SOCIO-ECONOMIC IMPACT ASSESSMENT SCOPING REPORT

PROPOSED PURE SOURCE MINE AND ASSOCIATED INFRASTRUCTURE NEAR SASOLBURG, FREE STATE PROVINCE

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Executive Summary

Monte Cristo Commercial Park (Pty) Ltd (wholly owned by the Van Wyk Land Corporation (Pty) Ltd "VLDC" Group) propose the construction of an open cast mine (known as the Pure Source Mine) on the following portions of farm Woodlands 407; Remaining Extent of Portion 1, the Remainder (RE) of Portion 1 and Portion 3, situated approximately 15km to the north east of the town of Sasolburg and in close proximity to Vaal River. The proposed site falls under the jurisdiction of the Ngwathe Local Municipality and within the Fezile Dabi District Municipality in the Free State Province. The life of the proposed mine will be approximately 30 years. This report contains the findings of the scoping level Socio-economic Impact Assessment (SEIA) for the Environmental Impact Assessment (EIA) process.

This report is based on the professional experience of the Social Practitioner (Umsizi) with similar SEIA projects, and based on the IAP issues/concerns received to date during the Public Participation Process (PPP). We invite all IAPs to comment further on this report, and all relevant comments/issues/concerns/suggestions will be incorporated into the EIA process for further investigation.

The main aim of the social scoping assessment is to identify and describe social impacts that may arise from the proposed development. The purpose of the study is to give a description of the:

- Environment that may be affected by the proposed activity;
- Manner in which the environment may be affected by the proposed development;
- Potential social issues associated with the proposed development (in terms of the construction, operational and decommissioning phases of the project); and
- Approach proposed for assessing the potentially significant issues that will be addressed by the SEIA in the EIA phase.

Secondary data sources were gathered, utilised and analysed for the purpose of the social scoping report.

Legislation and Guidelines

The review of the relevant planning and policy documents was undertaken as part of the SEIA process. The key documents reviewed included:

National Policies:

- The Constitution of the Republic of South Africa (Act 108 of 1996);
- The National Environmental Management Act (107 of 1998) (NEMA);
- The Minerals and Petroleum Resources Development Amendment (MPRDA) Act (34 of 2008);
- National Development Plan 2030;
- White Paper on Minerals and Mining Policy for the Republic of South Africa (1998);
- Provincial Spatial Development Framework (SDF) for the Free State – Cooperate Governance and Traditional Affairs (2014);
- Free State Provincial Growth and Development Strategy (PGDS) (2005-2014);
- The Fezile Dabi District Municipality IDP (2017 – 2022); and
- The Ngwathe Local Municipality IDP (2018/2019).

Baseline Description of the Social Environment

The following is a summary of the key baseline findings as a result of the study conducted on the FDDM (Fezile Dabi District Municipality) and the NLM (Ngwathe Local Municipality), in the Free State Province. In summary, the area was found to have the following general characteristics:

- The Free State Province is centrally located, bordered by the Northern Cape, Eastern Cape, North West, Mpumalanga, KwaZulu-Natal and Gauteng Provinces, as well as by Lesotho;
- The Free State Province is largely rural and is the second smallest province in South Africa in terms of population, 2 834 714 (5.1% of the national population), despite being the third-largest Province in terms of geographic space, occupying 129 825km^2;
- The main economic activities in the Free State Province are agriculture, mining and manufacturing;
- The Free State Province is known as the 'bread basket' of South Africa as 90% of the province is under cultivation, producing; 34% maize, 37% wheat, 53% sorghum, 33% potatoes, 18% of red meat, 30% groundnuts and 15% of wool;
- The shift of the economy from the downscaling of mining activities have resulted in a large number of jobs losses and out-migration in the province;
- The FDDM is the second smallest of the four district municipalities in the Free State Province;
- FDDM shares borders with three provinces; (i) Gauteng, (ii) Mpumalanga and (ii) the North West and the Vaal River and the Vaal Dam form the northern boundary of the district;
- The Vredefort Dome is the centre of attraction in the FDDM, being one of the largest meteorites

in the world;

- The main economic activities in FDDM are; agriculture, manufacturing, mining and tourism. Agriculture is the dominant activity, with production that is larger than that of the Free State Province;
- Manufacturing is also the heart of FDDM, as it is the base of Sasol;
- The population of the FDDM in 2011 was approximately 494 777, of which 120 520 of the population resided in the NLM;
- The majority of the local population belong to the Black African group and the most spoken language in the NLM is Sesotho;
- 62.4% of the NLM population comprise the Economically Active Population (EAP); this implies that there is a larger human resource base for development projects to involve the local population. The dependency ratio is high at 60.2% of the NLM population (that is half the local population) which puts pressure on the EAP and local municipalities;
- The skills profile of the area indicates that the availability of local labour for the proposed project is largely limited to low-skilled construction workers and a small number of skilled workers;
- There is a high unemployment rate in the NLM (35.2%) with a large economically active population seeking employment opportunities. Local workers should be utilised as much as possible for the proposed development in order to alleviate local unemployment;
- Within NLM, 75% of household income falls within the poverty level; the high poverty level has social consequences such as not being able to pay for basic needs and services;
- High unemployment and low-income levels in the study area demonstrates the need for job opportunities;
- The high demand for employment can be addressed (although marginally) through direct job creation during the construction and operation phase of the proposed development; and
- Access to basic services is generally moderate in the NLM. However, old infrastructure is a matter of concern. The old infrastructure systems are in in need of drastic upgrades and continuous maintenance, this pressure will only increase, resulting in various challenges.

The proposed development supports the social and economic development through enabling skills development and training in order to empower individuals and promote employment creation within the local area. The development would mainly focus on economic benefits to the area and boost the mining industry in the region. Negative dimensions of impacts such as influx of jobseekers and pressure on the provision of basic services will be weighed in the socio-economic impact assessment report during the EIA phase.

Identification of key social issues

Construction Phase Impacts

Based on the findings of SEIAs undertaken for similar proposed developments, the potential positive and negative social impacts associated with the construction phase are likely to include:

Potential Positive Impacts

- Employment and skills development opportunities;
- Business opportunities; and
- Economic multiplier effects.

Potential Negative Impacts

- Influx of jobseekers;
- Impacts on daily living and movement patterns;
- Safety and security risks (influx of jobseekers or influx of workers);
- Nuisance impacts (noise and dust);
- Impact of heavy vehicles, including damage to roads and dust;
- The carrying capacity of the S71 road does not allow for trucks; and
- Potential loss of productive agricultural land.

Table 1 provides a summary of the impacts associated with the construction phase. As indicated above, the significance ratings used are based on past experience with similar development projects.

Table 1: Summary of Social Impacts Associated with the Construction Phase

Impact	Significance without Mitigation	Significance with Mitigation
Direct employment opportunities and kills development	Medium (Positive Impact)	Medium (Positive Impact)
Business opportunities	Low-Medium (Positive Impact)	Low-Medium (Positive Impact)

Impact	Significance without Mitigation	Significance with Mitigation
Safety and security impacts	Low (Negative Impact)	Low (Negative Impact)
Nuisance impacts (noise and dust)	Medium (Negative Impact)	Low (Negative Impact)
Presence of construction workers and potential impacts on family structures and social networks	Low (Negative Impact for the community as a whole)	Low (Negative Impact for the community as a whole)
Influx of job-seekers	Low (Negative Impact for the community as a whole)	Low (Negative Impact for the community as a whole)
Impact of heavy vehicles and construction activities	Low (Negative Impact)	Low (Negative Impact)
Loss of agricultural land	Low (Negative Impact)	Low (Negative Impact)

Operational Phase Impacts

Based on the findings of SEIAs undertaken for similar proposed developments, the potential positive and negative social impacts associated with the operational phase are likely to include:

Potential Positive Impacts

- Employment opportunities and skills development;
- SMME support;
- Economic multiplier - Boost in the mining sector – leading to an increased contribution to the economy; and
- Social and labour Plan benefits to the surrounding community.

Potential Negative Impacts

- Visual impacts and associated impact on sense of place;
- Nuisance impacts (noise and dust);
- Loss in productive agricultural land; and
- Impact on tourism.
- Perceived job losses due to decline in the tourism industry.

Table 2: Summary of Social Impacts Associated with the Operational Phase

Impact	Significance without Mitigation	Significance with Mitigation
Direct employment opportunities and skills development	Medium (Positive Impact)	Medium (Positive Impact)
SMME support	Low-Medium (Positive Impact)	Medium (Positive Impact)
Economic multiplier impact	Low-Medium (Positive Impact)	Medium (Positive Impact)
SLP benefits to the community	Low-Medium (Positive Impact)	Medium (Positive Impact)
Visual impact and impact on sense of place	Low (Negative Impact)	Low (Negative Impact)
Nuisance Impacts (noise and dust)	Medium (Negative Impact)	Low (Negative Impact)
Impact on tourism	Low (Positive and Negative Impact)	Low (Positive and Negative Impact)
Impact on agricultural land	Low (Negative Impact)	Low (Negative Impact)
Job losses	Low (Negative Impact)	Low (Negative Impact)

Cumulative Impacts

The Pure Source Mine project could result in positive permanent impacts on the economy, business development, employment and education in the area and the province. The site for the proposed development is located within less than 1km of other mining farms indicated in Table 3. The Pure Source Mine project may also result in some negative impacts such as an influx of jobseekers and change to the landscape and the area's sense of place.

Table 3: Other projects / developments within 1km from the proposed site

Project name	Location	Approximate distance from the site (measured from the centre)	Project Status
Tja Naledi Beafase Investment Holdings (Pty) Ltd. (Barrage Bulk Sand)	Portion 4 of farm Woodlands 407	~ 1km to the east of the site	Mining right issued, and mining has commenced.
Vaal Sand Sweet Sensation	Du Pont 228	~ 1km to west of the site.	Mining right issued, and mining has commenced.

Decommissioning Phase

Based on the findings of SEIAs undertaken for similar proposed developments, the potential positive and negative social impacts associated with the decommissioning phase are likely to include job losses and its associated income. The impacts associated with the decommissioning phase are summarised in Table 4.

Table 4: Summary of Social Impacts Associated with the Decommissioning Phase

Impact	Significance without Mitigation	Significance with Mitigation
Job losses	Low-Medium (Negative Impact)	Low (Negative Impact)
Loss of Income	Low (Negative Impact)	Low (Negative Impact)

Conclusion

Based on the initial assessment of the receiving environment it is anticipated that the proposed project could have some negative as well as positive social impacts. The main negative impacts relate to intrusion impacts associated with the construction phase. The most important potential social benefits associated with the construction and operation of the proposed development refer to job opportunities and possible socio-economic spin-offs created. The extent of the negative impacts and possible benefits will be assessed during the EIA phase.

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List of Abbreviations

CNA	Community Needs Assessment
DEAT	Department of Environmental Affairs and Tourism
DGDS	District Growth and Development Strategy
DM	District Municipality
EAP	Economically Active Population
EIA	Environmental Impact Assessment
EMF	Environmental Management Framework
EMPr	Environmental Management Programme
FDDM	Fezile Dabi District Municipality
GDP	Gross Domestic Product
HA	Hectares
HD	Historically Disadvantaged
HDSA	Historically Disadvantaged South Africans
IDP	Integrated Development Plan
KPA	Key Performance Area
LED	Local Economic Development
LM	Local Municipality
NEMA	National Environmental Management Act
NLM	Ngwathe Local Municipality
NDP	National Development Plan
PSDF	Provincial Spatial Development Framework
PGDS	Provincial Growth and Development Strategy
SEMP	Strategic Environmental Management Plan
SDF	Spatial Development Framework
SEIA	Socio-Economic Impact Assessment
SIA	Social Impact Assessment
SMME	Small, Medium and Micro-sized Enterprises
VIA	Visual Impact Assessment

1. Introduction

Monte Cristo Commercial Park (Pty) Ltd (wholly owned by the Van Wyk Land Corporation (Pty) Ltd "VLDC" Group) proposes the construction of an open cast mine (known as Pure Source Mine) on the Remaining Extent of Portion 1 of the farm Woodlands 407; the Remainder (of portion 1) of farm Woodlands 407; Portion 3 of the farm Woodlands 407. The proposed mining area is located approximately 15km northwest of the town of Sasolburg, about 30km to the South West of the town of Parys and in close proximity to the Vaal River in the Free State Province. Monte Cristo Commercial Park Pure Source Mine (Pty) Ltd will be involved in mining of salica sand, gravel aggregates and diamonds. This report contains the findings of the scoping level Socio-Economic Impact Assessment (SEIA) for the EIA process. The SEIA, together with other specialist studies form part of the Mining Right application.

1.1. Socio-Economic Impact Assessment (SEIA)/Social Impact Assessment (SIA)

SIA is described as "the process of assessing or estimating, in advance, the social consequences that are likely to follow from specific policy actions or project developments, particularly in the context of appropriate national, state, or provincial environmental policy legislation" (Becker et al, 2003). By social impacts meaning the consequences to human populations of any public or private actions that alter the ways in which people live, work, play, relate to one another, organize to meet their needs and generally cope as members of society. The term also includes cultural impacts involving changes to the norms, values, and beliefs that guide and rationalize their cognition of themselves and their society.

SIA is a methodology or instrument used by social assessment practitioners to determine the social impacts of a project and to provide ways to mitigate and monitor potential impacts (Vanclay, 2003). The SIA is divided into a number of phases however the public consultation is a crucial step in the preparation of an SIA. SIA is concerned with the human dimensions of the environment, this meaning that;

> *"SIA is the process of analysing (predicting, evaluating and reflecting) and managing the intended and unintended consequences on the human environment of planned interventions (policies, programs, plans, projects) and any social change processes invoked by those interventions so as to bring about a more sustainable and equitable biophysical and human environment (Vanclay, 2003: 2)."*

The National Environmental Management Act (NEMA) (Act 107 of 1998) sets out a number of principles which underpin environmental management in South Africa. A number of these principles relate to the social dimension of sustainable development and public process requirements such as transparency, accountability, democracy and environmental justice. The following principle outlines the basis for a Social Impact Assessment:

> *Environmental management must place people and their needs at the; forefront of its concern, and serve their physical, psychological, developmental, cultural and social interests equitably.*

More specifically, the social, economic and environmental impacts of activities must be considered and assessed. SEIA is a useful planning tool that can assist the project proponent to conceptualise and implement a project in a manner which would see the identified negative social impacts addressed through avoidance or mitigation and the positive impacts realised and optimised. It also allows the community to anticipate, plan for, and deal with the socio-economic changes once they come to effect. In this sense then the SEIA is an indispensable part of the EIA, the Environmental Management Programme (EMPr) and any participative activity (E.g. Community involvement in mitigation and monitoring during planning and implementation). The purpose of a SEIA report is to provide baseline information regarding the socio-economic environment and to identify possible socio-economic impacts that may come about as a result of a project. The report highlights the most likely associated social and economic impacts to occur from the proposed project and provides methods to aim towards emphasising positive impacts and avoiding, reducing or mitigating negative identified impacts.

1.2. Terms of Reference

The main aim of social scoping assessment is to identify and describe anticipated socio-economic impacts that may arise from the development of the proposed mine. The purpose of the study is to provide a description of the:

- Study area, specifically focusing on communities living and working in close proximity to the proposed development;
- Environment that may be affected by the proposed activity and also describe the manner in which the environment may be affected by the proposed mine;
- Potential socio-economic issues associated with the proposed mine (in terms of the

construction, operational and decommissioning phases of the project); and

- Approach proposed for assessing the potentially significant issues that will be addressed by the SEIA in the EIA phase.

1.3. Specialist Details

The SEIA Scoping Report was prepared by Pamela S. Sidambe of Umsizi Sustainable Social Solutions, a SIA specialist with a Masters degree in Social Impact Assessments from the University of Johannesburg. Some of the SIA/SEIA projects completed include studies for the proposed; housing development, establishment of solar farms, road realignment, industrial development, mine development, power lines, electricity strengthening projects and the development of a cultural precinct.

1.4. Declaration of Independence

A signed declaration of Independence for Pamela S. Sidambe of Umsizi Sustainable Social Solutions is attached in Appendix A.

1.5. Project Overview

Project background and description:

Monte Cristo Commercial Park (Pty) Ltd (wholly owned by the Van Wyk Land Corporation (Pty) Ltd "VLDC" Group) is proposing the development of an open cast mine. The project is referred to as Pure Source Mine. A regional road S171 connecting to the R42 borders the property along the southern boundary. The location of the farm is 26.74559°S latitude and 27.61360°E longitude (Datum: WGS 84). The mining right application area or project area lies on the Farm Woodlands 407 covered by the Prospecting Right FS30/5/1/1/2/608 PR. Monte Cristo Commercial Park (Pty) Ltd will mine; sand, aggregate/gravel and diamond (alluvial).

Internal access roads and fencing around the development area

The Vaal Eden Road (S171) regional road forms the southern boundary of the project area and a gravel road connects this to the proposed mine main entrance on the south eastern boundary. An access road will have to be built from the gate to the plant area.

Site-specific studies will be undertaken to assess the localised impact of the proposed development in order to delineate areas of sensitivity within the affected farm portions. Once the constraining environmental factors have been determined, the layout for the proposed mine can be finalised, and assessed in detail in the EIA Phase.

The transportation of project components and equipment to the proposed study area would be done using vehicular/trucking transport. The national, secondary and internal access roads will be used to transport all components and equipment required during the construction phase of the plant and its associated infrastructure. Some of the components may be defined as abnormal loads in terms of the Road Traffic Act (Act No. 29 of 1989)[1] by virtue of the dimensional limitations. Typical civil engineering construction equipment will need to be brought to the study area (e.g. excavators, trucks, graders, compaction equipment, cement trucks, etc.).

Locality and size:

The Pure Source Mine project is proposed to be developed on portion 1 of the farm Woodlands 407; the Remainder (of portion 1) of farm Woodlands 407; Portion 3 of the farm Woodlands 407 (figure 1). The proposed mining area is located approximately 15km north west of the town of Sasolburg, about 30km to the South West of the town of Parys and in close proximity to the Vaal River in the Free State Province of South Africa. The property covers an area of approximately 858.5825 hectares (ha).

The proposed site falls under the jurisdiction of the City of Ngwathe Local Municipality and within the Fezile Dabi District Municipality in the Free State Province (figure 1 and 2). The Pure Source Mine project will be involved in the mining of salica sand, gravel aggregates and diamonds.

[1] A permit will be required for the transportation of these abnormal loads on public roads.

Figure 1: Regional locality map of the project site

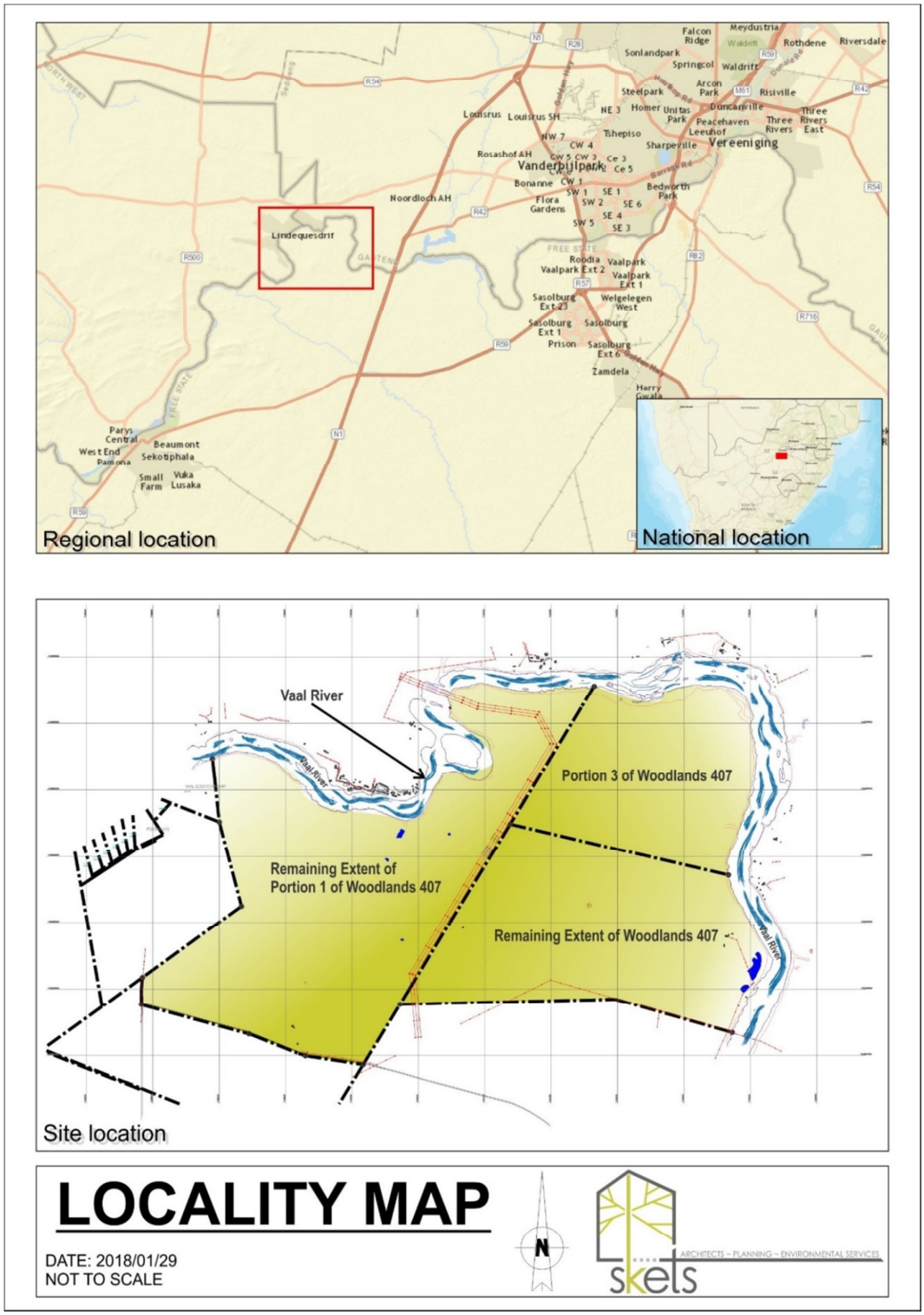
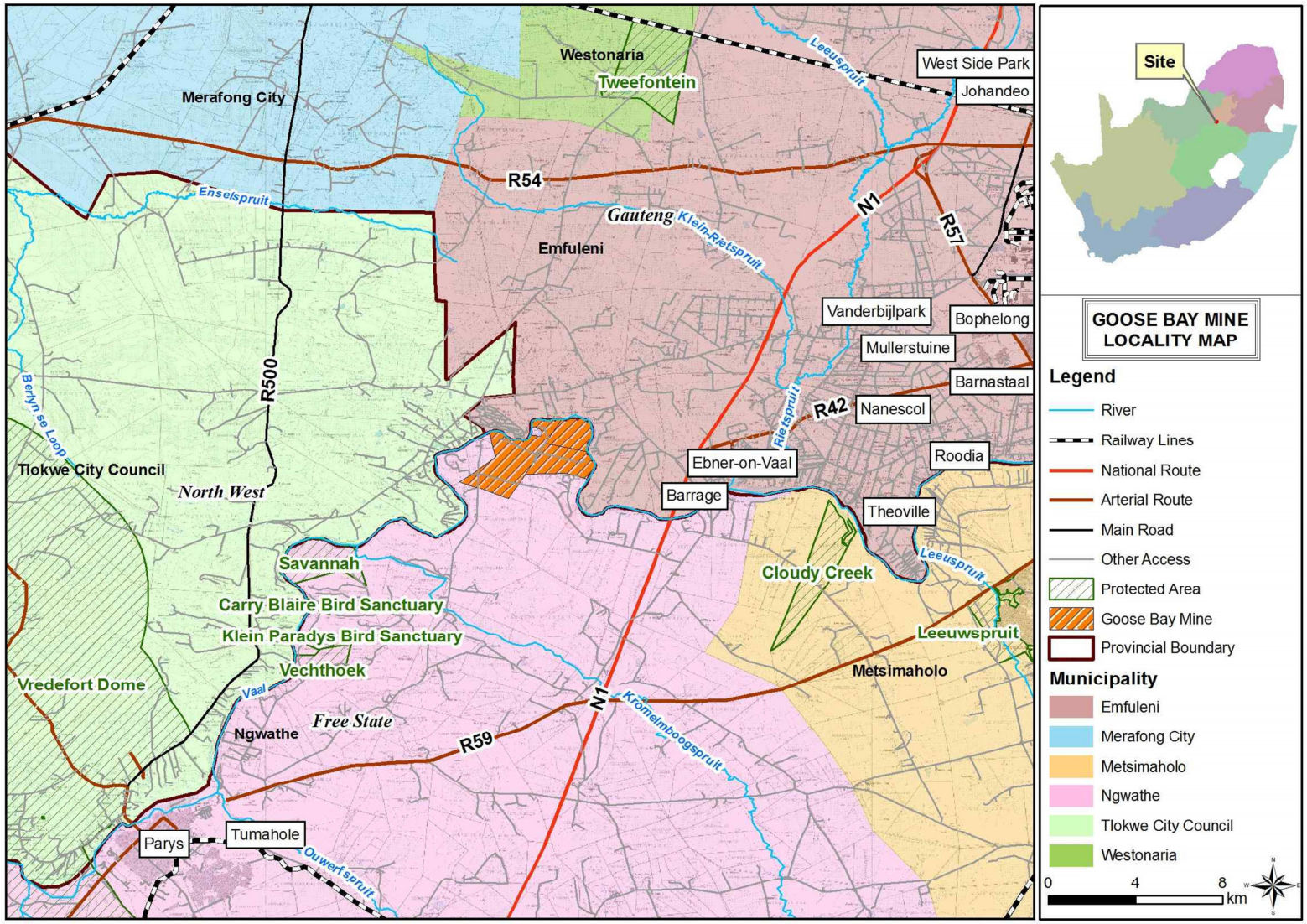


Figure 2: Location of Pure Source Mine



1.6. Limitations and Assumptions

The following assumptions and limitations were relevant:

- The 2011 Census is the most recent source of official statistics and this has been used for generating a lot of the information provided in the baseline profile of the study area. In addition to this, the 2016 community survey, the latest District and Local Municipality policies and plans were utilised in generating information. While the data does provide useful information, it should be noted that this data may now be out of date to some degree and may no longer accurately reflect the current socio-economic profile;
- In order to understand the social environment and to predict the impacts, complex systems have to be reduced to simple representations of reality (DEAT, 2002b). The experience of impacts is subjective and what one person may view as negative may not be perceived as such by another;
- This study was done with the information available to the specialist at the time of executing the study, within the available timeframes. The sources consulted are not exhaustive, and additional information which might strengthen arguments may contradict information in this report, and/or additional information might exist. The specialist did try to take an evidence-based approach in the compilation of this report and did not intentionally exclude scientific information relevant to the assessment;
- Besides attending 2 public participation meetings, no household/individual consultations were done at the time of writing the scoping SEIA report. However, the specialist has worked on similar projects and issues identified by the I&AP in these projects, in many instances, likely to be similar to those associated with the Pure Source Mine site;
- No economic modelling or analysis was done as part of the SEIA. Any economic information in this report, was obtained from the IDPs for the district and local municipalities, the Growth and Development Plans of the Free State Province as well as from the Census 2011 reports;
- A limited amount of finalised project details from the project developer means that some of the actual project projections may be higher or lower than estimated in this report;
- It was assumed that the motivation for planning and feasibility study of the project were undertaken by the developer with integrity, and that information provided to date by the project developer, the independent Environmental Assessment Practitioner (EAP) and the Public Participation (PP) consultant was accurate; and
- This report only applies to the proposed development on farm woodlands 407 and will not necessarily be accurate for and applicable to similar infrastructure at other sites.

1.7. Approach to the Study

The main aim for the Socio-economic Report is to identify and describe the social impacts that may arise from the proposed mine. The approach used for the SEIA study is based on the Western Cape Department of Environmental Affairs and Development Planning (DEA and DP) Guidelines for Social Impact Assessment (2007). These guidelines are based on the international best practice, including the Guidelines for Social Impact Assessment (Inter-organizational Committee on Guidelines and Principles for Social Impact Assessment, 1994). The key objectives in the SEIA scoping process include:

- A review of socio-economic data;
- A review of relevant planning policy frameworks for the area;
- A review of information from similar studies; and
- A review of social issues associated with mining projects.

2. Legislation and Guidelines

A review of the policy environment provides valuable insight into the government's priorities and plans. The review of the relevant planning and policy documents was undertaken as a part of the SEIA process. The key documents reviewed included:

National Policies:

- The Constitution of the Republic of South Africa (Act 108 of 1996);
- The National Environmental Management Act (107 of 1998) (NEMA);
- The National Development Plan 2030 (2011);
- The Minerals and Petroleum Resources Development Amendment (MPRDA) Act (34 of 2008); and
- The White Paper on Minerals and Mining Policy for the Republic of South Africa (1998).

Provincial Policies:

- The Provincial Spatial Development Framework (SDF) for the Free State – Cooperate Governance and Traditional Affairs (2014); and
- The Free State Provincial Growth and Development Strategy (PGDS) (2005-2014).

Local and District Policies:

- The Fezile Dabi District Municipality Integrated Development Plan (IDP) (2018/2019); and
- The Ngwathe Local Municipality Integrated Development Plan (2018/2019).

The legislative and policy context plays a significant role in identifying and assessing the potential socio-economic impacts associated with the proposed mine. In this regard a key component of the SEIA process is to assess the proposed development in terms of its suitability with regards to the key planning and policy documents. A brief overview of the most relevant policies plans and guidelines, in relation to the proposed mine are discussed in this section below.

2.1. National Policies

Any project contributing to the objectives mentioned within the national policies discussed briefly below could be considered strategically important to the nation. The review of the policies suggests that a development aimed at poverty alleviation and employment creation is integral to economic growth of South Africa. A brief review of the most relevant national policies is provided below.

The Constitution of the Republic of South Africa (Act 108 of 1996)

The Constitution of the Republic of South Africa (Act 108 of 1996) has been adopted as the supreme law of the country and forms the foundations for a democratic society in which fundamental human rights are protected. In terms of the environment, Chapter 2 Section 24 states that everyone has a right:

(a) "To an environment that is not harmful to their health or well-being; and

(b) To have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that prevent pollution and ecological degradation, promote conservation and secure ecologically sustainable development and use of natural resources while encouraging justifiable economic and social development".

Chapter 7 of the Act defines the role of local government in its community. Five objectives of local government are described in Chapter 7 Section 152:

- to provide democratic and accountable government for local communities;
- to ensure the provision of services to communities in a sustainable manner;
- to promote social and economic development;
- to promote a safe and healthy environment; and
- to encourage involvement of communities and community organisations in the matter of local government.

The Constitution outlines the need to promote social and economic development. A SEIA is a requirement for sustainable development as it assesses the socio-economic impacts associated with development and aims towards safeguarding people's future well-being. The proposed mine aims to increase the economic opportunities of the area by providing more job and business opportunities for the local community and beyond. The development will also aid in promoting local economic development in the area.

The National Environmental Management Act (107 of 1998) (NEMA)

NEMA is the legislation setting out the framework for environmental management in South Africa. The Act promotes cooperative environmental governance and establishes principles for decision making on matters affecting the environment. An overarching principle in Chapter 1 emphasises that development must be socially, environmentally and economically sustainable.

Aucamp (2009b) lists environmental principles that must be adhered to in all Acts pertaining to the environment. The following NEMA principles refer directly to the human/social environment:

- Environment management must place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental, cultural and social interests equitably;
- Development must be socially, environmentally and economically sustainable;
- Environmental justice must be pursued as to not unfairly discriminate against any person, particularly the vulnerable and disadvantaged persons;
- Equitable access to environmental resources, benefits and services to meet basic human needs and ensure human well-being is prioritised; and
- Decisions must take into account interests, needs and values of all interested and affected parties, including all forms of traditional and ordinary knowledge.

Section 24 of NEMA states that the potential impact on the environment, socio-economic conditions and cultural heritage of activities that require authorisation must be considered, investigated and assessed prior to implementation, in order to give effect to the general objectives of integrated environmental management. DEAT, 2017 define an environmental impact assessment as "systematic process of identifying, assessing and reporting environmental impacts associated with an activity and includes basic assessment and S & EIR)". The SEIA aims to fulfil these requirements by providing all socio-economic information relevant to the consideration of the project.

The National Development Plan 2030

The National Development Plan aims to eliminate poverty and reduce inequality by 2030. Given the complexity of national development, the plan sets out a number of interlinked priorities, some of which include:

- Bringing about faster economic growth, higher investment and greater labour absorption;
- Focusing on key capabilities of people and the state;
- Building a capable and developmental state;
- Enabling milestones involve; increasing employment from 13 million in 2010 to 24 million in 2030, establishment of a competitive base of infrastructure, ensuring that skilled, technical, professional and managerial posts better reflect the country's racial gender and disability makeup, improving the quality of education, provision of affordable access to quality health care and the establishment of effective, safe and affordable public transport;
- Ensuring that all South Africans have access to clean running water in their homes;
- Making high-speed broadband internet universally available at competitive prices; and
- The realisation of a food trade surplus, with one-third produced by small- scale farmers or households.

The National Development Plan aims to provide a supportive environment for growth and development, while promoting a more labour-absorbing economy. The proposed mine will assist in creating jobs in the local area and to enable government to earn much more tax revenue which will be used for the development of the province and the country as a whole.

The White Paper on Minerals and Mining for the Republic of South Africa (1998)

The White Paper on Minerals and Mining in South Africa states that diversified mineral deposits in the country have been a cornerstone for the country's economy. This implies that the more mines that are developed the better the chances of economic growth. The white paper emphasis the need for encouraging investment in mining; adjustments in mining related policies to address past racial inequality without disturbing investor confidence, small-scale mining, which is where Pure Source mine falls under, mineral beneficiation, research and development of infrastructure conducive to the optimal development of the country's resources, creation of wealth and employment opportunities for the economic empowerment of communities, both directly and through the multiplier effect and government to establish regulatory frameworks that minimises dangers of working in the mine without imposing excessive cost burdens on the industry and thereby jeopardising its economic viability.

3.2. Provincial Policies

A brief review of the most relevant provincial policies is provided below. The proposed mine is considered to align with the aims of these policies, even if contributions to achieving the goals therein are only minor.

The Free State Provincial Growth and Development Strategy (PGDS) (2005 - 2014)

The Free State Growth and Development Strategy (PGDS) provides a framework for the integrated and sustainable growth and economic development for the province and its people. Challenges facing the province are as follows: the economy of Free State generates slightly less towards the South African economy than the relative size of the provincial population, high unemployment rate of 34.7% (SA 26.5%) (community survey 2018) and a close to 31.6% of the population living in poverty (Stats SA 2011). The province is faced with high incidence of HIV & AIDS and other general health challenges.

Goals and objectives of the PGDS are economic growth, development and increasing employment opportunities in the Province. The proposed mine will contribute to employment creation and skills development which is in line with the goals and objectives of the Free State PGDS.

The Free State PGDS aims at stimulating economic development and job creation, development and enhancement of infrastructure for economic growth and social development, poverty alleviation through human and social development, development of the people of the province, creating a safe and secure environment for all the people in the province and promotion of effective and efficient governance administration with sustainable use of resources and the environment. The proposed mine will contribute to growth and development of the local area by expanding the economic base and creating employment opportunities.

The Free State Province Spatial Development Framework (PSDF) – Department of Cooperate Governance and Traditional Affairs (2014)

The Free State PSDF was adopted in 2014 in line with vision 2030. The main role of the PSDF is to contextualise international and national imperatives applicable to the Free State and gives effect to them within the realities and characteristics of the province. The main functions of the PSDF are to; promote sustainable development, guide spatial planning and land-use. The PSDF serves as a framework for both public and private-sector investment, indicating areas of opportunity and development priorities. It is further a spatial and strategic vision and basis for common action amongst all social partners, both inside and outside government in a province. Furthermore, the roles of the PSDF in creating a developmental state include providing an environment of certainty and predictability critical for investment as well as direction and scope to province-wide development programmes and projects taking into consideration economic, political, social and environmental constraints and opportunities. Also, the PSDF is focused on enhancing human well-being (including social equity) and environmental integrity through the efficient use of the various forms of capital inherent, or available to the Free State.

NEMA provides a legal premise for the PSDF's stance on sustainable development. The following sections are relevant:

- Section 2.1 – the State has a responsibility to respect, protect, promote, and fulfil social and economic rights in Chapter 2 of the Constitution and in particular the basic needs of people living with disability;
- Section 2.2 – Environmental management must place people and their needs at the forefront of its concern, and serve the physical, psychological, developmental, cultural and social interests equitably; and
- Section 2.3 – Development must be socially, environmentally and economically sustainable.

The key emphasis is on economic growth and poverty eradication. This vision mainly provides statements of objectives, key development issues, development concepts/principles, and the spatial development rationale. Key socio-economic issues which would require strategic planning provision include: employment (including youth and women); poverty eradication; attracting Investment; economic growth; HIV/AIDS and other diseases; food security; physical infrastructure (including availability of industrial land); tourism development; population growth and migration.

Change experienced in the Free State province's main economic sectors; that is agriculture and mining has contributed to outward migration of people in search for better opportunities. The proposed development will contribute to economic growth and development, which will in turn help eradicate poverty through job creation and skills development in the region which will be in line with the Free State PSDF.

3.3. District and Local Municipalities Policies

These strategic policies at the district and local level have similar objectives for the respective areas, namely, to accelerate economic growth, create jobs, uplift communities and alleviate poverty. The proposed development of the mine is considered to align with the aims of these policies, even if contributions to achieving the goals therein are only minor.

The Fezile Dabi District Municipality (FDDM) Integrated Development Plan (IDP) (2017 - 2022)

The main focus of the FDDM IDP, 2017 - 2022 that corresponds to the development of the proposed mine includes accelerating growth and development, promotion and enhancement of the SMME sector in the district and delivery of services in the most effective, efficient and sustainable way. The district is well aware that economic growth and development are the prerequisite for the achievement of other policy objectives such as poverty eradication, skills development and creation of employment opportunities.

The IDP indicates the district's Spatial Development Framework. The SDF guides and informs the directions of growth, movement routes, special development areas, conservation of both the built and natural environment, areas at which particular types of land-use should be encouraged and/or discouraged, and areas at which the intensity of land development could be either increased or reduced. The IDP aims at promoting local economic growth and social development in order to provide a better life for the communities. The proposed development will contribute in assisting the district municipality in achieving economic growth and building a sustainable economy through the field of mining.

The Ngwathe Local Municipality Integrated Development Plan (2018/2019)

According the NLM, 2018/2019 IDP, Ngwathe Local Municipality (NLM) is a grade 3 municipality with agriculture, mining and tourism as the economic drivers. However, tourism is still in its development stage. The mission of the municipality is to provide quality sustainable services in an efficient, effective and economic manner to all communities through the promotion of community participation, good governance and improved inter-governmental values. The municipality strives to do this through economic growth and quality municipal service delivery. In order to yield improved performance and service delivery, a balanced scorecard methodology was adopted by NLM with four perspectives; stakeholder, process, learning and growth resources. The core focus of the municipality is on service delivery to stakeholders. The second perspective is the process arrangements required to meet the needs of the stakeholders. The learning and growth perspective establish the culture of the municipality in terms of values, performance, employee education, employee wellness and leadership. Lastly the resources (revenue, technology, staff members, infrastructure) perspective is required to ensure successful execution of the municipality's objectives. Key performance areas in the municipality include:

- KPA 1: Municipal Transformation and Institutional Development – is about the NLM employee well-being and performance;
- KPA 2: Infrastructure Development & Basic Service Delivery (ensuring that the residents of the municipality have access to basic and essential services and the general upliftment of communities);
- KPA 3: Local Economic Development (growing the economy and creating jobs);
- KPA 4: Municipal Financial Viability and Management (effectively managing the municipality's finances) to ensure long term sustainability of the municipality; and
- KPA 5: Good Governance and Public Participation.

The overarching direction of the NLM, IDP articulates a vision for economic growth and development, provision of basic services (service delivery improvement) and infrastructure development. The proposed development of a mine will contribute to economic growth and development in the region, which will be in line with the KPA 2 of the NLM IDP.

2.2. Conclusion

The findings of the review of the relevant policies and documents pertaining to the mining sector indicate that mining and the establishment of mining facilities in places like at the Pure Source Mine are supported at a national, provincial, and local level, and that the proposed development will contribute towards the various targets and policy aims.

3. Background Information on the Study Area and Key Stakeholder Identification

The proposed mining area is to be established approximately 15km north west of the town of Sasolburg, which is located within the Ngwathe Local Municipality (NLM) and forms part of the Fezile Dabi District Municipality (FDDM) of the Free State Province. This section will provide a brief overview of the study area, baseline characteristics, surrounding land uses, and a description of the key stakeholders associated with the proposed development.

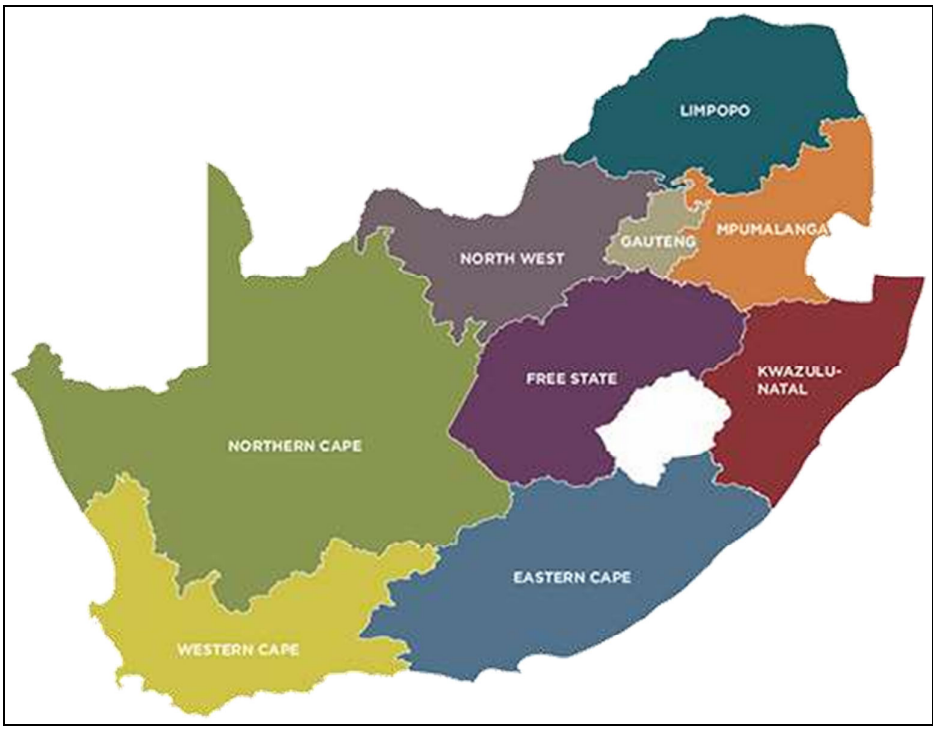
3.1. Free State Province

The Free State Province is situated in the central part of South Africa (Figure 3) and is the third largest province in South Africa, occupying 129 825km², but with the second smallest population (2.7 million), which is 5.1% of the national population (Stats SA 2011). The majority of the population (2.6 million) of the people residing in Free State were born in that province. The province has an unemployment rate of 48%. The main economic activities are: agriculture, mining, floriculture, manufacturing, and tourism (Community survey 2018).

The province sprawls over high plains and stretches along the Maluti Mountains bordering Lesotho. The Free State Province is centrally located, bordered by the Northern Cape, Eastern Cape, North West, Mpumalanga, KwaZulu-Natal and Gauteng Provinces, as well as by Lesotho. The Province shares provincial boundaries with 3 provinces, that is; the North West, Mpumalanga and Gauteng Provinces. The Free State Province is located between the Vaal River to the north and the Orange River to the south. Bloemfontein, which is also South Africa's judicial capital is the capital of the province. The major towns in the province are Bloemfontein, Welkom, Kroonstad, Sasolburg and Parys. The Free State Province is divided into one metropolitan municipality; Mangaung and four District Municipalities which include; Xhariep, Lejweleputswa, Thabo Mofutsanyana and Fezile Dabi District Municipalities, which are further subdivided into 18 Local Municipalities (Stats SA 2011).

Agriculture, mining, manufacturing and emerging tourism are the major contributors to the Free State Province economy. The province is known as the 'bread basket' as 90% of the province is under cultivation for crop production. The Free State Province produces about 34% of total maize produced in South Africa, 37% of wheat, 53% of sorghum, 33% of potatoes, 18% of red meat, 30% of groundnuts and 15% of wool (www.municipalities.co.za). Mining is also a major employer in the province. Furthermore, the province is renowned for gold production as it is the world's fifth largest gold producer. In the chemicals industry, the Free State Province is also a leader, as it is a home to Sasol, the main synthetic-fuels company.

Figure 3: Location of the Free State Province in South Africa



3.2. Fezile Dabi District Municipality

Fezile Dabi District Municipality (FDDM) is situated at the northern part of the Free State Province and borders both Thabo Mofutsanyane and Lejweleputswa District Municipalities. FDDM also shares borders with 3 national provinces; Gauteng, Mpumalanga and the North West. The Vaal River and the Vaal dam form the northern boundary of FDDM and also serve as the boundary between the Free State and Gauteng Provinces. FDDM is the second smallest of the four District Municipalities, covering 16.4% of the provincial area and is made up of four Local Municipalities namely; Moqhaka, Metsimaholo, Ngwathe and Mafube (Figure 4).

The district municipality has a total of 38 settlements, encompassing 4 farming settlements, 15 formal towns, 17 former urban townships and 2 urban informal settlements. Manufacturing especially, chemical manufacturing is the dominant economic activity of the district, mainly in the Sasolburg area under the Metsimaholo Local Municipality. Sasolburg is known as chemical hub of South Africa, with Sasol being the major producer. The community service sector mostly prevalent in Moqhaka Local Municipality, the second highest GDP contributor in the district as well as in Ngwathe Local Municipality is the second most prevalent sector in FDDM. Another active economic sector in district municipality include, agriculture, both livestock farming and horticulture. Mining is also an economic contributor in FDDM as extensive areas have rich underground coal deposits and there are

other smaller deposits for various other minerals.

Most of the national headquarters of industries are based in FDDM. The district is serviced by a strategically important road network, both national and Provincial roads which include the N1, R59, N3 and N17. The road network is supported by a rail system. This makes the district accessible to all major urban centres in South Africa.

Figure 4: Map of the Local Municipalities within the FDDM

3.3. Ngwathe Local Municipality

The Ngwathe Local Municipality (NLM) is located in the northern part of the FDDM in the Free State Province. It is one of the four Local Municipalities in this district. The major towns are Vredefort, Koppies, Heilbron, Edenvile and Parys (Ngwathe 2018/2019 IDP Review). The NLM has 18 wards, structured along the different towns. The main economic sectors of the region are; agriculture, mining and tourism, of which the latter is still in its development phase. The characteristics of the area are as follows:

- Scenic routes along the Renoster River leading onwards the vicinity of Koppies in a series of dams, namely the Weltevrede, Rooipoort and Koppies Dams;

- The rivers are a prominent water sources for agricultural purposes in the region;
- Other prominent topographical features include Vredefort Dome in Parys;
- The Parys area has unique natural and environmental assets, like the Vaal River, with several islands in the proximity of Parys, and the Vredefort Dome, that present exceptional tourism potential; and
- Parys has a well-developed airfield that supports commercial, recreational and tourism development in the area.

Despite having a prominent agricultural sector in the region, the major concern is international trade and competition in products, which may result in the sector becoming less competitive. Such a situation will have a severe negative impact in economic growth of the region, which may eventually lead to job losses. Tourism is one sector that was showing signs of development, but the pollution of the Vaal river, which is one of the tourist attractions may lead to a decline in the number of tourists in the area.

In terms of mining in NLM, it is one sector that plays a major role. Currently, mining activities are restricted to; gravel, bentonite, granite, sand, alluvial, volcanic pipes and coal. If a developer focuses in one or more raw materials listed here, there is a high chance of receiving support from the Ngwathe Local Municipality. Taking into consideration the need for the development of the road infrastructure in the area and the country at large, one of the potential clients for mined material such as sand and gravel will be the Department of Public Works as they are charged with maintenance of all roads in the country. The need for the raw materials mined in NLM will boost the municipality's economy and contribute positively to job creation and poverty alleviation.

3.4. Socio-Economic Context

Population

The population trends in a geographical area affect the rate of economic growth through the provision of labour and entrepreneurialism and the demand for goods and services. These trends also indicate the number of people who are likely to be impacted by the proposed development. The Free State Province is the third largest province in South Africa and has the second smallest population (2.8 million) (community survey 2018). The majority of the population (2.6 million) of the people residing in Free State were born in the province. The province has an unemployment rate of 48%. The main economic activities are: agriculture mining, manufacturing, and tourism.

The Free State Province covers a geographical area of 129 825km² and accounts for 10.6% of South

Africa's land area. The province has a population of 2, 745 590 million, 5.1% of South Africa's entire population, with a population density of 21 people per square kilometre. The population growth rate between 2001 and 2011 for the Free State Province was 1.4%. The Fezile Dabi District Municipality growth rate was 0.6% which is higher than the Ngwathe Local Municipality growth rate at 0.1% from 2001 to 2011 (Table 1).

According to Statistics South Africa (Census 2011), the population of the FDDM is 488 036, which increased from 459 294 in 2001. The population is unevenly distributed among the four Local Municipalities and the average annual growth rate of the district is 0.6%. The NLM has a population of 120 520 and a population density of 13.5/km² (Table 5).

Table 5: Population Statistics of the Free State, Fezile Dabi District and Ngwathe Local Municipality

Area	Area (km²)	Total Population	Population density /km²	Population growth rate % (2001 - 2011)
Free State Province	129 825	2 745 590	21	1.4
Fezile Dabi DM	20 668	488 036	22.3	0.6
Ngwathe LM	7 055	120 520	13.5	0.1%

Source: Stats SA 2011

Population groups and languages

The population groups and language distribution present an indication of the cultural dynamics of the area and has implications for the proposed mine in terms of the approach that should be used for communication regarding the development as well as implementation of the mining project. The information from Stats SA indicate that as of the 2011 Census, the NLM has a total population of 120 520, of which the majority of the population belong to the black African population group comprising of 88%, followed by white population group (9.5%), (Table 6).

Table 6: Population groups within the Free State Province, Fezile Dabi DM and Ngwathe LM

Population Group	Free State Province %	Fezile Dabi DM %	Ngwathe LM %
Black African	84.8	85.7	88
Coloured	3	2	2.6
Indian/Asian	0.1	0.1	0.05
White	12.1	12.2	9.5

Source: Stats SA 2011

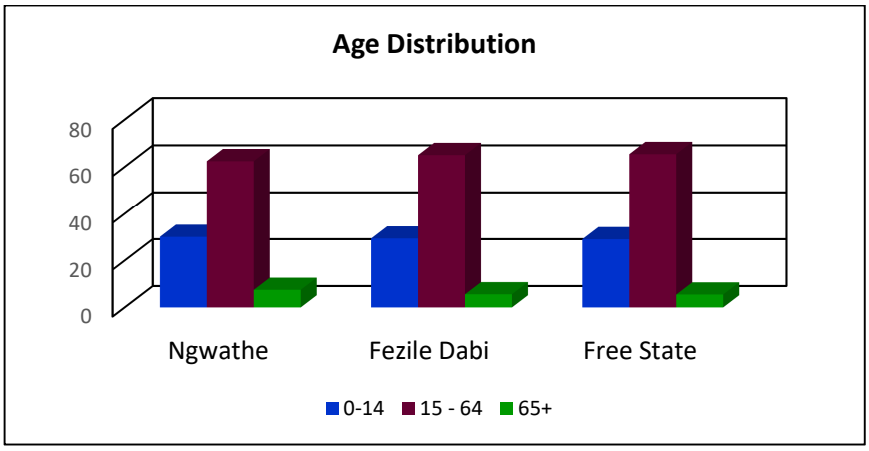
Language

Within NLM, Sesotho is the dominant spoken language 68.6% of the inhabitants speaking this language. The high proportion of Sesotho speaking people implies that, for any development strategies within NLM to succeed, they must be sensitive to the predominant cultural systems and social dynamics related to the Sesotho culture. Communication processes and material should take these findings into consideration and should be made available in the Sesotho language.

Age composition and gender differentiation

The age structure of a population is extremely important for planning purposes. Figure 5 indicates the age profile of citizens at a provincial and municipal level.

Figure 5: Age Distribution in Free State Province, Fezile Dabi DM and Ngwathe LM



Source: Stats SA 2011

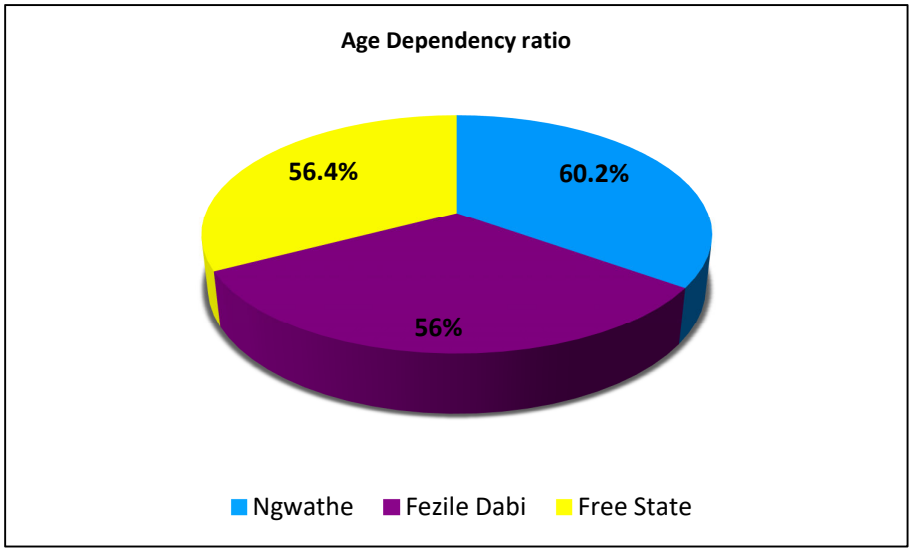
The age distribution of the population is very similar throughout the local area with the greatest proportion of the population falling within the age group of 15 - 64 years. The Economically Active Population (EAP) in the NLM is 62.4%. The high proportion of economically active persons implies that there is a larger human resource base for development projects to involve the local population. The gender differentiation is also quite similar where there are slightly more females in the district and local municipality.

Age Dependency Ratio

The dependency ratio indicates the number of individuals that are below the age of 15 and over the age of 64, that are dependent on the Economically Active Population (EAP) (Individuals that are aged 15 - 64 that are either employed or actively seeking employment). The total dependency ratio is used to measure the pressure on the productive population and government. Dependents increase the

burden on the EAP/productive population and local municipalities to maintain basic needs, upbringings and pensions. A high dependency ratio can also cause problems for municipalities as the largest proportion of government expenditure is on health, social grants and education that are mostly utilised by the young and old population. As demonstrated in the Figure 6, the dependency ratio of the NLM is 60.2%.

Figure 6 : Age Dependency Ratio



Source: Stats SA 2011

Unemployment

The employment profile of the study area is an important indicator of human development. The quality of labour is reflected, among other things, by the educational profile of the economically active population and the availability of training facilities in the region. The term labour force refers to those people who are available for employment in a certain area. According to Statistics South Africa, the definitions of the following employment indicators are:

- Economically active person: "A person of working age (between 15 and 65 years inclusive) who is available for work, and is either employed, or is unemployed but has taken active steps to find work in the reference period";
- Employed: "Those who performed work for pay, profit or family gain for at least one hour in the seven days prior to the interview or who were absent from work during these seven days but did have some form of paid work to return to";
- Official and expanded definition of unemployment: "The unemployed are those people within the economically active population who: (a) did not work during the seven days prior to the interview, (b) want to work and are available to start work within two weeks of the interview, and (c) have taken active steps to look for work or start some form of self-employment in the

four weeks prior to the interview";

- Labour force: "All employed and unemployed persons of working age"; and
- Unemployment rate: "The percentage of the economically active population that is unemployed".

The employment profile of the study area is an important indicator of human development, but also of the level of disposable income and subsequently the expenditure capital of the residing population. Poverty and unemployment are closely correlated. The development of the proposed mine is expected to generate employment opportunities in the construction and operation phases. Table 7 demonstrates the unemployment rate in the study area.

Table 7: Unemployment rate

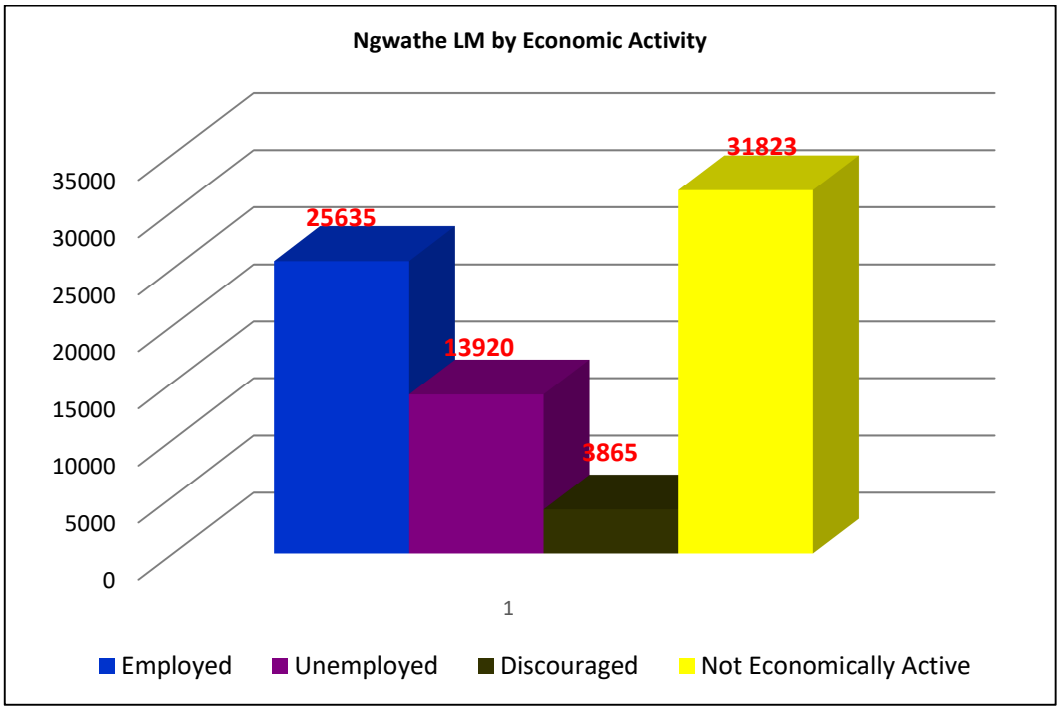
Labour Market	Fezile Dabi District Municipality %	Ngwathe Local Municipality %
Unemployment Rate	33.9	35.2
Youth Unemployment Rate	44.9	45.1

Source: Stats SA 2011

South Africa's unemployment rate is at 29.8% which is below the average unemployment rate in the Free State Province of 32.6% (Stats SA, 2011). About 21% of the Free State Province population is illiterate and more than 41% of the population are living below the poverty line. This translates negatively on productivity and competence in jobs (NDA, 2014). The FDDM unemployment rate is at 33.9% and youth unemployment rate (age 15 - 24) is at 44.9%. The unemployment rate within the NLM is high at 35.2% when compared to the national, provincial and DM unemployment rate.

In the Ngwathe Local Municipality, of the 39 555 economically active (employed and unemployed but looking for work) people, there are approximately 13 920 unemployed individuals as reflected in figure 7.

Figure 7: Employment status for the NLM



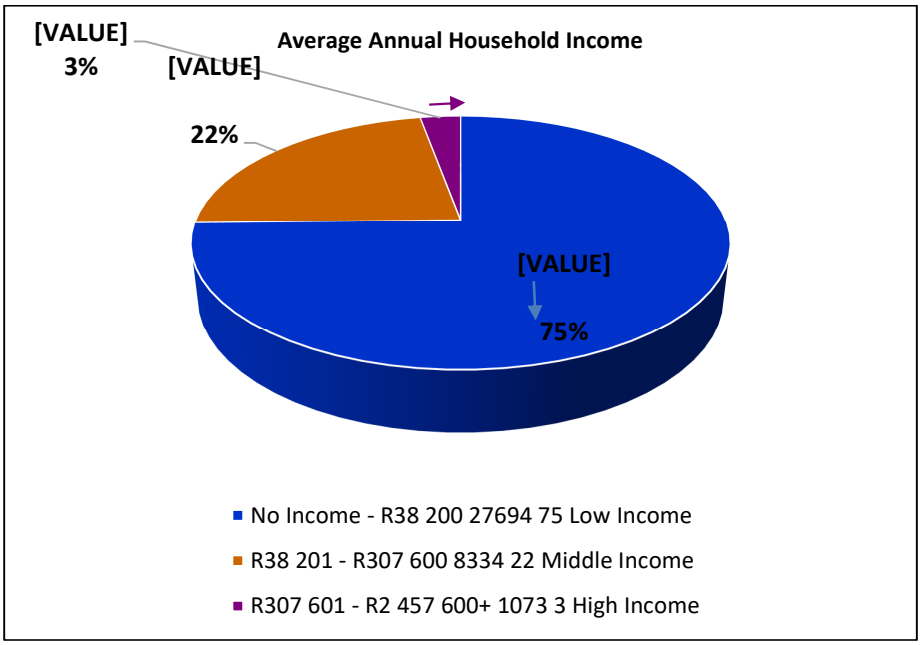
Source: Stats SA 2011

The NLM is largely populated by potentially economically active and young people. This implies that there is a lot of human capital available for any kind of work, but also that there is space for training and developing young and economically active people in the relevant fields needed. This could increase the employment level and decrease the poverty level in the local area. Local workers should be utilised as much as possible for the proposed development in order to alleviate local unemployment.

Household income levels

Household income is one of the most important determinants of welfare in a region. The ability to meet basic needs, such as adequate food, clothing, shelter and basic amenities, is largely determined by the level of income earned by the households. Poverty is often defined as the lack of resources to meet these needs. Household income levels are one way of determining poverty levels in a community. Households that have either no income or low income fall within the poverty level (R0 - R38 200 per annum); indicating the difficulty to meet basic needs requirements. A middle-income is classified as earning R38 201 - R307 600, and a high income is classified as earning R307 601 or more per annum. Figure 8 indicates the household income levels of the residents in the NLM.

Figure 8: Ngwathe Local Municipality Average Household Income



Source: Stats SA 2011

It is evident from Figure 6 that the NLM has a high number of households that fall within a low-income category and within the poverty level, this being 75% of the local population. A low percentage of households fall within the middle-income category (22% of the population) and high-income category (3%). The high percentage of low-income households indicates that there is a high demand for employment opportunities which will help decrease the dependence on forms of assistance either from government and or non-government organisations (NGOs). The high poverty level of 75% has social consequences such as not being able to pay for basic needs and services. The lower average income levels indicate a higher demand for employment opportunities in the economy. However, skill levels are less likely to improve unless education levels improve which will lead to more skilled people which will in turn translate to the opportunity to earn higher income levels. This means that there should be less focus on the quantity of job creations and more focus on the quality of jobs created.

Education levels

Education plays a critical role in the development of communities and impacts greatly on economies. The type of education and training received by individuals equally determines the occupation or career they would eventually pursue. It provides a set of basic skills for development, creativity and innovative abilities. The level of education influences growth and economic productivity of a region. There is a positive correlation between a higher level of education and the level of development and standard of living. Education levels in any given population will influence economic and human

development. It is clear that low education levels lead to low skills base in an area, while high education levels have the opposite effect, producing a skilled or highly skilled population. Household and personal income levels are also either positively or adversely affected by education levels.

The availability of skills in a local population indicates whether it is possible to employ local residents in the construction and operation phases of a project. Table 8 demonstrates the level of education/skills availability in the study area.

Table 8: Education levels of Population aged 20 years and older

Level of Schooling	Free State Province %	Fezile Dabi DM %	Ngwathe LM %
No Schooling	7.1	7.3	8.5
Some Primary	16.1	15.9	18.9
Completed Primary	5.3	4.9	5.3
Some Secondary	34.6	35.1	34.6
Completed Grade 12/Matric	27.1	28	26.1
Higher Education	9.4	8.6	6.2

Source: Stats SA 2011

The Census 2011 Free State report indicates that majority of the population aged 20 years and older have some secondary education at a provincial, district and local level. A small percentage of the population have completed matric or have a higher education, this means that majority of the population have a low-skill level and would either need job employment in low- skill sectors, or better education opportunities in order to improve the skills level of the area, and therefore income levels. Education alone cannot eradicate poverty; rather, education coupled with greater job opportunities in the economy will be the roadmap out of poverty (Stats SA, 2014). The skills profile of the area indicates that the availability of local labour for the proposed mine is largely limited to low-skilled construction workers and a small number of skilled workers.

Household trends

Analysis of household data provides important indicators in relation to economic opportunities that should be created. The number of households in the FDDM is approximately 144 980 and approximately 37 102 households within the NLM (Table 9). The average household size in the FDDM and NLM is 3.4 and 3.2 respectively people per household.

Table 9: Number of households and average household size

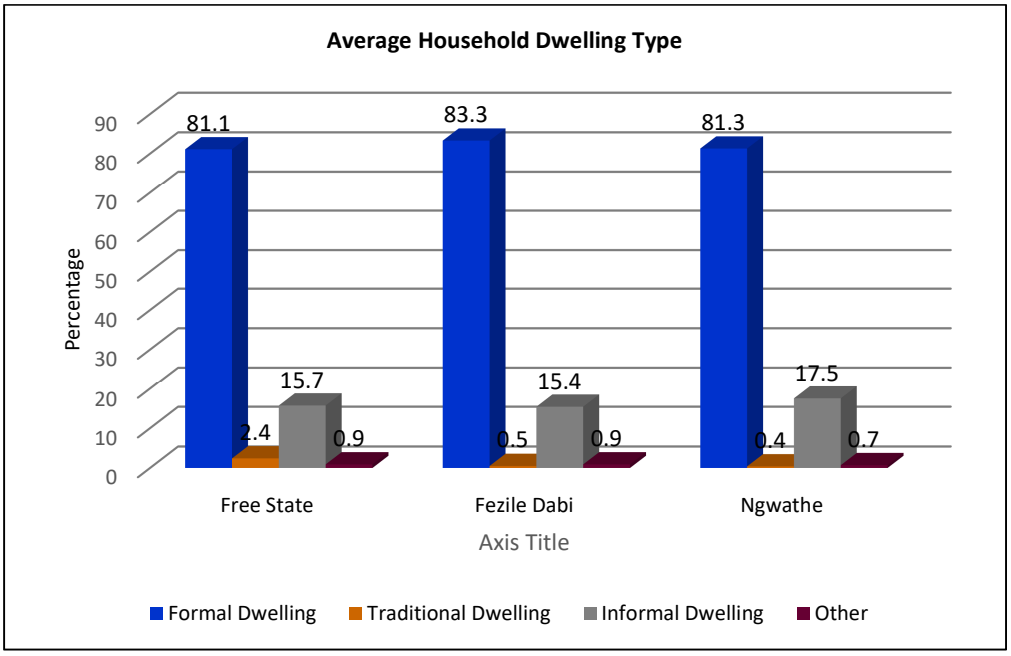
Place	Number of households	Average household Size
Free State Province	823 316	3.3
Fezile Dabi DM	144 980	3.4
Ngwathe LM	37 102	3.2

Source: Stats SA 2011

Household Dwelling

The majority of the population live in urbanised areas within formal dwellings as indicated in figure 9. The continuous increase in the number of households will have an upward impact on employment opportunities.

Figure 9: Households by Type of Dwelling



Source: Stats SA 2011

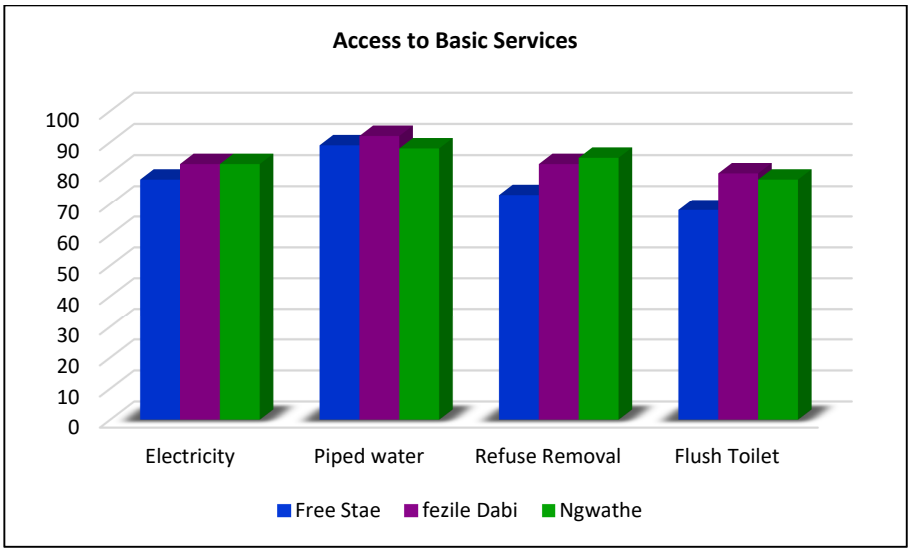
Access to services

Households are entitled to a minimum level of services. The proportion of households in the study area with the minimum access to services is indicated in Figure 10. Most of the households in the province, the district and at local municipality level have access to basic services, such as electricity, piped water, refuse removal and flush toilet. There is still room for improvement in the provision of

basic services as all the people deserve access to dignified services.

The biggest concern when it comes access to basic services is in sanitation systems, where less than 80% of the households in NLM have access to a flush toilet. The use of pit or bucket system should be done away with and replaced with flush systems as it is more dignified. There is also a percentage of the community that still has no access to sanitation facilities, instead they use the bush, that needs urgent intervention too if all community members are to reap the benefits provided by the municipality.

Figure 10: Distribution of Average Access to Basic Services



Source: Stats SA 2011

GDP trends and contribution

The FDDM economy has a comparative advantage in manufacturing sector, relative to the total provincial economy. The district is the only area in the Province where manufacturing is the main contributing factor to the district's economy. The manufacturing of refined petroleum, coke and chemical products contributes largely to the district's total GDP contribution to the Province. FDDM is the second contributor after Mangaung to the Province's GDP, with a contribution of 28% (FDDM 2017 – 2022 IDP) yet the Province contribution to the national economy is only at 9%.

The following analysis is presented in the FDDM IDP 2015-2019; the agricultural sector dominates the Free State Province, with a contribution of 11% to the GDP. According to Stats SA, 2011, the Agri-sector is "critical both as the provider of various foods and a major employer" as about 12% of Free State's working population is employed in the Agricultural sector. The FDDM is the heart of maize production in the Province as there is constant water supply from the Vaal dam. In the FDDM, the

tourism sector is the new upcoming sector in the district. In the 2010 GDP, tourism contributed 3.1% to the 5.9% contribution by the Province. Tourism has been growing steadily in the district and proper strategies to support the sector will result in great benefits for the district and the province's economy. The contribution of the mining sector in the Free State province has been declining from 2008 to 2011. Clearly this negative trend of the mining economic sector in the Free state has significantly contributed to out-migration of the population. The negative performance in the mining sector however also had positive spinoffs for the province with an improved performance in the construction and tourism sectors.

The current (2011) main pillars of the local economy of the NLM are agriculture, mining and tourism. The latter is still in its development stage, with a current highest contribution to the GDP of 9.7% towards the province's, 5.9% contribution. The local municipality is looking into further growth of the tourism sector (NLM 208/2019 IDP Review).

3.5. Summary

Summary and key challenges of the local area:

The following is a summary of the key baseline findings as a result of the study conducted on the FDDM and the NLM, in the Free State province. In summary, the area was found to have the following general characteristics:

- The Free province is predominantly rural with the main economic activities being mining, agriculture and manufacturing;
- The FDDM is the second smallest of the four district municipalities in the Free State Province. The district is the second biggest contributor after Mangaung to the Province's GDP. The contribution is 28% to the Province's GDP;
- The industrial power of Sasol, with manufacturing of refined petroleum, coke and chemical products contributing largely to the district's GDP;
- The population of the FDDM in 2011 was approximately 488 036 people, of which 120 520 people reside in the NLM;
- The majority of the local population belong to the Black African group and the most spoken language in the NLM is Sesotho;
- 62.4% of the NLM population comprise the Economically Active Population (EAP); this implies that there is a larger human resource base for development projects to involve the local

population. The dependency ratio is high at 60.2% of the NLM population (that is half the local population) which puts pressure the EAP and local municipalities;

- The skills profile of the area indicates that the availability of local labour for the proposed mine is largely limited to low-skilled construction workers and a small number of skilled workers;
- The shift of the economy from the downscaling of agricultural activities in the Fezile Dabi District have resulted in jobs losses;
- There is high unemployment rate in the NLM (48.3%) with a large economically active population seeking employment opportunities. Local workers should be utilised as much as possible for the proposed development in order to alleviate local unemployment;
- Within the NLM, 75% of household income fall within the poverty level; the high poverty level has social consequences such as not being able to pay for basic needs and services;
- High unemployment and low-income levels in the study area demonstrate the need for job creation;
- The continuous increase in the number of formal households in the local area will have an upward impact on available job opportunities hence the need to create more opportunities to absorb the increasing number of job seekers;
- The high demand for employment can be addressed (although marginally) through direct job creation during the construction and operation phase of the proposed development;
- Access to basic services is generally moderate in the NLM. However old infrastructure is a matter of concern. The old infrastructure systems are in in need of drastic upgrades and continuous maintenance, this pressure will only increase, resulting in various challenges; and
- The negative performance of other sectors in the District and at Local municipality level has some positive spinoff, this being that there is an opportunity to diversify the local economy and move the dependence away from certain sectors. Already tourism is contributing 9.7% to the District's 3.1% contribution to the province. Tourism is one sector that NLM has to develop further. Also, contribution of the mining sector to the local economy needs to be enhanced as the potential is there.

Socio-Economic Spin-Offs

Mining projects are obliged to make a real contribution to local economic development in the area. The DMR requires each mining right holder to contribute 1% NPAT on socio-economic development of host community, develop enterprises and suppliers within the community as well as allocate ownership shares to local communities that benefit previously disadvantaged communities surrounding the development. The proposed development has the potential to contribute towards

socio-economic improvements within the local area. Socio economic needs of the local community can be identified through an in-depth community needs analysis where the real needs of communities can be ascertained and thereafter addressed by the mine's Social and Labour Plan in order to significantly contribute towards local economic development.

Socio-economic spin-offs from the proposed mine could also contribute to better infrastructure provision and educational investment in the local area. The project developer will be expected to ensure the surrounding and labour sending communities benefit from the minerals extracted from the Pure Source Mine project.

Overall baseline conclusion

The development of the proposed mine supports social and economic development through enabling skills development and training in order to empower individuals and promote employment creation within the local area. The development would mainly focus on economic benefits to the area and contribute towards diversifying the local economy. Negative dimensions of impacts such as an influx of jobseekers into the area putting pressure on municipal service facilities will be weighed in the impact assessment during the EIA phase.

3.6. Land use character of the study area

The proposed site for the Pure Source Mine project is located on the farm Woodlands 407, approximately 15km northwest of the town of Sasolburg, in the Free State Province. Sasolburg is the home of Sasol, the major contributor to South Africa's manufacturing sector. The majority of the land surrounding the proposed site comprises large open farmlands. There are two adjacent properties to the Pure Source Mine project who started mining sand, silica, diamond among other products about a year ago. Prominent features within or surrounding the proposed site includes:

- The Vaal River runs along the northern, north-western and eastern boundary of the proposed site; and
- On the southwest of the proposed site is a lodge and conference facilities.

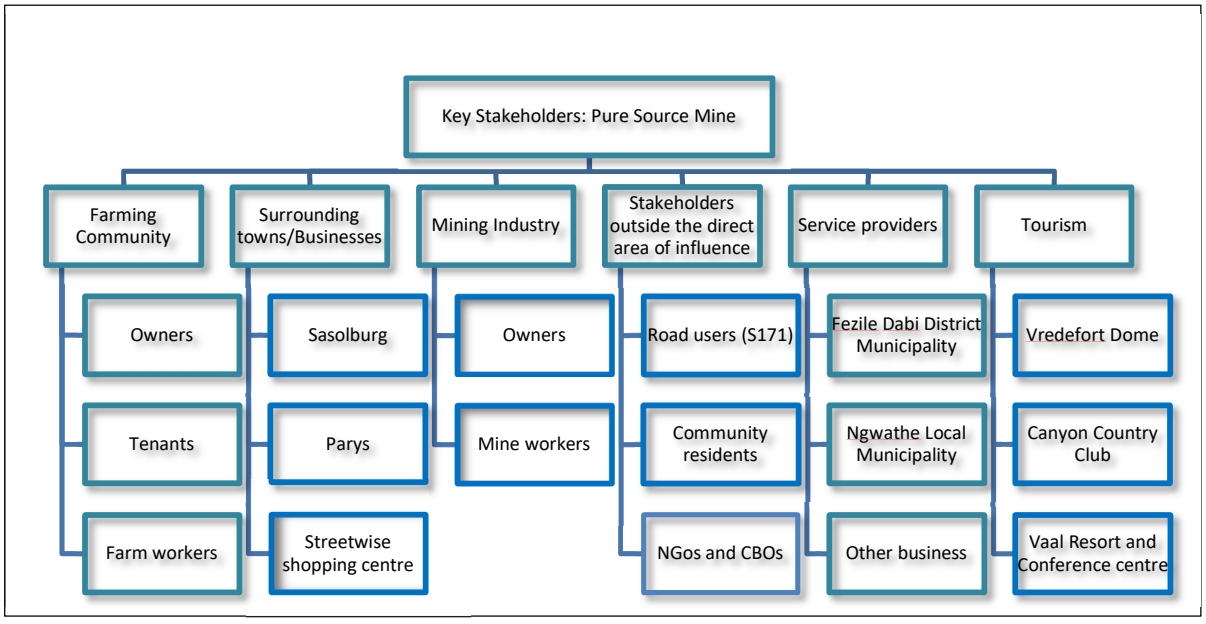
3.7. Stakeholder Identification

Stakeholders are defined as "any group or organisation which may affect or be affected by the issue under consideration (UN, 2001: 26)". These may be direct or indirect stakeholders and may include organisations, institutions, groups of people or individuals, and can be at any level or position in society, from the international to the national, regional, household level (Franke & Guidero, 2012).

Stakeholders are those who need to be considered and whose participation and support are crucial to achieving the success of project goals.

Stakeholder analysis involves identifying the key stakeholders associated with the development. The first step in the process of stakeholder analysis is stakeholder identification; determining who the project stakeholders are, and their key grouping and sub-groupings (IFC, 2007). Identifying stakeholders that are directly and indirectly affected by the development is important to determine who might be affected and in what way. The key stakeholders associated with the proposed mine have been identified, grouped/sub grouped and demonstrated in Figure 11 (as per Ilse Aucamp SIA methodology (Aucamp et al, 2011). There are direct and indirectly affected stakeholders associated with the proposed development. Directly affected stakeholders are sensitive social receptors that may potentially be affected by the proposed development; this relates to the locations of sensitive receptors. A sensitive receptor is an area or structure sensitive to a predicted social impact. Potentially sensitive receptors that might be impacted by the proposed development include dwellings and other sensitive properties such as schools, hospitals, places of worship and other community facilities that will be identified and discussed as part of the social EIA process.

Figure 11: Key Stakeholders Associated with the Proposed Development



A description of each of the stakeholder groups in relation to the proposed development is discussed in the section below:

- *Farming community*: the farming community have been grouped into three categories, namely - farm owners, farm tenants and farm workers. Farm owners include farmers who own the land

and make a living from their properties. Farm tenants are people who rent the land and work on the land for income. Lastly the farm workers, people who work and may also live on the farms (farm workers and their families). The farming community consists of the larger farms in the study area who may be impacted by the proposed mine.

- *Farming industry*: There are potentially vulnerable farming activities in the study area. The primary agricultural activity is crop cultivation, livestock and game farming. Impacts that may arise include stock theft and poaching from an increase of in-migrants in the area (especially during the construction phase). Impacts may also include dust pollution on cultivated grazing areas which may have a negative impact on farming activities.

- *Mining Industry*: The concentration of mining activities in the region, is an indication of mining potential. Sand and gravel are important elements in the building industry, hence the need for such products. The establishment of Pure Source is likely to have a positive impact in boosting the production potential in the area as already two other mines have begun mining similar minerals. The flip side of mining is that it may have a negative impact on farming activities in the area as the two sectors may compete for similar employees, mining leads to pollution of crops, water and other areas amongst others.

- *Stakeholders outside the direct area of influence*: There are a number of stakeholders that reside outside the direct area of influence but who may be marginally affected by the project. These include road users of the S171 as well as local gravel roads on a frequent basis as part of their daily or weekly movement patterns. Construction vehicles and trucks will be utilising these roads during the construction phase, which will increase the traffic, create traffic disruptions and may increase the wear and tear of these roads.

- *Surrounding towns / affected communities*: Sasolburg is the closest town to the proposed site located approximately 15 km to the north west. The town of Parys is located about 45 km south east of the site. Residents in these towns may be positively and/or negatively affected by the proposed development (mainly temporarily). Employment opportunities will be available for the proposed development and it is probable that some of the labour will be sourced from the local area; this will be a positive impact for the local community.

- *Service providers*: The major service providers which will be affected by the project include the district and local municipalities and local businesses in the area. The local municipality that will be directly impacted by the proposed development will be Ngwathe Local Municipality and

Fezile Dabi District Municipality. The municipality will absorb a number of social impacts (positive and negative), the impacts may relate to a marginal influx of people coming into the area, since they will be responsible to deliver services to people residing within their municipal area. There are a number of local businesses in the area that could benefit from the proposed development in terms of an increase in demand for goods and services.

- *Tourism:* The Parys town has unique natural and environmental assets, such as the Vaal River, with several islands in the proximity of Parys, and the Vredefort Dome, that present exceptional tourism potential. Tourism within Ngwathe Local Municipality contributes 9.7% towards the Province's contribution of 5.9% to the national economy. The proposed development is likely to impact tourism potential of the area both negatively and positively. The positive side is that the mine may boost the local economy, leading to development of better infrastructure such as roads, thereby attracting more tourists to the area. The negative side is that mining may discourage tourists in the area especially due to dust pollution and traffic congestion especially due to abnormal loads in the area during construction and also in the operation phase when transporting of minerals commences.

4. Identification of Key Potential Social Impacts

4.1. Introduction

This section identifies and provides an initial assessment of the key social issues likely to be associated with the proposed Pure Source Mine project. As indicated below the assessment is based on the specialist's experience with SEIAs for development projects in South Africa. A detailed assessment of the social issues will be undertaken during the assessment phase of the EIA. In identifying the key issues, the following assumptions are made:

- The area identified for the proposed mine meets the technical criteria required for such developments; and
- The issues associated with the proposed mine are likely to be similar to the issues associated with projects of a similar nature.

4.2. Assumptions and Limitations

4.2.1 Assumptions

The identification and initial assessment is based on the specialist's experience with SEIAs undertaken in the past for development projects in South Africa. Therefore, it is assumed that the key social issues are likely to be similar. However, it should be noted that the comments on the socio-economic impacts contained in the Social Scoping Report are preliminary and will be confirmed during the EIA assessment phase. Issues and concerns raised by IAPs during the PPP, and comments on this social scoping report, will inform the specialist investigations of the EIA assessment

4.2.2 Limitations

In reading this report, cognisance should be taken that no household/individual consultations were conducted with the IAPs in preparing the Social Scoping Report. The report was prepared using mostly desktop information and comments received during the 2 public participation meetings held after the release of the draft scoping report. However, as indicated above, the specialist has experience in handling projects of this nature. Individual interviews will be undertaken in the EIA assessment phase.

4.3. Identification of Key Social Issues

The assessment section is divided into the following sections:

- Assessment of social issues associated with the construction phase;

- Assessment of issues associated with the operational phase;
- Assessment of issues associated with the decommissioning phase.
- Assessment of the "no development" alternative; and
- Assessment of cumulative impacts.

4.4. Construction Phase

Potential Positive Impacts

The potential positive impacts which could arise as a result of the construction activities include increase in job opportunities both for skilled and non-skilled. During construction, jobs for the non-skilled are likely to be filled by the local community and the skilled personnel likely to be drawn around South Africa. The project also brings with it an opportunity for training and capacity building of personnel that will be recruited. At this stage it is not anticipated that local procurement would be achievable for the technology requirements associated with a development of this nature. Local procurement would be more focused on the procurement of general construction materials, goods and services. Furthermore, during construction, the informal business sector, particularly women in the area, could benefit from selling food to construction workers.

Based on the information provided in the mine works programme, the construction of phase for the mine and related infrastructure is expected to extend over a period of 12 - 24 months. During the construction phase, the Pure Source Mine project is likely to create approximately 20 - 25 employment opportunities, depending on the final design. Of this, approximately 80% will be available to semi-skilled workers (drivers, equipment operators etc.), and 20% will be skilled personnel (engineers, land surveyors, geologists, project managers etc.). The majority of low-skilled and semi-skilled opportunities are likely to be available for the historically disadvantaged (HD) members of the local community (± 16). The total wage bill for the construction of the plant and its associated infrastructure is estimated to be in the region of R2.51 million (2018-rand value). The injection of income into the area in the form of wages will represent an opportunity for the local economy and businesses in the area. The benefits to the local economy will be confined to the construction period (12 – 18 months).

The total construction capital expenditure associated with the proposed mine is estimated to be in the region of R83,380 million (2018-rand value). In terms of business opportunities for local companies, expenditure during the construction phase will create business opportunities for the

regional and local economy. Furthermore, the developer has indicated that there will be opportunities for on-site skills development and training of employees during the construction phase.

Potential Negative Impacts

The potential negative impacts which could arise as a result of the construction activities include the following:

- Use of the S171 road for the duration of the construction phase of the mine could contribute to the negative impacts on the road users. Construction vehicles utilising public roads over the construction period could increase the wear and tear on the roads used, impact on regular daily living and movement patterns and any crossing over the road to access the site could increase the risk of accidents;
- During public participation the community indicated that the S171 road does not have a carrying capacity to accommodate trucks, also the narrowness of the road poses as great security risk for the local residents as the truck drivers do not give way to the small cars.
- An influx of workers and jobseekers to an area (whether locals are employed, or outsiders are employed) could increase the safety risks in the local area and have an impact on the local social dynamics. Should locals be employed it could minimise the perceived and actual risk in this regard;
- An influx of an outside workforce could put pressure on municipal services. Therefore, introducing an external workforce to the local area will put pressure on local services and the local community. This would, however, also depend on the exact size of the workforce; and
- During the construction phase adjacent landowners could be negatively affected by the dust, noise and negative aesthetics created as a result of the construction activities.

Based on experience with similar projects, the significance of the potential impacts with mitigation is likely to be of low significance. Most of the potential negative impacts can be effectively mitigated if the recommended mitigation measures are implemented. The developer has indicated that on-site accommodation is not envisaged. Most labourers will come from within the district, not necessary within walking distance to the mine, but within commuting distance. The use of local labour for low to semi-skilled workforce reduces the potential risks posed by the construction workers to local family structures and social networks can be mitigated.

The summary of the significance and impacts associated with the construction phase is provided in

Table 10. As indicated above the significance ratings are based on the experience of the specialist and will be confirmed in the assessment EIA phase.

Table 10: Summary of Social Impacts during the Construction Phase

Impact	Significance without Mitigation	Significance with Mitigation
Direct employment opportunities and skills development	Medium (Positive Impact)	Medium (Positive Impact)
Business opportunities	Low-Medium (Positive Impact)	Low-Medium (Positive Impact)
Safety and security impacts	Low (Negative Impact)	Low (Negative Impact)
Nuisance impacts (noise and dust)	Medium (Negative Impact)	Low (Negative Impact)
Presence of construction workers and potential impacts on family structures and social networks	Low (Negative Impact for the community as a whole)	Low (Negative Impact for the community as a whole)
Influx of job-seekers	Low (Negative Impact for the community as a whole)	Low (Negative Impact for the community as a whole)
Impact of heavy vehicles and construction activities	Low (Negative Impact)	Low (Negative Impact)
Loss of agricultural land	Low (Negative Impact)	Low (Negative Impact)

4.5. Operational Phase

Potential Positive Impacts

The potential positive impacts which could arise as a result of the operation phase include the following:

- Employment opportunities would be created which could result in benefits to unemployed individuals within the local communities;
- Capacity building and skills development throughout the life of the mine (30 years) could be to the benefit of the employees and could assist them in obtaining transferable skills;
- Local procurement for general materials, goods and services (e.g. transport, catering (local women may get the opportunity to sell food to mine workers) and security) and other spin-off benefits could materialise (SMMEs support);
- The presence of permanent security personnel at the mine could be beneficial to the overall

security measures implemented in the area; and

- The proposed development will assist in the generation of resources such as sand and diamonds which would boost South Africa's economy (economic multiplier).

The life of the mine is estimated to be 30 years. Full-time operational and maintenance crews would be required for the mine. Based on information provided by the developer, the mine will create approximately 48 - 50 full-time equivalent employment positions during the operation phase. During the operation phase, the workforce will be 85% semi-skilled personnel and 15% skilled. The annual wage bill for the operation phase is estimated to be approximately R12 million (2018-rand value). The injection of income into the area in the form of wages will represent an opportunity for the local economy. Additionally, there will be opportunities for on-site skills development and training of personnel.

Potential Negative Impacts

The potential negative impacts which could arise as a result of the operation phase include the following:

- In the 2 public participations attended, the view of the community is that mining will lead to job loses as it is perceived that the Ngwathe area is a tourism destination. Hence with the establishment of the mine it is anticipated that the resort centres in the area will close.
- The permanent visual impact associated mines and its associated infrastructure would alter the landscape. The proposed development is located in a farming area, so the visual implications could have a further negative impact on the area's sense of place;
- One of the public participation participants wanted to know the impact, if any, of potential loss of sense in economic terms as a result of the proposed mining venture: "what is the loss in economic value of a loss of sense of place, that is economic value of the sense of place? Cost benefit analysis must be conducted because we need to know which opportunities will be lost. What is the best value for this area? I strongly believe that for this area it's for tourism, eco-tourism and agriculture and definitely not mining".
- Direct occupation of land by the mine has the effect of loss of the impacted land of 363.5 ha to farming for the life of the mine; and
- The development of the mine is likely to affect tourism in the area.

Based on experience with developments of a similar nature, the significance of the potential negative impacts with mitigation is likely to be low. Most of the potential negative impacts can be effectively mitigated if the recommended mitigation measures are implemented. However, impact on sense of place is a very subjective notion, and difficult to quantify. The concept of sense of place is primarily

used to describe the emotions experienced or the association made with a geographical location. According to Stokes, Watson and Mastran (1997), sense of place is "those things that add up to a feeling that a community is a special place, distinct from anywhere else" while Ryden (1993) believes sense of place results from, "…gradually and unconsciously…inhabiting a landscape over time, becoming familiar with its physical properties, accruing history within its confines".

The above explanations indicates that sense of place carries different emotional meanings to inhabitants of the same place. Owing to the nature of above explanations, which rely on an emotional and human response to a geographic area, it is likely that the sense of place will differ according to experiences of the place. As people have different experiences of the place, so will the sense of place differ. The variation in response to a sense of place adds a further level of complexity to an already difficult concept. The concern of the residents of the economic value of the loss of sense of place will therefore be interrogated further during the EIA phase.

The impacts associated with the operational phase are summarised in Table 11. As indicated above, the significance ratings utilised are based on experience from projects of similar nature and will be confirmed in the assessment phase.

Table 11: Summary of Social Impacts Associated with the Operational Phase

Impact	**Significance without Mitigation**	**Significance with Mitigation**
Direct employment opportunities and skills development	Medium (Positive Impact)	Medium (Positive Impact)
SMME support	Low-Medium (Positive Impact)	Medium (Positive Impact)
Economic multiplier impact	Low-Medium (Positive Impact)	Medium (Positive Impact)
CSI benefits to the community	Low-Medium (Positive Impact)	Medium (Positive Impact)
Visual impact and Impact on sense of place	Low (Negative Impact)	Low (Negative Impact)
Nuisance Impacts (noise and dust)	Medium (Negative Impact)	Low (Negative Impact)
Impact on tourism	Low (Positive and	Low (Positive and

	Negative Impact)	Negative Impact)
Impact on agricultural land	Low (Negative Impact)	Low (Negative Impact)
Job losses	Low (Negative Impact)	Low (Negative Impact)

4.6. Cumulative Impacts

Possible cumulative impacts as a result of other similar projects and associated infrastructure in the area could have aggregate negative and positive impacts for the local community. Cumulative impacts have been identified and considered as part of the scoping social impact assessment. The potential for significant cumulative impacts is however likely. This could result in positive permanent impacts on the economy, business development, employment and education in the area and the province. The cumulative impacts of the development are related to the construction and operation phases. The site for the proposed development is located within less than 1km of other mining farms. The impact of mining activities and its associated infrastructure on the landscape is considered to be a key issue in certain parts of South Africa where there is a growing number of mines. Depending on the number of other mines located within Ngwathe Local Municipality, the significance can be **High Positive**. The significance of this benefit will be assessed in detail as part of the EIA phase. Table 8 lists the known mine projects in the area. The Pure Source Mine project may also result in some negative impacts such as an influx of jobseekers and change to the landscape and the area's sense of place. The significance of the impact can be **Low Negative**. This issue will be assessed in detail during the EIA phase.

Table 12: Other projects / developments within 1km from the proposed site

Project name	Location	Approximate distance from the site (measured from the centre)	Project Status
Tja Naledi Beafase Investment Holdings (Pty) Ltd. (Barrage Bulk Sand)	Portion 4 of farm Woodlands 407	~ 1km to the east of the site	Mining right issued, and mining has commenced.

Vaal Sand Sweet Sensation	Du Pont 228	~ 1km to west of the site.	Mining right issued, and mining has commenced.

4.7. Decommissioning Phase

Typically, the major social impacts associated with the decommissioning phase are linked to the loss of jobs and associated income. This has implications for the households who are directly affected, the communities within which they live, and the relevant local authorities. The decommissioning is likely to take place in 30 years post commissioning and is likely to create additional, construction type jobs for a short-period, as opposed to instant job losses.

Given the relatively small number of people employed during the operation phase (48 – 50), the social impacts at a community level associated with decommissioning are likely to be limited. In addition, potential impacts associated with the decommissioning phase can be effectively managed with the implementation of a retrenchment and downscaling programme.

Based on experience with developments of a similar nature, the significance of the potential negative impacts with mitigation is likely to be low. All the potential negative impacts can be effectively mitigated if the recommended mitigation measures are implemented.

The impacts associated with the decommissioning phase are summarised in Table 13. As indicated above, the significance ratings utilised are based on experience from projects of similar nature and will be confirmed in the EIA phase.

Table 13: Summary of Social Impacts Associated with the Decommissioning Phase

Impact	Significance without Mitigation	Significance with Mitigation
Job losses	Low-Medium (Negative Impact)	Low (Negative Impact)
Loss of Income	Low (Negative Impact)	Low (Negative Impact)

4.8. Conclusion

Based on the initial assessment of the receiving environment it is anticipated that the proposed mine could have some negative as well as positive social impacts.

The most important potential social benefits associated with the construction and operation of the proposed mine include job opportunities and possible socio - economic spin-offs that can be created. New economic activities such as the mine having the potential to assist with the developmental challenges faced by the province, which include; providing employment and skills development to the local community and contributing to the social, economic and institutional development of the local area. Additional employment and associated indirect economic benefits could improve the quality of life of the local community. The significance of the impact is **High Positive**. The main negative impacts are associated with the influx of in-migrants and intrusion impacts associated with the construction phase, dust, as well as the visual impacts/ sense of place impacts from the mine during the operation phase. However, the significance is viewed to be of **Low Negative** at this stage. The extent of the negative impacts and possible benefits would be further assessed during the EIA phase.

5. Proposed Methodology and Approach for the SEIA

5.1. Proposed Approach to the SEIA Study

The main aim for the social report will be to determine the social impacts that may arise from the proposed mine. The proposed approach that will be used for the SEIA study will be based on the Western Cape Department of Environmental Affairs and Development Planning Guidelines for Social Impact Assessment (February 2007). These guidelines are based on the international best practice, the key objectives in the SEIA process will include:

- Reviewing of existing project information, including the planning and scoping documents;
- Describing and obtaining an understanding of the proposed development (type, scale, location), the communities likely to be affected and determining the need and scope of the SEIA;
- Collecting baseline data on the current social environment and historical social trends;
- Identifying and collecting data on the Socio-Economic Impact Assessment variables and social change processes related to the proposed intervention. This requires consultation with affected individuals and communities;
- Assessing and documenting the significance of socio-economic impacts associated with the proposed development;
- Assessing the project (including any feasible alternatives) and identifying potential mitigation and enhancement measures;
- Preparation of the draft Socio-Economic Impact Assessment Report, including identification of mitigation/optimisation and management measures to be implemented; and
- Finalisation of the SEIA report.

5.2. Data Collection

Primary and secondary data sources will be utilised to inform the study in aid of the objectives of the study. Primary data sources for the SEIA will include the following (Figure 12):

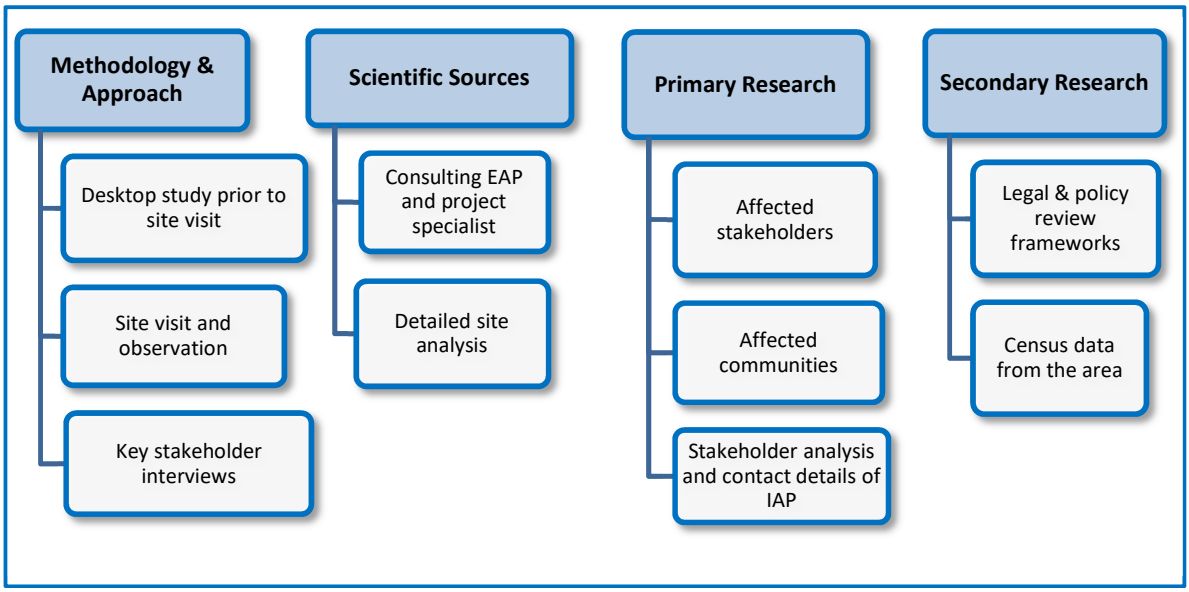
- A site visit will be undertaken. Observations will also be made while on site and within the study area;
- Meetings will be undertaken to collect information from representatives of key stakeholder groups. These included individuals both directly and indirectly associated with the proposed development. The meetings will mostly be undertaken face-to-face and where not possible telephonically. A project specific questionnaire will be developed and utilised for the semi-structured interviews. These meetings will form the basis of the primary data collection and

assist with the gathering of baseline information as well as establishing the stakeholder's perceptions, interests and concerns on the proposed development;

- Secondary data collection methods mostly centred on desktop study will be gathered and analysed for the purpose of the study, in which the following documents will be examined (Figure 12):
- Project maps;
- A desktop aerial study of the affected area through the use of Google Earth;
- The background information document (BID);
- The 2011 South African Census Survey and the Local Government Handbook;
- Planning documentation such as District Municipality (DM) Integrated Development Plans (IDPs), Spatial Development Framework (SDF) and Environmental Management Framework (EMF) as well as the Local Municipality (LM) IDPs and policies;
- Relevant guidelines, policies and plan frameworks;
- Other similar specialist studies and relevant information where there have been cross-cutting issues, such as the EIAs undertaken for previous mining activities in the Free State Province and other parts of South Africa; and
- Literature reviews of social issues associated with mining projects.

Information that is relevant to the development will be identified and assessed from these sources within the context of the pre-construction, construction, operational and decommissioning phases of the proposed Pure Source Mine Project.

Figure 12: Proposed research methodology and sources diagram



5.3. Information Requirements

The following typical, generic project information is required to inform the Socio-Economic Impact Assessment.

Construction Phase

- Comments received from I&APs during the public participation process, including comments reflected in the Final Scoping Report;
- A draft illustration (plan) of the proposed lay-out(s) of the mine and its associated infrastructure;
- Duration of the construction phase (months);
- Number of people employed during the construction phase;
- Breakdown of number of people employed in terms or low skilled, semi-skilled and skilled;
- Estimate of the total wage bill for the construction phase and breakdown in % as per skills categories;
- Estimate of total capital expenditure for construction phase;
- Indication of where construction workers will be housed (on site or in nearest town?);
- Opportunities for on-site skills development and training;
- Description of the typical activities associated with the construction phase, specifically on-site construction activities. This includes a description of how the large components associated with the Pure Source Mine project will be transported to the site and assembled on the site; and
- The size of the vehicles needed to transport the components and the routes that will be used to transport the large components to the site, and an estimate of the number of vehicle trips required and duration of each trip.

Operational phase

- Operating budget per annum;
- Total number of people employed;
- Breakdown in terms of skills levels (see above);
- Annual wage bill;
- Typical activities associated with the operational phase;
- Information on opportunities for skills development and training; and
- Typical lifespan of proposed mine.

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APPENDIX A: DECLARATION OF INDEPENDENCE AND CV

environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

DETAILS OF SPECIALIST AND DECLARATION OF INTEREST

	(For official use only)
File Reference Number:	
NEAS Reference Number:	DEAT/EIA/
Date Received:	

Application for authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2014

PROJECT TITLE

Proposed Development of a mine and associated infrastructure near Sasolburg, Free State Province

Specialist:	Pamela S Sidambe		
Contact person:	Pamela Sidambe		
Postal address:	PO Box 1372 Randburg		
Postal code:	2125	Cell:	
Telephone:	*(011) 791 2157*	Fax:	*011 791 5526*
E-mail:	pamela@umsizi.co.za		
Professional affiliation(s) (if any)	International Association of Impact Assessment Membership Number: 10449040		

Project Consultant:	Shango Solutions (Pty) Ltd		
Contact person:	Stefanie Wiese		
Postal address:	PO Box		
Postal code:		Cell:	081 549 5009
Telephone:	*(011) 678 6504*	Fax:	*011 678 9731*
E-mail:	stefanie@shango.co.za		

The specialist appointed in terms of the Regulations_

I Pamela S. Sidambe ,

declare that --

General declaration:

- I act as the independent specialists in this application;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- **all the particulars furnished by me in this form are true and correct; and**
- **I realise that a false declaration is an offence in terms of Regulation 71 and is punishable in terms of section 24F of the Act.**

Signature of the specialist:

Umsizi Sustainable Solutions (Pty) Ltd

Name of company (if applicable):

Date: 30 November 2018

SEIA Specialist CV

CURRICULUM VITAE

Pamela S. Sidambe

Profession	:	Social Consultant
Specialisation	:	Socio-Economic Impact Assessments (SEIA)
Years' experience	:	12 years

KEY RESPONSIBILITIES

Specific responsibilities as a Social Consultant involve social research, community and household profiling, baseline data analysis, conducting field research, stakeholder engagement, socio-economic assessments, analysis of data and communicating the results. This includes managing and coordinating the Socio-Economic Impact Assessment (SEIA) process and compiling SEIA reports in line with the country's guidelines and legislation.

SKILLS BASE AND CORE COMPETENCIES

- Socio-Economic Impact Assessments (SEIAs)/Social Impact Assessments (SIAs);
- Social Impact Management Plans;
- Socio-Economic Baseline Studies;
- Social and Labour Plans (SLPs) Development;
- Community needs analysis and profiling;
- Community development facilitation;
- Public participation process;
- Project administration and management;
- Stakeholder engagement and management; and
- Research, report writing and presentation of results.

EDUCATION AND PROFESSIONAL STATUS

Degrees:

- MA in Social Impact Assessment, University of Johannesburg (2016)
- Honours Development Studies, University of South Africa (2011)
- BA in Community Development, University of South Africa (2009)
- Final year student, Bcom Financial Management (UNISA)

Courses:

- Certificate in HIV/Aids Care and Counselling. University of South Africa (UNISA) (2007).
- Certificate in Systemic Family Counselling. Institute of Systemic Therapy/CONNECT (2005).

EMPLOYMENT

- Nov 2016 – date: Umsizi Sustainable Solutions (Pty) Ltd.; Social Scientist.
- July 2016 – Oct 2016: Savannah Environmental (Pty) Ltd.; Social Consultant.
- July 2013 to June 2016: Part-time Socio-Economic Consultant; OTG Global.
- May 2010 to June 2013: CHOC Childhood Cancer Foundation; Divisional Assistant.
- May 2009 to April 2010: BKS Engineering; Document Management Officer.
- January 2004 to May 2007: Outreach Development Management; Project Manager.

SYNOPSIS OF PROJECT EXPERIENCE: ***Socio-Economic/Social Impact Assessment Reports:***

- August 2018: SEIA study for the proposed Housing Development, Ekurhuleni, Gauteng
- August 2017: SEIA study for the Application for Prospecting, Rusternburg, Northwest.
- June 2017: SIA study for the Application of a Mining Right, Kroondal, Northwest.
- September 2016: SIA study for the proposed Orkney Solar Farm Project and associated infrastructure, North West.
- August 2016: SIA study for the proposed Noupoort CSP Project and associated infrastructure, Umsobomvu, Northern Cape.
- August 2016: SIA study for the proposed 10MW Scuitdrift Solar Energy facility, near Augrabies, Northern Cape.
- August 2016: SIA study for the proposed road realignment project, Pofadder, Northern Cape.
- August 2016: SIA study for the proposed industrial development, Kuruman, Northern Cape.
- August 2016: SIA study for the proposed Solar Reserve Kotulotsatsi PV Facility & associated infrastructure near kenhardt, Northern Cape.
- July 2016. SIA study for the proposed 400kV power line, Ilanga, Northern Cape Province.
- July 2016: SIA study for the proposed Saldanha Bay strengthening project, Western Cape.
- July 2016: Social scoping study for the proposed Karoshoek Solar Valley Development - Power line, near Upington, Northern Cape Province;
- July 2016: SIA study for the proposed Karoshoek Solar Valley Development - Power line, near Upington, Northern Cape Province; and
- July 2014: Socio-Economic Assessment for the proposed Cultural Precinct in Sandton, Gauteng Province.

Experience in Community Projects

- Community asset profiling and needs analysis;
- Stakeholder profiling, partnership building and stakeholder management;
- Strategy development, policy reviews and development;
- Facilitating community involvement and participation in planning and implementation of development projects;
- Project conceptualisation, planning and implementation management; and
- Programme and project performance Monitoring and Evaluation.
- Developing Social and Labour Plans (SLPs)
- Designing and Implementing Enterprise and Supplier development projects in communities on behalf of clients.
- Baseline socio-economic surveys and studies.
- Conducting mining charter and SLP compliance audits and report preparation.

APPENDIX B: EXTERNAL REVIEWER'S REPORT AND CV