)
Alternative 2
Alternative 3

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d) Other alternatives (e.g. scheduling, demand, input, scale and design alternatives)

Alternatives for stockpiling design have been identified.

Alternative 1 (preferred alternative)
The preferred alternative for the proposed additional stockpile design is the same as the current stockpile design of the existing stockpiles, longitudinal stockpiles.
Alternative 2
The alternative design for stockpiles that have been considered is circular pile layout. Though there are many advantages associated with circular pile layouts e.g. shorter conveyor belt lines and higher storage volume, the site is already using longitudinal stockpiles and all the available equipment are designed for longitudinal stockpiles.
A drawback of a circular stockpile system is that expansion of the yard is difficult, whereas a longitudinal stockyard can be altered to increased storage capacity as the pile lengths can be extended easily and are only limited by the site size.
Therefore although it is a feasible alternative, it is not as efficient and cost-effective for the site-specific conditions at this point in time.
Alternative 3
No other alternatives have been found to be feasible.

e) No-go alternative

Should the activity not commence the status-quo would be maintained. Therefore no additional impacts will emanate from the activity, including negative impacts on the environment but also any socio-economic benefits that might be a result of the proposed activity.
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Paragraphs 3 – 13 below should be completed for each alternative.

3. PHYSICAL SIZE OF THE ACTIVITY

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

Alternative:

- Alternative A1¹ (preferred activity alternative)
- Alternative A2 (if any)
- Alternative A3 (if any)

Size of the activity:

1.36km ²
m ²
m ²

or, for linear activities:

Alternative:

- Alternative A1 (preferred activity alternative)
- Alternative A2 (if any)
- Alternative A3 (if any)

Length of the activity:

m
m
m

¹ "Alternative A.." refer to activity, process, technology or other alternatives.

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

Alternative:

Alternative A1 (preferred activity alternative)
Alternative A2 (if any)
Alternative A3 (if any)

Size of the site/servitude:

Approximately 493 Ha
m ²
m ²

4. SITE ACCESS

Does ready access to the site exist?

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

YES	NO
	m

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.

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
The zoning of the property is 'industrial' and the land use rights include the storing of coal.			
2. Will the activity be in line with the following?			
(a) Provincial Spatial Development Framework (PSDF)	YES	NO	Please explain
The proposed activity is in line with economic development objectives for the area.			
(b) Urban edge / Edge of Built environment for the area	YES	NO	Please explain
The site is zoned for industrial use and is already built. It is uncertain whether the site occurs within the urban edge or not and if an urban edge exists for the specific area. The area does however occur within a built up area.			
(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
<p>The approval of this application will be in line with the IDP (IDP – 2013-2014 financial year and Final draft 2014-2015 financial year) and SDF of Steve Tshwete Local Municipality as the proposed activity will contribute to economic development and service delivery in the local municipality, which is priorities for the municipality. The activity will not compromise the integrity of the existing approved and credible municipal IDP and SDF.</p> <p>The activity is in line with the local municipality's strategic objectives i.e. "...To ensure provision of affordable and sustainable basic services by upgrading the existing, while providing new infrastructure..." and "...To provide efficient and sustainable electricity supply to the consumers throughout the municipal area..." (Extracted from the Final IDP of 2013-2014 financial year).</p>			
(d) Approved Structure Plan of the Municipality	YES	NO	Please explain
The land use of the activity will not differ from the existing land use.			
(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
<p>The study area is located within the Olifants River Catchment Area and therefore within the boundaries of the Environmental Management Framework for the Olifants and Letaba Rivers Catchment Areas. The only significant issue mentioned by the EMF that is relevant to the proposed activity is the following:</p> <p>The EMF identifies the area in which the study area occurs, as the "Highveld Priority Area" in terms of air quality. The Highveld Priority Air Quality Management Plan was developed by the Department of Environmental Affairs. The proposed activity will increase air pollution, but should the mitigation measures as prescribed in the EMPr be implemented, the proposed activity will be in line with the Air Quality Management Plan.</p>			

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(f) Any other Plans (e.g. Guide Plan)	YES	NO	Please explain
There are currently no other plans and or guidelines in terms of development within the local municipality.			
3. 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
According to the current IDP of the municipality, the Millennium Development Goal states that 97% of households must have universal access to electricity by 2025. Access to electricity will alleviate poverty as the use of electricity supports lighting and cooking facilities. The 2011 census figures depicted that there were 64971 households in the municipal area of which 91.08% households had access to electricity. The proposed activity will assist to provide the resources needed to reach the target of 97% before 2025.			
4. 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
The increased provision of coal to local as well as national power stations will increase the availability of electricity needed by local, regional as well as national communities.			
5. 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
The siding is currently operational with all service infrastructure such as water and electricity in place and can handle the additional storage of the planned coal.			
6. 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
The proposed activity is not infrastructure development, only increase in productivity of the existing activity.			
7. Is this project part of a national programme to address an issue of national concern or importance?	YES	NO	Please explain
The proposed activity is not formally part of a national programme to address the increasing demand of energy, however it will certainly contribute to the availability of energy all over South Africa and abroad.			

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8. 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 location is ideal as the infrastructure is already in place and the study area is surrounded by mining and other industrial activities. The proposed activity will add to the air pollution in the area, with the increased amount of coal stored at the siding. However, when proper mitigation measures as explained in the attached specialist study and Environmental Management Programme (EMPr) are implemented the added air pollution can be mitigated to acceptable levels.			
9. Is the development the best practicable environmental option for this land/site?	YES	NO	Please explain
The infrastructure is already developed, and therefore the only added impact will be the increased amount of air pollution, however as mentioned above, this can be mitigated to acceptable levels.			
10. Will the benefits of the proposed land use/development outweigh the negative impacts of it?	YES	NO	Please explain
The environmental impacts can be mitigated to acceptable levels and is mostly of low significance after mitigation. The proposed activity will benefit the local, regional and national communities as well as economic development.			
11. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?	YES	NO	Please explain
The infrastructure is already developed, and therefore the only added impact will be the increased amount of air pollution, however as mentioned above, this can be mitigated to acceptable levels.			
12. Will any person's rights be negatively affected by the proposed activity/ies?	YES	NO	Please explain
With proper mitigation of the impacts arising from the proposed activity, no person's rights will be negatively affected.			
13. Will the proposed activity/ies compromise the "urban edge" as defined by the local municipality?	YES	NO	Please explain
The infrastructure where the proposed activity will take place is already developed.			
14. Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPS)?	YES	NO	Please explain
Energy provision			
15. What will the benefits be to society in general and to the local communities?	Please explain		
The benefit to society in general will be improvement on availability of electricity, uplifting poor communities and increase economic development. The benefits to society in general will also be applicable to the local communities.			
16. Any other need and desirability considerations related to the proposed activity?	Please explain		
- NO			

BASIC ASSESSMENT REPORT

17. How does the project fit into the National Development Plan for 2030?	Please explain
<p>Improved electricity provision. The Millennium Development Goal states that 97% of households must have universal access to electricity by 2025. Access to electricity will alleviate poverty as the use of electricity supports lighting and cooking facilities. The 2011 census figures depicted that there were 64971 households in the municipal area of which 91.08% households had access to electricity. The proposed activity will assist to provide the resources needed to reach the target of 97% before 2025.</p>	

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	Applicability to the project	Administering authority	Date
National Environmental Management Act (Act No. 107 of 1998) as amended and associated guidelines (NEMA)	The proposed operational activities i.e. storing and handling more than 100 000 tonnes of coal, falls within the ambit of the scheduled activity no. 2 listed in the EIA Regulations, 2010 published in Government Notice (GN) No. 544 in terms of Section 24 of NEMA.	Mpumalanga Department of Economic Development, Environment and Tourism	1998
EIA Regulations, 2010 as amended and corrected GN. 543 and 544 and associated guidelines.	The proposed operational activities i.e. storing and handling more than 100 000 tonnes of coal, falls within the ambit of the scheduled activity no. 2 listed in the EIA Regulations, 2010 published in Government Notice (GN) No. 544 in terms of Section 24 of NEMA.	Mpumalanga Department of Economic Development, Environment and Tourism	2010
National Environmental Management: Air Quality Act (Act No. 39 of 2004)	In terms of Section 21 of the National Environmental Management Act: Air Quality Act (Act. No. 39 of 2004) [NEM: AQA), Regulation 14, Category 5 (1) Subcategory 5.1: Storage and handling of ore and coal, an atmospheric emissions license need to be applied for, for storage and handling of more than 100 000 tonnes of coal.	Nkangala District Municipality	2004
The National Environmental Management Act: Waste Act (Act No. of 59 of 2008)	This act regulates waste management in order to protect health and the	The National Department of Environmental	2008

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	<p>environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development. It also provides for institutional arrangements and planning matters; national norms and standards for regulating the management of waste; and specific waste management measures. It provides for the licencing and control of waste management activities, the remediation of contaminated land a national waste information system. It also deals with the issue of compliance and enforcement.</p> <p>The proposed activity will result in an increased amount of waste being produced and therefore need to adhere to this act in implementing the mitigation measures listed in this report and the EMPr for the activity to ensure that the objectives of the act are met.</p>	<p>Affairs Mpumalanga Department of Economic Development, Environment and Tourism</p>	
<p>National Environmental Management Act: Biodiversity Act (Act No. 10 of 2004) as amended (NEMBA)</p>	<p>The Biodiversity act provides for the management and protection of the country's biodiversity within the framework established by NEMA. Among other objectives, it provides for the protection of species and ecosystems in need of protection and sustainable use of indigenous biological resources. Also, to combat and control weeds as well as the elimination of invader plant species.</p> <p>During the operational and decommissioning phases of the proposed activity, the prevention of alien invasive species spreading into the surrounding areas as well as</p>	<p>Mpumalanga Department of Economic Development, Environment and Tourism</p>	<p>2004</p>

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	the eradication thereof should be a priority. Mitigation measures in this report and the EMPr with regards to fauna and flora, should be implemented in order to adhere to this act		
National Veld and Forest Fire Act (Act No. 101 of 1998)	The National Veld and Forest Fire Act prescribes actions to prevent veld and forest fires. Mitigation measures in this report and the EMPr with regards to preventing fires, should be implemented at all times during the operational and decommissioning activities, in order to prevent veld fires.	Department of Agriculture, Forestry and Fisheries	
National Water Act (Act No. 36 of 1998) as amended (NWA)	The purpose of the act is to ensure that the nation's water resources are protected, used, developed, conserved, managed and controlled in ways which take into account several factors. The factors specifically applicable to the proposed activity are listed below: <ul style="list-style-type: none"> - Promoting the efficient, sustainable and beneficial use of water in the public interest; - Facilitating social and economic development; - Protecting aquatic and associated ecosystems and their biological diversity; and - Reducing and preventing pollution and degradation of water resources. 	The National Department of Water Affairs	1998
Animals Protection Act (Act No. 71 of 1962)	The act consolidates and amends the laws relating to the prevention of cruelty to animals. It is possible that the proposed activity could have an effect on the surrounding biodiversity including fauna and adherence to this act is therefore crucial. Mitigation	The Department of Agriculture, Forestry and Fisheries	1962

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	measures in this report and the EMPr with regard to fauna, should be implemented in order to adhere to this act		
Societies for the Prevention of cruelty to Animals Act (Act No. 169 of 1993)	It is possible that the proposed activity could have an effect on the surrounding biodiversity including fauna and adherence to this act is therefore crucial. Mitigation measures in this report and the EMPr with regard to fauna, should be implemented in order to adhere to this act.	The Department of Agriculture, Forestry and Fisheries	1993
Conservation of Agricultural Resources Act (Act No. 43 of 1983)	The act provides for the regulation of control over the utilisation of the natural agricultural resources of the Republic in order to promote the conservation of soil, water sources and vegetation (including wetlands). The mitigation measures in this report and the EMPr should be implemented in order to adhere to this act.	The Department of Agriculture, Forestry and Fisheries	1983
Promotion of Access to Information Act (Act No. 2 of 2000)	The purpose of the Promotion of Access to Information Act is to give effect to the constitutional right of access to any information held by the state, as well as information held by another person that is required for the exercise or protection of any right. The motivation for giving effect of the right to access to information is to foster a culture of transparency and accountability both in public and private bodies and to promote a society in which the people of South Africa have effective access to information to enable them to more fully exercise and protect all their rights. Stakeholders and Interested and Affected Parties affected by the proposed development,	The National Department of Justice and Constitutional Development	2000

BASIC ASSESSMENT REPORT

	therefore have a right to access all documentation required by the competent authority to make an informed decision. The affected persons also have the right to comment and object on decisions that affects them.		
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12. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

a) Solid waste management

No construction to take place, therefore no construction waste will be produced

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

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

YES	NO
m ³	

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

-

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

-

Will the activity produce solid waste during its operational phase?

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

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

YES	NO
m ³	

The activity being applied for is additional coal stockpiles at an existing site therefore no additional solid waste will be generated beyond what is currently produced at the site.

If the solid waste will be disposed of into a municipal waste stream, indicate which registered landfill site will be used.

-

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

--

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 NEM:WA?

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 NEM:WA must also be submitted with this application.

YES	NO
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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 NEM:WA must also be submitted with this application.

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?

m ³	
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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:

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:

Sources of atmospheric emissions at the Blinkpan Coal Siding include:

1. Wind erosion

Significant emissions arise from the mechanical disturbance of granular material from open areas and storage stockpiles.

2. Fugitive dust emissions from materials handling operations

Materials handling operations associated with the activities at the Blinkpan coal siding include the transfer of material by means of tipping, loading and off-loading. Fine particulates are most readily disaggregated and released to the atmosphere during the material transfer process, as a result of exposure to strong winds.

The quantity of dust generated from the material transfer points for Blinkpan activities was based on the throughput of material provided (refer to Table 1 below). Emissions are given for the current tonnages handled at the facility (approximately 2.5 million tons per annum) as well as the emissions for the maximum anticipated capacity of the facility (approximately 6 million tons per annum).

The PM_{2.5} and PM₁₀ fraction of the TSP was assumed to be 5.3% and 35% respectively. An average wind speed of 3.8m/s was used based on meteorological data for the period of 2010 to 2012.

Table 1: Average throughput of material due to materials handling facilities

Activities at each stockpile (1A, 1B, 2A, 2B, 3A, 3B)	Current capacity per stockpile (tph)	Maximum capacity per stockpile (tph)
Offloading of coal from truck	49	114
Loading of coal from stockpile	49	114
Offloading of coal to rail	49	114
Stockpiling	49	114

3. Vehicle entrained dust from roads

In the absence of site specific silt data, the specialist made use of US EPA default mean silt content of 8.4%. The throughput of coal was used to calculate the emissions from this fugitive source for the movement of material onsite. Emissions are given for the current tonnages transported to the facility (approximately 2,5 million tons per annum) as well as the emissions for the maximum anticipated capacity for the facility (approximately 6 million tonnes per annum). These fugitive dust sources were modelled as unmitigated and mitigated activities where 75% control efficiency was assumed through the use of water suppression.

Emissions calculated for various source types are given in Table 2 (2012) below and Table 3 (maximum). For Blinkpan operations, emissions due to vehicle entrainment represent the largest source of particulate emissions.

Table 2: Calculated particulate emissions for the Blinkpan current operations

Description	Emissions (TPA)		
	TSP	PM ₁₀	PM _{2.5}
Unmitigated Operations			
Materials Handling	4.14	1.96	0.30
Vehicle entrainment	838.56	322.50	32.25
Wind Erosion	99.91	43.96	20.11
<i>Total</i>	942.62	284.95	44.31
Mitigated Operations ^(a)			
Materials Handling	4.14	1.96	0.30

Table 3: Calculated particulate emissions for the Blinkpan maximum capacity operations

Description	Emissions (TPA)		
	TSP	PM ₁₀	PM _{2.5}
Unmitigated Operations			
Materials Handling	9.69	4.58	0.69
Vehicle entrainment	1962.88	559.51	55.95
Wind Erosion	99.91	43.96	20.11
<i>Total</i>	2072.48	608.05	76.75
Mitigated Operations ^(a)			
Materials Handling	9.69	4.58	0.69
Vehicle entrainment	490.72	139.88	13.99
Wind Erosion	99.91	43.96	20.11
<i>Total</i>	600.32	188.42	34.79

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

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:

General operations of the coal transfer operations are generating noise and these noise levels should not increase if the proposed activity is approved. The Occupational Health and Safety Act and regulations need to be implemented to avoid noise related impacts on workers at the transfer station itself.

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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 only usage of water associated with the proposed activity will be dust suppression and the water thereof will be sourced from the Pollution control dams on site.)	The activity will not use water
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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 authorisation (general authorisation or water use license) from the Department of Water Affairs?

If YES, please provide proof that the application has been submitted to the Department of Water Affairs. **REFER TO ANNEXURE J ATTACHED FOR PROOF OF PAYMENT FOR LICENSE APPLICATION**

litres	
YES	NO

14. ENERGY EFFICIENCY

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

The activity will not use any additional electricity, however the siding itself takes energy efficiency into account by the use of energy efficient devices e.g. energy saving light bulbs for lighting including spotlights.

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

No alternative energy sources have been considered as the infrastructure is already in place and operational.

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

Section B 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
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If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed and attach it in Appendix I. All specialist reports must be contained in Appendix D.

Property description/physical address:

Province	Mpumalanga
District Municipality	Nkangala District Municipality
Local Municipality	Emalahleni Local Municipality
Ward Number(s)	6
Farm name and number	Koornfontein 27 IS
Portion number	Remaining Extent of Portion 12, Portion 13, 27, 29, 30 and 31
SG Code	TOIS00000000002700012; TOIS00000000002700013; TOIS00000000002700027; TOIS00000000002700029; TOIS00000000002700030; TOIS00000000002700031

Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application including the same information as indicated above.

Current land-use zoning as per local municipality IDP/records:

Industrial

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
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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
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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
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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
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2. LOCATION IN LANDSCAPE

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

2.1 Ridgeline <input type="checkbox"/>	2.4 Closed valley <input type="checkbox"/>	2.7 Undulating plain / low hills <input type="checkbox"/>
2.2 Plateau <input type="checkbox"/>	2.5 Open valley <input type="checkbox"/>	2.8 Dune <input type="checkbox"/>
2.3 Side slope of hill/mountain <input type="checkbox"/>	2.6 Plain <input checked="" type="checkbox"/>	2.9 Seafront <input type="checkbox"/>

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

	Alternative S1:		Alternative S2 (if any):		Alternative S3 (if any):	
	YES	NO	YES	NO	YES	NO
Shallow water table (less than 1.5m deep)	YES	NO	YES	NO	YES	NO
Dolomite, sinkhole or doline areas	YES	NO	YES	NO	YES	NO
Seasonally wet soils (often close to water bodies)	YES	NO	YES	NO	YES	NO
Unstable rocky slopes or steep slopes with loose soil	YES	NO	YES	NO	YES	NO
Dispersive soils (soils that dissolve in water)	YES	NO	YES	NO	YES	NO
Soils with high clay content (clay fraction more than 40%)	YES	NO	YES	NO	YES	NO
Any other unstable soil or geological feature	YES	NO	YES	NO	YES	NO
An area sensitive to erosion	YES	NO	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.

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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 in good condition ^E	Natural veld with scattered aliens ^E	Natural veld with heavy alien infestation ^E	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. 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.

The stream located to the north of the study area falls within the perennial Koringspruit catchment. This catchment is a National Freshwater Ecosystem Priority Area (NFEPA) recognised wetlands and river. These freshwater ecosystems adjacent to the study area are considered to be seriously modified. It completely lacks functioning that is vital for it to persist.

6. LAND USE CHARACTER OF SURROUNDING AREA

Indicate land uses and/or prominent features that 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:

Natural area	Dam or reservoir	Polo fields
Low density residential	Hospital/medical centre	Filling station ^H
Medium density residential	School	Landfill or waste treatment site
High density residential	Tertiary education facility	Plantation
Informal residential ^A	Church	Agriculture
Retail commercial & warehousing	Old age home	River, stream or wetland

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Light industrial	Sewage treatment plant ^A	Nature conservation area
Medium industrial ^{AN}	Train station or shunting yard ^N	Mountain, koppie or ridge
Heavy industrial ^{AN}	Railway line ^N	Museum
Power station	Major road (4 lanes or more) ^N	Historical building
Office/consulting room	Airport ^N	Protected Area
Military or police base/station/compound	Harbour	Graveyard
Spoil heap or slimes dam ^A	Sport facilities	Archaeological site
Quarry, sand or borrow pit	Golf course	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?

The only way in which the railway line may be impacted on is the increased frequency of coal transported per rail, which may have a slight impact on maintenance of the railway line. The railway line will also not have an impact on the proposed activity.

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:

The study area of the proposed activity is located on land zoned for industrial uses, therefore surrounding industrial land use will not have an impact on the proposed activity and the proposed activity will not have an impact on surrounding industrial land use as the land uses are aligned.

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:

-

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

National Freshwater Ecosystem Priority Area (NFEPA)	YES	NO
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.

7. 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 paleontological sites, on or close (within 20m) to the site? If YES, explain:	YES	NO
	Uncertain	
-		

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:

-

Will any building or structure older than 60 years be affected in any way? Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)? If YES, please provide proof that this permit application has been submitted to SAHRA or the relevant provincial authority.	YES	NO
	YES	NO

8. 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:

Out of the 107069 economically active people in the population in Steve Tshwete, 21 101 are unemployed. The unemployment rate in Steve Tshwete Local Municipality has dropped from 35.4% in 2001 to 19.7% in 2011. Youth unemployment remains a major challenge both provincial and for Steve Tshwete. The limited number of the population with tertiary education might be the major causes of youth unemployment as they cannot be absorbed into the labour market.

Economic profile of local municipality:

The following was extracted directly from the Steve Tshwete Local Municipality IDP 2014-2015 Draft.

“...Steve Tshwete can be regarded as one of the commercial hubs in Mpumalanga with the higher household income compared to other municipalities. Its local economy is one of the largest economies in the district context and is dominated by the mining sector, manufacturing,

Gross Domestic Product
Steve Tshwete’s economy and contribution towards the provincial Growth Domestic Product (GDP) continues to grow significantly. According to the 2011 census the Steve Tshwete’s economy contributes about 14.7% towards the Mpumalanga Economy with an estimated growth of about 4% from 2011 until 2016.

Economic sectors performance

Manufacturing, mining and finance are the main drivers of the municipal economy in Steve Tshwete.

The Steve Tshwete Local municipality has experience tremendous growth in the past years and has become highly urbanised with areas of decentralised industries and mining regions. It is at the core of the economic activity of the Nkangala District Municipality. According to Stats SA 2011, leading sectors in terms of percentage (%) contribution to Steve Tshwete economy is mining (31.3%), manufacturing (26.3%) and finance (13.4%). These sectors' contributions resulted in STLM being the second largest contributor to Nkangala economy at 38.7% with manufacturing having a share of 74.9%, agriculture (42.8%), mining (40.6%) and finance (39.6%) to the district's relevant industries. These industries generate mass employment opportunities and are mainly in rural parts of this local municipality. In terms of strongest main economic generator the stainless steel manufacturing industry dominates in STLM. On the other hand, mining continues to grow despite key economic sectors being on the decline.

Middelburg also forms the main commercial centre of the Steve Tshwete Local Municipality with the majority of people conducting their shopping activities here. This includes the eMhluzi Mall and new Middelburg mall, with approximatespace of 20 000m², which have expanded commercial and shopping activities to the outskirts of the local municipality. Moreover, the recent opening of the carbonated soft drink factory (Twizza) has contributed to a large number of job opportunities..."

Level of education:

The following was extracted directly from the Steve Tshwete Local Municipality IDP 2014-2015 Draft

"...In terms of education, the majority of the population of the city has some form of education with only 7.46% of the population having no schooling as depicted in the diagram below (Census 2011). According to the Census 2011, the percentage of people with matric and higher education in STLM for the period between 2001 and 2011 increased by more than 5%. In 2011, only 37,37% had obtained their matric. The majority of the population with only matric might have difficulties accessing the labour market. Much still needs to be done to ensure that the percentage of people in STLM with no basic education is further reduced and that the population with matric access tertiary education. This will require an integrated approach from all spheres of government as well as support by the private/ non-governmental sector..."

b) Socio-economic value of the activity

What is the expected capital value of the activity on completion?

What is the expected yearly income that will be generated by or as a result of the activity?

Will the activity contribute to service infrastructure?

Is the activity a public amenity?

How many new employment opportunities will be created in the development and construction phase of the activity/ies?

What is the expected value of the employment opportunities during the development and construction phase?

What percentage of this will accrue to previously disadvantaged individuals?

R TO BE DETERMINED	
R TO BE DETERMINED	
YES	NO
YES	NO
None	
R 0	
0%	

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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?	R 0
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> or 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)	The site also occurs within the National Freshwater Ecosystem Area. The ecological specialist concluded that the freshwater ecosystem occurring close to the site is considered to be seriously modified.

- 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	0%	
Near Natural (includes areas with low to moderate level of alien invasive plants)	0%	
Degraded (includes areas heavily invaded by alien plants)	20%	Degraded vegetation dominated by alien invasive species.

BASIC ASSESSMENT REPORT

Transformed (includes cultivation, dams, urban, plantation, roads, etc)	80%	Railway line, coal stockpiles and other infrastructure associated with the operational activities.
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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)

The study area falls within the Grassland Biome (Acocks, 1953) with the Eastern Highveld Grass (GM12) vegetation type dominating. The Eastern Highveld grassland vegetation is considered and listed as a vulnerable ecosystem (GM no.34809 of 2011). The ecosystem on site has been severely disturbed and currently no activities are planned for the parts of the study area with vegetation cover. Therefore no vegetation clearance will take place. No aquatic ecosystem is present on site, nor any sensitive fauna or flora or habitats.

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT AND NOTICE

Include proof of the placement of the relevant advertisements and notices in Appendix E1.

The Public Participation Process will be undertaken in accordance with the requirements of Regulation 54-57. The proof will be included in the Final Draft BAR in **Annexure E**.

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.

Key stakeholders (other than organs of state) identified in terms of Regulation 54(2) (b) of GN R.543:

Include proof that the key stakeholder received written notification of the proposed activities as Appendix E2. This proof may include any of the following:

- e-mail delivery reports;
- registered mail receipts;
- courier waybills;
- signed acknowledgements of receipt; and/or
- or any other proof as agreed upon by the competent authority.

The Public Participation Process is undertaken in accordance with the requirements of Regulation 54-57. The proof will be included in the Final Draft BAR in **Annexure E**.

3. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

No issues have been raised yet, all issues and concerns will be recorded in the Comments and Responses Report to be attached in **Annexure E** in the Final Basic Assessment Report.

Summary of main issues raised by I&APs	Summary of response from EAP
-	

4. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments received from I&APs and respond to each comment before the Draft BAR 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 the Final BAR as Appendix E3.

5. AUTHORITY PARTICIPATION

Authorities and organs of state identified as key stakeholders:

List of authorities informed:

- **Mpumalanga Department of Economic Development, Environment and Tourism**
- **Department of Water Affairs**
- **Department of Agriculture**
- **Department of Roads and Public Works**
- **Department of Health**
- **Department of Energy**
- **Steve Tshwete Local Municipality**
- **Nkangala District Municipality**
- **Mpumalanga Tourism and Parks Agency**
- **South African Heritage Resources Agency**
- **Eskom**
- **Transnet**

Include proof that the Authorities and Organs of State received written notification of the proposed activities as appendix E4.

In the case of renewable energy projects, Eskom and the SKA Project Office must be included in the list of Organs of State.

6. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for any activities (linear or other) 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. Application for any deviation from the regulations relating to the public participation process must be submitted prior to the commencement of the public participation process.

A list of registered I&APs must be included as appendix E5.

Copies of any correspondence and minutes of any meetings held must be 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.

1. **Planning and Design Phase – This is not applicable due to no new facilities or infrastructure planned at present and therefore no construction will take place.**
2. **Construction Phase – This is not applicable due to the fact that no construction will take place**
3. **Potential impacts associated with the Operational Phase, Decommissioning Phase as well as the No-Go Alternative**

Refer to Appendix G1 and G2:

G1 – ENVASS Impact Rating Methodology

G2 – Impact Assessment (Preferred alternatives assessed - operational and decommissioning phases as well as the No-Go Alternative).

A complete impact assessment in terms of Regulation 22(2)(i) of GN R.543 must be included as Appendix F.

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2. 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.

NATURE OF IMPACT	DESCRIPTION OF IMPACT	STATUS	SIGNIFICANCE POST-MITIGATION
PREFERRED ALTERNATIVE A1 – PLANNING AND DESIGN PHASE This is not applicable due to no new facilities or infrastructure planned at present and therefore no construction will take place			
PREFERRED ALTERNATIVE A1 - CONSTRUCTION PHASE This is not applicable due to the fact that no construction will take place			
PREFERRED ALTERNATIVE A1 - OPERATIONAL PHASE			
GEOLOGICAL AND SOILS	Soil erosion through wind and storm water and soil compaction by heavy duty vehicles	Negative	Very Low
GEOLOGICAL AND SOILS	Contamination of soils through indiscriminate disposal of waste and accidental spillage of petroleum products.	Negative	Very Low
HYDROLOGICAL GROUND WATER	Groundwater pollution through seepage of coal stockpiles and leakage/seepage from pollution control dams if not maintained and / or properly lined.	Negative	Low
HYDROLOGICAL GROUND WATER	Depletion of the groundwater aquifer	Negative	Low
HYDROLOGICAL STORM WATER AND EROSION	<ul style="list-style-type: none"> • Stormwater and erosion impacts due to uncontrolled and polluted runoff due to a lack of: <ul style="list-style-type: none"> ○ Management of stormwater run-off quality; and ○ Management of stormwater run-off quantity; • Change in the hydraulic characteristics of the area through: <ul style="list-style-type: none"> ○ Pollution of surface and groundwater through contaminated stormwater run-off from site and sedimentation of natural water resources; ○ Disruption of natural surface and sub-surface flow and ○ Increased erosion and associated siltation on site. 	Negative	Low
BIOLOGICAL FLORA	Potential for spreading of alien and invasive species during the operational phase	Negative	Very Low
BIOLOGICAL FAUNA	Loss of fauna when fauna have access to the operations and are killed by vehicles or people.	Negative	Very Low
ARCHAEOLOGICAL	No impact	Negative	Very Low
VISUAL	Visibility from sensitive receptors / visual scarring of the landscape as a result of the additional stockpiles of coal.	Negative	Low

BASIC ASSESSMENT REPORT

DUST	Decrease in air quality of the surrounding area associated with operational activities including: <ul style="list-style-type: none"> ○ Wind erosion; ○ Fugitive dust emissions from materials handling operations; and ○ Vehicle entrained dust from roads. 	Negative	Low
NOISE	Noise impacts on surrounding environment associated with operational activities (heavy duty vehicles and equipment).	Negative	Low
WASTE (INCLUDING HAZARDOUS MATERIALS)	Generation of additional waste material during the operational phases.	Negative	Low
TRAFFIC	Increased traffic due to increased supply of coal to the siding to be transported further by trains. Damage to roads due to increased traffic.	Negative	Low
HEALTH AND SAFETY	Health and safety impacts associated with operational activities.	Negative	Low
SOCIO-ECONOMIC	Positive impact of increased availability of electricity limiting load shedding.	Positive	High
PREFERRED ALTERNATIVE A1 - DECOMMISSIONING PHASE			
GEOLOGICAL	Soil erosion through improper management of stormwater and wind erosion. Soil compaction by heavy duty construction vehicles.	Negative	Low
GEOLOGICAL	Contamination of soils through indiscriminate disposal of decommissioning waste and accidental spillage of petroleum products.	Negative	Low
HYDROLOGICAL GROUND WATER	Groundwater pollution through seepage of coal stockpiles and leakage/seepage from pollution control dams if not maintained and / or properly lined.	Negative	Low
HYDROLOGICAL GROUND WATER	Depletion of the groundwater aquifer	Negative	Low
HYDROLOGICAL STORMWATER AND EROSION	<ul style="list-style-type: none"> • Stormwater and erosion impacts due to uncontrolled and polluted runoff due to a lack of: <ul style="list-style-type: none"> ○ Management of stormwater run-off quality; and ○ Management of stormwater run-off quantity; • Change in the hydraulic characteristics of the area through: <ul style="list-style-type: none"> ○ Pollution of surface and groundwater through contaminated stormwater run-off from site and sedimentation of natural water resources; ○ Disruption of natural surface and sub-surface flow and ○ Increased erosion and associated siltation on site. 	Negative	Low
BIOLOGICAL FLORA	Potential loss of vegetation type, ecologically important species and species of conservation concern.	Negative	Very Low

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BIOLOGICAL FLORA	Potential for spreading of alien and invasive species during the operational phase	Negative	Very Low
BIOLOGICAL FAUNA	Loss of fauna when fauna have access to the operations and are killed by vehicles or people.	Negative	Very Low
ARCHAEOLOGICAL	Damage to or destruction of archaeological resources that may be uncovered from below ground during decommissioning.	Negative	Very Low
VISUAL	Visibility from sensitive receptors / visual scarring of the landscape as a result of the decommissioning activities.	Negative	Low
DUST	Decrease in air quality of the surrounding area associated with decommissioning activities including: <ul style="list-style-type: none"> ○ Wind erosion; ○ Fugitive dust emissions from materials handling operations; and Vehicle entrained dust from roads: <ul style="list-style-type: none"> ○ Wind erosion; and ○ Vehicle entrained dust from roads. 	Negative	Low
NOISE	Noise impacts on surrounding environment associated with construction activities (construction vehicles and equipment).	Negative	Low
WASTE	Generation of additional waste/ litter and building rubble/hazardous material during the construction phase.	Negative	Low
TRAFFIC	Temporary disruption of traffic due to construction vehicles.	Negative	Low
HEALTH AND SAFETY	Health and safety impacts associated with operational activities.	Negative	Low
SOCIO-ECONOMIC	Employment opportunities during the construction phase for local people.	Positive	Medium
NO-GO ALTERNATIVE			
SOCIO-ECONOMIC	No economic development for the applicant and resulting positive impacts on the local communities and society in general.	Negative	High

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
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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.

- **That Alternative 1 (the preferred alternative) be authorised;**
- **That the environmental management programme be approved and implemented;**
- **That all mitigation measures in this report and in the environmental management programme be implemented;**
- **That an air quality monitoring programme as recommended by the specialist and specified in this report and the attached EMPr be implemented and monitoring reports be made available for inspection; and**
- **That an independent environmental control officer be appointed to monitor the implementation of the EMPr and report on it. The reports should be made available to the applicant in order to rectify any non-compliances and to the competent authorities on request.**

Is an EMPr attached?

YES	NO
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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.

Rachelle Stofberg

NAME OF EAP



SIGNATURE OF EAP

2014-04-14
DATE

SECTION F: APPENDIXES

The following appendixes must be attached:

Appendix A: Maps

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports (including terms of reference)

Appendix E: Public Participation

Appendix F: Impact Assessment

Appendix G: Environmental Management Programme (EMPr)

Appendix H: Details of EAP and expertise

Appendix I: Specialist's declaration of interest

Appendix J: Additional Information

REFERENCES

<http://www.justice.gov.za/paia/paia-faq.htm>

Department: Water Affairs and Forestry, 2007. Best Practice Guideline A4: Pollution control dams

Steve Tshwete Local Municipality Integrated Development Plan (IDP), 2014 – 2015 financial year (draft)

<http://www.saimh.co.za/beltcon/beltcon8/paper818.html>