

# **SOCIAL IMPACT ASSESSMENT**

## **PROPOSED HOUSING DEVELOPMENT IN POSTMASBURG NORTHERN CAPE PROVINCE**

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**Prepared for**

**SAVANNAH ENVIRONMENTAL (Pty) Ltd**

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# **EXECUTIVE SUMMARY**

## **INTRODUCTION AND LOCATION**

Savannah Environmental (Pty) Ltd (hereafter referred to as Savannah Environmental) was appointed by Transnet as the environmental consultants to undertake a Basic Assessment (BA) process for the construction of 185 houses in the town of Postmasburg, which is located in the Tsantsabane Local Municipality (TLM) in the Northern Cape Province of the South Africa.

Tony Barbour was subsequently appointed by Savannah Environmental to undertake a specialist Social Impact Assessment (SIA) as part of the BA process. This report contains the findings of the SIA undertaken as part of the BA process.

## **DESCRIPTION OF THE PROPOSED DEVELOPMENT**

The proposed project involves the construction of 185 houses and associated infrastructure located to the south east of the Postmasburg Railway station on the northern outskirts of the town of Postmasburg. The proposed residential development covers an area of approximately 16 hectares in extent and consists of a combination of two bedroom and three bedroom units. The land on which the proposed housing development is to be located is owned by Transnet and is currently vacant.

The establishment of the proposed development is expected to take approximately 3 years to complete (January 2014 to December 2016). The key components include detailed design, procurement and construction. The timeframe for each component is provided below:

- Detailed design 6 months (February 2014-August 2014);
- Procurement and site establishment, 7 months (June 2014-January 2015);
- Construction and commissioning, 16 months (January 2015-May 2016).

The capital expenditure for the proposed development, including the bulk services etc., is estimated to be in the region of R 320 million. This total excludes the following:

- The Tsantsabane Municipality's requests to upgrade existing roads and the extension of water reticulation and street lighting to benefit existing community.
- Costs for possible upgrading of road intersections at Stasie Street/R385 intersection and 8<sup>th</sup> Avenue/R385 intersection.

The total number of construction workers to be employed during the construction phase and commissioning phase (16 months) will be approximately 550. Transnet have indicated that construction workers will not be accommodated on the site during the construction phase.

## **APPROACH TO THE STUDY**

The approach to the SIA study is based on the Western Cape Department of Environmental Affairs and Development Planning Guidelines for Social Impact Assessment (February 2007). These guidelines have been endorsed by the national Department of Environmental Affairs (DEA), and are based on international best practice. The key activities in the SIA process embodied in the guidelines include:

- Describing and obtaining an understanding of the proposed intervention (type, scale, location), the communities likely to be affected and determining the need and scope of the SIA;
- Collecting baseline data on the current social environment and historical social trends;
- Identifying and collecting data on the key social issues related to the proposed development. This requires consultation with affected individuals and communities;
- Assessing and documenting the significance of social impacts associated with the proposed intervention;
- Identifying alternatives and mitigation measures.

In this regard the study involved:

- Review of demographic data from the 2001 and 2011 Census;
- Review of relevant planning and policy frameworks for the area;
- Site specific information collected during the site visit to the area and interviews with key stakeholders;
- Review of information from similar projects;
- Identification of social issues associated with the proposed project.

## **SUMMARY OF KEY FINDINGS**

The key findings of the study are summarised under the following sections:

- Fit with policy and planning
- Construction phase impacts
- Operational phase impacts
- Cumulative Impacts
- No-development option

Given the long term nature of housing developments, the SIA does not include an assessment of the potential impacts associated with the decommissioning phase. In addition, given the shortage of housing stock in Postmasburg, the need to demolish the housing units associated with the proposed Transnet housing development is unlikely in the medium to long term.

## **POLICY AND PLANNING ISSUES**

The key documents reviewed included:

- National Development Plan (NDP) 2030;
- Northern Cape Provincial Growth and Development Strategy (NCPGDS) Draft 4 (2011);
- Siyanda Integrated Development Plan (2007-2012);
- Tsantsabane Integrated Development Plan (2011-2016).
- Tsantsabane Spatial Development Framework (2009/2010).

The findings of the review indicated that the proposed housing development supports the principles and objectives set out in the NDP. The proposed development also supports the objectives set out in the NCPGDS and the SDM and TLM IDPs, specifically the creation of employment and economic development opportunities. The proposed development will also create opportunities to support SMMEs and co-operation between the public and private sector in the Northern Cape Province. The TLM SDF also indicates that the site for the proposed development is suitable for residential development. A section of the site is however identified as a park area. This issue will need to be clarified with the TLM. However, despite this minor issue it is the opinion of the author that the establishment of the proposed Transnet housing development on the selected site is locally suitable and supported by national, provincial and local policies and planning documents.

## **CONSTRUCTION PHASE**

The key social issues affecting the construction phase include:

### **Potential positive impacts**

- Creation of employment and business opportunities and opportunity for skills development and on-site training;

Based on the findings of the SIA the proposed Transnet housing project will create a total of approximately 655 employment opportunities over a three year period. This total is made up of 55 during detailed design and procurement, 50 during site establishment and 550 during the actual construction of the houses themselves. Of these, ~ 300 will be for low-skilled workers, 180 for medium-skilled workers and 175 for skilled workers. The majority of the low-skilled and ~ 60 % of the medium skilled opportunities are likely to be available to local residents from Postmasburg and the Tsantsabane municipal area. The majority of these beneficiaries are likely to be historically disadvantaged (HD) members of the community. The total wage bill over the 3 year period is estimated to be in the region of R 141.3 million. Of this total ~ R 23 million and R 33.3 million will be earned by low and medium skilled workers respectively. As indicated above, the majority of the low skilled and ~ 60% of the medium skilled workers are likely to be local residents. The majority of the wage bill earned by local residents is likely to be spent in the local economy, which represents a significant opportunity for the local economy and businesses in Postmasburg and the Tsantsabane LM.

The capital expenditure associated with the construction phase is estimated to be ~ R 320 million. In terms of business opportunities for local companies, expenditure during the construction phase will create business opportunities for the regional and local economy. The project is therefore likely to create opportunities for local contractors and engineering companies in Postmasburg and the Tsantsabane LM and

Siyanda DM. The implementation of the enhancement measures listed below can enhance these opportunities.

The local service industry will also benefit from the proposed development. The potential opportunities for the local service sector would be linked to accommodation, catering, cleaning, transport and security, etc. associated with the construction workers on the site. Transnet has indicated that no construction workers will be accommodated on site. Local accommodation will therefore need to be sourced within Postmasburg which, given the current accommodation shortage, may create challenges. This is an issue that will need to be addressed by Transnet.

In addition, the skilled workers and project managers are likely to be accommodated off-site in Postmasburg. This will create opportunities for local hotels, B&Bs, guest farms and people who want to rent out their houses. However, based on the information collected during the site visit the accommodation opportunities in Postmasburg are limited. This is an issue that the proponent will need to discuss with the TLM. The hospitality industry in the local towns is also likely to benefit from the provision of accommodation and meals for professionals (engineers, quantity surveyors, project managers, product representatives etc.) and other (non-construction) personnel involved on the project. Experience from other large construction projects indicates that the potential opportunities are not limited to on-site construction workers but also to consultants and product representatives associated with the project.

In terms of local support the TLM IDP Manager and TLM LED Manager indicated that the TLM supported the proposed development. The proposed development also supports the objectives set out in the NCPGDS and the SDM and TLM IDPs, specifically the creation of employment and economic development opportunities. The proposed development will also create opportunities to support SMMEs and co-operation between the public and private sector in the Northern Cape Province.

#### **Potential negative impacts**

- Impacts associated with the presence of construction workers on site
- Influx of job seekers to the area;
- Threat to safety and security of adjacent households associated with the presence of construction workers on site;
- Impacts associated with construction related activities.

The significance of the majority of potential negative impacts with mitigation was assessed to be of Low significance. All of the potential negative impacts can therefore be effectively mitigated if the recommended mitigation measures are implemented. In addition, given that the majority of the low and semi-skilled construction workers can be sourced from the local area the potential risk at a community level to local family structures and social networks is regarded as Low negative significance. This will also enable Transnet to minimise the number of construction workers who need to be accommodated on site. However, the impact on individuals who are directly impacted on by construction workers and or job seekers (i.e. contract HIV/ AIDS) was assessed to be of High negative significance.

Table 1 summarises the significance of the impacts associated with the construction phase.

**Table 1: Summary of social impacts during construction phase**

<b>Impact</b>	<b>Significance No Mitigation</b>	<b>Significance With Enhancement /Mitigation</b>
<b>Creation of employment and business opportunities</b>	Medium (Positive impact)	Medium (Positive impact)
<b>Presence of construction workers and potential impacts on family structures and social networks</b>	Low (Negative impact for community as a whole) Medium-High (Negative impact of individuals)	Low (Negative impact for community as a whole) Medium-High (Negative impact of individuals)
<b>Influx of job seekers</b>	Low (Negative impact for community as a whole) Medium-High (Negative impact of individuals)	Low (Negative impact for community as a whole) Medium-High (Negative impact of individuals)
<b>Threat to safety and security</b>	Medium (Negative impact)	Low (Negative impact)
<b>Impact of construction related activities (dust, noise, safety etc.)</b>	Medium (Negative impact)	Low (Negative impact)

## **OPERATIONAL PHASE**

The key social issues affecting the operational phase include:

### **Potential positive impacts**

- Creation of formal accommodation for Transnet employees
- Broadening of the rates base for the local municipality
- Creation of employment and business opportunities linked to the new households

The findings of the SIA indicate that the rapid, mining-linked expansion of the town of Postmasburg over the last 3-5 years has resulted in a severe shortage of housing and accommodation. Failure to provide accommodation would result in a negative social impact for Transnet's staff due to the severe shortage of accommodation and the high rental costs. Failure by Transnet to provide accommodation of its staff would also, in all likelihood, jeopardize their expansion programme, which in turn, would impact negatively on the mining sector and the economic development of the area as a whole.

The establishment of 185 houses will also broaden the rates base of the TLM, which will represent a benefit the local area and the TLM. The wages earned by Transnet employees will also benefit the local economy and local businesses in Postmasburg. Local businesses that are likely to benefit directly include shopping centres, restaurants, hardware shops etc. In addition, the 185 households will also create

potential employment opportunities in the form of work for cleaners and gardeners. If one assumes that if 50 % of the household employ a cleaner/gardener, this would create approximately 100 new employment opportunities.

**Potential negative impacts**

- Impact / pressure on capacity of existing services;
- Impact on operations at the Traffic Department.

The significance of the potential negative impacts with mitigation was assessed to be of Low negative significance. All of the potential negative impacts can therefore be effectively mitigated if the recommended mitigation measures are implemented.

The significance of the impacts associated with the operational phase are summarised in Table 2.

**Table 2: Summary of social impacts during operational phase**

<b>Impact</b>	<b>Significance No Mitigation</b>	<b>With Enhancement /Mitigation</b>
<b>Provide accommodation for Transnet staff</b>	Medium (Negative impact)	High (Positive impact)
<b>Broaden the rates base for the local municipality</b>	Medium (Negative impact)	High (Positive impact)
<b>Creation of employment and business opportunities linked to the new households</b>	Medium (Positive impact)	Medium (Positive impact)
<b>Impact on capacity of existing services</b>	Medium (Negative impact)	Medium (Positive)
<b>Impact on operations at the Traffic Department.</b>	Low (Negative impact)	Low (Negative impact)

**NO-DEVELOPMENT OPTION**

The No-Development option would represent a lost opportunity for the local economy the TLM and Transnet’s employees who would benefit from the housing project. The lost opportunity relates to the employment opportunities associated with the construction and operational phase, as well as the benefits associated with the broadening the TLM’s rates base. The no-development option would also impact Transnet’s expansion development negatively, which in turn, would impact negatively on the mining sector and the economic development of the area as a whole. The No-Development option is therefore not supported.

**CONCLUSIONS AND RECOMMENDATIONS**

The findings of the SIA also indicated that the proposed development will create employment and business opportunities for locals during both the construction and operational phase of the project. The enhancement measures listed in the report should be implemented in order to enhance these benefits.

The findings of the SIA also indicate that the proposed Transnet housing project supports the objectives set out in the NCPGDS and the SDM and TLM IDPs, specifically the creation of employment and economic development opportunities. The TLM SDF also indicates that the site for the proposed development is suitable for residential development. A section of the site is however identified as a park area. This issue will need to be clarified with the TLM.

### **IMPACT STATEMENT**

The overall finding of the SIA is that the potential positive socio-economic impacts associated with the Transnet housing development outweigh the potential negative social impacts. It is therefore recommended that the development as proposed be supported, subject to the implementation of the recommended enhancement and mitigation measures contained in the report.



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## **ACRONYMS**

BA	Basic Assessment
DEA&DP	Department of Environmental Affairs and Development Planning
DM	District Municipality
HD	Historically Disadvantaged
EIA	Environmental Impact Assessment
IDP	Integrated Development Plan
LED	Local Economic Development
LM	Local Municipality
NCP	Northern Cape Province
PGDS	Provincial Growth and Development Strategy
SDM	Siyanda District Municipality
SDF	Spatial Development Framework
SIA	Social Impact Assessment
TLM	Tsantsabane Local Municipality

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# SECTION 1: INTRODUCTION

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## 1.1 INTRODUCTION

Savannah Environmental (Pty) Ltd (hereafter referred to as Savannah Environmental) was appointed by Transnet as the environmental consultants to undertake the Basic Assessment (BA) process for the construction of 185 houses in the town of Postmasburg, which is located in the Tsantsabane Local Municipality (TLM) in the Northern Cape Province of South Africa (Figure 1.1).

Tony Barbour was appointed by Savannah Environmental to undertake a specialist Social Impact Assessment (SIA) as part of the BA process. This report contains the findings of the SIA undertaken as part of the BA process.

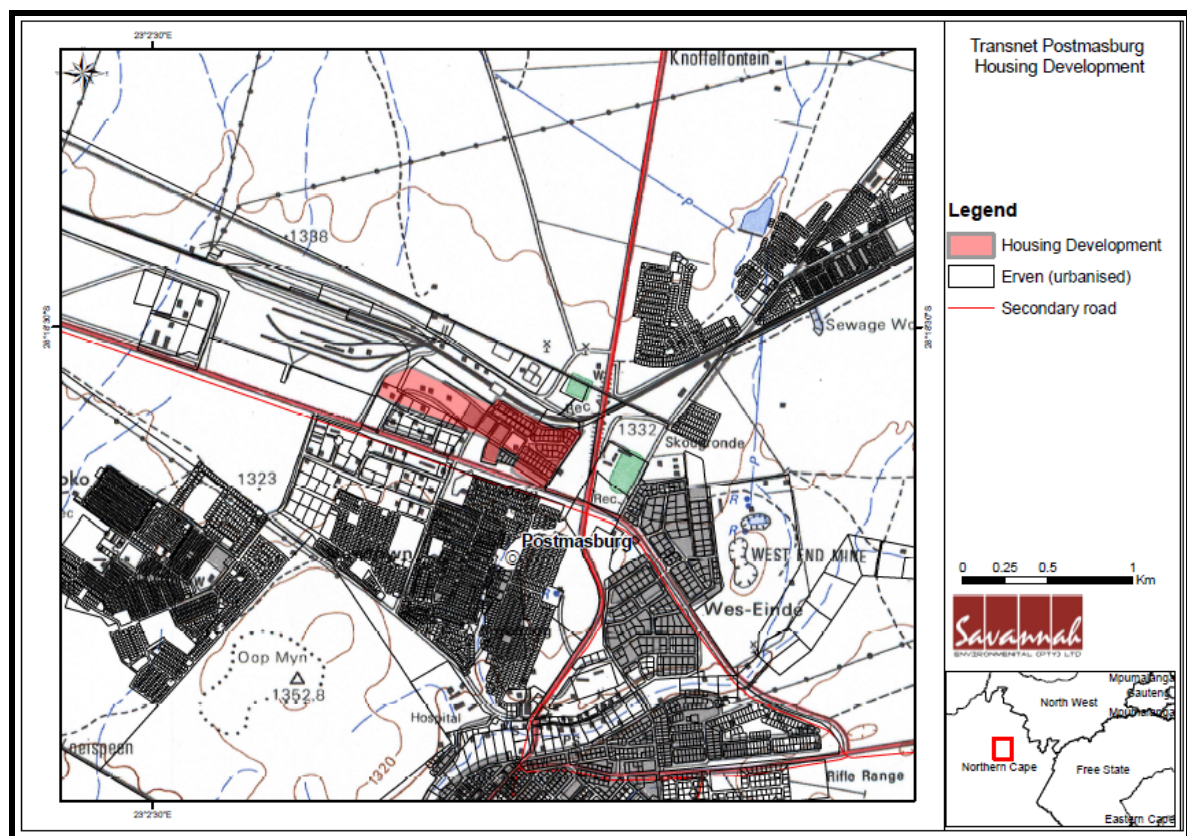


Figure 1.1: Location of the site for establishment of housing for Transnet

## **1.2 TERMS OF REFERENCE**

The terms of reference for the SIA require:

- A description of the environment that may be affected by the activity and the manner in which the environment may be affected by the proposed facility.
- A description and assessment of the potential social issues associated with the proposed facility.
- Identification of enhancement and mitigation aimed at maximizing opportunities and avoiding and or reducing negative impacts.

## **1.3 PROJECT DESCRIPTION**

The proposed project involves the construction of 185 houses and associated infrastructure located to the south east of the Postmasburg Railway station on the northern outskirts of the town of Postmasburg. The proposed residential development covers an area of approximately 16 hectares in extent and consists of a combination of two bedroom and three bedroom units. The land on which the proposed housing development will be located is owned by Transnet and is currently vacant.

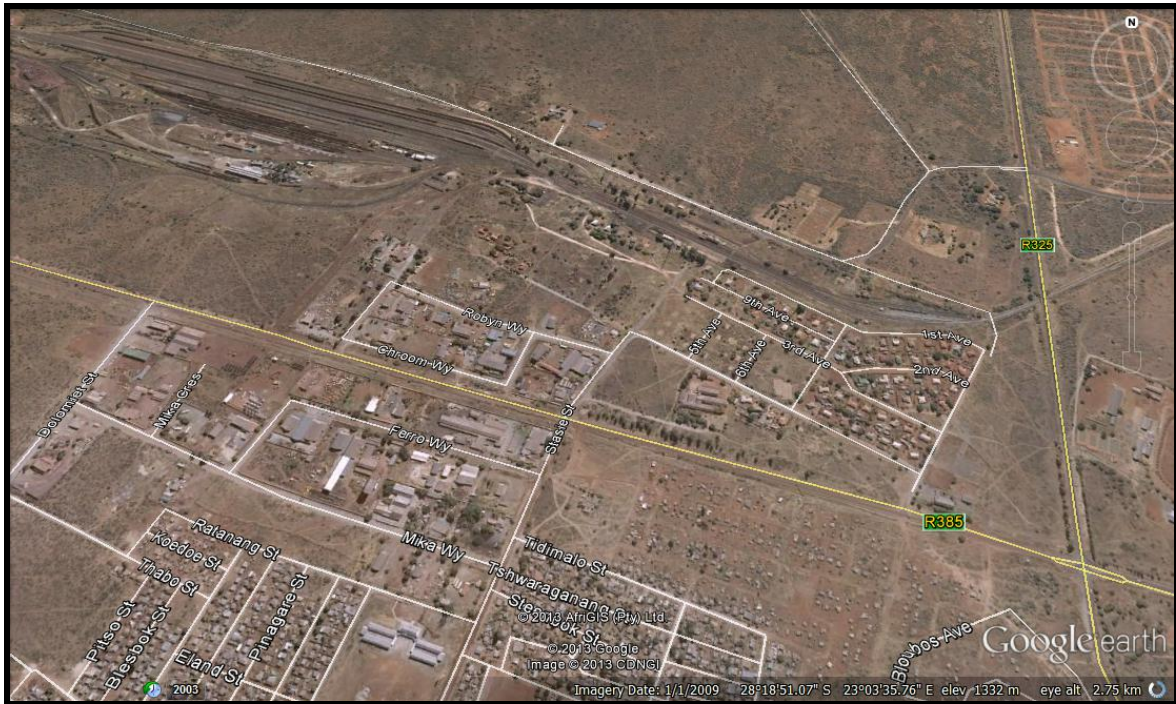
The establishment of the proposed development is expected to take approximately 3 years to complete (January 2014 to December 2016). The key components include detailed design, procurement and construction. The timeframe for each component is provided below:

- Detailed design 6 months (February 2014-August 2014);
- Procurement and site establishment, 7 months (June 2014-January 2015);
- Construction and commissioning, 16 months (January 2015-May 2016).

The capital expenditure for the proposed development, including the bulk services etc., is estimated to be in the region of R 320 million. This total excludes the following:

- The Tsantsabane Municipality's requests to upgrade existing roads and the extension of water reticulation and street lighting to benefit existing community
- Costs for possible upgrading of road intersections at Stasie Street/R385 intersection and 8<sup>th</sup> Avenue/R385 intersection.

The total number of construction workers employed during the construction phase (16 months) will be in the region of 550. Transnet have indicated that non-local construction workers will be accommodated on the site.



**Figure 1.2: Google Earth image of Transnet site**

#### **1.4 APPROACH TO STUDY**

The approach to the SIA study is based on the Western Cape Department of Environmental Affairs and Development Planning Guidelines for Social Impact Assessment (February 2007). These guidelines are based on international best practice. The key activities in the SIA process embodied in the guidelines include:

- Describing and obtaining an understanding of the proposed intervention (type, scale, and location), the settlements, and communities likely to be affected by the proposed project.
- Collecting baseline data on the current social and economic environment.
- Identifying the key potential social issues associated with the proposed project. This requires a site visit to the area and consultation with affected individuals and communities. As part of the process a basic information document was prepared and made available to key interested and affected parties. The aim of the document was to inform the affected parties of the nature and activities associated with the construction and operation of the proposed development to enable them to better understand and comment on the potential social issues and impacts.
- Assessing and documenting the significance of social impacts associated with the proposed intervention.
- Identifying alternatives and mitigation measures.

In this regard the study involved:

- Review of demographic data from the 2011 Census and other demographic sources;
- Review of relevant planning and policy frameworks for the area;
- Site specific information collected during the site visit to the area and interviews with interested and affected parties;
- Review of information from similar studies;
- Identification and assessment of the social issues associated with the proposed project.

The identification of potential social issues associated with proposed facility is based on observations during the project site visit, review of relevant documentation, experience with similar projects and the general area. Annexure A contains a list of the secondary information reviewed and interviews conducted. Annexure B summarises the assessment methodology used to assign significance ratings to the assessment process.

#### 1.4.1 Definition of social impacts

Social impacts can be defined as “The consequences to human populations of any public or private actions (these include policies, programmes, plans and/or projects) that alter the ways in which people live, work, play, relate to one another, organise to meet their needs and generally live and cope as members of society. These impacts are felt at various levels, including individual level, family or household level, community, organisation or society level. Some social impacts are felt by the body as a physical reality, while other social impacts are perceptual or emotional” (Vanclay, 2002).

When considering social impacts it is important to recognise that social change is a natural and on-going process (Burdge, 1995). However, it is also important to recognise and understand that policies, plans, programmes, and/or projects implemented by government departments and/or private institutions have the potential to influence and alter both the *rate* and *direction* of social change. Many social impacts are not in themselves “impacts” but change process that may lead to social impacts (Vanclay, 2002). For example the influx of temporary construction workers is in itself not a social impact. However, their presence can result in range of social impacts, such as increase in antisocial behaviour. The approach adopted by Vanclay stresses the importance of understanding the processes that can result in social impacts. It is therefore critical for social assessment specialists to think through the complex causal mechanisms that produce social impacts. By following impact pathways, or causal chains, and specifically, by thinking about interactions that are likely to be caused, the full range of impacts can be identified (Vanclay, 2002).

An SIA should therefore enable the authorities, project proponents, individuals, communities, and organisations to understand and be in a position to identify and anticipate the potential social consequences of the implementation of a proposed policy, programme, plan, or project. The SIA process should alert communities and individuals to the proposed project and possible social impacts, while at the same time allowing them to assess the implications and identify potential alternatives. The assessment process should also alert proponents and planners to the likelihood and nature of social impacts and enable them to anticipate and predict these impacts in advance so that the findings and recommendations of the assessment are incorporated into and inform the planning and decision-making process.

However, the issue of social impacts is complicated by the way in which different people from different cultural, ethnic, religious, gender, and educational backgrounds etc. view the world. This is referred to as the “social construct of reality.” The social construct of reality informs people’s worldview and the way in which they react to changes.

#### **1.4.2 Timing of social impacts**

Social impacts vary in both time and space. In terms of timing, all projects and policies go through a series of phases, usually starting with initial planning, followed by implementation (construction), operation, and finally closure (decommissioning). The activities, and hence the type and duration of the social impacts associated with each of these phases are likely to differ.

### **1.5 ASSUMPTIONS AND LIMITATIONS**

#### **1.5.1 Assumptions**

##### **Technical suitability**

It is assumed that the site identified by Transnet is technically suitable site for the establishment of 185 houses and associated bulk infrastructure.

##### **Fit with planning and policy requirements**

Legislation and policies reflect societal norms and values. The legislative and policy context therefore plays an important role in identifying and assessing the potential social impacts associated with a proposed development. In this regard a key component of the SIA process is to assess the proposed development in terms of its fit with key planning and policy documents. As such, if the findings of the study indicate that the proposed development in its current format does not conform to the spatial principles and guidelines contained in the relevant legislation and planning documents, and there are no significant or unique opportunities created by the development, the development cannot be supported.

The findings of the planning and policy review indicate that the Tsantsabane Spatial Development Framework (SDF) identifies the site as suitable for residential development.

#### **1.5.2 Limitations**

##### **Demographic data**

Ward level data from the 2011 Census was not available at the time of undertaking the study. The information presented in the report is therefore at a municipal level. This data does, however, provide the study with the socio-economic baseline data required to inform the SIA.

### **1.6 SPECIALIST DETAILS**

Tony Barbour, the author of this report is an independent specialist with 23 years’ experience in the field of environmental management. In terms of SIA experience



Tony Barbour has undertaken in the region of 120 SIA's and is the author of the Guidelines for Social Impact Assessments for EIA's adopted by the Department of Environmental Affairs and Development Planning (DEA&DP) in the Western Cape in 2007.

### **1.7 DECLARATION OF INDEPENDENCE**

This confirms that Tony Barbour, the specialist consultant responsible for undertaking the study and preparing the SIA Report, is independent and does not have a vested or financial interest in proposed development being either approved or rejected.

### **1.8 REPORT STUCTURE**

The report is divided into five sections, namely:

- Section 1: Introduction;
- Section 2: Summary of key policy and planning documents pertaining to the study area and the proposed development;
- Section 3: Overview of the study area;
- Section 4: Identification and assessment of key social issues;
- Section 5: Summary of key findings and recommendations.

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## SECTION 2: OVERVIEW OF THE STUDY AREA

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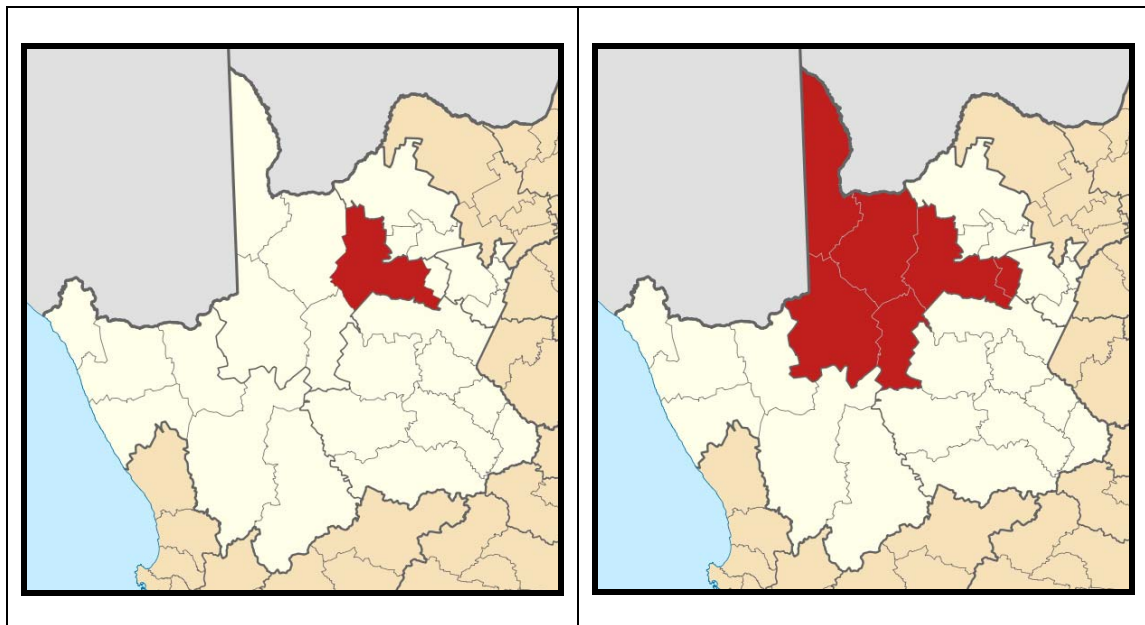
### 2.1 INTRODUCTION

Section 2 provides an overview of the study area with regard to:

- The relevant administrative context;
- The provincial socio-economic context; and,
- The municipal-level socio-economic context;
- Surrounding land uses.

### 2.2 ADMINISTRATIVE AND REGIONAL CONTEXT

The proposed Transnet housing development is located within the TLM (Figure 1.2), which forms part of the larger Siyanda District Municipality (SDM). The town of Postmasburg serves as the administrative seat of the TLM. The main land uses in the area are linked to agriculture (commercial cattle farming and game farming) and mining. A number of solar energy projects have also been proposed in the area.



**Figure 2.1: The location of Tsantsabane Local Municipality and Siyanda District Municipality**

## 2.3 PROVINCIAL SOCIO-ECONOMIC CONTEXT

The proposed housing project is located in the Northern Cape Province, which is the largest province in South Africa and covers an area of 361 830 km<sup>2</sup> and constitutes approximately 30% of South Africa. The province is divided into five district municipalities (DM), namely, Frances Baard, Pixley ka Seme, Namakwa, Siyanda, and John Taolo Gaetsewe DM, and twenty-six Category B (Local) municipalities. As indicated above, the proposed site is located in the TLM, which forms part of the larger SDM. The demographic overview provided below is largely based on relatively dated Census 2001 information. Section 2.5 provides a summary of the 2011 Census data for the SDM and TLM.

### Population

Despite having the largest surface area, the Northern Cape is the least populous of the 9 provinces. According to Census 2001, the NCP population was 822 727, or 1.8% of the national population<sup>1</sup>. The population has declined by 2.1% from 1996 (840 321) to 2001 (822 727), resulting in a decrease in the population density, of an already sparsely populated province, from 2.32 to 2.27 persons per km<sup>2</sup>. Of the five districts, Frances Baard has the largest population of 303 239. The other districts and their respective populations are Siyanda (209 889), Pixley ka Seme (164 607), John Taolo Gaetsewe DM (36 881) and Namakwa (108 111).

The NCP population can be classified as a young population with 57.7% of the population being younger than 30 years old. The female proportion makes up approximately 51.2% of the total with males making up the remaining 48.8%. The 2001 Census data indicates a significant shift in the 20 – 24 cohort occurs, which can possibly be attributed to, amongst others, people in this age group moving to other provinces in search of better career and job opportunities and tertiary education.

Research indicates that approximately 36% of the migrants from the Northern Cape moved to the Western Cape, while 19.4% moved to the North West (19.4%), 18.5% to Gauteng and 12.8% to the Free State (12.8%). In addition, there has also been an increase in migration from the rural areas to the larger towns in the province over the last five years. This movement is in response to the improved access to opportunities and services within the larger urban centers. This trend is reflected in the increase in the proportion of people living in urban areas from 75.2% in 1996 to 82.7% in 2001.

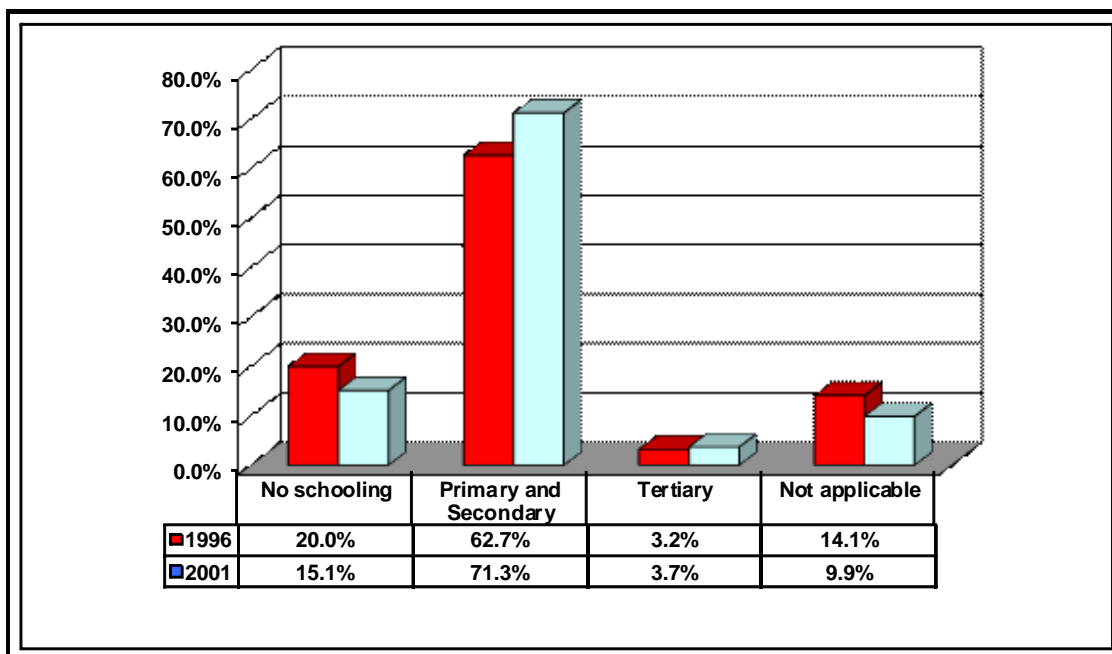
### Education

In terms of education levels 15.1% of the population had no education at all, while 71.3% have primary or secondary education (2001). Those with a higher educational qualification accounted for 3.7% of the population (Figure 2.2). These figures indicate an increase in all categories since 1996, except for the no schooling category, which decreased by 4.9% indicating a higher percentage of people attending school.

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<sup>1</sup> More recent estimates such as StatsSA's 2007 Community Survey indicated a numerical increase (to 1 058060 people), but a proportional decrease (to 6.7% of the SA total).

The information contained in Figure 2.2, indicates that, in general, there has been an improvement in the educational qualifications of the labour force in the Northern Cape. There has also been an increase in the proportion of the labour force that has a secondary and tertiary education. This would appear to be the result of an increase in access to education since 1994, in particular, amongst new entrants to the labour force.



**Figure 2.2: Percentage of people by level of education for 1996 and 2001**  
(Source: Northern Cape Province PGDS)

### Economic development

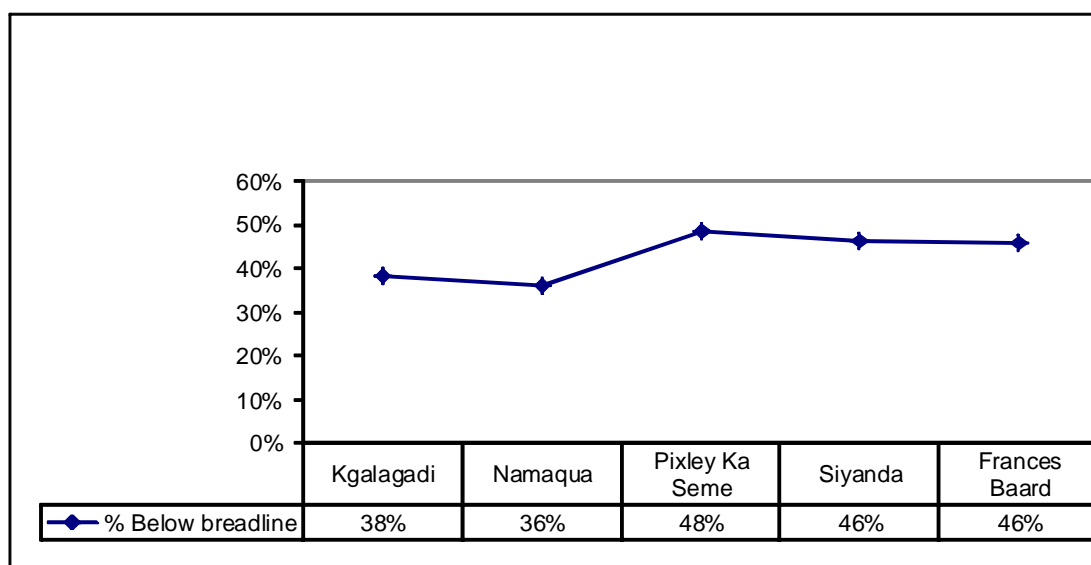
The Human Development Index<sup>2</sup> (HDI) for the province, which covers four indexed factors – life expectancy, adult literacy, GDP per capita (adjusted for real income) and education attainment, for the Northern Cape as a whole is 0.58, which is substantially below the South African figure of 0.72.

For the Northern Cape, the areas of lowest Human Development Index include the South Eastern region (Noupoort and Richmond) and the hinterland of Kimberley (Griekwastad, Campbell and Douglas) – for these areas the HDI varies between 0.47 and 0.51. Over the past 8 years there has been little to no variance in the HDI figures, indicating no increase or decrease in the overall standard of living. In contrast, the Kimberley and Springbok areas have the highest HDI of 0.63 to 0.62 respectively, primarily due to the broader economic opportunities and access to services such as infrastructure, schools, and health facilities. Similarly, there has been no significant change over the past 8 years.

<sup>2</sup> The closer the HDI to 1.0, the higher the level of “living condition”. For example, Sweden has an index of 0.91 defined as high, South Africa at 0.72 is defined as middle and Lesotho at 0.47 is defined as low.

The above trend is unlikely to change in the foreseeable future, mainly due to the marginal economic base of the poorer areas, and the consolidation of the economic base in the relatively better off areas.

In terms of per capita income, the Northern Cape Province has the third highest per capita income of all nine Province's. However, income distribution is extremely skewed, with a high percentage of the population living in extreme poverty. The measure used in the PGDS document to measure poverty is the percentage of people living below the poverty line or breadline is used<sup>3</sup>. The poverty line indicates a lack of economic resources to meet basic food needs. Figure 2.3 indicates the percentage of household income below the poverty breadline of R800 in the Northern Cape Province, the highest being Pixley Ka Seme at 48% and the lowest being Namaqua at 36%.



**Figure 2.3: Percentage of household income below the poverty breadline by district** (Source: Northern Cape PGDS)

### Economic sectors

In terms of economic importance, the Northern Cape's share of the country's Gross Domestic Product (GDP) in 2002 was 2%, the lowest contribution of the nine provinces. However, although the Northern Cape Province has the smallest economy of the nine provinces, Gross Domestic Product of the Region (GDPR) per capita is higher than the national average. In terms of economic activities, the economy of Northern Cape is heavily dependent on the primary sectors of the economy, which in 2002 made up 31.0% of GDPR. The largest sector is mining which has declined in contribution to the GDPR from 25.8% in 1996 to 23.7% in 2002. Agriculture, on the other hand, increased in its contribution from 6.2% to 7.3%. Large scale irrigation agriculture operations are based along the Gariep, Harts and Vaal rivers.

A worrying characteristic of the NCP economy is the limited amount of processing of the primary commodity output in mining and agriculture that takes place in the

<sup>3</sup> In terms of the poverty line, a person is considered poor if his or her consumption or income level falls below some minimum level necessary to meet basic needs. The minimum level is usually called the poverty line. In South Africa the poverty income level is set at R800/month.

Northern Cape. This is reflected in the fact that manufacturing contributes only 4.2% towards GDP. All the industries in the secondary sector have decreased in their contribution to the GDP, with electricity and water sector showing the greatest decrease of 0.7% and the construction industry making the lowest contribution of 1.9% to the GDP of the Northern Cape. At the same time the contribution to regional GDP by industries in the tertiary sector increased, with the exception of the wholesale and retail industry, which decreased by 1.1%.

## Employment

Census 2001 data indicates that, of the economically active population in the Northern Cape, 55.5% were employed while 26.1% could not find employment. This unemployment figure is lower than the national figure of 29.5%. Significant for this province, however, is that a third of the total population is younger than 15 years old and approximately 45% of the potential labour force is younger than 30 years. At the same time, unemployment is the highest among the youth with unemployment rates of 54% and 47% in the 15 - 19 and 20 – 24 year-old age groups. There has been an increase in the economically active population from 35.9% in 1996 to 38.1% in 2001. The unemployment rate for the same period has increased from 28.3% to 33.4%. In terms of employment there has been a decrease in the number of people that are formally employed from 196 219 in 1996 to 193 980 in 2001. The largest decrease was in the private household sector, showing a loss of 4 859 jobs.

The most important sectors in terms of employment in 2002 were agriculture, hunting, forestry and fishing (28.4%), community, social and personal services (19.8%), wholesale and retail trade (12.7%) and private households (11.4%)(Table 2.1).

**Table 2.1: Formal employment by sector** (Source: Northern Cape PGDS)

Sectors	1996	1996 % of persons employed per sector	2001	2001 % of persons employed per sector
<b>Primary</b>				
Agriculture, hunting; forestry and fishing	48646	24.8	55016	28.4
Mining and quarrying	18556	9.5	15493	8.0
<b>Secondary</b>				
Manufacturing	8812	4.5	10598	5.5
Electricity; gas and water supply	2397	1.2	1385	0.7
Construction	10402	5.3	8971	4.6
<b>Tertiary</b>				
Wholesale and retail trade	23099	11.8	24671	12.7
Transport; storage and communication	9963	5.1	6366	3.3
Financial, insurance, real estate and business services	7733	3.9	10989	5.7

Community, social and personal services	39724	20.2	38463	19.8
Private Households	26887	13.7	22028	11.4
<b>Total</b>		<b>196219</b>		<b>193980</b>

## 2.4 MUNICIPAL-LEVEL SOCIO-ECONOMIC OVERVIEW

### 2.4.1 Siyanda District Municipality

The Siyanda District Municipality (SDM) consists of Local Municipalities namely, Mier; !Kai !Garieb; //Khara Hais; Tsantsabane, !Kheis and Kgatelopele, and covers an area of more than 100 000 km<sup>2</sup> (almost 30% of the Northern Cape Province). Of this total, 65% (65 000 km<sup>2</sup>) is made up of the Kalahari Desert, Kgalagadi Transfrontier Park and the former Bushman Land. The largest town in the region is Upington, which also functions as the district municipal capital. The District Management Area (DMA) of Siyanda District Municipality consists mainly of areas in the Kalahari, private farmlands in the Kenhardt and surrounding areas as well as the Community of Riemvasmaak. The total population of the SDM is in the region of 200 000 people with a density of about 1.7 people per square kilometre. The //Khara Hais and Kai !Gariep LM are home to ~ 63 % of the SDM population (Table 2.2).

**Table 2.2: Population of Local Municipalities within the SDM**

Local Municipality	Population	Percentage
//Khara Hais	73 786	35.16%
Kai !Garib	57 689	27.49%
Tsantsabane	31 010	14.77%
!Kheis	16 029	7.64%
Kgatelopele	15 448	7.36%
Mier	6 850	3.26%
District Management Area	9 083	4.33%

Source: Siyanda District Municipality IDP (2007-2012)

The Coloured population group make up the dominant group in the SDM (64%), followed by Black Afrikaans (24%) and Whites (12%). In terms of language, Afrikaans (82%), followed by Setswana (14%) and IsiXhosa (3%) are the three main languages spoken in the area.

The SDM accounts for about 30% of the Northern Cape economy. Agriculture plays a key role in the local economy and is strongly linked to irrigation along the Gariep River (Orange River). The Orange River is perennial with a flow which varies between 50 and 1800 cubic meter per second (cum/s) depending on the season. The flow of the river is largely controlled by the releases of the dams upstream, like the Bloemhof, Gariep and Van der Kloof dams. Agriculture in the SDM is dominated by grape production for table grapes, which is mainly exported to Europe, as well as livestock and game farming. Livestock farming occurs mainly on large farms where farming is extensive. The majority of the farms are privately owned. The central parts of the region consist mainly of semi-desert areas and are therefore, with a few exceptions, mainly suitable for extensive livestock farming. In terms of employment,

the most important economic sectors are Agriculture, followed by Community, Social and Personal, and Private Households.

Tourism represents one of the most important economic sectors in the Northern Cape as well as within the SDM. In this regard the SDM IDP indicates that tourism is the fastest growing component of the economy. Key tourism assets include the world famous Kgalagadi Transfrontier Park, Augrabies National Park and pitskop Nature Reserve near Upington.

Minerals and mining also plays an important role in the local economy of the SDM. Key mining activities include copper and zinc of Areachap north of Upington. Salt is also being mined at two pans, namely Groot Witpan, 95 km northwest of Upington and at Witpan, 115km northwest of Upington. In terms of social well-being the SDM's greatest social problems are illiteracy and poverty. According to the last socio-economic survey in 2000, approximately 60% of the inhabitants have a monthly household income of between R0-R800. Education levels are also low. As a result there is a close correlation between education levels and poverty.

#### **2.4.2 Tsantsabane Local Municipality**

The TLM is located approximately 180 km west of the provincial capital of Kimberley and consists of the following components/entities:

- Postmasburg;
- Olifantshoek;
- Groenwater/Skeyfontein;
- Jenn Haven; and
- Rural area.

#### **Population**

The population the TLM was 31 013 in 2001, which made up approximately 15% of the total population of the greater Siyanda District Municipality. Of this total ~ 47% were Africans, 42% Coloureds and 11% Whites. The Census data for 2001 indicates that the percentage of Africans living in the TLM has increased from 41% in 1996 to 47% in 2001. The percentage of Coloureds has dropped from 44 % to 42 % over the same period, while the percentage of Whites has dropped from 13% to 11%. The 2001 Census data indicated that ~ 33% of the population was younger than 15, while 62 % fell within the economically active age group of 15-64 years of age, and the remaining 5% were older than 65.

#### **Education**

In terms of education levels, the 2001 Census data indicated that ~ 24% of the population had no schooling and or had not completed primary school. Seventeen percent of the population had completed secondary school, while only 9% has completed Grade 12 and only 2% had gone on to achieve a higher qualification. The education levels in the TLM are therefore low, which could impact negatively on the local employment creation opportunities associated with the proposed PVSEF, in the event that skilled labour is required. The Tsantsabane IDP notes that the majority of the population are only qualified to perform unskilled or semi-unskilled work.



### **Employment and income levels**

The 2001 Census data indicates that out of a total labour force of 10 811 in 2001, ~ 59 % (6 344) were employed, 41% (4 467) were unemployed. The most important economic sectors in terms of employment were Community/Social/Personal (25%), Wholesale and Retail (13%), Private Households (12%), Mining and Quarrying (11%) and Agriculture/Forestry and Fishing (8%). Employment in the government sector therefore represents the most important source of employment in the municipality.

In terms of household incomes, 12% of all households had no income while a further 26% earned less than R 800 per month (R 800 per month is recognised as the poverty line). Based on this information 38 % of all households in the TLM earned less than R 800 per month. Household income levels in the TLM are therefore low. The IDP also notes that a large number of households are dependent upon government grants as their sole source of income. The buying power of the average household in the municipal area is extremely low, which would inevitably impact on the ability to pay for services etc. (Tsantsabane IDP, 2005).

The Tsantsabane Annual Report (2009/2010) indicates that the official unemployment rate was 23%, which was lower than the national (35%) and provincial (29%) rates. The Tsantsabane Annual Report (2009/2010) also notes that the mining sector was the largest employer (36% of formal sector employment), followed by Commercial Services sector (20%), and the Agricultural sector (12%). These figures differ from the Census data contained in the Tsantsabane IDP. However, it should be noted that the IDP data is based on the 2001 Census data and this data may have been updated. The informal sector provides jobs for approximately 900 people (Tsantsabane Annual Report, 2009/2010).

### **Municipal service levels**

The Tsantsabane IDP indicates that 81% of all dwellings in the TLM are formal structures and 16% are informal. The remaining 3% are made up of traditional and other dwelling types. The need for low-cost housing has been identified by the community as a priority. This need is exacerbated by the fact that a large number of households do not have their own accommodation and share premises and facilities with family or friends (Tsantsabane IDP, 2005).

In terms of access to water, 37% of all dwellings in 2001 were linked to pipe borne water, compared to 48% in 1996. This significant decrease is likely linked to the increase in the number of informal structures. In terms of energy, ~ 85% of all households had access to electricity in 2001, a 5% increase from the figure in 1996. Sixty seven percent of all households had flush toilets, while 17% relied on VIP's, Pit Latrines or Bucket Latrines. ~ 9% of all households had no sanitation.

## **2.5 CENSUS 2011 MUNICIPAL PROFILE**

### **2.5.1 Demographic information**

As indicated in Table 2.3., the population of the SDM increased by from 202 160 in 2001 to 236 783 in 2011, which represents an increase of ~ 17%. The population of the TLM increased from 27 082 in 2001 to 35 093 in 2011 (~ 29.5%) over the same period. This represents a significant increase over the 10 year period. The increase in the population in the both the SDM and TLM was linked to an increase in the 15-64

age group. This reflects the influx of job seekers to the area in search of work in the mining sector. There was a decrease in the less than 15 age group in both the SDM and TLM. This is likely to reflect a situation where the majority of job seekers in the 15-64 age group are single males who have not settled down and started a family in the area. As expected, the number of households in both the SDM and TLM increased significantly between 2001 and 2011. The size of the household sizes in both areas decreased slightly. This also is also likely to reflect a situation where the majority of job seekers entering the area are single males.

The dependency ratio in both the SDM and TLM decreased from 56.0 to 50.5 and 56.4 to 47.8 respectively. The decrease represents a positive socio-economic improvement by indicating that there are a decreasing number of people dependent the economically active 15-64 age group. The age dependency ratio is the ratio of dependents, people younger than 15 or older than 64, to the working, age population, those ages 15-64.

The age dependency ratio (% of working-age population) in South Africa in 2010 was 53.29. Over the past 50 years, the value for this indicator has fluctuated between 84.43 in 1966 and 53.29 in 2010. The dependency ratios for both the SDM and TLM were better than the national average.

In terms of percentage of formal dwellings, both the SDM (4.9%) and TLM (17.9%) recorded decreases in the percentage formal dwellings. This implies that a number of the increased households both the SDM and TLM are informal dwellings, which is a concern in terms of service delivery. The increase in the number of informal dwellings is likely to be linked to the influx of job seekers to the area and the inability of the authorities to provide formal housing.

On the positive side, the official unemployment rate in both the SDM and TLM decreased for the ten year period between 2001 and 2011. In the SDM the rate fell from 26.5% to 19.2%, a decrease of 7.3%. The decrease in the TLM was 7.8%. Youth unemployment in both the SDM and TLM also dropped over the same period. At the same time the education levels improved, with the percentage of the population over 20 years of age with no schooling dropping 7.3 and 10.5% for the SDM and TLM respectively. The percentage of the population over the age of 20 with matric also increased in both the SDM and TLM by 5.6% and 8.6% respectively.

**Table 2.3: Overview of key demographic indicators for the SDM and TLM**

ASPECT	SDM		TLM	
	2001	2011	2001	2011
<b>Population</b>	202 160	236 783	27 082	35 093
<b>% Population &lt;15 years</b>	30.8	28.4	31.4	27.9
<b>% Population 15-64</b>	64.1	66.4	63.9	67.6
<b>% Population 65+</b>	5.1	5.1	4.7	4.4
<b>Households</b>	48 100	61 097	6 800	9 839
<b>Household size (average)</b>	3.7	3.5	3.9	3.5
<b>Formal Dwellings %</b>	83.9 %	79.4 %	81.6 %	71.8 %
<b>Dependency ratio per 100 (15-64)</b>	56.0	50.5	56.4	47.8
<b>Unemployment rate (official) - % of economically active population</b>	26.5 %	19.2 %	33.9 %	26.1 %
<b>Youth unemployment rate (official) - % of economically active population 15-34</b>	32.1 %	22.7 %	32.3 %	24.2 %
<b>No schooling - % of population 20+</b>	16.8 %	9.5 %	24.2 %	13.7 %
<b>Higher Education - % of population 20+</b>	4.8 %	6.3 %	4.1 %	6.3 %
<b>Matric - % of population 20+</b>	16.1 %	21.7 %	16.7 %	25.3 %

*Source: Compiled from StatsSA Census 2011 Municipal Fact Sheet*

### **2.5.2 Municipal services**

As indicated in Table 2.4, with the exception of a decrease in the number of households in the TLM with weekly municipal refuse removal, the access municipal services as measured in terms of flush toilets', refuse removal, piped water and electricity, has increased in both the SDM and TLM for the period 2001 to 2011. The decrease in number of households in the DLM with access to municipal waste removal could be attributed to the decrease in the number of formal dwellings in the TLM between 2001 and 2011 (See Table 2.3). However, despite the increase in the number of informal dwellings, access to basic services has increased overall.

**Table 2.4: Overview of access to basic services in the SDM and TLM**

	SDM		TLM	
	2001	2011	2001	2011
<b>% households with access to flush toilet</b>	58.1	63.9	61.7	66.7
<b>% households with weekly municipal refuse removal</b>	58.6	70.3	67.5	57.4
<b>% households with piped water inside dwelling</b>	37.2	48.5	35.5	45.3
<b>% households which uses electricity for lighting</b>	73.5	86.6	74.4	83.5

*Source: Compiled from StatsSA Census 2011 Municipal Fact Sheet*

## **2.6 DESCRIPTION OF THE STUDY AREA AND SURROUNDS**

The proposed Transnet housing project is located on vacant 16 ha site located to the south-east of the Postmasburg railway station (Photograph 2.1). The land uses in the vicinity of the site include a residential areas (Die Stasie) located to the north (Die Stasie) and south (Newtown) of the site, an industrial area to the south and south west of the site, the Postmasburg Traffic Department immediately to the east of the site (Photograph 2.2, 2.3, 2.4 and 2.5). A new mall is located approximately 500 east of the site (Photograph 2.6). The R 385, which links Postmasburg in the east with Beeshoek in the west, runs along the south of the site. Access to the site is from the R 385.



**Photograph 2.1: View of area for housing development**



**Photograph 2.2: View of houses in Die Stasie residential area**



**Photograph 2.3: View of Newtown**



**Photograph 2.4: View of industrial area**



**Photograph 2.5: Entrance to Traffic Department**



**Photograph 2.6: View of Mall**

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## **SECTION 3: POLICY AND PLANNING ENVIRONMENT**

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### **3.1 INTRODUCTION**

Section 3 of this Social Study Report provides an overview of the most significant policy documents of relevance to the proposed Transnet housing development. The key documents reviewed include:

- National Development Plan 2030
- Northern Cape Provincial Growth and Development Strategy Draft 4 (2011);
- Siyanda Integrated Development Plan (2007-2012);
- Tsantsabane Integrated Development Plan (2011-2016).
- Tsantsabane Spatial Development Framework (2009/2010).

### **3.2 NATIONAL DEVELOPMENT PLAN**

The National Development Plan (NDP) 2030 aims to eliminate poverty and reduce inequality by 2030. The NDP refers to the Commission's Diagnostic Report, released in June 2011, which outlines South Africa's achievements and shortcomings since 1994. The report identifies the failure to implement policies and an absence of broad partnerships as the main reasons for slow progress, and sets out nine primary challenges:

- Too few people work;
- The quality of school education for black people is poor;
- Infrastructure is poorly located, inadequate and under-maintained;
- Spatial divides hobble inclusive development;
- The economy is unsustainably resource intensive;
- The public health system cannot meet the demand or sustain quality;
- Public services are uneven and often of poor quality;
- Corruption levels are high;
- South Africa remains a divided society.

While the achievement of the objectives of the National Development Plan requires progress on a broad front, the plan identifies three priorities, namely:

- Raising employment through faster economic growth
- Improving the quality of education, skills development and innovation;
- Building the capability of the state to play a developmental, transformative role.

The third priority can be viewed as relevant to the proposed Transnet housing development given Transnet's role as a parastatal organisation. The NDP also refers to the need to and importance of improving infrastructure. Infrastructure is not just essential for faster economic growth and higher employment. It also promotes inclusive growth, providing citizens with the means to improve their own lives and



boost their incomes. Infrastructure is essential to development. The NDP also notes that the upgrading of the iron ore line to Saldanha be prioritised as infrastructure investments by government. The proposed Transnet housing project is linked to the up-grading of the line.

The NDP also highlights the need to reverse the spatial effects of apartheid, noting that a larger proportion of the population should live closer to places of work. In addition, strong measures should be taken to prevent further development of housing in marginal places. The proposed location of the Transnet housing development addresses these issues, by providing housing for Transnet workers in close proximity to their place of work, namely the railway station, while at the same time ensuring that the development is not located in a marginal area of Postmasburg.

### **3.3 NORTHERN CAPE PROVINCIAL GROWTH AND DEVELOPMENT STRATEGY**

The Provincial Growth and Development Strategy (PGDS) notes that the most significant challenge that the government and its' partners in growth and development are confronted with is the reduction of poverty. All other societal challenges that the province faces emanate predominantly from the effects of poverty. The PGDS notes that the only effective way to reduce poverty is through long-term sustainable economic growth and development. The sectors where economic growth and development can be promoted include:

- Agriculture and Agro-processing;
- Fishing and Mariculture;
- Mining and mineral processing;
- Transport;
- Manufacturing;
- Tourism.

However, the PGDS also notes that economic development in these sectors also requires:

- Creating opportunities for lifelong learning;
- Improving the skills of the labour force to increase productivity;
- Increasing accessibility to knowledge and information.

The achievement of these primary development objectives depends on the achievement of a number of related objectives that, at a macro-level, describe necessary conditions for growth and development. These are:

- Developing requisite levels of human and social capital;
- Improving the efficiency and effectiveness of governance and other development institutions;
- Enhancing infrastructure for economic growth and social development.

The NCPGDS also highlights the importance of enterprise development, and notes that the current levels of private sector development and investment in the Northern Cape are low. In addition, the province also lags in the key policy priority areas of SMME Development and Black Economic Empowerment. The proposed housing

development therefore has the potential to create opportunities to promote private sector investment and the development of SMMEs in the NCP.

### **3.4 SIYANDA INTEGRATED DEVELOPMENT PLAN**

The key priority issues listed in the SDM IDP include:

- Basic Service Delivery;
- Municipal Institutional Development and Transformation;
- Local Economic Development;
- Municipal Financial Viability and Management; and
- Good Governance and Public Participation.

The vision of the SDM is:

“To be a model, economically developed district with a high quality of life for all inhabitants”

Linked to this vision the mission statement is:

“To promote economic development to the advantage of the community within the boundaries of the SDM” This will be done by the establishment and maintenance of an effective administration and a safe environment in order to attract tourists and investors to the region”.

The development goals listed in the IDP that are relevant to the proposed PVSEF include:

- To deliver a positive contribution to the sustainable growth and development within its boundaries and the rest of the Northern Cape;
- The creation of a healthy and environmentally friendly environment within and outside of the Council’s district boundaries, must be attempted;
- The promotion of a safe and tourism friendly environment should be furthered in order to promote tourism and investor interest in the region; and
- The promotion of human resources within and outside the organization through training and the implementation of new technological aids.

Linked to the developmental goals are a number of developmental objectives. The following objectives are relevant to the proposed housing development:

- Promotion of SMMEs in order to strengthen the Local Economic Sector
- Promote the infrastructure development.

### **3.5 TSANTSABANE INTEGRATED DEVELOPMENT PLAN**

The vision for the TLM as set out in the IDP is for “Tsantsabane to be a trendsetting municipality in the provision of basic services.” The mission for the TLM is “Through sound management of scarce resources, the vision of a developmental state, the municipality will strengthen partnerships to improve livelihoods of all its citizens”.

The IDP identifies six key performance areas (KPA's) that are in line with KPA's identified by National Government. Of these the following are relevant to the proposed housing project.

- KPA 1: Service Delivery
- KPA 2: Local Economic Development

With reference to KPA 1, Service Delivery, the IDP identifies the following key challenges facing the TLM:

- Insufficient infrastructure development;
- Insufficient supply and maintenance of bulk water and sanitation;
- Insufficient Provision and Maintenance of Electricity;
- Insufficient Provision and Maintenance of Roads and Transport Infrastructure;
- Insufficient and poor quality of Sport and Recreation Facilities and Services;
- Insufficient Housing and Serviced Sites.

With regard to KPA 2, Local Economic Development, the IDP notes that the local economy has huge potential for growth and development in line with the growth and development plan of national government. We need alignment of efforts and clear guidelines on how to seize and maximize opportunities.

The IDP also lists the issues raised during the Ward Based Public Participation process undertaking as part of the IDP revision. The majority of the issues raised are linked to the rapid growth of Postmasburg in recent years associated with the mining sector. The key issues that are relevant to the proposed Transnet housing project include:

- Infrastructure Development. Due to the increase in the population of Postmasburg the capacity and level of current services are limited;
- Housing: There is a shortage of housing in Postmasburg;
- Increase in HIV/AIDS, TB and unwanted teenage pregnancies. This was linked to the influx of job seekers to the area;
- Health facilities and services. Due to the rapid population growth the current capacity of hospital and clinics is limited. There is also a lack of sufficient and qualified staff – limited skills amongst current nurses and nursing sisters, sufficient facilities to render a proper health service to all communities, and necessary health equipment and medication at clinics;
- Schools and education facilities. A number of schools are overcrowded and lack the necessary facilities, such as libraries and laboratories etc. There is also a lack of proper water and sanitation services at many schools;
- Safety and crime. Increase in crime, i.e. family abuse and robberies, related to alcohol and drug abuse. Lack of sufficient police staff and vehicles. Also a lack of accommodation for police officials.
- Emergency services. Current capacity is limited due to the rapid growth of Postmasburg. Key services that require up-grading include fire fighting and ambulances;
- Sport and recreation facilities and services. Due to the rapid growth of the town there are limited parks and recreation areas for residents. The poor condition and state of local sport facilities in all of the lower income areas was identified as a key issue.

- Capacity of local municipal officials. There is a shortage and or lack of skilled personnel in certain departments. As a result there is a need to implement a Skills Development Plan and Recruitment and Retention Strategy for the TLM.

In terms of Local Economic Development the public participation process expressed the need to ensure that tenders should be allocated to local contractors. Main contractors must also empower local contractors through training and development;

In terms of responses to these challenges the IDP identifies the need to:

- Reduce influx from other areas;
- Provide serviced sites and upgrade infrastructure;
- Provide sustainable and affordable housing to all levels of the society;
- Provide alternative/temporary accommodation to Residents

In terms of stimulating local economic development the IDP identifies the need to:

- Provide skills training and promote skills development through formal programmes;
- Support Public Private Partnerships;
- Strengthening the local economy through Public, Private Partnerships (PPP's);
- Having a strong mentoring system for both the unskilled labour force and SMME's;
- Using the existing funding streams, i.e. the Social and Labour Plans of mining Sector.

In terms of addressing the challenges associated with education facilities the IDP identifies the need to:

- Upgrade and Maintain existing school facilities with reference to Bus Services;
- Provide new school facilities where required;
- Train educators and teachers;
- Provide library facilities for all communities;

### **Local Economic Development (LED) Strategy**

The LED Strategy for the TLM identifies a number of challenges that are relevant to the proposed Transnet housing project. These include:

- Shortage of appropriate labour skills in the area is a central constraint to investment and development;
- Affirmative Procurement Policy should be reviewed in order to ensure that the standards are biased for locally based SMME's in an effort to accelerate local economic development and stimulating the local economy.

In response to these challenges the LED strategy identifies the need to:

- Development of a labour and skills database;
- Provision of information and training opportunities for local entrepreneurs and SMME's;

- Encourage local SMME's and entrepreneurs to take advantage of procurement opportunities created by developments in the town, specifically the mines;
- Develop a database of available labour and skills to encourage the employment of local people;
- Provide skills training and support programmes.

### **3.6 TSANTSABANE SPATIAL DEVELOPMENT FRAMEWORK**

The Spatial Development Framework (SDF) supports the Municipality's Vision as indicated in the IDP document and is intended to promote an urban and rural form that will deliver the long-term vision. The main purpose of the SDF is to create an entity that is sustainable, accessible and efficient. The following objectives are listed in the SDF to ensure that the Municipality succeeds in their main purpose.

- Objective 1: To create sustainable human settlement with quality physical, economic and social environments;
- Objective 2: To encourage land reform towards more intensive land uses;
- Objective 3: To encourage urban and regional integration and rectification of past imbalances;
- Objective 4: To create a sustainable local land use management system;
- Objective 5: Support Local Economic Development (LED) Opportunities;
- Objective 6: Manage informal settlements;
- Objective 7: Manage development to ensure environmental sustainability;
- Objective 8: Promote regional connectivity.

The SDF also lists a set of Spatial Development Principles to guide development.

- To ensure the availability of land for the various land uses especially for future residential extensions;
- To enhance the economic base of the region through the optimal utilization of agricultural land and expansion of the mining industry;
- All future development should be accessible to the larger community, to promote the accessibility of employment opportunities from residential areas;
- Future development should promote the development of compact human settlements, and low intensity urban sprawl should be combated;
- Plans of neighbouring municipalities and regions should relate positively to each other;
- Promote mixed use development;
- Land use and development decisions must promote harmonious relationships between the built and natural environment;
- Land development and planning should protect natural, environmental and cultural resources;
- Land used for agricultural purposes may only be reallocated to another use where real need exists, and prime agricultural land should as far as possible remain available for production;
- Land use regulators and planning authorities must ensure that previous disadvantaged communities and areas receive benefit and opportunities flowing from land development;
- Appropriateness of land use must be determined on the basis of its impact on society as a whole rather than only the applicant or immediate neighbours;

- Special focus will be placed on rural development, especially where service delivery is not up to standard;
- Incentives should be reinstalled to promote the development of valuable riparian properties in the urban and rural areas.

According to the SDF the following Spatial Framework Proposals were made:

- Future residential extensions of Postdene and Postmasburg;
- Future residential extensions of Newtown and Boichoko;
- In-fill planning opportunities should be exploited as well as densifying large properties within the residential neighbourhoods through high density developments;
- Possible future residential extension for the west of Postdene;
- Possible long-term future residential extension integrating Boichoko with Postmasburg and Newtown;
- Development of a mall next to the R325;
- Area to the northwest of the industrial area along the R385 identified for future industrial sites.

The SDF also makes reference to the importance of railways (Section 5.2.2). The section indicates that the railway lines are mainly used by the mining sector as export facilities and the main line currently runs from Sishen through Sishen South to Saldanha Bay for export purposes. A rail network exists between Beeshoek and Sishen Mine alongside the R325 and a link will be constructed to a siding at the Beeshoek Mine from the Sishen South Project which is 14km to the south (Kumba Sishen South Project). The following railway stations are situated within the local municipality along the railway network:

- Postmasburg Station;
- Tsantsabane Station;
- Groenwater Station;
- Lohatlha Station;
- Glosam Station;
- Blinkklip Station.

Map 23 in the SDF provides an overview of the current and future land uses identified for Postmasburg. In terms of the site identified for the proposed Transnet housing development, the most eastern section of the site (the area adjacent to the offices of the Traffic Department) is identified as residential (yellow). The western section of the site is identified as suitable for the development of a park (green). The area to the south of the site is identified as a mixed use area (hatched blue), while the area to the west as industry (light purple). The Transnet site, with the exception of the area identified as a park, is therefore identified in the SDF as suitable for residential development. The development of the area identified in Map 23 as park will need to be discussed with representatives from the TLM.

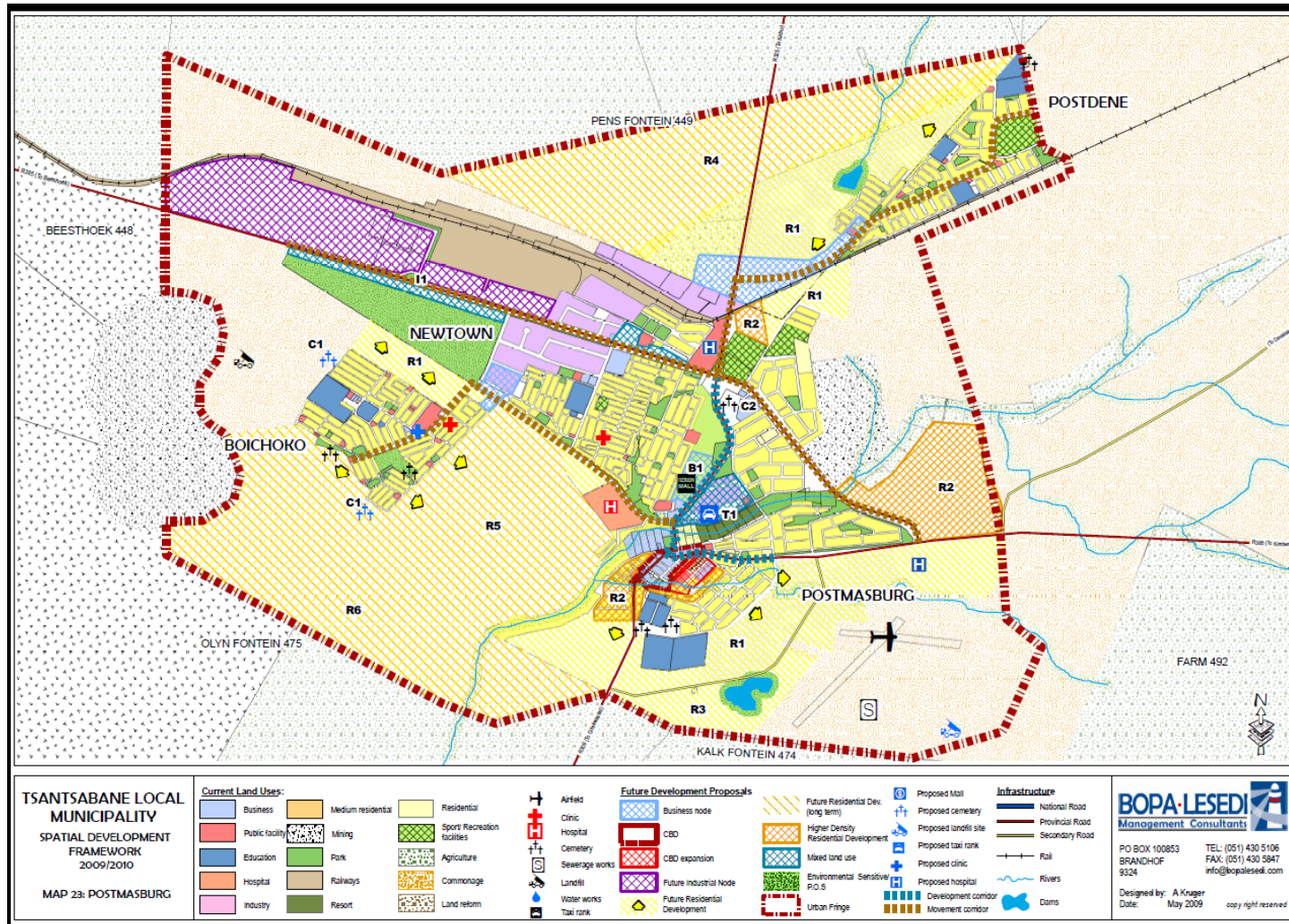


Figure 3.1: Land use map for Postmasburg (Source, TLM SDF, Map 23)

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## **SECTION 4: ASSESSMENT OF KEY SOCIAL ISSUES**

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### **4.1 INTRODUCTION**

Section 4 identifies the key social issues identified during the SIA study. The identification of social issues was based on:

- Review of project related information, including other specialist studies;
- Interviews with key interested and affected parties;
- Experience of the authors of the area and the local conditions; and
- Experience with similar projects.

### **4.2 IDENTIFICATION OF KEY SOCIAL ISSUES**

The key social issues identified during the SIA can be divided into:

- The policy and planning related issues
- Local, site-specific issues

The local site-specific issues can in turn be divided into construction and operational related issues. These issues are discussed and assessed below.

### **4.3 POLICY AND PLANNING ISSUES**

As indicated in Section 1.5, legislative and policy context plays an important role in identifying and assessing the potential social impacts associated with a proposed development. In this regard a key component of the SIA process is to assess the proposed development in terms of its fit with key planning and policy documents.

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

- National Development Plan 2030
- Northern Cape Provincial Growth and Development Strategy Draft 4 (2011);
- Siyanda Integrated Development Plan (2007-2012);
- Tsantsabane Integrated Development Plan (2011-2016).
- Tsantsabane Spatial Development Framework (2009/2010).

The findings of the review indicated that the proposed housing development supports the principles and objectives set out in the NDP. The proposed development also supports the objectives set out in the NCPGDS and the SDM and TLM IDPs, specifically the creation of employment and economic development opportunities. The proposed development will also create opportunities to support SMMEs and co-operation between the public and private sector in the Northern Cape Province. The TLM SDF also indicates that the site for the proposed development is suitable for residential development. A section of the site is however identified as a park area. This issue will need to be clarified with the TLM. However, despite this minor issue it is the opinion of the author that the establishment of the proposed Transnet housing



development on the selected site is supported by national, provincial and local policies and planning documents.

#### **4.4 SOCIAL IMPACTS ASSOCIATED WITH THE CONSTRUCTION PHASE**

The key social issues associated with the construction phase include:

##### **Potential positive impacts**

- Creation of employment and business opportunities and opportunity for skills development and on-site training;

##### **Potential negative impacts**

- Impacts associated with the presence of construction workers on site
- Influx of job seekers to the area;
- Threat to safety and security of adjacent households associated with the presence of construction workers on site;
- Impacts associated with construction related activities.

##### **4.4.1 Creation of employment and business opportunities**

The establishment of the proposed development is expected to take approximately 3 years to complete (January 2014 to December 2016). The key components include detailed design, procurement and construction. The timeframe for each component is provided below:

- Detailed design 6 months (February 2014-August 2014);
- Procurement and site establishment, 7 months (June 2014-January 2015);
- Construction and commissioning, 16 months (January 2015-May 2016).

##### **Detailed design and procurement**

Each component will create employment opportunities. Based on the information provided by Transnet, the detailed design and procurement components of the project will create ~ 55 employment opportunities. All of these jobs are likely to fall within the high skilled category, and include town planners, engineers, project managers and surveyors. The majority of these employment opportunities are likely to be taken up by people from outside of the Tsantsabane LM area.

Not all of the jobs are likely to extend over the full three years of the project. Therefore for the purposes of the study it is assumed the employment opportunities associated with the detailed design and procurement phase will extend over a period of 18 months. This takes into account the likelihood that some jobs, such as project management, are likely to extend over the full three year period, while some are likely to be less than 18 months. Based on the assumption that the monthly salary of skilled workers is R 30 000, the total wage bill for this phase is in the region of R 30 million. A percentage of the wage bill will be spent in the local economy represents a significant opportunity for the local economy and businesses in Postmasburg.

### **Site establishment**

The site establishment, construction and commissioning phase will be undertaken by contractors appointed by Transnet. The site establishment includes the establishment of bulk infrastructure, including roads, water and sewage. For the purposes of the study it is assumed that the contractor appointed to construct the houses will also be appointed to undertake the work associated with the site establishment. The number of employment opportunities associated with the site establishment component, which extends over a period of 7 months, is estimated to be in the region of 50. Of this total approximately 50% of workers will fall within the low-skilled category, 30% in the medium-skilled category and 20% in the high-skilled worker category. The total number of low, medium and high-skilled workers will therefore be 25, 15 and 10 respectively.

The wage bill associated with the construction phase is estimated to be in the region of R 4.3 million. This is based on the assumption that the average monthly salary for low, semi and skilled workers is R 5 000, R 12 000 and R 30 000 respectively. Of this total R 875 000 will be earned by low-skilled workers, R 1.3 million by medium-skilled workers, and R 2.1 million by high-skilled workers. A percentage of the wage bill will be spent in the local economy represents a significant opportunity for the local economy and businesses in Postmasburg.

### **Construction and commissioning**

As indicated above the proposed project involves the construction of 185 houses over a period of 16 months. For the purposes of the assessment it is assumed that it will take 3 months to construct a house. Therefore, in order to construct 185 houses in 16 months requires approximately 38 houses to be completed every 3 months. Assuming that each house employs ~ 15 people during construction (including sub-contractors), the total number of construction workers required to complete 38 houses every 3 months would be in the region of 550 workers. Based on experience with other construction projects, approximately 50% of workers will fall within the low-skilled category, 30% in the medium-skilled category and 20% in the high-skilled worker category. The total number of low, medium and high-skilled workers will therefore be 275, 165 and 110 respectively.

The majority of low and semi-skilled employment opportunities are likely to be available to local residents in the area, specifically residents from Postmasburg. The majority of the beneficiaries are likely to be historically disadvantaged (HD) members of the community. This would represent a significant positive social benefit in an area where employment opportunities for low skilled workers are limited. However, in order to maximize the benefits for the local community the proponent will need to demonstrate a commitment to local employment targets. A percentage of the medium and high-skilled opportunities are also likely to be available to local residents in the area.

The wage bill associated with the construction phase is estimated to be in the region of R 107 million. This is based on the assumption that the average monthly salary for low, semi and skilled workers is R 5 000, R 12 000 and R 30 000 respectively. Of this total R 22 million will be earned by low-skilled workers, R 32 million by medium-skilled workers, and R 53 million by high-skilled workers. A percentage of the wage bill will be spent in the local economy represents a significant opportunity for the local economy and businesses in Postmasburg.

### **Summary of employment and wage benefits**

Based on the above assumptions the proposed Transnet housing project will create approximately 655 employment opportunities over a three year period. This total is made up of 55 during detailed design and procurement, 50 during site establishment and 550 during the actual construction of the houses themselves. Of these, ~ 300 will be for low-skilled workers, 180 for medium-skilled workers and 175 for skilled workers. The majority of the low-skilled and ~ 60 % of the medium skilled opportunities are likely to be available to local residents from Postmasburg and the Tsantsabane municipal area. The majority of these beneficiaries are likely to be historically disadvantaged (HD) members of the community. The total wage bill over the 3 year period is estimated to be in the region of R 141.3 million. Of this total ~ R 23 million and R 33.3 million will be earned by low and medium skilled workers respectively. As indicated above, the majority of the low skilled and ~ 60% of the medium skilled workers are likely to be local residents. The majority of the wage bill earned by local residents is likely to be spent in the local economy, which represents a significant opportunity for the local economy and businesses in Postmasburg and the Tsantsabane LM.

### **Capital Expenditure**

The capital expenditure associated with the construction phase is estimated to be ~ R 320 million. In terms of business opportunities for local companies, expenditure during the construction phase will create business opportunities for the regional and local economy. The project is therefore likely to create opportunities for local contractors and engineering companies in Postmasburg and the Tsantsabane LM and Siyanda DM. The implementation of the enhancement measures listed below can enhance these opportunities.

The local service industry will also benefit from the proposed development. The potential opportunities for the local service sector would be linked to accommodation, catering, cleaning, transport and security, etc. associated with the construction workers on the site. Transnet has indicated that no construction workers will be accommodated on site. Given the current shortage of accommodation in Postmasburg this is an issue that will need to be addressed by Transnet.

In addition, the skilled workers and project managers are likely to be accommodated off-site in Postmasburg. This will create opportunities for local hotels, B&Bs, guest farms and people who want to rent out their houses. However, based on the information collected during the site visit the accommodation opportunities in Postmasburg are limited. This is an issue that the proponent will need to discuss with the TLM. The hospitality industry in the local towns is also likely to benefit from the provision of accommodation and meals for professionals (engineers, quantity surveyors, project managers, product representatives etc.) and other (non-construction) personnel involved on the project. Experience from other large construction projects indicates that the potential opportunities are not limited to on-site construction workers but also to consultants and product representatives associated with the project.

In terms of local support, Mr Jacob (TLM IDP Manager) and Ms Mathepelo (TLM LED Manager) indicated that the TLM supported the proposed development and the upgrading of Transnet's railway network. The proposed development also supports the objectives set out in the NCPGDS and the SDM and TLM IDPs, specifically the creation of employment and economic development opportunities. The proposed

development will also create opportunities to support SMMEs and co-operation between the public and private sector in the Northern Cape Province.

**Table 4.1: Impact assessment of employment and business creation opportunities during the construction phase**

<b>Nature:</b> Creation of employment and business opportunities during the construction phase		
	<b>Without Mitigation</b>	<b>With Enhancement</b>
<b>Extent</b>	Local – Regional (2)	Local – Regional (3)
<b>Duration</b>	Short Term (2)	Short Term (2)
<b>Magnitude</b>	Low (4)	Low (4)
<b>Probability</b>	Highly probable (4)	Highly probable (4)
<b>Significance</b>	Medium (32)	Medium (36)
<b>Status</b>	Positive	Positive
<b>Reversibility</b>	N/A	N/A
<b>Irreplaceable loss of resources?</b>	N/A	N/A
<b>Can impact be enhanced?</b>	Yes	
<b>Enhancement :</b> See below		
<b>Cumulative impacts:</b> Opportunity to up-grade and improve skills levels in the area.		
<b>Residual impacts:</b> Improved pool of skills and experience in the local area.		

#### **Assessment of No-Go option**

The potential employment and economic benefits associated with the construction of the proposed development would be forgone. The potential opportunity costs in terms of the capital expenditure, employment, skills development, and opportunities for local business are therefore regarded as a negative.

#### **Recommended enhancement measures**

In order to enhance local employment and business opportunities associated with the construction phase the following measures should be implemented:

#### **Employment**

- Where reasonable and practical the contractors appointed by the proponent should appoint local contractors and implement a 'locals first' policy, especially for semi and low-skilled job categories. However, due to the low skills levels in the area, the majority of skilled posts are likely to be filled by people from outside the area.
- Where feasible, efforts should be made to employ local contractors that are compliant with Broad-based Black Economic Empowerment (BBBEE) criteria;
- Before the construction phase commences the proponent should meet with representatives from the TLM to establish the existence of a skills database for the area. If such a database exists it should be made available to the contractors appointed for the construction phase.
- The local authorities, community representatives, and organisations on the interested and affected party database should be informed of the final decision regarding the project and the potential job opportunities for locals and the

employment procedures that the proponent intends following for the construction phase.

- Where feasible, training and skills development programmes for locals should be initiated prior to the initiation of the construction phase.
- The recruitment selection process should seek to promote gender equality and the employment of women wherever possible.

#### **Business**

- The proponent should seek to develop a database of local companies, specifically BBBEE companies, which qualify as potential service providers (e.g. construction companies, catering companies, waste collection companies, security companies etc.) prior to the commencement of the tender process for construction contractors. These companies should be notified of the tender process and invited to bid for project-related work;
- The proponent should liaise with the TLM, and representatives from the local Chamber of Commerce and hospitality industry to identify strategies aimed at maximising the potential benefits associated with the project.

Note that while preference to local employees and companies is recommended, it is recognised that a competitive tender process may not guarantee the employment of local labour for the construction phase.

#### **4.4.2 Presence of construction workers in the area**

The presence of construction workers poses a potential risk to family structures and social networks in the area, specifically local communities in Postmasburg and the immediate vicinity of the site (Newtown and Die Stasie). While the presence of construction workers does not in itself constitute a social impact, the manner in which construction workers conduct themselves can affect the local community. In this regard the most significant negative impact is associated with the disruption of existing family structures and social networks. This risk is linked to the potential behaviour of male construction workers, including:

- An increase in alcohol and drug use;
- An increase in crime levels;
- An increase in teenage and unwanted pregnancies;
- An increase in prostitution; and
- An increase in sexually transmitted diseases (STDs).

The findings of the SIA indicate that there has been a significant influx of workers and job seekers to Postmasburg over the last 3-5 years. The influx is due to the expansion in the mining sector, specifically the establishment of the Kolomela Mine by Anglo American. In addition, in order to accommodate its employees Anglo American has constructed in the region of 700 new houses in Postmasburg over the last 2-3 years. This has also resulted in an influx of construction workers to the town. Information provided by the TLM indicates that Anglo American require an additional 2000 houses, while Asmang will be constructing ~ 1300 houses to accommodate workers from the Beeshoek Mine. Postmasburg has therefore experienced the potential impacts associated with the presence of construction workers and the influx of job seekers. The potential impacts associated with the construction workers employed as part of the Transnet housing project therefore need to be viewed within the context of a rapidly developing town that is dominated by the mining sector and mine workers.

As indicated above, the total number of employment opportunities associated with the site preparation and construction phase will be in the region of 655. The 50 workers employed during the site preparation phase are also likely to be employed during the construction of the houses. The maximum total number of people on site will therefore be 550 for a period of 16 months. Of this total 275 will be low skilled workers, 165 medium skilled workers and 110 skilled workers. It is reasonable to assume that the majority of the low skilled workers (275) and at least 60% of the semi-skilled workers (99) can be sourced locally. Employing members from the local community to fill the semi and low-skilled job categories will reduce the risk posed by construction workers to local communities. These workers will be from the local community and form part of the local family and social network. The proponent has indicated that they are committed to implementing a local employment policy, specifically for the low and semi-skilled employment opportunities associated with the construction phase. The total number of construction workers from outside the area that will need to be accommodated will therefore be in the region of 176, the majority of which (110) will be skilled workers. The majority of skilled workers are likely to be accommodated in town and not on the site. The total number of workers that will need to be accommodated may therefore be as low at 50-80. As indicated above, Transnet has indicated that no construction workers will be accommodated on site.

Based on this the overall impact of construction workers on the local community with mitigation is likely to be low. However, due to the potential mismatch of skills and low education levels, the potential employment opportunities for the members from these local communities may be lower than anticipated. This is an issue that will need to be addressed during the recruitment process.

While the potential threat posed by construction workers to the community as a whole is likely to be low, the impact on individual members who are affected by the behavior of construction workers has the potential to be high, specifically if they are affected by STDs etc.

**Table 4.2: Assessment of impact of construction workers on local communities**

<b>Nature:</b> Potential impacts on family structures and social networks associated with the presence of construction workers		
	<b>Without Mitigation</b>	<b>With Mitigation</b>
<b>Extent</b>	Local (2)	Local (1)
<b>Duration</b>	Short Term for community as a whole (2) Long term-permanent for individuals who may be affected by STD's etc. (5)	Short Term for community as a whole (2) Long term-permanent for individuals who may be affected by STD's etc. (5)
<b>Magnitude</b>	Low for the community as a whole (4) High-Very High for specific individuals who may be affected by STD's etc. (10)	Low for community as a whole (4) High-Very High for specific individuals who may be affected by STD's etc. (10)
<b>Probability</b>	Probable (3)	Probable (3)
<b>Significance</b>	Low for the community as a whole (24) Moderate-High for specific individuals who may be affected by STD's etc. (57)	Low for the community as a whole (21) Moderate-High for specific individuals who may be affected by STD's etc. (51)
<b>Status</b>	Negative	Negative
<b>Reversibility</b>	No in case of HIV and AIDS	No in case of HIV and AIDS
<b>Irreplaceable loss of resources?</b>	Yes, if people contract HIV/AIDS. Human capital plays a critical role in communities that rely on farming for their livelihoods	
<b>Can impact be mitigated?</b>	Yes, to some degree. However, the risk cannot be eliminated	
<b>Mitigation:</b> See below		
<b>Cumulative impacts:</b> Impacts on family and community relations that may, in some cases, persist for a long period. Also in cases where unplanned / unwanted pregnancies occur or members of the community are infected by an STD, specifically HIV and or AIDS, the impacts may be permanent and have long term to permanent cumulative impacts on the affected individuals and/or their families and the community.		
<b>Residual impacts:</b> Residual impacts would be linked to the community members affected by STDs etc. See cumulative impacts.		

**Assessment of No-Go option**

There is no impact as it maintains the current status quo. However, the potential positive impacts on the local economy associated with additional spending by construction workers in the local economy would be lost.

**Recommended mitigation measures**

The potential risks associated with construction workers can be mitigated. The aspects that should be covered include:

- Where possible, the proponent should make it a requirement for contractors to implement a 'locals first' policy for construction jobs, specifically semi and low-skilled job categories. This will reduce the potential impact that this category of worker could have on local family and social networks;
- The proponent should appoint an Environmental Control Officer (ECO) to monitor the construction phase and ensure that the recommended mitigation measures are implemented.
- The proponent and the contractors should, develop a Code of Conduct for the construction phase. The code should identify what types of behaviour and activities by construction workers are not permitted. Construction workers that breach the code of good conduct should be dismissed. All dismissals must comply with the South African labour legislation;
- The proponent and the contractor should implement an HIV/AIDS awareness programme for all construction workers at the outset of the construction phase;
- The movement of construction workers on and off the site should be closely managed and monitored by the contractors. In this regard the contractors should be responsible for ensuring that construction workers respect the rights to the residents of Die Stasie and do not pose safety and security threat to the residents and their families;
- The contractor should make necessary arrangements to enable workers from outside the area to return home over weekends and or on a regular basis during the 16 month construction phase. This would reduce the risk posed by non-local construction workers to local family structures and social networks;
- The contractor should make the necessary arrangements for ensuring that all non-local construction workers are transported back to their place of residence once the construction phase is completed. This would reduce the risk posed by non-local construction workers to local family structures and social networks;

#### **4.4.3 Influx of job seekers to the area**

Large construction projects tend to attract people to the area in the hope that they will secure a job, even if it is a temporary job. These job seekers can in turn become "economically stranded" in the area or decide to stay on irrespective of finding a job or not. As in the case of construction workers employed on the project, the actual presence of job seekers in the area does not in itself constitute a social impact. However, the manner in which they conduct themselves can affect the local community. There is also a concern that some of these job seekers may not leave town immediately and, in some cases, may stay indefinitely.

The potential social impacts associated with the influx of job seekers include:

- Impacts on existing social networks and community structures;
- Competition for housing, specifically low cost housing;
- Competition for scarce jobs;
- Increase in incidences of crime;
- An increase in sexually transmitted diseases (STDs).

These issues are similar to the concerns associated with the presence of construction workers and are discussed in Section 4.4.2. However, in some instances the potential impact on the community may be greater given that they are unlikely to have accommodation and may decide to stay on in the area. In addition, they will not have a reliable source of income. The risk of crime associated with the influx of job seekers it therefore likely to be greater.



Experience from other projects has also shown that the families of job seekers may also accompany individual job seekers or follow them later. In many cases the families of the job seekers that become “economically stranded” and the construction workers that decided to stay in the area, subsequently moved to the area. The influx of job seekers to the area and their families can also place pressure on the existing services in the area, specifically low income housing and schools. In addition to the pressure on local services the influx of construction workers and job seekers can also result in competition for scarce employment opportunities. Further secondary impacts include an increase in crime levels, especially property crime, because of the increased number of unemployed people. These impacts can result in increased tensions and conflicts between local residents and job seekers from outside the area.

However, as indicated above, the potential impacts associated with the influx of job seekers should be viewed within the context of Postmasburgs recent history as a rapidly developing town that is dominated by the mining sector and mine workers. The findings of the SIA indicate that there has been a significant influx of workers and job seekers to Postmasburg over the last 3-5 years due to the mining sector, specifically the establishment of the Kolomela Mine by Anglo American. Postmasburg has therefore experienced the potential impacts associated with the presence of construction workers and the influx of job seekers. Given the relatively small scale of the proposed project (185 houses) compared to the scale of the housing projects associated with the mining sector (700 built in last 2-3 years and a further 3 300 planned) the potential for the Transnet housing project to result in a significant influx of job seekers to the town are limited.

However, having said this, the key lesson from other large construction projects is the importance of developing and implementing a well-structured recruitment strategy aimed at employing locals and minimising the number of job seekers moving into the area. This influx and the demand that it may have on local services should be borne in mind when the IDP is reviewed and up-dated.

**Table 4.3: Assessment of impact of job seekers on local communities**

<b>Nature:</b> Potential impacts on family structures, social networks and community services associated with the influx of job seekers		
	<b>Without Mitigation</b>	<b>With Mitigation</b>
<b>Extent</b>	Local (2)	Local (2)
<b>Duration</b>	Permanent (5) (For job seekers that stay on the town)	Permanent (5) (For job seekers that stay on the town)
<b>Magnitude</b>	Minor for the community as a whole (2) High-Very High for specific individuals who may be affected by STD's etc. (10)	Minor for community as a whole (2) High-Very High for specific individuals who may be affected by STD's etc. (10)
<b>Probability</b>	Probable (3)	Probable (3)
<b>Significance</b>	Low for the community as a whole (27) Medium -High for specific individuals who may be affected by STD's etc. (54)	Low for the community as a whole (27) Medium-High for specific individuals who may be affected by STD's etc. (51)
<b>Status</b>	Negative	Negative
<b>Reversibility</b>	No in case of HIV and AIDS	No in case of HIV and AIDS
<b>Irreplaceable loss of resources?</b>	Yes, if people contract HIV/AIDS. Human capital plays a critical role in communities that rely on farming for their livelihoods	
<b>Can impact be mitigated?</b>	Yes, to some degree. However, the risk cannot be eliminated	
<b>Mitigation:</b> See below		
<b>Cumulative impacts:</b> Impacts on family and community relations that may, in some cases, persist for a long period. Also in cases where unplanned / unwanted pregnancies occur or members of the community are infected by an STD, specifically HIV and or AIDS, the impacts may be permanent and have long term to permanent cumulative impacts on the affected individuals and/or their families and the community.		
<b>Residual impacts:</b> See cumulative impacts.		

### Assessment of No-Go option

There is no impact as it maintains the current status quo.

### Recommended mitigation measures

It is almost impossible to stop people from coming to the area in search of a job, specifically given job opportunities associated with the mining sector. However, as indicated above, the proponent should ensure that the employment criteria favour local residents in the area. In addition the proponent should:

- The proponent should liaise with the TLM to monitor and identify potential problems that may arise due to the influx of job seekers to the area;
- Implement a policy that no employment will be available at the gate. This should be linked to the establishment of employment offices in Postmasburg and other towns in the TLM.

#### 4.4.4 Safety and security risk associated with presence of construction workers

The presence of construction workers on the site poses a potential safety and security risk for the residents in the adjacent residential area, Die Stasie. Experience with both small and large scale construction projects shows that the risk of crimes, such as thefts and house break in's increases with presence of construction workers in the area. The threat posed by construction workers to the safety and security of the residents of Die Stasie is, therefore, an issue that must be addressed by the proponent and the contractor appointed by the proponent. The threat is not only linked to the workers accommodated on the site, but also those workers accommodated off-site.

**Table 4.4: Assessment of safety and security risk posed by construction workers**

<b>Nature:</b> Potential safety and security risk posed by presence of construction workers on site		
	<b>Without Mitigation</b>	<b>With Mitigation</b>
<b>Extent</b>	Local (2)	Local (1)
<b>Duration</b>	Short Term (2)	Short Term (2)
<b>Magnitude</b>	Moderate (6)	Low (4)
<b>Probability</b>	Probable (3)	Probable (3)
<b>Significance</b>	Medium (30)	Low (21)
<b>Status</b>	Negative	Negative
<b>Reversibility</b>	No, if local residents are murdered or physically harmed	No, if local residents are murdered or physically harmed
<b>Irreplaceable loss of resources?</b>	Yes, if family member is murdered	Yes, if family member is murdered
<b>Can impact be mitigated?</b>	Yes	Yes
<b>Mitigation:</b> See below		
<b>Cumulative impacts:</b> No		
<b>Residual impacts:</b> Include psychological effects associated with attacks or crime related events that may last for many years.		

#### Assessment of No-Go option

There is no impact as it maintains the current status quo.

#### Recommended mitigation measures

The mitigation measures that can be considered to address the potential impact include:

- The proponent should appoint an Environmental Control Officer (ECO) to monitor the construction phase and ensure that the recommended mitigation measures are implemented.
- The proponent and the contractors should, develop a Code of Conduct for the construction phase. The code should identify what types of behaviour and

activities by construction workers are not permitted. Construction workers that breach the code of good conduct should be dismissed. All dismissals must comply with the South African labour legislation;

- The movement of construction workers on and off the site should be closely managed and monitored by the contractors. In this regard the contractors should be responsible for ensuring that construction workers respect the rights of the residents of Die Stasis and do not pose safety and security threat to the residents and their families.

#### 4.4.5 Impacts associated construction activities

The impacts associated with the construction activities include noise, dust and safety related impacts. These impacts are linked to linked movement of construction vehicles, specifically large trucks, the operation of machinery, such as cement mixers, compressors, hammering, etc. These activities have the potential to impact on the local residents living in Die Stasie, which is located adjacent to the site. The activities also have the potential to impact the Traffic Department (staff and members of the public). The impacts associated with construction related impacts will occur over a period of ~ 23 months (site establishment and construction of the houses).

**Table 4.5: Assessment of the impacts associated with construction activities**

<b>Nature:</b> Potential noise, dust and safety impacts associated with construction related activities		
	<b>Without Mitigation</b>	<b>With Mitigation</b>
<b>Extent</b>	Local (3)	Local (2)
<b>Duration</b>	Short Term (2)	Short Term (2)
<b>Magnitude</b>	Moderate (6)	Low (4)
<b>Probability</b>	Probable (3)	Probable (3)
<b>Significance</b>	Medium (33)	Low (24)
<b>Status</b>	Negative	Negative
<b>Reversibility</b>	Yes	Yes
<b>Irreplaceable loss of resources?</b>	No	No
<b>Can impact be mitigated?</b>	Yes	Yes
<b>Mitigation:</b> See below		
<b>Cumulative impacts:</b> No cumulative impacts likely as impacts is confined to single area (Die Stasie) and linked to specific activity, the construction of the Transnet housing project		
<b>Residual impacts:</b> Impact on the quality of life of the local residents during construction period only. No residual impacts likely after completion of construction phase.		

#### Assessment of No-Go option

There is no impact as it maintains the current status quo.

#### Recommended mitigation measures

The following mitigation measures are recommended:

- The proponent should appoint an Environmental Control Officer (ECO) to monitor the construction phase and ensure that the recommended mitigation measures are implemented.
- Working hours should be confined to between 07h30 and 17h30.
- Construction activities over weekends should only be permitted between 08h00 and 13h00 on Saturdays.
- No construction related activities should be permitted on Sundays and Public Holidays.
- The contractor must ensure that all damage caused to local roads by the construction related activities, including heavy vehicles, is repaired before the completion of the construction phase. The costs associated with the repair must be borne by the contractor;
- Dust suppression measures must be implemented for heavy vehicles such as wetting of gravel roads on a regular basis and ensuring that vehicles used to transport sand and building materials are fitted with tarpaulins or covers;
- All vehicles must be road-worthy and drivers must be qualified, made aware of the potential road safety issues, and need for strict speed limits.

#### **4.5 SOCIAL IMPACTS ASSOCIATED WITH OPERATIONAL PHASE**

The key social issues affecting the operational phase include:

##### **Potential positive impacts**

- Creation of accommodation for Transnet employees.
- Broaden the rates base for the local municipality.
- Creation of employment and business opportunities linked to the new households.

##### **Potential negative impacts**

- Impact on capacity of existing services;
- Impact on operations at the Traffic Department

#### 4.5.1 Creation of accommodation of Transnet employees

The findings of the SIA indicate that the rapid, mining linked expansion of the town of Postmasburg over the last 3-5 years has resulted in a severe shortage of housing and accommodation. As a result accommodation is scarce and rentals are extremely high. It was reported that the minimum rental for an average, 3 bedroomed house was R 16 000 per month. As a result local government employees, such as school teachers, municipal officials, police staff, etc. cannot afford the rentals being charged. This was identified as a major issue by representatives from the TLM, the principal of the Postmasburg High School and representatives from the Postmasburg Chamber of Commerce.

In the absence of the housing project the majority of Transnet's employees that will be based in Postmasburg as part of the Transnet's expansion programme would not be in a position to find or afford reasonable accommodation. The proposed housing project therefore addresses the critical shortage of housing in Postmasburg that would have been faced by Transnet. In doing so it represents a positive social benefit for the Transnet employees who will be accommodated in the houses to be built. Failure to provide accommodation would result in a negative social impact for Transnet's staff due to the severe shortage of accommodation and the high rental costs. Failure by Transnet to provide accommodation for its staff would also, in all likelihood, jeopardize their expansion programme, which in turn, would impact negatively on the mining sector and the economic development of the area as a whole.

**Table 4.6: Creation of accommodation for Transnet employees**

<b>Nature:</b> Creation of accommodation for Transnet employees		
	<b>Without Mitigation (This assumes that no houses provided by Transnet)</b>	<b>With Enhancement (Enhancement assumes houses provided by Transnet)</b>
<b>Extent</b>	Local-Regional (3)	Local – Regional (3)
<b>Duration</b>	Long term (4)	Long term (4)
<b>Magnitude</b>	Moderate (6)	Moderate (6)
<b>Probability</b>	Highly Probable (4)	Definite (5)
<b>Significance</b>	Medium (51)	High (65)
<b>Status</b>	Negative	Positive
<b>Reversibility</b>	N/A	N/A
<b>Irreplaceable loss of resources?</b>	No	No
<b>Can impact be enhanced?</b>	Yes	Yes
<b>Enhancement:</b> See below		
<b>Cumulative impacts:</b> Creation of accommodation for Transnet employees removes pressure that would have potential been created if no accommodation had been provided. Therefore positive cumulative impact for local housing market		
<b>Residual impacts:</b> Yes, if no housing provided. Residual impact on local housing market and		

rental prices
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### Assessment of No-Go option

The no-go option would result in Transnet employees having to find their own accommodation in Postmasburg. As indicated above, suitable accommodation is scarce and expensive.

### Recommended enhancement measures

The recommended enhancement measure is for the project to be approved and for Transnet to construct the required 185 houses as planned.

#### 4.5.2 Broaden the rates base of the TLM

The establishment of 185 houses will broaden the rates base of the TLM, which will represent a benefit the local area and the TLM. With proper management a broader rates base and increased revenue from sale of water and electricity should enable the TLM to address some of the challenges associated with the rapid growth of the Postmasburg over the last 3-5 years, specifically the challenges facing the lower income areas in the town. The contribution of the Transnet housing project to the rates base should also be seen within the context of the contribution by the housing projects initiated by the mining sector (Anglo American and Asmang).

**Table 4.7: Broaden rates base of the TLM**

<b>Nature:</b> Increase rates and tax revenue for the TLM which can be used to address some of the socio-economic challenges facing Postmasburg		
	<b>Without Mitigation (This assumes that no houses provided by Transnet)</b>	<b>With Enhancement (Enhancement assumes houses provided by Transnet)</b>
<b>Extent</b>	Local-Regional (2)	Local – Regional (2)
<b>Duration</b>	Long term (4)	Long term (4)
<b>Magnitude</b>	Moderate (6)	Moderate (6)
<b>Probability</b>	Highly Probable (4)	Definite (5)
<b>Significance</b>	Medium (51)	High (60)
<b>Status</b>	Negative	Positive
<b>Reversibility</b>	N/A	N/A
<b>Irreplaceable loss of resources?</b>	No	No
<b>Can impact be enhanced?</b>	Yes	Yes
<b>Enhancement:</b> See below		
<b>Cumulative impacts:</b> Promotion of social and economic development and improvement in the overall well-being of the community		
<b>Residual impacts:</b> See cumulative impacts		

### Assessment of No-Go option

There is no impact as it maintains the current status quo. However, the potential opportunity costs in terms of the generating revenue for the TLM would be lost. This would represent a negative opportunity cost.

### Recommended enhancement measures

The recommended enhancement measure is for the project to be approved and for Transnet to construct the required 185 houses as planned.

### 4.5.3 Benefit to the local economy

The proposed Transnet expansion programme will accommodate at least 185 Transnet employees who will be earning a monthly wage, a portion of which will be spent in Postmasburg and the TLM area. This will benefit the local economy and local businesses in Postmasburg. Local businesses that are likely to benefit directly include shopping centres, restaurants, hardware shops etc. In addition, the 185 households will also create potential employment opportunities in the form of work for cleaners and gardeners. If one assumes that 50 % of the household employ a cleaner/gardener, this would create approximately 100 new employment opportunities.

Some of the family members of the Transnet employees may also start local businesses in Postmasburg, which, in turn, would benefit the local economy and create additional employment opportunities.

**Table 4.8: Benefit to the local economy during the operation phase**

<b>Nature:</b> Creation of employment and business opportunities during the operational phase		
	<b>Without Mitigation</b>	<b>With Enhancement (Enhancement measures for individual households not realistic)</b>
<b>Extent</b>	Local – Regional (2)	Local – Regional (2)
<b>Duration</b>	Long Term (4)	Long Term (4)
<b>Magnitude</b>	Low (4)	Low (4)
<b>Probability</b>	Probable (3)	Probable (3)
<b>Significance</b>	Medium (30)	Medium (30)
<b>Status</b>	Positive	Positive
<b>Reversibility</b>	N/A	N/A
<b>Irreplaceable loss of resources?</b>	N/A	N/A
<b>Can impact be enhanced?</b>	Yes	Yes
<b>Enhancement :</b> See below		
<b>Cumulative impacts:</b> Opportunity to create opportunities for employment and improve skills levels in the area.		
<b>Residual impacts:</b> Improved pool of skills and experience in the local area.		



### **Assessment of No-Go option**

The potential employment and economic benefits associated with the operational phase of the proposed development would be forgone. The potential opportunity costs in terms of benefit to the local economy would therefore be negative.

### **Recommended enhancement measures**

Not realistic to identify enhancement measures for individual households.

#### **4.5.4 Impact on local services and capacity of TLM**

The findings of the SIA indicate that rapid, mining related growth in Postmasburg over the last 3-5 years has impacted on local services. In addition, the capacity and ability of the TLM to manage the increased pressure on services such as bulk water reticulation, sewage treatment, waste collection and disposal, maintenance of roads etc. was identified as a key issue of concern. The TLM also identifies the capacity of the TLM as a key issue. While there have been no major service delivery related protests in the town to date, the conditions on the ground for such protests are in place. The local station commander also indicated that while there had been not xenophobia related incidents in Postmasburg, the conditions for such incidents were in place.

In addition to the services provided by the TLM, the rapid growth of Postmasburg has also impacted on other key community services, such as schools, police, hospitals, clinics and emergency services. The findings of the SIA indicate that there is limited space in schools, specifically schools in Newtown and Boichoko. Information provided by the local station commander at the Postmasburg Police Station indicates that they do not have sufficient staff and vehicles to effectively police the area. In addition to the lack of capacity the rapid growth of the informal areas has also made policing difficult due to poor access in these areas. Similar capacity challenges face the local emergency services in Postmasburg. The rapid growth of the town over the last 3-5 years has also been accompanied by a number of social problems, such as an increase in crime, use of drugs, alcohol abuse, and prostitution.

As indicated above ~ 700 new houses have been built in last 2-3 years and a further 3 300 planned. While the scale of the Transnet housing project may appear to relatively small when compared to the housing projects associated with the mining sector it will also contribute to the pressure on the existing services in the town.

**Table 4.9: Impact on local services and capacity**

<b>Nature:</b> The rapid expansion of Postmasburg has placed pressure on existing services and the capacity of the TLM		
	<b>Without Mitigation</b>	<b>With Enhancement (Assumes increased capacity of TLM etc. and additional resources)</b>
<b>Extent</b>	Local-Regional (3)	Local – Regional (3)
<b>Duration</b>	Long term (4)	Long term (4)
<b>Magnitude</b>	Moderate (6)	Moderate (6)
<b>Probability</b>	Highly Probable (4)	Highly Probable (4)
<b>Significance</b>	Medium (52)	Medium (52)
<b>Status</b>	Negative	Positive
<b>Reversibility</b>	N/A	N/A
<b>Irreplaceable loss of resources?</b>	No	No
<b>Can impact be enhanced?</b>	Yes	Yes
<b>Enhancement:</b> See below		
<b>Cumulative impacts:</b> Negative, decreasing quality of services and impact on local economy and residents. Positive, improved quality of services and capacity and positive impact on local economy		
<b>Residual impacts:</b> See cumulative impacts		

#### **Assessment of No-Go option**

There is no impact as it maintains the current status quo.

#### **Recommended enhancement measures**

Feedback from the IDP and LED Managers indicated that the TLM has established a Development Forum with representatives from the larger mining companies. The forum was referred to as Tsasamba. It is recommended that Transnet liaise with the TLM and become involved in the Tsasamba initiative. In doing so Transnet should identify how it can assist the TLM to address some of the capacity challenges it faces. This may include making skilled Transnet staff (engineers, planners, accountants) available to the TLM for a period of time. Based on feedback from the TLM contact with the TLM should be through the Municipal Managers Office.

In addition to liaising with the TLM it is recommended that Transnet also interact with other key stakeholders in Postmasburg including:

- Chamber of Commerce;
- South African Police;
- Representatives from the local schools in the town.

The aim of the interactions should be to identify ways in which Transnet can contribute to addressing the current challenges facing the town as a result of the rapid growth over the last 3-5 years.

#### 4.5.5 Impact on operations at the Traffic Department

The section of the site identified for the establishment of 185 houses is located adjacent to the Postmasburg Traffic Department. The head of the Traffic Department indicated that the area, which is currently open veld, is used for parking by drivers having road worthy tests. The concern raised was that there was no suitable area for cars to park should the area be developed for housing. However, an alternative area between the Traffic Department and the drivers testing area to the north of the site was identified as a possible alternative site.

**Table 4.10: Impact on Traffic Department**

<b>Nature:</b> Loss of an area that is used for parking by the Traffic Department		
	<b>Without Mitigation</b>	<b>With Enhancement</b>
<b>Extent</b>	Local (1)	Local (1)
<b>Duration</b>	Long term (4)	Long term (4)
<b>Magnitude</b>	Minor (2)	Minor (2)
<b>Probability</b>	Probable (3)	Probable (3)
<b>Significance</b>	Low (21)	High (21)
<b>Status</b>	Negative	Positive
<b>Reversibility</b>	N/A	N/A
<b>Irreplaceable loss of resources?</b>	No	No
<b>Can impact be enhanced?</b>	Yes	Yes
<b>Enhancement:</b> See below		
<b>Cumulative impacts:</b> Parking loss is taken up by cars parking in Die Stasie area and impact on local residents		
<b>Residual impacts:</b> See cumulative impacts		

#### Assessment of No-Go option

There is no impact as it maintains the current status quo.

#### Recommended enhancement measures

Transnet should liaise with representative from the Postmasburg Traffic Department with regard to the use of the area between the Traffic Department and the drivers testing area to the north of the site. The option of Transnet assisting the Traffic Department to level this area and making it into a formal parking area should also be discussed. This should ideally be done at the start of the construction phase so as to minimize the impact associated with the loss of parking space.

#### 4.6 ASSESSMENT OF NO-DEVELOPMENT OPTION

The No-Development option would represent a lost opportunity for the local economy the TLM and Transnet's employees who would benefit from the housing project. The lost opportunity relates the employment opportunities associated with the construction and operational phase, as well as the benefits associated with the broadening the TLM's rates base. The no-development option would also impact Transnet's expansion development negatively, which in turn, would impact negatively on the mining sector and the economic development of the area as a whole.

**Table 4.11: Assessment of no-development option**

<b>Nature:</b> The no-development option would result in the lost opportunity for the local economy the TLM and Transnet's employees who would benefit from the housing project.		
	<b>Without Mitigation</b>	<b>With Mitigation</b>
<b>Extent</b>	Local-Regional (3)	Local-Regional (3)
<b>Duration</b>	Long term (4)	Long term (4)
<b>Magnitude</b>	Moderate (6)	Moderate (6)
<b>Probability</b>	Highly Probable (4)	Highly Probable (4)
<b>Significance</b>	Medium (52)	Medium (52)
<b>Status</b>	Negative	Positive
<b>Reversibility</b>	Yes	
<b>Irreplaceable loss of resources?</b>	No	
<b>Can impact be mitigated?</b>	Yes	
<b>Enhancement:</b> See below		
<b>Cumulative impacts:</b> Negative, linked to lost opportunity for the local economy the TLM and Transnet's employees who would benefit from the housing project.		
<b>Residual impacts:</b> See cumulative impacts		

#### **Recommended enhancement measures**

The development of the proposed Transnet housing project would represent an enhancement measure. However, the potential issues identified by the SIA and other studies undertaken as part of the BA should be addressed by the proposed development.

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## **SECTION 5: KEY FINDINGS AND RECOMMENDATIONS**

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### **5.1 INTRODUCTION**

Section 5 lists the key findings of the study and recommendations. These findings are based on:

- A review of key planning and policy documents pertaining to the area;
- Semi-structured interviews with interested and affected parties;
- A review of social and economic issues associated with similar developments;
- A review of selected specialist studies undertaken as part of the BA;
- The experience of the author with similar projects in South Africa.

### **5.2 SUMMARY OF KEY FINDINGS**

The key findings of the study are summarised under the following sections:

- Fit with policy and planning
- Construction phase impacts
- Operational phase impacts
- Cumulative Impacts
- No-development option

Given the long term nature of housing developments the SIA does not include an assessment of the potential impacts associated with the decommissioning phase. In addition, given the shortage of housing stock in Postmasburg the need to demolish the housing units associated with the proposed Transnet housing development is likely to be unlikely in the medium to long term.

#### **5.2.1 Policy and planning issues**

The key documents reviewed included:

- National Development Plan 2030;
- Northern Cape Provincial Growth and Development Strategy Draft 4 (2011);
- Siyanda Integrated Development Plan (2007-2012);
- Tsantsabane Integrated Development Plan (2011-2016);
- Tsantsabane Spatial Development Framework (2009/2010).

The findings of the review indicated that the proposed housing development supports the principles and objectives set out in the NDP. The proposed development also supports the objectives set out in the NCPGDS and the SDM and TLM IDPs, specifically the creation of employment and economic development opportunities. The proposed development will also create opportunities to support SMMEs and co-operation between the public and private sector in the Northern Cape Province. The TLM SDF also indicates that the site for the proposed development is suitable for

residential development. A section of the site is however identified as a park area. This issue will need to be clarified with the TLM. However, despite this minor issue it is the opinion of the author that the establishment of the proposed Transnet housing development on the selected site is supported by national, provincial and local policies and planning documents.

### **5.2.2 Construction phase**

The key social issues affecting the construction phase include:

#### **Potential positive impacts**

- Creation of employment and business opportunities and opportunity for skills development and on-site training;

Based on the findings of the SIA the proposed Transnet housing project will create approximately 655 employment opportunities over a three year period. This total is made up of 55 during detailed design and procurement, 50 during site establishment and 550 during the actual construction of the houses themselves. Of these, ~ 300 will be for low-skilled workers, 180 for medium-skilled workers and 175 for skilled workers. The majority of the low-skilled and ~ 60 % of the medium skilled opportunities are likely to be available to local residents from Postmasburg and the Tsantsabane municipal area. The majority of these beneficiaries are likely to be historically disadvantaged (HD) members of the community. The total wage bill over the 3 year period is estimated to be in the region of R 141.3 million. Of this total ~ R 23 million and R 33.3 million will be earned by low and medium skilled workers respectively. As indicated above, the majority of the low skilled and ~ 60% of the medium skilled workers are likely to be local residents. The majority of the wage bill earned by local residents is likely to be spent in the local economy, which represents a significant opportunity for the local economy and businesses in Postmasburg and the Tsantsabane LM.

The capital expenditure associated with the construction phase is estimated to be ~ R 320 million. In terms of business opportunities for local companies, expenditure during the construction phase will create business opportunities for the regional and local economy. The project is therefore likely to create opportunities for local contractors and engineering companies in Postmasburg and the Tsantsabane LM and Siyanda DM. The implementation of the enhancement measures listed below can enhance these opportunities.

The local service industry will also benefit from the proposed development. The potential opportunities for the local service sector would be linked to accommodation, catering, cleaning, transport and security, etc. associated with the construction workers on the site. Transnet has indicated that non-local construction workers will be accommodated on site. This will create opportunities for local catering, cleaning, laundry, security etc. companies.

In addition, the skilled workers and project managers are likely to be accommodated off-site in Postmasburg. This will create opportunities for local hotels, B&Bs, guest farms and people who want to rent out their houses. However, based on the information collected during the site visit the accommodation opportunities in Postmasburg are limited. This is an issue that the proponent will need to discuss with the TLM. The hospitality industry in the local towns is also likely to benefit from the provision of accommodation and meals for professionals (engineers, quantity

surveyors, project managers, product representatives etc.) and other (non-construction) personnel involved on the project. Experience from other large construction projects indicates that the potential opportunities are not limited to on-site construction workers but also to consultants and product representatives associated with the project.

In terms of local support, Mr Jacob (TLM IDP Manager) and Ms Mathepelo (TLM LED Manager) indicated that the TLM supported the proposed development and the upgrading of Transnet's railway network. The proposed development also supports the objectives set out in the NCPGDS and the SDM and TLM IDPs, specifically the creation of employment and economic development opportunities. The proposed development will also create opportunities to support SMMEs and co-operation between the public and private sector in the Northern Cape Province.

#### **Potential negative impacts**

- Impacts associated with the presence of construction workers on site
- Influx of job seekers to the area;
- Threat to safety and security of adjacent households associated with the presence of construction workers on site;
- Impacts associated with construction related activities.

The significance of the majority of potential negative impacts with mitigation was assessed to be of Low significance. All of the potential negative impacts can therefore be effectively mitigated if the recommended mitigation measures are implemented. In addition, given that the majority of the low and semi-skilled construction workers can be sourced from the local area the potential risk at a community level to local family structures and social networks is regarded as Low negative significance. This will also enable Transnet to minimise the number of construction workers who need to be accommodated on site. However, the impact on individuals who are directly impacted on by construction workers and or job seekers (i.e. contract HIV/ AIDS) was assessed to be of High negative significance.

Table 5.1 summarises the significance of the impacts associated with the construction phase.

**Table 5.1: Summary of social impacts during construction phase**

<b>Impact</b>	<b>Significance No Mitigation</b>	<b>Significance With Enhancement /Mitigation</b>
<b>Creation of employment and business opportunities</b>	Medium (Positive impact)	Medium (Positive impact)
<b>Presence of construction workers and potential impacts on family structures and social networks</b>	Low (Negative impact for community as a whole) Medium-High (Negative impact of individuals)	Low (Negative impact for community as a whole) Medium-High (Negative impact of individuals)
<b>Influx of job seekers</b>	Low (Negative impact for community as a whole) Medium-High (Negative impact of individuals)	Low (Negative impact for community as a whole) Medium-High (Negative impact of individuals)
<b>Threat to safety and security</b>	Medium (Negative impact)	Low (Negative impact)
<b>Impact of construction related activities (dust, noise, safety etc.)</b>	Medium (Negative impact)	Low (Negative impact)

### 5.2.3 Operational phase

The key social issues affecting the operational phase include:

#### **Potential positive impacts**

- Creation of accommodation for Transnet employees
- Broaden the rates base for the local municipality
- Creation of employment and business opportunities linked to the new households

The findings of the SIA indicate that the rapid, mining linked expansion of the town of Postmasburg over the last 3-5 years has resulted in a severe shortage of housing and accommodation. Failure to provide accommodation would result in a negative social impact for Transnet's staff due to the severe shortage of accommodation and the high rental costs. Failure by Transnet to provide accommodation of its staff would also, in all likelihood, jeopardize their expansion programme, which in turn, would impact negatively on the mining sector and the economic development of the area as a whole.

The establishment of 185 houses will also broaden the rates base of the TLM, which will represent a benefit the local area and the TLM. The wages earned by Transnet employees will also benefit the local economy and local businesses in Postmasburg. Local businesses that are likely to benefit directly include shopping centres, restaurants, hardware shops etc. In addition, the 185 households will also create potential employment opportunities in the form of work for cleaners and gardeners. If one assumes that 50 % of the household employ a cleaner/gardener, this would create in the region of 100 new employment opportunities.



### Potential negative impacts

- Impact on capacity of existing services;
- Impact on operations at the Traffic Department.

The significance of the potential negative impacts with mitigation was assessed to be of Low negative significance. All of the potential negative impacts can therefore be effectively mitigated if the recommended mitigation measures are implemented.

The significance of the impacts associated with the operational phase are summarised in Table 5.2.

**Table 5.2: Summary of social impacts during operational phase**

<b>Impact</b>	<b>Significance No Mitigation</b>	<b>With Enhancement /Mitigation</b>
<b>Provide accommodation for Transnet staff</b>	Medium (Negative impact)	High (Positive impact)
<b>Broaden the rates base for the local municipality</b>	Medium (Negative impact)	High (Positive impact)
<b>Creation of employment and business opportunities linked to the new households</b>	Medium (Positive impact)	Medium (Positive impact)
<b>Impact on capacity of existing services</b>	Medium (Negative impact)	Medium (Positive)
<b>Impact on operations at the Traffic Department.</b>	Low (Negative impact)	Low (Negative impact)

#### 5.2.4 Assessment of no-development option

The No-Development option would represent a lost opportunity for the local economy the TLM and Transnet's employees who would benefit from the housing project. The lost opportunity relates the employment opportunities associated with the construction and operational phase, as well as the benefits associated with the broadening the TLM's rates base. The no-development option would also impact Transnet's expansion development negatively, which in turn, would impact negatively on the mining sector and the economic development of the area as a whole. The No-Development option is therefore not supported.

### 5.3 CONCLUSIONS AND RECOMMENDATIONS

The findings of the SIA also indicated that the proposed development will create employment and business opportunities for locals during both the construction and operational phase of the project. The enhancement measures listed in the report should be implemented in order to enhance these benefits.

The findings of the SIA also indicate that the proposed Transnet housing project supports the objectives set out in the NCPGDS and the SDM and TLM IDPs, specifically the creation of employment and economic development opportunities. The TLM SDF also indicates that the site for the proposed development is suitable for

residential development. A section of the site however been identified as a park area. This issue will need to be clarified with the TLM.

#### **5.4 IMPACT STATEMENT**

The overall finding of the SIA is that the potential positive socio-economic impacts associated with the Transnet housing development outweigh the potential negative social impacts. It is therefore recommended that the development as proposed be supported, subject to the implementation of the recommended enhancement and mitigation measures contained in the report.

## **ANNEXURE A**

### **INTERVIEWS**

- Mr April Bloem, TLM Technical Department, 14/08/2013;
- Mr Dirk Louw, Traffic Department, Postmasburg, 13/08/2013;
- Ms Karin Coetzee, Estate Agent, 13/08/2013/;
- Mrs Coetzee, Headmaster, Postmasburg High School, 14/08/2013;
- Mr Jaques Coetzee, Postmasburg Chamber of Commerce, 13/08/2013;
- Mr Klaasen, Station Commander, Postmasburg Police Station, 13/08/2013;
- Ms Mathepelo, TLM, LED Manager, 14/08/2013;
- Mr Mac Jacobs, TLM, IDP Manager, 13/08/2013;
- Mrs M Swart, Councillor Ward 6, TLM, 13/08/2013;

### **REFERENCES**

- National Development Plan 2030;
- Northern Cape Provincial Growth and Development Strategy Draft 4 (2011);
- Siyanda Integrated Development Plan (2007-2012);
- Tsantsabane Integrated Development Plan (2011-2016).
- Tsantsabane Spatial Development Framework (2009/2010).

## ANNEXURE B: ASSESSMENT METHODOLOGY

### METHODOLOGY FOR THE ASSESSMENT OF POTENTIAL IMPACTS

Direct, indirect and cumulative impacts of the above issues, as well as all other issues identified will be assessed in terms of the following criteria:

- The **nature**, which shall include a description of what causes the effect, what will be affected and how it will be affected.
- The **extent**, where it will be indicated whether the impact will be local (limited to the immediate area or site of development), regional, national or international. A score between 1 and 5 will be assigned as appropriate (with a score of 1 being low and a score of 5 being high).
- The **duration**, where it will be indicated whether:
  - \* the lifetime of the impact will be of a very short duration (0–1 years) – assigned a score of 1;
  - \* the lifetime of the impact will be of a short duration (2-5 years) - assigned a score of 2;
  - \* medium-term (5–15 years) – assigned a score of 3;
  - \* long term (> 15 years) - assigned a score of 4; or
  - \* permanent - assigned a score of 5.
- The **magnitude**, quantified on a scale from 0-10, where a score is assigned:
  - \* 0 is small and will have no effect on the environment;
  - \* 2 is minor and will not result in an impact on processes;
  - \* 4 is low and will cause a slight impact on processes;
  - \* 6 is moderate and will result in processes continuing but in a modified way;
  - \* 8 is high (processes are altered to the extent that they temporarily cease); and
  - \* 10 is very high and results in complete destruction of patterns and permanent cessation of processes.
- The **probability of occurrence**, which shall describe the likelihood of the impact actually occurring. Probability will be estimated on a scale, and a score assigned:
  - \* Assigned a score of 1–5, where 1 is very improbable (probably will not happen);
  - \* Assigned a score of 2 is improbable (some possibility, but low likelihood);
  - \* Assigned a score of 3 is probable (distinct possibility);
  - \* Assigned a score of 4 is highly probable (most likely); and
  - \* Assigned a score of 5 is definite (impact will occur regardless of any prevention measures).
- The **significance**, which shall be determined through a synthesis of the characteristics described above (refer formula below) and can be assessed as low, medium or high.
- The **status**, which will be described as either positive, negative or neutral.
- The *degree* to which the impact can be *reversed*.
- The *degree* to which the impact may cause *irreplaceable loss of resources*.
- The *degree* to which the impact can be *mitigated*.

The **significance** is determined by combining the criteria in the following formula:

$S=(E+D+M)P$ ; where

S = Significance weighting  
E = Extent  
D = Duration  
M = Magnitude  
P = Probability

The **significance weightings** for each potential impact are as follows:

- < 30 points: Low (i.e. where this impact would not have a direct influence on the decision to develop in the area),
- 30-60 points: Medium (i.e. where the impact could influence the decision to develop in the area unless it is effectively mitigated),
- > 60 points: High (i.e. where the impact must have an influence on the decision process to develop in the area).

## ANNEXURE C: ENVIRONMENTAL MANAGEMENT PLAN

### ENVIRONMENTAL MANAGEMENT PLAN: SIA

#### CONSTRUCTION PHASE

##### Creation of employment and business opportunities

**OBJECTIVE: Maximise local employment and business opportunities associated with the construction phase.**

<b>Project component/s</b>	Construction and establishment activities associated with the establishment of housing development.	
<b>Potential Impact</b>	The opportunities and benefits associated with the creation of local employment and business should be maximised.	
<b>Activity/risk source</b>	The employment of outside contractors to undertake the work and who make use of their own labour will reduce the employment and business opportunities for locals. Employment of local labour will maximise local employment opportunities.	
<b>Mitigation: Target/Objective</b>	The proponent, in discussions with the TLM, should aim to employ low-skilled workers from the local area where possible. This should also be made a requirement for all contractors. The proponent should also develop a database of local BBEE service providers	
<b>Mitigation: Action/control</b>	<b>Responsibility</b>	<b>Timeframe</b>
<ul style="list-style-type: none"> <li>• Aim to employ low-skilled workers from the local area;</li> <li>• Where required, implement appropriate training and skills development programmes prior to the initiation of the construction phase. Skills audit to be undertaken to determine training and skills development requirements;</li> <li>• Develop a database of local BBEE service providers and ensure that they are informed of tenders and job opportunities;</li> <li>• Identify potential opportunities for local businesses</li> </ul>	<ul style="list-style-type: none"> <li>• The proponent and &amp; contractors</li> <li>• The proponent</li> <li>• The proponent</li> <li>• The proponent</li> <li>• The proponent</li> </ul>	<ul style="list-style-type: none"> <li>• Employment and business policy document that sets out local employment targets to be in place before construction phase commences.</li> <li>• Where required, training and skills development programmes to be initiated prior to the initiation of the construction phase.</li> <li>• Skills audit to determine need for training and skills development programme undertaken within 1 month of commencement of construction phase commences.</li> <li>• Database of potential local BEE services providers to be completed before construction phase</li> </ul>

		commences.
<b>Performance Indicator</b>	<ul style="list-style-type: none"> <li>• Employment and business policy document that sets out local employment and targets completed before construction phase commences;</li> <li>• 80 % of semi and unskilled labour locally sourced where possible.</li> <li>• Database of potential local BBBEE services providers in place before construction phase commences.</li> <li>• Skills audit to determine need for training and skills development programme undertaken within 1 month of commencement of construction phase.</li> </ul>	
<b>Monitoring</b>	<ul style="list-style-type: none"> <li>• The proponent and or appointed ECO must monitor indicators listed above to ensure that they have been met for the construction phase.</li> </ul>	

### Impact associated with presence of construction workers

**OBJECTIVE: Avoid the potential impacts on family structures and social networks associated with presence of construction workers from outside the area**

<b>Project component/s</b>	Construction and establishment activities associated with the establishment of housing development.	
<b>Potential Impact</b>	The presence of construction workers who live outside the area and who are housed in local towns can impact on family structures and social networks.	
<b>Activity/risk source</b>	The presence of construction workers can impact negatively on family structures and social networks, especially in small, rural communities.	
<b>Mitigation: Target/Objective</b>	To avoid and or minimise the potential impact of construction workers on the local community. This can be achieved by maximising the number of locals employed during the construction phase and minimising the number of workers housed on the site.	
<b>Mitigation: Action/control</b>	<b>Responsibility</b>	<b>Timeframe</b>
<ul style="list-style-type: none"> <li>• Aim for low-skilled workers to be sourced from the local area. This should be included in the tender documents. Construction workers should be recruited from the local area in and around Postmasburg</li> <li>• Construction workers should be able to provide proof of having lived in the area for five years or longer.</li> <li>• Identify local contractors who are qualified to undertake the required</li> </ul>	<ul style="list-style-type: none"> <li>• The proponent and contractors</li> <li>• The proponent</li> <li>• The proponent</li> </ul>	<ul style="list-style-type: none"> <li>• Identify suitable local contractors prior to the tender process for the construction phase.</li> <li>• Tender documents for contractors include conditions set out in SIA, including transport of workers home over weekends, transportation of workers home on completion of construction phase, appointment of ECO, etc.,</li> <li>• ECO appointed before construction phase</li> </ul>

<p>work;</p> <ul style="list-style-type: none"> <li>• Appoint an ECO to ensure recommendations are implemented;</li> <li>• Develop a Code of Conduct to cover the activities of the construction workers housed on the site;</li> <li>• Ensure that construction workers attend a brief session before they commence activities. The aim of the briefing session is to inform them of the rules and regulations governing activities on the site as set out in the Code of Conduct.</li> <li>• Ensure that all workers are informed at the outset of the construction phase of the conditions contained on the Code of Conduct;</li> <li>• Ensure that construction workers who are found guilty of breaching the Code of Conduct are dismissed. All dismissals must be in accordance with South African labour legislation.</li> <li>• Provide opportunities for workers to go home over weekends. The cost of transporting workers home over weekends and back to the site should be borne by the contractors.</li> <li>• On completion of the construction phase all construction workers must be transported back to their place of origin within two days of their contract ending. The costs of transportation must be borne by the contractor.</li> </ul>	<ul style="list-style-type: none"> <li>• The proponent</li> <li>• The proponent and contractors</li> <li>• The proponent and contractors and CLC</li> <li>• Contractors</li> <li>• Contractors</li> <li>• Contractors</li> <li>• Contractors</li> </ul>	<p>commences.</p> <ul style="list-style-type: none"> <li>• Code of Conduct drafted before construction phase commences.</li> <li>• Briefing session for construction workers held before they commence work on site.</li> </ul>
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Performance Indicator	<ul style="list-style-type: none"> <li>• Employment policy and tender documents that sets out local employment and targets completed before construction phase commences;</li> <li>• 80 % of semi and unskilled labour locally sourced where possible;</li> <li>• Construction workers employed have proof that they have lived in the area for five years or longer;</li> <li>• ECO appointed prior to implementation of construction phase;</li> <li>• Code of Conduct drafted before commencement of construction phase;</li> <li>• Briefing session with construction workers held at outset of construction phase;</li> </ul>
Monitoring	<ul style="list-style-type: none"> <li>• The proponent and or appointed ECO must monitor indicators listed above to ensure that they have been met for the construction phase.</li> </ul>

### Impacts associated with construction activities

**OBJECTIVE: To avoid and or minimise the potential impacts such as safety, noise and dust and damage to roads caused by construction activities**

Project component/s	Construction and establishment activities associated with the establishment of housing development.	
Potential Impact	Heavy vehicles can generate noise and dust impacts. Movement of heavy vehicles can also damage roads.	
Activity/risk source	The movement of heavy vehicles and their activities on the site can result in noise and dust impacts and damage roads.	
Mitigation: Target/Objective	To avoid and or minimise the potential noise and dust impacts associated with heavy vehicles, and also minimise damage to roads.	
Mitigation: Action/control	Responsibility	Timeframe
<ul style="list-style-type: none"> <li>• Working hours should be between 07h30 and 17h30.</li> <li>• Construction activities over weekends should only be permitted between 08h00 and 13h00 on Saturdays.</li> <li>• No construction related activities should be permitted on Sundays and Public Holidays.</li> <li>• Implement dust suppression measures for heavy vehicles such as wetting roads on a regular basis and ensuring that vehicles used to transport sand and building materials are fitted with</li> </ul>	<ul style="list-style-type: none"> <li>• Contractors</li> <li>• Contractors</li> <li>• Contractors</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure that these conditions are included in the Construction Phase EMP.</li> <li>• Ensure that dust suppression measures are implemented for all heavy vehicles that require such measures during the construction phase commences.</li> <li>• Ensure that drivers are made aware of the potential safety issues and enforcement of strict speed limits when they are employed.</li> <li>• Fit all heavy vehicles with speed monitors before they are used in the construction</li> </ul>

<ul style="list-style-type: none"> <li>• tarpaulins or covers.</li> <li>• Ensure that all vehicles are road-worthy, drivers are qualified and are made aware of the potential noise, dust and safety issues;</li> <li>• Ensure that drivers adhere to speed limits. Vehicles should be fitted with recorders to record when vehicles exceed the speed limit;</li> <li>• Ensure that damage to roads is repaired before completion of construction phase.</li> </ul>	<ul style="list-style-type: none"> <li>• Contractors</li> </ul>	<ul style="list-style-type: none"> <li>• phase.</li> <li>• Assess road worthy status of heavy vehicles at the outset of the construction phase and on a monthly basis thereafter;</li> <li>• Ensure that damage to roads is repaired before completion of construction phase.</li> </ul>
<b>Performance Indicator</b>	<ul style="list-style-type: none"> <li>• Conditions included in the Construction Phase EMP.</li> <li>• Dust suppression measures implemented for all heavy vehicles that require such measures during the construction phase commences.</li> <li>• Drivers made aware of the potential safety issues and enforcement of strict speed limits when they are employed.</li> <li>• All heavy vehicles equipped with speed monitors before they are used in the construction phase.</li> <li>• Road worthy certificates in place for all heavy vehicles at outset of construction phase and up-dated on a monthly basis.</li> </ul>	
<b>Monitoring</b>	<ul style="list-style-type: none"> <li>• The proponent and or appointed ECO must monitor indicators listed above to ensure that they have been met for the construction phase.</li> </ul>	