CONTENTS

1 SOCIO-ECONOMIC ASSESSMENT ........................................................................................................................................ 6

1.1 INTRODUCTION............................................................................................................................................................. 6

1.1.1 Background ............................................................................................................................................................... 6

1.1.2 Aims and Objectives .................................................................................................................................................... 6

1.2 POLICY CONTEXT............................................................................................................................................................. 6

1.2.1 THE CONSTITUTION OF THE REPUBLIC OF SOUTH AFRICA ..................................................................................... 6

1.2.2 SPATIAL PLANNING AND LAND USE MANAGEMENT (ACT 16 OF 2013)................................................................. 7

1.2.3 HOUSING ACT, 1997 (ACT NO. 107 OF 1997) ............................................................................................................... 7

1.2.4 NATIONAL DEVELOPMENT PLAN ............................................................................................................................... 8

1.2.5 MEDIUM-TERM STRATEGIC FRAMEWORK (MTSF) ................................................................................................. 8

1.2.6 INTEGRATED URBAN DEVELOPMENT FRAMEWORK ............................................................................................... 9

1.2.7 KZN PROVINCIAL GROWTH AND DEVELOPMENT STRATEGY AND PLAN 2012-2030............................................. 10

1.2.8 THE MUNICIPAL IDP, SDF AND SPLUMA BY-LAWS ............................................................................................... 10

1.2.9 P483 CORRIDOR ........................................................................................................................................................... 11

1.3 PROJECT DESCRIPTION .................................................................................................................................................. 12

1.3.1 PROJECT LOCALITY .................................................................................................................................................... 12

1.3.2 PROPERTY DESCRIPTION AND OWNERSHIP ........................................................................................................... 12

1.3.3 THE PROPOSED DEVELOPMENT ................................................................................................................................ 13

1.4 SOCIAL IMPACT ASSESSMENT ...................................................................................................................................... 17

1.4.1 CHANGE PROCESSORS AND POTENTIAL IMPACTS ................................................................................................. 17
1.4.2 Demographical processes .................................................................................................................. 20
1.4.3 Economical Processes ....................................................................................................................... 23
1.4.4 Economical change processes ............................................................................................................ 24
1.4.5 Institutional and Empowerment Change Processes ........................................................................... 27
1.4.6 Socio-Cultural Change Processes ..................................................................................................... 31
1.4.7 Future relocation of informal dwellers ............................................................................................... 33
1.5 DISCUSSION AND ASSESSMENT OF IMPACTS AND MITIGATION MEASURES .......................... 35
  1.5.1 CONSTRUCTION PHASE IMPACTS ............................................................................................. 35
  1.5.2 OPERATIONAL PHASE IMPACTS ............................................................................................... 38
1.6 CONCLUSIONS AND RECOMMENDATIONS ...................................................................................... 40
1.7 REFERENCES ......................................................................................................................................... 41

LIST OF MAPS

Map 1: P483 Corridor ................................................................................................................................. 11
Map 2: Site locality .................................................................................................................................... 12
Map 3: Bulk Infrastructure ....................................................................................................................... 16
Map 4: Access roads ................................................................................................................................. 17
Map 5: Surrounding land use ................................................................................................................ 18
Map 6: Informal dwellers location .......................................................................................................... 33

LIST OF GRAPHS

Graph 1: Population distribution per ward .............................................................................................. 20
Graph 2: Age structure ................................................................. 21
Graph 3: Education ........................................................................ 23
Graph 4: Employment .................................................................... 23
Graph 5: Income profile ................................................................. 24
Graph 6: Access to water ................................................................. 27
Graph 7: Energy used for Heating .................................................... 27
Graph 8: Energy used for Cooking ................................................... 28
Graph 9: Energy used for Lighting ...................................................... 28
Graph 10: Access to Sanitation .......................................................... 28
Graph 11: Access to Refuse removal .................................................. 29

LIST OF TABLES
Table 1: Proposed land uses .............................................................. 13
Table 2: Proposed development rights ............................................... 15
Table 3: Overview of expected Geographical change processes and potential impacts .................................................. 19
Table 4: Overview of expected Demographical change processes and potential impacts .................................................... 22
Table 5: Overview of expected Economic Change processes and potential impacts ......................................................... 25
Table 6: Overview of expected Institutional and Empowerment change processes and potential impacts ......................................... 30
Table 7: Overview of expected Socio-cultural change processes and potential impacts .......................................................... 32
Table 8: Overview expected relocation of informal dwellers change and processes and potential impacts ............................................ 34

LIST OF FIGURES
Figure 1: Responsibility of the Municipality in terms of the housing act ............................................................................. 7
1 SOCIO-ECONOMIC ASSESSMENT

1.1 INTRODUCTION

1.1.1 Background

NDG Africa has been appointed by Isibuko development planners on behalf of the applicant Ketshe Investments CC to undertake the Environmental Impact Assessment (EIA) study for all the relevant activities listed under the National Environmental Management Act - NEMA (No. 107 of 1998).

The proposed development will constitute for the establishment of an integrated sustainable human settlement on proposed portions 29; 38 and 39 of the Farm Madadeni No. 15961.

1.1.2 Aims and Objectives

The aim of this report is to look at the anticipated positive and negative impacts that could arise from the development of an integrated human settlement at Madadeni. There are different causes of these impacts and these can be either direct or indirect.

The main social issues that will be investigated include:

- Geographical processes: land use patterns;
- Demographic processes: the number and composition of people;
- Economic processes: the way in which people make a living and the economic activities in society;
- Institutional and Empowerment processes: the ability of people to be involved and influence decision making processes; and the role, efficiency and operation of governments and other organisations; and
- Socio-cultural processes: the way in which humans behave, interact and relate to each other and their environment and the belief and value systems which guide these interactions.

Each of the issues will be discussed in detailed throughout the report.

The objectives of the project are as follows:

- To contribute towards the development of integrated communities.
- To facilitate spatial transformation and create housing opportunities closer to other urban opportunities.
- To improve access to public facilities such as schools, crèches, social facilities, commercial and industrial activities.

As part of the EIA study currently underway, a Social Impact Assessment (SIA) is required to be undertaken.

1.2 POLICY CONTEXT

1.2.1 THE CONSTITUTION OF THE REPUBLIC OF SOUTH AFRICA

The Constitution of the Republic of South Africa, Act 108 of 1996 is the supreme law of the country. It establishes housing as a right and identifies its delivery as a concurrent function between national and provincial...
spheres of government. Section 26(1) of the Constitution guarantees every South African a right to have access to adequate housing thus making human settlement a right based program. Sub-section (2) encourages the State to take all reasonable legislative and other measures, within its available resources, to achieve the progressive realization of the right the right to adequate housing.

Although housing is a concurrent function between national and provincial government, Schedules 4 and 5 of the Constitution allocates to local government several functions (including the provision of basic services such as water, and sanitation; municipal planning; etc.) which are critical components of sustainable human settlement. Therefore, the Newcastle Municipality has a Constitutional responsibility to perform these functions and deliver services in a manner that facilitates the development of sustainable human settlements.

1.2.2 SPATIAL PLANNING AND LAND USE MANAGEMENT (ACT 16 OF 2013)

The Spatial Planning and Land Use Management Act of 2013 (SPLUMA) came into operation on 1 July 2015. A number of the objectives set out in Section 3 of SPLUMA have a bearing on the proposed development, including:

- To provide a uniform, effective and comprehensive system of spatial planning and land use management for the Republic;
- To ensure that the system of spatial planning and land use management promotes social and economic inclusion;
- To provide for development principles and norms and standards;
- To provide for the sustainable and efficient use of land;
- To provide for cooperative government and intergovernmental relations amongst the national, provincial and local spheres of government; and
- To redress the imbalances of the past and to ensure that there is equity in the application of spatial development planning and land use management systems.

1.2.3 HOUSING ACT, 1997 (ACT NO. 107 OF 1997)

The Housing Act (Act No. 107 of 1997) is the legislative vehicle for the implementation of the national housing programme.

Figure 1: Responsibility of the Municipality in terms of the housing act

| a) ensure that—
| i) the inhabitants of its area of jurisdiction have access to adequate housing on a progressive basis;
| ii) conditions not conducive to the health and safety of the inhabitants of its area of jurisdiction are prevented or removed; and
| iii) services in respect of water, sanitation, electricity, roads, drainage and transport are provided in a manner which is economically efficient;
| b) set housing delivery goals in respect of its area of jurisdiction;
| c) identify and designate land for housing development;
| d) create and maintain a public environment conducive to housing development which is financially and socially viable;
| e) promote the resolution of conflicts arising in the housing development process;
| f) initiate, plan, coordinate, facilitate, promote and enable appropriate housing development in its area of jurisdiction;
| g) provide bulk engineering services, and revenue generating services in so far as such services are not provided by specialist utility suppliers; and
| h) plan and manage land use and development. |
It provides for the facilitation of a sustainable housing development process and lays down general principles applicable to housing development in all spheres of government. It defines the functions of national, provincial and local governments in housing development.

Section 9(1) stipulates that every municipality must, as part of Integrated Development Planning, take all reasonable and necessary steps within the framework of National and Provincial legislation and policy to plan for housing and meeting the housing needs the communities within its area of jurisdiction.

The proposed development gives effect to the above provisions of Housing Act and will enable the municipality to improve the living conditions for the residents who reside in the area by effectively managing the land and promoting housing development.

1.2.4 NATIONAL DEVELOPMENT PLAN

The National Development Plan (2011) outlines the national development agenda for South Africa. Chapter 8 of the National Development Plan (NDP) presents the national strategy for the development of sustainable human settlements. It notes the impact of apartheid in human settlement patterns and commits the government to address the challenge of apartheid geography, reshape settlement patterns and create spatially integrated and environmentally sustainable human settlements. It adopts a medium to long-term approach and states that by 2030 human settlement pattern should have changed for the better so that by 2050 South Africa should have eliminated all poverty traps. In doing so, Chapter 8 of the NDP is committed to transforming human settlements; through:

- Strong and efficient spatial planning system, well integrated across the spheres of government.
- Upgrade all informal settlements on suitable, well-located land by 2030.
- More people living closer to their places of work.
- Better quality public transport.
- More jobs in or close to dense, urban townships.

Newcastle Local Municipality is tasked with the duty of ensuring the provision of sustainable human settlements for past, current and future populations. Hence the development of a socio-economically and spatially appropriate township, this includes access to high-quality basic services allowing for health, nourishment, and an increase in skills.

1.2.5 MEDIUM-TERM STRATEGIC FRAMEWORK (MTSF)

MTSF is Government’s strategic plan sets out the actions Government will take and targets to be achieved. It is structured around 14 priority outcomes which cover the focus areas identified in the NDP and Government’s electoral mandate. During 2010, national government embarked on a process to determine the outcomes for the human settlement programme from then up to 2014. Outcome 8 deals with the issue of sustainable human settlement linked with the quality of household life. This outcome contains four (4) outputs and targets as follows:
Output 1: Accelerated Delivery of Housing Opportunities.

Output 2: Access to basic services.

Output 3: Mobilization of well-located Public Land for Low income and Affordable Housing with increased densities on this land and in general.

Output 4: Improved property market

The establishment of the township customizes the focus of Outcome 8 and sets targets and performance indicators the municipality will use to monitor the implementation of the human settlement programme.

The proposed development gives effect to the outcome 8 as it aims to create sustainable human settlements and improve the quality of life. The proposed development also efficiently utilises state land for the development of human settlements.

1.2.6 INTEGRATED URBAN DEVELOPMENT FRAMEWORK

The Integrated Urban Development Framework (IUDF) seeks to guide the development of inclusive, resilient and liveable urban settlements, while addressing the unique conditions and challenges facing South Africa’s cities and towns. It provides a new approach to urban investment and developmental and localises the New Urban Agenda.

The IUDF seeks to foster a shared understanding across government and society about how best to manage urbanization and achieve the goals of spatial transformation, which include inclusive economic development, job creation and improved living conditions and services for all its citizens. It introduces four strategic goals and nine strategic priorities for urban development. The proposed development will create job opportunities, boost economic activity and improve the quality of life for the residents by increasing connectivity and the level of services.
Furthermore, the UDIF declares that cities and towns that are well planned and efficient; invest in integrated social and economic development; and reduce pollution and carbon emissions, achieves a sustainable quality of life for all citizens and captures the benefits of productivity and growth. Lever 3 which deals with sustainable human settlements envisages “Cities and towns that are liveable, integrated and multi-functional, in which all settlements are well connected to essential and social services, as well as to areas of work opportunities” (IUDF, 2016: 43).

1.2.7 KZN PROVINCIAL GROWTH AND DEVELOPMENT STRATEGY AND PLAN 2012-2030

The KwaZulu-Natal government adopted the Provincial Growth and Development Strategy in 2011 as a strategic framework for accelerating and sharing the benefits of an inclusive growth through deepened, meaningful, effective and sustainable catalytic and developmental interventions. The Executive Council approved the first review in 2016.

The PGDS presents a long-term development vision and identifies seven strategic goals and 31 objectives to attain the desired level of development.

It acknowledges the role of the Newcastle Municipality as a Provincial Secondary Node and an urban centre with good existing economic development and the potential for growth and services to the regional economy. The proposed development will contribute to the attainment of some of the development goals and strategies, particularly the goal dealing with human and community development. The development also places emphasis on Spatial equity by equitable access to a range of different housing types and densities, access to a range of transportation options, access to economic and job opportunities.

The project is a response to provincial policy directives and provides for their attainment within the Newcastle Municipal area. Although the project primarily aims to formalise the Ketshe settlement, it can be viewed as a potential human settlement project that will facilitate the provision of housing, access to basic service infrastructure and provide for a variety of housing opportunities.

1.2.8 THE MUNICIPAL IDP, SDF AND SPLUMA BY-LAWS

IDP, as a key strategic overall guiding framework of the municipality, identifies a need to facilitate the provision of adequate housing and infrastructure to all its residents. Therefore, the proposed development is a way of giving effect to one of the municipality’s key strategic and long-term objectives. The proposed development forms part of the municipality’s mission:

Newcastle local municipality together with its citizenry, commits to realize its vision through innovative service excellence, accelerated service delivery, sustainable infrastructure development, promoting socio-economic development and spatial integration.

The IDP is based on the six local governments Key Performance Areas (KPA), with the development of human settlements being part of the basic service delivery and infrastructure development KPA.
The proposed development as presented in this document refines and elucidates on this strategic intent within the framework of the national housing policy and provincial human settlement’s development approach. In the short to medium term, the Ketshe project will facilitate housing delivery as a catalyst for socio-economic development, and in the long run contribute towards making Newcastle Municipality an area of choice for work, residence and enjoyment of the associated amenities and facilities.

The Municipal Spatial Development Framework (SDF) is an integral component of the Integrated Development Plan (IDP). It complies with and seeks to advance the SPLUMA planning principles. It envisages a compact, inclusive, connected, resilient and generative city. The proposed development is in line with the above and aims to align the development with the legislation governing the area. The proposal complies with the vision for the future development of Newcastle East as outlined in the municipal planning and strategies pertinent to Newcastle Municipality. The Newcastle SDF is thus adopting a service centre approach, and accordingly identifies a hierarchy of development corridors and nodes.

1.2.9 P483 CORRIDOR

Reference to this report is the P483 Corridor was designed as a regional connector route and continues to perform this function within its sub-regional context. However, an increase in settlements and population in the Newcastle area, particularly around Madadeni and Osizweni, has exerted additional pressure on this road. As a result, P483 now performs a dual function. At a local level, it is a major arterial that carries commuter traffic between various settlements (from Mathukuza and Madadeni in the south to Khathide in the north), and the employment opportunity areas concentrated in and around Newcastle CBD.

At a regional scale, it is a regional connector and trade route, which links Newcastle town with other northern urban centres such as Utrecht and Vryheid. The proposed development is located along this corridor. It forms part of a proposed mixed-use development on the Remainder of Farm 15961 Madadeni. In terms of the Newcastle consolidated SDF map the proposed development is marked of as future urban areas, and is adjacent to an education, medical and regional social facilities nodes.
1.3 PROJECT DESCRIPTION

1.3.1 PROJECT LOCALITY

The site is located to the south-east of Madadeni Township at the corner of Mad 3; Mad 3 and Mad 21 Street. The P483, which is a major regional arterial route and development corridor, runs along the western boundary of the site. The site is approximately 10 km to the east of the Newcastle CBD (refer to map on overleaf).

The development site is located along the south-western border of Madadeni at an approximate latitudinal and longitudinal position of 30°02'30.89” E and 27°46’18.56” S, respectively and is approximately 339.5 hectares in extent.

1.3.2 PROPERTY DESCRIPTION AND OWNERSHIP

The project area sits on Remainder of the Madadeni Farm No.15961, The property area is approximately 2256.405 hectares in extent.

The land is held under Title Deed No. T000041735/2000 and is registered under the Ingonyama trust board, and is currently leased by Ketshe Investments CC.

The site is not subject to any conditions of title which may have a restrictive effect on the proposed development.
The land has received no claim for restitution in terms of the provisions of the restitution of land rights act No 22 of 1994.

1.3.3 THE PROPOSED DEVELOPMENT

1.3.3.1 Proposed Land Uses

The subject site is vacant with the exception of a few informal settlements on the northern portion of the farm, and several portions of the land is also used to graze cattle. The proposed uses of land will improve the condition of the site, unlock its latent development potential.

The table below provides a detailed summary of the proposed land uses and their extent as indicated in the layout Plan.

Table 1: Proposed land uses

<table>
<thead>
<tr>
<th>PROPOSED LAND USE</th>
<th>NO. OF ERVEN</th>
<th>AREA (Ha)</th>
<th>PERCENTAGE %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dwellings</td>
<td>3432</td>
<td>153.67</td>
<td>45.26</td>
</tr>
<tr>
<td>Residential Flats</td>
<td>3</td>
<td>7.73</td>
<td>2.28</td>
</tr>
<tr>
<td>Creche</td>
<td>3</td>
<td>0.29</td>
<td>0.08</td>
</tr>
<tr>
<td>Schools</td>
<td>2</td>
<td>12.01</td>
<td>3.54</td>
</tr>
<tr>
<td>Worship</td>
<td>3</td>
<td>0.62</td>
<td>0.18</td>
</tr>
<tr>
<td>Public facilities</td>
<td>2</td>
<td>3.87</td>
<td>1.14</td>
</tr>
<tr>
<td>Clinic</td>
<td>2</td>
<td>3.05</td>
<td>0.90</td>
</tr>
<tr>
<td>Shopping</td>
<td>11</td>
<td>12.35</td>
<td>3.48</td>
</tr>
<tr>
<td>Resort/Lodge</td>
<td>2</td>
<td>9.66</td>
<td>2.85</td>
</tr>
<tr>
<td>Service station</td>
<td>1</td>
<td>2.27</td>
<td>0.67</td>
</tr>
<tr>
<td>Public Open Space</td>
<td>3</td>
<td>2.85</td>
<td>0.84</td>
</tr>
<tr>
<td>Passive Open Space</td>
<td>3</td>
<td>42</td>
<td>12.37</td>
</tr>
<tr>
<td>Roads</td>
<td></td>
<td>89.59</td>
<td>26.39</td>
</tr>
<tr>
<td>TOTAL</td>
<td>3467</td>
<td>339.5</td>
<td>100</td>
</tr>
</tbody>
</table>

1.3.3.1.1 RESIDENTIAL

The residential sites provided in the proposed township establishment vary in terms of size to accommodate various housing typologies to suit people of different income levels, needs and desires.

1.3.3.1.1.1 Free Standing Houses

A total of 3432 units will be developed on sites of an average size of 360m²; 400m²; 600m² and 800m². The free-standing houses will be built on land covering approximately 153.67ha (45.26%) of the project area.

1.3.3.1.2 High Density Residential

There is a total of 3 erven set out for high density residential development. These sites will cover a total of +/-16 hectares (2.29%) of the project area and the units will be developed at a density of 20-25 Dwelling Units per hectare.

1.3.3.2 BUSINESS

1.3.3.2.1 Shopping Stores

Shopping stores for the community are proposed at a southern location within the project area, this would be an ideal location due to the fact that there are existing shopping centres on the far North and Southern
boundary of our site. A total of 11 commercial sites, consisting of +/- 12.35ha (3.48%) of the project area.

1.3.3.1.2.2 Service Station
A service station site for motorists is proposed at the intersection of the P483 and MAD 12 street of the proposed development, at a junction of two main traffic routes. It covers an area of +/-2.27ha (0.67%) of the project area. The service station will accommodate motorists of the township as there are no service stations in the surrounding area.

1.3.3.1.2.3 Resort or Lodge
There are two resorts/hotels sites allocated within the proposed township. They are located in close proximity to the P483 for ease of access, and for the ease of travellers who are passing by. It covers an area of +/-9.66ha (2.85%) of the project area.

1.3.3.1.3 PUBLIC FACILITIES

1.3.3.1.3.1 Primary and Secondary Schools
Two schools are proposed for the proposed development. These schools have been designed in line with Space Planning Norms and Standards for Public Schools of the KwaZulu-Natal Department of Education, they consist of one Primary School and one Secondary School.

Primary school should be a minimum of 2.8 hectares, with a maximum of 960 pupils (average 40 per classroom with the classroom size being 50sqm per a classroom).

Secondary school should be a minimum of 4.8 hectares, with a maximum of 1200 pupils (average 30 per classroom with the classroom size being 50sqm per a classroom).

According to the standards the requirement is two toilets per a classroom (35 or 40 pupils) plus one toilet for the physically disabled.

These schools are situated along the main traffic routes of the proposed township. Primary schools cover an area of +/-4.99ha while the secondary schools cover +/-7.02ha of the project area.

1.3.3.1.3.2 Creche
Three crèche sites are proposed for the township establishment, strategically located close to public open spaces and easy access points. The crèche sites make up a total area of approximately +/-0.29ha of the project area.

1.3.3.1.3.3 Health Facility
One health facility, covering +/-3.05ha of the project area, are proposed for the development. The Health Facilities will consist of a clinic, one of which will have the potential of upgrading to a hospital, should the needs of the community justify it in future.

1.3.3.1.3.4 Worship Sites
Worship sites are strategically located near residential neighbourhoods, close to collector roads for ease of access, they are strategically placed in close proximity to public open spaces and. Three sites, covering +/-0.62ha (0.18%) of the project area, are proposed for this land use.
1.3.3.1.3.5 **Community Facilities**
There are 2 large sites allocated for community buildings such as halls, covering +/-3.87ha in extent and are located along an easily accessible traffic route, in between the shopping stores.

1.3.3.1.3.6 **Public Open Spaces**
A total of 3 Public Open Spaces are proposed for township establishment, covering approximately 2.85 Ha in extent. These Open Spaces will consist of Sports Field/ Active Open Spaces and Parks. The proposed open spaces are strategically located across the development and are easily accessible through public roads. They are adjacent to worship sites and creches to be used to its maximum capacity by the public.

1.3.3.2 **Proposed Development Rights**
The required development rights as per the Newcastle Scheme for the total site area of 339.5 Hectares include the following:

<table>
<thead>
<tr>
<th>PROPOSED ZONING</th>
<th>MIN ERF SIZE</th>
<th>HEIGHT</th>
<th>COVERAGE</th>
<th>FAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detached Residential (single family residential)</td>
<td>350 – 800 sqm</td>
<td>2 storeys</td>
<td>50%</td>
<td>0.40</td>
</tr>
<tr>
<td>Residential only High-density zone</td>
<td>2000sqm</td>
<td>n/a</td>
<td>n/a</td>
<td>1.0</td>
</tr>
<tr>
<td>Creche</td>
<td>500sqm</td>
<td>2 storeys</td>
<td>30%</td>
<td>n/r</td>
</tr>
</tbody>
</table>

### Table 2: Proposed development rights

<table>
<thead>
<tr>
<th></th>
<th>Size</th>
<th>Height</th>
<th>Coverage</th>
<th>FAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>3.5ha</td>
<td>2 storeys</td>
<td>30%</td>
<td>n/r</td>
</tr>
<tr>
<td>Place of Assembly</td>
<td>500sqm</td>
<td>2 storeys</td>
<td>50%</td>
<td>n/r</td>
</tr>
<tr>
<td>Health and welfare</td>
<td>700sqm</td>
<td>n/a</td>
<td>50%</td>
<td>n/r</td>
</tr>
<tr>
<td>Municipal &amp; Government</td>
<td>1000sqm</td>
<td>3 storeys</td>
<td>50%</td>
<td>n/r</td>
</tr>
<tr>
<td>Low impact commercial</td>
<td>500sqm</td>
<td>3 storeys</td>
<td>70%</td>
<td>1.0</td>
</tr>
<tr>
<td>Medium impact commercial</td>
<td>750sqm</td>
<td>n/a</td>
<td>n/a</td>
<td>2.0</td>
</tr>
<tr>
<td>Hotel</td>
<td>n/a</td>
<td>3 storeys</td>
<td>n/a</td>
<td>0.75</td>
</tr>
<tr>
<td>Fuel (petrol) service station</td>
<td>1000sqm</td>
<td>2 storeys</td>
<td>n/a</td>
<td>0.4</td>
</tr>
<tr>
<td>Active open space</td>
<td>n/r</td>
<td>n/r</td>
<td>50%</td>
<td>n/r</td>
</tr>
<tr>
<td>Passive open space</td>
<td>n/r</td>
<td>n/r</td>
<td>50%</td>
<td>n/r</td>
</tr>
</tbody>
</table>

1.3.3.3 **Proposed Subdivision**
The Farm Madadeni No.15961 will be firstly subdivided into 3 portions (Portion 29 of the Farm Madadeni No. 15961; Portion 38 of the Farm Madadeni No. 15961 and Portion 39 of the Farm Madadeni No. 15961) to accommodate the layout. Each portion of the larger farm will contain a portion of the proposed township, as per the layout.
1.3.3.4 Proposed level of services

An engineer assessed the infrastructure services within the project area and collated the findings into an Engineering Services Assessment Report. The findings are summarised below;

1.3.3.4.1 Water

Newcastle has three raw water sources namely;
- Ntshingwayo Dam (Previously known as Chelmsford Dam);
- Schurwepoort Weir (Buffalo River);
- Ngagane River.

For the interim period of 5-7 years, the Ngagane Water Treatment Works will have reserve capacity to process the required volume of water (3.8 Mℓ/day) required for the proposed Ketshe development.

The “Medium Growth Scenario” projections for the area project that the Water Treatment Works will run out of capacity sometime between 2020 -2025; The existing bulk pipe from Braakfontein Reservoir has capacity to cater for the future water supply to Ketshe Mixed Used Development by increasing the velocity; majority

1.3.3.4.2 Electricity

The development will require an estimated additional power demand of 7 111 Kva (ADMD). The Municipality should consider the way in which the development will be phased for Eskom to optimise their planning and proposal;

1.3.3.4.3 Sanitation

The Madadeni area has a water borne sewage system.

Storm water: Storm water from the Madadeni township development is discharged onto the grasslands area, although no signs of soil erosion is evident.

1.3.3.4.4 Solid waste

Illegal dumping occurred at several isolated areas over the proposed development site. Future solid waste will have to be collected by the municipality and disposed at the regional registered solid waste facility.
1.3.3.4.5 Roads

The layout of the new development upgrade has adequately addressed traffic circulation. Three of the five-tier distribution system are evident i.e.

- District Distributors;
- Local Distributors and
- Access Distributors.

There are current no roads on site, since the site is vacant. There is a road network around the site that has been developed. There is a functional road network in the vicinity of the development site with direct access to all major arterials’ routes. Access to the development site will occur via p483 on the western and southern boundary of the site and this should be limited to vehicular access only, on the northern part of the site and on the eastern boundary.

1.4 SOCIAL IMPACT ASSESSMENT

1.4.1 CHANGE PROCESSORS AND POTENTIAL IMPACTS

1.4.1.1 Geographical processes

Geographical change processes refer to land use change as a result of the actual or perceived changes in land use, whether it be on a temporary or permanent basis. The proposed integrated residential development might lead to a change in the land use within the local area. The assessment of a land use change process from a social perspective considers how the proposed development might affect the behaviour/lives of landowners and/or land users.

The project area has a large surrounding of residential uses. Along the north eastern boundary of the project area are offices such as the Amajuba District Municipality; Madadeni SAPS; and the Madadeni Magistrates Court. The north eastern boundary of the site include land uses such as the Majuba TVET campus and Majuba technology centre. The eastern boundary of the site is shared with the Madadeni Rehab clinic as well as the Madadeni Hospital and cemetery. The south eastern surrounding includes a number of schools such as the Sithombelumthetho primary school; Cathulani primary school, AmaZulu high school and Phedukani full service.
high school. The land use surrounding the proposed development site is of a similar nature to the detailed design proposed within the project area.

Map 5: Surrounding land use
Table 3: Overview of expected Geographical change processes and potential impacts

<table>
<thead>
<tr>
<th>GEOGRAPHIC CHANGE PROCESSES AND POTENTIAL IMPACTS</th>
<th>Yes</th>
<th>No</th>
<th>Expected Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Access to environmental resources</strong></td>
<td></td>
<td>✓</td>
<td>No impact foreseen.</td>
</tr>
<tr>
<td>Will the development impact on people’s access to environmental resources, such as water, wood, medicinal plants etc?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Change in access to resources that sustain livelihoods</strong></td>
<td>✓</td>
<td></td>
<td>During the construction phase the project will offer many more residents access to services. The land will no longer be used to graze cattle. The main aim is to maximise the use of the land through an integrated residential development.</td>
</tr>
<tr>
<td>Will the development impact on people’s (legal or illegal, formal or informal) access to environmental resources that help to sustain their livelihoods, e.g. grazing land for their cattle; wood for heat/cooking/selling, etc.?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Land acquisition and disposal, including availability of land</strong></td>
<td>✓</td>
<td></td>
<td>The residents cannot acquire the land and will not have rights to the land legally. The land is state owned, and leased to the Ketshe Investments CC. A register will not be opened at the deeds office and the residents won’t be able to acquire land ownership rights.</td>
</tr>
<tr>
<td>Will the development contribute to or directly impact on the ability of local residents to keep or acquire property/land?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Will the development set a precedent for change in land use in the area?</td>
<td>✓</td>
<td></td>
<td>The current land use is vacant with an exception of informal settlements and grazing land. The development will use the land to its full potential.</td>
</tr>
<tr>
<td>Are there any potential land claims? for the area?</td>
<td></td>
<td>✓</td>
<td>There are no land claims for the area as per the Restitution of Land rights Act No 22 of 1994.</td>
</tr>
</tbody>
</table>
1.4.2 Demographical processes

Demographical processes relate to the number of people and the composition of a community and include an overview of the population size, the race, age, gender and educational profile of a population as well as household compositions.

1.4.2.1 Population size

The total population of Newcastle Municipality was estimated at 389,117, according to the 2016 Community Survey. This indicates an increase from 363,236 people in 2011, suggesting a population increase of 25,881 in a period of five years.

The population of Newcastle municipality is distributed unevenly among 34 wards. The project area falls within a portion of Ward 21. In comparison to other wards, the ward is one of the larger wards within the municipality.

It is also one of the denser wards in terms of settlement and population density, although only 3.1% of the municipality’s population reside within the boundaries of this ward.

The number of households within the municipality is approximately 90,347 which grew from 84,272 recorded in 2011. Ward 21 accommodates approximately 2,515 households with an average household size of 4.2 people.

The growing population exerts pressure on the existing infrastructure, public facilities and housing stock, and requires the municipality to respond to the expressed need in a manner that accommodates future demand as well. The proposed development intends to assist the municipality by providing sustainable housing for the increasing population.

1.4.2.2 Age structure

The age structure of the population residing within Ward 21 of the Newcastle municipality reveals that the population is relatively young. The children age group (0 to 14) years accounts for 28.6% of the population and the youth age group between 15 and 34 accounts for 40.9% of the population. The adult age group only accounts for 26.3% of the population, while the elderly account for a small percentage of 4.2%.
This puts pressure on the provision of educational facilities, social welfare, health services and the stimulation of the economy to provide job opportunities and economic development.

Graph 2: Age structure

Source: StatsSA (Census 2011)

The dependency ratio is 58%, adding pressure to the working population. There is a very high dependency on pensions and grants as a means of subsistence and additional sources of income.

The construction and maintenance of the proposed project could lead to a change in the number and composition of the population within the affected local area, which in turn could lead to economic, land use, and socio-cultural change processes.
Table 4: Overview of expected Demographical change processes and potential impacts

<table>
<thead>
<tr>
<th>Expected Change Process</th>
<th>Yes</th>
<th>No</th>
<th>Expected Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Population change</strong></td>
<td>✓</td>
<td></td>
<td>Influx of construction and maintenance workers that will lead to a change in the number and composition of the local community, and impact on economy, health, safety and social well-being.</td>
</tr>
<tr>
<td><strong>In-migration of unemployed work seekers</strong></td>
<td>✓</td>
<td></td>
<td>Influx of job seekers that will lead to a change in the number and composition of the local community, and impact on economy, health, safety and social well-being.</td>
</tr>
<tr>
<td><strong>Relocation or displacement of individuals or families</strong></td>
<td>✓</td>
<td></td>
<td>No impact foreseen.</td>
</tr>
</tbody>
</table>
1.4.3 Economical Processes

1.4.3.1 Education

Education has a strong impact on the economy of a municipality, since it determines, to a certain extent, the type of employment of the economically active population. With reference to graph 3 Newcastle municipality demonstrates a high school attendance within the area with 40.5% primary education; 33.4% secondary education; matriculants accounting for 18.8%. The value drops as we approach higher education, collectively only 7.4% of the population have higher education. This could be due to a lack of facilities or high transport costs.

Graph 3: Education

1.4.3.2 Employment

Unemployment within ward 21 is estimated at 6.6% opposed to 25.5% being employed. The Census data further indicates that 3.3% is discouraged work seekers, while 31.7% is not economically active in the economy. This indicates a lack of employment opportunities and economic activities.

Graph 4: Employment

1.4.3.3 Income

Household monthly income for ward 21 is depicted in Graph 5. It is evident that there are high levels of poverty, which is confirmed by the 38.3% of the population that do not earn an income. Another 16.5% receive a monthly income of less than R4800.
Poverty can be expressed as a percentage of the population who are living under the official poverty line. The poverty line is an indication of people living on less than US$1 a day or approximately R6.5 a day or R200 a month. (PGDS, 2011). The situation in ward 21 indicates that a large portion of the population lives in poverty, which further contributes to the vulnerability of the population.

1.4.4 Economical change processes

Economical change processes relate to the changes brought about to the employment and general economic profile of an area as a result of the introduction of any development. For example, job opportunities might be created as a result of the construction and maintenance of the proposed development. Employment creates a source of income, which in turn enables the employed individual to access services and a support mechanism for his/her family.
## Table 5: Overview of expected Economic Change processes and potential impacts

<table>
<thead>
<tr>
<th>ECONOMICAL CHANGE PROCESSES AND POTENTIAL IMPACTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Expected Change Process</strong></td>
</tr>
<tr>
<td>Increase in division between rich and poor</td>
</tr>
<tr>
<td>Enhanced / reinforced economic equities</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Change in the commercial / industrial focus of the community</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Change in employment equity of vulnerable groups</td>
</tr>
</tbody>
</table>
## ECONOMICAL CHANGE PROCESSES AND POTENTIAL IMPACTS

| Change in occupational opportunities | Will vulnerable groups have to compete with more appropriately qualified applicants from elsewhere? | ✓ | The required skills might not be available in the local area, which means that the appropriate skills might have to be ‘imported’, thereby causing a reduction in the job and income opportunities available to local residents. |
| Change in occupational opportunities | Will the development lead to an increase or decrease in employment opportunities? | ✓ | An increase in employment opportunities is expected. |
| Land acquisition and disposal, including cost of land | Will the development create different levels and types of employment? | ✓ | Employment opportunities will range from unskilled to highly skilled positions. |
| Land acquisition and disposal, including cost of land | Will the development lead to a significant increase in the cost of land/property in the area? | ✓ | No impact foreseen. The property is state owned. |
| Land acquisition and disposal, including cost of land | Will the development result in an increase of land/property prices? | ✓ | No impact foreseen. |
| Land acquisition and disposal, including cost of land | Will the increase in land/property prices exacerbate class and race inequity? | ✓ | No impact foreseen. |
1.4.5 Institutional and Empowerment Change Processes

Institutional and Empowerment Change Processes relate to way in which the proposed project might change the face of service delivery in the area and how this change might affect the quality of life of local residents.

It furthermore assesses local residents ability to negotiate such changes in a way that is mutually beneficial to both the project proponent as well as the affected landowners.

The information presented below is abstracted from Stats SA (2011). The project area falls within a small portion of ward 21 of the Newcastle Local municipality. It is important to focus on ward 21 instead of the entire municipality this will give us a clear indication of the issues affecting the community neighbouring the project site.

1.4.5.1 Access to basic services

1.4.5.1.1 Water

The data illustrated below reflects that the majority (51.7%) of the households within ward 21 do have access to water by Regional/local water scheme (operated by a Water Service Authority or provider). Approximately 19.5% of the households have access to water via the borehole, while 9.5% of the households use springs as a water source.

Graph 6: Access to water

1.4.5.1.2 Energy

Approximately 33.9% of the households use wood for heating, while 30.9% use wood and 16.4% use coal. 11% have no access to energy for heating.

Graph 7: Energy used for Heating
The graph below indicates that approximately 40% of the households use electricity for cooking, while 28.2% use wood. The third highest source used for cooking is coal at 13.7%.

Graph 8: Energy used for Cooking

Approximately 53.4% of the households use candles for lighting and only 42.8% use electricity for lighting.

Graph 9: Energy used for Lighting

1.4.5.1.3 Sanitation

The most common sanitation services within the community include flush toilets which account for 43.4%.

Graph 10: Access to Sanitation

Approximately 37.2% accounts for the flush toilets which are connected to a sewerage system and 36.6% make use of pit latrine without ventilation. About 4.93% of the households are still without access to sanitation.

1.4.5.1.4 Refuse Disposal

The majority (50.3%) of households have their own refuse dump. Only 28% accounts for households who have their refuse removed by local authority at least once a week. An alarming 17% have no access to rubbish disposal.
Graph 11: Access to Refuse removal

- Removed by local authority at least once a week
- Removed by local authority less often
- Communal refuse dump
- Own refuse dump
- No rubbish disposal
- Other
- Unspecified
Table 6: Overview of expected Institutional and Empowerment change processes and potential impacts

<table>
<thead>
<tr>
<th>Expected Change Process</th>
<th>Yes</th>
<th>No</th>
<th>Expected Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Change in / disruption of power relationships</strong></td>
<td></td>
<td>✓</td>
<td>No impact foreseen.</td>
</tr>
<tr>
<td>Will the development impact on the levels of power, opportunity and access of individuals or sections of the community?</td>
<td></td>
<td>✓</td>
<td>No impact foreseen.</td>
</tr>
<tr>
<td>Is the development being used for the political gain of a section of the community, and what are the implications for the larger social environment?</td>
<td></td>
<td>✓</td>
<td>No impact foreseen.</td>
</tr>
<tr>
<td><strong>Exclusivity</strong></td>
<td></td>
<td>✓</td>
<td>The development would create economic growth through the availability of services such as electricity.</td>
</tr>
<tr>
<td>Will the development contribute to the culture of exclusivity?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Inequality</strong></td>
<td></td>
<td>✓</td>
<td>The development will enhance more equal opportunities to resources as additional services become available.</td>
</tr>
<tr>
<td>Will the development increase unequal access to opportunities or resources?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Change in community infrastructure</strong></td>
<td></td>
<td>✓</td>
<td>The site is currently vacant. Additional demand on municipal services, such as water, sewerage and roads could impact on health and safety if such services are not available.</td>
</tr>
<tr>
<td>Will the development change any aspect of community infrastructure, such as crèches, clinics, schools, churches, formal or informal sports fields, open areas, dumping grounds etc?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Change in housing needs / demands</strong></td>
<td></td>
<td>✓</td>
<td>It is possible that the majority of the construction workforce would be sourced from outside the area due to the skills levels required. The construction workforce would then most probably be housed within a construction village.</td>
</tr>
<tr>
<td>Will the development create a housing need, e.g. due to the in-migration of construction workers?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has the need for more housing been addressed by the development and or the authorities?</td>
<td>Unsure</td>
<td></td>
<td>It is possible that the construction workforce would be housed in a construction village.</td>
</tr>
</tbody>
</table>
1.4.6 Socio-Cultural Change Processes

During construction, many trucks, cars, and equipment such as forklifts, cranes, and excavators will be in use at the site. This might lead to damage of existing roads; decreased safety of pedestrians and other road users; increase in traffic, increase in dusty and noisy conditions; improper waste management; and contamination of ground and surface water resources.

Socio-cultural change processes that are associated with the construction and operation of the proposed project include changes such as health and safety aspects and sense of place. The concept of ‘health’ is not only limited to physical health (i.e. the absence of ailments or illness), but also includes mental and social health.

The following sociocultural change processes are expected:

- Dissimilarity in social practices;
- Alteration in family structure;
- Conflict;
- Safety and crime impacts; and
- A potential change in sense of place.

The expected changes that can occur in relation to health and safety aspects can be as a result of the presence of construction workers and/or job seekers during construction.
Table 7: Overview of expected Socio-cultural change processes and potential impacts

<table>
<thead>
<tr>
<th>SOCIO-CULTURAL CHANGE PROCESSES AND POTENTIAL IMPACTS</th>
<th>Yes</th>
<th>No</th>
<th>Expected Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Disruption of social networks</strong></td>
<td>Will the development impact on existing social networks?</td>
<td>✓</td>
<td>No impact foreseen.</td>
</tr>
<tr>
<td><strong>Disruption in daily living and movement patterns</strong></td>
<td>Will the development change the lifestyle of residents?</td>
<td>✓</td>
<td>No impact foreseen.</td>
</tr>
<tr>
<td></td>
<td>Will the development impact on access to facilities and resources, such as schools, hospitals, fields, forests, etc?</td>
<td>✓</td>
<td>No impact foreseen.</td>
</tr>
<tr>
<td></td>
<td>Will it impact on movement patterns, such as pedestrians crossing roads?</td>
<td>✓</td>
<td>No impact foreseen.</td>
</tr>
<tr>
<td></td>
<td>Will it divide communities physically (e.g. through the building of a highway)?</td>
<td>✓</td>
<td>No impact foreseen.</td>
</tr>
<tr>
<td><strong>Dissimilarity in social practices</strong></td>
<td>Do new residents have dissimilar social practices to current residents?</td>
<td>Unsure</td>
<td>If construction workers have dissimilar social practices than local residents, conflict can be expected.</td>
</tr>
<tr>
<td></td>
<td>Do the new residents have different values, religious practices, social standard, etc?</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Conflict</strong></td>
<td>Is there conflict between the developer and the public?</td>
<td>✓</td>
<td>No impact foreseen.</td>
</tr>
<tr>
<td><strong>Safety and crime impacts</strong></td>
<td>Will the development impact on existing crime and safety patterns?</td>
<td>✓</td>
<td>Presence of construction workers and job seekers leads people to believe that there will be an increase in crime, which impacts on surrounding residents’ sense of safety and security.</td>
</tr>
<tr>
<td><strong>Change in sense of place</strong></td>
<td>Will the development impact on people’s “sense of place”, e.g. through the large-scale development?</td>
<td>Unsure, but unlikely</td>
<td>The area is already characterised by infrastructure of a similar nature. The area is therefore already ‘developed’.</td>
</tr>
<tr>
<td></td>
<td>Will the change “in sense of place” impact on people’s relationship to the environment?</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Implications for social history</strong></td>
<td>Does the development have any implications for the social history of affected communities?</td>
<td>✓</td>
<td>No impact foreseen.</td>
</tr>
</tbody>
</table>
1.4.7 Future relocation of informal dwellers

Studies have shown almost one in five residents of South African cities lives in a shack. Most shacks are densely clustered in informal settlements. Shack dwellers are vulnerable to hardship and environmental hazards from overcrowding on poorly serviced and often unsuitable sites. Pressure for land means these areas are intensely contested, and as such they are at the forefront of growing social discontent and violent protests, since people believe they are being denied fundamental rights.

Over the past few years the growth of informal dwellers on the project site has grown. Due to poverty, inequality and unemployment the number of informal dwellers has grown substantially.

Pictures of the informal dwellers can be seen below:

Figure 4: Informal dwellers

Majority of the informal dwellers have built structures using tin. They do not have access to basic services and have settled in close proximity to the road. The map below shows exactly where the informal dwellers reside.

Map 6: Informal dwellers location

The north eastern portion of the site is where the growth of informal dwellers has concentrated. This is understandable since they want to be in close proximity to employment opportunities and the surrounding infrastructure that is across the site boundary.
Table 8: Overview expected relocation of informal dwellers change and processes and potential impacts

<table>
<thead>
<tr>
<th>Expected Change Process</th>
<th>Yes</th>
<th>No</th>
<th>Expected Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status of the informal dwellers</td>
<td>✓</td>
<td></td>
<td>It is expected that the informal dwellers will be forced to relocate on approval of the project. The developer (Ketshe investment CC) can negotiate with the dwellers and make provisions to include them into the proposed development or make provisions to relocate them to an alternate area. A relocation plan can be drafted in relation to the above.</td>
</tr>
</tbody>
</table>
1.5 DISCUSSION AND ASSESSMENT OF IMPACTS AND MITIGATION MEASURES

The purpose of this section is to discuss identified social impacts which may occur as a result of the social change processes identified in Section 1.4 and identify management actions to enhance benefits and mitigate negative impacts.

1.5.1 CONSTRUCTION PHASE IMPACTS

This section discusses the potential social impacts that are likely to arise during the construction phase of the proposed project and presents mitigation and/or management measures for these impacts.

1.5.1.1 Health and social well being

1.5.1.1.1 Increased spread of disease

Any development which causes the migration of people has the potential to lead to the spread of disease; in particular, HIV and AIDS in the case of South Africa. Research suggests that the presence of migrant construction workers leads to an increase in activities such as prostitution and promiscuous behaviour. This could lead to scenarios where infected construction workers coming into the area spread disease through unprotected intercourse with sex trade workers or local individuals, who, in turn, spread it locally. Alternatively, an uninfected construction worker could become infected through unprotected intercourse and, on return to his/her place of origin and spread the disease there.

Key mitigation measures proposed are as follows:

- An HIV and AIDS awareness/education component should be included in the induction programme for all personnel working on the proposed project.
- Ensure there is easy access to HIV and AIDS related information and condoms for all workers involved with the proposed project.

With the effective implementation of the key mitigation measures as proposed above, these impacts are predicted to remain of a Medium Negative Significance.

1.5.1.1.2 Reduced road safety

During the construction process, a significant amount of materials and machinery will need to be transported to the project site. The transportation of the required materials and machinery will necessitate the use of heavy-duty vehicles. In addition, there will also be an increase in construction vehicles in and around the proposed site. This increase in heavy duty vehicles and construction vehicles will reduce road safety for other road users, including pedestrians and cyclists.

Key mitigation measures proposed are as follows:

- Development and implementation of a traffic management plan.
- Signage warning of the presence of construction and heavy-duty vehicles. The location of the signs should be detailed in the traffic management plan.
Additional mitigation measures proposed are as follows:

- Avoid heavy duty vehicles making deliveries during peak traffic times.

With the effective implementation of the key mitigation measures proposed, the impacts associated with reduced road safety during the construction phase are predicted to remain of a **Medium Negative Significance**.

### 1.5.1.2 Quality of the living environment

1.5.1.2.1 Increased pressure on road infrastructure

As noted in section 1.5.1.1.2, the construction of the proposed development will require the transportation of various materials and machinery to site which will lead to an increase in heavy duty vehicles. The increase in heavy duty vehicles and the associated increase in pressure on road infrastructure may potentially lead to the deterioration and damage to existing roads.

Key mitigation measures proposed are:

- Establish the carrying capacity of the roads to be used by construction and heavy-duty vehicles.

- Establish a set route which will be used by heavy duty vehicles so as to limit potential damages.

- The project proponent should contribute to road maintenance and rehabilitation using the baseline assessment as a guideline.

With the effective implementation of the key mitigation measures proposed, the impacts associated with increased pressure on road infrastructure during the construction phase are predicted to be of a **Low Negative Significance**.

1.5.1.2.2 Increased dust emissions

During the construction process, significant earth works will be required that will expose soil in areas where vegetation has been removed. During times of strong winds, these exposed areas will lead to there being an increase in dust in the area.

Key mitigation measures proposed are as follows:

- Employ dust suppression techniques such as water spraying or the use of dust suppressants.

- Ensure that areas of exposed soil are rehabilitated as soon as construction has been completed (i.e. follow progressive reinstatement and rehabilitation).

With the effective implementation of the key mitigation measures proposed, the impacts associated with increased dust emissions during the construction phase are predicted to be of a **Low Negative Significance**.

1.5.1.2.3 Increased criminal activity

Prior to and during construction, in addition to job seekers, criminal opportunists are also likely to move into and through the areas surrounding the project site. Considering the location of the proposed project in close vicinity to major transport routes, it is likely that criminal
opportunists will move through the area as opposed to staying in the area for a prolonged period.

The areas around the proposed project site that are most likely to be affected by crime are informal settlements as these are likely to be the area where criminals find soft targets and or find refuge. Special attention also needs to be given to the areas where the water pipeline and powerline will be constructed.

Key mitigation measures proposed are as follows:

- All construction workers should be easily visible and identifiable as construction workers.
- Local police and community policing forums should be informed of the potential for an increase in criminal activity and to increase vigilance.
- Security guards should be placed on site at all times.
- All landowners should be informed well in advance of any planned activities taking place on their land.

Additional mitigation measures proposed are as follows:

- While construction of the water pipelines and powerlines are taking place, routine patrols should be conducted 24 hours a day by security services.

With the effective implementation of the key mitigation measures proposed, the impacts associated with increased criminal activity during the construction phase are predicted to remain of a Low Negative Significance.

1.5.1.2.4 Increased likelihood of fire

During the construction process, there will be an increase in the possibility of uncontrolled fires, particularly during the dry winter months, as a result of construction workers being on site. Uncontrolled fires may develop from fires lit by construction workers for warmth or cooking purposes spreading or alternatively through discarded cigarette butts. Uncontrolled fires present a potential safety hazard for both construction workers and surrounding residents as well as a financial hazard for surrounding farmers and other agricultural activities.

Key mitigation measures proposed are:

- No fires should be permitted in any of the project works areas.
- Fire extinguishers and firefighting equipment should be available at all project works areas.
- Smoking should only be allowed in designated areas.
- Staff should be inducted regarding fire safety and firefighting responsibilities/activities.

With the effective implementation of the key mitigation measures proposed, the impacts associated with increased likelihood of fires during the construction phase are predicted to be of a Low Negative Significance.
1.5.1.2.5 Increased noise

During the construction phase, there will be an increase in noise associated with a construction site, including noise generated by construction vehicles, excavation vehicles, jackhammers, etc. Reverse hooters on vehicles are noisy but necessary for health and safety, and, therefore, cannot be mitigated. The increase in noise will be a nuisance for sensitive receptors, in particular, households and businesses in close proximity to the proposed site.

Key mitigation measures proposed are:

- Mitigation measures stipulated in the noise impact assessment should be implemented.

With the effective implementation of the key mitigation measures proposed, the impacts associated with increased noise during the construction phase are predicted to be of a Low Negative Significance.

1.5.1.3 Economic impacts

1.5.1.3.1 Increased employment opportunities

During the construction phase, it is anticipated that there will be an increase in employment both skilled and unskilled workers. It is anticipated that the majority of skilled positions will be taken by people from outside the immediate community as it is unlikely that the required skills can be sourced locally. The unskilled jobs, however, do provide opportunities for members of the local community to gain formal employment, albeit on a temporary basis.

Considering the relatively high unemployment rate experienced in the study area, any additional formal employment opportunities are seen as positive. Increased employment opportunities are likely to have various social benefits for the local community such as an increase in expendable income, and a general improvement in the standard of living. The increase in employment opportunities will cease after construction and is, thus, temporary with the potential intensity medium.

Key mitigation measures proposed by are as follows:

- Prioritise the employment of people from the local community.
- As far as feasibly possible, employ the required skilled labour from the local community.

1.5.1.3.2 Loss of agricultural land

A portion of the proposed land for the residential development is currently being used for grazing. In the event of the project going ahead, the grazing land will be lost. They will still lose a source of income in the event of alternative land not being available.

Key mitigation measures include:

- Identify areas for grazing surrounding the project area.

1.5.2 OPERATIONAL PHASE IMPACTS

The key social issues affecting the operational phase include:

- Provision of housing and premises for schools and businesses;
- Creation of employment and business opportunities;
• Remove risk of illegal land invasions

1.5.2.1 Provision of housing, schools, businesses and public open spaces

The proposed integrated residential development will create approximately 3432 units of different typologies for different income groups. The majority of housing beneficiaries are likely to be local historically disadvantaged members of the community who would have had limited opportunities to own their own house and acquire property in the area in which they and their parents and grandparents were born. The provision affordable housing therefore creates an opportunity for them to address this and acquire property in their “hometown”. This represents a significant opportunity and benefit for these members of the community.

1.5.2.2 Employment

Based on the information obtained from Stats SA, the construction and operational phase of the project will create temporary and permanent opportunities. The construction of commercial buildings will lead to creation of permanent employment in the area. The represents the creation of a significant number of new jobs in an area that it largely dependent the agricultural sector for jobs. Many of the employment opportunities in the agricultural sector are also seasonal. The majority of the employment opportunities are likely to benefit Historically Disadvantaged Individuals (HDIs). Given the high unemployment levels in the surrounding areas, coupled with the low income and education levels, this would represent a significant positive social impact. The operational phase will also create opportunities for skills development and training.

1.5.2.3 Remove risk of illegal land invasions

The proposed development site is well located in terms of access to transport, shops and public facilities, such as schools and clinics. Within the current environment there is therefore a risk that the site could be targeted for illegal land invasions. The establishment of a well-designed, sustainable human settlement will remove the risk of illegal land invasions on the site. This in itself represents a significant positive social benefit not only for the beneficiaries of the project, but also the surrounding communities.
1.6 CONCLUSIONS AND RECOMMENDATIONS

Vanclay (2002) describes social impacts 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”. Social impacts are rarely objective but instead are mostly subjective as individuals interpret matters differently depending on factors such as religion, culture, gender and level of education.

The findings of this SIA indicate that the construction and the operation of the proposed Ketshe development have both positive and negative impacts. Positive impacts are mainly due to creation of employment opportunities, boosting of the local economy due to increased disposal income and contribution to the revenue of Newcastle LM which ultimately may lead to improved quality of life. On the contrary, negative impacts may be experienced due to migration of job seekers into Madadeni; decline in the quality of life due to air, noise, land and water pollution and increased traffic.

As was seen in the preceding chapters, the majority of the population within ward 21 of Newcastle LM is made up of individuals who are in the working age group of 15 to 64 years; are relatively educated having completed grade 10; 11 and 12; and the number of those attending school is gradually rising. In 2011, the unemployment rate within ward 21 of Newcastle municipality stood at 6.6% with the number of those employed having significantly increased from previous years to just over 2879 people.

Given this backdrop, the development offers an opportunity to contribute to the overall improvement of the socio-economic status of the Madadeni area.

Ultimately, if the proposed integrated residential development is authorized, every effort must be directed to ensure that it leaves a lasting positive legacy in the community of Madadeni.
1.7 REFERENCES

Newcastle local Municipality. Integrated Development Plan, 2018-2019

Spatial Planning and Land Use Management Act (Act 16 of 2013)

