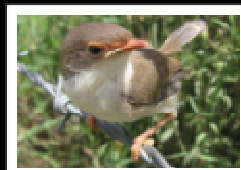
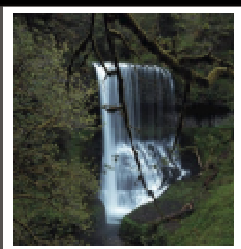
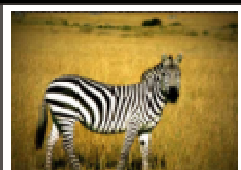
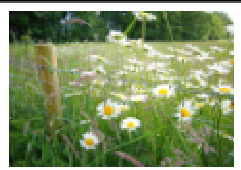
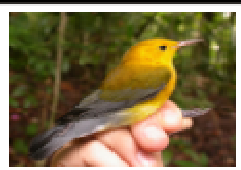
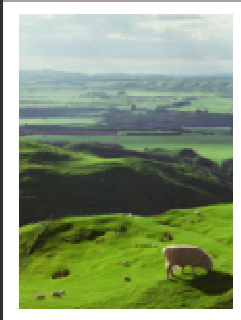


**DRAFT BASIC ASSESSMENT REPORT FOR THE  
DEVELOPMENT OF THE PROPOSED MAKWASE  
CRUSHER PLANT, RUSTENBURG LOCAL  
MUNICIPALITY, NORTH WEST PROVINCE**



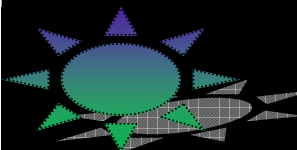
**Prepared for:  
MAKWASE PROJECTS (PTY) LTD**

**PO Box 1902  
Mooioi  
0235  
Tel: 072 714 6659  
Email: info.makwase@gmail.com**

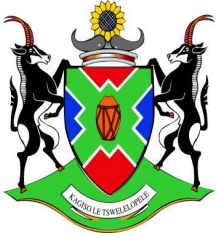
**Prepared by:  
BOBOLELE CONSULTING (PTY) LTD**

**68 Hill of Good Hope  
Springfield Street  
Carlswald  
1685  
Mobile: 083 287 4757  
Fax: 086 460 7330  
E-mail: bobolele1@gmail.com**

**15 November 2017**



**BOBOLELE  
CONSULTING**



read

Department:  
**Rural, Environment and Agricultural  
Development**  
North West Provincial Government  
**REPUBLIC OF SOUTH AFRICA**



AgriCentre Building  
Cnr. Dr. James Moroka  
& Stadium Rd  
Private Bag X2039,  
Mmabatho 2735  
Republic of South Africa

**CHIEF DIRECTORATE: ENVIRONMENTAL SERVICES**

**DIRECTORATE: ENVIRONMENTAL QUALITY MANAGEMENT**

Tel: +27 (18) 389 5156  
Fax: 086 507 6333  
E-mail: [oskosana@nwpq.gov.za](mailto:oskosana@nwpq.gov.za)

(For official use only)

**Provincial Reference Number:**

**NEAS Ref Number:**

**Date Received:**


**Basic assessment report in terms of the Environmental Impact Assessment Regulations, 2014, 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, 2014 and is meant to streamline applications.
2. This report format is current as of **December 2014**. 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. The use of "not applicable" in the report must be done with circumspection. An incomplete report or that does not meet the requirements in terms of Regulation 19 of the NEMA EIA Regulations, 2014, will be rejected to be revised and be resubmitted.
6. The 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 signature of the Environmental Assessment Practitioner (EAP) on the report must be an original.
9. The report must be compiled by an independent EAP.
10. 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.
11. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.
12. 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.
13. Two (2) colour hard copies and one (1) electronic copy of the report must be submitted to the competent authority.
14. Shape files (.shp) for maps must be included on the electronic copy of the report submitted to the competent authority.

**WE BELONG**

**WE CARE**

**WE SERVE**

## SECTION A: ACTIVITY INFORMATION

### 1. PROJECT DESCRIPTION

#### a) Describe the project in association with the listed activities applied for:

Makwase Projects (Pty) Ltd propose to develop a Crusher Plant (Makwase Crusher Plant) on Portion 233 of the farm Kafferskraal 342 JQ within the Rustenburg Local Municipality and the Bojanala Platinum District Municipality of the North West Province. The site is situated north of the N4 Highway adjacent to the Buffelpoort / Marikana off-ramp, South of Tharisa mine.

Makwase Crusher Plant will be operated as a small business venture, crushing the waste rock for reuse as road building and construction material. The waste rock required for the proposed project will be sourced from the Tharisa mine Waste Rock Dump (WRD). The additional infrastructure and activities associated with the proposed project include:

- The machines used for the waste rock crushing include storage bin, vibrating screen, crusher, and stockpiling conveyor.
- The waste rock will be crushed and temporarily stockpiled at an already disturbed area before will be collected and removed.
- Proposed area to be disturbed in terms of the proposed Makwase Crusher Plant:
  - Crushing plant and parking area: approximately 0.5 ha (5 000 m<sup>2</sup>); and
  - Crushed waste rock storage area: approximately 3.5 ha (35 000 m<sup>2</sup>).
- Existing access roads to the property will be used during construction and operational phase.
- Electricity supply for the proposed Crusher Plant will be sourced from the existing electricity supply at the property. The electricity requirements will be less than 33kV.
- No sewage treatment facilities will be required for the operation of the proposed project. During the construction and operation phases of the project, existing ablution facilities on site will be utilised.
- Potable water for domestic use and process water (if required) will be sourced from existing borehole on site. The use of groundwater from a borehole requires license from the Department of Water and Sanitation (DWS) and this process has been initiated.



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

Listed activity as described in GN R.983, 984 and 985	Description of project activity
<p><b>Example:</b>  <b>GN R.983 Activity 12(iii): The development of a bridge exceeding 100 square metres where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such development will occur within existing roads or roads reserve.</b></p>	<p><b>A bridge measuring 10m in length, 12 metres wide will be built over the Crocodile river</b></p>
<p>GN R.983 (as amended by GN R.327) Activity 27: The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for—            (i) the undertaking of a linear activity; or            (ii) maintenance purposes undertaken in accordance with a maintenance management plan.</p>	<p>The construction, operation and maintenance of the proposed Makwase Crusher Plant and associated crushed rock stockpiling area will require clearance of indigenous vegetation. The footprint of the proposed project will be approximately 4ha.</p>
<p>GN R.985 (as amended by GN R.324) Activity 12: The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.            h. North West            iv. Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority;            v. Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority; or            vi. Areas within a watercourse or wetland, or within 100 metres from the edge of a watercourse or wetland.</p>	<p>The construction, operation and maintenance of the proposed Makwase Crusher Plant and associated crushed rock stockpiling area will be confined to an already disturbed area. However, the project area is characterised by the following:  <b>Critical Biodiversity Areas (CBAs):</b> Terrestrial CBA2; and Aquatic CBA1.  <b>Sensitive areas:</b> Terrestrial ESA 2; Aquatic ESA 1 and Aquatic ESA 2:  <b>Sterkstroom River</b> runs along the western boundary of the project area.</p>

c) Property description/physical address

<b>Province</b>	North West Province
<b>District Municipality</b>	Bojanala Platinum District Municipality
<b>Local Municipality</b>	Rustenburg Local Municipality
<b>Ward Number(s)</b>	32
<b>Farm name and number</b>	Kafferskraal 342 JQ
<b>Portion number</b>	233
<b>21 digit Surveyor General Code</b>	T0JQ0000000034200233

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.



## 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 EIA Regulation, 2014 Appendix 1(h) . 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.

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 using the Hartebeeshoek94 WGS84 co-ordinate system.

### a) Site alternatives

List alternative sites, if applicable.

Site Alternatives	Description
Alternative Site 1 (preferred or only site alternative)	The preferred site is situated on Portion 233 of the farm Kafferskraal 342 JQ, Rustenburg Local Municipality, North West Province. No other alternative sites were considered because the Applicant does not own another property that could feasibly meet the requirements of the proposed Makwase Crusher Plant.
Alternative Site 2	.
Alternative Site 3	



**Site Co-ordinates**

**Latitude (S):**

**Longitude (E):**

**Alternative S1 (preferred or only site alternative)**

25°	44'	55"	27°	29'	22"
0	'	"	0	'	"
0	'	"	0	'	"

**Alternative S2 (if any)**

**Alternative S3 (if any)**

**In the case of linear activities:**

**Alternative:**

**Latitude (S):**

**Longitude (E):**

Alternative S1 (preferred or only route alternative)

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

0	'	"	0	'	"
0	'	"	0	'	"
0	'	"	0	'	"

Alternative S2 (if any)

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

0	'	"	0	'	"
0	'	"	0	'	"
0	'	"	0	'	"

Alternative S3 (if any)

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

0	'	"	0	'	"
0	'	"	0	'	"
0	'	"	0	'	"

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 250 metres 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

Alternatives	Description
Alternative 1 (preferred or only alternative)	<p>No design or layout alternative have been considered for the crushing plant. The reason for this is that it is the intention to have the crushing plant located as close as possible to the waste rock dump area in order to limit handling of hard rock material.</p> <p>A consideration has, however, been given to the location of the crushed rock stockpiling area. Consideration was given to on-site stockpiling or removal post crushing. The Applicant does not have alternative site/property where the crushed material can be stockpiled. A decision was made to make provision for on-site stockpiles as this will enable easier control of the loading of the materials for transport off site.</p>
Alternative 2	
Alternative 3	

c) Technology alternatives

Alternatives	Description
Alternative 1 (preferred or only alternative)	<p><b>Mobile Crushing Plant</b></p> <p>-This plant type allows for mobility to move the plant if and when needed. Due to its mobility this plant type has a smaller operating area.</p> <p>-Mobile Plants have a lower initial establishment and operating costs and use less energy than Static Plants.</p>
Alternative 2	<p><b>Static Crushing Plant</b></p> <p>-By nature, this plant type cannot be moved easily if and when the operations require it. The plant also requires a large operating area.</p> <p>-Static Plants have higher initial establishment and operating costs, and have higher energy use than Mobile Plants.</p>
Alternative 3	

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

Alternatives	Description
Alternative 1 (preferred or only alternative)	
Alternative 2	
Alternative 3	



**e) No-go alternative**

The no-go alternative will mean maintaining the status quo. This option is not preferred because the proposed Makwase Crusher Plant will reduce environmental impact of the Waste Rock Dump by reducing its footprint while also providing employment for local people which will assist in skills creation and knowledge transfer.

**f) Please motivate for preferred site, activity and technology alternative**

The preferred site is located on the property owned by the Applicant, and there is no other site that the Applicant can utilise and will be feasible for the development of a Crusher Plant.

The proposed layout alternative allows the crushing plant to be located as close as possible to the waste rock dump area which will ensure safe operation and limit handling of hard rock material. Crushed rock will be stockpiled on-site and this will enable easier control of the loading of the materials for transport off site.

Mobile Crushing plant is recommended because it has a smaller operating area due to its mobility, has lower initial establishment and operating costs, and uses less energy.

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:**

**Size of the activity:**

Alternative A1<sup>1</sup> (preferred activity alternative)

4 000m<sup>2</sup>

Alternative A2 (if any)

4 000m<sup>2</sup>

Alternative A3 (if any)

m<sup>2</sup>

**or, for linear activities:**

**Alternative:**

**Length of the activity:**

Alternative A1 (preferred activity alternative)

m

Alternative A2 (if any)

m

Alternative A3 (if any)

m





b) 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)

4 000m <sup>2</sup>
---------------------

Alternative A2 (if any)

4 000m <sup>2</sup>
---------------------

Alternative A3 (if any)

m <sup>2</sup>
----------------

#### 4. SITE ACCESS

Does ready access to the site exist?

YES	NO
-----	----

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

m
---

**Describe the type of access road planned:**

The farm is located north of the N4 highway and west of the D1325 (Marikana road). The dirt road just off D1325 will be used to access the site.

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);
- the accurate indication of the site in relation to closest protected environments or national parks (i.e. within 2.5 km)
- 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, minutes and seconds using the Hartebeeshoek94 WGS84 co-ordinate system)



## 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 B** 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 Department of Water and Sanitation);
- ridges;
- 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
- cultural and historical features;
- areas with indigenous vegetation (even if it is degraded or infested with alien species); and
- critical biodiversity areas and ecological support area.
- protected areas (e.g Magaliesberg Protected Environment, Pilanesberg National Park etc.)

The sensitivity map must also cover areas within 100m of the site and must be part of **Appendix B**.

## 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 C** 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 D** 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		Please explain
The property's land use right is unspecified. Due to the site's proximity to the mining belt, the proposed crusher plant will be suitable on this property.			
2. Will the activity be in line with the following?			
Provincial Spatial Development Framework (PSDF)	YES		Please explain
The North West Province has identified areas for spatial development. The proposed project is close to the N4 which has been identified as the Potential Growth Area. The aggregate from the crushing plant will be used to build roads and for construction.			
Urban edge / Edge of Built environment for the area	YES		Please explain
The project area falls outside of the urban edge of the municipality.			
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?)		NO	Please explain
The proposed crushing plant will not compromise the IDP and SDF of Rustenburg Local Municipality because the project area is not earmarked for Municipal developments.			
Approved Structure Plan of the Municipality	YES		Please explain
The project and its related activities are in line with the Approved structure of the Municipality. It is located close to the mining belt, and in this instance it is close to Tharisa mine from which the waste rock will be sourced. In addition the project area approximately 300m from the N4 and close to the Potential N4 Growth areas. The product of the proposed crusher plant will be used to support municipal outlook of building roads and construction in the area.			
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		Please explain
Approval of this application will not compromise the EMF adopted by the Department. Magaliesburg mountains lie about 10 km south of the project area. The Sterkstroom River runs westerly of the project site. The crushing plant will be developed on the site that is already disturbed and close to the existing Tharisa mine waste rock dump. The existing environment is itself not pristine.			
Any other Plans (e.g. Guide Plan)		NO	Please explain
The proposed project will not compromise any other plans of the municipality and province.			
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		Please explain
The project is in line with the Local Municipality's IDP.			



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		Please explain
The project area is close to the mining belt.			
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 E.)	YES		Please explain
The necessary services such as access roads, water, and electricity required for the proposed project are already available.			
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		Please explain
The necessary services such as access roads, water, and electricity required for the proposed project are already available.			
7. Is this project part of a national programme to address an issue of national concern or importance?	YES		Please explain
The project will add employment to local communities and leads to skills transfer.			
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		Please explain
The crushing plant is approximately 300m from Tharisa mine operations. The waste rock to be crushed will be sourced from the mine.			
9. Is the development the best practicable environmental option for this land/site?	YES		Please explain
The site is close to the waste rock dump that will be crushed.			
10. Will the benefits of the proposed land use/development outweigh the negative impacts of it?	YES		Please explain
The specialist studies conducted to date have not identified fatal flaws with the proposed project.			
11. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?		NO	Please explain
The character of the surrounding land-use is mostly mining and waste rock dumps. The crushing operations might appeal to small ventured community projects.			



12. Will any person's rights be negatively affected by the proposed activity/ies?		<b>NO</b>	<b>Please explain</b>
The key impacts identified for the proposed establishment of a staged mobile crushing plant include the impact on air quality from crushing operations (i.e. dust), as well as the impact on noise associated with crushing operations. Given the location of the site in an area that is no longer rural due to mining operations, the N4 and D1325 road with no sensitive receptors 100m of the crushing operations, the significance of the operation of the staged mobile crushing plant is considered to be low.			
13. Will the proposed activity/ies compromise the "urban edge" as defined by the local municipality?		<b>NO</b>	<b>Please explain</b>
The proposed project area falls outside of the urban edge.			
14. Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPS)?	<b>YES</b>		<b>Please explain</b>
This project can be classified as mining value chain in terms of SIP 10. The waste rock from the nearby Tharisa mine Waste Rock Dump will be crushed to produce material for building roads and for construction.			
15. What will the benefits be to society in general and to the local communities?			<b>Please explain</b>
The crusher plant will result in new employment opportunities for the local community which will assist in skills creation and knowledge transfer.			
16. Any other need and desirability considerations related to the proposed activity?			<b>Please explain</b>
The proposed Makwase Crusher Plant will utilise waste rock from Tharisa mine Waste Rock Dump. The crushing activities will reduce the footprint of the dump thereby reducing its environmental impacts.			
In terms of the aggregate products produced as a result of the crushing activities, the greater socioeconomy of the surrounding area will benefit through the provision of raw material (i.e. aggregate products) to the construction industry, which is currently experiencing positive growth and is improving employment prospects.			
17. How does the project fit into the National Development Plan for 2030?			<b>Please explain</b>
The project will create employment opportunities for local community. In addition the environmental footprint of waste rock as a result of mining operations will be reduced.			



18. Please describe how the general objectives of Integrated Environmental Management as set out in Section 23 of NEMA as amended have been taken into account.

The NEMA EIA Regulations 2014 and the DEA&DP's Guideline on Public Participation have been consulted for this Basic Assessment process. This means that relevant Organs of State with jurisdiction over the activity will be provided with an opportunity to review and comment on the Draft and Final Basic Assessment Reports and EMP. Thus, there is an opportunity for environmental considerations to be included in decision-making by these Organs of State.

In addition, all reports compiled during this EIA process have been made accessible to the public, therefore ensuring an open and transparent process and allowing the interests, needs and values of the public to be considered during the assessment process where possible. No particular community is more at risk than another in terms of possible impacts associated with the development. The development includes measures to minimise all associated impacts so that any and all nearby receptors are protected and environmental justice is served.

The identification of any possible negative environmental impacts associated with the development have led to the recommendation of suitable design, layout and operational mitigation measures to either avoid any such impacts altogether; or to ensure that such impacts remain at an acceptable level without adversely impacting the environment. The most reasonable and feasible alternatives in relation to the proposed activity, the necessary mitigation measures for implementation during the life cycle of the development, are considered by the EAP to represent the Best Practicable Environmental Option for land use at the site

19. Please describe how the principles of environmental management as set out in Section 2 of NEMA as amended have been taken into account.

Please refer to Question 18 above.

## 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
<p><b>The National Environmental Management Act (Act No. 107 of 1998) (NEMA), as amended: Environmental Impact Assessment (EIA) Regulations of 2014 (as amended)</b></p> <p>The NEMA and the EIA Regulations and associated Listed Activities identified under Regulations 982, 983, 984 and 985 (as amended), are the key national legislation underpinning Environmental Authorisations in South Africa.</p>	<p>NEMA and the associated EIA Regulations are directly relevant to this environmental authorisation application.</p> <p>Listed Activities as per NEMA Regulations have been identified as follows:            GN R.983 (as amended by GN R.327) Activity 27:  <i>The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for—</i>  <i>(i) the undertaking of a linear activity; or</i>  <i>(ii) maintenance purposes undertaken in accordance with a maintenance management plan.</i>            GN R.985 (as amended by GN R.324) Activity 12:  <i>The clearance of an area of 300 square metres or more of indigenous vegetation except where such</i></p>	<p>North West Department of Rural, Environment and Agricultural Development</p>	<p>NEMA, 1998; and EIA Regulations, 2014</p>



	<p><i>clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.</i></p> <p><i>h. North West</i></p> <p><i>iv. Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority</i></p> <p><i>vi. Areas within a watercourse or wetland, or within 100 metres from the edge of a watercourse or wetland.</i></p>		
<p><b>The National Water Act (Act No. 36 of 1998) (NWA)</b></p> <p>The NWA recognises that water is a scarce and unevenly distributed national resource which must be managed encompassing all aspects of water resources. In terms of Chapter 4 of the NWA, activities and processes associated with the proposed development are required to be licensed by the Department of Water and Sanitation (DWS).</p>	<p>Potable water for domestic use and process water (if required) will be sourced from existing borehole on site. The use of groundwater from a borehole requires a Water Use Licence from the DWS.</p>	DWS	1998
<p><b>The National Heritage Resources Act (Act No. 25 of 1999) (NHRA)</b></p>	<p>NRHA requires all developers to undertake cultural heritage studies for any development exceeding 0.5 ha. It also provides guidelines for impact assessment studies to be undertaken where cultural resources may be disturbed by development activities.</p> <p>As the proposed Makwase Crusher Plant will occupy an area of approximately 4.5 ha, this Act applies and a heritage specialist study has been conducted as part of the BA Process. The results and recommendations from the Heritage Impact Assessment Study have been incorporated into this BA Report.</p>	South African Heritage Resource Agency	1999
<p><b>The National Environmental Management: Biodiversity Act (Act No.10 of 2004) (NEM: BA).</b></p> <p>NEM: BA provides for the management and conservation of South Africa's biodiversity within the framework of NEMA, as well as the protection of species and ecosystems that warrant national protection and the sustainable use of indigenous biological resources.</p>	<p>No application will be required in accordance with the legislation as the crushing plant will be located within the area that has already been disturbed.</p> <p>An Ecological Specialist has been appointed to determine the impact of the project on biodiversity in the area.</p>		2004
<p><b>The National Environmental Management: Air Quality Act (Act No. 39 of 2004) (NEM: AQA).</b></p> <p>NEM: AQA came into effect in April 2010 and is applied in accordance with the</p>	<p>The crushing activities will generate dust, but the amount generated will not exceed any thresholds as noted in the NEM: AQA.</p> <p>However, an Air Quality Specialist has been</p>	National Department of Environmental Affairs	2004



principles stipulated in NEMA. The Act outlines norms and standards with regards to air quality management planning, monitoring, compliance and management measures in order to protect and enhance the quality of air and reduce risks to human health. NEM: AQA also promotes sustainable development.	appointed to determine the impact of the dust on receiving receptors located in the area.		
<b>Conservation of Agricultural Resources Act, 1983 (Act 43 of 1983) (CARA).</b> CARA is an Act of the National Department of Agriculture and makes provision for the conservation of the natural agricultural resources of South Africa through: -Maintaining the production potential of land; Combating and prevention of erosion; -Preventing the weakening or destruction of water sources; and -Protecting the vegetation; and Combating weeds and invader plants.	Management of alien vegetation on site will be addressed in the EMPr.		1983
<b>National Forests Act (Act 84 of 1998).</b> Notice No. 734 provides a list of the protected tree species under the National Forests Act in terms of Section 15(3), that no person may cut, disturb, damage or destroy any protected tree or possess, collect, remove, transport, export, purchase, sell, donate or in any other manner acquire or dispose of any protected tree or any forest product derived from a protected tree, except under a licence or exemption granted by the Minister to an applicant and subject to such period and conditions as may be stipulated.	No application will be made for the removal of protected trees.		1998
<b>Guideline 4: Public Participation in support of the EIA Regulations (2005).</b>	This Guideline has been utilised for the Public Participation undertaken for this application.	North West Department of Rural, Environment and Agricultural Development	2005

## 12. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

### a) Solid waste management

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

YES	<input checked="" type="checkbox"/>
	100m <sup>3</sup>

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

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

Construction solid waste will be collected in skips and transported to the nearest registered landfill site.





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

Construction solid waste will be disposed of at the nearest registered landfill site.

Will the activity produce solid waste during its operational phase?

YES	<input type="checkbox"/>
-----	--------------------------

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

50m <sup>3</sup>
------------------

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

Solid waste will be disposed of at the nearest registered landfill site.

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

Marikana landfill site.

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

N/A

*If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.*

Can any part of the solid waste be classified as hazardous in terms of the NEM:WA?

<input type="checkbox"/>	NO
--------------------------	----

If YES, inform the competent authority and request a change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

Is the activity that is being applied for a solid waste handling or treatment facility?

<input type="checkbox"/>	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?

<input type="checkbox"/>	NO
--------------------------	----

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

m <sup>3</sup>
----------------

Will the activity produce any effluent that will be treated and/or disposed of on site?

<input type="checkbox"/>	NO
--------------------------	----

**If YES, describe the type of effluent and the disposal mechanism/method**

--

Will the activity produce effluent that will be treated and/or disposed of at another facility?

<input type="checkbox"/>	NO
--------------------------	----

If YES, provide the particulars of the facility:

<b>Facility name:</b>		
<b>Contact person:</b>		
<b>Postal address:</b>		
<b>Postal code:</b>		
<b>Telephone:</b>	<b>Cell:</b>	
<b>E-mail:</b>	<b>Fax:</b>	



Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

N/A

**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	<input type="checkbox"/>
<input type="checkbox"/>	NO

If YES, is it controlled by any legislation of any sphere of government?

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:

The crushing activities will generate dust, but the amount generated will not exceed any thresholds as noted in the NEM: AQA.

**d) Waste Licence/Registration**

Will any aspect of the activity produce waste that will require a waste licence/registration in terms of the NEM:WA?

<input type="checkbox"/>	NO
--------------------------	----

If YES, please submit evidence that an application for a waste licence/registration has been submitted to the competent authority

**e) Generation of noise**

Will the activity generate noise?

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

If YES, is it controlled by any legislation of any sphere of government?

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 will be generated by crushing and associated activities.

**13. WATER USE**

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

<input type="checkbox"/>	Groundwater	<input type="checkbox"/>
--------------------------	-------------	--------------------------

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:

Unknown at this stage	<input type="checkbox"/>
-----------------------	--------------------------

Does the activity require a water use authorisation (general authorisation or water use license) from the Department of Water and Sanitation?

YES	<input type="checkbox"/>
-----	--------------------------

If YES, please provide proof that the application has been submitted to the Department of Water and Sanitation.

**14. ENERGY EFFICIENCY**

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



Energy efficiency was considered during selection of crushing technology. The proposed Mobile Crushing Plant uses less energy than Static Crushing Plant.

The building designs will be in such a way that they do not require the use of electricity during the day. Also locally produced building materials will be used so as to reduce the use of energy for transporting the materials. Energy efficient lighting systems/ bulbs and electric products will be used.

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:  
Alternative sources of energy in the form of solar power generators will be installed.

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

YES

If YES, please complete the form entitled "Details of specialist and declaration of interest" for the specialist appointed and attach in Appendix F.

## SECTION B: SITE/AREA/PROPERTY DESCRIPTION

### Important notes:

1. For linear activities (pipelines, etc) as well as activities that cover very large sites, it may be necessary to complete this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section B and indicate the area, as it appears on the Site Plan.
2. Paragraphs 1 - 6 below must be completed for each alternative.

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

Agricultural

In instances where there is more than one current land-use zoning, please attach a list of current land use zonings that also indicate which portions each use pertains to, to this application.

Is a change of land-use or a consent use application required?

YES  NO



## 1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

### Alternative S1:

Flat						
------	--	--	--	--	--	--

### 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:

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



**4. GROUNDCOVER**

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

Natural veld - good condition <sup>E</sup>	Natural veld with scattered aliens <sup>E</sup>	Natural veld with heavy alien infestation <sup>E</sup>	Veld dominated by alien species <sup>E</sup>	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	
Non-Perennial River		NO
Permanent Wetland		NO
Seasonal Wetland		NO
Artificial Wetland		NO

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

The perennial Sterkstroom river runs on the western side of the farm.



**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	
Low density residential	
	Agriculture
	River, stream or wetland <sup>N</sup>
	Major road (4 lanes or more) <sup>N</sup>
Spoil heap or slimes dam <sup>A</sup>	
Quarry, sand or borrow pit	

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

The project site is approximately 300m north of the N4. The activities of the Crushing Plant are not expected to have any bearing on the operation of N4.

The perennial Strerkstroom river is located approximately 300m west of the proposed Crushing Plant. Potential impacts of Crushing Plant during construction and operational phases should be addressed as per the EMP.

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

N/A

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

N/A

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

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



If the answer to any of these questions was YES, a map indicating the affected area must be included in Appendix B (as part of sensitivity map).

## 7. 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](mailto:BGIShelp@sanbi.org). Information is also available on compact disc (cd) from the Biodiversity-GIS Unit, Ph (021) 799 8698. This information may be updated from time to time and it is the applicant/ EAP's responsibility to ensure that the latest version is used. A map of the relevant biodiversity information (including an indication of the habitat conditions as per (b) below) and must be provided as an overlay map to the property/site plan as Appendix B 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)		The project area includes a terrestrial Critical Biodiversity Area and a critically endangered river (the Sterkstroom) defined by the North-West Province 2009 biodiversity assessment.

- 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	40%	Near perennial Sterkstroom River
Near Natural (includes areas with low to moderate level of alien invasive plants)	15%	Away from the River towards buildings on site
Degraded (includes areas heavily invaded by alien plants)	40%	Near access roads
Transformed	5%	cultivation



(includes cultivation, dams, urban, plantation, roads, etc)		
---	--	--

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)		<b>Wetland (including rivers, depressions, channelled and unchannelled wetlands, flats, seeps pans, and artificial wetlands)</b>	
	<b>Vulnerable</b>		
		<b>YES</b>	

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 project area falls within the Marikana Thornveld vegetation type which is classified as vulnerable. The project area includes a terrestrial Critical Biodiversity Area and a critically endangered river (the Sterkstroom) defined by the North-West Province 2009 biodiversity assessment.

## 8. 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

An unfenced grave site consisting of about five graves was identified on site.

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:





An unfenced grave site consisting of about five graves was identified on site. Although the site will not be directly affected by the proposed project, it is believed that the entire site should be protected against either direct and negative or indirect impacts. The following is therefore recommended:

- a) that the site should be demarcated with danger tape for the duration of the construction phase and that a 10m buffer zone from the outer perimeter should be maintained.
- b) that once the construction phase of the development has been completed that the site should be properly fenced-in, with an entrance gate to provide ease of access for community members and descendants of the deceased.

Will any building or structure older than 60 years be affected in any way?

	NO
	NO

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.

## 9. SOCIO-ECONOMIC CHARACTER

### a) Local Municipality

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

#### **Level of unemployment:**

The information presented below was obtained from the 2011 Census via Stats SA website. ([http://www.statssa.gov.za/?page\\_id=993&id=rustenburg-municipality](http://www.statssa.gov.za/?page_id=993&id=rustenburg-municipality)).

266 471 people are economically active (employed or unemployed but looking for work), and of these, 26.4% are unemployed. 34.7% of the 142 219 economically active youth (15 – 34 years) in the municipality are unemployed.



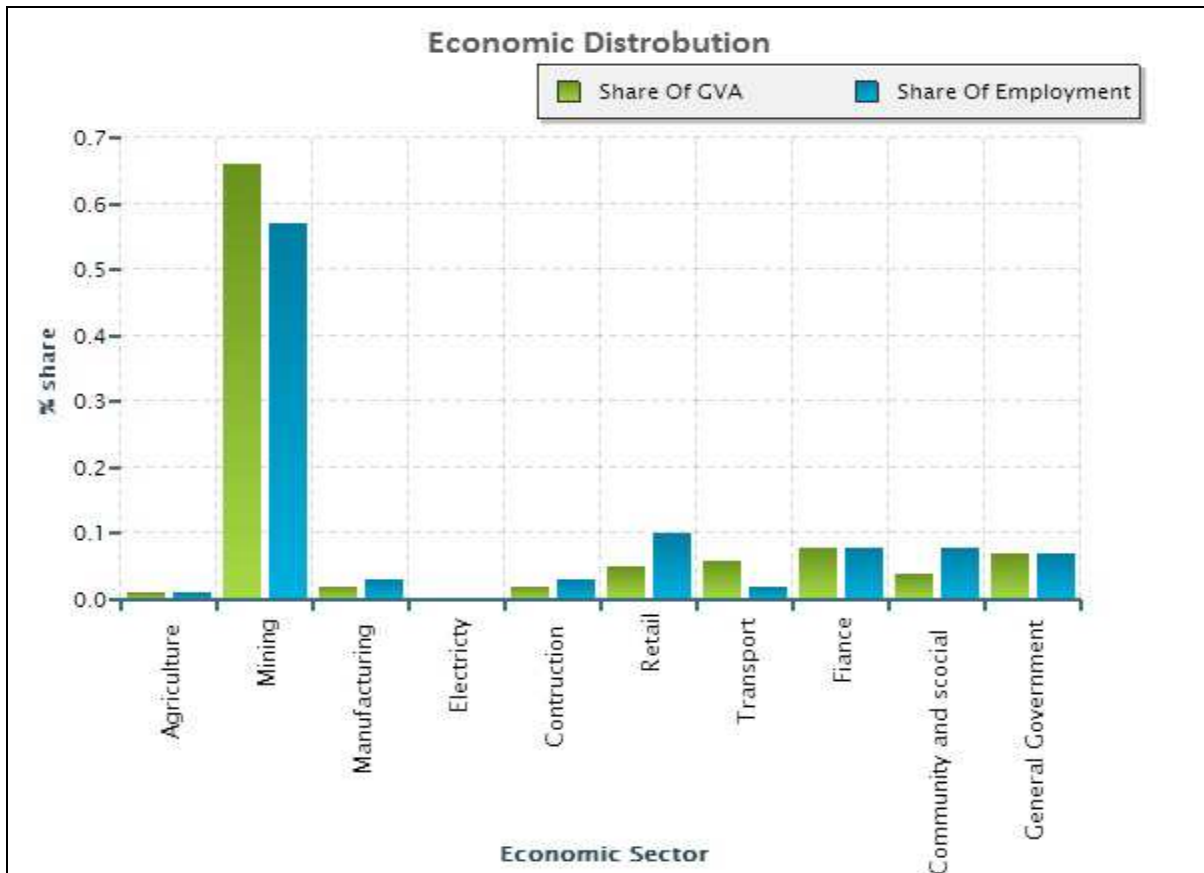


**Economic profile of local municipality:**

The information presented below was obtained from the 2011 Census via Stats SA website.  
[http://www.statssa.gov.za/?page\\_id=993&id=rustenburg-municipality](http://www.statssa.gov.za/?page_id=993&id=rustenburg-municipality)

The dominant economic sector in Rustenburg is clearly mining, which contributes to more than 60% of the Gross Value Added (GVA) of the municipality. The type of mining done in Rustenburg is also relatively labour intensive - it employs more than 50% of Rustenburg's people. All other economic sectors contribute less than 10% each of the GVA of Rustenburg.



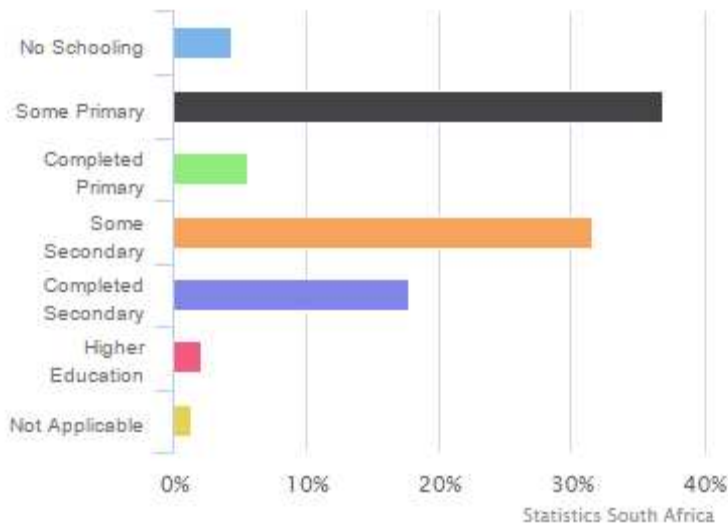


**Level of education:**

According to Census 2011, Rustenburg Local Municipality has a total population of 549 575 people, of whom 88.5% are black African, 9.4% are white, with the other population groups make up the remaining 2.1%. Of those aged 20 years and older, 5.4% have completed primary school, 36.2% have some secondary education, 31.1% have completed matric, and 8.9% have some form of higher education, while 5.4% of those aged 20 years and older have no form of schooling.



Highest Educational Level (All Ages)



Group	Percentage
No Schooling	4,4%
Some Primary	37%
Completed Primary	5,6%
Some Secondary	31,7%
Completed Secondary	17,8%
Higher Education	2,1%
Not Applicable	1,4%

**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?

R 32 million	
R 1 500 000	
<input type="checkbox"/>	NO
<input type="checkbox"/>	NO
6	
R 200 000	



What percentage of this will accrue to previously disadvantaged individuals?	100%
How many permanent new employment opportunities will be created during the operational phase of the activity?	22
What is the expected current value of the employment opportunities during the first 10 years?	R13 000 000
What percentage of this will accrue to previously disadvantaged individuals?	100%

## 10. SPECIALIST(S) CONSULTATION

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

YES

If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed and attach it in Appendix F. All specialist reports must be contained in Appendix G and must meet the requirement in Appendix 6 of EIA Regulations, 2014.

## SECTION C: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2014, 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.

Activity	Impact summary	Significance	Proposed mitigation
<b>Alternative 1 - Site (preferred and only alternative)</b>			
Site clearing of the footprint areas associated with crusher plant and all proposed access roads – i.e.: <ul style="list-style-type: none"> <li>Removal of vegetation.</li> <li>Transportation of material.</li> </ul>	<b>Direct impacts:</b> <ul style="list-style-type: none"> <li>Increased levels of fugitive dust as a result of increased vehicle movement, site clearing and transportation of material.</li> <li>Increased levels of ambient air pollutants; i.e. carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulphur dioxide (SO<sub>2</sub>), particulate matter (PM<sub>10</sub>).</li> </ul>	<b>Significance if not mitigated:</b> Moderate <b>Significance if mitigated:</b> Low	<ul style="list-style-type: none"> <li>The relevant exposed site areas and access gravel roads will be irrigated on a regular basis, with just enough moisture to keep the dust down without creating undue runoff.</li> <li>Control through limiting pre-construction activities to day time periods.</li> <li>Control level of ambient air pollutants through regular maintenance and services of all vehicles and equipment.</li> </ul>



<ul style="list-style-type: none"> <li>Removal/loss of soils and land use.</li> <li>Soil contamination from hydrocarbon spills.</li> <li>Increased erosion.</li> </ul>	<p><b>Significance if not mitigated:</b> Moderate</p> <p><b>Significance if mitigated:</b> Low</p>	<ul style="list-style-type: none"> <li>Minimise area of disturbance and clearing by limiting the footprint area to as small as practically possible.</li> <li>Prevent accidental spills from vehicles and equipment used through regular maintenance and services of such machinery.</li> <li>Control spills through effectively cleaning spills as soon as they occur.</li> <li>Reduce erosion and compaction through: <ul style="list-style-type: none"> <li>Stockpiling soils.</li> <li>Vegetate and/or cover soil stockpiles.</li> <li>Install erosion berms, if required.</li> <li>Restrict vehicle movement to where required.</li> </ul> </li> </ul>
<p>Removal/loss of natural vegetation and habitats.</p>	<p><b>Significance if not mitigated:</b> Moderate</p> <p><b>Significance if mitigated:</b> Low</p>	<ul style="list-style-type: none"> <li>Minimise area of disturbance and clearing by limiting the footprint area to as small as practically possible.</li> <li>Control access to construction site through demarcating access roads and construction areas.</li> <li>Prevent trapping or hunting of fauna.</li> </ul>
<p>Increase in silt load in runoff and erosion</p>	<p><b>Significance if not mitigated:</b> Moderate</p> <p><b>Significance if mitigated:</b> Low</p>	<ul style="list-style-type: none"> <li>Minimise stormwater runoff through conducting site clearing during dry season.</li> <li>Minimise area of disturbance and clearing by limiting the footprint area to as small as practically possible.</li> </ul>
<p>Surface water contamination</p>	<p><b>Significance if not mitigated:</b> Moderate</p> <p><b>Significance if mitigated:</b> Low</p>	<ul style="list-style-type: none"> <li>Control spills through effectively cleaning spills as soon as they occur.</li> <li>Prevent spills through placement of adequate bunded storage for chemicals and hazardous material.</li> <li>Prevent accidental spills from vehicles and equipment used through regular maintenance and services of such machinery.</li> </ul>
<p>Loss of Mean Annual Runoff</p>	<p><b>Significance if not mitigated:</b> Low</p> <p><b>Significance if mitigated:</b> Low</p>	<ul style="list-style-type: none"> <li>Minimise stormwater runoff through conducting site clearing during dry season.</li> <li>Control flow regime through conducting site clearing and construction during dry season.</li> </ul>
<p>Groundwater contamination</p>	<p><b>Significance if not mitigated:</b> Moderate</p> <p><b>Significance if mitigated:</b> Low</p>	<ul style="list-style-type: none"> <li>Control spills through effectively cleaning spills as soon as they occur.</li> <li>Prevent spills through placement of adequate bunded storage for chemicals and hazardous material.</li> <li>Prevent accidental spills from vehicles and equipment used through regular maintenance and services of such machinery.</li> </ul>



	Increased ambient noise levels	<b>Significance if not mitigated:</b> Low <b>Significance if mitigated:</b> Low	Control through noise control measures and limiting pre-construction activities to day time periods.
	Job creation	<b>Significance if not mitigated:</b> Low <b>Significance if mitigated:</b> Low	No mitigation required for employment opportunities.
	<b>Indirect impacts:</b>		
	<b>Cumulative impacts:</b> Dust, noise, loss of soil and vegetation	<b>Significance if not mitigated:</b> Moderate <b>Significance if mitigated:</b> Low	Reduce and control through the implementation of above mentioned management measures.
<ul style="list-style-type: none"> <li>Construction of crusher plant and associated access road.</li> <li>Transportation of material to and from site</li> </ul>	<ul style="list-style-type: none"> <li>Increased levels of fugitive dust as a result of increased vehicle movement, site clearing and transportation of material.</li> <li>Increased levels of ambient air pollutants; i.e. carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulphur dioxide (SO<sub>2</sub>), particulate matter (PM<sub>10</sub>) as a result of increased vehicle movement, site clearing and transportation of material.</li> </ul>	<b>Significance if not mitigated:</b> Moderate <b>Significance if mitigated:</b> Low	<ul style="list-style-type: none"> <li>The relevant exposed construction site areas and access gravel roads will be irrigated on a regular basis, with just enough moisture to keep the dust down without creating undue runoff.</li> <li>Construction material and debris will be kept wet with just enough moisture to keep the dust down without creating undue runoff.</li> <li>Where resident moisture content is not adequate to control dust and dispersion of particulates during transportation, dust raising materials will be transported in closed body vehicles and/or material will be covered with a tarpaulin.</li> <li>Transportation of dust raising material without covering must be restricted to an appropriate speed level (roughly 40 km/h) if dispersion of particulates and fugitive dust are observed leaving the transportation vehicles.</li> <li>All vehicles and equipment used during the construction phase will be serviced and maintained on a regular basis.</li> <li>A Dust Monitoring Programme must be implemented that effectively monitors dust related impacts from the project area.</li> </ul>
	<ul style="list-style-type: none"> <li>Removal/loss of soils and land use.</li> </ul>	<b>Significance if not mitigated:</b>	<ul style="list-style-type: none"> <li>Minimise the footprint area of impact by conducting site clearing activities associated with the construction of the</li> </ul>



	<ul style="list-style-type: none"> <li>• Soil contamination from accidental hydrocarbon spills.</li> <li>• Increased erosion potential.</li> </ul>	<p><b>mitigated:</b> Moderate <b>Significance if mitigated:</b> Low</p>	<ul style="list-style-type: none"> <li>• required infrastructure on a footprint as small as practically possible.</li> <li>• Protect and manage soil stockpile area created during pre-construction phase from impacts of erosion, compaction and contamination. If necessary, vegetate and/or cover with appropriate and suitable indigenous grass species.</li> <li>• If deemed necessary, erosion berms can be installed to prevent gully formation.</li> <li>• Restrict vehicle movement to areas of need.</li> <li>• All vehicles should be serviced on a regular basis at the specific demarcated areas.</li> <li>• Any spillage from vehicles should be cleaned up immediately once occur.</li> <li>• Rehabilitate the project disturbed areas as soon as possible once construction is completed.</li> <li>• Rip and profile soils that have been compacted as a result of the construction activities.</li> </ul>
	Loss of natural vegetation and habitats.	<p><b>Significance if not mitigated:</b> Low <b>Significance if mitigated:</b> Low</p>	<ul style="list-style-type: none"> <li>• Minimise area of disturbance to as small as practically possible.</li> <li>• Control access to construction site through demarcating access roads and construction areas.</li> <li>• Prevent trapping or hunting of fauna through Environmental Awareness Plan.</li> </ul>
	Increase in silt load in runoff and erosion	<p><b>Significance if not mitigated:</b> Low <b>Significance if mitigated:</b> Low</p>	<ul style="list-style-type: none"> <li>• Control stormwater runoff through stormwater management measures.</li> <li>• Minimise stormwater runoff through undertaking construction activities during dry season.</li> <li>• Minimise area of disturbance to as small as practically possible.</li> </ul>
	Surface water contamination	<p><b>Significance if not mitigated:</b> Low <b>Significance if mitigated:</b> Low</p>	<ul style="list-style-type: none"> <li>• Control spills through effectively cleaning spills immediately once occur.</li> <li>• Prevent spills through placement of adequate bunded storage for chemicals and hazardous material.</li> <li>• Prevent accidental spills from vehicles and equipment used through regular maintenance and services of such machinery.</li> </ul>
	Groundwater contamination	<p><b>Significance if not mitigated:</b> Moderate <b>Significance if mitigated:</b> Low</p>	<ul style="list-style-type: none"> <li>• Control spills through effectively cleaning spills immediately once occur.</li> <li>• Prevent contamination through implementation of clean and dirty water separation infrastructure.</li> <li>• Prevent accidental spills from vehicles and equipment used through regular maintenance and services of such</li> </ul>





			machinery.
	Increased ambient noise levels	<b>Significance if not mitigated:</b> Moderate <b>Significance if mitigated:</b> Low	Conduct site clearing activities during day time periods (sun rise to sunset), as far as practically possible.
	Alteration of natural landscape	<b>Significance if not mitigated:</b> Moderate <b>Significance if mitigated:</b> Low	<ul style="list-style-type: none"> <li>• Control level of fugitive dust through implementing dust suppression techniques.</li> <li>• Prevent littering through waste management control measures.</li> <li>• Avoid through directing artificial light sources towards construction site.</li> </ul>
	Job creation	<b>Significance if not mitigated:</b> Moderate <b>Significance if mitigated:</b> Moderate	No mitigation required for employment opportunities.
	Heritage resources	<b>Significance if not mitigated:</b> Moderate <b>Significance if mitigated:</b> Low	the site should be demarcated with danger tape for the duration of the construction phase and that a 10m buffer zone from the outer perimeter should be maintained
	<b>Indirect:</b> Increased dust levels and associated health problems	<b>Significance if not mitigated:</b> Moderate <b>Significance if mitigated:</b> Low	Control through implementing complaints register to record complaints.
	<b>Cumulative:</b> Dust, noise, alteration of landscape	<b>Significance if not mitigated:</b> Moderate <b>Significance if mitigated:</b> Low	Reduce and control through the implementation of above mentioned management measures.
Operation of Crusher Plant	<ul style="list-style-type: none"> <li>• Increased fugitive dust</li> <li>• Increased levels of ambient air pollutants; i.e. carbon monoxide (CO), nitrogen dioxide</li> </ul>	<b>Significance if not mitigated:</b> Moderate <b>Significance if mitigated:</b>	<ul style="list-style-type: none"> <li>• Control level of fugitive dust through irrigating regularly, with just enough moisture to keep the dust down without creating undue runoff.</li> <li>• Control level of ambient air pollutants through regular</li> </ul>



	(NO <sub>2</sub> ), sulphur dioxide (SO <sub>2</sub> ), particulate matter (PM <sub>10</sub> )	Low	<p>maintenance and services of all vehicles and equipment.</p> <ul style="list-style-type: none"> <li>• A Dust Monitoring Programme must be implemented that effectively monitors dust related impacts from the project area.</li> </ul>
	Soil contamination from accidental hydrocarbon spills	<p><b>Significance if not mitigated:</b> Moderate <b>Significance if mitigated:</b> Low</p>	<ul style="list-style-type: none"> <li>• Prevent accidental spills from vehicles and equipment used through regular maintenance and services of such machinery.</li> <li>• Control spills through effectively cleaning spills immediately after they occur.</li> <li>• Limit through restricting vehicle movement to areas of need.</li> <li>• Prevent spills through placement of adequate bunded storage for chemicals and hazardous material.</li> </ul>
	Loss of habitat/fauna species	<p><b>Significance if not mitigated:</b> Moderate <b>Significance if mitigated:</b> Low</p>	<ul style="list-style-type: none"> <li>• Control through implementing Alien Plant Eradication Plan.</li> <li>• Limit through restricting vehicle movement to areas of need.</li> </ul>
	Surface water contamination	<p><b>Significance if not mitigated:</b> Moderate <b>Significance if mitigated:</b> Low</p>	<ul style="list-style-type: none"> <li>• Monitor and control surface water quality through updating and implementing Water Monitoring Programme.</li> <li>• Control spills through effectively cleaning spills immediately after they occur.</li> <li>• Prevent accidental spills from vehicles and equipment used through regular maintenance and services of such machinery.</li> </ul>



Increased ambient noise level due to crushing activities and hauling activities	<p><b>Significance if not mitigated:</b> High</p> <p><b>Significance if mitigated:</b> Moderate</p>	<ul style="list-style-type: none"> <li>• The noise levels generated by hauling vehicles, machinery, equipment must comply with the manufacturer's specifications and any deviation of these noise levels will have to be immediately addressed and rectified;</li> <li>• A noise evaluation to be carried out before the activities and infrastructure is operational to determine noise mitigation measures.</li> <li>• An earth berm (height of the crusher plant) of rock and soil to be constructed along the southern and south eastern boundaries of the crusher plant.</li> <li>• The hauling of rock before crushing and shipment off the site will have to take place on roads which are in a good condition and free from any potholes. The speed along these roads may not exceed 40 km/h.</li> <li>• A maintenance plan for all equipment which may be used at the crushing plant must be in place to identify and rectify any noise sources within 3 working days after such noise source was identified.</li> <li>• Noise Management Plan to be used during the different phases of the project.</li> <li>• Reduce through undertaking hauling activities during day time periods.</li> </ul>
Alteration of natural landscape	<p><b>Significance if not mitigated:</b> Moderate</p> <p><b>Significance if mitigated:</b> Low</p>	<ul style="list-style-type: none"> <li>• Control level of fugitive dust during maintenance activities through implementing dust suppression techniques, if required.</li> <li>• Prevent littering through waste management control measures.</li> <li>• Limit through landscaping and use of appropriate non-reflective infrastructure / equipment.</li> </ul>
Positive impact on livelihoods	<p><b>Significance if not mitigated:</b> Moderate</p> <p><b>Significance if mitigated:</b> Moderate</p>	Enhance through retaining employees and implementing labour procurement policy.
Heritage resources	<p><b>Significance if not mitigated:</b> Moderate</p> <p><b>Significance if mitigated:</b> Low</p>	The grave site should be properly fenced-in, with an entrance gate to provide ease of access for community members and descendants of the deceased.
<b>Indirect:</b> Increased dust levels and associated health problems	<p><b>Significance if not mitigated:</b> Moderate</p> <p><b>Significance if mitigated:</b> Low</p>	Control through implementing complaints register to record complaints.



	<p><b>Cumulative:</b></p> <ul style="list-style-type: none"> <li>• Reduce erosion and compaction through: <ul style="list-style-type: none"> <li>○ Stockpiling soils.</li> <li>○ Vegetate and/or cover soil stockpiles.</li> <li>○ Install erosion berms, if required.</li> <li>○ Restrict vehicle movement to project related areas.</li> </ul> </li> <li>• Noise, dust, visual</li> </ul>	<p><b>Significance if not mitigated:</b> Moderate</p> <p><b>Significance if mitigated:</b> Low</p>	<ul style="list-style-type: none"> <li>• Reduce and control through the implementation of above mentioned management measures.</li> </ul>
--	---	--	---

### Closure and Rehabilitation Mitigation Measures

The crusher plant will be decommissioned when the operation is no longer viable for the Applicant or when the waste rock is depleted. The actions that will be taken to decommission and close the crusher plant are limited to the immediate footprint on which the crusher is located as well as areas that may have been used for the stockpiling of the products from the crusher.

The following actions will be undertaken to decommission and close the plant and return the footprint of the plant to the original land use:

- All power and water services to be disconnected and certified as safe prior to commencement of any demolition works;
- Salvageable equipment will be removed and transported offsite prior to the commencement of demolition;
- All fittings, fixtures and equipment will be dismantled and removed to designated temporary disposal yards;
- All tanks, pipes and sumps containing hydrocarbons to be emptied prior to removal to ensure no hydrocarbon/chemical residue remains;
- Concrete slabs and footings will be broken and buried in situ;
- Growth medium will be placed over the footprint of the crusher plant as well as footprints that may be used for the temporary storage of crushed rock; and
- Vegetation will be established on the footprints.

BOBOLELE CONSULTING is of the opinion that the closure actions proposed above, will mitigate the environmental impacts associated with the infrastructure and there is an expectation that there will be no residual or latent risk associated which would require further closure actions.

### Actions at Post-closure

Following the demolition of infrastructure and the reestablishment of land capability on the footprints where infrastructure is removed, a monitoring and maintenance plan will be implemented. The maintenance will be dictated by monitoring activities and is expected to include:

- Replacement of soils if erosion limits vegetation establishment and the potential of the vegetation cover to be sustainable;
- Reestablishment of vegetation if the vegetation is impacted by erosion;
- Installation of small agricultural type berms if necessary to control runoff and limit erosion potential; and
- The monitoring activities that will be used to inform maintenance requirements are scheduled for a period of 3 years and will include:



- Biannual vegetation monitoring to establish cover and biodiversity in the cover; and
- Annual soil erosion monitoring using visual methods to identify where erosion may be being undertaken.

## 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.

### **Alternative 1 - Site (preferred and only alternative)**

To date, there are no serious flaws that have been identified for the project. An EMPr has been developed as part of Basic Assessment Process to enhance the mitigation of these impacts as far as practicable. It is anticipated that it will be possible to successfully mitigate the majority of the environmental impacts to acceptable levels and the implementation will be monitored and audited to determine the effectiveness of the measures implemented.

The key impacts identified for the proposed establishment of a mobile crushing plant include the impact on air quality from crushing operations (i.e. dust), as well as the impact on noise associated with crushing operations. Given the location of the property in an agricultural area with limited receptors, the significance of the operation of the mobile crushing plant is considered to be low after mitigation.

The only high impact identified is considered to be positive and that relates to the employment opportunities that will be created by the operation of the mobile crushing plant. Potential candidates for employment will be sourced from the local community.

In terms of the aggregate products produced as a result of the crushing activities, the greater socioeconomy of the surrounding area will benefit through the provision of raw material (i.e. aggregate products) to the construction industry, which is currently experiencing positive growth and is improving employment prospects.

### **Alternative 1 - Design (preferred and only alternative)**

To date, there are no serious flaws that have been identified for the project. An EMPr has been developed as part of Basic Assessment Process to enhance the mitigation of these impacts as far as practicable. It is anticipated that it will be possible to successfully mitigate the majority of the environmental impacts to acceptable levels and the implementation will be monitored and audited to determine the effectiveness of the measures implemented.

The key impacts identified for the proposed establishment of a mobile crushing plant include the impact on air quality from crushing operations (i.e. dust), as well as the impact on noise associated with crushing operations. Given the location of the property in an agricultural area with limited receptors, the significance of the operation of the mobile crushing plant is considered to be low after mitigation.

The only high impact identified is considered to be positive and that relates to the employment opportunities that will be created by the operation of the mobile crushing plant. Potential candidates for employment will be sourced from the local



community.

In terms of the aggregate products produced as a result of the crushing activities, the greater socioeconomy of the surrounding area will benefit through the provision of raw material (i.e. aggregate products) to the construction industry, which is currently experiencing positive growth and is improving employment prospects.

### **Alternative 1 - Technology (preferred alternative)**

To date, there are no serious flaws that have been identified for the project. An EMPr has been developed as part of Basic Assessment Process to enhance the mitigation of these impacts as far as practicable. It is anticipated that it will be possible to successfully mitigate the majority of the environmental impacts to acceptable levels and the implementation will be monitored and audited to determine the effectiveness of the measures implemented.

The key impacts identified for the proposed establishment of a mobile crushing plant include the impact on air quality from crushing operations (i.e. dust), as well as the impact on noise associated with crushing operations. Given the location of the property in an agricultural area with limited receptors, the significance of the operation of the mobile crushing plant is considered to be low after mitigation.

The only high impact identified is considered to be positive and that relates to the employment opportunities that will be created by the operation of the mobile crushing plant. Potential candidates for employment will be sourced from the local community.

In terms of the aggregate products produced as a result of the crushing activities, the greater socioeconomy of the surrounding area will benefit through the provision of raw material (i.e. aggregate products) to the construction industry, which is currently experiencing positive growth and is improving employment prospects.

### **Alternative 2 - Technology**

### **No-go alternative (compulsory)**

The Project Area is already impacted by noise from neighbouring Tharisa mine, the N4 highway and D1325 (Marikana) road. The air quality in the study area is also impacted by mining activities as well as exhaust emissions from N4 highway and D1325 road. The cumulative impacts from the proposed project are relatively small and the project will provide positive impact of employment. Therefore, the no-go alternative is not supported.



## SECTION D: PUBLIC PARTICIPATION

### 1. ADVERTISEMENT AND NOTICE

<b>Publication name</b>	Rustenburg Herald	
<b>Date published</b>	16 November 2017	
<b>Site notice position</b>	<b>Latitude</b>	<b>Longitude</b>
	25°44'54"S	27°29'30"E
	25°45'27"S	27°29'25"E
	25°45'14"S	27°33'27"E
	25°43'47"S	27°29'23"E
<b>Date placed</b>	6 September 2017	

Include proof of the placement of the relevant advertisements and notices in Appendix I1.

### 2. DETERMINATION OF APPROPRIATE MEASURES

Provide details of the measures taken to include all potential I&APs as required by Regulation 41(2)(e) and 41(6) of GN R.982.

Key stakeholders (other than organs of state) identified in terms of Regulation 40(2)(d) of GN R.982:

NAME/INITIALS	SURNAME	ORGANISATION	ADDRESS	TEL. /CELL NO.	FAX/E-MAIL
Joslyn	Geldenhuis	Junior Trust / IT 1811/99 Trustees	PO Box 195 Rustenburg 0323	082 901 3994	joslyngeldenhuis@gmail.com 086 685 7143
Fred	Geldenhuis		Plot A19 (Portion 97 & remainder of portion 26) Buffespoort 0284		fred.geldenhuis@gmail.com
Marika	Van der Walt			082 900 7300	marikav@law.co.za
Alet	Swanepoel				m.ecoforum@gmail.com
Melissa	Nel				melissa@lendekker.co.za
Hennie	Bester	CAN Engineering Worx	PO Box 491 Mooinooi 0325 (Plot 81 Buffespoort Portion Buffespoort)	083 225 7719	hennie@engworx.co.za 086 514 0414
PJ.	Potgieter	Private	Kafferskraal 342 JQ	083 234	herleen.potgieter@angloamerican.com



NAME/INITIALS	SURNAME	ORGANISATION	ADDRESS	TEL. /CELL NO.	FAX/E-MAIL
			Portion 146	8387	
M.	Potgieter	Private	PO Box 187	083 234 8387	herleen.potgieter@angloamerican.com
M.M	Potgieter	Private	Marikana 0284	074 542 9401	herleen.potgieter@angloamerican.com
Richard	Spoor	Advocate			richard@richardspoorinc.co.za
Tina and Grel	Du Toit	Landowner	Ptn 23 (Ptn 7 of portion 7) of farm Buffelspoort PO Box 1770 Mooinooi 0325	014 572 0700/1/2 076 867 8074	tdutoit@tharisa.com
Patrick	Sibuyi	Tharisa Minerals (Pty) Limited Environmental Manager	Tharisa Mine, Portion 84, Farm 342-JQ, Marikana, South Africa Postnet Suite 473, Private Bag X51, Bryanston, 2021, South Africa	014 572 0876	psibuyi@tharisa.com 014 572 0711
Alex	Salang	Community member	Mmadithlokwa, Kafferskraal	079 979 6126	
Hettie	Gous	Community IAP	Plot A7 Buffelspoort 342 JQ	083 262 3951	hettie.l@gwisa.com goush@mweb.co.za
Christo	Gous	Community IAP	Plot A7 Buffelspoort 342 JQ PO Box 15056	082 799 9629	Chris2gous@gmail.com

Include proof that the key stakeholder received written notification of the proposed activities as Appendix I2. 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.

### 3. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summary of main issues raised by I&APs	Summary of response from EAP
Consideration of the nearby communities for employment.	Employees will be sourced from neighbouring communities during construction and operational phases of the project.
We are constantly being exposed to dust and blast fumes from Tharisa with a Crusher this will	The Draft Basic Assessment Report (BAR) (and associated Specialists studies such as air quality





just get worse along with additional traffic.	impact assessment) and Environmental Management Programme (EMPr) are currently being compiled. You will be notified of the availability of the Draft BAR and EMPr when it is available for review and comment.
As a resident in the area, I strongly object due to noise pollution.	The Draft Basic Assessment Report (BAR) (and associated Specialists studies such as noise impact assessment) and Environmental Management Programme (EMPr) are currently being compiled. You will be notified of the availability of the Draft BAR and EMPr when it is available for review and comment.

#### 4. COMMENTS AND RESPONSE REPORT

The practitioner must make report (s) available to I&APs record all comments received from I&APs and respond to each comment before 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 I3.

#### 5. AUTHORITY PARTICIPATION

Authorities and organs of state identified as key stakeholders. Key stakeholders identified in terms of Regulation 7(1) and (2) and Regulation 40(2) (a)-(c) of GN R.982:

Authority/Organ of State	Contact person (Title, Name and Surname)	Tel No	Fax No	e-mail	Postal address
Ward 32 Councillor	Mr. Phillip Mntombi	072 427 6567	014 590 3006		P O Box 422 Marikana 0284
EIA Officer Rustenburg Local Municipality: Integrated Environmental Management	Ms. Kelebogile Mekgwe	014 590 3185 072 585 9460		kmekgoe@rustenburg.gov.za	P O Box 16 Rustenburg 0300
North West Provincial Heritage Resources Authority (NWPHERA)	Mr. Mosiane Mothlabane	018 388 2826	086 621 1240	mosianem@nwpg.gov.za	Private Bag X90 Mmabatho 2735
Department of Mineral Resources (DMR)	Mr. Ndlelenhle Zindela	018 487 9830	018 462 9039	ndlelenhle.zindela@dmr.gov.za lpeleng.Wesi@dmr.gov.za (Secretary)	Private Bag A1 Klerksdorp 2570
Bojanala District Municipality	Mr. James Mesebe	014 590 4600 072 277 0279	014 592 6085	jamesm@bojanala.gov.za	P.O. Box 1993 Rustenburg 0300



Department of Water and Sanitation (DWS) Buffelspoort Dam	Mr. Amos Molalasi	014 574 6919 082 887 0627		molalasia@dwa.gov.za	P O Box 171 Marikana 0284
--	-------------------	------------------------------	--	----------------------	---------------------------------

Include proof that the Authorities and Organs of State received written notification and draft reports of the proposed activities as Appendix I4.

## 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 I5.

Copies of any correspondence and minutes of any meetings held must be included in Appendix I6.

## 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

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).

N/A

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.

All recommended management measures as stipulated in this report can be included as conditions of authorisation. In addition, the following specialists' recommendations can also be included as conditions of authorisation:

### Noise Impacts

- A staged mobile crushing plant with lower sound power levels should be utilised.
- Appropriate Personal Protection Equipment (PPE) in the form of ear protection equipment must be utilised by personnel working on-site close proximity to noise sources.
- Construction activities to take place during daytime periods only (sunrise to sunset).
- The noise levels generated by hauling vehicles, machinery, equipment must comply with the manufacturer's specifications and any deviation of these noise levels will have to be immediately addressed and rectified.
- A noise evaluation to be carried out before the plant is operational to determine noise mitigation



measures.

- An earth berm (height of the crusher plant) of rock and soil to be constructed along the south and the south-east boundaries of the crusher plant.
- The hauling of rock before crushing and shipment off the site will have to take place on roads which are in a good condition and free from any potholes. The speed along these roads may not exceed 40.0km/h.
- A maintenance plan for all equipment which may be used at the crushing plant must be in place to identify and rectify any noise sources within 5 working days after such noise source was identified.
- Noise management plan to be used during the different phases of the project.

#### **Air Quality**

- A dust monitoring system is to be established and managed by the Applicant (or delegated down as appropriate) to determine the dust fallout generated on site by activities.

#### **Cultural and Heritage Impact Assessment**

- The grave site should be demarcated with danger tape for the duration of the construction phase and that a 10m buffer zone from the outer perimeter should be maintained.
- Once the construction phase of the development has been completed that the site should be properly fenced-in, with an entrance gate to provide ease of access for community members and descendants of the deceased.

#### **Terrestrial ecological assessment**

- A sensitivity map indicating the Drainage Line and Critical Biodiversity Areas must be considered during all development phases to aid in the conservation of floral habitat within the area.
- The Applicant must ensure that as much of the proposed infrastructure as possible is situated in the transformed habitat unit and is outside of any drainage features.
- The boundaries of the development footprint areas are to be clearly defined and it should be ensured that all activities remain within defined footprint areas.
- All areas of increased ecological sensitivity should be designated as “no-go” areas and be off limits to all unauthorised vehicles and personnel. Vehicles should be restricted to travelling only on designated roadways to limit the ecological footprint of the proposed development activities.
- Planning of temporary roads and access routes should take the site sensitivity plan into consideration. Such roads should be constructed a distance from the more sensitive habitat units and not directly adjacent thereto.
- The project footprint must fall outside of the 1:100 year floodline of the riparian features or 100m from the edge of the feature, whichever distance is the greatest unless exemption from Regulation 704 is applied for and obtained.
- Access into adjacent drainage lines, particularly by vehicles, is to be strictly prohibited.
- All vehicles should remain on designated roads with no indiscriminate driving through adjacent drainage features.
- Ensure that seepage from dirty water systems is prevented as far as possible.
- It must be ensured that all hazardous storage containers and storage areas comply with the relevant SABS standards to prevent leakage. All vehicles must be regularly inspected for leaks.
- Re-fuelling must take place on a sealed surface area to prevent ingress of hydrocarbons into topsoil.



- All adjacent drainage lines must be monitored for erosion and incision.
- It must be ensured that all activities potentially impacting on geohydrological resources are managed according to the relevant DWS Licensing regulations and groundwater monitoring requirements.

#### *Rehabilitation*

- All disturbed areas must be rehabilitated as soon as possible to ensure that floral ecology is re-instated.
- Reseeding with indigenous grasses should be implemented in all affected areas and strategic planting of bushveld tree species should take place to re-establish microclimates and niche habitats.

#### *Fires*

- Informal fires should be prohibited during all development phases.
- It is recommended that the local communities residing within and in the vicinity of the study area should be informed about fire control and prevention measures to reduce the frequency of uncontrolled veld fires in areas surrounding and within the study area.

#### *Fauna species*

- It is recommended that a speed limit of 40km/h is implemented on all roads running through the farm in order to minimise risk to fauna from vehicles. Speed humps may be constructed to help slow vehicles and help mitigate collision with faunal species.
- Education and awareness campaigns on faunal species and their habitat are recommended to help increase awareness, respect and responsibility towards the environment for all staff and contractors.
- No trapping or hunting of fauna is to take place and access control into sensitive areas must be implemented to ensure that no illegal trapping or poaching takes place.

#### *Floral Species of Conservation Concern (SCC)*

- Sensitive floral species are to be handled with care and the relocation of sensitive plant species is to be overseen by a botanist.
- Should any RDL or protected plant species be encountered within the proposed development footprint areas, the following should be ensured:
- If any threatened species, or nationally or provincially protected floral will be disturbed, ensure effective relocation of individuals to suitable similar habitat.
- All rescue and relocation plans should be overseen by a suitably qualified specialist.

The EMPr that meet the requirements of EIA Regulation, 2014, Appendix 4, must be attached as Appendix J.

Is an EMPr attached?

YES

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 K.

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

Any other information relevant to this application and not previously included must be attached in Appendix L.



## **SECTION F: AFFIRMATION BY EAP**

I Thikhoi Motsoene (name of person representing EAP) of BOBOLELE CONSULTING (PTY) LTD (name of company) declare that the information provided is correct and relevant to the activity/ project and that, the information was made available to interested and affected parties for their comments. All specialist (s) reports are relevant for the competent authority to make informed decision.

---

**SIGNATURE OF EAP**

---

**DATE**



## **SECTION F: APPENDICES**

The following appendices must be attached:

Appendix A: A3 Locality Map

Appendix B: Layout Plan and Sensitivity Maps

Appendix C: Photographs

Appendix D: Facility illustration(s)

Appendix E: Confirmation of services by Municipality (servitude and infrastructure planning)

Appendix F: Details and expertise of Specialist and Declaration of Interest

Appendix G: Specialist reports (including terms of reference)

Appendix H: Impact Assessment

Appendix I: Public Participation

Appendix J: Environmental Management Programme (EMPr)

Appendix K: Details of EAP and expertise

Appendix L: Any other Information

Appendix M: Financial Provision (if applicable)

Appendix N: Closure Plan (where applicable) as described in Appendix 5 of EIA Regulations, 2014



## APPENDIX A: A3 LOCALITY MAP



## APPENDIX B: LAYOUT PLAN AND SENSITIVITY MAPS





## APPENDIX C: PHOTOGRAPHS



## APPENDIX D: FACILITY ILLUSTRATION(S)



## APPENDIX E: CONFIRMATION OF SERVICES BY MUNICIPALITY (SERVITUDE AND INFRASTRUCTURE PLANNING)



# APPENDIX F: DETAILS AND EXPERTISE OF SPECIALIST AND DECLARATION OF INTEREST



# APPENDIX G: SPECIALIST REPORTS (INCLUDING TERMS OF REFERENCE)



# APPENDIX H: IMPACT ASSESSMENT



# APPENDIX I: PUBLIC PARTICIPATION



# APPENDIX J: ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPR)





## APPENDIX K: DETAILS OF EAP AND EXPERTISE



## APPENDIX L: ANY OTHER INFORMATION



## APPENDIX M: FINANCIAL PROVISION (IF APPLICABLE)

N/A



**APPENDIX N: CLOSURE PLAN (WHERE APPLICABLE) AS DESCRIBED IN  
APPENDIX 5 OF EIA REGULATIONS, 2014**

N/A



---

---

**WE BELONG**   **WE CARE**   **WE SERVE**