

# **SOCIAL AND LABOUR PLAN of NGULULU RESOURCES (PTY) LTD**

**TO BE SUBMITTED FOR MINING RIGHTS APPLICATION IN  
TERMS OF THE MINERAL AND PETROLEUM RESOURCES  
DEVELOPMENT ACT, 2002, (ACT NO. 28 OF 2002)  
REGULATION 11(1)**

**Delmas, Mpumalanga Province**

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**Date: April 2013**

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## SECTION 1: PREAMBLE

Ngululu Resources (Pty) Ltd. - Background Information:

- 1.1 Name of company / applicant:** Ngululu Resources (Pty) Ltd.
- 1.2 Name of mine / production operation:** Ngululu Resources (Pty) Ltd.
- 1.3 Physical Address:** Ngululu House, Building 3, Centurion Gate Office Complex, Cnr John Vorster Drive and Akkerboom Street, Centurion, 0153.
- 1.4 Postal Address:** P.O. Box 67347, Highveld X11, Centurion, 0169.
- 1.5 Telephone Number:** 086 140 4030.
- 1.6 Fax Number:** 086 650 1200.
- 1.7 Location of mine:** 6 km east of Delmas on the R555 road.
- 1.8 Commodity:** Coal
- 1.9 Life of mine:** +/- 20Years
- 1.10 Financial Year:** 28 February
- 1.11 Reporting Year:** by 28 February of each year.
- 1.12 Responsible person(s) / mine manager(s):** Christopher Tshililo Luvhani, tel: (012) 663 2257.
- 1.13 Geographic origin of employees / breakdown of employees per labour sending area:** Workers originate from the following areas:

15 km west and south west

<b>LABOUR SENDING AREA</b> (Area where employees are actually from (i.e. where their core family lives, where they go to when they go "home" during holidays and where they send money to, include the local community as well as employees from other places)	<b>NUMBER OF EMPLOYEES:</b> (Number of employees from the particular area)
<b>Workers from the local community</b>	
Local community to the west (Delmas, Botleng, Eloff, Rietkol, and surrounds) and central eastern Gauteng to	258 workers (89% of workforce)

the east (Daveyton, Springs, Welgedacht, Slovo Park, Bakerton, Gugulethu, Everest, Brakpan, Benoni, Boksburg, Phomolo, Kwa-Thema, White City, Langaville, Tsakane, Duduza, Kempton Park, Thembisa, Alexandra).	
<b>Workers not from the local community</b>	
Rest of Gauteng (spread from Johannesburg and Tshwane)	19 workers (6% of workforce)
Rest of Mpumalanga (spread from various individual places)	8 workers (3% of workforce)
Eastern Cape (spread from various individual places)	3 workers (1% of workforce)
Lesotho (spread from various individual places)	2 workers (<1% of workforce)
<b>Total</b>	<b>290 workers (100%)</b>

**1.14 Number of workers:** 290 (as indicated in Form Q, Annexure 2)



## SECTION 2: HUMAN RESOURCE DEVELOPMENT PROGRAMME

The primary objectives of the human resource development program are:

- To maximise positive job creation related impacts of the mine on the local community through skills transfer, bursaries, internships, learnerships etc.
- To facilitate the availability of mining and related skills and competencies of the workforce through mentorship, training and other means.
- To provide workers with a fair opportunity for career progression.
- To facilitate the transformation of the mining industry.
- To provide workers with portable skills utilizable outside the mining industry.

The following is a detailed description of practical measures to obtain these objectives. A detailed skills analysis and identification of the skills gap has been conducted, the results of which can be seen throughout this section (Section 2). Also, see Section 2.1.1.7.3 for a main summary of the Skills Development/Training Programme.

Note that one of the key targets of the new Mining Charter is to invest at least 3% of annual payroll in skills training.

### ***2.1 Compliance with skills development legislation***

#### **2.1.1 Summary of compliance with skills development legislation**

Name of SETA	Mining Qualifications Authority (MQA)
Registration number with the SETA (MERSETA)	Not an existing mine yet, therefore no registration took place yet. The MQA Levy Number will be submitted within 3 months after mining right were granted to DMR, MQA and Department of Labour.
Confirmation of having appointed a Skills Development Facilitator.	A Skills Development Facilitator has been appointed. See below for more detail.
Proof of submission of Workplace Skills Plan	Not an existing mine yet, therefore no registration took place yet. Will be submitted within 3 months after mining right were granted to DMR, MQA and Department of Labour.

#### **2.1.2 Appointment of a Skills Development Facilitator (SDF)**

A skills development facilitator has been appointed to facilitate the skills development process and to act as a contact person between the Mining Qualifications Authority and Ngululu Resources. Ngululu Resources's Skills Development Facilitator will be registered with the Mining Qualifications Authority as a Skills Development Facilitator, and meet the competency guidelines for Skills Development Facilitators. The workers will be consulted regarding the future re-appointment of the Skills Development Facilitator. It is the Skills Development Facilitator's task to develop the annual Workplace Skills Plan, to submit the Workplace Skills Plan to the Mining Qualifications Authority, to implement the annual Workplace Skills Plan, to design a training

quality assurance system, and to compile the Annual Training Report in relation to the approved Workplace Skills Plan.

### **2.1.3 Formation of a Training Committee**

A Training Committee, representing the interests of employees from all occupational groups and levels, will be established within six months after approval of the Social and Labour Plan. The function of the Training Committee will be to advise Ngululu Resources regarding skills development. Ngululu Resources will consult with the Training Committee regarding the appointment (and future re-appointments) of the Skills Development Facilitator, and drafting of the Skills Development Plan.

### **2.1.4 Paying and claiming of levy and grants with the MQA**

Ngululu Resources has been registered with SARS for monthly payment of the skills development levy and undertakes to stay up to date with levy payments to SARS.

To access the mandatory grant, Ngululu Resources will submit the Skills Development Plan and Annual Training Report in due time, apply for the grant at the Mining Qualifications Authority in due time, and will train the workers as explained in the Skills Development Plan (as well as in this Social and Labour Plan).

### **2.1.6 Developing and submitting the Workplace Skills Plan (WSP)**

Ngululu Resources will annually compile a Workplace Skills Plan in the prescribed Mining Qualifications Authority (MQA) format and submit it timeously. The Workplace Skills Plan provides information as described here in section 2 of this Social & Labour Plan, and as suggested by Meyer, 2002:

- The current skills profile by number of employees, by population group and educational levels;
- The skills priorities and the number of skills development beneficiaries by population, gender and occupational groups;
- The process followed to develop the Workplace Skills Plan;
- The steps used to consult with employees regarding the Workplace Skills Plan, e.g. via the training committee;
- The Workplace Skills Plan's relationship to the mine's Employment Equity Plan.

### **2.1.7 Annual Training Report (ATR)**

An Annual Training Report (ATR) will be submitted every year in due time, to the Department of Labour and the MQA, reporting on the following:

- Number of employees who received training (training beneficiaries)
- Number of learners who completed ABET (Adult Basic Education and Training)
- Number of people who have undergone induction training
- Number of learners who completed Learnerships and Skills Programmes
- Number of learners supported with bursary and study assistance
- Number of contractors (if any) who received training

The Skills Development Facilitator, appointed by Ngululu Resources and registered with MQA, will compile the Annual Training Report.

## **2.1.8 Evaluation of skills development strategy**

The entire skills development strategy or approach of Ngululu Resources will be evaluated annually, and corrective measures will be taken (amendments made) if necessary.

## **2.2 Skills development plan**

### **2.2.1. Current education levels of the workforce, further skills development planning and implementation of training**

#### **2.2.1.1. Current education levels of the workforce**

See **Annexure 2 Form Q** annexed for details of the current skills levels of the workforce. There is a diversity of education levels amongst the workers, ranging from having no education to tertiary qualification level. Ngululu Resources undertakes to train all employees up to ABET level 4, followed by an opportunity to receive vocational or other training in appropriate fields of study. See the remainder of section 2.1.1 for more detail on training and skills development.

#### **2.2.1.2 Conduct a skills gap analysis and liaise with MQA to determine further skills development priorities**

A skills gap analysis will be conducted on an annual basis, according to the method proposed by Meyer et al, 2004:

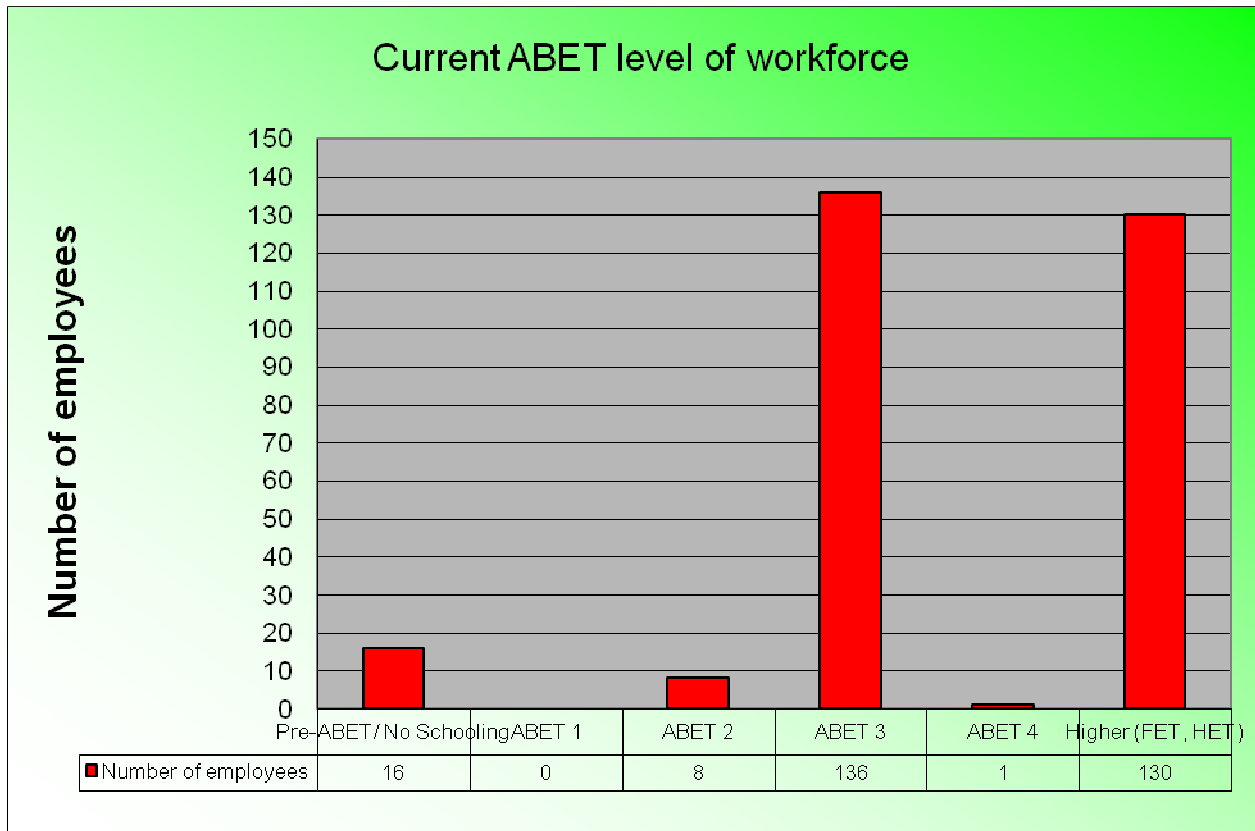
- 1) Ngululu Resources will identify a business strategy and business goals that must be attained in order to stay economically viable and to prevent job losses.
- 2) The business strategy and business goals will be analysed to determine the human resources base or skills needed to attain these business goals.
- 3) Individual training needs of all workers/employees will be analysed. Once a year, Ngululu Resources will discuss and analyse the skills that each employee possess, and compare these skills levels with the skills levels that is ideally required to reach Ngululu Resources's goals as determined in the previous two steps. This gap between the skills that the worker should have, and what he/she actually does have currently, represents the skills need of the worker. Skills needs of all workers will be aggregated to determine the workplace skills needs of Ngululu Resources.
- 4) The skills gap determined by the previous two steps will be reported and addressed in the Workplace Skills Plan. The Workplace Skills Plan will be submitted to the Mining Qualifications Authority (MQA) for approval. The Workplace Skills Plan of Ngululu Resources, as well as the Workplace Skills Plans of all other companies registered with MQA, will inform MQA in the drafting of the Sector Skills Plan.

#### **2.2.1.3 How training will be implemented**

Constant training programs will be held to ensure the development of industry specific skills and non-industry specific skills or portable skills. All costs associated with these training and skills development will be covered by Ngululu Resources, including registration-, class-, and examination fees, and prescribed books where appropriate. Learners will also be assisted with reasonable study leave and travel arrangements to training venues where applicable. The following sections discuss the Skills Development Plan in more detail.

## 2.2.2 ABET related training

Provision of opportunities to become functionally literate and numerate, i.e. Adult Basic Education and Training (ABET), is a first step towards further education and training as described later on in this document. The following graph illustrates the current ABET level status of the workforce. Workers with educational levels lower than ABET 4 are in need of further ABET training.



Ngululu Resources undertakes to train all employees who are interested to improve their ABET level, up to ABET Level 4. Those employees who are not interested to improve their ABET level, will be strongly encouraged to do so. The following table indicates the training need for ABET, at each ABET level.

**Table: Projected ABET training need at each ABET level**

Training needed at each ABET level	Number of workers at this level, who ideally should receive ABET training
Number of workers that <b>need only ABET level 4</b> training (those workers who currently are at ABET level 3)	136
Number of workers that only <b>need ABET level 3 &amp; 4</b> training (those workers who currently are at ABET level 2)	8
Number of workers that only <b>need ABET level 2, 3 &amp; 4</b> training (those workers who currently are at ABET level 1)	0
Number of workers that <b>need all of ABET level 1, 2, 3 &amp; 4</b> training (those workers who currently have no schooling/pre-ABET)	16

It should be noted that, in practice, not all workers who are in need of ABET training, will realistically be convinced to do so, with late career stage as the most important reason. Note that, despite efforts and incentives to convince participation, it is not legal to force any worker to undergo ABET or to penalise them for not doing so. The following table indicates the number of workers who are willing to be trained at each ABET level, by year, from 2013 to 2020. It is assumed that each worker will take 2 years to proceed from the one ABET level to the next (which is a reasonable and realistic timeframe).

**Table: Projected ABET training that will be provided by year, at each ABET level**

Level of ABET training	Year						Total number of employees to receive ABET training at specified level
	2013	2014	2015	2016	2017	2018	
Number of workers that will receive ABET Level 1 training	8	8	None needed except if future recruited employees (if any) are below this level)	None needed except if future recruited employees (if any) are below this level)	None needed except if future recruited employees (if any) are below this level)	None needed except if future recruited employees (if any) are below this level)	16
Number of workers that will receive ABET Level 2 training	0	0	8	8	None needed except if future recruited employees (if any) are below this level)	None needed except if future recruited employees (if any) are below this level)	16
Number of workers that will receive ABET Level 3 training	4	4	0	0	8	8	24
Number of workers that will receive ABET Level 4 training	80	80	4	4	0	0	168
<b>Total number</b> of workers that will receive ABET training per year, by year	<b>92</b>	<b>92</b>	<b>12</b>	<b>12</b>	<b>8</b>	<b>8</b>	<b>14</b>
<b>Budget</b> allocation for ABET Training in Rand (ZAR)	<b>138 000</b>	<b>138 000</b>	<b>18 000</b>	<b>18 000</b>	<b>12 000</b>	<b>12 000</b>	<b>336 000</b>

The workers will receive ABET training at a Department of Education approved centre (a nearby public school), and will be delivered by a SAQA registered ABET training provider. The workers/learners will first undergo a placement test, which will confirm the correct ABET level of each so that each can will then be placed in the correct class level. The learning process will be self-paced, this will allow those HDSA employees that are fast tracked for management positions

to progress at a faster pace, without being held back, while slower learners can progress at a pace comfortable to them without being labelled as slow learning. See the table directly above for ABET training targets and time frame.

### 2.2.3 Learnerships (incl. apprenticeships / artisan program)

A learnership is a mechanism to link structured learning with work experience, leading to a qualification registered on the NQF. The learnership programme is similar to the old apprentice system, but with training provision as a crucial component. It provides both vertical and horizontal articulation within the qualifications framework, and produce meaningful competencies for productive work. The structured learning part of the learnerships will include the unit standard categories required to make up a qualification, i.e. fundamental learning, core learning and specialisation. Work experience has to relate to the structured learning and prepare the learners for competence assessment.

Ngululu Resources will provide learnership opportunities. Because workers are recruited from the local community, the local community are the beneficiary of the learnership programme. Initially, all workers will be provided with at least accredited ABET training (those who are not literate up to ABET level 4 yet) and informal on-the-job training. After completion of ABET 4, workers will (if they wish to do so) receive vocational training in the form of learnerships under supervision of a qualified person. A written learnership agreement will be drawn up between the worker/learner and Ngululu Resources, stating the conditions of learnership, including the following:

- Learning outcomes to be achieved.
- What the mine's responsibilities and rights are.
- What the rights and responsibilities of the learner are.
- What the rights and responsibilities of the training provider are;
- Period of learnership;
- Supervision and support of learners;
- Orientation/Induction training (in case of new entrants).

The learnership programme is not the same as an internship programme (see section 2.4.1 for more detail on the internship programme), which is open to non-employees or members from the local community, and where Ngululu Resources is responsible for the practical component of the learner's study only. Also, the open bursary, explained in section 2.4.2.2 below, may or may not be accompanied by a learnership contract, depending on the bursary holder's needs, the chosen qualification's nature and requirements, and Ngululu Resources's suitability as a potential learnership partner.

The following table provides targets and timeframes regarding the number of learnerships that will be provided.

**Table: Targets and timeframe for learnerships to be provided**

Qualifications that will be provided in the form of learnerships	Projected number of learnerships per year for each specific qualification						Total number of learnerships per area of training
	2013	2014	2015	2016	2017	2018	
<b>Learnership to <u>internal</u> workers (employees)</b>							
General mine operational course (SAQA		1	1		1	1	4

registered)							
General machine operation course (covers excavator and front end loader operation) (SAQA registered)	1		1	1		1	4
<b>Learnership to external candidates (non-employees)</b>							
Diesel mechanic (open cast) (Dept Labour registration number 16Q160053001463)		1	1	1	1	1	5
<b>Total number of learnerships per year</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>13</b>
<b>Budget allocation for learnerships per year in Rand (ZAR)</b>	<b>25 000</b>	<b>50 000</b>	<b>75 000</b>	<b>50 000</b>	<b>50 000</b>	<b>75 000</b>	<b>325 000</b>

## 2.2.4 Core mining, industry-specific technical and operational skills training (excluding learnership related courses)

Core mining, industry specific technical and operational training are related to the processes of mining/quarrying techniques, equipment operation, repairs and maintenance. The following table provides targets and timeframe of core mining, industry specific technical and operational training that will be provided to the employees over the next few years.

Note that core mining, industry specific technical and operational training that are linked to learnerships are not discussed here but are addressed and budgeted for under the Learnership section (see section 2.2.3 above).

**Table: Targets and timeframe for core mining, industry specific technical and operational skills training**

Area (specific discipline) of training related to core mining, industry specific technical and operations	Number of employees provided with the specific type of training, per year						Total number of employees per area of training
	2013	2014	2015	2016	2017	2018	
<b>Formal learning programs</b>							
General workshop skills course	2	1	2	1	2	1	9
General quarry operations course		3	3	3	3	3	15
Mobile screen operation course	1	2	2	2	2	2	11
Static screen operation course		1	2	1	2	1	7
Excavator operation course	1	1	1	1	1	1	6
Front end loader operation course		1	1	1	1	1	5
Production process skills course		1	1	1	1	1	5
Production planning		1		1		1	3
Geology & exploration course						1	1
Mine surveying course		1			1	1	3

<b>Less formal, mainly on-the-job training</b>							
Coal quality assessment course	1	1	1	1	1	1	6
<b>Total number of employees to receive core mining, industry specific technical and operational training per year</b>	<b>5</b>	<b>13</b>	<b>13</b>	<b>12</b>	<b>14</b>	<b>14</b>	<b>71</b>
<b>Budget allocation for core mining, industry specific technical and operational training per year in Rand (ZAR)</b>	<b>12 100</b>	<b>31 460</b>	<b>31 460</b>	<b>29 040</b>	<b>33 880</b>	<b>33 880</b>	<b>171 820</b>

## 2.2.5 Management, administrative, environmental, health & safety skills training (excluding learnership related courses)

The following table provides targets and timeframe of management, administrative, environmental, health & safety training that will be provided to the employees over the next few years. Note that management, administrative, environmental, health & safety skills training that are linked to learnerships are not discussed here but are addressed and budgeted for under the Learnership section (see section 2.2.3 further above).

**Table: Targets and timeframe for management, administrative, environmental, health & safety training**

Area (specific discipline) of training related to management, administration, environment, health & safety	Number of employees provided with the specific type of training, per year						Total number of employees per area of
	2013	2014	2015	2016	2017	2018	
<b>Management &amp; supervision courses</b>							
General business management course, University of Pretoria short course nr P001810 (or similar accredited course and training provider)			1		1		2
General quality control course		1		1		1	3
Supervisory skills course	3	6	6	6	6	6	6
Leadership course		3	3	3	3	3	3
Project management course			1		1	1	3
Conflict handling and negotiation strategies		1	1	1	1	1	5
Advanced employment relations course		1	1	1	1	1	5
Mentoring and Coaching Programme, University of Pretoria short course nr P000585 (or similar accredited course and training provider)		1	1	1	1	1	5
Advanced business development course			1		1		2



Financial management course, University of Pretoria short course nr P000037 (or similar accredited course and training provider)		1		1		1	3
<b>Health &amp; safety courses</b>							
First Aid training (provided by St Johns or another recognised provider)	6	6	6	6	6	6	36
Safety skills (SHE Induction, NQF level 1, accredited by NOSA, SAQA qualification ID nr: 116527)		2	2	2	2	2	12
SHE training (Applying SHE Principles and Procedures, NQF level 2, accredited by NOSA, SAQA qualification ID nr: 116520)		2	2	2	2	2	10
SHE representative training: Hazard Identification and Response, NQF Level 2 (accredited by NOSA)		1	1	1	1	1	5
SHE representative training: Basic SHE Inspections, NQF Level 2 (accredited by NOSA)		1	1	1	1	1	5
<b>Environmental management courses</b>							
Introduction to Environmental Management: An Overview of Principles, Tools and Issues (course nr CEM-01.1 presented by the Centre for Environmental Management, North West University)		1		1		1	3
Basic Principles of Ecological Rehabilitation and Mine Closure (course nr CEM-06.5.1 presented by the Centre for Environmental Management, North West University)		1		1		1	3
<b>Total number of employees to receive management, administrative, environmental, health &amp; safety training per year</b>	9	27	26	27	27	28	111

<b>Budget</b> allocation for management, administrative, environmental, health & safety training per year in Rand (ZAR)	42 030	126 090	121 420	126 090	126 090	130 760	518 370
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## 2.2.6 Portable skills training

Portability refers to the ability of workers to transfer their skills/knowledge/qualifications attained at the mine, to other employers, industries or learning institutions.

Most of the training that will be provided to workers, are based on registered SAQA qualifications and unit standards, therefore it is completely portable to all SAQA registered South African training institutions that offer similar courses. See other training sections in this document for more information regarding the full range of formal training and qualifications that the mine will offer to its employees. Almost all skills and training that will be provided by Ngululu Resources are portable to most other industries, including the regionally important agricultural, manufacturing, utilities, transport and services industries. Therefore the workers will not be over-dependent on this operation or the mining industry in general, but can apply these skills in a variety of other industries as well. In addition, most of the more specialised training provided has been identified by the Department of Labour as scarce skills, therefore the worker will fill a critical gap in the South African labour market, and will have less difficulty finding a new job after eventual closure of the mining operation.

However, this section focuses on pure portable skills training, in other words training in skills completely separate from the mining industry. The following table indicate targets and budget regarding pure portable skills training.

**Table: Targets and timeframe for portable skills training**

Area (specific discipline) of training related to portable skills	Number of employees provided with the specific type of training, per year						Total number of employees per area of training
	2013	2014	2015	2016	2017	2018	
Mechanical maintenance & basic mechanical repairs course	2	6	6	6	6	6	32
Basic farming skills	3	8	8	8	8	8	43
Brick making skills	2	6	6	6	6	6	32

Entrepreneurship & business management course (incl. human relations & communications skills) (taken by all beneficiaries of abovementioned portable skills training programmes, to enable them to apply their portable skills in the form of an own business)	4	9	9	9	9	9	49
<b>Total number</b> of employees to receive portable skills training per year b(note that one employee may receive more than one course per year therefore a number higher than the total workforce is possible)	11	29	29	29	29	29	156
<b>Budget</b> allocation for portable skills training per year in Rand (ZAR)	30 580	80 620	80 620	80 620	80 620	80 620	433 680
Other skills which may be considered as portable	Note that most of the training provided in other sections is portable to other industries as well.						

## 2.2.7 Soft skills and other informal training

Apart from initial ABET training and formal or vocational training and more formal business management and administrative training needed to make mining possible, soft skills training will also be provided, e.g. induction to new workers, general life skills, health awareness programs, drug and alcohol abuse awareness programs, and personal financial management. The following table provides exact targets and timeframes.

**Table: Targets and timeframe for soft skills and other informal training**

Area (specific discipline) of training related to soft skills and other informal training	Number of employees provided with the specific type of training, per year						Total number of employees per area of training
	2013	2014	2015	2016	2017	2018	
Code 10 drivers license	2	2	2	2	2	2	12
General life skills, including training on issues related to commitment, adaptability, flexibility, time management, listening skills, communication skills, creativity, ethics, management skills, leadership skills, supervisory skills	Available to all workers	Available to all workers	Available to all workers	Available to all workers	Available to all workers	Available to all workers	Available to all workers

Personal financial management skills, including basic investment, financial planning, budgeting and management of debts	Available to all workers	Available to all workers	Available to all workers	Available to all workers	Available to all workers	Available to all workers	Available to all workers
General health awareness – TB, family planning, basic hygiene, sanitation etc.	Available to all workers	Available to all workers	Available to all workers	Available to all workers	Available to all workers	Available to all workers	Available to all workers
HIV/AIDS Awareness Training	Available to all workers	Available to all workers	Available to all workers	Available to all workers	Available to all workers	Available to all workers	Available to all workers
Drug and Alcohol abuse awareness programs	Available to all workers	Available to all workers	Available to all workers	Available to all workers	Available to all workers	Available to all workers	Available to all workers
Assertiveness skills	Available to all workers	Available to all workers	Available to all workers	Available to all workers	Available to all workers	Available to all workers	Available to all workers
Business writing skills	Available to all workers	Available to all workers	Available to all workers	Available to all workers	Available to all workers	Available to all workers	Available to all workers
Induction programme (12 months), including Understanding the contents of appointment; Basic conditions of employment; Rules and regulations; Disciplinary measures; Training programmes available; Procedures and Policies; Vision and Mission of company.	All newly recruited employees (if any)	All newly recruited employees (if any)	All newly recruited employees (if any)	All newly recruited employees (if any)	All newly recruited employees (if any)	All newly recruited employees (if any)	All newly recruited employees (if any)
<b>Total number of employees to receive soft skills and other informal training per year</b>	Potentially all workers	Potentially all workers	Potentially all workers	Potentially all workers	Potentially all workers	Potentially all workers	Potentially all workers
<b>Budget allocation for soft skills and other informal training per year in Rand (ZAR)</b>	18 300	18 300	18 300	18 300	18 300	18 300	<b>109 800</b>

### 2.3 Hard-to-fill vacancies

See Annexure 2 Form R annexed. As indicated, at this stage it is **not difficult to recruit for any occupations**.

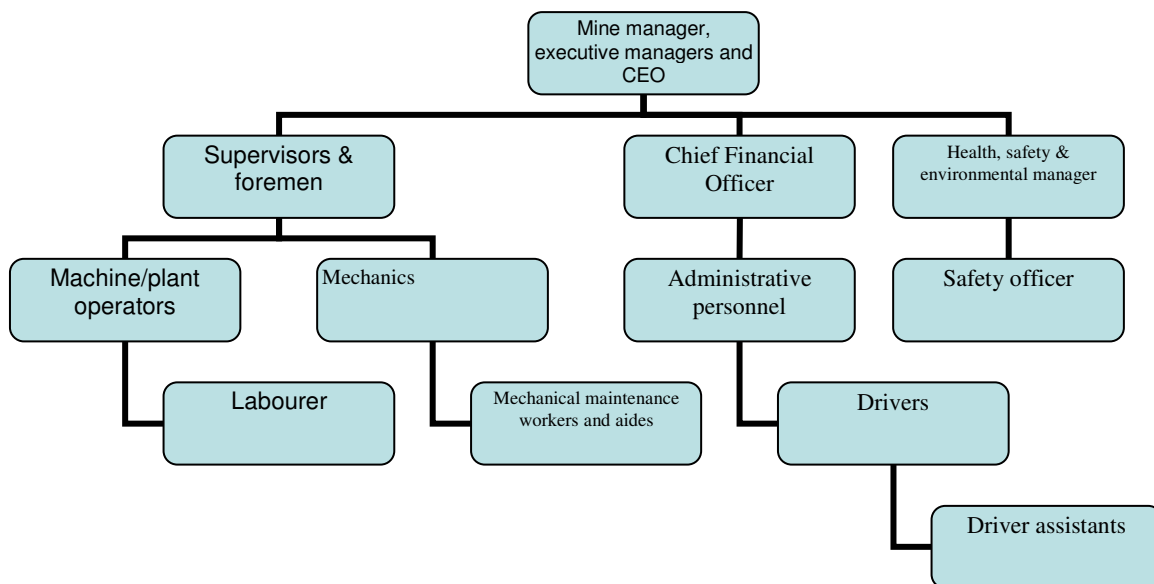
However, Ngululu Resources will annually report on hard-to-fill vacancies in the Social and Labour Plan Monitoring Report, to be submitted to the Department of Mineral Resources. Occurrence of hard-to-fill vacancies will also be reported annually to MQA and the Department of Labour.

## 2.4 General career progression (path) plan

### 2.4.1 The general career progression path

Career progression will be managed according to the identification of the existing skills of the employees, their own desired career goals, and the operational and business goals of Ngululu Resources.

The following flow chart illustrates the hierarchical levels and typical career progression paths at Ngululu Resources:



Career pathing will be addressed through formal and informal training as indicated in Section 2.2, as well as mentorship as described in section 2.5.

The career progression will be as follows:

#### **Chief Executive Officer (CEO) (1 post):**

*Entry requirements:* Directors who succeeded through the previous ranks and have exceptional management skills with at least 6 years experience in a higher level management position, may become eligible for CEO position.

*Requirements to be promoted to the next level:* Not applicable

#### **Senior executive directors (4 posts):**

*Entry requirements:* Mine manager or other middle management managers who succeeded through the previous ranks and have exceptional management skills with at least 6 years experience in a middle or higher level management position, may become eligible for a senior executive director position.

*Requirements to be promoted to the next level:* Exceptional management skills and strategic leadership, and in-depth knowledge of corporate law are required to be eligible for promotion.

**Mine manager** (1 post):

*Entry requirements:* Supervisors or foremen who succeeded through the previous ranks and have exceptional management skills with at least 6 years experience (5 years in case of a fast-tracked HDSA candidate) in a foreman position, and who obtained a mining diploma and mine manager ticket, may become eligible for the mine manager position.

*Requirements to be promoted to the next level:* Exceptional management skills and strong people leadership, and in-depth knowledge of corporate law are required to be eligible for promotion.

**Chief Financial Officer (CFO)** (1 post):

*Entry requirements:* To enter this position a worker needs to be willing to be trained in computerised accounting, and advanced accounting and financial skills, and in general management tasks. Routine clerical work and other office related tasks will be an integral part of this position. Regarding level of experience, 5 years (4 years in case of HDSA workers) as debtor or accountant is needed. The worker must be in possession of a National Senior Certificate with accounting, however, a relevant tertiary qualification is preferred.

*Requirements to be promoted to the next level:* Exceptional management skills and strategic leadership, and in-depth knowledge of corporate law are required to be eligible for promotion.

**Human Resource (HR) Manager** (1 post):

*Entry requirements:* To enter this position a worker needs to be willing to be trained in computerised payroll and other HR software, and advanced human resource management skills, and in general management tasks. Regarding level of experience, 5 years (4 years in case of HDSA workers) as HR officer or assistant in a mining environment is needed. The worker must be in possession of a National Senior Certificate, however, a relevant tertiary qualification is preferred.

*Requirements to be promoted to the next level:* Exceptional management skills and strategic leadership, and in-depth knowledge of corporate law are required to be eligible for promotion.

**Personal assistants** (3 posts):

*Entry requirements:* To enter this position a worker needs to be computer literate and willing to be further trained in word processing and general office skills, and possibly in financial and human resource tasks as his/her career develops with time. Routine clerical work and other office related tasks will be an integral part of this position. Proficiency in English is advised, however, English language skills will be provided as part of ABET training, if needed. No particular requirement regarding level of experience is set. The worker must preferably be literate, as all the next post levels will require some form of skills training, however, if illiterate, he/she will be provided with ABET training up to ABET Level 4.

*Requirements to be promoted to the next level:* Not applicable

**Administrative staff** (12 posts):

*Entry requirements:* To enter this position a worker needs to be skilled in basic office administration, bookkeeping, filing, human resource management and related tasks, with no particular requirement regarding level of experience. The worker must be literate, however, if illiterate, a worker may be employed in another post (labour or operational post) while being provided with ABET training up to ABET Level 4.

*Requirements to be promoted to the next level:* After at least 4 years in this post the worker can progress to the junior management level (same level as foreman) if a post is available, however, fast-tracked HDSA candidates may be promoted in as little as 3 years under sufficient, intensive skills training and mentorship. To be ready for promotion, administrative staff need to be skilled in a variety of mine management skills, and should have a good track record of their working ability and commitment over a two-year period at the mine. The candidate should also show interest in junior management position.

**Debtor and accountant (1 post):**

*Entry requirements:* To enter this position a worker needs to be willing to be trained in word processing and general office skills, and possibly in financial tasks as his/her career develops with time. Routine clerical work and other office related tasks will be an integral part of this position. Proficiency in English is advised, however, English language skills will be provided as part of ABET training, if needed. Candidates with a National Senior Certificate with Accountancy will enjoy preference.

*Requirements to be promoted to the next level:* To be promoted a worker needs to be willing to be trained in computer aided accounting, and advanced financial and accountancy skills. At least 5 years (4 years in case of HDSA workers) as debtor or accountant in a mining environment are needed.

**Fitter / Boiler Maker (13 posts):**

*Entry requirements:* To enter this position a worker needs to be skilled and/or trained in mechanical maintenance, with no particular requirement regarding level of experience. The worker must preferably be literate, as all the next post levels will require some form of skills training, however, if illiterate, they will be provided with ABET training up to ABET Level 4. Preference will be given to general workers who have been working at the mine for more than 5 years (4 years in case of HDSA workers).

*Requirements to be promoted to the next level:* After at least 4 years in this post the worker can progress to the foreman level if a post is available, however, fast-tracked HDSA candidates may be promoted in as little as 3 years under sufficient, intensive skills training and mentorship. To be ready for promotion, mechanics need to be skilled in mechanical maintenance of a variety of plants/machines, including excavators, dump trucks, front-end loaders and diesel vehicles, and should have a good track record of their working ability and commitment over a two-year period at the mine. The candidate should also show interest in the foreman position. Sensitivity towards occupational health and safety will also be an important consideration.

**Environmental, health and safety manager (1 post):**

*Entry requirements:* To enter this position a person needs to be qualified in health, safety and environmental management, as well as general mining related tasks. The person must be in possession of relevant health and safety qualifications and/or environmental, e.g. a degree in environmental management, a diploma in safety management and/or a SAMTRAC or another safety related qualification, or experience as a security officer who obtained additional safety, health and environmental qualifications. Preference will be given to general workers who have been working at the mine for more than 5 years (3 years in case of HDSA workers), and workers with sound knowledge on the National Environmental Management Act, Occupational Health and Safety Act and its provisions.

*Requirements to be promoted to the next level:* After at least 4 years in this post the candidate can progress to a higher salary scale, however, fast-tracked HDSA candidates may be promoted in as little as 3 years under sufficient, intensive skills training and mentorship. To be ready for promotion, the environmental, health and safety manager need to be highly skilled in hazard identification, and should have a good track record of their working ability and commitment over a two-year period at the mine. The candidate should have extensive knowledge on general mining. Note that, due to the operation's small size, there are only one environmental, health and safety manager position therefore opportunities for advancement are limited.

**Security officers (18 posts):**

*Entry requirements:* To enter this position a worker needs to be skilled in health & safety and/or security work, especially as related to a diamond mining environment, with no particular requirement regarding level of experience. The worker must preferably be literate, as all the next post levels will require some form of skills training, however, if illiterate, they will be provided with ABET training up to ABET Level 4.

*Requirements to be promoted to the next level:* After at least 4 years in this post the worker can progress to the foreman level if a post is available, however, fast-tracked HDSA candidates may



be promoted in as little as 3 years under sufficient, intensive skills training and mentorship. A security officer may also be promoted to the environmental, health and safety manager position. To be ready for promotion, the safety & security officer need to be skilled in all aspects of safety and/or security as required by the mine, should have the analytical ability to identify problems, and should have a good track record of their working ability and commitment over a two-year period at the mine. The candidate should also show interest in the foreman position. Sensitivity towards occupational health and safety will also be an essential consideration.

**Vehicle Driver, Heavy Duty Driver, Office Driver (15 post):**

*Entry requirements:* To enter this position a worker needs to be skilled in driving and/or other coal mining related tasks, with 3 years assistant driver experience, however, fast-tracked HDSA candidates may be promoted in as little as 2 years under sufficient, intensive skills training and mentorship experience. The worker must preferably be literate, as all the next post levels will require some form of skills training, however, if illiterate, they will be provided with ABET training up to ABET Level 4.

*Requirements to be promoted to the next level:* After at least 3 years in this post the worker may become eligible to be trained as a plant operator if a post is available, however, fast-tracked HDSA candidates may be promoted in as little as 2 years under sufficient, intensive skills training and mentorship. To be ready for promotion, drivers need to be skilled in driving under a variety of operational conditions, and should have a good track record of their working ability and commitment over a three-year period at Rolles Coal. The candidate should also show interest in a plant operator position. Sensitivity towards occupational health and safety will also be an important consideration.

**Assistant driver (15 posts):**

*Entry requirements:* To enter this position a worker needs to be skilled in driving and/or other coal mining related tasks, with no particular requirement regarding level of experience. The worker must preferably be literate, as all the next post levels will require some form of skills training, however, if illiterate, they will be provided with ABET training up to ABET Level 4.

*Requirements to be promoted to the next level:* After at least 3 years in this post the worker can progress to the Vehicle Driver or Heavy Duty Driver position if a post is available, however, fast-tracked HDSA candidates may be promoted in as little as 2 years under sufficient, intensive skills training and mentorship. To be ready for promotion, driver assistants need to be skilled in driving under a variety of operational conditions, and should have a good track record of their working ability and commitment over a two-year period at Rolles Coal. The candidate should also show interest in a more advanced driving position. Sensitivity towards occupational health and safety will also be an important consideration.

**Foreman / Supervisor / mid-level manager (28 posts):**

*Entry requirements:* To enter this position a worker needs to be skilled in an operation position and should be familiar with coal mining related tasks, with at least 6 years of experience in an operator position (5 years in case of fast-tracked HDSA workers). The worker must preferably be literate, as all the next post levels will require some form of skills training, however, if illiterate, he/she will be provided with ABET training up to ABET Level 4.

*Requirements to be promoted to the next level:* After at least 6 years in this post the worker can progress to the Mine Manager level if a post is available, however, fast-tracked HDSA candidates may be promoted in as little as 5 years under sufficient, intensive skills training and mentorship, especially in the areas of leadership and technical aspects regarding the operation. To be ready for promotion, the worker need to be skilled in mine or quarry operation under a variety of operational conditions, and should have a good track record regarding working ability and commitment over a six-year period at the mine. The candidate should also show interest in the Mine Manager position. Sensitivity towards occupational health and safety, environmental responsibility and people development will also be important considerations.



**Machine/plant Operators** (27 posts):

*Entry requirements:* To enter this position a worker needs to be skilled in machine operation and/or driving and/or other coal mining related tasks, with no particular requirement regarding level of experience. The worker must preferably be literate, as all the next post levels will require some form of skills training, however, if illiterate, they will be provided with ABET training right up to ABET Level 4.

*Requirements to be promoted to the next level:* After at least 6 years in this post the worker can progress to the foreman position if a post is available, however, fast-tracked HDSA candidates may be promoted in as little as 5 years under sufficient, intensive skills training and mentorship. To be ready for promotion, operators need to be skilled in machine operation under a variety of operational conditions, and should have a good track record of their working ability and commitment over a five-year period at Ngululu Resources. The candidate should also show interest in the foreman position, and have good relations with sub-ordinates and fellow operators. Sensitivity towards occupational health and safety will also be an important consideration.

**General labourers** (145 posts):

*Entry requirements:* To enter this position, no specific requirements are set.

*Requirements to be promoted to the next level:* Labourers with at least 3 years experience will become eligible to progress to the next level, i.e. to be trained in and become a machine/plant operator or in trades. However, fast-tracked HDSA candidates may be promoted in as little as 2 years under sufficient, intensive skills training and mentorship. The labourer must preferably be literate, as higher career levels require formal training, however, if illiterate, ABET training will be provided right through to level 4. To be ready for promotion, labourers need to be skilled in their current particular task, and should have a good track record of their working ability and commitment over a two-year period at Ngululu Resources. The candidate should also show interest in the machine/plant operator position. Sensitivity towards occupational health and safety will also be an important consideration.

**Gardener** (1 post):

*Entry requirements:* To enter this position, no specific requirements are set.

*Requirements to be promoted to the next level:* Labourers with at least 2 years experience will become eligible to progress to the next level, i.e. training in machine/plant operation. The worker must preferably be literate, as all the next post levels will require some form of skills training, however, if illiterate, they will be provided with ABET training up to ABET Level 4.

**Cleaners** (3 posts):

*Entry requirements:* To enter this position, no specific requirements are set.

*Requirements to be promoted to the next level:* No direct career progression path is available, however, the worker will be provided with ABET training up to ABET Level 4, as horizontal shifts of post levels, and subsequent promotion to higher levels from there, will require some form of skills training.

All the above posts will initially be limited to the numbers as given above and progression will only occur if a post at the next level became available.

Mechanisms will be put in place, that allow individuals the opportunity to progress from lower skilled operational levels, to higher skilled and management levels, by means of:

- Conducting individual needs assessments with all employees to determine their career aspirations;
- Provision of relevant literacy (ABET) courses, and encouraging participation in ABET programmes (see section 2.2.2);
- Provision of more advanced training and skills development (see section 2.2);
- Provision of career incentives to employees;

- Implementation of a Mentorship Plan (see section 2.5 below).

## 2.4.2 Number of employees targeted within specific timeframes

See sections 2.7 and 2.8 (Employment Equity Plan and Career Progression Path Plan for women and HDSA workers) for a Career Progression Path Plan for the next 5 years that indicates the number of employees targeted within specific timeframes, in addition to the information provided in the table below.

Current position	Training programmes and interventions	Target position working towards	2013	2014	2015	2016	2017
Mine manager	<ul style="list-style-type: none"> <li>Advanced employment relations course</li> <li>Advanced business development course</li> <li>Financial management course</li> <li>Ecological Rehabilitation and Mine Closure course</li> <li>Production planning</li> <li>Production process skills course</li> </ul>	Executive manager and CEO (continual professional development will be provided).	1	1	1	1	1
Foreman / Supervisor / Production Manager	<ul style="list-style-type: none"> <li>Project management course</li> <li>Leadership course</li> <li>Mentoring and Coaching Programme</li> <li>General business management course</li> <li>Conflict handling and negotiation strategies</li> <li>Environmental Management course</li> <li>Geology &amp; exploration course</li> <li>Production planning</li> <li>Production process skills course</li> <li>General quarry operational course</li> <li>Health &amp; safety courses as specified in section 2.2.5, and soft skills and other informal training as specified in section 2.2.7.</li> </ul>	Mine manager	2	2	2	2	2
Plant Operators, mechanics	<ul style="list-style-type: none"> <li>Supervisory skills course</li> <li>Quality control course</li> <li>General quarry operations course</li> <li>Mine surveying course</li> <li>Health &amp; safety courses as specified in section 2.2.5, and soft skills and other informal training as specified in section 2.2.7.</li> </ul>	Foreman / Supervisor / Production Manager	2	2	2	2	2

Driver assistants	<ul style="list-style-type: none"> <li>• Drivers course</li> <li>• Supervisory skills course</li> </ul>	Drivers	2	2	2	2	2
Labourers, mechanical maintenance workers and aides, cleaners, gardeners	<ul style="list-style-type: none"> <li>• Production related courses</li> <li>• General workshop skills course</li> <li>• Excavator operation course</li> <li>• Front end loader operation course</li> <li>• Various plant operation courses</li> <li>• Health &amp; safety courses as specified in section 2.2.5, and soft skills and other informal training as specified in section 2.2.7.</li> </ul>	Plant Operators	8	8	8	8	8

## 2.5 Mentorship plan

Procedures described in this Mentorship Plan include substantial contributions from Kalmas & Kalmas (2004).

The mentorship programme provides the worker/employee (the mentee) with the opportunity to benefit from aid and guidance provided by a more experienced employee (the mentor), thereby accelerate the skills transfer and career progression process. The mentorship programme is a valuable tool to achieve equal opportunity and broad based black economic empowerment objectives.

The Mentorship programme will focus on enhancing the skills development plan and career-progression plan. Existing employees will be mentored through internal training and guidance but external mentorship could also be made available if necessary.

### 2.5.1 Submission date of the Mentorship Plan and focus on HDSA employees

The Mentorship program will be implemented continuously. The program will however be updated on a regular basis to ensure alignment with Ngululu Resources's needs and objectives. The submission date of the first detailed Mentorship Plan will be within 6 months after mining right was obtained, and progress will be reported annually to DME and MQA. Special focus will be on Historically Disadvantaged South African (HDSA) employees.

### 2.5.2 Objectives of the Mentorship Plan

The objectives of Ngululu Resources's Mentorship Plan are:

- Improvement of worker performance and development (overall, long term goal);
- Enhanced skills transfer;
- Support to learnerships and other training initiatives;
- Aid in the fast-tracking of a talent pool of HDSA individuals to achieve employment equity targets and to facilitate the advancement of HDSA individuals in the mining industry.

### 2.5.3 Appointment of a Mentoring Coordinator

The Mentorship Plan will be coordinated by Ngululu Resources's Skills Development Facilitator.

The task of the Mentoring Coordinator (i.e. Ngululu Resources's Skills Development Facilitator) will be to ensure that the mentoring programme is implemented and maintained to the advantage of the mentors, mentees and the mine. The Mentoring Coordinator will also assess the process to ensure its continued effectiveness, and will also provide Ngululu Resources's Training Committee, Employment Equity Committee and the Future Forum with relevant information and feedback. (adapted from Meyer, 2007).

### 2.5.4 Types of mentoring interventions to be provided

The type of mentoring intervention most appropriate for Ngululu Resources is a "Traditional Mentoring" and "Performance Coaching" hybrid/combo intervention, which will be available to all workers willing to participate in the mentoring programme.

As described in more detail in sections 2.7 to 2.10 (employment equity) below, a pool of talented HDSA workers will be identified and their careers will be fast-tracked. These individuals will receive "Multiple Mentoring" until they reach foreman or supervisor level, from where they will receive "Executive Coaching".

For the sake of clarity, "Traditional Mentoring" is a type of mentoring intervention where an independent third party who is not the direct manager of the mentee, is used as mentor to facilitate growth and development. "Performance Coaching" is a mentoring intervention where a line manager provides clear guidance to employees to improve their performance. "Multiple Mentoring" is a type of mentoring intervention where more than one mentor is assigned to develop a wide variety of diverse skills to accelerate development. "Executive Coaching" is where an external coach has regular sessions with a senior manager to help him/her make better life and business decisions (Meyer, 2007). The external mentor/coach will be a senior manager at a nearby and/or similar mine.

### 2.5.5 Identification of mentors

Ideally, criteria of a suitable mentor are as follows:

- If possible, the mentor should be at least two job levels above the mentee. However, because Ngululu Resources is a relative small employer, it will not always be possible;
- If possible, the mentor's current job title should coincide with the desired career progression path of the mentee;
- If possible, the mentor should not be the mentee's direct supervisor or 'natural' boss (as noted above, this will not always be possible due to the small workforce and relative flat hierarchical structure of Ngululu Resources);
- The mentor should be really willing / enthusiastic to act as a mentor, and to commit time and effort to the mentorship program;
- The mine manager, foreman, and supervisors, along with other workers who has many years of experience, will act as mentors. An external mentor will also be appointed to mentor fast the tracked HDSA talent pool as they reach more senior levels, details will be provided to DME within 6 months after mining right has been granted.

## 2.5.6 Identification of mentees

Although participation is voluntary, all workers will be strongly encouraged to participate in the mentorship programme. All workers/employees who are willing to participate, will be provided with mentors (or mentees) and will be encouraged to actively participate in the mentorship programme. No workers will be turned down.

## 2.5.7 Matching of mentors and mentees

Preferably, the linkage of mentors and mentees should occur naturally, otherwise, matching will be done by the Skills Development Facilitator. Matching will be based on factors that participants consider important, therefore as much information as reasonably possible will be gathered regarding the needs and preferences of potential participants. No persons will be matched with someone against their will.

## 2.5.8 Tasks of the mentor

The mentor's role is not only to provide the mentee with advice, but also to provide career development support e.g. coaching, challenging assignments and fostering the mentee's visibility within the organisation, as well as psychosocial support e.g. counselling and role modelling. (Meyer, 2007)

More specifically, the tasks of the mentors are as follows:

- Help the worker/employee with formal training (practical implementation of formal training; advice regarding choice of formal training courses);
- Provide informal training on workplace skills (e.g. technical skills, negotiation, social skills, meeting skills);
- Help employee with the socialising process (adaptation to organisational culture; networking with workers/employees on higher job levels);
- Provide information on Ngululu Resources's goals and productivity enhancement measures. See section 4 (Processes pertaining to management of downscaling and retrenchment);
- Provide feedback on performance of the worker/employee (feedback is important to career progression because it enables the employee to know if he is on the right track or not, and act as a form of recognition for effort and source of motivation);
- If the worker/employee is not on the right track, provide advice on improvement;
- Give advice on, and assist with the maintenance of good relationships between the worker/employee and his co-workers and supervisor;
- Provide an atmosphere of open discussion and confidentiality where a worker/employee can discuss the true nature of his concerns and troubles;
- Treat the mentee with respect and without prejudice based on age, ethnicity, race, gender, current educational level, previous performance, social status etc.
- Let the mentee feel responsible for his own developmental effort and encourage independent thought - this will increase commitment and decrease dependency;
- Informally teach problem solving skills and encourage the mentee to be creative and innovative;
- Keep to time- and other commitments regarding the mentor-mentee program.

## 2.5.9 Tasks of the mentee

The task of the mentees is as follows:

- Keep to time- and other commitments regarding the mentor-mentee program;

- Openly communicate his needs, goals, concerns, problems, skills etc. to the mentor.

### **2.5.10 Briefing of mentors and mentees**

Ngululu Resources's Mentoring Coordinator (i.e. the Skills Development Facilitator) will brief mentors and mentees on procedures and their 'rights' regarding the mentorship plan. Topics to be covered include the following:

- Need to and benefits of the mentorship program;
- Commitment in terms of time and effort required by both the mentor and mentee;
- Mentors may not take sole credit for work done and ideas of mentees – the role of the mentee should be recognised and made known to management;
- Expectations: Mentors and mentees should be made aware of the expected and realistic outcomes of the mentorship program;
- Policy on sexual/romantic relationships between employees;
- Intercultural communication issues where relevant;
- How to deal with mentor-mentee relationship problems;
- Exit options if the mentor-mentee relationship doesn't work: how to request a separation of a current mentor-mentee relationship, and formation of a new one.

### **2.5.11 Mentor-mentee interaction schedule**

Duration of meetings will vary according to the needs of the mentees, however, as a general rule, approximately 1 hour per meeting should be set aside by the mentor and mentee, and meeting should take place once a week.

Meetings should not be scheduled at the same time every week, and should not always be at the end of a day or week (Meyer, 2007).

### **2.5.12 Meeting venue**

The meeting venue will be convenient to both the mentor and mentee, therefore the site office on the mine's premises, as well as on-site demonstrations where needed, will be most appropriate venue. Discussions should take place in private.

### **2.5.13 Record keeping**

Clear and concise records of meeting times and approximate duration should be kept by the mentor. Once a year, all mentors should submit these records to the Mentorship Coordinator (Skills Development Facilitator).

### **2.5.14 Involvement of the 'natural' boss (or mentee's direct supervisor) and feedback**

The mentee's 'natural' boss (or direct supervisor) should be briefed on the importance and purpose of the mentorship program. Note that the 'natural' boss may feel jealous and excluded (especially about the fact that the junior/mentee suddenly has relationships with employees at levels even higher than him/herself), and may see the mentorship program as a waste of time. These issues should be explained to the 'natural' boss.

The mentor, mentee and natural boss should meet once every four months to discuss the following (the first part of the meeting should be in private between the mentor and 'natural' boss):

- Update on the mentorship relationship;
- Mentee problems and concerns;
- Update on mentee progress regarding skills, needs, and performance, and how both the mentor and 'natural' boss can develop the mentee further;
- Learning opportunities and skills needs;
- Networking opportunities.

Feedback on the mentee's progress should be discussed between the mentee, mentor and natural boss. The mentee's progress should be recorded (clear and very brief), and should annually be submitted to the Mentoring Coordinator (i.e. the Skills Development facilitator) for evaluation.

Feedback provided to the mentee should be descriptive, specific, in the mentee's interest, useful, given at the right time, clearly formulated and correct. Conditions under which feedback occur should (Meyer, 2007):

- Be socially-minded;
- Be sensitive to avoid demoralising of the mentee;
- Avoid subjective interpretation;
- Be open and honest;
- Not confuse feedback with value judgements;
- Relate to relevant learning and how performance may be improved.

### **2.5.15 Evaluation and continual improvement**

The success and pitfalls of the mentorship programme will be systematically evaluated to determine if the objectives of the mentorship programme are being realised. Although the Mentorship Coordinator (i.e. the Skills Development Facilitator) will coordinate the evaluation process, all stakeholders will be involved, including mentors, mentees, supervisors/managers, Training Committee, Employment Equity Committee, and the Future Forum.

At individual mentor-mentee relationship level, the following will serve as evaluation criteria (adapted from Meyer, 2007):

- Quality or degree of rapport established between the mentee and mentor;
- Frequency and duration of meetings and adequacy thereof;
- Degree to which the mentor and mentee value the mentorship programme;
- Quality of learning as experienced by both mentor and mentee, and what has been learned by them;
- Number of learning/mentoring objectives that has been reached;
- Improvement of key scores on performance appraisal of mentee;
- Attitude of mentor regarding the degree to which the mentorship programme is developing the mentee.

Workforce-wide evaluation criteria will include (Meyer, 2007):

- Decrease in employee turnover;
- Achievement/improvement of performance appraisal scores on key competencies;
- Number of mentees considered suitable for promotion after the assessed period.

If the objectives or goals of the mentorship programme are not met, corrective measures should be implemented. If objectives or goals of the mentorship programme are met, the mine should set targets at a higher but still realistic and reasonable level, so that continual improvement could be achieved.



## 2.5.16 Target numbers, timeframe and budget

Although participation is voluntary, the mine will strongly encourage workers to participate in the mentoring programme. The following is a summary of mentorship targets in a table format. The Mentorship Programme is **aligned with the Skills Development Plan, Career Progression Plan and Employment Equity Targets**.

**Table 6a: Mentorship programme: targets, timeframe and budget**

Task	2013				2014				2015				2016				2017				2018				
	1 <sup>st</sup> quarter	2 <sup>nd</sup> quarter	3 <sup>rd</sup> quarter	4 <sup>th</sup> quarter	1 <sup>st</sup> quarter	2 <sup>nd</sup> quarter	3 <sup>rd</sup> quarter	4 <sup>th</sup> quarter	1 <sup>st</sup> quarter	2 <sup>nd</sup> quarter	3 <sup>rd</sup> quarter	4 <sup>th</sup> quarter	1 <sup>st</sup> quarter	2 <sup>nd</sup> quarter	3 <sup>rd</sup> quarter	4 <sup>th</sup> quarter	1 <sup>st</sup> quarter	2 <sup>nd</sup> quarter	3 <sup>rd</sup> quarter	4 <sup>th</sup> quarter	1 <sup>st</sup> quarter	2 <sup>nd</sup> quarter	3 <sup>rd</sup> quarter	4 <sup>th</sup> quarter	
Appoint Mentoring Coordinator			√																						
Brief Training Committee, Employment Equity Committee and the Future Forum on Mentorship Plan			√																						
Identification (ongoing) of a talented pool (mainly HDSA workers) to focus on.			√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Identification (ongoing) of mentees (see below for targets)			√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Identification (ongoing) of mentors.			√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Promote mentoring programme amongst workers (see below for specific targets).			√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√



and/or mentee)						
Plant Operators (acting as mentor and/or mentee)	Competence in job related critical skills areas and work related social skills	5 years	6	-	4	2
Cleaners (acting as mentees)	Competence in job related critical skills areas and work related social skills	5 years	14	-	10	4
External people involved in the mentorship programme as mentees	Receive mentorship in the disciplines of brick making and entrepreneurship	5 years	12	-	6	6

## 2.5.17 Mentorship to non-employees

Apart from mentorship to workers, Ngululu Resources will also provide mentorship to non-workers or members from the local community, in the disciplines of brick making and entrepreneurship. See section 2.5.16 above for targets and timeframe.

## 2.6 Internship and bursary plan

### 2.6.1. Bursary plan

#### 2.6.1.1. Bursaries to employees

Ngululu Resources will provide all employees with the opportunity to complete ABET training up to level 4 at no cost to the employee, however, this is not regarded as a bursary. Many employees will also be provided with training for vocational and other programmes/courses (**see sections 2.2.3 to 2.2.7 above for specific targets, timeframes and budget**). Employees receive all training (including registration-, class-, and examination fees, and prescribed books, where applicable) free of charge. Ngululu Resources will cover all relevant training expenses.

#### 2.6.1.2. Bursary to non-employee from local community in any skills shortage area

Ngululu Resources will provide bursaries to non-employees and members from the local community.

There will be three (3) open bursary, **awarded once every 3 years** (or sooner if a learner terminate his/her studies), for any course in a skills shortage area, as identified as a skills shortage area by the Department of Labour (refer to the skills shortage list as regularly updated by the Department of Labour), but preference will be given to studies in geology. The three bursaries of R 120 000 per student will be provided in increments of R 40 000 per year per student.

Selection criteria for this bursary are based on fairness and ideally include:

- Matric exemption;
- 3 or more distinctions;
- Math's and Science as subjects;
- The candidate should not be a holder of another bursary;
- The candidate should be accepted by the educational institution for the specific course;
- The educational institution and the course should be SAQA accredited;
- Equity (preference to historically disadvantaged individuals);
- Preferably a long-term resident of the local area (to optimise sustainable economic and social development of the local community);
- Skills associated with the course should be listed be the Department of Labour as a scarce skill.

This bursary may or may not be coupled with an internship contract with Ngululu Resources.

The following is a summary of bursary targets in table format, as abstracted from table 4 which is a summary of all training provided by Ngululu Resources. Also see table 4 above for detail on courses presented to workers (i.e. internal bursaries).

**Table 8: External Bursary Plan targets and timeframe**

	Number of bursaries provided in specific fields of study, per year					
	2013	2014	2015	2016	2017	2018
There will be one open bursary, awarded once every 3 years (or sooner if learner terminate his/her studies sooner), for any course in a skills shortage area, as identified as a skills shortage area by the Department of Labour, but preference will be given to studies in <b>geology</b> .	3			3		
<b>Budget</b> allocation for external bursary in Rand (ZAR)	360 000 (120 000 per year over 3 years for the 3 learners combined)			360 000 (120 000 per year over 3 years for the 3 learners combined)		

Note: see Section 2.1.1.7.3 for a main summary of the Skills Development/Training Programme.

## 2.6.2. Internship programme

An internship is a mechanism to provide opportunities for new entrants to the labour market to gain work exposure and practical experience. Opportunities for internships are limited because Ngululu Resources will provide full learnerships as explained in section 2.1.1.7.2 (Learnerships) above. Note that the provision of a full learnership (with structured learning provided for by Ngululu Resources) is of much more value to the community than the provision of internship (where structured learning is obtained by the learner him/herself) only. However, Ngululu Resources will provide internship opportunities to learners originating from the local community. The following table summarises internship targets and fields of study.

**Table 7: Projected number of workers involved in the internship programme: targets and timeframe**

Internship opportunities	Internships per year						Total number of interns over the 5/6 year period
	2013	2014	2015	2016	2017	2018	
Number of external learners to be accommodated in the internship programme, per year		2	2	2	2	2	10
Career areas available to interns	The mine will provide practical experiential learning in Surveying, Plant Operations; General management; Occupational health, safety and environment; and/or Human Resource Management						-
<b>Budget allocation for the internship program in Rand (ZAR)</b>	-	88 000	88 000	88 000	88 000	88 000	<b>440 000</b>

## 2.7 Employment Equity Plan

The following table illustrates that there are sufficient diversity as well as participation of HDSA at all decision-making positions and core occupational categories at Ngululu Resources. Note that the new Mining Charter target of 40% HDSA demographic representation in management has already been achieved (in fact, it is 100%). See section 2.8 for annual progressive targets. Also see Annexure 2 Form S for exact employment equity statistics.

**Table: Analysis of Ngululu Resources's employment equity statistics according to updated Mining Charter**

Occupational level	Male				Female				Total	Disabled	
	African	Coloured	Indian	White	African	Coloured	Indian	White		Male	Female
Top Management (board)	1								1		
Senior Management (exco)	6				3				9		
Middle Management	4		1	4	2			1	12		
Junior Management	38	1		5	5				49		
Core Skills	147				30				179	1	1

The following table illustrates a summary and further analysis of Ngululu Resources's estimated employment equity statistics. An exact progression update will be provided to DME six months after mining right were obtained, and thereafter annually in the Social and Labour Plan's Annual Monitoring Report, submitted to the DME. Employment equity statistics will also be submitted annually to the Department of Labour.

**Table: Further analysis of Ngululu Resources's employment equity statistics according to original Mining Charter (see table above for updated Mining Charter)**

	Prescribed target within 5 years from the commencement of the MPRDA (May 2011)	Ngululu Resources's current level	Comment on Ngululu Resources's progression to date	Ngululu Resources's target within 10 years from the commencement of the MPRDA
<b>HDSA participation in management</b>	40%	100% (10 out of 10 top and senior management positions are filled by HDSA)	√ Do comply	100% (target: maintain 10 out of 10 to be HDSA)
<b>Participation of women in mining</b>	10%	*11% (31 of the 290 workers involved in core mining activities are women).	√ Do comply.	*20% (target: 58 of the workers involved in core mining activities to be women)
<b>Identification and fast tracking of a talented pool</b>	A talented pool amongst HDSA employees should be identified and fast tracked	A talented pool amongst HDSA employees has been identified a program for fast tracking developed and has already been implemented. See Section 2.10 below for more	√ Do comply.	Fast-tracking of talented HDSA workers will continue to be implemented. See Section 2.10 below for more detail on how HDSA workers will be fast tracked.

		detail on how HDSA workers are fast tracked.		
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\*See section 2.9 below for more information on the advancement of women at the mine.

## 2.8 HDSA in management

See section 2.7 above for details on HDSA in management at this point in time. The following table indicates targets for further advancement of HDSA in management.

**Table: Targets of Ngululu Resources’s employment equity statistics according to updated Mining Charter**

ELEMENT	DESCRIPTION	Occupational level	Compliance Target	Progress achieved by the year:					
				2013	2014	2015	2016	2017	2018
Employment Equity	Diversification of the workplace to reflect the countries demographics to attain competitiveness	Top Management (board)	40%	100%	100%	100%	100%	100%	100%
		Senior Management (exco)	40%	100%	100%	100%	100%	100%	100%
		Middle Management	40%	83%	83%	83%	83%	83%	83%
		Junior Management	40%	90%	90%	90%	90%	90%	90%
		Core / technical Skills	40%	100%	100%	100%	100%	100%	100%

The following (section 2.9) is a discussion on how women are further empowered at the mine. Thereafter (section 2.10) follows a discussion on practical measures adopted by the mine to fast-track empowerment of HDSA workers in general.

## 2.9 Further advancement of women as part of the Employment Equity Plan

Initially 44 women (15% of the total workforce) are employed in total at the mine. Of these 44 women, 31 women (17% of all workers involved in core mining activities and 11% of the total workforce) are involved in the core business of mining, while the rest is involved in administrative support or management; therefore the criteria of at least 10% women in core mining activities are complied with.

In terms of the Career Progression Path Plan (see sections 2.7, 2.8 and 2.10) as well as the training plan (see section 2.2):

- Job design is such that woman will not be discriminated against.
- Illiterate female workers will be empowered to participate in ABET training up to Level 4 (see section 2.2.2).

- Female workers will not be excluded from training opportunities, which will include learnerships, formal and informal training and all other forms of training. Training arrangements and methods will not discriminate against women. See Section 2.2 for the Skills Development/Training Programme.
- Woman will also be included in the fast-tracking of HDSA workers with management potential. See Section 2.10 below for more detail on how HDSA workers, including women, will be fast tracked.
- Mentorship will be a central part of the woman’s fast-tracking process. Fast tracked women will receive “Multiple Mentoring” until she reach supervisor or ‘foremen’ level, from where she will receive “Executive Coaching”. See section 2.5 for more detail on the Mentorship Plan.

The following is a summary in table format of targets regarding women empowerment.

<b>Women empowerment targets</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Total number of woman employed	44 women (15% of total workforce)	44 women (15% of total workforce)	44 women (15% of total workforce)	44 women (15% of total workforce)	44 women (15% of total workforce)	44 women (15% of total workforce)
Number of <b>women in core mining</b> activities (administrative or supportive functions excluded)	31 women (11% of total workforce involved in core mining activities)	31 women (11% of total workforce involved in core mining activities)	31 women (11% of total workforce involved in core mining activities)	31 women (11% of total workforce involved in core mining activities)	31 women (11% of total workforce involved in core mining activities)	31 women (11% of total workforce involved in core mining activities)
Number of women to receive training	8	26	28	32	33	34
Number of women to be involved in the mentorship programme	1	2	2	2	2	2
Number of woman who are part of the fast tracked HDSA talent pool	3	8	12	12	12	12

## ***2.10 Fast-tracking of HDSA employees as part of the Employment Equity Plan***

A group of HDSA workers has been identified as talented and their career progression will be fast tracked into management positions. Career progression of fast-tracked HDSA’s will be monitored yearly. Annexure 2 Form S will be updated on an annual basis, and submitted to the Department of Mineral Resources as part of this Social & Labour Plan’s Annual Monitoring Report, to show progress made in this regard.

**This talent pool has been selected by the following criteria:**

- HDSA status;



- Management potential (note that potential management skills, not current management skills, will be considered, because management skills will be developed as part of the training program);
- Willingness and enthusiasm to participate in the fast track programme, including their willingness to participate in the training and the mentorship programme.

**Measures to fast-track the talented pool include the following:**

- Suitable, focussed and career-specific training will be provided, focussing on both technical as well as leadership/managerial skills. See Section 2.2 for detail on the Skills Development/Training Programme.
- Additional effort shall be made regarding the training and development of designated persons to contend with the effects of past policies and ensure competent performance.
- Employees from the talented pool will receive the best mentors, and will receive “Multiple Mentoring” until they reach supervisor and/or foreman level, from where they will receive “Executive Coaching”. See section 2.5 for more detail on the Mentorship plan.
- A variety of intensive leadership development efforts will be provided.
- Assessment will be regularly and fairly conducted, and the fast-tracked candidates will be openly and sensitively briefed on their current strengths, level of performance and further development needs.
- Fast tracked and other HDSA workers will be provided with support and motivation to create a sense of self-efficacy and a believe that they are able to master their job tasks and training demands.

## **SECTION 3: LOCAL ECONOMIC DEVELOPMENT PROGRAMME**

Ngululu Resources is not only committed to develop its worker's to their full potential as described in Section 2 above, but also to develop the community wherein it operates, as described in Section 3 below.

### ***3.1 Social and economic background information***

See Annexure 3.

### ***3.2 Key economic activities***

See Annexure 3.

### ***3.3 Impact of the mining operation***

See Annexure 3.

### ***3.4 Local Economic Development Project 1: Support to tutors to start & run their own extramural science & maths academy***

NOTE ON FORMAT OF PROJECT DESCRIPTION: ALL INFORMATION FIELDS AS SUGGESTED IN THE REVISED SOCIAL AND LABOUR PLAN GUIDELINES HAS BEEN INCLUDED HERE, PLUS ADDITIONAL BUT ESSENTIAL INFORMATION. IT IS **NOT IN A TABLE FORMAT** BECAUSE THE ADDITIONAL ESSENTIAL INFORMATION WILL NOT FIT READILY INTO A TABLE FORMAT, **HOWEVER, ALL INFORMATION REQUIRED BY THE REGULATIONS AND GUIDELINES ARE COVERED.**

#### **Project name**

Extramural science, maths & business studies academy project

#### **Classification of project**

Small business development, job creation & education (this is a project that combines job creation with educational support).

#### **Background & description of project**

Thirty (30) local unemployed youth (young Black women with Grade 12 who performed well in mathematics and natural science) will be trained and supported to establish their own small

academy or business that provide extramural or additional mathematics, science, economics, accountancy and business studies classes to learners in the area. The beneficiaries will be persons who recently (within the past 8 years) pass Grade 12 with good average scores in one or more of the subjects of mathematics, science, economics, accountancy or business studies.

Training to the beneficiaries: The thirty (30) young Black women will be provided with **training** on the following:

- Basic **tuition skills** training;
- An extensive **refresher course on the abovementioned subjects** which they plan to provide tuition in;
- An **entrepreneurship** course on how to market and run their own small tutoring business.

Material & other support to the beneficiaries: The thirty (30) beneficiaries will also be provided with a **starter pack** consisting of the following:

- A **full set of educational videos** on mathematics, science, economics, accountancy and business studies. These high quality educational videos are sourced from the internationally acclaimed Khan Academy which are supported by various large development organisations such as the Bill and Melinda Gates Foundation.
- An initial set of empty **work sheets** to provide to the learners to do exercises on during group discussions (to be sustainable this will be phased out over a 5 year period after which tutors should buy the work sheets on their own for their learners);
- An initial batch of **pamphlets** to market their own business (tutoring service) amongst local learners, teachers and parents).

The beneficiaries (i.e. the 30 young Black women) own contribution will be as follows: They need to be willing to participate in the above training, and have access to a suitable venue to host small groups of learners (about 6 learners per group), such as a TV room in a house equipped with a TV and a DVD player to show the training videos to the learners and to facilitate discussions and provide additional help after watching the videos. Such a venue may be their household's own house, or they may negotiate an agreement with a neighbor, friend or family member in the community to "lease" their TV room, TV and DVD player during scheduled sessions through the week.

**VERY IMPORTANT:** That this project will make it feasible for the first time ever (due to technological advances and availability of high quality educational videos) to provide high quality extra tuition to learners in even remote and very poor rural areas. See geographic area description below for a list of villages to benefit from this project.

Note that this project will not entail the building of additional classrooms or provision of TV's or DVD players because dual usage of locally already available resources is a key ingredient in sustainable community development, and in case such expensive equipment and buildings are specially provided (which will anyway be unutilized for long most of the day), less budget will be available to support more beneficiaries. Therefore rather assist more beneficiaries (20 instead of 1) than providing all budget to only one beneficiary to buy equipment and infrastructure already available in the community. It will also avoid the risk of non-committed beneficiaries signing up for the wrong reasons, especially just to obtain equipment such as a DVD player or a TV set.

## **Geographical location of project**

Botleng near Delmas in Mpumalanga Province. Botleng is part of the local community of the mine.

## Responsible entity & partnerships

Responsible entity: Ngululu Resources (Pty) Ltd: Mine Manager.

Partnership: This project will run in partnership with Victor Khanye Local Municipality, the Department of Education and local secondary schools.

## Output, key performance areas, performance indicators & project objectives

The following objectives for the project are set:

- Identify 30 suitable young Black woman to be trained as tutors to establish their own small business providing additional tuition to local learners;
- Train the 30 young women in the following areas:
  - Basic tuition skills;
  - Refresher course on the subjects which they plan to provide tuition;
  - Entrepreneurship skills.
- Provide the beneficiaries with a starter pack consisting of the following:
  - Educational videos on mathematics, science, economics, accountancy and business studies.
  - Empty work sheets to provide to the learners to do exercises on during group discussions.
  - Pamphlets to market their own business (tutoring service) amongst local learners, teachers and parents).
- Provide continual support over a 5 year period in the form of refresher & continual training of the beneficiaries.

## Project start date, end/completion date, targets, quarterly timeframe, budget & exit strategy

Start date: January 2014

End/completion date: December 2018

Targets, quarterly timeframe & budget: The following table provide information on targets, timeframe, budget rollout and exit strategy.

**Table: Targets, timeframe and exit strategy**

Task	2013				2014				2015				2016				2017				2018				
	1 <sup>st</sup> quarter	2 <sup>nd</sup> quarter	3 <sup>rd</sup> quarter	4 <sup>th</sup> quarter	1 <sup>st</sup> quarter	2 <sup>nd</sup> quarter	3 <sup>rd</sup> quarter	4 <sup>th</sup> quarter	1 <sup>st</sup> quarter	2 <sup>nd</sup> quarter	3 <sup>rd</sup> quarter	4 <sup>th</sup> quarter	1 <sup>st</sup> quarter	2 <sup>nd</sup> quarter	3 <sup>rd</sup> quarter	4 <sup>th</sup> quarter	1 <sup>st</sup> quarter	2 <sup>nd</sup> quarter	3 <sup>rd</sup> quarter	4 <sup>th</sup> quarter	1 <sup>st</sup> quarter	2 <sup>nd</sup> quarter	3 <sup>rd</sup> quarter	4 <sup>th</sup> quarter	
Identify 30 suitable young Black woman as beneficiaries				√	√																				
Train the 30 young					√	√	√	√	√	√	√	√	√	√	√										



\*Will be amended/increased to compensate for inflation. Increases will be reported in the annual monitoring report on the Social and Labour Plan.

## Beneficiaries / target audience and number of jobs or persons reached directly and indirectly

The following table provide detail on the number of beneficiaries over the short, medium and long term.

**Table: Beneficiary profile over short to long term**

Classification of jobs/ beneficiaries	Nr of male (older) adults	Nr of female (older) adults	Nr of male youth	Nr of female youth	Total number of jobs / beneficiaries
Short term (year 1)	0	0	0	8	8
Medium term (year 3)	0	0	0	25	25
Long term (year 5)	0	0	0	30	30

Comments: Apart from the 30 Black female youth who will be the direct beneficiaries, they will provide additional tutoring service to probably at least 20 school learners, therefore a total of at least 900 learners will also benefit.

## Sustainability of project

Very high. Technology make it now for the first time ever possible to provide very high (international standard) quality additional tuition to school learners in generally "difficult" yet crucial subjects such as maths and science, and to a lesser yet still very important degree economics, accountancy and business studies.

## Economic and social development impact

Very high and positive. The abovementioned subjects are extremely important for building national human capital to accelerate economic and social development. The proposed system of learning utilizing educational videos in combination with facilitated group discussions is a very powerful yet highly cost efficient (low cost) method to bring quality teaching even to the remotest and poorest parts on the country.

## Cost of project

R 60 000 per year for the next 5 years. During the initial years most funding will be allocated towards recruitment of suitable beneficiaries and provision of resources and basic training to the beneficiaries, while during the later years more funding will be allocated towards more advanced and focused training and support. Over a 5 year period the project (i.e. all 30 sub-projects or independent tutors) will become self-sustaining.

## Potential disadvantages

None. This is a low cost but very high impact project.

### ***3.5 Local Economic Development Project 2: Infrastructure development: Assistance with the upgrading of internal roads and storm water channels***

NOTE ON FORMAT OF PROJECT DESCRIPTION: ALL INFORMATION FIELDS AS SUGGESTED IN THE REVISED SOCIAL AND LABOUR PLAN GUIDELINES HAS BEEN INCLUDED HERE, PLUS ADDITIONAL BUT ESSENTIAL INFORMATION. IT IS **NOT IN A TABLE FORMAT** BECAUSE THE ADDITIONAL ESSENTIAL INFORMATION WILL NOT FIT READILY INTO A TABLE FORMAT, **HOWEVER, ALL INFORMATION REQUIRED BY THE REGULATIONS AND GUIDELINES ARE COVERED.**

#### **Project name**

Upgrading of internal roads and storm water channels project.

#### **Classification of project**

Infrastructure development

#### **Background & description of project**

Ngululu Resources will, in association with Victor Khanye Local Municipality and the Department of Transport, assist with the construction/maintenance/upgrading of the internal road network in the local community. Support will be in the form of supply (including delivery) of G6 road base material as well as fill material.

#### **Geographical location of project**

Botleng near Delmas and the mine (it is part of the local community). This area falls within the boundaries of Victor Khanye Local Municipality, Limpopo Province.

#### **Responsible entity & partnerships**

Responsible entity: Ngululu Resources (Pty) Ltd: Mine Manager.

Partnership: This project will run in partnership with Victor Khanye Local Municipality.

#### **Output, key performance areas, performance indicators & project objectives**

The following objectives for the project are set over a 5 year period:

- Provision of fill material and G6 road base material to be utilised for road and stormwater infrastructure upgrading by the local municipality. This will include the delivery of such material, which is significant because bulk material transport cost is a major determinant of road upgrading project cost;
- Material will be provided for various road sections to be improved, especially those sections frequently travelled by school busses and taxis.

## Project start date, end/completion date, targets, quarterly timeframe, budget & exit strategy

Start date: December 2013

End/completion date: September 2018

Targets, quarterly timeframe & budget: Maintenance assistance, provision of building material and other forms of support will be ongoing for 5 years.

**Table: Targets, timeframe and exit strategy**

Task	2013				2014				2015				2016				2017				2018							
	1 <sup>st</sup> quarter	2 <sup>nd</sup> quarter	3 <sup>rd</sup> quarter	4 <sup>th</sup> quarter	1 <sup>st</sup> quarter	2 <sup>nd</sup> quarter	3 <sup>rd</sup> quarter	4 <sup>th</sup> quarter	1 <sup>st</sup> quarter	2 <sup>nd</sup> quarter	3 <sup>rd</sup> quarter	4 <sup>th</sup> quarter	1 <sup>st</sup> quarter	2 <sup>nd</sup> quarter	3 <sup>rd</sup> quarter	4 <sup>th</sup> quarter	1 <sup>st</sup> quarter	2 <sup>nd</sup> quarter	3 <sup>rd</sup> quarter	4 <sup>th</sup> quarter	1 <sup>st</sup> quarter	2 <sup>nd</sup> quarter	3 <sup>rd</sup> quarter	4 <sup>th</sup> quarter				
Provision of fill and G6 road base material				√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Budget (including market value of donated fill/base material)				R65 000				*R65 000				*R65 000				*R65 000				*R65 000								

\*Will be amended/increased to compensate for inflation. Increases will be reported in the annual monitoring report on the Social and Labour Plan.

## Beneficiaries / target audience and number of jobs or persons reached directly and indirectly

The following table provide detail on the number of beneficiaries over the short, medium and long term.

**Table: Beneficiary profile over short to long term**

Classification of jobs/beneficiaries	Nr of male (older) adults	Nr of female (older) adults	Nr of male youth	Nr of female youth	Total number of jobs / beneficiaries
<b>Short term</b> (year 1)	Hundreds of people from the broader community will benefit from the infrastructure. Note that this is an infrastructure project, not a job creation	Hundreds of people from the broader community will benefit from the infrastructure. Note that this is an infrastructure project, not a job creation	Hundreds of people from the broader community will benefit from the infrastructure. Note that this is an infrastructure project, not a job creation	Hundreds of people from the broader community will benefit from the infrastructure. Note that this is an infrastructure project, not a job creation	Hundreds of people from the broader community will benefit from the infrastructure. Note that this is an infrastructure project, not a job creation



	project.	project.	project.	project.	project.
<b>Medium term</b> (year 3)	Hundreds of people from the broader community will benefit from the infrastructure. Note that this is an infrastructure project, not a job creation project.	Hundreds of people from the broader community will benefit from the infrastructure. Note that this is an infrastructure project, not a job creation project.	Hundreds of people from the broader community will benefit from the infrastructure. Note that this is an infrastructure project, not a job creation project.	Hundreds of people from the broader community will benefit from the infrastructure. Note that this is an infrastructure project, not a job creation project.	Hundreds of people from the broader community will benefit from the infrastructure. Note that this is an infrastructure project, not a job creation project.
<b>Long term</b> (year 5)	Hundreds of people from the broader community will benefit from the infrastructure. Note that this is an infrastructure project, not a job creation project.	Hundreds of people from the broader community will benefit from the infrastructure. Note that this is an infrastructure project, not a job creation project.	Hundreds of people from the broader community will benefit from the infrastructure. Note that this is an infrastructure project, not a job creation project.	Hundreds of people from the broader community will benefit from the infrastructure. Note that this is an infrastructure project, not a job creation project.	Hundreds of people from the broader community will benefit from the infrastructure. Note that this is an infrastructure project, not a job creation project.

Comments: The direct beneficiary will be the Victor Khanye Local Municipality, whom will be supported to perform their duties in terms of infrastructure provision and the execution of the municipal IDP. This will also be to the direct benefit of hundreds of road users and passengers, not only in Botleng, but also of the surrounding areas as well. Transport cost, as carried by local households and businesses, will be lowered because of shorter travelling distance, reduced wear and tear on vehicles, improved travel safety, and general reduction in travel friction. Improved stormwater management will reduce soil erosion and resulting silt pollution, and may play a role in the control of waterborne parasitic diseases. The entire local community and region will benefit.

### Sustainability of project

Very high. Improved road access will lower vehicle maintenance cost and fuel consumption per current road user over the long term. Other long term economic benefits have already been discussed in this section.

### Economic and social development value

Very high and positive. As indicated above, improved road infrastructure in local community will provide safety, improved accessibility, and social and economic benefits to households, and will reduce transport cost. All local households will benefit directly or at least indirectly. Improved stormwater management may reduce road degradation and have health and safety benefits.

### Cost of project

R 65 000 per year for the next 5 years (including value of materials provided).

## **Potential disadvantages**

No disadvantages envisaged.

### ***3.6 Project Plan Format***

The projects have been discussed in depth in the required format in sections 3.4 and 3.5 above.

### ***3.7 Measures to address housing and living conditions***

The mine is situated near the settlements where the workers reside with their families. Therefore the mine does not need to provide additional housing.

### ***3.8 Measures to address nutrition***

Workers will be provided with cash to manage their own meal arrangements because this is preferred by the workers. This system is working well at other operations, and the workers are not wasting their food allowance on liquor, cigarettes or other expenses apart from food.

To ensure that the workers are healthy and that health problems are timeously detected and addressed, workers will be subjected to medical check-ups by qualified medical professionals when required. Apart from general and occupational health problems, diet related problems will also be detected. Feedback on nutrition will also be obtained through the Future Forum, where it will be discussed and reacted upon.

In addition, Ngululu Resources will provide Life Skills training, which will include training on healthy living and nutritious eating and encourage employees to start their own permaculture gardens at their homes (to further enhance nutritional health at household level and food security at community level). Also, the HIV/Aids awareness campaigns will include nutritional awareness, in addition to awareness programs on HIV/AIDS prevention, and living with HIV/AIDS.

Ngululu Resources do have an emergency response plan in place to deal with medical emergencies, including first aid equipment and skills, as well as a procedure to transport injured workers to the nearest clinic or hospital if necessary.

### ***3.9 Procurement Progression Plan***

Ngululu Resources commits to implement a procurement plan, which aims to provide HDSA's and SMME's from the surrounding community with a preferred supplier status in all three main categories of procurement, namely: capital goods, consumables and services.

The Mine recognises that a preferential procurement plan is critical to the promotion of BEE in South Africa. Procurement will be used by the Mine as one of the primary mechanisms to facilitate economic development in the local community.

The levels of HDSA procurement will be reported annually through the submission of Form T, as well as in the Social & Labour Plan's Annual Monitoring Report. See Annexure 2 Form T (Procurement). The following table indicates procurement targets within the near to mid-term future.

**Table 21: Procurement targets and encouragement of procurement from HDSA companies**

Action	2012	2013*	2014*	2015*	2016*	2017*
Procurement of <u>capital goods</u>	R 7 000 000 (of which 23% goes to BEE suppliers)	R 7 000 000 (of which 35% goes to BEE suppliers)	R 7 000 000 (of which 50% goes to BEE suppliers)	R 7 000 000 (of which 65% goes to BEE suppliers)	R 7 000 000 (of which 80% goes to BEE suppliers)	R 7 000 000 (of which 100% goes to BEE suppliers)
Procurement of <u>consumables</u> (will be a major category of expense, especially fuel)	R 2 100 000 (of which 40% goes to BEE suppliers)	R 2 100 000 (of which 50% goes to BEE suppliers)	R 2 100 000 (of which 60% goes to BEE suppliers)	R 2 100 000 (of which 70% goes to BEE suppliers)	R 2 100 000 (of which 80% goes to BEE suppliers)	R 2 100 000 (of which 90% goes to BEE suppliers)
Procurement of <u>services</u>	R 1 400 000 (of which 25% goes to BEE suppliers)	R 1 400 000 (of which 30% goes to BEE suppliers)	R 1 400 000 (of which 45% goes to BEE suppliers)	R 1 400 000 (of which 60% goes to BEE suppliers)	R 1 400 000 (of which 75% goes to BEE suppliers)	R 1 400 000 (of which 90% goes to BEE suppliers)
Identification of potential HDSA companies within the local area where procurement can be done (a Database will be established where all potential local HSDA suppliers will be listed)	Yes. Database of potential HSDA suppliers will be established and constantly updated	Yes. Database of potential HSDA suppliers will be established and constantly updated	Yes. Database of potential HSDA suppliers will be established and constantly updated	Yes. Database of potential HSDA suppliers will be established and constantly updated	Yes. Database of potential HSDA suppliers will be established and constantly updated	Yes. Database of potential HSDA suppliers will be established and constantly updated
Encourage existing suppliers to form partnerships with HSDA companies (where no HSDA company tenders to supply goods or services)	Yes	Yes	Yes	Yes	Yes	Yes

*\*Cost will be recalculated annually to compensate for inflation.*

Ngululu Resources will assist HSDA companies and SMME's to become preferred suppliers as follows:

- A database of potential HSDA suppliers will be compiled and regularly updated, as mentioned in the table above. Intensive effort will be made to identify products, services or consumables which could be supplied by BEE suppliers/SMME's;
- HSDA suppliers and SMME's will be assisted with the drafting of tender applications, informed on how to participate in the tendering process, and assisted with the compilation of business plans if necessary.

- Where possible, large contracts will be divided into smaller contracts accompanied by smaller but more regular payments to make contracts more accessible to HDSA companies and SMME's;
- Partnerships with potential BEE suppliers will be formed;
- Acting as mentors to new or emerging BEE suppliers;
- Policies and procedures for achieving HDI's supplier's status (including measures to discourage 'fronting'), will be established within six months after this Social and Labour Plan has been approved.
- Assisting BEE suppliers with the identification of external markets, outside of this current operation, with a view to becoming more self-sufficient and less dependent on Ngululu Resources for income opportunities.

## **SECTION 4: PROCESSES PERTAINING TO MANAGEMENT OF DOWNSCALING AND RETRENCHMENT**

As mentioned earlier, training in both industry related and non-industry related skills will be conducted. These skills will equip employees with marketable skills in the mining, industrial and private business sectors, helpful when/if downscaling does happen.

### ***4.1 Establishment of a Future Forum***

Ngululu Resources's Future Forum will be established and in operation within 6 months after mining right was obtained. Ngululu Resources's Future Forum will enable both management and workers to be proactively involved to prevent job losses.

As mentioned in Annexure 1 (Ngululu Resources's Social Plan) section 1.1 (Future Forum), Ngululu Resources's Future Forum is a partnership between the management, the workers and their representatives. The Future Forum will identify and analyse problems in an organisation in good time, look ahead to identify problems, challenges and potential solutions, which will be debated openly, and as early as possible. Together they will devise appropriate solutions to the identified problems, and implement solutions in a properly planned manner.

To remain economically viable and competitive, Ngululu Resources will engage in serious strategic planning and evaluate progress at regular intervals. Early warning systems will be put in place. As soon as potential problems are identified, turnaround or redeployment strategies will be developed. If necessary, Ngululu Resources will then apply for government funds to partially subsidise the cost of strategic interventions. The Future Forum will notify the Minister of Labour as soon as possible and then seek Social Plan assistance to support implementation of its plans.

Ngululu Resources's Future Forums will:

- Promote ongoing discussions between worker representatives and employers about the future of the industry sector and/or the organisation;
- Look ahead to identify problems, challenges and possible solutions;
- Develop turnaround or redeployment strategies to help reduce job losses and to improve business sustainability;
- Structure and implement proposals agreed on by both the employer and the worker parties.

### ***4.2 Mechanisms to save jobs and avoid job losses and a decline in employment***

Sections 4.2.a. to 4.2.d. describe the process to be followed when prevailing economic conditions cause the profit revenue ratio of the operation to be less than six percent on average for a continuous period of 12 months.

## 4.2.a. Consultation

The following consultation process in terms of Section 52 (1) of the Mineral and Petroleum Resources Development Act (2002) will be followed when relevant: Ngululu Resources will, after consultation with any registered trade union or affected employees or their nominated representatives where there is no such trade union, notify the Minerals and Mining Development Board in the prescribed manner:

- (a) where prevailing economic conditions cause the profit to revenue ratio to be less than six per cent on average for a continuous period of 12 months; or
- (b) if the operation is to be scaled down or to cease with the possible effect that 10 per cent or more of the labour force or more than 500 employees, whichever is the lesser, are likely to be retrenched in any 12-month period (see section 4.3 below). Note that Ngululu Resources's labour force is much smaller than 500 employees.

## 4.2.b. Implementing section 189 of the Labour Relations Act, 1995

The process to implement section 189 of the Labour Relations Act, 1995, as directly taken from the Act, is described below:

### **Section 189 (Labour Relations Act, 1995). Dismissals based on operational requirements:**

(1) When an employer contemplates dismissing one or more employees for reasons based on the employer's operational requirements, the employer must consult-

- (a) any person whom the employer is required to consult in terms of a collective agreement;
- (b) if there is no collective agreement that requires consultation, a workplace forum, if the employees likely to be affected by the proposed dismissals are employed in a workplace in respect of which there is a workplace forum;
- (c) if there is no workplace forum in the workplace in which the employees likely to be affected by the proposed dismissals are employed, any registered trade union whose members are likely to be affected by the proposed dismissals;
- (d) if there is no such trade union, the employees likely to be affected by the proposed dismissals or their representatives nominated for that purpose.

(2) The consulting parties must attempt to reach consensus on

- (a) appropriate measures-
  - (i) to avoid the dismissals (See sections 4.1 and 4.2.a. above, sections 4.2.c. and 4.2.d. below, as well as Schedule 8, the Code of Good Practice: Dismissal);
  - (ii) to minimise the number of dismissals;
  - (iii) to change the timing of the dismissals; and
  - (iv) to mitigate the adverse effects of the dismissals;
- (b) the method for selecting the employees to be dismissed; and
- (c) the severance pay for dismissed employees.

(3) The employer must disclose in writing to the other consulting party all relevant information, including, but not limited to-

- (a) the reasons for the proposed dismissals;
- (b) the alternatives that the employer considered before proposing the dismissals, and the reasons for rejecting each of those alternatives;
- (c) the number of employees likely to be affected and the job categories in which they are employed;
- (d) the proposed method for selecting which employees to dismiss;
- (e) the time when, or the period during which, the dismissals are likely to take effect; the severance pay proposed;
- (g) any assistance that the employer proposes to offer to the employees likely to be dismissed; and
- (h) the possibility of the future re-employment of the employees who are dismissed.

(4) The provisions of section 16 apply, read with the changes required by the context, to the disclosure of information in terms of subsection (3).

(5) The employer must allow the other consulting party an opportunity during consultation to make representations about any matter on which they are consulting.

(6) The employer must consider and respond to the representations made by the other consulting party and, if the employer does not agree with them, the employer must state the reasons for disagreeing.

(7) The employer must select the employees to be dismissed according to selection criteria-

(a) that have been agreed to by the consulting parties; or

(b) if no criteria have been agreed, criteria that are fair and objective.

#### **4.2.c. Notification to the Minerals and Mining Development Board (the Board)**

As mentioned in section 4.2.a. above, if prevailing economic conditions cause the profit to revenue ratio to be less than six per cent on average for a continuous period of 12 months, Ngululu Resources will, after consultation with any registered trade union or affected employees or their nominated representatives where there is no such trade union, notify the Minerals and Mining Development Board in the prescribed manner.

#### **4.2.d. Complying with Ministerial directive**

Ngululu Resources will comply with the Minister's directive and confirm how corrective measures have been taken.

#### **4.2.e. Other process measures to be put in place to avoid job losses**

The following process measures will be put in place to avoid job losses:

- Regular consultation with the National Productivity Institute / Productivity SA, and participation in their programmes where possible to enhance productivity to remain competitive, therefore reduce the possibility of job losses.
- Build-up of financial reserves and adoption of good financial practice during periods when the market value of coal are high, to buffer against periods when coal prices are low, to a reasonable extent.
- Strict cost savings other than retrenchment, will be adopted, even during periods of good economic prospects. Retrenchment will be seen as a last resort. Effort will be made and reported upon (in the annual Social & labour Plan compliance monitoring report) to identify expenses which can be reduced or completely eliminated.
- Emphasis will be placed on labour-intensive rather than capital intensive production methods, to a reasonable extent and where feasible. Apart from job creation, this will buffer the mine against expensive imports of equipment, especially important when the economy is in recession.
- Retaining of workers (avoidance of retrenchments) will receive preference over paying of bonuses, including during periods when coal prices are low.
- Overtime work will be cut if necessary (especially during economic downturns), to provide a more fair allocation of wage spending.
- Shorter working weeks will be considered during economic downturn periods. Related but innovative mechanisms such as jobshare may even be considered.
- Redeployment of workers will be practiced if possible. In addition, the LED projects as described in section 3.4 and 3.5 may also provide employment to workers in case of retrenchment. Redeployment is discussed under section 4.3.e further below.

### ***4.3 Mechanisms to provide alternative solutions and procedures for creating job security where job losses cannot be avoided***

Sections 4.3.a. to 4.3.d. describe the process to be followed when the operation is to be scaled down or is to cease with the possible effect of job losses.

#### **4.3.a. Consultations**

The following consultation process in terms of Section 52 (1) of the Mineral and Petroleum Resources Development Act (2002) will be followed when relevant: Ngululu Resources will, after consultation with any registered trade union or affected employees or their nominated representatives where there is no such trade union, notify the Minerals and Mining Development Board in the prescribed manner:

- (a) where prevailing economic conditions cause the profit to revenue ratio to be less than six per cent on average for a continuous period of 12 months (see section 4.2 above); or
- (b) if the operation is to be scaled down or to cease with the possible effect that 10 per cent or more of the labour force or more than 500 employees, whichever is the lesser, are likely to be retrenched in any 12-month period. Note that Ngululu Resources's labour force is much smaller than 500.

#### **4.3.b. Implementing section 189 of the Labour Relations Act, 1995**

The process to implement section 189 of the Labour Relations Act, 1995, as directly taken from the Act, is described below:

##### **Section 189 (Labour Relations Act, 1995). Dismissals based on operational requirements:**

- (1) When an employer contemplates dismissing one or more employees for reasons based on the employer's operational requirements, the employer must consult-
  - (a) any person whom the employer is required to consult in terms of a collective agreement;
  - (b) if there is no collective agreement that requires consultation, a workplace forum, if the employees likely to be affected by the proposed dismissals are employed in a workplace in respect of which there is a workplace forum;
  - (c) if there is no workplace forum in the workplace in which the employees likely to be affected by the proposed dismissals are employed, any registered trade union whose members are likely to be affected by the proposed dismissals;
  - (d) if there is no such trade union, the employees likely to be affected by the proposed dismissals or their representatives nominated for that purpose.
- (2) The consulting parties must attempt to reach consensus on
  - (a) appropriate measures-
    - (i) to avoid the dismissals (See sections 4.1 and 4.2.a. above, sections 4.2.c. and 4.2.d. below, as well as Schedule 8, the Code of Good Practice: Dismissal);
    - (ii) to minimise the number of dismissals;
    - (iii) to change the timing of the dismissals; and
    - (iv) to mitigate the adverse effects of the dismissals;
  - (b) the method for selecting the employees to be dismissed; and
  - (c) the severance pay for dismissed employees.
- (3) The employer must disclose in writing to the other consulting party all relevant information, including, but not limited to-



- (a) the reasons for the proposed dismissals;
  - (b) the alternatives that the employer considered before proposing the dismissals, and the reasons for rejecting each of those alternatives;
  - (c) the number of employees likely to be affected and the job categories in which they are employed;
  - (d) the proposed method for selecting which employees to dismiss;
  - (e) the time when, or the period during which, the dismissals are likely to take effect; the severance pay proposed;
  - (g) any assistance that the employer proposes to offer to the employees likely to be dismissed; and
  - (h) the possibility of the future re-employment of the employees who are dismissed.
- (4) The provisions of section 16 apply, read with the changes required by the context, to the disclosure of information in terms of subsection (3).
- (5) The employer must allow the other consulting party an opportunity during consultation to make representations about any matter on which they are consulting.
- (6) The employer must consider and respond to the representations made by the other consulting party and, if the employer does not agree with them, the employer must state the reasons for disagreeing.
- (7) The employer must select the employees to be dismissed according to selection criteria-
- (a) that have been agreed to by the consulting parties; or
  - (b) if no criteria have been agreed, criteria that are fair and objective.

### **4.3.c. Notification to the Board**

As mentioned in section 4.3.a. above, if the operation is to be scaled down or to cease with the possible effect that 10 per cent or more of the labour force or more than 500 employees, whichever is the lesser, are likely to be retrenched in any 12-month period, Ngululu Resources will, after consultation with any registered trade union or affected employees or their nominated representatives where there is no such trade union, notify the Minerals and Mining Development Board in the prescribed manner. Note that Ngululu Resources's labour force is much smaller than 500.

### **4.3.d. Communicating possible retrenchments**

An effective communication strategy will be followed, that involves the following:

- Informing employees of possible retrenchments;
- Informing other affected parties (sending areas, municipalities, etc.) of the possible retrenchments at the operation;
- Informing outside parties (media, etc.) of the possible retrenchments at the operation.

As stated in Annexure 1 (Social Plan) section 2.1 (Effective communication with retrenched), the following will be kept in mind for effective communication with retrenched:

- Ngululu Resources will be well prepared in terms of communicating details of the severance package amount.
- The best possible timing will be chosen. E.g. employees will not be told on a Friday that they are being retrenched and left without proper counselling and support. They could well find it difficult to cope during the weekend.
- The interview will be planned and rehearsed beforehand: how to start the interview, where to hold a private interview, what to say and how to conclude the interview.
- The reason for the retrenchment will be communicated clearly and it will also be made clear that the decision is final.

### **4.3.e. Other mechanisms to provide alternative solutions and procedures for creating job security where job losses cannot be prevented**

Other mechanisms to provide alternative solutions and procedures for creating job security where job losses cannot be prevented, include the following:

- Retrenched workers will be provided with a combination of entrepreneurship training and portable skills training to empower them to engage in entrepreneurial activity if retrenched.
- Portable skills provided by the mine will also enhance retrenched worker's position to find alternative employment in the local or open labour market at other mines, or related or non-related industries.
- Workers will be allowed (even encouraged) to practice composite careers. In other words, workers will be allowed and supported to practice another job/career after hours as a side line (of course, within reasonable limits). This will provide them with greater income resilience, encourage additional skills acquisition and expand their economic opportunities.
- The LED Projects (as described in sections 3.4 to 3.6) will create a growing number of jobs, therefore may be able to provide employment to retrenched workers in case retrenchments were unavoidable.
- Redeployment of redundant workers will be practiced. The mine already has well established partnerships with businesses in nearby areas, including businesses in and around Delmas, Witbank, Ermelo and Middelburg which may be able to employ workers if retrenched by the mine.

## ***4.4 Mechanisms to ameliorate the social and economic impact on individuals, regions and economies where retrenchment or closure of the operation is certain***

### **4.4.a. Assessment and counselling services**

The Future Forum will approach the Department of Labour's provincial office or labour centre for services. These services, which includes standard services and additional services (discussed below), will be provided at the Department of Labour' offices well before retrenchees leave the service of the organisation.

**Standard services:** The Department of Labour's provincial office or labour centre will provide information on the following topics to retrenshees: How to cope; Support: family and friends; Mobilisation of community support systems; Health rights; Further training; Legal rights; Money matters: severance package; Self-employment; Job-hunting hints; Registration as job-seeker and claiming unemployment insurance; Labour market opportunities, local economic development initiatives and other employment opportunities.

**Additional services:** The Department of Labour's provincial office or labour centre will also provide the following services to retrenshees: Group counselling; Employment counselling; Training and retraining of retrenchees in line with the Skills Development Act (1998); Placement services.

See Annexure 1 (Social Plan) sections 2.4 to 2.6.

#### 4.4.b. Self-employment training programmes

See Annexure 1 (Social Plan) sections 3.1 (Regeneration of local economies).

Note that this Social and Labour Plan and accompanying Social Plan applies to Ngululu Resources's small workforce only, which, if retrenched, will not have a significant impact on the regional economy. Therefore it doesn't comply to the criteria for accessing the Social Plan Fund (see Annexure 1 section 3.2). Therefore this section doesn't apply.

However, as described in detail in section 2 (Human resource development programme) of this Social and Labour Plan, Ngululu Resources is actively engaged in regeneration of the local economy through its skills development, entrepreneurship and job creation activities. See section 2 (Human resource development programme) and section 3 (Local economic development programme) of this Social and Labour Plan for more detail. These measures are taken during the operational phase, and amongst many other advantages, also serves as a mechanism to reduce community- and worker dependency on Ngululu Resources.

Direct involvement of Ngululu Resources in self-employment training programmes includes the following:

- Entrepreneurship and leadership program to ALL employees/workers, including issues related to change management, organisational behaviour, and management of teams.
- Other portable skills training to interested workers. See section 2.2.
- Entrepreneurship training to employees/workers as well as non-employees or members from the local community, to be provided by Ngululu Resources.
- Should retrenchment occur, employees will be registered on the employment database of Department of Labour.

#### 4.4.c. Training and re-employment programmes

See section 3.1 (Regeneration of local economies).of Annexure 1 (Social Plan).

Note that this Social and Labour Plan and accompanying Social Plan applies to Ngululu Resources's small workforce only, which, if retrenched, will not have a significant impact on the local economy. Therefore it doesn't comply to the criteria for accessing the Social Plan Fund (see Annexure 1 section 3.2). Therefore this section doesn't apply.

However, as described in detail in section 2 (Human resource development programme) of this Social and Labour Plan, Ngululu Resources is actively engaged in regeneration of the local economy through its skills development, entrepreneurship and job creation activities. See section 2 (Human resource development programme). Also see section 3 (Local economic development programme) of this Social and Labour Plan for more detail on local economic development initiatives. These measures are taken during the operational phase, and amongst many other advantages, also serves as a mechanism to reduce community- and worker dependency on Ngululu Resources.

## SECTION 5: FINANCIAL PROVISION

The following table indicates the budget to implement this Social & Labour Plan. Note that cost associated with housing subsidies and other worker benefits not mentioned in the table below, are part of the normal operational or human resource budget.

Note that one of the key targets of the new Mining Charter is to invest at least 3% of annual payroll in skills training.

**Table: Budget for Social & Labour Plan implementation**

Budget component	Rand (ZAR)				
	Year 1 (2013/ 2014)	Year 2* (2014/ 2015)	Year 3* (2015/ 2016)	Year 4* (2016/ 2017)	Year 5* (2017/ 2018)
<b>Budget for Section 2 (Skills development / training)</b>					
ABET training	138000	138000	18000	18000	12000
Learnerships	25000	50000	75000	50000	50000
Core mining, industry-specific technical and operational skills training	12100	31460	31460	29040	33880
Management, administrative, environmental, health & safety skills training	42030	126090	121420	126090	126090
Portable skills training	30580	80620	80620	80620	80620
Soft skills and other informal training	18300	18300	18300	18300	18300
Mentorship	14000	14000	14000	14000	14000
Bursary	120000	120000	120000	120000	120000
Internship	88000	88000	88000	88000	88000
<b>Total budget for section 2</b>	<b>488010</b>	<b>666470</b>	<b>566800</b>	<b>544050</b>	<b>542890</b>
<b>Budget for Section 3 (Development projects)</b>					
Project 1: Support to tutors to start & run their own extramural science & maths academy (Establishment of 30 small/micro extramural tuition businesses)	60000	60000	60000	60000	60000
Project 2: Infrastructure development: Assistance with the upgrading of internal roads and storm water channels	65000	65000	65000	65000	65000
<b>Total budget for section 3</b>	<b>125000</b>	<b>125000</b>	<b>125000</b>	<b>125000</b>	<b>125000</b>
<b>Budget for Section 4 (Retrenchment / Downscaling)</b>					
Management of downscaling (because the direct cost to manage downscaling will mainly be covered by the general Human Resource management operational budget, cost directly associated with implementation of the management of downscaling will be limited to additional administrative and stakeholder engagement tasks)	90000	90000	90000	90000	90000
<b>Total budget for section 4</b>	<b>90000</b>	<b>90000</b>	<b>90000</b>	<b>90000</b>	<b>90000</b>

<b>GRAND TOTAL COST PER YEAR FOR ENTIRE SOCIAL &amp; LABOUR PLAN IMPLEMENTATION (RAND)</b>	<b>703010</b>	<b>881470</b>	<b>781800</b>	<b>759050</b>	<b>757890</b>
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\*Cost will be recalculated annually to compensate for inflation. Increases will be reported in the annual monitoring report (to be submitted to DME) of this Social and Labour Plan.

## SECTION 6: UNDERTAKING

I, ISHILLO CHRISTOPHER LUVHANI the undersigned and duly authorized thereto by  
NGULULU RESOURCES (PTY) LTD (company) undertake to adhere to the  
information, requirements, commitments and conditions as set out in the social and labour plan.

Signed at CENTURION on this 3<sup>rd</sup> day of MAY 20 13

Signature: \_\_\_\_\_

Designation: DIRECTOR

## SECTION 6: UNDERTAKING

I, \_\_\_\_\_ the undersigned and duly authorized thereto by \_\_\_\_\_ (company) undertake to adhere to the information, requirements, commitments and conditions as set out in the social and labour plan.

Signed at \_\_\_\_\_ on this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

Signature: \_\_\_\_\_

Designation: \_\_\_\_\_

## SECTION 7: REFERENCES

Amoateng, A.Y.; Heaton, T.B. 2007. Families and households in post-apartheid South Africa: socio-demographic perspectives. Child, youth, family and social development research programme. Human Sciences Research Council. HSRC Press. Cape Town.  
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# **ANNEXURE 1: Ngululu Resources's SOCIAL PLAN – PREVENTING JOB LOSSES, MANAGING RETRENCHMENTS AND JOB CREATION**

## ***Phase 1: Preventing job losses***

### **1.1 Future Forums**

Ngululu Resources's Future Forum is a partnership between the management, the workers and their representatives, and will be established and in operation within 6 months after the mining right were obtained. The Future Forum will identify and analyse problems in an organisation in good time, look ahead to identify problems, challenges and potential solutions, which will be debated openly, and as early as possible. Together they will devise appropriate solutions to the identified problems, and implement solutions in a properly planned manner.

To remain economically viable and competitive, Ngululu Resources will engage in serious strategic planning and evaluate progress at regular intervals. Early warning systems will be put in place. As soon as potential problems are identified, turnaround or redeployment strategies will be developed. If necessary, Ngululu Resources will then apply for government funds to partially subsidise the cost of strategic interventions. The Future Forum will notify the Minister of Labour as soon as possible and then seek Social Plan assistance to support implementation of its plans.

Ngululu Resources's Future Forums will:

- Promote ongoing discussions between worker representatives and employers about the future of the industry sector and/or the organisation;
- Look ahead to identify problems, challenges and possible solutions;
- Develop turnaround or redeployment strategies to help reduce job losses and to improve business sustainability;
- Structure and implement proposals agreed on by both the employer and the worker parties.

### **1.2 Ministerial notification**

If Ngululu Resources plan a large scale retrenchment within a period of a year, Ngululu Resources's Future Forum will notify the Minister of Labour as soon as possible.

Ngululu Resources will then draw up a plan to prevent the large scale retrenchment, and then request assistance (technical and/or advisory and/or financial) from the National Productivity Institute's Social Plan's (NPI) Technical Support Facility, to support the plans proposed by the Future Forum to prevent or minimise job losses.

If large scale retrenchment is the only viable option, preparations for retrenchment will start. After compliance with all the regulations and procedures set out in the Labour Relations Act (1995), the Future Forum will then request assistance from the Minister of Labour to deal with the large-scale retrenchment. This request will be reasonable and allow the Department of Labour sufficient time to mobilise its resources and the services required for such support.

Ngululu Resources acknowledge that the timing of the ministerial notification is of the utmost importance as late notification may negate meaningful assistance from one or more of the Social Plan phases. For example, it normally requires at least six months to develop and start implementing turnaround or redeployment strategies and, in the case of retrenchments, it is imperative that the counselling process takes place at least two weeks before the payout to retrenchees.

### 1.3 Technical support

As mentioned above, as soon as any potential problem that could lead to large scale retrenchments are detected, Ngululu Resources's Future Forum will request assistance (technical and/or advisory and/or financial) from the Social Plan's Technical Support Facility, established under the auspices of the Social Plan and Productivity Advisory Council (SPPAC) of the National Productivity Institute (NPI).

**Criteria for assistance**, and the **application (for assistance) procedure** is described as follows:

#### CRITERIA FOR ASSISTANCE

The Social Plan's Technical Support Facility reports to a Social Plan Committee that makes final decisions about the Facility's assistance, which then have to be ratified by the Social Plan and Productivity Advisory Council.

Guidelines for assistance eligibility:

- A) An organisation or an industry sector should meet the following criteria:
  - A.1) Be in decline or in distress
  - A.2) Have positive equity or give an undertaking that its finances would be positively restructured, or alternatively that the organisation is able to finance itself or attract new funds
  - A.3) A breakeven analysis should prove with reasonable certainty that the organisation can be turned around
  - A.4) Have underutilised or spare capacity, or be able to attract finances for investment in new capacity to relieve constraint areas
  - A.5) Have sufficient market potential to become a viable entity
  - A.6) Any redeployment strategy should materially impact on the long-term survival and/or competitiveness of the organisation
  - A.7) For each employment opportunity created, the cost of intervention should not exceed the potential derived value
- B) A Future Forum must have been established. There should be agreement between the employer and the relevant worker parties, and compliance with legislation in terms of fair retrenchment procedures.
- C) The participants must agree to cover their portion of the proposed project cost.
- D) On approval of the application, the participants have to undertake certain contractual obligations by way of a memorandum of agreement defining these obligations and rights.

#### THE APPLICATION PROCEDURE

An employer or worker party who wants to prevent large-scale retrenchments may approach the Social Plan's Technical Support Facility for technical assistance and support. The Facility will help the social partners to form a Future Forum. Proposals to find alternatives to unemployment or to minimise job losses have to be agreed upon between these parties.

A report will be completed during the preliminary assessment, to be submitted to the Social Plan Committee for recommendation and to the Social Plan and Productivity Advisory Council for ratification. Submission does not automatically guarantee approval. The decision of the Social Plan Committee and the ratification of the Social Plan Productivity Advisory Council are final.

Applicants will as soon as possible be notified of the Social Plan's Technical Support Facility's decision. Successful applicants have to sign a memorandum of agreement, entered into between the Future Forum and the Social Plan's Technical Support Facility.

## ***Phase 2: Managing retrenchment***

If steps during Phase 1 described above indicated that retrenchments cannot be avoided, the retrenchment process will be managed as described in this section.

### **2.1 Effective communication with retrenchees**

The following will be kept in mind for effective communication with retrenchees:

- Be well prepared in terms of the severance package amount.
- Choose the best timing. Employees should not be told on a Friday that they are being retrenched and left without proper counselling and support. They could well find it difficult to cope during the weekend.
- Plan and rehearse the interview beforehand. Plan how to start the interview, where to hold a private interview, what to say and how to conclude the interview. Try not to engage in niceties.
- The reason for the retrenchment should be communicated clearly and it should also be clear that the decision is final.

### **2.2 The workers who remain behind**

It is the survivors (those who survived the retrenchment process) will be provided with special attention, as they have to work with their retrenched colleagues during the notice period. They will be provided with assistance in coping with the complexity of emotions arising out of such a situation. During this period they will undergo retraining to perform their new tasks when the other workers have gone. A common perception in this case may be that they are taking work away from retrenched colleagues. These workers will be provided with assistance to handle feelings of guilt, pressure and organisational change.

The bystanders (those who are aware of the retrenchment process but whose positions remain unaffected), on the other hand, although not directly affected, are aware of the process and may have feelings of uncertainty. It is acknowledged that they may quite possibly lose trust in the future of the organisation. They may plan to leave the organisation before they are also retrenched and may not be committed to the long-term goals of the organisation. This may harm their productivity to a considerable extent. These workers will be provided with assistance to handle this type of feelings.

Ngululu Resources will acknowledging their feelings and engage in open communication with both the "survivors" and the bystanders.

## **2.3 Retrenchment Response Team (assistance offered by the Department of Labour)**

If the retrenchment of more than 500 people or 10% of the labour force of an organisation (whichever is the greater) is contemplated within a period of one year (see 1.2), Ngululu Resources's Future Forum will notify the Minister of Labour. Assistance may then be requested from the Department of Labour, provided that the procedures prescribed by the Labour Relations Act (1995) have been followed. Note that Ngululu Resources's workforce is much smaller than 500 people.

When retrenchment appears unavoidable, Ngululu Resources may approach the Department of Labour for assistance. The relevant provincial Retrenchment Response Team will be made available to facilitate and provide support to Ngululu Resources. The Retrenchment Response Team will liaise with Ngululu Resources's Future Forum to determine the following:

- The type of services to be provided (standard or additional);
- Financial resources from each party to cover expenses;
- The time and people needed to offer these services;
- The technical resources needed to deliver an effective service;
- The mechanism to inform those being retrenched about appropriate centres (Social Plan Centres, Job Advice Centres or Labour Centres).

The services will include information and/or counselling for retrenched workers to promote their absorption into the labour market.

Ngululu Resources will provide the following information to the Department of Labour (Retrenchment Response Team) prior to retrenchment:

- Reasons for the proposed retrenchment
- Alternatives that were considered and why they were not adopted
- The number of workers who are likely to be affected (voluntary or nonvoluntary retrenchment) and their job categories
- Proposed method of selecting retrenchees
- Timing of the proposed retrenchment
- Material assistance (except the severance package) offered and prospects for retraining and re-employment
- Language of the workers who are affected
- The villages/towns/cities/countries of origin of workers who are affected
- Skills profiles of workers who are to be retrenched
- Age profiles of workers who are to be retrenched
- Resources (time, funds, personnel and technical infrastructure) that can be provided by management and the unions to deliver the Social Plan services
- Any retrenchment agreement/disagreement between management and the union
- An indication whether the Retrenchment Response Team will be required and to what extent (standard and/or additional services)

## **2.4 Job Advice Centres**

Since Ngululu Resources employ much less than 500 workers in total (note that this Social Plan apply to a small workforce only), Ngululu Resources will not open a Job Advice Centre. Rather, the Future Forum will approach the Department of Labour's provincial office or labour centre for services. These services, which includes standard services (see section 2.5 below) and additional services (see section 2.6 below), will be provided at the Department of Labour' offices well before retrenchees leave the service of the organisation.

## 2.5 Standard services

The Department of Labour's provincial office or labour centre will provide information on the following topics to retrenshees: How to cope; Support: family and friends; Mobilisation of community support systems; Health rights; Further training; Legal rights; Money matters: severance package; Self-employment; Job-hunting hints; Registration as job-seeker and claiming unemployment insurance; Labour market opportunities, local economic development initiatives and other employment opportunities.

## 2.6 Additional services

The Department of Labour's provincial office or labour centre will also provide the following services to retrenshees:

- Group counselling;
- Employment counselling;
- Training and retraining of retrenchees in line with the Skills Development Act (1998);
- Placement services.

## *Phase 3: Job creation*

### 3.1 Regeneration of local economies

Note that this Social Plan applies to a small workforce only, which, if retrenched, will not have a significant impact on the local economy. Therefore it doesn't comply to the criteria for accessing the Social Plan Fund (see section 2.3 below). Therefore this section doesn't apply.

Also note that Ngululu Resources is actively engaged in regeneration of the local economy through its skills development, entrepreneurship and job creation activities. See section 2 (Human resource development programme) and section 3 (Local economic development programme) of this Social and Labour Plan for more detail.

### 3.2 Criteria for accessing the Social Plan Fund

The local authority must have been affected by large-scale retrenchment to apply for Social Plan Fund assistance. There are three cases for application:

- A local authority that has been directly affected by large-scale retrenchment in an organisation or industry sector;
- A local authority that is indirectly affected by large-scale retrenchment because of backward migration (a rural municipality will have to demonstrate that large numbers of retrenchees have permanently returned to the area);
- A thriving local authority in a region that is experiencing large-scale job losses.

As noted above, this Social Plan applies to Ngululu Resources's small workforce only, which, if retrenched, will not have a significant impact on the regional economy. Therefore it doesn't comply with the criteria for accessing the Social Plan Fund. Therefore this section doesn't apply.

### **3.3 Method of application**

As noted above, this Social Plan applies to Ngululu Resources's small workforce only, which, if retrenched, will not have a significant impact on the local economy. Therefore it doesn't comply with the criteria for accessing the Social Plan Fund. Therefore this section doesn't apply.

## ANNEXURE 2 Form Q: THE NUMBER AND EDUCATION LEVELS OF EMPLOYEES

The following table will be updated on an annual basis, and annually reported in the Social and Labour Plan Monitoring Report, submitted to the Department of Mineral Resources.

BAND	NQF LEVEL		OLD SYSTEM	Male				Female				Total		
	Old	New		African	Coloured	Indian	White	African	Coloured	Indian	White	Male	Female	
General Education and Training (GET)			No Schooling	10				6					10	6
			Grade 0 / Pre school											
			Grade 1 / Sub A											
			Grade 2 / Sub B											
			Grade 3 / Std 1 / ABET 1											
			Grade 4 / Std 2											
			Grade 5 / Std 3 / ABET 2											
			Grade 6 / Std 4	6				2					6	2
			Grade 7 / Std 5 / ABET 3											
			Grade 8 / Std 6	120				16					120	16
	1	1	Grade 9 / Std 7 / ABET 4 / N1 / General Education and Training Certificate / Some National Certificates				1					1		
Further Education and Training (FET)	2	2	Grade 10 / Std 8 / N2 / Some Certificates / Some National Certificates	91			2	2				48	2	
	3	3	Grade 11 / Std 9 / N3 / Some National Certificates / Some other Certificates				1	2				4	2	
	4	4	Grade 12 / Std 10 / Further Education and Training Certificates / National Certificate: Vocational / National Senior Certificate / Some other National Certificates		1	1	3	6				26	8	
		5	2 year National Diplomas / 1 year Higher Certificates / N4, N5 & N6 National Certificates				1	4				23	4	
Higher Education and Training (HET)	5	6	3 year National & Higher Diplomas / Some other 2-3 year Diplomas / Advanced Certificates	2			1	2				3	2	
	6	7	3 year Degrees / Higher or Advanced Diplomas	2				2				2		
	7	8	4 year Degrees and Honour's Degrees	3				1			1	3	2	
	7	9	Master's Degrees	1								1		
	8	10	Doctorates											
	<b>TOTAL</b>				<b>235</b>	<b>1</b>	<b>1</b>	<b>9</b>	<b>43</b>			<b>1</b>	<b>246</b>	<b>44</b>

## ANNEXURE 2 Form R: HARD-TO-FILL VACANCIES

The following table indicate skills areas where it is difficult to find a suitable candidate for employment. This table will be updated on an annual basis, and annually submitted in the Social and Labour Plan Monitoring Report, to the Department of Mineral Resources. Occurrence of hard-to-fill vacancies will also be reported annually to MQA and the Department of Labour. Note that at this stage, **no hard-to-fill vacancies** can be reported because it is relative easy to fill all vacancies at present.

Occupational Level	Job title of Vacancy	Main Reason for being unable to fill the vacancy
Top Management	None	Not applicable
	-	-
	-	-
Senior Management	None	Not applicable
	-	-
	-	-
Professionally qualified and experienced specialists and mid management	None	Not applicable
	-	-
	-	-
Skilled technical and academically qualified workers, junior management, supervisors, foreman and superintendents	None	Not applicable
	-	-
	-	-
Semi-skilled and discretionary decision making	None	Not applicable
	-	-
	-	-
Unskilled and defined decision making	None	Not applicable
	-	-
	-	-



## ANNEXURE 2 Form S: EMPLOYMENT EQUITY STATISTICS

The following table presents employment equity statistics, which will be updated on an annual basis, and annually submitted in the Social and Labour Plan Monitoring Report, to the Department of Mineral Resources.

Note that the following new Mining Charter Targets apply and the mine complies with it:

- Minimum 40% HDSA representation amongst management and technical skills by 2015. The mine has 100% representation amongst management and almost 100% in technical skills therefore the mine complies much more than required - see section 2.7 (Employment Equity Plan) and section 2.8 (HDSA in management) for more information.

OCCUPATIONAL LEVELS	Male				Female				Total	Disabled	
	African	Coloured	Indian	White	African	Coloured	Indian	White		Male	Female
Top management (Paterson Level F / board level)	1								1		
Senior management (Paterson Level E / exco level)	6				3				9		
Professionally qualified and experienced specialists and mid-management (Paterson Level D)	4		1	4	2			1	12		
Skilled technical and academically qualified workers, junior management, supervisors, foremen, and superintendents (Paterson Level C)	38	1		5	5				49		
Semi-skilled and discretionary decision making (Paterson Level B)	67				12				81	1	1
Unskilled and defined decision making (Paterson Level A)	118				20				138		
<b>TOTAL PERMANENT</b>	<b>235</b>	<b>1</b>	<b>1</b>	<b>9</b>	<b>43</b>			<b>1</b>	<b>290</b>	<b>1</b>	<b>1</b>
Non – permanent employees	-	-	-	-	-	-	-	-	-	-	-
<b>TOTAL BY RACE</b>	<b>235</b>	<b>1</b>	<b>1</b>	<b>9</b>	<b>43</b>			<b>1</b>	<b>290</b>		
<b>TOTAL BY GENDER</b>	<b>246</b>				<b>44</b>				<b>290</b>		

## ANNEXURE 2 Form T: PROCUREMENT

Because the mine is a new planned mine only and has not yet been constructed, no procurement figures can be provided yet. However, see section 3.9 (Procurement Progression Plan) provide projected figures and targets/commitments for the next 5 years. The following table will be updated on an annual basis, and annually reported in the Social and Labour Plan Monitoring Report, to be submitted (annually) the Department of Mineral Resources.

Note that the following new Mining Charter Targets apply regarding procurement from BEE entities by 2015:

- Minimum 40% of capital goods;
- Minimum 50% of consumer goods;
- Minimum 70% of services.

CAPITAL GOODS (e.g. machines, equipment, vehicles etc)			SERVICES (e.g. professional services, consultation fees, catering etc)			CONSUMABLES (e.g. chemicals, diesel, production input materials etc)		
Provider and address	Percentage of total capital goods procurement	HDSA composition (% or Level)	Provider and address	Percentage of total services procurement	HDSA composition (% or Level)	Provider and address	Percentage of total consumables procurement	HDSA composition (% or Level)
Because the mine is a new planned mine only and has not yet been constructed, no procurement figures can be provided yet			See comment above.					

## **ANNEXURE 3: Socio-economic background information, key economic activities and impact of the mining operation**

This Annexure provides socio-economic background information and an assessment of potential social and economic impacts associated with the proposed mine.

### **Background information to the local socio-economic environment**

This section provides a summary overview of some of the key socio-economic characteristics relevant to the study area and its surroundings, and how the proposed coal mine will impact thereon. The site falls within Ward 6 of the Delmas Local Municipality. The proposed development will increase the supply of jobs, which will have a significant positive impact on the community of Delmas.

#### **Demographics**

The total population of ward 6 is 6 820 and the municipality is 56 199. Ward 6 represents about 12% of the population of Delmas Local Municipality. The proposed mine development will provide employment to a much smaller number than the current total population of the municipality, therefore the proposed development will not lead to a proportionally large influx of new residents.

Table: Number of persons per age category

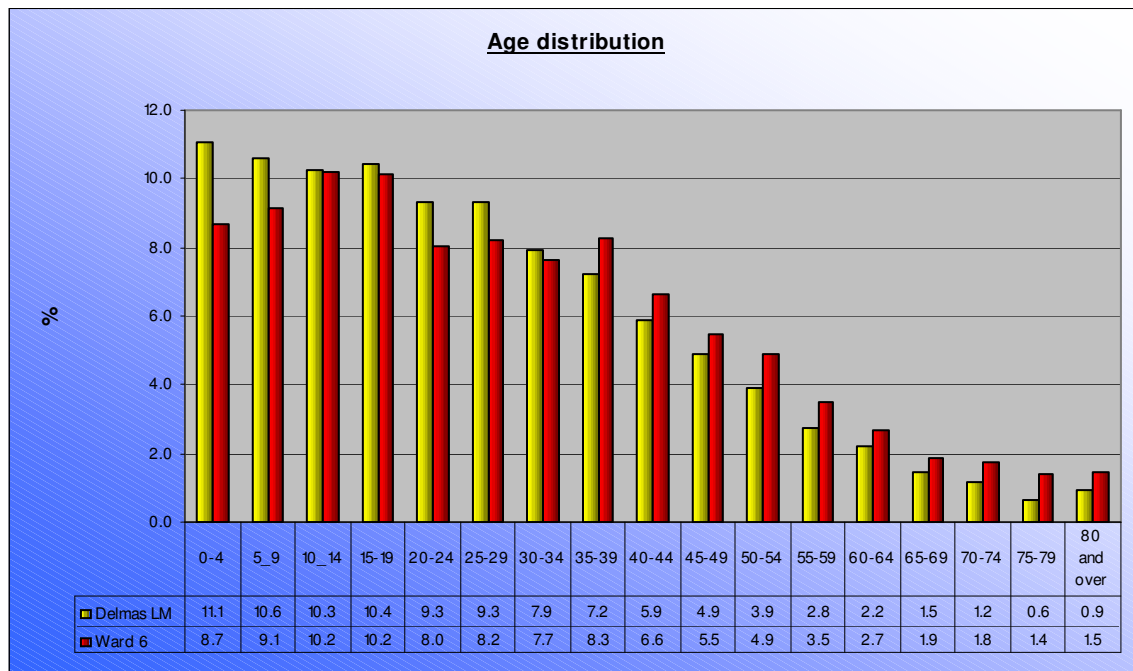
Age	Ward 6	Delmas LM
0-4	590	6235
5-9	623	5965
10-14	694	5766
15-19	693	5850
20-24	549	5231
25-29	559	5235
30-34	522	4460
35-39	563	4057
40-44	452	3320
45-49	375	2744
50-54	333	2180
55-59	239	1547
60-64	184	1254
65-69	129	827

70-74	121	652
75-79	95	360
80 and over	99	516
Total	6820	56199

Source: Municipal Demarcation Board

Ward 6’s population is considerably older than that of the municipality as a whole. The reason is because, in general, ward 6’s population is economically better off and has not been affected by poverty as most of the municipal area. Better economic circumstances correlates strongly with lower fertility rates and an increase of average population age. The rest of the statistics in this socio-economic section consistently supports this statement.

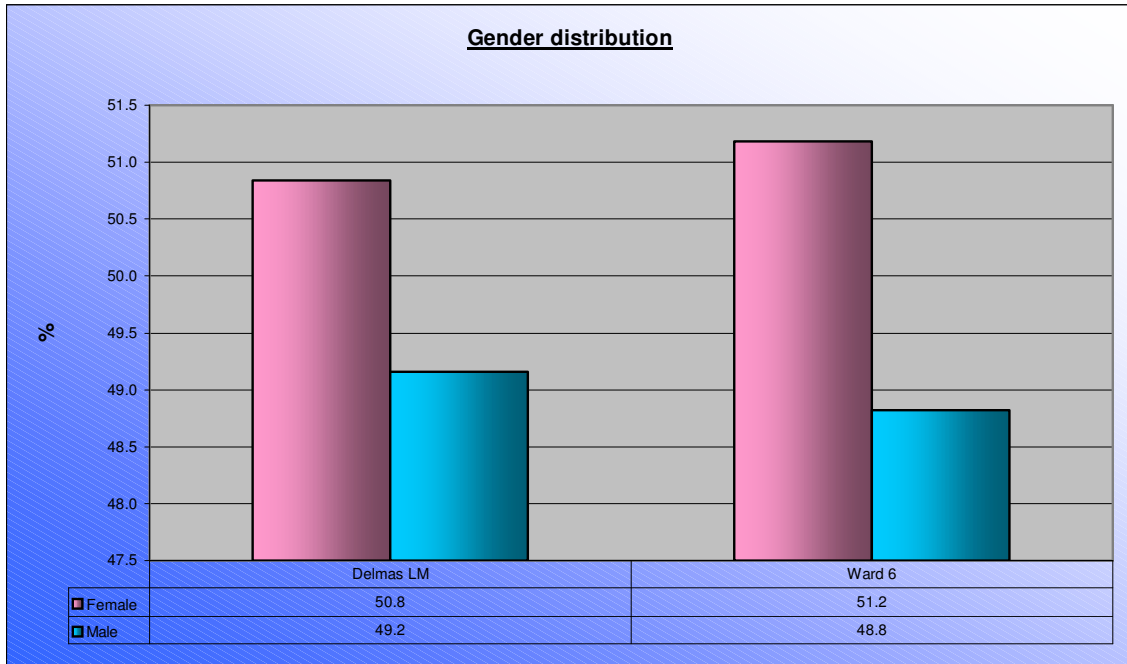
Figure: Age distribution



Source: Municipal Demarcation Board

The following graph illustrates that there are slightly more females than males at both ward- and municipal level. The social implications of a high female composition are generally positive, and include a moderating effect on social problems, especially crime. The proposed development will not significantly affect local gender distribution during the operational phase, however, the construction phase will lead to an influx of male construction workers which may lead to a temporary increase in certain social problems if not properly managed.

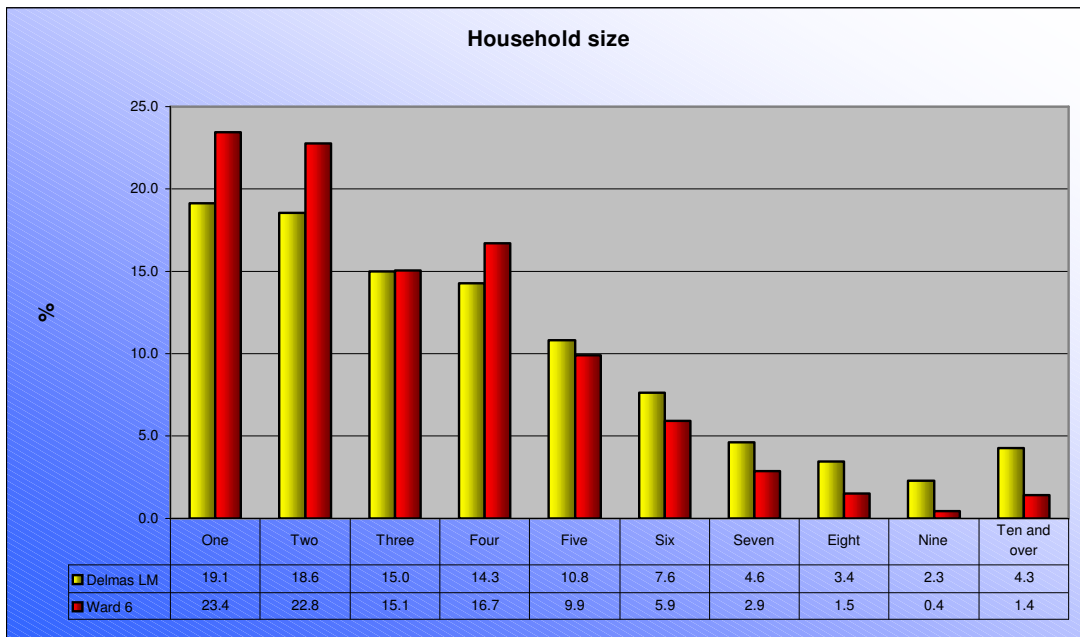
Figure: Gender distribution



Source: Municipal Demarcation Board

Single person households, followed by two person households, are the dominant household sizes at both ward- and municipal level.

Figure: Household size

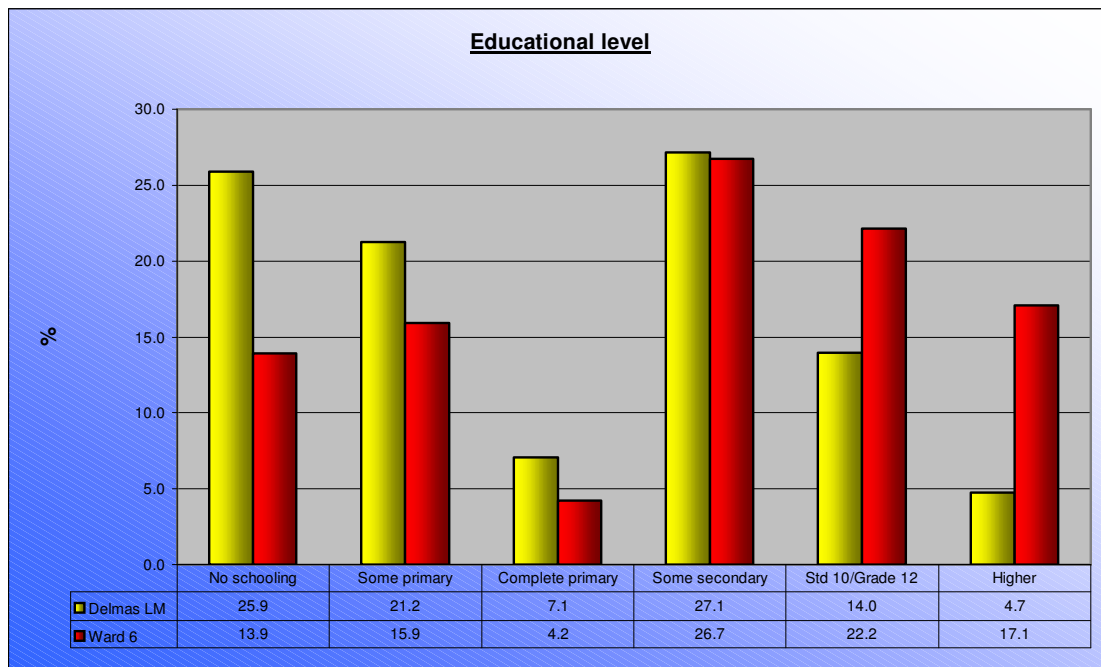


Source: Municipal Demarcation Board

**Educational level**

Ward 6’s population is considerably better educated than the municipality as a whole, however, 13.9 % of ward’s 6 population didn’t receive any form of schooling at all while only 66% are higher educated than primary school. The municipality as a whole are even worse off with only 45.8% of the population that are higher educated than primary school level. Improper education is probably the most important limiting factor towards local economic development. As indicated further blow, income levels in the area are very low, especially at municipal level. There is a very strong correlation between educational level and income – the better a person is educated, the higher income he/she tends to earn. An improvement in educational level will lead to an improvement in household income in the area. However, the poor, low skilled working population and especially the unemployed cannot afford to improve their skills so that they can improve their educational level. They are trapped in a vicious circle of insufficient education and no/low income. The proposed development will not have a direct impact on educational, however, the provision of training and bursaries by the mine, as proposed in the Social and Labour Plan, will help significantly to improve local education and training.

Figure: Educational level



Source: Municipal Demarcation Board

**Income and employment**

The relevance of income and employment on the proposed mine development is as follows:

The proposed development will have a positive impact on income and employment (as described below).

Annual household income at ward and especially at municipal level is very low. 19% and 21.2% of households at ward and municipal level respectively, do not receive any income at all. This figure might actually be lower because government is paying grants to various groups in recent years. However, at national and provincial level, probably also at local level, the effectiveness of the grant system to reduce poverty has been limited due to the following reasons:

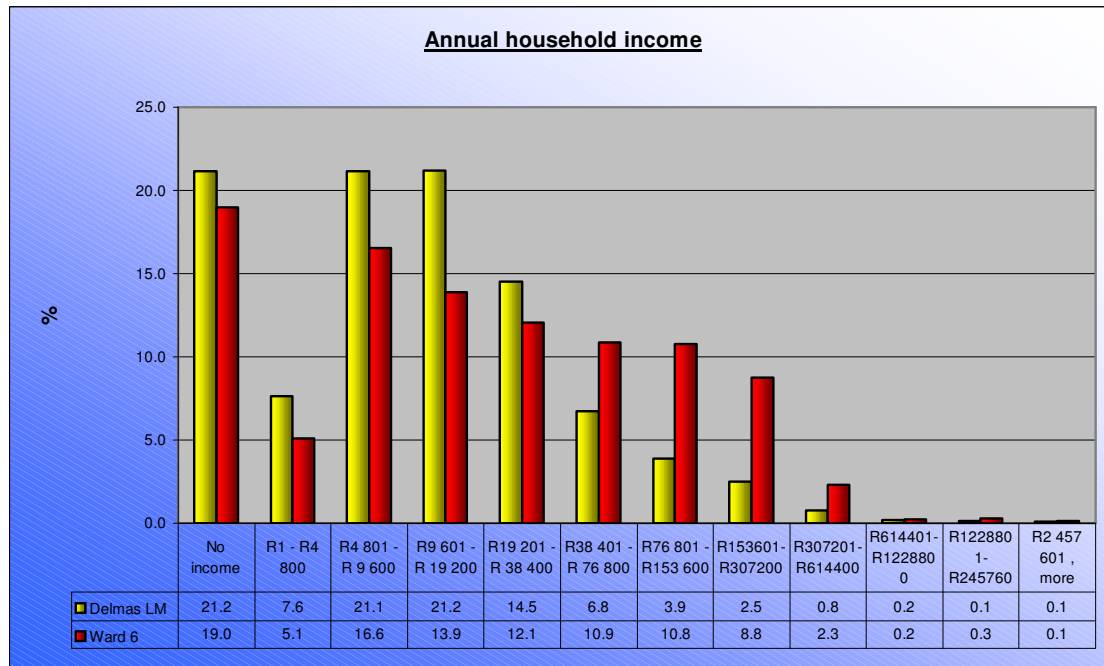
- Grant payments is very low;
- Inadequate staffing and resources at relevant government offices, therefore the system is slow, and the quality of service is low;
- The grant application process is complex;
- Some of the most disadvantaged individuals may not be aware of the availability of grants they may be eligible for;
- Very importantly, welfare grants do not contribute to economic growth.

It is clear that income at ward level is considerably higher than at municipal level. Many households in Ward 6 might even be much better off than indicated by the graph below because the wealthier households not only have a higher income but probably own wealth in various forms e.g. stocks, bonds and property.

The situation of the poor and even the middle income groups are probably deteriorating because it is unlikely that increase in income is keeping pace with inflation. Inflation is likely to increase considerably and constantly in the years to come as fuel prices is steadily rising. In addition, food prices are also rising rapidly because of problems in the local and regional agricultural sector, this is very significant to the poor because a high proportion of the income of the poor is spent on food items. Also, because of problems in the agricultural sector, many farms in the area cannot be operated viably anymore, with resultant loss of farmworker jobs. This is a very important socio-economic issue because, as illustrated later on in this section, the agricultural sector is the largest employer in the municipal area.

Family size tends to be large amongst lower income groups in the area. Large family size also contributes to poverty because more children have to be supported while household income is fixed, therefore household income have to be shared amongst more members.

Figure: Annual household income



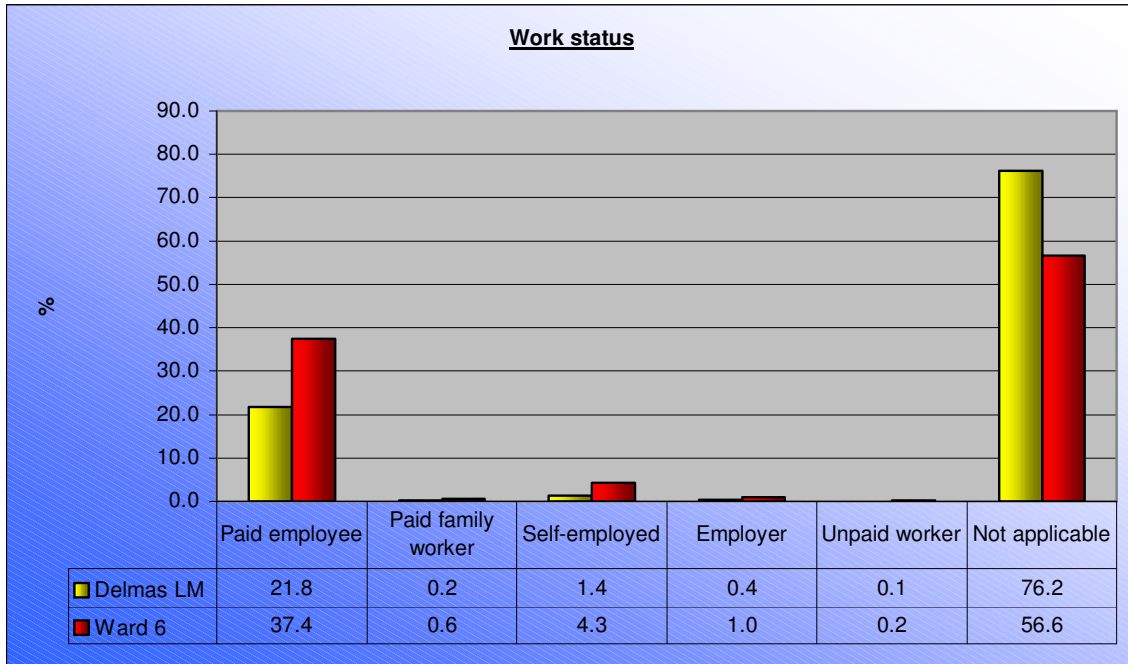
Source: Municipal Demarcation Board

At ward level, and especially at municipal level, there are very few self-employed persons (4.3% and 1.4% respectively). This is an indication of a severe lack of entrepreneurial culture, which has a direct and highly significant negative impact on economic development. Entrepreneurship forms the backbone of local economic development, therefore the area are in dire need of entrepreneurial promotion interventions. The proposed development will have a positive impact on entrepreneurship development in the following ways:

- Business opportunities is directly created during the construction phase for construction SMME's;
- The mine development will create direct business opportunities to mine maintenance, supply and service SMME's during the operational phase.
- The future employees of the proposed mine development will serve as potential customers to existing and future SMME's in the Delmas and surrounding area.



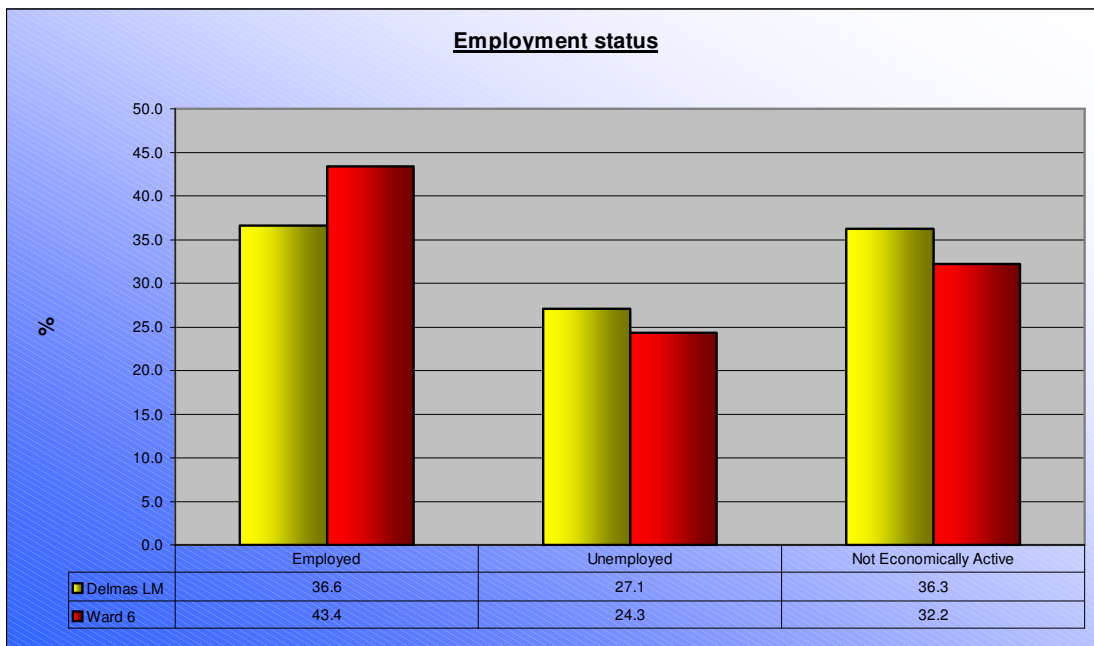
Figure: Work status



Source: Municipal Demarcation Board

Unemployment is a major problem in the area. 27.1% of the population in the municipality and 24.3% of the population at ward level is unemployed. As explained above, the proposed development will contribute to job creation.

Figure: Employment status



Source: Municipal Demarcation Board

## Housing

A large percentage of the local population does not live in formal housing. Formal housing is the dominant housing type around the site of proposed development. Traditional housing are dominant in the north-east of the municipal area, i.e. in the commercial farming areas of Honingkrantz, Klipfontein, Dwaalfontein, Van Dyksput, Vlakvarkfontein, Leeuwfontein, Straffontein, and Zondagsfontein. Informal settlements occurs approximately 2km to the east-north-east (south-eastern Botleng, which is a very impoverished area) and 3 km to the north-north-east (northern Botleng).

## Access to basic services

The following table indicates that a very low percentage of the population have access to piped water directly in their dwelling.

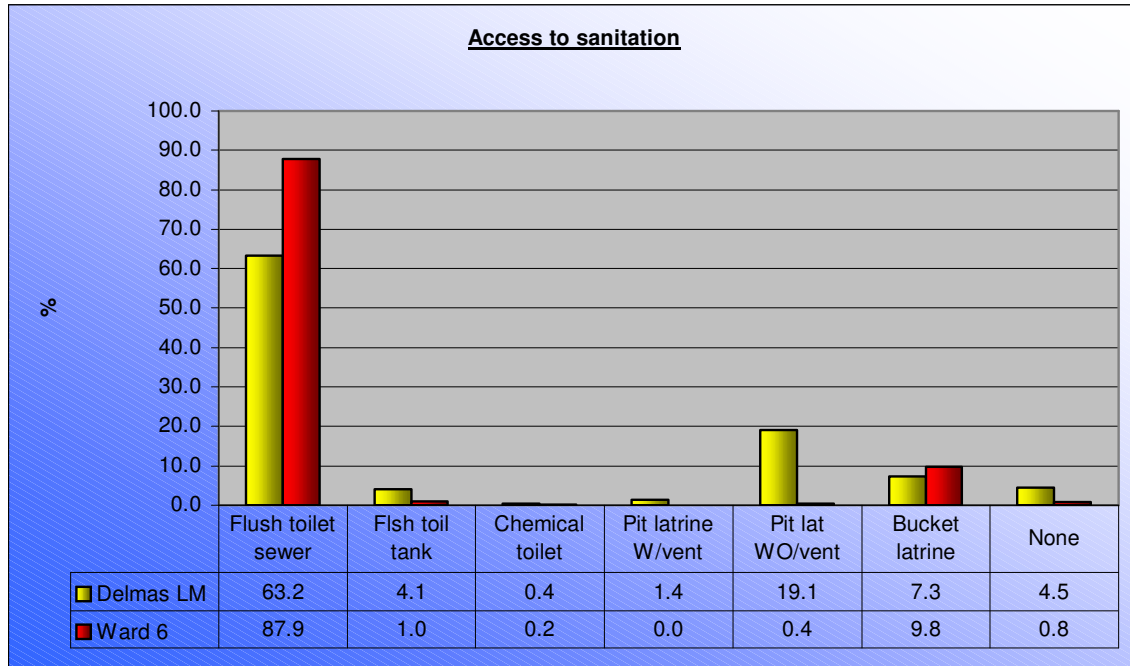
Table: Access to water

Source of water	Percentage of population with access to water source	
	Delmas LM	Ward 6
No Access to Pipe	3.2	2.9
Pipe water (dwelling)	14.2	32.7
Pipe water (in yard)	21.4	11.4
Pipe water <200m	5.9	1.6
Pipe water >200m	5.4	1.4
Regional Local or School	37.6	48.2
Borehole	8.6	0.8
Spring	0.4	0.0
Rain-water tank	1.1	0.0
Dam/pool/stagnant	0.4	0.1
River/stream	0.3	0.1
Water vendor	1.3	0.5
Other	0.3	0.3

Source: Municipal Demarcation Board

Access to sanitation is satisfactory at ward level, however, only 63.2% of the wider municipal level population have access to flush toilet sewers. Improper sanitation may lead to water pollution and deteriorating public health.

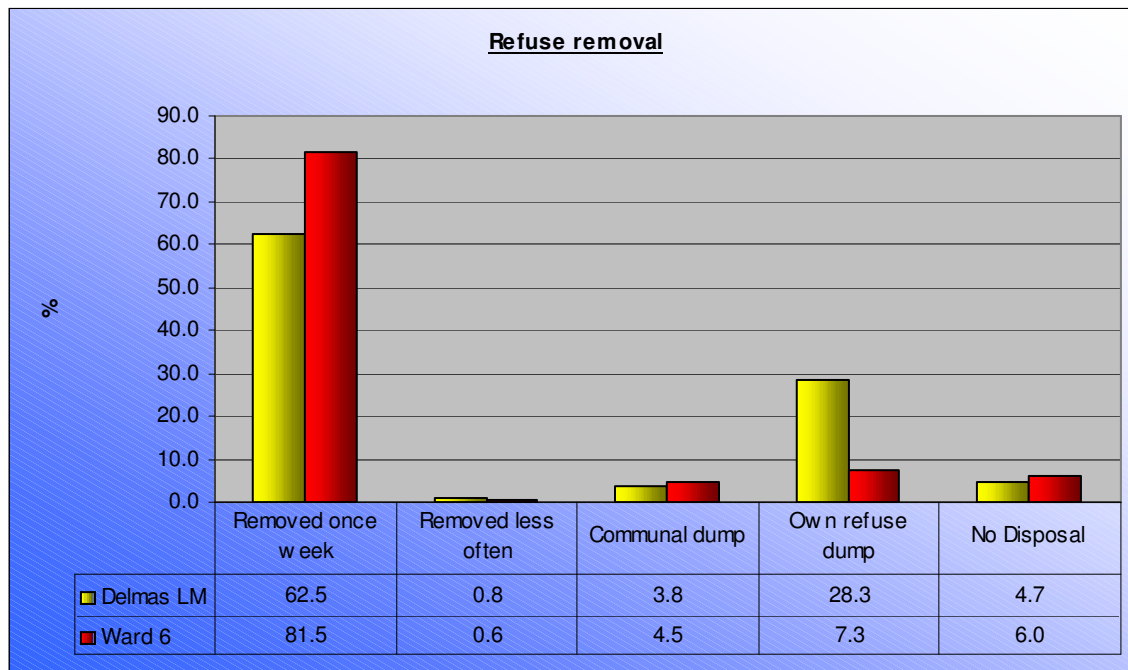
Figure: Access to sanitation



Source: Municipal Demarcation Board

At ward level, 6% of the population are not served by any form of disposal, while 28.3% at municipal level and 7.3% at ward level make use of own refuse dumps. This may contribute to severe groundwater pollution and loss of aesthetic character. The proposed mine will be served by weekly refuse removal (domestic and office waste) and special care will be taken to legally dispose hazardous waste.

Figure: Refuse removal



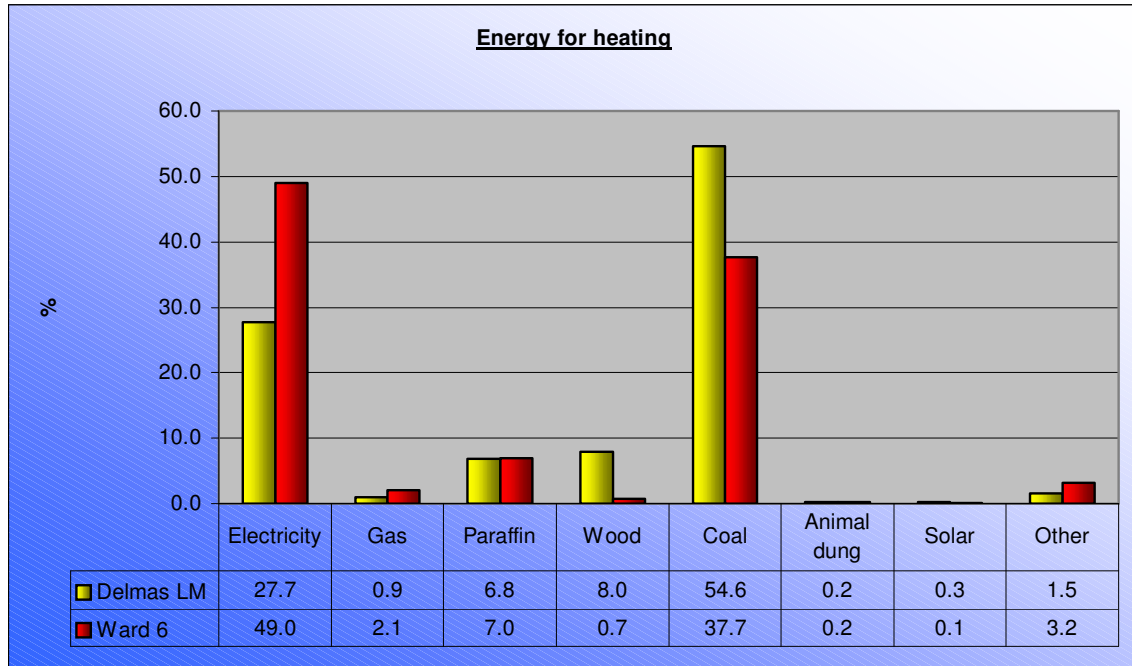
Source: Municipal Demarcation Board

### Energy sources

Although access to electricity was increased during the post-apartheid period, electricity are mainly used for lighting amongst poor households, but not so much for cooking and heating because of the high energy requirements and associated cost of using heating and cooking appliances, when compared to lighting. Also, electricity connections are often unable to carry sufficient electrical current to power heating and cooking appliances.

Coal is an important source of energy for heating in the area: coal is the most important energy source for heating at municipal level (54.6%) and second in importance at ward level (37.7%). The impact of this is severe indoor air pollution during the winter, with serious health impacts to affected households. As a cumulative impact it also contribute to ambient air pollution in an area already suffering from high levels of air pollution.

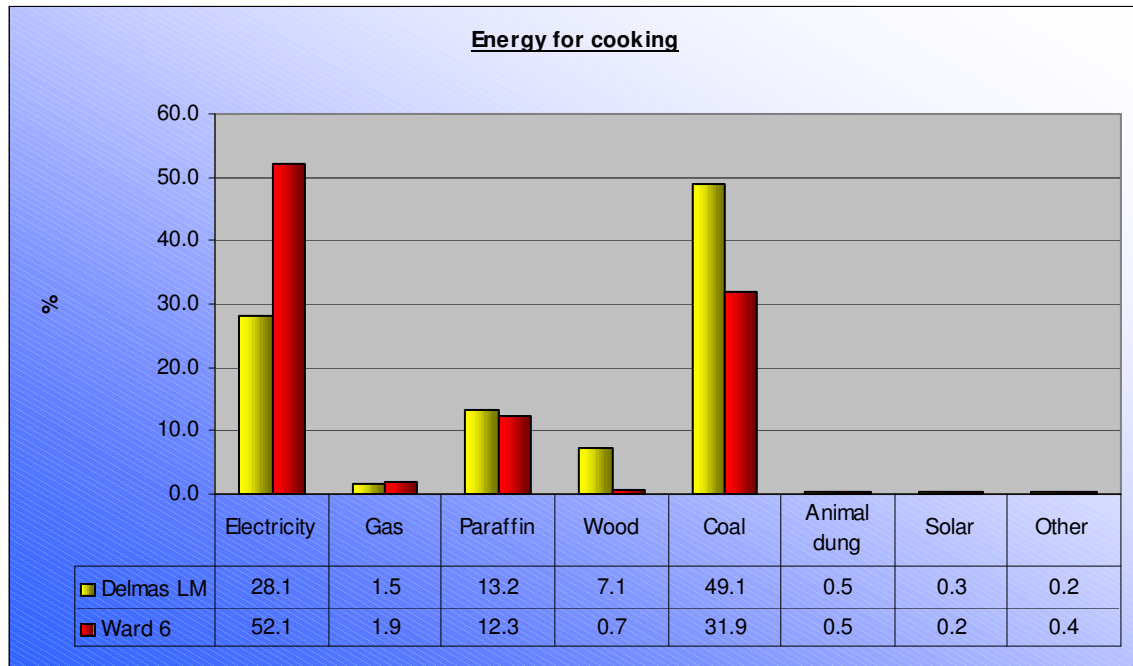
Figure: Energy sources for heating



Source: Municipal Demarcation Board

Coal is the most important energy source for cooking at municipal level (49.1%) and second in importance at ward level (31.9%). Apart from indoor air pollution, it is an important cause of burn-related injuries, especially amongst small children. It may also lead to fire outbreaks in informal settlements.

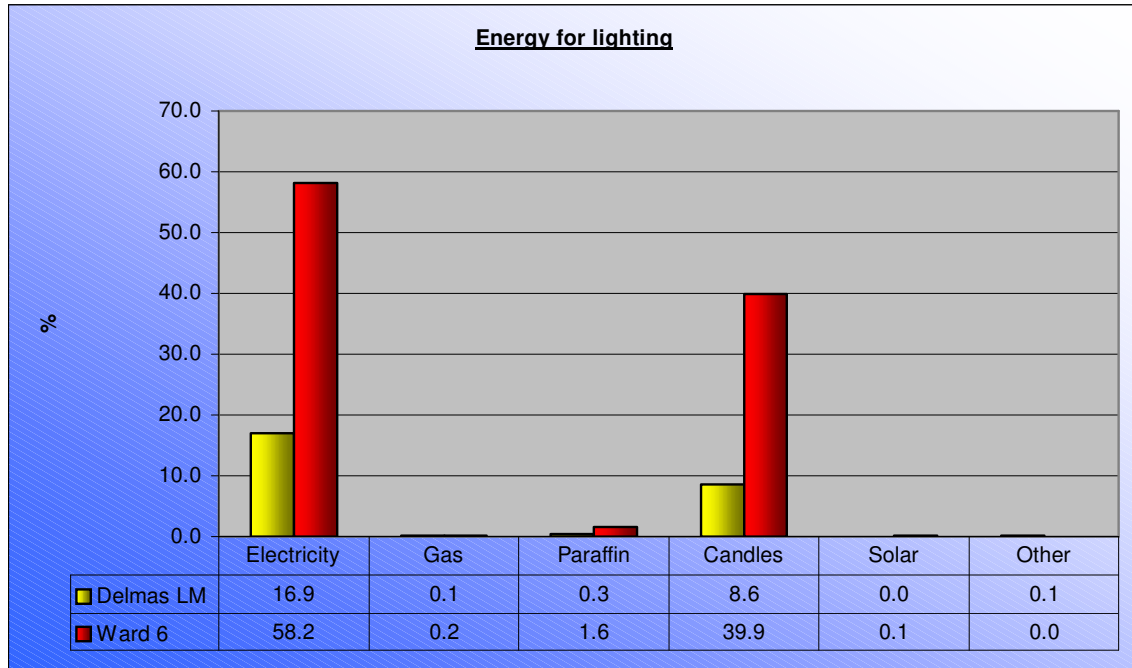
Figure: Energy sources for cooking



Source: Municipal Demarcation Board

As mentioned above, increased access to electricity did lead to an increased use of electricity at least for lighting purposes. However, candles are still an important source of lighting in the area. Candle light is not sufficient to deter criminal activity or to comfortably extend certain daytime activities (e.g. working, studying) into the night. In a learning society (essential for sustained economic development), electric lighting is strongly preferred above candle light to enable people to read or study at night.

Figure: Energy sources for lighting

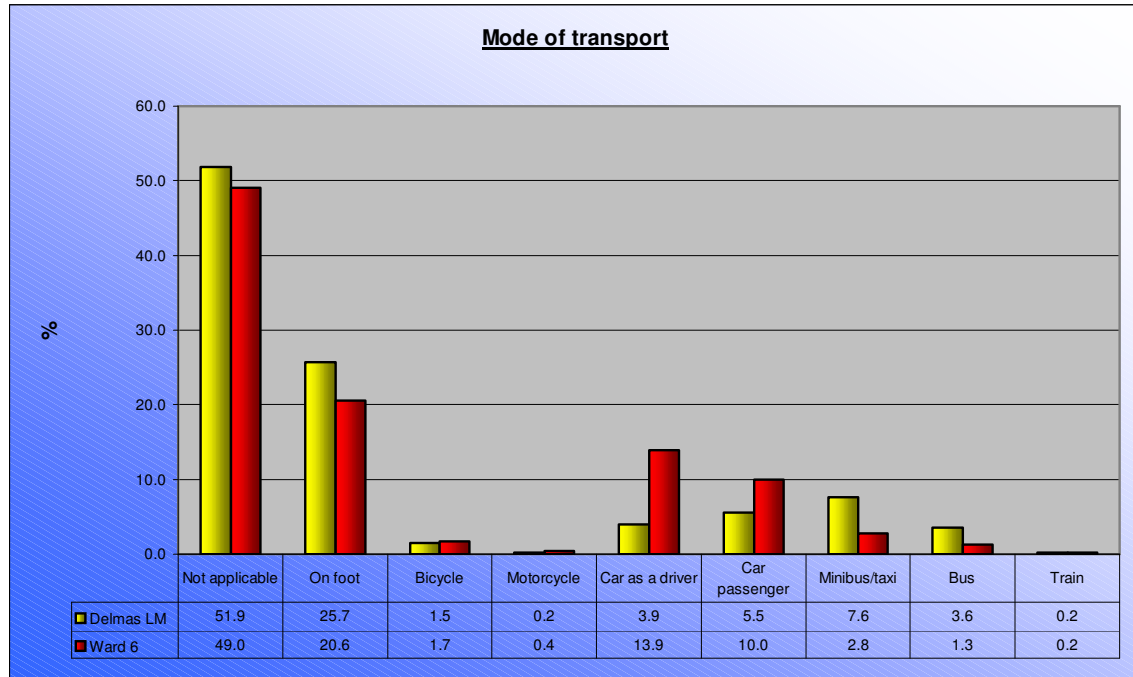


Source: Municipal Demarcation Board

### Connectivity: transport and telecommunication

Motorised transport, although not sustainable, currently serve as an indicator of level of economic development. A large percentage of the population at municipal (51.9%) and ward level (49%) do not make use of transport. Unfortunately, this is not because they work from home or live very near to their dwelling, but rather because they are not of an economically active age (high dependency ratio), and many local residents are unemployed, therefore do not travel to work and do not regularly travel to look for work.

Figure: Mode of transport

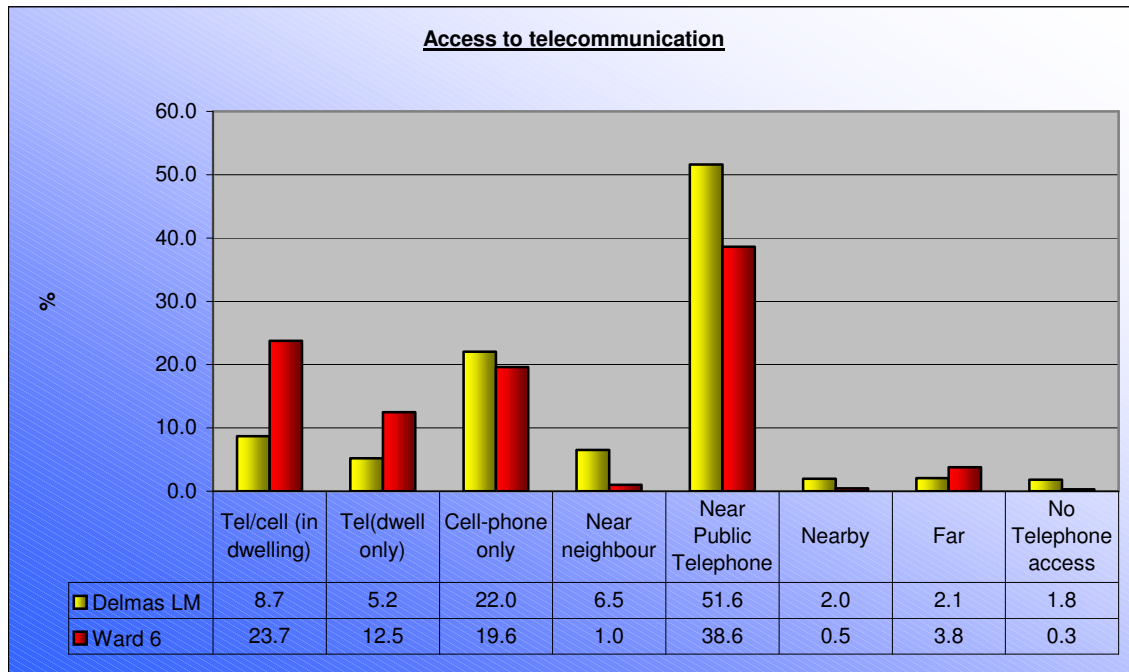


Source: Municipal Demarcation Board

The majority of the population’s only access to telecommunication is a nearby public telephone. In the light of globalisation and the fact that we are living in the information age, this may become a significant limiting factor in the local economy if the situation does not improve over the next few years. E-exclusion will place learners and emerging businesspeople at a severe disadvantage.



Figure: Access to telecommunication

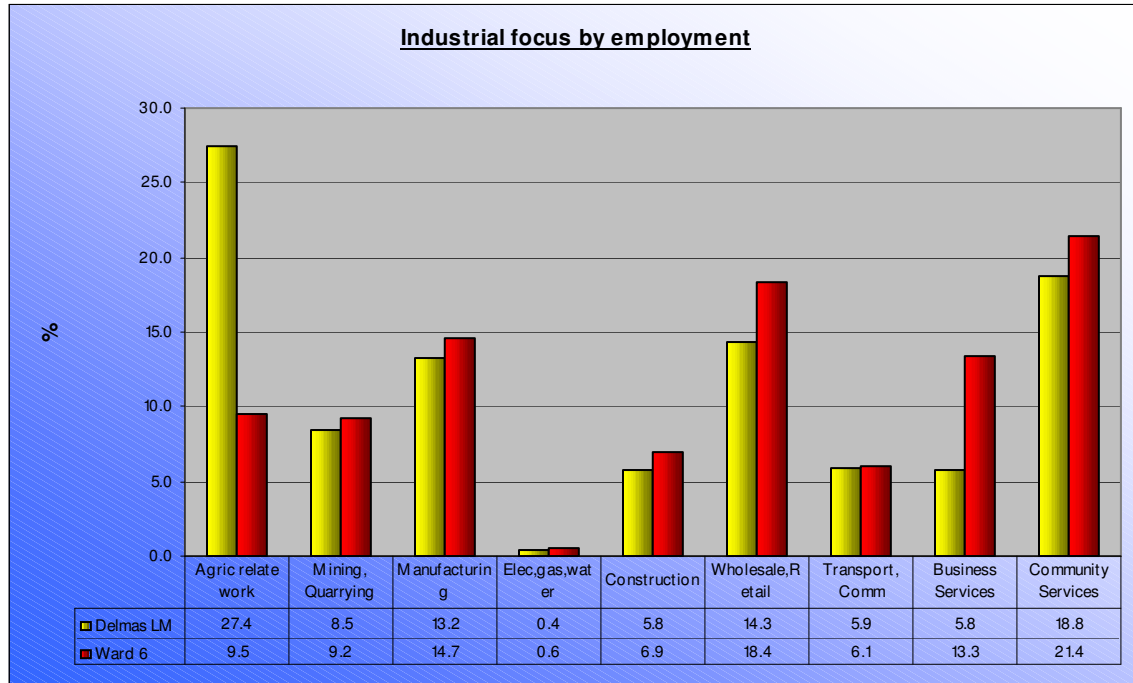


Source: Municipal Demarcation Board

## Main economic activities

With 27.4% of the working population involved in agriculture, the agricultural industry is the main employer in the municipal area, followed by community services. The high importance of community services is a matter of concern because such activities do not contribute directly to income generation in most circumstances, however, certain community services (most notably, health and especially education) are vital to economic growth over the long term. Mining is also an important industry. Overall, the area is highly dependant on the primary sector (agriculture and mining), with the tertiary sector, especially business services, lacking behind. Industrial diversification efforts are needed, and opportunities for industrial diversification are plentiful, especially because of the area's proximity to the major urban and industrial areas of Gauteng. The fact that the area lies between the industrial and logistic hub of Ekurhuleni and the expanding mining areas to the east (coal, and more distant platinum areas), also pose a variety of business opportunities for local residents. The local construction industry are relatively well developed (5.8% of the population are involved in the construction industry), this may serve as an indication that local construction businesses probably have the capacity to be involved in the construction aspect of the proposed mine. Use of local construction businesses will reduce economic leakage and enhance positive economic impacts associated with the construction phase of the proposed mine development.

Figure: Employment by industry



Source: Municipal Demarcation Board

## Impacts of the mining operation

### Planning phase impacts

The following table focus on the planning phase impacts of the proposed mine.

Table: Social and economic impacts associated with the planning phase

Nature of Impact	#Probability	#Intensity / Severity	#Extend	#Duration	#SIGNIFICANCE RATING	Description of impact
Social and economic impacts						
<p>Direct impact: Unrealistic expectations created amongst local community regarding job opportunities: Certain members amongst the local community may have an overly positive perception regarding the number of construction jobs created by the proposed mine. This may result in an initial support for the project, followed by objection and general negative community relations when the number of jobs provided to local people does not meet initial expectations.</p>						
Negative	3	5	2	2	3	<p>Proposed mitigation measures: During the public participation process linked to the mining right application process, the correct/realistic number and duration of possible job opportunities should be disclosed, without any exaggeration.</p>
<p>Direct impact: Negative community or Interested and Affected Party attitudes towards the project: It is possible that more interested and affected parties might object to the proposed project beyond the public participation process. This may, depending on various factors, delay commencement of the construction phase, and/or add to the construction or operational cost because additional mitigation measures may be requested. The most important issue likely to cause negative attitudes towards the project include forced buying of land from farmers, direct impacts on adjacent farms, impact on water resources, and fear of crime related to the presence of workers.</p>						
Negative	3	3	2	3	3	<p>Proposed mitigation measures: All mitigation measures, as outlined in the Environmental Management Programme, should be strictly adhered to, and compliance audited on an annual basis.</p>
<p>Direct as well as cumulative impact: Compatibility with planning and zoning policies: Land use zoning will be influenced: changed from agriculture to mining. Although not as productive as currently is, the post-closure landscape will still be able to be utilised as productive agricultural land. Post-closure yield potential will be between 70% and 75% of the land's original yield potential. Throughout all project phases, impact on surrounding land will not be such that any influence on land-use zoning will or should take place. All impacts on neighbouring farms is manageable.</p>						

Positive						Proposed measures to enhance the beneficial effect of the positive impact: No mitigation required.
	7	8	4	8	7	

#See Impact significance assessment methodology further below.

### Construction phase impacts

The following table focus on the construction phase impacts of the proposed mine.

Table: Social and economic impacts associated with the construction phase

Nature of Impact	#Probability	#Intensity / Severity	#Extend	#Duration	#SIGNIFICANCE RATING	Description of impact
<b>Social impacts</b>						
						Direct impact: Conflict regarding the perceived fairness of the recruitment process for construction phase job opportunities: Members of the local community may perceive the recruitment process as unfair, especially if people from outside the community are recruited, or if selection is perceived to be discriminatory.
Negative	2	4	3	3	3	Proposed mitigation measures: Regarding geographic origin, workers should receive preference during recruitment in the following order: workers/tenants/farmers on affected properties > workers/tenants/farmers on adjacent properties > local ward level > Delmas municipal area > Mpumalanga > Gauteng > rest of South Africa > foreign workers with valid work permits. Provisions of Broad Based Black Economic Empowerment legislation and the Mining Charter should be adhered to.
						Direct indirect and induced impact: Provision of job opportunities to the socially excluded: Most of the jobs created during the construction phase will be allocated to the socially excluded or previously disadvantaged (poor and/or youth and/or woman and/or Black). With a source of income the socially excluded are provided with an opportunity to uplift themselves and their dependents, enabling them to possibly break free from the cycle of poverty. This is true even when construction jobs are temporary because the temporary or occasionally employed is much better off than the long-term unemployed.

Positive	9	8	4	6	7	<p>Proposed measures to optimise the number of jobs created to local people and to vulnerable groups (to be implemented by both the applicant and all contractors and sub-contractors involved in the construction of the mine):</p> <p>As far as possible, local persons should be employed during the construction phase, in the following order of preference:</p> <p>workers/tenants/farmers on affected properties &gt;  workers/tenants/farmers on adjacent properties &gt; local ward level &gt;  Delmas municipal area &gt; Mpumalanga &gt; Gauteng &gt; rest of South Africa &gt; foreign workers with valid work permits. Only South African citizens or holders of valid work permits should be employed; and Legislation to create equal opportunities to historically disadvantaged persons should be adhered to, including the Broad Based Black Economic Empowerment Act (Act 53 of 2003) and relevant industry charters (mainly the Construction Charter).</p> <p>The following measures are suggested to optimise the quality of jobs created:</p> <ul style="list-style-type: none"> <li>• Provisions of training legislation, including the Skills Development Act (Act 97 of 1998, as amended) and Skills Development Levies Act (Act 9 of 1999), should be adopted to enhance skills transfer;</li> <li>• Provisions of the Basic Conditions of Employment Act (Act 75 of 1997, as amended) and Labour Relations Act (Act 66 of 1995) should be adhered to so that a humane work environment are maintained and to prevent workers from being exploited; and</li> <li>• Provisions of the Occupational Health and Safety Act (Act 85 of 1993) and Mine Health and Safety Act should be adhered to so that a safe and healthy work environment are maintained at all construction fronts, and to minimize injury risk to workers.</li> </ul>
<p>Direct impact: Increased pressure on local road network and traffic safety: Construction vehicles will be transporting equipment, construction material and construction workers. If not properly managed, construction related traffic may lead to the following:</p> <p>Increased road damage and road maintenance cost;  Increased levels of air pollution (gaseous pollutants and dust);  Increased noise pollution;  Increased road safety risk.</p>						
Negative	2	2	3	2	2	<p>Proposed mitigation measures:</p> <p>All construction vehicles, trucks and other vehicles including vehicles of contractors and sub-contractors, should be road worthy, well maintained, never overloaded, and drivers should be properly trained and licensed;</p> <p>Speed limits should be set and speeding by construction vehicles should be strictly monitored, not only on-site but also on route to and from the site.</p>

<p>Direct impact: Workforce exposure to occupational health and safety hazards: Mine construction workers are exposed to various occupational health and safety hazards. Detailed analysis of occupational health and safety hazards is beyond the scope of this document. The construction company, including all sub-contractors, if any, should comply with all occupational health and safety related legislation, which should be strictly enforced.</p>						
Negative	4	9	1	6	5	<p>Proposed mitigation measures: Provisions of the Occupational Health and Safety Act (Act 85 of 1993) and Mine Health and Safety Act, should be adhered to; The construction area should be kept neat and clean throughout the construction phase. Barricading should be well maintained and replaced or redressed in case it collapses.</p>
<p>Direct impact: Safety threats to trespassers: People trespassing onto the construction area, will be exposed to some of the occupational health and safety hazards that workers are exposed to (and may contribute to crime while trespassing). Access to the site should be controlled at sensitive locations such as areas where the public (especially children) may be present or move through.</p>						
Negative	2	8	2	5	4	<p>Proposed mitigation measures: Provisions of the Occupational Health and Safety Act (Act 85 of 1993) and Mine Health and Safety Act should be adhered to. Proper fencing, signage and barricading of open trenches and other dangerous areas should be practiced.</p>
<p>Direct impact: Nuisance to neighbours and road users: If environmental impacts are not properly managed, construction activities, including the presence of construction workers, may become a nuisance to neighbours. Nuisance may originate mainly from the following sources: Dust and other forms of pollution; Noise; Visual impact: Note that intervisibility is relative high due to flat topography and scarcity of screening vegetation. Poor maintenance of construction site, untidiness and littering may lead to a negative perception of sense of place, visual impact and vermin problems; Construction workers who keep domestic animals may pose a health threat to humans and animals in the area.</p>						
Negative	3	3	2	4	3	<p>Proposed mitigation measures: The site should be kept neat throughout the construction phase; Environmental mitigation measures aimed at reducing surface- and groundwater pollution, noise and dust emissions, should be strictly adhered to; No animals may be kept on-site by construction workers; All construction related equipment, waste and unutilised construction material should be removed at the end of the construction phase.</p>

Direct as well as indirect impact: Possible increase in crime level or conflict (site scale and adjacent properties): Presence of construction workers may lead to an increase in crime along the work front. The probable construction workforce demographic profile does not differ significantly from the demographic profile of the local community (ward level), which will reduce potential for conflict significantly. Crime may not necessary be committed by construction workers, but by outsiders that may take advantage by the fact that locally unknown people (i.e. the construction workers) will be present in the area. An un-neat construction site and disorderly behaviour of construction workers may contribute to a perception of incivility, which may increase crime in the immediate area. If damage to property is not properly repaired or the site is not properly reinstated (where applicable) after the construction phase, a perception of incivility may extend well into the operational phase. At properties where fencing will be damaged by construction activities, access control will be disrupted, therefore criminals may experience less resistance accessing those properties.

Negative							<p>Proposed mitigation measures:</p> <p>Site security should be sufficient to prevent trespassing where applicable, to ensure that construction workers obey to site rules, and, where applicable, to provide additional surveillance in the area along the perimeter of the site where applicable and reasonable;</p> <p>The site should be kept clean and neat at all times;</p> <p>All construction workers (including workers of contractors and sub-contractors) should be easily identifiable by means of clearly visible identity cards as well as marking or colour-coding of clothing;</p> <p>Damage to fencing should be repaired as soon as possible;</p> <p>Where fencing of adjacent properties is damaged, temporary security measures should be provided over night and weekends if requested by the landowner.</p>

**Economic impacts**

Direct, indirect, induced and cumulative impact: Direct, indirect and induced job creation: Temporary job opportunities (estimated at 250 construction jobs in total) will be directly created during the construction phase of the proposed mine. These jobs will mostly be allocated to the socially excluded (poor and/or youth and/or previously disadvantaged). At a broader geographic scale, indirect job creation will result from procurement of construction material, fuel, equipment, consulting services etc. Induced job opportunities will be created when income earned directly and indirectly (through direct and indirect job creation) are spend on a variety of consumer goods. The number of indirect and induced job opportunities to be created during the construction phase is unknown and difficult to estimate due to the temporary nature of the construction phase. Spending by construction workers will be absorbed as an income boom and indirect and induced job creation could rather be considered as a cumulative impact than an indirect or induced impact.



Positive	9	9	4	6	7	<p>Proposed measures to enhance the beneficial effect of the positive impact:                  Where possible, products and services should be procured from local SMME's. These entrepreneurs should be provided with support, such as advice on the tendering process, partnerships, and by breaking larger contracts into smaller contracts accompanied by smaller but more frequent payments;</p>
<p>Direct impact: Redistribution of income: The construction sector redistribute income better than most other industries since many employment and career enhancement opportunities are provided to unskilled or semi-skilled labourers, which is a very poor segment of society and in urgent need of upliftment.</p>						
Positive	8	6	4	6	6	<p>Proposed measures to enhance the beneficial effect of the positive impact:                  No mitigation required.</p>
<p>Direct and indirect impact: Economic leakage: A significant portion of income directly or indirectly generated during the construction phase will leak to other regions, most notably to Central Gauteng and the foreign sector (especially due to procurement of diesel and capital goods). Leakage could be minimised during the construction phase by employing mainly local people, and to procure from local suppliers and manufacturers where possible.</p>						
Negative	6	4	4	5	5	<p>Proposed mitigation measures:                  Apart from mitigation related to local employment and use of local SMME's as discussed elsewhere in this section, no further mitigation required.</p>

#See Impact significance assessment methodology further below.

### Operational phase impacts

The following table focus on the operational phase impacts of the proposed mine.

Table: Social and economic impacts associated with the operational phase

*Project phase applicable	#Probability	#Intensity / Severity	#Extend	#Duration	#SIGNIFICANCE RATING	Description of impact
<b>Social impacts</b>						
						Indirect impact: Increased quality of life to local people: Job opportunities created (see section on economic impacts) provide employees and their dependants with a source of income. This income could be used to fulfil the basic needs (and more) of the employees and their households, and to contribute to their financial freedom, thereby lowering levels of absolute poverty in the community. Fulfilment of basic needs is necessary for economic development since healthy people are more productive in terms of learning, working, entrepreneurial spirit and wealth creation.
Positive	8	7	5	6	7	Proposed measures to enhance the beneficial effect of the positive impact: No additional measures required.
						Direct impact: Provision of job opportunities to the socially excluded: Job opportunities created by the mine will mainly be allocated to the socially excluded (rural and/or poor and/or youth and/or woman and/or previously disadvantaged). With a source of income the socially excluded can uplift themselves and their dependents, letting them break free from the cycle of poverty. The mine's Local Economic Development Programme activities (described in the Social and Labour Plan) will also lead to job creation.
Positive	7	9	5	7	7	Proposed measures to enhance the beneficial effect of the positive impact: No additional measures required.

Direct impact: Training and experience acquisition: The workforce of the mine will be trained as specified by the Skills Development Plan in the Social and Labour Plan. The mine will provide basic adult education schemes as well as other formal and informal training. In addition, external bursaries will be provided to members from the local community. Training increases productivity and competitiveness of local industries (skills will be transferred into the local community), and is the best measure to address employment equity. Skills acquired by employees at the mine can be applied to other (related and non-related) jobs and industries as well. This will ensure that, if an employee retire, quit or are retrenched, that the acquired skills can be applied in a new setting, and may lead to skills transfer into the local community and reduced community dependency on the mine. The mine's Local Economic Development Programme activities (described in the Social and Labour Plan) also include informal entrepreneurship training to the local community.						
Positive	8	8	4	6	7	Proposed measures to enhance the beneficial effect of the positive impact: No additional measures required.
Indirect impact: Provision in basic and higher human needs: The purpose of the proposed development is to supply (mine) coal, which will be used by downstream industries to create a variety of products or utilities which could serve as basic needs to thousands of end-consumers, including electricity which is used to regulate indoor temperature, cook food, and by the agricultural sector to produce food.						
Positive	10	10	8	6	9	Proposed measures to enhance the beneficial effect of the positive impact: No additional measures required.
Direct impact: Increased pressure on local road network and traffic safety: Vehicle movement increase in the local area due to transportation of workers and materials, especially coal. Increased traffic may lead to the following: higher road maintenance cost increased levels of air pollution and noise increased risk of road accidents The impact will be low due to the fact that traffic generated by the mine is very low.						
Negative	3	5	6	6	6	Proposed mitigation measures: All construction vehicles, trucks and other vehicles including vehicles of contractors and sub-contractors, should be road worthy, well maintained, never overloaded, and drivers should be properly trained and licensed; Speed limits should be set and speeding by construction vehicles should be strictly monitored, not only on-site but also on route to and from the site. Abovementioned mitigation measures should be included in contractual agreements with all coal transporters contracted or sub-contracted by the mine because coal transportation is an associated impact directly linked with the mine's coal mining activities.

Direct impact: Workforce exposure to occupational health and safety hazards: The workforce will be exposed to various occupational health and safety hazards during the operational phase. Detailed analysis of occupational health and safety hazards is beyond the scope of this study. To manage these risks, The mine will comply with relevant health and safety legislation.						
Negative	4	9	1	6	5	Proposed mitigation measures: All applicable provisions of the Mine Health and Safety Act should be adhered to.
Direct impact: Safety threats to trespassers: People trespassing the property may be exposed to some of the occupational health and safety hazards that workers are exposed to, and may contribute to crime.						
Negative	2	7	2	6	4	Proposed mitigation measures: All applicable provisions of the Mine Health and Safety Act should be adhered to. Access to the mine's premises should be strictly controlled, especially at dangerous areas.
Direct impact: Nuisance to neighbours: If environmental impacts are not properly managed, the operation may become a nuisance to occupants of neighbouring properties. Nuisance may originate mainly from the following sources: Dust; Noise from excavation and transportation activities. Poor maintenance of property and untidiness, which will lead to a negative visual impact and problems with vermin. Due to low population density and mitigation measures taken, significance will be low.						
Negative	3	4	2	4	3	Proposed mitigation measures: All applicable provisions of applicable environmental legislation should be adhered to. The commitments as outlined in the Environmental Management Programme should be complied with.
Economic impacts						
Direct impact: Direct job creation: The activity of coal mining is labour intensive, creating 290 jobs directly. These jobs are mainly allocated to the socially excluded (rural and/or poor and/or youth and/or woman and/or previously disadvantaged).						
Positive	9	9	5	7	7	Proposed measures to enhance the beneficial effect of the positive impact: No additional measures required.
Indirect impact: Indirect job creation: Fuel, oil, materials, equipment, electricity, telecommunication services, maintenance services, consulting services, etc, will be sourced by the mine from other local, national and international businesses. As mentioned above, the mine's Local Economic Development Programme activities (as described in the Social and Labour Plan) will also lead to job creation. The exact number of indirect job opportunities created is difficult to calculate, however, it is estimated that an additional 256 jobs will be indirectly created.						

Positive	9	7	4	6	7	<p>Proposed measures to enhance the beneficial effect of the positive impact: Commitments related to procurement as stipulated in the Social and Labour Plan, should be adhered to.</p>
<p>Induced impact: Induced job creation: Induced job opportunities will be created when income earned directly and indirectly (through direct and indirect job creation explained above) are spend on a variety of products and services. For example, employees of the mine and employees of companies supplying to the mine may spend part of their income at local shops and on local services, creating job opportunities for shopkeepers, cleaners, local service providers etc. The exact number of induced job opportunities created is difficult to calculate, however, it is estimated that an additional 576 jobs will be created by induced employment.</p>						
Positive	7	5	4	6	6	<p>Proposed measures to enhance the beneficial effect of the positive impact: No additional mitigation measures required.</p>
<p>Indirect and induced impact: Redistribution of income: The coal mining and associated downstream industries redistribute income better than most other industries since most opportunities are provided to unskilled or semi-skilled labourers, which are a very poor segment of society and urgent need of upliftment and employment.</p>						
Positive	9	6	4	6	6	<p>Proposed measures to enhance the beneficial effect of the positive impact: No additional measures required.</p>
<p>Indirect and induced impact: Income to government by means of rates, taxes and levies: Property tax, income tax, company tax, rates, levies etc. paid by the mine, its employees and other businesses up- and downstream of the supply chain, will be a source of income to the local, provincial and national government, which will (cumulatively) enable the public administration system to function properly.</p>						
Positive	9	7	8	7	8	<p>Proposed measures to enhance the beneficial effect of the positive impact: All tax related legislation should be adhered to.</p>
<p>Direct, indirect and induced impact: Industrial diversification: The local economy is not diverse enough to reduce excessive leakage and is still relatively dependent on the primary sector and social services. The coal mining operation will stimulate the local and regional economy, leading to further industrial diversification, and reduce dependency on especially the social services sector. In addition, the mining industry is an industry with significant forward and backward economic linkages, providing numerous entrepreneurial opportunities. A more diverse local economy will be better able to sustain economic growth and reduce economic leakage.</p>						
Positive	8	7	5	6	7	<p>Proposed measures to enhance the beneficial effect of the positive impact: No additional measures required.</p>

Induced impact: Possibility of economic leakage: Not all income generated from the mine's activities will remain in the local economy. Some income generated will 'leak' to other regions, most notably central Gauteng and the foreign sector.						
Negative						Proposed mitigation measures: Leakage will be minimised by employing mainly local people (as described above) and to maintain the Local Economic Development activities described in the Social and Labour Plan. Also, commitments related to procurement as stipulated in the Social and Labour Plan, should be adhered to.
	6	5	5	5	5	

#See Impact significance assessment methodology further below.

### Closure phase impacts

The following table focus on the closure phase impacts of the proposed mine.

Table: Social and economic impacts associated with the closure phase

*Phase	#Probability	#Intensity / Severity	#Extend	#Duration	#SIGNIFICANCE RATING	
						Negative impact mitigation or measures to maximise the effect of positive impacts
<b>IMPACT ON BASIC PHYSIOLOGICAL NEEDS, SUBSISTENCE AND HOUSING</b>						
						Direct impact: Improvement in air quality (fitness for breathing) due to reduced dust pollution after mining activities cease. Dust may be a significant potential impact during the operational phase in case the EMP is not properly implemented. Dust may still continue to be problematic in case the disturbed areas are not properly rehabilitated.
Positive	8	5	4	9	7	Proposed measures to enhance the beneficial effect of the positive impact: Proper implementation of rehabilitation plan. Screening vegetation should be planted. This will not only mitigate potential long term dust impacts, but will also serve as visual screening and provide ecological function as well.
						Cumulative impact: Decrease of food security amongst the very poor in case of economic contraction. The poor will be affected the most by direct, indirect and induced job losses due to closure. These groups spend a relative large proportion of their income on food, therefore they may face food insecurity. Food insecurity may result in malnutrition and hunger related health problems. Worse affected will be small children of poor households. Economic contraction will not be as severe by the time that the Ngululu Resources Coal Mine close because there will be several future/new mines in the region which will be able to absorb more labour. However, by the time that the entire region's coal reserves are mined out, extensive regional economic contraction may be expected.
Negative	7	6	5	6	6	Proposed mitigation measures: Support food programs at schools. Promote urban agriculture/permaculture in the local community. Proper implementation of rehabilitation plan to ensure that the post-closure land could be as near as possible to its original level of agricultural productivity.

IMPACTS ON HEALTH						
Direct impact: Mental health problems may result from job loss.						
Negative	4	5	3	3	<p>Proposed mitigation measures: Counselling services should be provided to workers during and after closure. More comprehensive psychological support should be provided to those workers who may need more detailed attention.</p>	
IMPACT ON SAFETY						
Direct impact: Safety risks posed to workers and the community during decommissioning, including road safety and exposure to other accidents. Decommissioning related safety impacts are comparable to construction phase safety risks.						
Negative	8	7	2	3	5	<p>Proposed mitigation measures: Provisions of the Basic Conditions of Employment Act should be adhered to so that a humane work environment are maintained and to prevent workers from being exploited; Provisions of the Occupational Health and Safety Act and Mine Health and Safety Act should be adhered to during all decommissioning activities so that a safe and healthy work environment are maintained and to minimize injury risk to workers. All 'construction' vehicles (decommissioning phase), trucks and other vehicles including vehicles used for the transportation of decommissioning workers, should be road worthy, well maintained, never overloaded, and drivers should be properly trained and licensed; An incident register should be maintained to record environmental, health and safety related incidents, e.g. spills and injuries. A complaints register should be continually maintained to record complaints from IAP's, neighbours and members of the local community, and how these complaints were addressed and followed up.</p>
IMPACT ON CRIME						
Indirect impact: Crime risk associated with unemployment may increase but will be buffered by relative small population size and relative strong local social capital. Whether the effect of small population size and strong social capital will be strong enough to fully buffer unemployment related crime is unknown and difficult to predict, but it will probably not be the case. However, because in-migration of work seekers will be reduced after mine closure, crime related to the presence of work seekers will reduce as well. The combined effect of relative strong social capital, relative small population size and diminishing presence of work seekers, may cancel out the effect of unemployment related crime.						
Negative	6	6	5	6	6	<p>Proposed mitigation measures: Assist municipality and SAPS with drafting and partial implementation of a Local Crime Prevention Strategy (possibly part of the local municipal Local Economic Development Strategy or Integrated Development Plan).</p>
IMPACT ON SOCIAL WELLBEING						



Indirect impact: Reduced quality of life to retrenched workers and other local people after closure. Employment provided by the mine over the operational phase gave very valuable psychological and social benefits to the workers. These include:

- Provision of some form of routine;
- Opportunity for socialization and networking;
- Sense of life-purpose, achievement, status and identity.

These are, apart from remuneration, the main positive impacts of being employed. Unfortunately these benefits will cease for all retrenched workers who will not be able to find employment.



IMPACT ON OPPORTUNITIES FOR LEISURE AND RECREATION						
Direct impact: Decommissioning or sell off of mine-owned recreation facilities will reduce, or risk to reduce, current recreation options to mine workers, their families and the broader community.						
Negative	6	4	3	2	1	<p>Proposed mitigation measures:</p> <p>Mine-owned recreation facilities should rather be carried over to new owners than being decommissioned.</p> <p>Proper training and possibly funding, should be provided to new management and staff of currently mine-owned recreation facilities.</p>
JOB LOSS AND LABOUR MARKET IMPACTS						
<p>Direct, indirect and induced impact: Loss of direct, indirect and induced jobs due to retrenchments and general contraction of the local economy. Direct job losses (approximately 290) will occur due to retrenchments of mine workers. Indirect job losses (estimated at 256) will occur because fuel, oil, materials, equipment, electricity, telecommunication services, maintenance services, consulting services, etc, will cease to be sourced by the mine from other local, national and international businesses. Induced job losses (estimated at 576) will take place because those affected by direct and indirect job losses, will have less income to spend on a variety of products and services usually sourced from other providers. For example, workers of the mine and workers/entrepreneurs of companies supplying to the mine may have a reduced ability to spend part of their income at local shops and on local services after mine closure, leading to further job losses for shopkeepers, cleaners, local service providers etc.</p>						

Negative	9	8	5	4	7	<p>Proposed mitigation measures:</p> <p>Assist the municipality with LED Strategy design and implementation, projects related to small scale inward industrialisation.</p> <p>Programs to educate workers and the general (local) public to become more employable.</p> <p>Programs to educate workers and the general (local) public to cope with unemployment.</p> <p>Intensive portable skills and entrepreneurship training and development amongst workers and the general (local) public.</p> <p>It is recommended that a database of retrenched workers, with their skills and other important information, be compiled. This list should be made available to other potential employers in the area.</p> <p>As far as possible, local persons rather than outside people, should be employed during the decommissioning phase and for post-closure maintenance and monitoring. Only South African citizens or holders of valid work permits should be employed. Regarding decommissioning phase and for post-closure maintenance and monitoring related job creation:</p> <p>Provisions of training legislation (including the Skills Development Act and Skills Development Levies Act) should be adhered to, to enhance skills development and transfer even after the operational phase ended;</p> <p>Management should continue to participate in mentorship programs and learnership schemes, targeting local unemployed youth.</p> <p>Where possible, products and services demanded by the mine during the decommissioning phase, should be procured from local SMME's.</p> <p>These entrepreneurs should be provided with support, such as advice on the tendering process, partnerships, and by breaking larger contracts into smaller contracts accompanied by smaller but more frequent payments.</p>
	<b>IMPACT ON LOCAL ECONOMIC DEVELOPMENT AND POVERTY ALLEVIATION</b>					
<p>Direct impact: Decreasing rate of upliftment of historically disadvantaged groups:</p> <p>Improvements in employment equity of and opportunities for minority and/or disadvantaged groups will be slowed down because during the operational phase, by the time of closure the mine would have greatly contributed to the upliftment of HDSA workers and their families, and HDSA members of the community. After closure, such opportunities in the local community will decrease.</p>						
Negative	5	4	2	3	4	<p>Proposed mitigation measures:</p> <p>Assist the municipality with LED Strategy design and implementation, focussing on HDSA members of the community.</p> <p>For all decommissioning and post-closure (e.g. maintenance and monitoring) job creation, legislation to create equal opportunities to historically disadvantaged persons should be adhered to.</p>
	<b>SOCIAL AND COMMERCIAL ENTREPRENEURSHIP, AND LEADERSHIP</b>					

<p>Direct impact: Loss of leadership talent after closure may occur because of redeployment or self-induced out-migration of workers or entrepreneurs with leadership capabilities and/or entrepreneurial talent. Workers with leadership talent and/or scarce skills are the first to out-migrate in case of local economic contraction.</p>						
Negative	7	5	4	5	5	<p>Proposed mitigation measures: Engage in social and commercial entrepreneurship training and development amongst workers and local community to compensate for out-migration of workers or (potential) entrepreneurs with leadership skills and entrepreneurial potential. Engage in further leadership development amongst municipal officials and community leaders because these leaders will or are likely to remain behind after mine closure.</p>
<b>IMPACT ON FAMILY STABILITY AND INTERPERSONAL RELATIONSHIPS</b>						
<p>Direct impact: Interpersonal relationships ties (including friendships) may be negatively affected or broken when people leave the local community due to re-deployment or to seek employment elsewhere, with resultant impact on the wellbeing on both those that leave and those that stay behind. Family and friendship ties are central to the psychological well-being of most people.</p>						
Negative	7	3	5	3	5	<p>Proposed mitigation measures: Counselling provided to retrenched workers should include interpersonal relationship skills and emotional intelligence improvement. Such counselling should be open not only to workers but should be extended to their families and the broader community as well.</p>
<b>IMPACT ON SOCIAL CAPITAL</b>						
<p>Indirect impact: Social networks, community connections, community cohesion, sense of belonging and interaction with others in the community, will change after closure. Also, economic and political connections between members of the community with others in and beyond the local community, will change (contract).</p>						

Negative	6	4	4	4	5	<p>Proposed mitigation measures:</p> <p>Mitigation measures aimed at psychological support/counselling to deal with broken friendship/family ties, as described above, should be implemented.</p> <p>Opportunities for social interaction and potential business connection establishment between community members should be established or enforced where it already exist (by the end of the operational phase). Social organisations should be supported by leadership development amongst their leaders, and membership to such organisations should be promoted amongst the general local public. Organisations to be supported include farming, religious, charity, business, political, sport, environmental and other social organisations. Some types of organisations may be viable but not established spontaneously (without deliberate intervention). The mine should initiate or assist in the establishment of such organisations, which might include urban agricultural support organisations and organisations for entrepreneurship development and entrepreneurs in the informal economy. Note that support to political organisations should be limited to forums for public participation and should not include any form of support to any specific political party.</p>	
	<b>POWER, CONTROL AND DISTRIBUTION OF IMPACTS</b>						
	<p>Direct impact: Distribution of impacts of closure will not be equally distributed across the community. The retired and the highly skilled less impacted upon, while lower skilled single parents (especially mothers) and the middle aged unskilled workers will be most affected.</p>						
	Negative	7	5	4	4	5	<p>Proposed mitigation measures:</p> <p>No additional mitigation required.</p>
		<p>Indirect impact: Presence of outside agencies and locus of control (local VS outside/foreign control): power will shift towards the local community. The mine will be an important local source of power and control (due to community economic dependence on the mine). The mine on turn is subject to outside control from head office and parental company linkage. This powerful force of control over the community will cease to exist after closure. This is regarded as a positive impact because local control is desirable from various points of view.</p>					
Positive	9	2	4	3	5	<p>Proposed measures to enhance the beneficial effect of the positive impact:</p> <p>Engage in further leadership development amongst municipal officials, community leaders, ward councillors, local political leaders, business people, potential entrepreneurs, leaders of local social organisations etc, to enable them to practice sound leadership over the local community, even after the mine's various forms of financial and leadership input ceased.</p>	
	<b>IMPACT ON NATURAL RESOURCES AND RESOURCE CONSUMPTION (EMPHASIS ON SOCIETAL UTILITY)</b>						

Direct impact: Energy: Reduced pressure on power grid after closure. The mine will use relative large quantities of electricity, therefore mine closure will reduce pressure on the power grid.						
Positive	7	5	6	4	5	Proposed measures to enhance the beneficial effect of the positive impact: Energy saving measures should be incorporated into design of post-closure facilities, as a matter of priority.
Associated impact: Fossil fuel resources: At a national and global scale, and as a cumulative impact, mine closure will cause the reduction of supply of coal, which will have a negative impact on an extensive chain of downstream users. Coal is a strategic resource with important societal utility, including energy. In addition, reduced export of coal or reduced export of downstream beneficiated coal products (e.g. chemicals, plastic etc), will have a negative impact on foreign income earnings and national balance of payments.						
Negative	8	4	8	4	6	Proposed mitigation measures: No mitigation required.
<b>AESTHETIC IMPACT</b>						
Direct impact: Visual scarring caused by decommissioning activities.						
Negative	2	4	3	5	4	Proposed mitigation measures: Effort should be made to conserve screening vegetation throughout the decommissioning phase. Decommissioning sites should be kept neat throughout the decommissioning phase.
<b>SOCIO-CULTURAL IMPACTS</b>						
Indirect impact: Slight loss of collective identity and experience of being culturally marginalised (especially amongst laid-off workers and their families).						
Negative	4	3	4	4	4	Proposed mitigation measures: Portable skills training should be provided to workers to make themselves more employable should they become retrenched. Entrepreneurship development should be conducted amongst workers to be retrenched.
Cumulative impact: Lack of historic, recent and current community level experience of major change, therefore low ability to handle change caused by closure: The community as a whole did not experience rapid change, even post-Apartheid change took place relatively slow, were social change were buffered mainly by the structure of the local and regional economy.						
Negative	5	3	4	5	4	Proposed mitigation measures: Community psychological interventions (programs) should be designed and implemented to assist the community to adapt to social and economic changes associated with closure.
Direct impact: The impact of closure will be most negative on the poor who will become further marginalised. The poor tend to have the least marketable skills to become employed during economic contraction. They also have the least resources and savings to fall back on.						

Negative	9	6	5	5	6	<p>Proposed mitigation measures:                      Assist the municipality with LED Strategy design and implementation, including a project with permaculture and Urban Agriculture initiatives which could improve nutritional status and food security amongst the poor, and enable them to generate income. Assist the poor to practice permaculture in their yards, in communal areas, or on currently underutilized areas at municipal-wide scale such as commercial or industrial areas, even on servitudes where safe. In areas where yards are too small, patches of very small plots in nearby open areas similar to the British allotment system could be established. Because water is relatively scarce, permaculture, water harvesting, and use of grey water could be promoted.</p>	
	<b>IMPACT ON SURROUNDING PROPERTY VALUES</b>						
	<p>Direct impact: Increased value of surrounding farm properties due to reduced dust, noise and other impacts, and complimentary effect of agriculture as post closure land use. Note that rise of surrounding land value will rather result from the latter, i.e. land use complement and agglomeration benefit, and ecosystem function benefits, than the former (reduction in environmental impacts) because the mine's environmental impacts will probably be well managed and the mine will probably have good relations with adjacent landowners.</p>						
	Positive	4	3	2	4	3	<p>Proposed measures to enhance the beneficial effect of the positive impact:                      Proper implementation of rehabilitation plan, especially sections related to visual screening and aesthetics.                      Wire fencing should be replaced if strong suspicion exist that decommissioning workers or activities stole or damage the wire fencing.                      Adjacent farmers should be compensated if strong suspicion exists that decommissioning workers stole livestock or crops from the farmer's land.</p>
		<p>Cumulative impact: Reduced residential and commercial property value in the surrounding area due to general local economic contraction following mine closure.</p>					
Negative	7	6	4	4	5	<p>Proposed mitigation measures:                      Property management advice should be provided to the mine workers, business people, and other property owners or potential property owners in the local community.                      Assist the municipality with LED Strategy design and implementation.</p>	
	<b>IMPACT ON TENANTS OR CURRENT OCCUPIERS OF MINE LAND AND HOUSING</b>						
<p>Associated impact: Risk of eviction or unreasonable rise in rent by new property owners.</p>							
Negative	8	5	4	2	5	<p>Proposed mitigation measures:                      Give preference and possibly finance to occupiers (by the end of the operational phase) of mine-owned houses (if any) in the nearby town of Delmas and surrounding areas, to obtain ownership.                      Give ample notice (years rather than months) where eviction is inevitable</p>	
	<b>IMPACT ON LOCAL KEY INDUSTRIES: TOURISM</b>						



Indirect impact: Contraction of local business tourism market may result from mine closure because fewer business trips will be undertaken to Delmas.						
Negative	8	4	5	5	6	Proposed mitigation measures: No mitigation additional to general support to the municipality regarding LED Strategy design and implementation will be necessary.
<b>IMPACT ON LOCAL KEY INDUSTRIES: AGRICULTURE</b>						
Indirect impact: Reduced competition for water due to reduced mining related water demand after closure, will be particularly beneficial to irrigation farmers within the broader watershed or aquifer system.						
Positive	8	6	5	6	6	Proposed measures to enhance the beneficial effect of the positive impact: Avoid excessive water consuming post closure land uses. Therefore agriculture (mainly dryland crop production) is a suitable post-closure land-use given that water saving measures will be strictly implemented.
<b>IMPACT ON LOCAL KEY INDUSTRIES: MINING</b>						
Direct impact: Increased supply of skilled/experienced mine workers/employees, to the benefit of other mines in the area. Although not significant during the current recession, this will benefit other mines in the region significantly when the global demand for minerals is high.						
Positive	4	5	6	2	5	Proposed measures to enhance the beneficial effect of the positive impact: Workers to be retrenched should be assisted to find jobs at other mines in the area.
Direct impact: Increased supply of re-usable mining equipment, machines etc during decommissioning.						
Positive	5	5	6	2	5	Proposed measures to enhance the beneficial effect of the positive impact: Mining equipment, machines etc should be recovered for re-use, to the maximum extend possible. Effort should be made not to damage materials and equipment during dismantling, and to find buyers of such goods if it will not be re-used at other parental company operations. Other local mines should be provided with a favorable procurement opportunity to purchase such goods.
Direct impact: Reduced competition for water may be experienced amongst other mines in the region following mine closure, as explained above. Apart from the agricultural industry, this may also benefit the further development of the mining industry in the region.						
Positive	8	6	5	6	6	Proposed measures to enhance the beneficial effect of the positive impact: As mentioned above, excessive water consuming post closure land uses should be avoided.

<p>Cumulative impact: Delmas will be left in a weakened position to function as a central node (reduced central place function) to service mines in the area. This will occur due to reduced demand for mining goods and services supplied by local firms after mine closure. Service/product range, availability and expertise will contract and some suppliers may even diminish from the local market. Note that this is a cumulative impact.</p>						
Negative	7	4	5	6	5	<p>Proposed mitigation measures: Small scale mining development should be promoted. Although not viable for a large mine group, the local area have significant mineral resources and smaller coal seams to be mined on a small scale. The applicant has extensive mining expertise which it could share by means of a mentorship program to assist small scale miners to establish in the area. Other forms of assistance, such as mining equipment and finance, or even redeployed workers as a measure to fast-track skills transfer, may also be provided. Note that such small scale mining should not be detrimental to society or the environment, and should not be seen as an opportunity to exploit marginal reserves on a large scale where societal costs outweigh economic benefits.</p>
<b>POPULATION / DEMOGRAPHIC IMPACTS</b>						
<p>Indirect impact: Proportional increase in female proportion of local population towards a more balanced gender representation, leading to a reduction in crime and other social problems. Currently males are significantly overrepresented in the area. Mine closure will probably not lead to a complete gender equalisation but will reduce the imbalance significantly.</p>						
Positive	5	2	4	3	4	<p>Proposed measures to enhance the beneficial effect of the positive impact: No additional measures required.</p>
<p>Indirect impact: Out- migration of middle class economic base, loss of human capital (skills and talent loss), urban (Delmas) and rural (surrounding area) decay may occur due to mine closure and general local economic contraction due to direct, indirect and induced job losses.</p>						
Negative	6	6	4	2	5	<p>Proposed mitigation measures: Assist the Local Municipality with drafting and implementation of an urban (Delmas) regeneration plan. Assist the Local Municipality with drafting and implementation of the Local Economic Development Strategy. Encourage retired and soon to be retired employees to stay in the Delmas area. Encourage and assist retrenched workers to become local entrepreneurs, including workers in higher income categories. Even talented and re-deployable workers should be provided with an option to receive entrepreneurial assistance to remain in the local community. This will ensure that other workers who are not interested in entrepreneurial activity and who will not contribute to further local employment creation, will rather be redeployed.</p>

Indirect impact: Self-induced relocation of households will result during and after closure as redeployed or retrenched workers migrate to other areas in search of new job and livelihoods. Associated socio-economic impacts include a disruption of social ties and cost of relocation.						
Negative	9	5	4	2	5	<p>Proposed mitigation measures:</p> <p>Assist workers with relocation, e.g. assist workers to find alternative jobs, subsidise relocation cost, subsidise first rental deposit or deposit to buy house elsewhere, or special leave to attend job interviews and to arrange for relocation. Note that although this mitigation measure is listed under the closure phase, it should be implemented from the last year of the operational phase and throughout the decommissioning phase.</p> <p>Counselling provided to retrenched workers should include interpersonal relationship skills and emotional intelligence improvement. Such counselling should be open not only to workers but should be extended to their families and the broader community as well. This will enable them to better cope with relocation.</p>
	COMMUNITY OR INTERESTED AND AFFECTED PARTY FEELINGS, ATTITUDES AND PERCEPTIONS TOWARDS EVENTUAL CLOSURE					
Indirect impact: The local community may not be fully aware of how closure will affect their lives. This is not desirable because knowledge on this topic will enable workers and community members to plan ahead and reorganise themselves to be better able to cope with future mine closure.						
Negative	9	2	4	4	5	<p>Proposed mitigation measures:</p> <p>Do not leave workers and the community in the dark regarding Life of Mine and period before closure. Note that although this mitigation measure is listed under the closure phase, it should be implemented during the last few years of the operational phase.</p> <p>A community awareness and preparedness program are needed to inform the community on most probable effects of closure, as well as the best case and worse case scenarios. Emphasis should be on how closure may affect different segments of local society.</p>
	Direct impact: Fear for local economic decline may become problematic after mine closure has been announced.					
Negative	9	2	4	4	5	<p>Proposed mitigation measures:</p> <p>The community should be informed as early as possible (preferably years ahead) of intention to close the mine.</p> <p>Keep government and community fully up to date regarding possible future need for closure, providing them with sufficient information</p> <p>A Public Relations Strategy should be developed to manage the closure process and communications with the community.</p> <p>A community awareness and preparedness program should be developed to inform the community on most probable effects of closure, as well as the best case and worse case scenarios. Emphasis should be on how closure may affect different segments of local society.</p>

LACK OF MOTIVATION TO IMPLEMENT CLOSURE BEST PRACTICE					
Direct impact: Because of termination of employment relationship, and because career reputation are usually not built by closing a mine, a lack of motivation for proper closure amongst mine management, workers and even government may develop.					
Negative					Proposed mitigation measures: Pay bonuses to relevant managers and workers based on proper implementation of the closure plan.

#See Impact significance assessment methodology further below.

### Post-closure phase impacts

The following table focus on the post-closure phase impacts associated with the proposed mine.

Table: Social and economic impacts associated with the post-closure phase

*Phase	#Probability	#Intensity / Severity	#Extend	#Duration	#SIGNIFICANCE RATING	
						Negative impact mitigation or measures to maximise the effect of positive impacts
<b>IMPACT ON BASIC PHYSIOLOGICAL NEEDS, SUBSISTENCE AND HOUSING</b>						
Cumulative impact: Improvement of food security with agriculture as post closure land use.						
Positive	2	5	4	8	5	Proposed measures to enhance the beneficial effect of the positive impact: The conditions of the rehabilitation and closure plan should be adhered to.
Direct impact: Provision of water of sufficient quality and quantity: improvement because more water will be available for alternative uses, including municipal or household use. Although every South African has the right to use a certain quantity of water for free, this does not always realize in times of draught. Draughts are expected to increase in frequency and intensity in the near future due to climate change. The mine is likely to be a significant water user during the operational phase. In the local watershed, water is a limiting factor, therefore reduced water demand will benefit other potential water users.						
Positive	9	6	6	9	7	Proposed measures to enhance the beneficial effect of the positive impact: Post closure land use should not use water excessively, e.g. no additional golf courses or extensive water-demanding landscaping should be allowed. Ecotourism/conservation is a suitable post-closure land use, however, water conservation measured should be incorporated as a matter of urgency.
Indirect impact: Improvement in the local housing (availability and quality) situation because many workers will leave Delmas, placing quality houses in the local housing market. This will increase the affordability of proper housing.						

Positive	5	4	4	4	4	Proposed measures to enhance the beneficial effect of the positive impact: No mitigation required.
<b>IMPACTS ON HEALTH</b>						
Direct impact: Mine-induced potential negative impacts on environmental and occupational health, including exposure to dust, noise, water and air pollution, will cease. Also, occupational health hazards and stress-induced health problems amongst community members who work at the mine, will cease.						
Positive	9	3	2	4	5	Proposed measures to enhance the beneficial effect of the positive impact: Proper implementation of the closure and rehabilitation plan.
<b>IMPACT ON SAFETY</b>						
Latent impact: Safety risks on post-closure landscape in case mine decommissioning and rehabilitation are not properly conducted, e.g. high walls, unstable slopes, unstable structures, sharp objects, etc.						
Negative	6	3	2	9	5	Proposed mitigation measures: Proper implementation of closure and rehabilitation plan.
<b>IMPACT ON CRIME</b>						
Direct impact: Moderation on crime due to demographic shift will occur after closure. The male population between the ages of 16 to 55 will decline in proportion to other age and gender categories, due to out-migration of mine operation and decommissioning workers and work seekers and those who benefited from indirect and some induced employment. The decline of this demographic group strongly correlates with a general reduction of violent crime because males within this age category show a greater tendency towards risk taking behaviour.						
Positive	4	3	4	5	4	Proposed measures to enhance the beneficial effect of the positive impact: Assist municipality and SAPS with drafting and partial implementation of a special Crime Prevention Strategy
Direct impact: Reduced level of access control decrease the level of effort required from criminals to gain access to an area/site. Access control serves as an important deterrent to crime. The mine will be practicing access control on their property throughout the operational and part of the decommissioning phase, often to the benefit of adjacent land owners. After access control practiced by the mine cease, criminals may access the mine property, from where they may access adjacent properties.						
Negative	4	3	3	5	4	Proposed mitigation measures: The new land owner should continue to practice access control. Commercial agriculture as post closure land use will sufficiently control access, given that fences are well maintained and trespassing is controlled.
Residual impact: Increased level of incivility: Areas which show signs of social incivility (e.g. loitering, harassment, drunkenness, criminal activity, or physical incivility (e.g. unkept gardens, deteriorated buildings, graffiti, litter) may further contribute to crime in an area.						

Negative	3	6	3	5	4	<p>Proposed mitigation measures:                      The post closure landscape should be characterised by well kept, orderly places. Infrastructure which will not be productively used by the new landowners should be demolished, especially where such buildings/structures occur within public access range.                      All infrastructure/structures/facilities remaining after closure, should be properly maintained and kept clean and tidy by the new landowners.</p>
	<p>Residual impact: Decreased level of surveillance and prospect: Presence of potential witnesses, as facilitated by the presence of security personnel and mine workers during the operational and decommissioning phases, is a significant deterrent of crime, often to the benefit of surrounding properties. However, after closure the absence of mine workers and formal means of security may place the post-closure mining land as well as adjacent land at risk.</p>					
Negative	3	3	2	7	4	<p>Proposed mitigation measures:                      The post-closure landowner should adopt “Crime Prevention by Environmental Design” principles to not only benefit the specific site but the surroundings as well.</p>
	<p>Residual impact: Increased refuge: Refuge is closely related to prospect described above. It addresses the degree of concealment available to a criminal. A number of features of characteristic of a post-closure mine landscape may act as potential refuges, such as vegetation overgrowth or abandoned structures, especially where it occur near public areas or potential crime hotspots or otherwise crime-vulnerable areas.</p>					
Negative	4	3	3	4	4	<p>Proposed mitigation measures:                      Infrastructure which will not be productively used by the new landowners should be demolished, especially where such buildings/structures occur within public access range.</p>
	<p>Direct impact: The mine provides lighting at a number of locations, often to the benefit of surrounding areas as well. Lighting is a significant deterrent of crime because it reduces concealment. The negative impact of light pollution (specifically light trespass) may have the positive effect of crime prevention on adjacent spaces, which may be significant at crime-vulnerable spots. After mine closure, dark pockets may increase refuge and reduce prospect, therefore may act as criminal hideouts.</p>					
Negative	8	3	3	4	5	<p>Proposed mitigation measures:                      The post-closure landowner should adopt “Crime Prevention by Environmental Design” principles to mitigate for the loss of lighting at potential crime areas. Crime prevention measures other than lighting are recommended because lighting is energy intensive, and the post-closure land use of ecotourism/conservation is particularly sensitive to light pollution.</p>
	<p>Direct impact: Crime and general antisocial behaviour due to decrease in recreational opportunities, especially those aimed at the youth and young men. The mine will probably provide recreational opportunities directly, indirectly and in an induced manner during the operational phase. Even those recreation providers with no direct linkage to the mine, may become less viable as the local economy contracts after closure.</p>					



Negative	6	5	4	5	5	Proposed mitigation measures: Assist municipality with drafting and partial implementation of a community recreation plan. Provide continual support for a specified period, with gradual decline.
	<b>IMPACT ON SOCIAL WELLBEING</b>					
Cumulative impact: Reduced aspirations for the future may result from unemployment and general contraction of the local economy. This does not only apply to the workers but the entire unemployed local community, as well as their dependants. Reduced aspirations or loss of hope may have several adverse psychological, social and economic impacts.						
Negative	5	3	4	4	4	Proposed mitigation measures: Engage in realistic portable skills and entrepreneurship training and development amongst workers and general (local) public. Assist the municipality with LED Strategy design and implementation, with a community psychological project aimed at reducing the dependency culture and external locus of control, towards an attitude of internal locus of control. This will aid in both commercial and social entrepreneurial development.
	<b>JOB LOSS AND LABOUR MARKET IMPACTS</b>					
Cumulative impact: Changing and reduced diversity of occupational opportunities in the local labour market may occur because the mine will provide a diversity of specialised, skilled job opportunities during the operational phase which will cease to exist (at this particular mine) after closure.						
Negative	6	4	2	3	4	Proposed mitigation measures: Assist the municipality with LED Strategy design and implementation, with a focus on a reasonably broad LED project portfolio, where upliftment of HDSA members of the community should continue to take place.
	<b>IMPACT ON LOCAL ECONOMIC DEVELOPMENT AND POVERTY ALLEVIATION</b>					
Indirect impact: Local economy forced to diversify and reduce dependency on the mining sector, leading to industrial diversification, and change of focus of local economy, decreased economic dependency and increased economic resilience. The local economy will be forced to shift away from a destructive consumption culture and highly fossil fuel dependent economy towards a more sustainable socio-economic system. This is however only possible in case of implementation of a proper LED strategy.						
Positive	6	8	5	6	6	Proposed measures to enhance the beneficial effect of the positive impact: Assist the municipality with LED Strategy design and implementation, which focus on the establishment of a green economy, a shift away from fossil fuel dependence, and a sustainable social system. Projects related to tourism development and agricultural intensification and agro-processing, should be considered.
	<b>IMPACT ON FAMILY STABILITY AND INTERPERSONAL RELATIONSHIPS</b>					



Indirect impact: Alteration in family/household structure: proportionally fewer single male households and more female headed households may result after closure, resulting in reduction of certain social problems e.g. crime. This change will occur gradually, beginning a few years before closure and continue for many years after closure, stabilising approximately 8 to 12 years after closure. However, the presence of other operational mines in the area may postpone this effect with several decades.						
Positive	7	5	4	5	5	Proposed measures to enhance the beneficial effect of the positive impact: Social support structures should be in place for single mothers within the community. The mine should, as part of CSI activities, reinforce the structures of single mother support charities, and extend support till approximately 5 to 8 years after closure.
Indirect impact: Family disorganization and violence within the community may be reduced by proportionally greater post-closure female composition of population, but will be stimulated by unemployment. Overall, family disorganisation is expected to decline.						
Positive	5	5	4	4	5	Proposed measures to enhance the beneficial effect of the positive impact: Social support structures should be in place within the community to support households experiencing social problems related to family disorganisation, including family violence. The mine should, as part of CSI activities, reinforce the structures of family support charities, and extend support till approximately 5 to 8 years after closure.
<b>POWER, CONTROL AND DISTRIBUTION OF IMPACTS</b>						
Induced, residual impact: Change in social power balances within the local community (individual, household, community and national level) will occur after closure. Social power balances within a predominantly mining community differs vastly from those of a non-mining community.						
Negative	7	2	4	5	5	Proposed mitigation measures: Leadership development amongst municipal officials, community leaders, ward councillors, local political leaders, business people, potential entrepreneurs, leaders of local social organisations etc, as well as support to local social organisations, as described above, should be initiated as soon as possible and well before closure to enable the shift in social power balances to gradually take place over time and in a stable manner.
<b>IMPACT ON GENDER RELATIONS</b>						

<p>Direct impact: Women empowerment and the rate of progress regarding personal autonomy or independence of women may decline because the important role that the mine will play in terms of women empowerment during the operational phase, will decline within the local community after closure. The mine will play an important role in the education and training of, and skills development amongst women. The mine will enable many women to participate in formal employment, which increased the ability of women to gain access to resources, finance and property. Mine procurement practices will also enable women to participate in entrepreneurial activities. General decline in the rate of women empowerment after closure may impact negatively on structural and other causes of gender inequity and sexism, and maintenance thereof, and may also impact negatively on the gendered division of labour in terms of income, household tasks, childbearing and rearing of children.</p>						
Negative	6	6	4	3	5	<p>Proposed mitigation measures: Assist the municipality with LED Strategy design and implementation, with special provisions to uplift and empower women, and entrepreneurship development amongst women.</p>
<b>IMPACT ON INSTITUTIONAL CAPITAL AND PUBLIC GOODS</b>						
<p>Direct impact: Impact on physical infrastructure e.g. roads: Mine owned infrastructure used by the community will cease to be maintained by the mine after closure. Also, the local government will receive less tax revenue due to mine closure, therefore will have less funding available to maintain municipal roads.</p>						
Negative	9	5	4	3	5	<p>Proposed mitigation measures: Mine infrastructure should only be decommissioned if it could not be productively and safely utilised during post closure phase. Mine infrastructure carried over to the community should, where needed, be temporary maintained after closure. The new owners of mine infrastructure should be trained on the proper management and maintenance of infrastructure, where needed. For example, the mine should assist with further skills development to municipal workers on infrastructure maintenance in case any mine-controlled assets or services will be carried over to the municipality.</p>
<p>Direct impact: Social infrastructure or services e.g. schools, public services, social and health services etc. provided or supported by the mine may cease to exist or ownership carried over or will experience loss of support from the mine.</p>						
Negative	8	6	3	3	5	<p>Proposed mitigation measures: Mine-provided social infrastructure should rather be carried over than being decommissioned. Proper training and possibly funding should be provided to new management and staff of currently mine-owned social infrastructure. Continual support should be provided to social organisations which receive mine funding, for a specified period, with gradual decline after closure.</p>
<b>IMPACT ON NATURAL RESOURCES AND RESOURCE CONSUMPTION (EMPHASIS ON SOCIETAL UTILITY)</b>						

Residual and latent impact: Potential residual environmental impacts and latent risks may be posed by the post-closure landscape. Risks such as slope stability, erosion and dust pollution from steep slopes, falling from high walls, injury from remaining structures, and, to a lesser degree, water pollution might occur in case the final rehabilitation plan are not properly implemented.						
Negative	3	3	3	7	4	<p>Proposed mitigation measures: The final rehabilitation plan should be properly implemented, and post-closure monitoring of environmental impacts should be implemented where applicable. Environmental mitigation measures aimed at reducing potential residual environmental impacts, should be strictly adhered to.</p>
Residual impact: Mine related disturbances may place restraints or limitations on possible post-closure land use options. Areas affected by excavations and deposition are unsuitable for high, medium or moderately low intensity land uses. Only very low intensity land use, such as wilderness or conservation, is suitable on the steep areas.						
Negative	6	6	6	9	5	<p>Proposed mitigation measures: The final rehabilitation plan should be properly implemented, and post-closure monitoring should be conducted where required. Only very low intensity land use, such as wilderness or conservation, is suitable on the steep areas. No land cultivation should be allowed at such places/patches. The proposed post-closure land-use of dryland crop production is not only suitable but desirable as well. Deviation from this is not recommended. All rehabilitated areas, especially steep slopes and other unstable or otherwise dangerous areas, should strictly be managed according to the closure plan. Farm workers should be protected from such areas during the post-closure phase, and no cultivation or another form of development footprint should be allowed at high risk areas (if any).</p>
<b>AESTHETIC IMPACT</b>						
Residual impact: Visual scarring caused by structures, access and haul roads, trampled areas, fences etc, as a residual impact on the post-closure mining landscape.						

Negative	1	3	3	5	3	<p>Proposed mitigation measures:                      Proper implementation of the final rehabilitation plan is essential. Infrastructure and disturbed surfaces remaining behind on the post-closure landscape should be sufficiently screened from viewers within the viewshed. Ample use should be made of screening vegetation, both in terms of retaining of existing vegetation which serve a screening function, as well as the planting of new screening vegetation (indigenous trees and shrubs) where needed to sufficiently (preferably completely) screen all remaining infrastructure (including roads, buildings, tanks and other structures, paved surfaces and disturbed areas) from sensitive receivers (tourists, travellers along roads, adjacent property owners and their tenants and guests). Screening vegetation should also be optimally utilized to mitigate dust pollution from disturbed/rehabilitated areas, and to screen out noise which may negatively impact on the tourism experience on the post-closure landscape.</p> <p>Buildings, structures and other infrastructure which will be carried over to post-closure land users, should be well maintained and in a good condition when handed over.</p>	
	<b>SOCIO-CULTURAL IMPACTS</b>						
	Indirect cumulative impact: Change in value system may occur during the post-closure phase, with the local collective value system probably becoming more collectivistic.						
	Positive	5	4	3	4	4	<p>Proposed measures to enhance the beneficial effect of the positive impact:                      Directed/further positive change in the value system could be induced by the LED strategy or CSI initiatives, and should aim to enforce generally positive values, such as achievement, benevolence, security, self-direction and universalism. Note that values are difficult to change and take a long time.</p>
		Indirect cumulative impact: Change in use of local languages will occur. The rate of transition to English as the main/only future language in the region (sub-continent) will be slowed down, while the use of African languages will gain local importance, and the use of Afrikaans might decline slowly. Overall, the status of local language diversity will be in an improved position.					
Positive	6	3	4	5	5	<p>Proposed measures to enhance the beneficial effect of the positive impact:                      Because proficiency in English is important for career development and to participate in the current and future global job market and information economy, local schools should be supported to upgrade the skills of all teachers, particularly those teaching Mathematics, Science and English.</p> <p>English proficiency skills should also be provided to current/potential entrepreneurs, potential knowledge workers and the general public, e.g. by English classes open to the public.</p>	
	<b>LAND USE CHANGE AND IMPACT ON SURROUNDING LAND USES</b>						

Direct impact: Mine area land use will change from mining to agriculture: This is compatible with surrounding land uses.						
Positive	8	6	3	4	5	<p>Proposed measures to enhance the beneficial effect of the positive impact:</p> <p>Measures should be implemented to enable the post-closure landscape to fully integrate with the surrounding landscape. As a minimum, this entails the proper implementation of the final rehabilitation plan. Also, measures should be introduced to limit habitat fragmentation across the landscape, and to cooperate with adjacent landowners to maintain fire breaks and to limit the spread of fires in case of fire outbreaks.</p>
<b>IMPACT ON LOCAL KEY INDUSTRIES: AGRICULTURE</b>						
Direct impact: Agriculture as post closure land-use – not only will the post-closure land be utilized to produce food, but the area’s central place force to serve the local farming community will slightly be enforced as well.						
Positive	7	5	4	5	5	<p>Proposed measures to enhance the beneficial effect of the positive impact:</p> <p>Avoid excessive water consuming post closure land uses. Therefore dryland crop production is a suitable post-closure land-use.</p>

#See Impact significance assessment methodology further below.

## Impact significance assessment methodology

The following tables provide a key to the quantification criteria used for impact assessment in terms of probability, intensity, geographic extend and duration. Formula 1 calculates the final significance rating using ratings from tables 1 – 4. The last table provides the key to interpreting the final impact significance rating, as calculated by formula 1.

Table: Probability: Probability of impact occurrence

Rating	Explanation of probability
1 (Very low)	<10% chance of impact occurrence
2 (Very low)	10 to 20% chance of impact occurrence
3 (Low)	20 to 39% chance of impact occurrence
4 (Low)	30 to 49% chance of impact occurrence
5 (Moderate)	41 to 50% chance of impact occurrence
6 (Moderate)	51 to 60% chance of impact occurrence
7 (High)	61 to 70% chance of impact occurrence
8 (High)	71 to 80% chance of impact occurrence
9 (Very high)	81 to 90% chance of impact occurrence
10 (Very high)	91 to 100% chance of impact occurrence

Table: Intensity/severity: Intensity/severity of impact consequence

Rating	Explanation of intensity
1 (Very low)	Consequence if impact will be of no to very low level of harm/damage (benefit in case of positive impact) to the affected social/economic component.
2 (Very low)	Same as above but of a little higher intensity.
3 (Low)	Consequence if impact will be of a low level of harm/damage (benefit in case of positive impact) to the affected social/economic component.
4 (Low)	Same as above but of a little higher intensity.
5 (Moderate)	Consequence if impact will be of moderate harm/damage (benefit in case of positive impact) to the affected social/economic component.
6 (Moderate)	Same as above but of a little higher intensity.
7 (High)	Consequence if impact will be of high harm/damage (benefit in case of positive impact) to the affected social/economic component.
8 (High)	Same as above but of a little higher intensity.
9 (Very high)	Consequence if impact will be of very high or unacceptable harm/damage (benefit in case of positive impact) to the affected social/economic component.
10 (Very high)	The affected social/economic component will be

	completely destroyed (very important benefit in case of positive impact) due to the consequence if the impact.
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Table: Extend: Explanation of geographic extend of impact

Rating	Explanation of extend
1 (Site specific, no affect on any neighbours)	Direct and/or indirect impacts limited to site of development only.
2 (Site specific, affecting direct neighbour(s))	Direct and/or indirect impacts limited to site of development and one or more direct neighbouring sites
3 (Neighbourhood/ward)	Direct and/or indirect impacts affecting social/economic elements on a neighbourhood or ward level.
4 (Local/municipal)	Direct and/or indirect impacts affecting social/economic elements within the local community, or on municipality level.
5 (Regional / district)	Direct and/or indirect impacts affecting social/economic elements within the region e.g. a significant part of a province, a development corridor, district-municipality, e.g. the lowveld region, etc.
6 (Provincial)	Direct and/or indirect impacts affecting social/economic elements on a provincial scale.
7 (> 2 provinces)	Direct and/or indirect impacts affecting social/economic elements on more than a provincial scale, but not yet on a national scale. As a general guide: affecting more than 2 provinces.
8 (National)	Direct and/or indirect impacts affecting social/economic elements on a national level, and/or affecting one or two neighbouring countries.
9 (Sub-continental / continental)	Direct and/or indirect impacts affecting social/economic elements on a sub-continental or continental level.
10 (Global)	Direct and/or indirect impacts affecting social/economic elements on a global level.

Table: Duration: Explanation of duration of impact

Rating	Explanation of duration
1 (Very short term)	Less than 4 months
2 (Very short term)	4 months to <1 year
3 (Short term)	1 year to <3 years

4 (Short term)	3 years to <9 years
5 (Medium term)	9 years to <27 years
6 (Medium term)	27 years to <81 years
7 (Long term)	81 years to <243 years
8 (Long term)	243 years to <729 years
9 (Very long term)	729 years to < 2000 years
10 (Very long term)	2000 years or longer

Formula 1: Final impact significance rating = [probability rating + intensity rating + extend rating + duration rating] / 4  
 Round off to the nearest whole number.

The following table provides a key to the explanation of impact significance.

Table: Explanation of impact significance

Final impact significance rating calculated by tables 1-4	Impact significance	Explanation of impact significance
1-2	Very low	Impact would be negligible. In the case of negative impacts, almost no mitigation and/or remedial activity would be needed, and any minor steps which might be needed would be easy, cheap and simple.
3-4	Low	Impact would be of a low order and with little real effect. In the case of negative impacts, mitigation and/or remedial activity would be either easily achieved or little would be required, or both.
5-6	Moderate significance	Impact would be real but not substantial within the bounds of those which could occur. In the case of negative impacts, mitigation and/or remedial activity would be both feasible and fairly easily possible.



7-8	High significance	Impacts of a substantial order. In the case of negative impacts, mitigation and/or remedial activity would be feasible but difficult, expensive, time-consuming or some combination of these.
9-10	Very high significance	Of the highest order possible within the bounds of impacts which could occur. In the case of negative impacts, there would be no possible mitigation and/or remedial activity to offset the impact at the spatial or time scale for which it was predicted.