

**SOCIO-ECONOMIC IMPACT ASSESSMENT IN SUPPORT OF THE ENVIRONMENTAL
AUTHORISATION AND WATER USSE LICENSE PROCESS FOR
THE PROPOSED ENNERDALE EXTENSION 9
RESIDENTIAL DEVELOPMENT WITHIN THE GAUTENG PROVINCE**

Submitted by:



Social and Environmental Consultants

AND



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LIST OF ABBREVIATIONS

Abbreviation	Description
CAHF	Centre for Affordable Housing Finance in Africa
CBD	Central Business District
CHC	Community Health Centre
CoJ	City of Johannesburg
CRU	Community Residential Units and Housing Programme
DEA	Department of Environmental Affairs
EIA	Environmental Impact Assessment
EMIS	Education Management Information Systems
FLISP	Finance Linked Individual Subsidy Programme
GVA	Gross Value Added
HH	Household
HSRC	Human Sciences Research Council
I&AP	Interested and Affected Party
IDP	Integrated Development Plan
LED	Local Economic Development
NEMA	National Environmental Management Act
PHC	Primary Health Care
RDP	Reconstruction and Development Plan
RLRP	Rapid Land Release Programme
SDF	Spatial Development Framework
SHP	Social Housing Programme
SIPDM	Standard for Infrastructure Procurement and Development Management

EXECUTIVE SUMMARY

Introduction

Based on its constitutional mandate the government has implemented various housing schemes to assist low income groups with proven South African citizen status. The public housing programme faces various challenges related to slow progress delivery. This situation has led to community frustration and protests in Gauteng with housing as one of the central issues. Violent protests have been experienced within the Ennerdale area since 2017 and the frustrations of the community is focused on the inflow of outsiders to the area with the subsequent expansion of various informal settlements, poor service delivery, lack of services and general lack of housing in the area.

The Gauteng Province's Rapid Land Release Programme (RLRP) aims to fast track housing backlogs across Gauteng. The proposed Ennerdale RLRP project is a mixed-use residential development planned around 3000 units which will include 60% 'RDP' type houses and 40% social housing units. The development will also host a commercial section and possibly include one or two schools. The site is located within Ennerdale Ext. 9 in Ward 121 of the City of Johannesburg Metropolitan Municipality.

The objective of the socio-economic impact assessment (SEIA) is to provide a baseline description of the local area where the development will take place, identify specific socio-economic risks or impacts related to the project as well as propose measures to manage these risks.

Socio-Economic Environment

The Ennerdale Extension C Residential Development is situated in Ennerdale Ext 9 in the south western sections of the City of Johannesburg (CoJ). The larger Ennerdale area is situated south of Lenasia South and forms part of the poorest regions in the 'deep south' of the CoJ, remote from the hub of economic activities in the central and northern parts.

The population density of CoJ ward 112 where the development is situated is relatively lower than the average for the CoJ with pockets of high densities north east of Ennerdale Ext 9 in the sub-area of Lawley. Ennerdale Ext 9 itself is characterised by relatively low densities. There is a large sprawl of low density informal housing between Ennerdale Extension 9 and Lawley. An estimated 7 300 households lived in informal structures in the ward where the development is located. In addition, there are close to 30 000 households living in informal structures in other wards immediately surrounding the development.

Ennerdale was declared as a Coloured group area in the 1970s under the apartheid regime. Since 1994 Ennerdale has become more integrated. Within Ennerdale there are however extensions with higher portions of Coloured people including Extension 9 with a majority Coloured population still including the ward where the development is located. Many Coloured people in Ennerdale have a strong historic link to the area that dates back to the 1940s that could be an explanation for racial tensions in the area.

Per capita crime rates in the Ennerdale area is higher than national and provincial averages. In addition the crime rate in the area is increasing. The rising crime rate can solely be ascribed to the dramatic increase in drug-related crimes in the Ennerdale Precinct. Currently drug related cases contribute 44% towards all reported cases in the area.

The past few years, Ennerdale residents participated in a couple of community protests revolving around concerns related to the large number of informal settlements on their doorstep; the perceived marginalisation of especially the Coloured community in the area and the lack of affordable (GAP) housing in the local area.

Unemployment and poverty rates in the Ennerdale area is among the highest in the CoJ. The unemployment rate in the area was much higher than the CoJ and national average, i.e. registering a narrow unemployment rate of 36% in 2011. Close to 96% of households in the ward earned income levels that qualify them for public housing subsidies. Of these, 63% earn less than R3 500 a month and would hence qualify for a full housing subsidy while 33% of households could probably qualify for GAP housing (earning more than R 3500 per month but less than R22 000).

Economic activities in the larger region are mainly concentrated in Lenasia along Nirvana road corridor and in the southern section of Klipspruit Valley Road (M10) towards Lenasia and Themb'Elihle some 7km north east from Ennerdale. There is a general lack of private economic investment in the Ennerdale area. Besides a Shoprite and a Spar, a Kentucky outlet and a Cashbuild not much private investment flowed into the area. There is a general perception of limited social facilities in the Ennerdale area.

The roads and transport services surrounding the proposed Ennerdale development are in a fair condition and public transport services in the form of existing subsidised bus routes and taxi services are functioning within the area. The lack of storm water drainage, pavements and street names and signposts are however recorded as major challenges in the larger Ennerdale area.

The school to population ratio is very low in the Ennerdale area explaining the large class sizes and capacity constraints at existing schools. This is especially the case with primary schools in the local area. While there are a number of health facilities in the larger area, these facilities are shared among a large group of people. The primary health care facilities and district hospital in Lenasia South could specifically come under increased pressure with continued population growth in these areas.

Findings

The proposed project would have the following anticipated positive social impacts:

- Positive impacts on job opportunities over the medium term during construction. Maximising the use of local labour during the construction phase would also ensure direct local benefits from the proposed development, and this could prevent conflict between the local community members, outsiders and the developer and contractors as such;
- The development would focus on providing housing for the poor, as well as the entry level markets and would assist in addressing the large housing backlog in Region G; and

- If the development provides appropriate social and commercial infrastructure it could enhance urban spatial objectives by bringing people closer to social amenities.

The economic benefits of the project could be maximised through pro-active planning by the community, the developer, local leadership and the CoJ Municipality.

Negative impacts and recommendations to be noted refer to the following:

- The development is situated next to major routes in the area (e.g. R558) which links various urban nodes. Access from these roads should be carefully planned to avoid congestions and minimise risk of accidents;
- Supporting municipal infrastructure development is critical for the success of the project. Funding and planning assistance from the provincial departments would be required;
- Community safety risks must be attended to prior to construction;
- Ensuring transparency and credibility during the process of identifying the beneficiaries of the RDP housing is critical. Failure to achieve acceptance that the process was credible and obtaining the “buy-in” of the local residents into the process and the validity of the list of beneficiaries could result in conflict and protests;
- Efficient public transportation opportunities should be linked to the housing development to ease commuting. Pedestrian walkways must be integrated in the design;
- The need for additional education facilities must be addressed to ensure the success of the project; and
- Adjacent property owners and community members should be kept informed of progress, decisions taken with regards to the development and construction schedules.

Table 27 below summarises the anticipated local socio-economic impacts of the development.

Table 1: Summary of Anticipated Socio-Economic Impacts

IMPACTS ANTICIPATED DURING THE CONSTRUCTION PHASE		
Impact Category	Significance without Mitigation	Significance with Mitigation
Positive economic impacts during construction	Medium (50) (+)	Medium (60) (+)
Negative impacts on roads and traffic	Medium (55) -	Medium (44)-
Increase in nuisance factors (noise, dust)	Medium (45)-	Medium (36)-
Negative Impacts on community safety	Medium (44)-	Medium (33)-
IMPACTS ANTICIPATED DURING THE OPERATIONAL PHASE		
Impact Category	Significance without Mitigation	Significance with Mitigation
Access to improved housing	Medium (33) +	Medium (40) +
Decline in local property values	Medium (30) -	Low (20) -
Negative impacts on roads and traffic	Medium (52) -	Medium (36) -
Negative impact on local social infrastructure	Medium (60)-	Medium (39)-
Negative impacts on community safety	High (60) -	Medium (48)-
Positive impact on urban spatial structure	Medium (36)+	Medium (42) +
Negative impact on social cohesion and sense of place	High (75) -	High (65) -

Cumulative risks related to the project are limited and mainly relates to the combined pressure on social (mainly health facilities) of the planned Ennerdale and Rietfontein Residential Developments.

There are a number of potential residual risks (after mitigation) related to the project including migrants remaining in the area after the construction project as well as additional in-migration into the local area of rural households hoping to obtain placements in housing projects.

Conclusion:

It is anticipated that the proposed development will make a significant contribution towards the dire housing needs in the local community without severely negatively compromising the day-to-day activities of the communities in close proximity to the site. Based on the findings of the SEIA, it is therefore recommended that the proposed development be considered for authorisation.

At this stage there is no evidence of direct attitude formation against the proposed development. However, given the experience in the area with previous protests against the inflow of settlers, the land grabs that are taking place, poor service provision, and lack of infrastructure, the sensitive issues should be noted and attended to. This is critical to avoid any possible mobilisation against the proposed project and possible violence between groupings.

1. INTRODUCTION

1.1 PROJECT BACKGROUND AND DESCRIPTION

Section 26 of the Constitution states that everyone has the right to access to adequate housing and that, 'The state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of this right' (Groundup, 2017).

Based on its constitutional mandate the government has implemented various housing schemes to assist low income groups with proven South African citizen status. These include (Ibid):

- The government subsidy housing (formerly known as RDP housing¹) applies to households earning less than R3 500 a month who meet certain eligibility requirements² may apply for fully subsidised housing units of 40m²;
- Community Residential Units and Housing Programme (CRU) forms part of the Social Housing Programme (SHP) aimed at refurbished inner buildings and hostels also for households earning less than R3500³; and
- GAP housing includes housing schemes for households earning more than R3 500 but less than R22 000 per month (which is the minimum amount needed to qualify for a home loan from a bank):
 - The Social Housing Programme (SHP) also supplies rental housing in designated restructuring zones in urban areas to households earning more than R 3 500 per month to R15 000 a month.
 - The Government's Finance Linked Individual Subsidy Programme (FLISP) aims to help households who earn between R3 501 to a maximum of R22 000 a month to buy a home. The FLISP grant can be used to reduce the initial loan amount and hence lower monthly repayments. It can also be used as a deposit. The size of the grant is dependent on the salary level of the applicant. The grant can be used to build a new house or to buy an existing one.⁴

While the percentage of South Africans households that have received some form of government subsidy to access their housing has increased from 5.6 % in 2002 to 13.6 % in 2018 due to government's large-scale subsidised housing programme, there is still a substantial housing backlog of some 19.6% of households living in shacks and backyard flats. In 2016, the housing backlog in South Africa stood at approximately 2.2 million with an additional 1.1 million households living in backyard flats. In Gauteng Province with its high rates of in-migration and urbanization, close to 28% of households could be living in shacks or backyard flats. The housing backlog in the City of Johannesburg (CoJ) is estimated to be close to 31% or between an estimated 570 000 to 800 000

¹ The Department of Human Settlements changed the Reconstruction and Development Programme (RDP) housing programme to 'Breaking New Ground' (BNG). The objective of BNG is to integrate different types of housing – rented, bought and subsidised – and provide facilities like schools, clinics and shops, to improve the quality of people's lives.

² Applicants have to be 21 and older, be a first-time applicant and homeowner and households should consist of more than one member

³ Applicants should be 18 and older, earning between R8 00 to R 3 500 per months and households should consist of more than one member

⁴ Applicants have to be 21 and older, have worked for than 6 months and provide proof of income for three months income

households living in shacks or backyard flats while the average annual delivery of government-sponsored housing is only approximately 3 500 housing units a year (Stats SA, 2016; CAHF, 2019).

The public housing programme faces various challenges related to slow progress delivery, lack of funding, high and rising development costs, the low income levels of potential owners as well as the lack of suitable and well-located land, especially in cities. This situation has led to community frustration and protests in Gauteng with housing as one of the central issues. Within the CoJ, the communities in the southern parts of Johannesburg in particular voiced their concerns and threatened to illegally occupy land if the housing issue is not addressed (CAHF, 2019).

In August 2018 Gauteng Premier David Makhura, launched the province's Rapid Land Release Programme (RLRP), in which he plans to make provincial land and buildings available for the development of human settlements and for urban agriculture projects. The Programme involves some 166 000 stands that will be made available with some 100 000 planned for the southern parts of Johannesburg alone. The objective of the programme is to address the housing issues, as well as economic, social cohesion and agricultural needs. The Programme will also make provision for people who want to build houses for themselves, as well as for urban agriculture, township businesses, sports and recreational purposes. The Programme will focus on small businesses development and endorse the use of Alternative Building Technologies (ABT). The CoJ committed itself to provide bulk infrastructure (roads, water, sanitation and electricity) (Liedtke, 2018).

Ennerdale RLRP project consists of 60% RDP housing 40% mixed use (social housing and business ground floor and possible one or two schools). Some 3 000 housing units are planned. The site is located in Ennerdale Ext. 9 which is approximately 40km north-west of the Johannesburg CBD.

The development will be situated on a vacant site of approximately 35Ha, owned by the City of Johannesburg. The site can be accessed from Katz Road (northerly direction), Samuel Road (westerly and southerly direction) and Street B/Smith Walk towards the east.

1.2 DETAILS OF SPECIALISTS

Ingrid Snyman (Batho Earth) is the social impact specialist and An Kritzinger (SED) is the economic impact assessment specialist for the study. Short resumes of their professional expertise are provided below (detailed CVs attached).

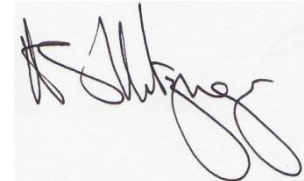
Ingrid Snyman (*BA Honours degree in Anthropology*) has more than 20 years' experience in the social field. Ingrid has been involved in various Social Impact Assessments during her career as a social scientist. These project themes consist of infrastructure development, waste management, road development, water and sanitation programmes, township and other residential type developments. She has also been involved in the design and management of numerous public participation programmes and communication strategies, particularly on complex development projects that require various levels and approaches.

An Kritzinger (*Masters Economics*) has been working as consultant in the economic development field for the past 20 years. She has extensive experience in the economic profiling and economic

development plans for local authorities and districts in South Africa and has designed and implemented a training project for sustainable local economic development monitoring for district municipalities throughout South Africa in collaboration with the Development Bank of Southern Africa. Her work has also concentrated on applied economic modelling in South Africa, Namibia, Botswana and Mozambique including economic impact analysis, economic cost benefit analysis, social incidence studies and macroeconomic forecast modelling.

1.3 DECLARATION OF INDEPENDENCE

This report has been prepared as per the requirements of Section 32 of Government Notice No. R542 dated 18 June 2010 (Environmental Impact Assessment Regulations) under sections 24(5), 24M and 44 of the National Environmental Management Act, 1998 (Act 107 of 1998). We, Ingrid Snyman (Batho Earth) and An Kritzinger (SED) declare that this report has been prepared independently of any influence or prejudice as may be specified by the Department of Environmental Affairs (DEA).

Ingrid Snyman

Anna Sophia Kritzinger

Signature of specialist

Signature of specialist

Batho Earth

Southern Economic Development (SED)

Name of group (trading name)

Name of group (trading name):

20 January 2020

Date:

1.4 GUIDELINES FOR THE SOCIO-ECONOMIC IMPACT ASSESSMENT

The economic impact assessment will cover the identification and mitigation of socio-economic impacts relevant for the Environmental Authorisation Processes. The following legislation is relevant:

The National Environmental Management Act (NEMA), No. 107 of 1998 and Environmental Impact Assessment Regulations (GN No. R. 982 of 2014) provide a suite of principles and tools to guide South Africa on a path to sustainable development. "Environment" is defined in holistic terms and includes biophysical, social and economic components, as well as the connections within and between these components. While the act does not prescribe a specific methodology in terms of socio-economic impact assessment the following stipulations highlights the necessity to include socio-economic issues in environmental impact assessments.

The following general principles apply to all identified impacts:

- Responsibility for the impact should apply throughout its life cycle;
- The participation of all interested and affected parties in environmental governance must be promoted;
- Decisions must take into account the interests, needs and values of all interested parties; and
- The costs of remedying pollution, environmental degradation, consequent adverse health effects and of preventing, controlling or mitigating further pollution, environmental damage or adverse health effects must be paid for by those responsible for harming the environment, i.e. the so-called polluter-pays principle.

The regulations also make provision for cumulative effects assessment identifying and evaluating the significance of effects from multiple actions representing potential causes of impacts.

The NEMA regulations of 2014 provides for baseline/scoping, impact assessment as well and management reports including the identification of measures to monitor adherence to the Environmental Management Plan.

1.5 CHECKLIST REQUIREMENTS FOR SPECIALIST REPORT

EIA REGULATIONS 2014 GNR 982 Appendix 6 CONTENT OF THE SPECIALIST REPORTS	Status / Cross-reference in this Report
a) details of the specialist who prepared the report; and the expertise of that specialist to compile a specialist report including a curriculum vitae;	Sections 1.2 and 10
b) a declaration that the specialist is independent in a form as may be specified by the competent authority;	Section 1.3
c) an indication of the scope of, and the purpose for which, the report was prepared	Section 2.1
d) the duration, date and season of the site investigation and the relevance of the season to the outcome of the assessment;	Section 2.2
e) a description of the methodology adopted in preparing the report or carrying out the specialised process inclusive of equipment and modelling used;	Section 2.2 and 2.4
f) details of an assessment of the specific identified sensitivity of the site related to the proposed activity or activities and its associated structures and infrastructure, inclusive of a site plan identifying site alternatives;	N/A
g) an identification of any areas to be avoided, including buffers;	N/A
h) a map superimposing the activity including the associated structures and infrastructure on the environmental sensitivities of the site including areas to be avoided, including buffers	N/A
i) a description of any assumptions made and any uncertainties	Section 2.3

EIA REGULATIONS 2014 GNR 982 Appendix 6 CONTENT OF THE SPECIALIST REPORTS	Status / Cross-reference in this Report
or gaps in knowledge;	
j) a description of the findings and potential implications of such findings on the impact of the proposed activity or activities;	Sections 4 and 5
k) any mitigation measures for inclusion in the EMPr	Sections 4,5 and 6
l) any conditions for inclusion in the environmental authorisation;	Sections 4,5 and 6
m) any monitoring requirements for inclusion in the EMPr or environmental authorisation;	Sections 4,5 and 6
n) a reasoned opinion	
(i) whether the proposed activity, activities or portions thereof should be authorised;	Section 7
(ii) if the opinion is that the proposed activity, activities or portions thereof should be authorised, any avoidance, management and mitigation measures that should be included in the EMPr, and where applicable, the closure plan;	Section 7
o) a description of any consultation process that was undertaken during the course of preparing the specialist report;	Section 2.2 and 9
p) a summary and copies of any comments received during any consultation process and where applicable all responses thereto; and	Part of I&AP register
q) any other information requested by the competent authority	N/A

2. SCOPE AND METHODOLOGY

2.1 REPORT SCOPE

The socio-economic impact assessment (SEIA) focuses on the following areas:

- Description of the local socio-economic baseline for the Ennerdale Extension 9 Residential Development Project in Gauteng as part of the RLRP;
- Description of the nature of potential impacts during construction and operations that could occur;
- Description of the significance of the impacts in terms of extent, duration, magnitude and probability;
- A management plan to enhance positive impact and mitigate negative impacts; and
- A monitoring plan to ensure that the management measures are implemented over time.

2.2 METHODOLOGY AND SOURCES

The report is based on observations made during a site visit, primary and secondary sources as well as economic modeling. The site visit was conducted on 8 January 2020.

Primary Data

Primary sources include:

- Mapping of socio-economic sensitive areas with the aid of Google Earth satellite images
- Telephonic interviews with key stakeholders. The stakeholders consist of residential associations, ward councillors, businesses group, property agents and local government officials (see Section 9

Secondary Data

Secondary data sources include to the following (See Section 8 for list of sources):

- Public policy documents relevant to the study including national and provincial housing policy documents, municipal Integrated Development Plans (IDPs) and Spatial Development Framework (SDF);
- Statistics South Africa Data (Census 2001 – 2011; Community Survey 2016);
- Other academic literature relevant to the project.

Economic Modelling

Input-output (I/O) modelling is used to assess the project's potential impact on employment and economic output. The I/O analyses is based on i) direct impacts (income and employment created due to employment by the project itself) ii) indirect impacts (backward linkages to local suppliers) and iii) induced impacts due to the overall increase in income levels and increased spending on goods and services which could lead to a further increase in production and employment in the local area.

2.3 LIMITATIONS AND ASSUMPTIONS

The following assumptions and limitations apply to the socio-economic impact assessment:

- The SEIA included consultations with selected stakeholders and potentially interested and affected parties as part of the impact assessment phase. This does not form part of the Public Participation Process (PPP) required for the overall EIA process, except where it was specifically specified as such during the consultation sessions;
- A SEIA aims to identify possible social and economic impacts that could occur in future. These impacts are based on existing baseline information. There is thus always an uncertainty with regards to the anticipated impact actually occurring, as well as the intensity thereof. Impact predictions have been made as accurately as possible based on the information available at the time of the study;
- Sources consulted are not exhaustive and additional information can still come to the fore to influence the contents, findings, ratings and conclusions made;
- The construction and employment costs for the project were based on the high-level project description and average building and bulk infrastructure per low cost housing type. As such these costs were only used to establish high level potential employment and income impacts and is not to be used for planning purposes;
- Socio-economic baseline information was mainly based on official statistics from StatsSA, as well as municipal documentation. Sub-municipal data was only available for 2011. Recent trends as well as information on a sub-municipal level were also based on quantitative and qualitative information received from local representatives with local knowledge. The lack of more recent official socio-economic data is therefore seen as a limiting factor, although it is not anticipated to influence the outcome of the report;
- Technical and other information provided by the client is assumed to be correct;
- Individuals view possible socio-economic impacts differently due to their association with the anticipated impact. Impacts could therefore be perceived and rated differently than those contained in the SEIA Report;
- It is assumed that the developer will adhere to legally required and best practice management principles; and
- Economic multipliers, average salaries and wages and value added as a percentage of total income were based on provincial and national averages.

2.4 IMPACT METHODOLOGY

As part of the EIA Process, the anticipated socio-economic impacts were rated according to the following rating methodology.

The direct, indirect and cumulative impacts of the issues identified through the scoping study, as well as all other issues identified in the EIA phase were assessed in terms of the following criteria:

- The **nature** includes a description of what causes the effect, what will be affected and how it will be affected.
- The **extent**, wherein it is indicated whether the impact will be local (limited to the immediate area or site of development), regional, national or international. A score of between 1 and 5 is

assigned as appropriate (with a score of 1 being site specific, 2 = local (site + immediate surrounds), 3 = regional, 4 = national and a score of 5 being international).

- The **duration**, wherein 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 **consequences (magnitude)**, quantified on a scale from 0-10, where 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 of 1–5, where 1 is very improbable (probably will not happen); 2 is improbable (some possibility, but low likelihood), 3 is probable (distinct possibility), 4 is highly probable (most likely) and 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 and can be assessed as low, medium or high; and
- The **status**, which will be described as 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 calculated by combining the criteria in the following formula:

$$S = (E+D+M) \times P$$

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).

3. SOCIO-ECONOMIC BASELINE OF THE LOCAL AREA

3.1 DEFINING THE LOCAL AREA

The 'local' community relevant to the economic impact assessment refers to communities within a 5km radius of the site, i.e. considered the direct influence sphere of the project. If relevant, the communities within the wider influence sphere (10km radius) will also (wider influence zone) be considered.

For the purposes of the analysis, data on a ward level were analysed to establish the socio-economic baseline for the local area. The Ennerdale Residential Development Project is situated in Ward 121 of the City of Johannesburg (CoJ). It also falls under Region G of the CoJ.

3.2 SOCIO-ECONOMIC SENSITIVE AREAS CLOSE TO THE SITE

An indication of socio-economic sensitive areas close to the proposed development is provided in Figure 1.

The Ennerdale Residential Development is situated on the north eastern side of Ennerdale. The site is adjacent to Ennerdale Ext 9 residential area in the west. Some landmarks close to the site include:

- The Daleview Secondary School situated in Ext 9 is in the vicinity the proposed site;
- The Lesedi Methodist Church (south east) of the site;
- Ennerdale Ext. 9 Clinic, the City of Johannesburg Metropolitan Municipality Region 9 Customer Care Centre and the Metropolitan Shopping Centre/ Ennerdale Shopping Centre in the north east hosting Ennerdale Cashbuild;
- A Job Seekers Bureau is situated just south east of the site

Business activities are scattered across the area with some concentrated economic activity further north towards Lenasia along the Klipspruit Valley road (M10). Within the larger area, there are some concentration of agricultural smallholdings to the east and south west.

There are numerous informal settlements around the area, including the Lakeview informal settlement in Ennerdale Lakeview Extension 4 (also known as Kavukiland) and Meriting Informal Settlement adjacent to the R 558 some 2.5 km east of the site. There is also an informal settlement less than 1km north of the site.

The planned RLRP Rietfontein Residential development is about 7km to the north east of the Ennerdale site.

Within the larger influence sphere it can be observed that Ennerdale is situated close to the southern fringes of the CoJ that borders the Sedibeng District Municipality to the east and south and West Rand District Municipality to the west.

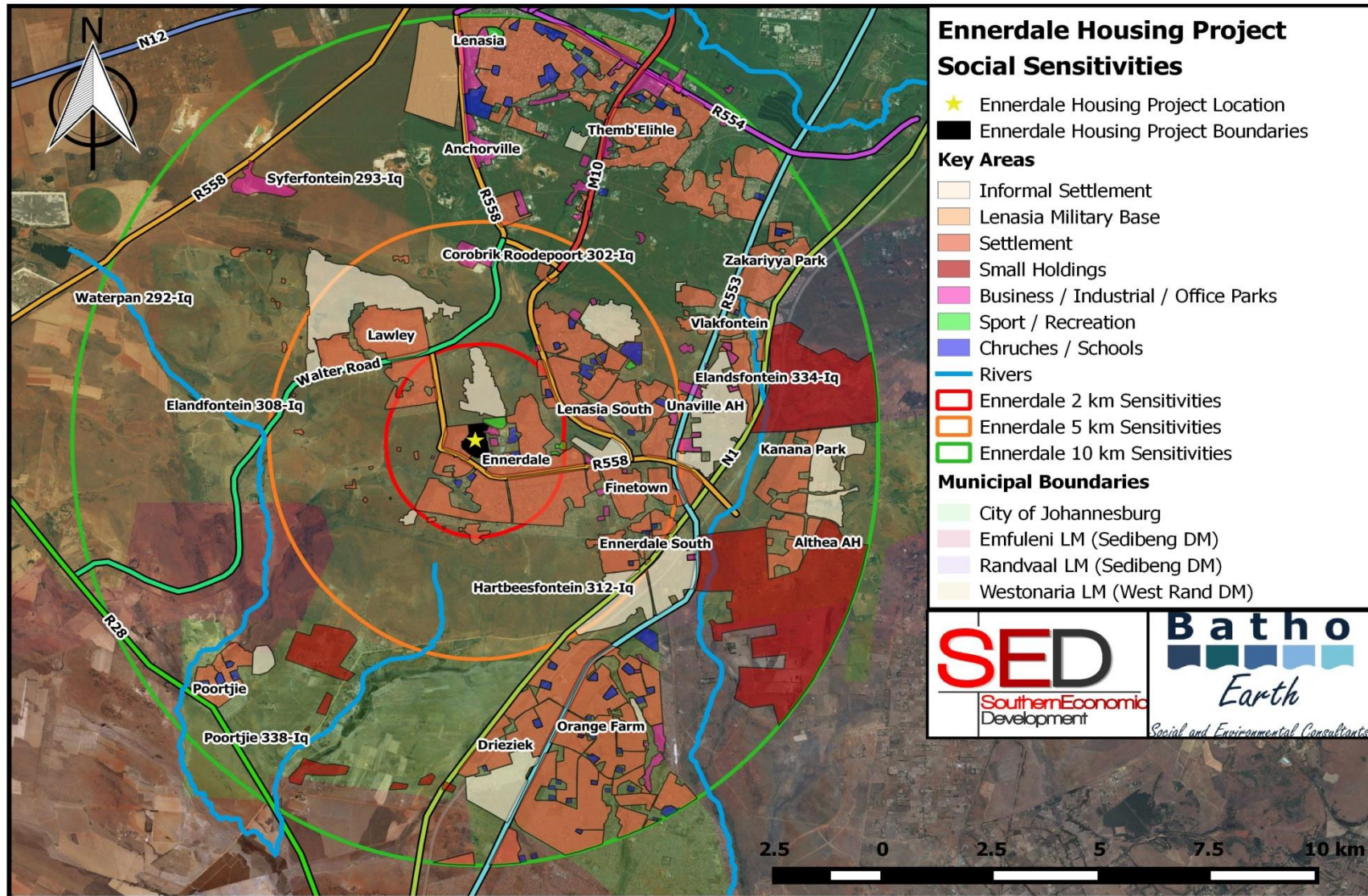


Figure 1: Socio-Economic Sensitive Areas Close to the Ennerdale Extension C Residential Development

3.3 POPULATION AND HOUSEHOLD SIZE AND TRENDS

Table 1 below shows the high population growth rate of Gauteng relative to South Africa due to the in-migration of people from South Africa as well as the rest of Africa to centres of economic activity especially in the City of Johannesburg and the Ekurhuleni metro area.

In 2011, close to 49 000 (14,000 households) were located in CoJ Ward 121. Based on average population growth in the CoJ the population could have increased to more than 60 000 people and about 16,000 households. Ennerdale Extension 9 is a small sub-place within the ward and only hosts around 3 000 people (707 households). The average household size in Ext 9 is much higher than for the ward, i.e. 4.4 persons per household. The larger ward also includes Lawley to the north east of Ennerdale Extension 9 recording some 33 000 people and 10 000 households in 2011. The remainder of the households in the ward are mainly staying in low density informal settlements between Lawley and Ennerdale Extension 9.

The relatively large household size in Ward 121 where Ennerdale and in Extension 9 in particular) is located could be due to its location on the rural fringes of CoJ. It could also indicate an even higher demand for low cost housing (apart from the current backlogs discussed below) if people within the larger household could plan to split of to form a separate household.

Table 1: Population and Household Growth

Area	Population		Growth p.a.	Households		Growth p.a.	Average household size	
	2011	2016	2011-2016	2011	2016	2011-2016	2011	2016
CoJ Ward 121	48,883			13,760			3.6	
CoJ	4,434,827	4,949,347	2.2%	1,550,241	1,853,371	3.6%	2.9	2.7
Gauteng	12,272,263	13,399,726	1.8%	4,164,641	4,951,138	3.5%	2.9	2.7
South Africa	51,770,561	55,653,654	1.5%	15,065,018	16,923,309	2.4%	3.4	3.3

Source: Stats SA 2011 and Community Survey 2016 as in <https://wazimap.co.za/>

3.4 POPULATION DENSITY

Table 1 below shows the relatively high population density of the CoJ as an urban area compared to the average for Gauteng Province.

Table 2: Population Density, 2011/2016

Area	Population density (persons /square km)
	2011/2016
CoJ Ward 121	961
CoJ	3,003
Gauteng	737
South Africa	46

Source: Stats SA 2011 and Community Survey 2016 as in <https://wazimap.co.za/>

Note: Ward information is for 2011

Ward 121 showed much lower densities than the city average with only 961 people per square km compared to more than 3,000 people per square km in the CoJ on average. The population density in

Ennerdale Extension 9 adjacent to the proposed development was slightly lower in 2011 at 707 people per square km. The densities in Lawley were however much higher at 5 450 people per square km. The low density informal sprawl between Ennerdale Ext 9 and Lawley accounts for the relatively low density of Ward 121.

Due to high in-migration rates in the south of the CoJ, densities could have increased substantially in the Ennerdale project area since 2011(Stats SA, 2011).

3.5 POPULATION GENDER, AGE, LANGUAGE, CULTURAL CHARACTERISTICS

Table 1 below shows the relatively low female ratios in the CoJ that could suggest single male migrants in-migrating to the City. The ratio of the economically active population is higher in Gauteng and the CoJ than it is nationally. Typical of urban areas, there is also higher in-migration from other countries into the CoJ with 8% of the population born outside South Africa compared to less than 3% for South Africa on average.

Compared to the rest of Gauteng and the CoJ, Ward 121 shows relatively high household sizes and relatively low portion of economically active people indicating to a relatively higher dependency burden in the area i.e. relatively high numbers of children or the aged in need of support.

Table 3: Gender, Age and Race Distribution, 2011/2016

Area	% Females	% of Population 18-64 years	% Black African	% Born in SA	Majority language
CoJ Ward 121	49.6%	58.0%	80.4%	92.8%	isiZulu (25%)
CoJ	49.9%	65.0%	80.5%	92.1%	IsiZulu (28%)
Gauteng	49.6%	65.2%	80.4%	93.9%	isiZulu (23%)
South Africa	51.0%	57.2%	80.7%	97.8%	IsiZulu (24%)

Source: Stats SA 2011 and Community Survey 2016 as in <https://wazimap.co.za/>

Note: Ward information is for 2011

Ennerdale was declared as a Coloured group area in the 1970s under the apartheid regime. Ennerdale (together with Eldorado Park north of the N12 /Maroka Bypass) hosted the displaced Coloured community of CoJ during apartheid. Since 1994 Ennerdale has become more integrated with 33% of the population of close to 72 000 people (2011) being Coloured and 66% black African. Eldorado Park on the other hand retained more of its former character with close to 85% of its 6 700 people (2011) considered Coloured. (Stats SA, 2011).

Within Ennerdale there are is however extensions with higher portions of Coloured people including Extension 9 with a Coloured population of 62%. There are particularly high concentrations of Coloured people in Extension 1 (directly east of Extension 9) and Mid-Ennerdale south of the R558. Many Coloured people in the area have a strong historic link to the area that dates back to the 1940s. The Black population of Ennerdale are largely concentrated in Ennerdale Ward 8 opposite Extension 9, south of the R558, Finetown and Ennerdale south on the eastern and south-eastern boundaries of Ennerdale next to the N1.

3.6 HOUSING IN THE LOCAL AREA

Of the 13 760 households that reside in Ward 121, 53% (7 300 households) lived in informal structures in 2011. This is more than double the rate in Gauteng (18%) and South Africa (13%). Apart from the estimated 7 300 informal house in Ward 121, there were close to 30 000 households living in informal structures in the wards immediately surrounding Ward 121.

To provide a broader understanding of the housing situation in the Ward 121 and adjacent areas, the following informal settlements, and the pressure that it would place of the provision of housing, are pointed out:

- The nearest informal settlement is located towards the north of the proposed Ennerdale site and is between 500 m and 2 km from the Ennerdale development.;
- The area referred to as Lawley and Lawley Estates north of Ennerdale Ext. 9 is located to the north east of the proposed Ennerdale development, north of Walter Road (2.5 to 4 km from the proposed site). A large informal settlement forms part of the Lawley area (Google Earth, Jan 2020);
- Within the adjacent Ward 6, there is an informal settlement to the south of the proposed Ennerdale development which is referred to as Mountain View. This settlement is to the south of the R557/R558 and just north of the N1 and west of the Grasmere railway station and railway line. The area is approximately 4 km from the proposed development site (Google Earth, Jan 2020).

The following table provides a breakdown of the type of dwellings mainly found in the affected and adjacent wards in the larger study area and the number/percentage of type of household dwellings.

Table 4: Type of dwellings and number of households in the area, 2011

Type of dwelling	Ward 121		Ward 7 (south east)		Ward 6 (south east)		Ward 5 (south)		Ward 8 (north)	
	Number of HH	Percentage of HH	(HH)	(%HH)	(HH)	(%HH)	(HH)	(%HH)	(HH)	(%HH)
Shack	7 321	53.2%	3 653	31.6%	8 095	67.8%	4 923	38.2%	10 322	63.9%
House	5 896	42.9%	6 896	59.7%	2 813	24.1%	7 243	56.2%	4 150	25.7%
Flat in backyard	300	2.2%	394	3.4%	N/A	N/A	207	1.6%	N/A	N/A
Apartment	69	0.5%	N/A	N/A	N/A	N/A	N/A	N/A	270	1.7%
Other	174	1.3%	449	3.9%	347	2%	148	1.2%	587	3.6%

Source: Stats SA 2011 in <https://wazimap.co.za/>

From the above table it is clear that similar situations exist within the other nearby wards in terms of the type of dwellings of households. This indicates that the larger area is challenged by a lack of housing, the invasion of outsiders and so-called 'landgrabs'. The data dates back to 2011 and indicates a high percentage of households living in shacks. It is anticipated that the trend continued, even though the CoJ has made progress in this regard. These figures can thus be exponentially higher.

3.7 AVAILABILITY OF HOUSING FOR DIFFERENT INCOME GROUPS

According to information received, the demand for properties in townships, primarily those close to major urban areas, is outstripping supply and therefore house prices in traditional townships within South Africa are doing well (Fourie, B: 2019). The Lenasia/Orange Farm/Ennerdale area has been identified as one of the areas where such property growth has been experienced, even though the Ennerdale area has seen a series of protests with regards to infrastructure delivery and the inadequate provision of housing together with the inflow of outsiders to the area. These areas have thus seen a growth of 15% in property prices over the 2014 to 2018 period. This trend is attributed to a variety of factors, namely:

- The on-going demand that appears to consistently outstrip supply in these areas;
- There is an inadequate supply of affordable housing in city centres, and households then have to fall back on township dwellings to be as close as possible to economic opportunities; and
- There is a huge demand for affordable rental space in densely populated areas.

Townships where progress has been made in terms of infrastructure, thus show investment worthiness and are thus especially in demand for investments by existing and outside residents. Areas where there is proposal for 'green-lining'⁵ influences the investment grade for households and lenders alike. Lenders would then commit to a targeted lending programme for qualifying borrowers in these areas, greater local presence, and accessible community education initiatives.

The study area falls within the Ennerdale Ext. 9 area within Region G. There are small pockets of prosperity in the Region G areas with some larger middle-income neighbourhoods and long-established social networks such as Zakariyya Park and some of the Ennerdale extensions. The above growth in the property prices could thus be beneficial for the middle-income residents who can afford properties that are available in the local market, but it could also make it even more difficult for first time homeowners falling within the lower income brackets to enter the market. Generally, two, three and four bedroom houses are up for sale within the Ennerdale area with prices ranging from R400 000 and upwards. The majority of residents that fall within the lower income brackets would thus not qualify for this available type of housing (see Section 3.17 below). The Ennerdale community protests in 2017 specifically revolved around the lack of available GAP housing (Oppelt, 2017).

The increase in informal settlements and the influx of outsiders to the Ennerdale area indicate a need for affordable housing and social infrastructure within the larger area. The bulk of the households, especially in the south, suffer from extreme poverty and unemployment, but their geographic isolation makes it costly to provide much-needed infrastructure (CoJ: 2020).

3.8 OTHER PUBLIC HOUSING PROJECTS PLANNED IN THE LOCAL AREA

The Rietfontein Residential project is planned only 7km north east from the Ennerdale project site between Themb'Elihle/ Lenasia and Lenasia South. The development is planned around 1 800 RDP units and 1 800 GAP housing units.

⁵ 'Green-lining' refers to a partnership between local municipalities and lenders where municipalities commit to an increased focus on the collection of rates and services payments, by-law enforcement, expedited municipal approvals, and area-based improvement initiatives (Fourie, B: 2019).

3.9 MUNICIPAL SERVICES AND INFRASTRUCTURE (WATER, ELECTRICITY AND WASTE)

Provision of basic services to the community of Johannesburg is comparatively high with the majority of households (both formal and informal) enjoying access to piped water (98%), sanitation (95%), and electricity (91%). However, there continues to be a deficit, particularly in informal settlements where less than half of the households have access to basic sanitation. This backlog is exacerbated by high population growth and in-migration referred to in the previous sections. The number of households in the city has increased which puts an extra strain on the existing infrastructure.

Table 5 below provides an outline of larger service delivery backlogs in Ward 121. Within Ward 121, it is clear that there is a serious lack in the provision of infrastructure and services to the households, especially with regards to water and sanitation services and infrastructure. Only half of the households within Ward 121 receive water from a service provider. The rest of the households receive their water from water tankers, while 1% is relying on borehole water. Various violent protest actions have been experienced since 2017 in this regard.

The lack of infrastructure and service provision is exacerbated by the high volumes of in-migration to the area and the development of informal settlements.

Table 5: Municipal Infrastructure Delivery

Service	CoJ Ward 121 Backlogs (% of household without services)	CoJ Backlog (% of household without services)
Housing (formal dwellings)	53%	19%
Water	52%	2%
Sanitation (flushed toilets)	59%	5%
Electricity	8%	9%
Refuse removal	16%	7%

Source: CoJ (2019) and Stats SA (2011) in <https://wazimap.co.za/>

The electrical network in the CoJ in general faces challenges. Over 27% of the bulk transformers operate beyond their useful lifespan and the age of most of the transformers make maintenance difficult. The electrical infrastructure backlog sits at a staggering R17 billion. Cable theft and vandalism to the electricity infrastructure network further leaves residents with frequent power outages (CoJ, 2019).

City Power, however, has supplied electricity to 2 167 units (structures) in informal settlements during 2017/18, exceeding the target of 810. It is further busy with the rollout of solar water heaters to poor households and smart electricity meters in households and businesses. Other ongoing projects involving alternative energy include Joburg Water's hydro-conduit power generation project, Pikitup's Waste to Energy project, and City Power's rooftop photovoltaic and utility-scale battery storage plants (CoJ, 2019).

Despite a requirement to renew approximately 2% of the water network per year, the CoJ has historically renewed only about 0.2% thereof. This decay led to numerous water pipes burst, as well as water metres and connection failures, as well as sewer blockages. The Ennerdale Ext. 5 Water pipe replacement Project whereby 14.6kms of pipeline would be constructed was on the priority list

for the 2018/2019 Joburg Water Capital Projects. An Infrastructure Renewal project for the Ennerdale Works was also tabled as priority.

It has been further noted that the Ennerdale area, with various open spaces, are often used for illegal dumping as the current waste removal system is inadequate.

3.10 ROADS AND TRANSPORT SERVICES

In 2017, the City’s total infrastructure backlog stood at R170 billion composed of collapsing bridges, city pavements that are in a poor condition, potholes, burst water pipes and ailing substations. The 100 000 potholes arise from a R11.8 billion historical backlog in the road network. In 2017, over 3 900 kilometres of the network, or 32%, had fallen into the classification of poor or very poor conditions (CoJ, 2019).

The main access roads to the proposed Ennerdale site and study area are the R558 (to the south and west of the proposed site), Katz Road and Samuel Road. Town Road, a dual carriageway passes further to the east of the site and again links with the R558. The R558 intersects the N12 and links Ennerdale and Lenasia. Access to the site would probably be from Katz and Samuel Roads.

Roads within the area are generally in a fair condition, although on-going maintenance is required to keep the road network up to standard and to repair potholes. In 2018 road maintenance work were undertaken on the R558 between Lenasia and Finetown-Ennerdale. Sections of the R558 were rehabilitated due to the high traffic volumes on the road and the growing need for improved safety measure along the southern corridor (Gauteng Roads Department: 2018).

The Ennerdale Ext. 9 bus stop is just south of the site. A taxi stand is situated just west of Samuel Road to the west of the proposed site. The lack of storm water drainage, pavements and street names and signposts are recorded as major challenges in the larger Ennerdale area (Oppelt, 2017).

3.11 EDUCATIONAL STATUS AND SERVICES

Table 6 below shows the relatively low ratios of primary and secondary schools in Gauteng Province relative to population size. Ward 121 shows even lower of both primary and secondary schools than the average for Gauteng Province.

Table 6: Education Indicators, 2017

Area	Number of primary schools/10 000 persons	Number of secondary schools/10 000 persons
CoJ Ward 121	1.3	0.7
Gauteng	1.4	0.8
South Africa	3.1	2.7

Source: Own estimated based on Stats SA (2011 and 2016) and Municipal Demarcation Board (2018)

As indicated in the table below, there are six primary schools and four secondary schools within 2km from the proposed site for Ennerdale Ext C. These schools however have to serve a large population of more than 70,000 people explaining the very low school to population ratios for the Ennerdale area in Table 6 above.

Only one of the schools, Don Bosco Educational Projects, is an independent school. The closest primary schools to the planned residential development are Spectrum Primary and Don Brosco both situated less than 500m south to south east of the project. Spectrum is a No-fee School. The relatively large class sizes at Spectrum could suggest potential capacity constraints at the school. The other four primary schools in Ennerdale are all within 1km from the site to the south and south east and are all public schools. None of these schools are classified as a No-Fee School and they also show relatively larger class sizes that also suggest capacity constraints at these schools.

The nearest secondary school is Daleview Secondary School (a No-Fee School) and is located about 100m west of the site. The other 3 secondary schools are between one and 1.5 km from the site and are all No-Fee-Schools apart from Fred Norman Secondary School. The relatively lower class sizes at Ennerdale and Oakdale Secondary Schools suggest that there might be some capacity on secondary level in the local area. The relative small classes on secondary education level coupled with the low number of secondary schools could suggest large fall-out rates from secondary education or local secondary pupils attending schools elsewhere. Local primary schools however appear to be at full capacity.

In addition to the schools mentioned above, there are 3 primary schools and one secondary school in Lawley some 3km north east from the proposed development. Due to the limited number of primary and secondary schools compared to population size in Lawley, schools in this area are however already under strain with large class sizes recorded especially at primary level.

Table 7: Schools Close to the Proposed Residential Development of Ennerdale Ext C

Entity	Sector	Learners	Educators	Learner: educator ratio	No Fee School
Spectrum Primary School	Public	1 975	51	38.7	YES
Don Bosco -Laura Vicuna (Primary)	Independent	296	15	19.7	NO
Odinpark Primary School	Public	1 371	40	34.3	NO
Poseidon Road Primary School	Public	1 427	41	34.8	NO
Saint George Primary School	Public	1 351	37	36.5	NO
Mid-Ennerdale Primary School	Public	1 998	61	32.8	NO
Lawley Primary School	Public	1924	56	34.4	YES
Lawley Primary School No.2	Public	588	15	39.2	YES
Motheo-Foundation Primary School (Lawley)	Public	1451	37	39.2	YES
Daleview Secondary School	Public	1 100	34	32.4	YES
Ennerdale Secondary School	Public	1 138	50	22.8	YES
Fred Norman Secondary School	Public	1 756	59	29.8	NO
Oakdale Secondary School	Public	740	33	22.4	YES
Lawley Secondary School	Public	1399	49	28.6	YES

Source: Based on the Department of Basic Education EMIS data – Schools Master list for Gauteng (2018)

Table 8 below shows that the level of people that are functionally illiterate (people that did not completed primary education) in Gauteng and the CoJ is lower than the national average, i.e. 11% and 10% respectively compared to 17% nationally. Functional illiteracy rates in Ward 121 are also lower than national averages although slightly higher than the average in the CoJ.

Table 8: The Educational Level of the Adult Population 20 years and older, 2011 and 2016

Area	Functionally illiterate	Completed primary	Some secondary	Matric	Tertiary education	Total
CoJ Ward 121	12%	4%	41%	39%	3%	100%
City of Johannesburg	10%	3%	32%	43%	12%	100%
Gauteng	11%	3%	32%	43%	11%	100%
South Africa	17%	4%	35%	36%	8%	100%

Source: Based on Stats SA 2011 and Community Survey 2016 as in <https://wazimap.co.za/>

Note: Ward ratios applies to 2011

The unskilled component of the labour force (with less than matric) is higher than national and provincial averages (57% compared to 56% nationally and 46% in Gauteng). Only 3% of the adult population completed tertiary education compared to 8% nationally and 11% in Gauteng.

3.12 HEALTH SERVICES

Ennerdale falls under Health District G. The District hosts 25 Primary Health Care, 2 Community Health Centres (CHCs) and two public hospitals including one district hospital ⁶ (Health Systems Trust, 2017).

The incidence of HIV/AIDS in the CoJ is slightly higher than the national average with 11% of client at clinics testing positive in 2017 compared on 8% nationally and 10% in Gauteng. The uptake of HIV/AIDS prevention strategies is however much lower in the CoJ and Gauteng than nationally, only achieving a 34% male condom distribution rate compared to a rate of 48% nationally. In Region G the male condom distribution rate was a low 6% (Ibid).

Lifestyle diseases such as diabetes and hypertension are more prevalent in health District G than is the case in the CoJ or nationally. Region G reported 14 diabetes cases per 1000 persons (compared to 3.5 and 2.5 cases in CoJ and nationally respectively) and 29 hypertension cases per 1000 persons (compared to 14 and 19 cases in CoJ and nationally respectively) (Ibid).

The percentage of the population with medical coverage (and that hence would have better access to private healthcare services) in the CoJ is higher (25%) than the national average (18%).

Table 9 shows the health facilities in the vicinity of the planned residential development at Ennerdale Ext 9. Since the Rietfontein low cost housing project is planned only 7km north east there is a high likelihood that there will be cumulative pressure on health facilities that is currently shared between the Ennerdale and Lenasia south. The table highlights the possible of potential pressure on Lenasia south PHC clinic and CHC. The public district hospital of Lenasia South (250 beds with maternity ward and eye clinic) might also experience increased pressure from both planned developments.

⁶ Community Health Care (CHC) centres offers PHC, 24 hour maternity, accident and emergency services and beds where health care users can be observed for a maximum of 48 hours and which normally has a procedure room but not an operating theatre. Primary Health Care (PHC) focuses on basic family, infant and reproductive health, communicable diseases (e.g. TB and HIV/AIDS) and health education offered within an 8 hour working day. A District Hospital receives referrals from and provides generalist support to clinics and community health centres with health treatment administered by general health care practitioners or primary health care nurses.

Lenasia South District Hospital furthermore experienced some press coverage related to the quality of services and hospital administration issues (Rising Sun Lenasia, 2015). It should also be noted that the Baragwanath provincial hospitals (3,400 beds; staff of 6,760) is about 20km north of the site.

Table 9: Medical Facilities in the Ennerdale Environment, 2011 and 2016

Name of facility	type	Sector	Services	Location from Ennerdale site	Location from Rietfontein site
Mid-Ennerdale Municipal Clinic	Clinic	Public	PHC	less than 2km south east across R558	7km south west
Ennerdale Ext 9	clinic	Public	PHC	Adjacent to the site on the north east	6.6km south west
Ennerdale Ext 8	Clinic	Public	PHC	1.4km south west across the R588	8.6km south west
Lenasia Clinic	Clinic	Public	PHC	on nirvana road some 10km north	3.5km north west
Lenasia South Clinic	Clinic	Public	PHC	4km north east	4km south west
Themb'Elihle Clinic	Clinic	Public	Focus on TB	8.6 km north east	Less than 1km north
Lenasia South CHC	CHC	Public	CHC	3.6km north east	3.4 km south east
Lenasia CHC	CHC	Public	CHC	on Nirvana road 10km north	3.5km north west
Lenmed Ahmed Kathrada	Hospital	Private	General Hospital	About 10km north - Trade Route Mall	Less than 2km north
Lenasia South Hospital	Hospital	Public	District hospital(Less than 4km north east	Less than 4km south west
Lenmed Daxina	Hospital	Private	General Hospital and Pharmacy	2.2km north east	4.5km south west
Chris Hani Baragwanath	Hospital	Public	Provincial Academic Hospital	almost 20 km north	14 km north east

3.13 OTHER SOCIAL INFRASTRUCTURE

The following social infrastructure is found in areas adjacent the proposed Ennerdale site:

- The Region G: CoJ municipal buildings (east);
- Ennerdale Ext. 9 PHC clinic adjacent (east);
- Ennerdale Cashbuild Centre (east);
- Daleview Secondary School (west);
- Poseidon Road Primary School (east);
- Fred Norman Primary School (east);
- Weilers Farm Medical Clinic (east);
- Lesedi Methodist Church and grounds (south);
- Job Seekers Bureau (southeast);
- Hopefield Substation (west);
- Ennerdale Ext. 1 Library; and
- Various Mosques.

The social infrastructure indicates the typical social infrastructure and services found in formalised township developments. There is, however, a lack of recreational facilities apart from the Ennerdale Community Centre situated in Katz Street and the Ennerdale Ext. 9 public swimming pool.

According to local residents everything apart from churches and drug dens is outside Ennerdale – “banking in Lenasia, car licenses in Westonaria, tax in Roodepoort, courts in Vereeniging” (Oppelt, 2019).

3.14 SAFETY AND SECURITY

3.14.1 Crime

Ward 121 of the CoJ falls in the precinct of Ennerdale Police Station less than 500m east from the proposed development. Table 10 below shows declining per capita crime rates in South Africa and Gauteng since 2011. The per capita crime rate in Ennerdale was on the same level as the average for Gauteng in 2011. Since 2011 crimes rates in the area increased at a faster rate than population growth resulting in much higher per capita rates in the area in 2018 compared to provincial and national rates.

Table 10: Per capita crime rates (cases reported per 1000 persons)

Area	2011	2018
Ennerdale Precinct	53	59
Gauteng Province	53	41
South Africa	43	36

Source: Crime Stats SA (2019) and own estimates based on Stats SA (2011) and (2016)

Table 11 below captures the prevalence of drug related crimes in Ennerdale Precinct, contributing 44% towards all reported cases in the area. Violent crimes made about the same contribution towards crimes in the local area compared to its 27% contribution nationally. All crimes activities in the area declined compared to 2011, apart from drug related crimes and car-jacking concern. Car-jacking also shows a very high increase but this is mostly due to it coming from a very low base.

Table 11: Types of Crime, 2018

Type of crime	Ennerdale 2018	% of precinct total	% of national total 2010-2018	% growth
				Of crime in precinct
Violent crimes (murder, robbery, assault)	883	26%	27%	-12%
House burglaries and robberies	228	7%	12%	-30%
Motor vehicles theft/theft out of a vehicle	112	3%	9%	-57%
Car-jacking	40	1%	1%	82%
Crimes related to drug/alcohol abuse	1,480	44%	14%	900%
All theft not mentioned elsewhere	252	8%	16%	-36%
Malicious damage to property	164	5%	3%	-28%
Burglaries at non-residential premises	52	2%	4%	-31%
Commercial crime	20	1%	4%	-47%
Other	109	3%	10%	-11%
Total cases reported	3,340	100%	100%	28%

Source: Crime Stats SA (2019)

Substance abuse is a very large problem in the Ennerdale area with children as young as nine being victims of drug abuse. The only formal rehabilitation centre in Ennerdale started operations in 2016 (Oppelt, 2017).

3.14.2 Community Protests

Due to the significant backlogs and rising unemployment rates in South Africa in general, there has been a steady increase in service-delivery protests since 2008. Since 2013, the community have become particularly violent and destructive towards public infrastructure (Khambule et.al. 2018).

More than 60% of community protest actions between 2013 and 2017 relate to labour issues (19%), crime/policing (16%), municipal service delivery (16%) and education (12%). The proportion of 'violent' or 'disruptive' incidents violent increased from 43% in 2013 to 65% in 2016. A number of factors could contribute to the increased violence in community protests including increased frustration on the part of the community, lack of appropriate responses such as heavy-handed policing etc. (Lancaster, 2018).

Gauteng, the Western Cape, KwaZulu Natal and the Eastern Cape are hotspot provinces in terms of community protests (Ibid).

Over the past three years, informal settlements such as Tjovitjo (4,632 units), Phumulamcashi and Majazana have sprung up on illegally-occupied land in the south of Johannesburg. According to the CoJ there are the numerous land invasions in the south of Johannesburg that could be work of crime syndicates that, in some cases, even have connections with public officials (Simelane, 2019).

In July 2019 wide protests erupted in Johannesburg south over the perceived lack of government's action against land invasions in the southern parts of Johannesburg. Residents from Zakariyya Park, Lenasia, Lenasia south and Ennerdale burnt tires and blocked roads to voice their frustrations related to these land invasions. Some of the community complaints revolved around illegal electricity connections and the devaluation of their properties. Some informal settlers on the other hand accused the protest to be racially inspired with Coloured and the Indian communities residing in Ennerdale and Lenasia not wanting black neighbours. Land invaders mean to continue erecting their shacks in the area arguing that they have nowhere else to go (Ibid).

The protests of 2019 were preceded by protests by Ennerdale residents in 2017 over lack of affordable housing in the area and their perceived neglect by government (Oppelt, 2017).

3.15 LOCAL ECONOMIC ACTIVITY

The CoJ is the largest metro economy in South Africa contributing close to 16% towards the national economy. Over a 20 year period (1996 – 2017) the City's average real growth rate was 3.6%, higher than both the provincial economy (3.0%) and national (2.7%) economies. However while CoJ economy grew at high rates of more than 4% per annum from 1997 to 2006, the City's economic growth trajectory shifted significantly downwards since the global financial crisis of 2009/2010. Since 2016 the City's economy grew at rates between 1.5 and 0.5 per annum (Gauteng Province, 2018).

The tertiary sector (finance, services and trade) plays the dominant role in the CoJ economy as well as in all the different regions of the CoJ, including Region G. Region G, which could be described as the southern section of Johannesburg, is traversed by the N1 and the Golden Highway (R553). The N12 is roughly forming the region's northern border. Region G largely consists of classified deprivation zones. Unemployment and poverty rates in Region G are among the highest within the CoJ. Lenasia is considered the only economic node with more potential in the region. Lenasia is now a rapid growing suburb with various shopping centres, churches, mosques, and commercial and industrial centres (City of Johannesburg, 2019).

Economic activities close to Lenasia are mainly concentrated along Nirvana road corridor and in the southern section of Klipspruit Valley Road (M10) towards Lenasia and Themb'Elihle (Lenasia township) some 7km north east from the site. The Trade Route Mall is situated on Nirvana Road, some 10km north east. The Mall opened in 2006 and is the only regional shopping mall in the area with more than 145 shops catering for more than 1 million people in the south western areas of Johannesburg.

There is a general lack of private economic investment in the Ennerdale area to the south of Lenasia. Besides a Shoprite and a Spar, a Kentucky outlet and a Cashbuild not much private investment flowed into the area. There are not any bank branches in the area. The local business directory also lists a few small businesses in the area including 2 fast food shops, a dance school, 2 estate agents, a fitment centre, internet café and 2 printing shops. There is also seem to be some perception from some Coloured people that larger business concerns in the area employ Africans at the expense of Coloured people (Oppelt, 2017).

3.16 THE COMPOSITION OF THE LABOUR FORCE

As indicated in Table 12 below CoJ, the official/narrow unemployment rate of Gauteng showed similar trends than the South African economy, increasing from 25% in 2011 to 31% in 2019, slightly higher than the national unemployment rate in 2019.

The City of Johannesburg's unemployment rate correlated closely with the Gauteng rate, i.e. recording a narrow unemployment rate of 31% and an expanded rate of 33% in 2019. It is interesting to observe that the expanded unemployment (including discouraged job seekers) is lower in Gauteng and the CoJ than nationally.

Table 12: Unemployment rates, 2011 and 2019

Rate	Gauteng		South Africa	
	2011	2019	2011	2019
Unemployment rate (narrow)	25%	31%	24%	29%
Unemployment rate (expanded)	30%	35%	35%	39%

Source: Stats SA (2019) Quarterly Labour Force Survey

Table 13 shows the high unemployment rates in the ward where the proposed development is located. The official (narrow) unemployment rate was much higher in Ward 121 (36%) in 2011 than provincially (25%) or nationally (24%). As is the case in the CoJ in general it could also be expected that unemployment increased significantly in the local area since 2011. A fairly high portion of the

labour force that is employed (78%) is employed in the formal economy, about the same as the average ratio for the CoJ.

Table 13: Unemployment rates, 2011

AREA	CoJ Ward 121	CoJ	Gauteng	South Africa
Domestic workers	1,795	224,442	567,753	1,721,600
Formal employment	11,257	1,328,219	3,493,322	10,829,951
Informal employment	1,339	143,859	406,295	1,784,863
Unemployed	8,064	564,970	1,598,044	4,467,325
Discouraged work-seekers	1,519	105,882	296,450	3,156,983
Total labour force	23,974	2,367,372	6,361,864	21,960,722
Unemployment rate (narrow)	36%	25%	25%	24%
Unemployment rate (expanded)	40%	28%	30%	35%

Source: Stats SA 2011 as in <https://wazimap.co.za/> and Stats SA (2019) Quarterly Labour Force Survey

3.17 INCOME LEVELS

Table 14 below shows the percentage of households that earned R 20 000 and less in 2011. This poverty rate roughly equates to the upper bound poverty income line⁷ of Stats SA. As can be observed from Table 13 below, household income levels in the CoJ is higher than in Gauteng or nationally with 23% of households earning more than R 150 000 per annum in 2011 compared to 21% in Gauteng and only 14% nationally. It should however also be noted that still a large portion percentage of CoJ households (36%) earned income levels below the upper poverty line.

Table 14: The percentage of households in different annual income categories, 2011

AREA	CoJ Ward 121	CoJ	Gauteng	SA
Less than R 20 000	45.0%	36.0%	37.0%	45.0%
R20 000 - R75 000	32.0%	31.0%	31.0%	32.0%
R75 000-R150 000	11.0%	10.0%	11.0%	9.0%
R 150 000- R 300 000	8.0%	9.0%	9.0%	7.0%
More than R300 000	4.0%	14.0%	12.0%	7.0%
Total	100.0%	100.0%	100.0%	100.0%

Source: Stats SA 2011 as in <https://wazimap.co.za/>

The low income levels in Ward 121 is evident in high poverty rates (45%) as well as the 96% of households in the ward that earned income levels lower than R 300 0000, effectively qualify them for public housing subsidies (i.e. earning less than R 22 000 a month at 2019 prices). Roughly 63% of households in CoJ Ward 121 earn less than R3 500 a month and would hence qualify for a full housing subsidy. Close to 33% of households in the ward would probably qualify for GAP housing (earning more than R 3500 per month but less than R22 000).

3.18 LOCAL DEVELOPMENT PRIORITIES

Joburg 2040 Growth and Development Strategy lists the following as five primary objectives (CoJ, 2019):

⁷ The upper bound poverty rate include income for basic needs (clothing, housing, food) as well as some basic medical and educational expenses

1. A growing, diverse and competitive economy that creates jobs
2. An inclusive society with enhanced quality of life with focus on pro-poor development
3. Enhanced quality services and sustainable environmental practices
4. A caring, safe and secure communities
5. An honest, transparent and responsive local government that prides itself on service excellence

The overarching Joburg 2040 framework (Dipheto) to achieve these objectives includes (Ibid):

- Financial Management: Improved financial management to enable the eradication of backlogs through increase in revenue collection, improved debt management and an increased capital budget
- Addressing Housing Issues: Reversing the low income housing backlog and addressing the lack of high quality, low cost housing in the Inner City
- Infrastructure: Providing reliable, quality municipal services and increase access to services in informal settlements and improve public lighting in the city for safer communities
- Transport: Provide a reliable, safe road network by reversing the deteriorating road network in the City, establish formal roads in informal settlements, provision of a reliable, integrated public transport system in close co-operation with the taxi-industry
- Social Services: The expansion of free basic services to those in greatest need
- Economic development: Labour-intensive growth, SMME support, addressing youth unemployment, improved access to broadband
- Institutional: A responsive administration focussed on quality service delivery

The development priorities for Region G were listed as:

- Access to sustainable human settlements (i.e. houses, water, electricity, water)
- Improved safety and security in the local community
- Access to public facilities (i.e. parks and libraries)
- Improved quality of roads and transport
- Access to public healthcare facilities

The main objective of the Joburg 2040 Spatial Development Framework (SDF) is the transformation of the city into a 'compact polycentric city', where urban residential areas are densified around specified economic nodes that area scattered across the City. Other macro objectives include:

- improving connectivity between different regions within the CoJ
- bringing jobs to residential areas and housing opportunities to job centres to improve transport efficiency in the City
- working towards a more spatially just economy, i.e. creating a more even spread of economic opportunities across the different regions

Region G largely consists of classified deprivation zones that are earmarked for large social investments. Lenasia is also noted as an economic activity corridor to be developed.

The CoJ's specified certain goals, that are in line with the aims of the Department of Human Settlements and these are specifically applicable to Region G, namely:

- Support local economic development opportunities;
- Manage informal settlements;
- Protect existing residential investments;
- Promote and manage mixed-use developments; and
- Promote regional connectivity.

Should these goals be achieved it would attend to the key issues for the greater Ennerdale and Lenasia area, namely the issue with regards to the large number of informal settlements; the absence of higher-income residential areas; and the lack of control of local economic activities.

3.19 GENERAL SOCIO-ECONOMIC RISKS RELATED TO GOVERNMENT HOUSING PROJECTS

As discussed in the introduction, South Africa's public housing programme faces a number of challenges including slow progress in delivery, high and rising development costs etc. A literary review of the most discussed challenges related to public housing programmes in South Africa lists the following as the most prominent challenges in the programme (Manomano et.al, 2016; 71point4, 2018):

- The role of corruption and mismanagement in public housing projects: In 2010, 1,910 government officials were arrested over benefiting from the subsidies meant for housing beneficiaries. Furthermore, 20 housing projects were identified to be jeopardised by dodgy contracts between the contractors and the government officials costing the country some R2bn;
- Poor design, low quality of building materials and workmanship: Many low income houses are too small for a family living with their children and relatives. Some even consist of just one room with a complete lack of privacy;
- Lack of involvement of stakeholders and beneficiaries;
- Poor location of housing projects away from job opportunities and social amenities combine with the lack of integrated housing developments without social infrastructure such as schools. This results in high costs for public infrastructure and increase road congestion;
- The problem above is exacerbated by the lack of progress in integrated public transport planning to develop the current public transport system away from the dominant minibus taxi system and to replace it with a fleet of large vehicles in dedicated bus lanes to improve road congestion and safety⁸ ;
- Lack of flexible options for the poor, e.g. tying the poor to a fixed asset that they cannot readily dispose of or rent out when their circumstances change (due to the rules of government subsidy housing);
- The lack of financial sustainability of the traditional approach to provide every qualifying low income household with a serviced top structure⁹;

⁸ The Rea Vaya is one of the first Bus Rapid Transit Systems that have been implemented in South Africa. The initial objective was to provide 85% of the population with a bus stop 500m from their house. During the first phase (2007 - 2013) Rea Vaya developed problems in terms of cooperation with the taxi industry, escalating costs, lack of uptake in inner city, tensions between the City Council and Province. The system currently faces an uncertain future (CoJ, 2019)

⁹ The new approach is to develop alternative development and delivery strategies, e.g. increasing rental stock, upgrading informal settlements, improving access to housing opportunities in the GAP market, allow self-built on serviced land,

- Perceived corruption in the management of the Housing Demand Database formerly known as the 'waiting list'. The list is managed by the National as well as the Provincial Departments of Human Settlements. The Gauteng list is being cleaned up with the aim of making it public by publishing it for all to see in the Province, each region will have its own database. Priority will be given to those registered first, starting from 1996. Priority will also be given to health status, age, child-headed homes and disability;
- Concerns over the implementation of the FLISP subsidy and that it is not suited to secondary market transactions. In this regard it is thus imperative that the proposed homeowners be assisted in the transaction process;
- Low take-up of GAP housing has been low due to lack of affordable stock for income earners below R15 000, insufficient awareness of the programme and lengthy bureaucratic processes for application and disbursement; and
- There are challenges related to the slow regulatory process of approving new residential areas and transferring title deeds to owners. While over 3 million RDP houses have been built since democracy, less than two thirds of these properties have been registered. The estimated title deed backlog for RDP properties built prior to 2014 is in the region of 500 000 and close to 400 000 for newer properties.

regulating private–property developers to dedicate a portion of their new developments to low-income earners. The latter was adopted as a policy in the CoJ in 2019 for private housing developments of 20 residential units or more (CAHF, 2019)

4. THE POTENTIAL SOCIO-ECONOMIC IMPACTS OF THE PROJECT DURING CONSTRUCTION

4.1 LOCAL EMPLOYMENT AND INCOME OPPORTUNITIES FOR LOW SKILLED WORKERS AND SMALL CONTRACTORS DUE TO CONSTRUCTION ACTIVITIES

The project could provide income and up-skilling opportunities for a number of workers, including unskilled and semi-skilled local workers during the construction period. Based on a high level cost estimate and as indicated in Table 15 below, the project could potentially generate income in the form of profits, salaries and wages or Gross Value Added (GVA) close to R 18m over the estimated 6 year duration of the project. This, in turn, could provide employment opportunities to some 36 workers, of which 13 could be unskilled.

Table 15: Potential Economic Impacts during Construction

Component	Unit	Value
Establishment costs	ZAR million	108
Estimated construction costs		466
Construction period	Months	6
Direct employment	ZAR million	23
Direct income (GVA)	Nr	46
Unskilled	%	37%
Semi-skilled	%	46%
Skilled	%	17%
Flow-on GVA	ZAR million	50
Flow-on employment	Nr	100

Sources: Burrows et.al (2013), Reddy et.al. (2016), Astra Brokers (2017)

Assumptions

Ennerdale 1,800 RDP units, 1,200 GAP houses: 1 school, commercial /office centre
average size of housing units 50 sqm
Building costs R175 000 GAP unit; R 90 000 per RDP unit; servicing the stand = R36 000 per stand
Building costs of primary school - R 30m
small centre of 10 000 sqm - R 63m
400 -600 residential units per year could be built with large construction team

The project will also create numerous sub-contracting opportunities (e.g. tiling, paving, security, plant-hire and fencing) for small contractors. Together with the induced impact¹⁰ the spending on suppliers could add to another 80 jobs over the 6 year construction period, most likely created within the CoJ.

Table 16: Positive Economic Impacts during Construction

Nature: Positive Economic Impacts from Construction Activities		
	Without enhancement	With enhancement
Extent	Regional (3)	Regional (3)
Duration	Medium Term (3)	Medium Term (3)
Magnitude	Moderate (6)	High (8)
Probability	Definite (5)	Definite (5)
Significance	Medium (50) (+)	Medium (60) (+)
Status (positive or negative)	Positive	Positive
Reversibility	N/A	N/A
Irreplaceable loss of resources?	N/A	N/A
Can impacts be enhanced?	Yes	Yes

¹⁰ Induced impacts are further income and employment impacts from increased spending of salaries and wages earned from construction, sub-contracting and supply activities

Enhancement:

- In the light of challenges faces by low income housing projects in South Africa it is imperative that a transparent and fair process is followed in the procurement and management of contractors. Project management should be based on the requirements of National Treasury's SIPDM
- The main project manager introduces the contractor to the local community, informing the community of the contents of the contract management plan.
- Adhere to Gauteng Government procurement requirements. If no particular procurement policy applies, a certain percentage could be set aside to vulnerable groups, e.g. females, youth and disabled workers. The Gauteng Department of Roads for example require that 40% of construction jobs should be set aside for females, 60% to youth and 2% to disabled workers. It is also required that the contractor should provide the necessary skills training to people directly employed by the project.
- Preference should be given to local labour and suppliers during the construction period. A supplier development programme is recommended for local suppliers
- Communicate job and contractor opportunities and recruitment processes through the local media and local civic organisations
- Develop and implement a contractor management plan and include specifications for:
 - Preference for local labour and suppliers from the surrounding communities
 - Up-skilling of unskilled local labour
 - Sub-contracting to SMMEs (% of contract value)
 - % of contract value to be allocated to black owned and female owned companies
- As part of the infrastructure maintenance plan required for public/government it is recommended that preference is given to use willing unskilled , and semi-skilled people residing in the residential development

Cumulative impacts: Possible positive cumulative impacts from the planned Rietfontein low cost housing development to the north

Residual Risks: Not relevant

4.2 IMPACT ON ROADS AND TRANSPORT SERVICES

It is anticipated that the workforce would be transported to and from the site on a daily basis. Workers can also make use of public transport up to certain points where this service is provided and walk the rest of the route.

Heavy construction related vehicles making use of local roads could increase the risk of accidents and in worst cases damage road surfaces. Non-compliance to speed limits and traffic congestions would have a temporary negative impact on the surrounding landowners' daily living and movement patterns.

The Daleview Secondary School is located in the immediate vicinity of the site. It is possible that construction vehicles would frequently make use of Samuel Road which would also be the main access point to Van Rooyen Crescent where the school is situated. The movement of these vehicles would increase the risk of accidents and would put the pedestrians (school children at risk). The school and the pedestrians in that area is thus regarded as a sensitive receptor and traffic calming measures near the facility should be put in place.

Construction of access roads into the proposed development would also impact on the movement patterns of local motorists where traffic congestions could occur during peak hour traffic. This is anticipated at the following access points. The impact is again anticipated along specific sections along Van Rooyen Crescent, Katz and Samuel Roads.

Table 17: Impact on Roads and Transport Services

Nature: Impact on roads and transport services		
	Without mitigation	With mitigation
Extent	Local (2)	Local (2)
Duration	Short Term (1)	Short Term (1)
Magnitude	High (8)	High (8)
Probability	Definite (5)	Highly Probable (4)
Significance	Medium (55) -	Medium (44) -
Status (positive or negative)	Negative	Negative
Reversibility	N/A	N/A
Irreplaceable loss of resources?	N/A	N/A
Can impacts be mitigated?	Yes	Yes
Mitigation:		
<ul style="list-style-type: none"> Establish a forum between the local Residents Association(s) and the main contractor and meet every second month basis to discuss socio-economic issues and project progress Access roads and entrances to the site should be carefully planned to limit any intrusion impacts, noise and dust pollution, as well as to limit any risks of accidents. Construction vehicles should adhere to the speed levels. Construction vehicles and those transporting materials and goods should be inspected to ensure that these are in good working order and not overloaded. Local roads surrounding the site should be upgraded to ensure that heavy vehicles can deliver the required equipment and materials and to limit the negative intrusions and traffic congestions. Source material and goods locally as far as possible to limit transportation of these over long distances Implement traffic calming measures in the vicinity of the intersection of Samuel Road and Van Rooyens Crescent Construction vehicles should preferably not make use of Samuel Road in peak hours when children travel to and from school (e.g. avoid the area between 6:00 am until 8:00 am and again between 13:00 and 14:30 pm). 		
Cumulative impacts: None anticipated		
Residual Risks: Wear and tear on local roads due to the use by heavy vehicles during construction		

4.3 NUISANCE FACTORS (NOISE, DUST, LITTERING)

Disturbance of the environment during the construction phase would lead to temporary negative visual impacts, although it is expected to diminish once the construction phase has been completed. Residents of properties surrounding the development would be mostly affected and possibly commuters making use of the roads surrounding the site. The visual disturbance would be seen as a temporary nuisance factor with limited negative direct impacts on the surrounding owners.

Noise related impacts created during the construction phase of the project are highly probable and would have a marked impact on the residents within the surrounding neighbourhoods. The proposed site is open veld with no activities taking place on site. The area is thus characterised by relatively low ambient noise levels as associated with urban residential areas. The construction of approximately 3000 units would create significant construction activities with associated impacts e.g. vehicle movement, general construction activities, operation of machinery, worker interactions and especially the 'reverse indication' of the heavy vehicles. Vehicle emissions is a further source of concern, but could be mitigated.

Construction activities create dust pollution, which is a temporary nuisance factor that residents surrounding the area would have to live with during the construction phase. Littering on and around the site is also a source of concern.

Residents within the immediate area would be negatively affected by the above-mentioned intrusions.

Table 18: Nuisance Factors during Construction

Nature: Increase in noise and dust levels, as well as movement of vehicles during the construction phase		
	Without mitigation	With mitigation
Extent	Local (2)	Local (2)
Duration	Short Term (1)	Short Term (1)
Magnitude	Moderate (6)	Moderate (6)
Probability	Definite (5)	Highly Probable (4)
Significance	Medium (45) -	Medium (36) -
Status (positive or negative)	Negative	Negative
Reversibility	N/A	N/A
Irreplaceable loss of resources?	N/A	N/A
Can impacts be mitigated?	Yes	Yes
Mitigation:		
<ul style="list-style-type: none"> • Establish a forum between the local Residents Association(s) and the main contractor and meet every second month basis to discuss socio-economic issues and project progress • Construction workers should be confined to the construction area as far as possible, and should be easily identified. • Construction activities should keep to normal working hours e.g. 7 am until 5 pm. • Noise should be kept to the minimum. • The construction area should be fenced to avoid unauthorised entry by animals or children. • Access roads and entrances to the site should be carefully planned to limit any intrusion impacts, noise and dust pollution, as well as to limit any risks of accidents. • Construction vehicles should adhere to the speed levels. • Construction vehicles and those transporting materials and goods should be inspected to ensure that these are in good working order and not overloaded. • Source material and goods locally as far as possible to limit transportation of these over long distances • Dust suppression methods should be implemented on-site if and where required 		
Cumulative impacts: None anticipated		
Residual Risks: None anticipated		

4.4 IMPACT ON COMMUNITY SAFETY

A relatively large number of individuals are expected to form part of the main construction team. Different numbers of individuals would also be involved in the construction activities at the various stages of the construction period as sub-contractors. The inflow of these temporary workers could result in various negative social impacts, but residents are usually concerned about the safety intrusions due to the movement of large numbers of people within the relative quiet neighbourhood. Another concern would be the influx of jobseekers to the site based on the location of the site in relation to the various informal settlements in the area that usually house numerous unemployed individuals. Loitering around the site could lead to criminal activities and the number of outsiders within the area could make the area more vulnerable to criminals entering the area unnoticed.

Movement of additional people in and around the residential areas could thus increase criminal activities especially burglaries and theft.

Should land-grabbers invade the site and infrastructure, significant negative impacts on the community safety would occur. The site should be secured to avoid illegal occupying of the site

and/or the infrastructure. Due to this risk, the impact on community safety received a high rating in terms of magnitude.

Further safety concerns during the construction phase relate to on-site construction workers that would be exposed to construction related safety risks, the possibility of children accessing the construction site, as well as unauthorised entry to the construction areas.

Table 19: Impact on Community Safety

Nature: Impact on community safety		
	Without mitigation	With mitigation
Extent	Local (2)	Local (2)
Duration	Short Term (1)	Short Term (1)
Magnitude	High (8)	High (8)
Probability	Highly Probable (4)	Probable (3)
Significance	Medium (44) -	Medium (33) -
Status (positive or negative)	Negative	Negative
Reversibility	N/A	N/A
Irreplaceable loss of resources?	N/A	N/A
Can impacts be mitigated?	Yes	Yes
<p>Mitigation:</p> <ul style="list-style-type: none"> • Before construction commences, representatives from the CoJ, the ward councillors and Residents Associations, as well as neighbouring communities should be informed of the details of the construction company, size of the workforce and construction schedules • On-site construction workers should always be supervised. • Construction activities should be kept to normal working hours e.g. from 7 am until 5 pm during weekdays. • Property owners surrounding the construction areas should be informed of the construction schedules and activities. • Security on-site should be active prior to the construction period. • Workers conduct should be guided by a code of conduct to be developed by the contractors. • The construction areas should be fenced to avoid unauthorised entry by animals or children • As the construction progress, security measures should be in place to avoid the proposed development being invaded by unauthorised individuals or fall victim to the 'land grabs' 		
<p>Cumulative impacts: Existing Land grabbing practices that could spill over to the development</p>		
<p>Residual Risks: Risk to community safety and failure of the development in securing housing</p>		

5. THE POTENTIAL SOCIO-ECONOMIC IMPACTS OF THE PROJECT DURING OPERATIONS

5.1 ACCESS TO IMPROVED HOUSING

The uncontrolled influx of people to the south of Johannesburg (Deep South area) in search of land and formal housing poses a threat to the integrity of the Region G area and local study area. It also has the potential to result in tension and conflict between the outsiders and the local community as has previously been experienced through the violent protests by existing residents and land-grabbers. In the Ennerdale area there are numerous families residing in informal structures.

Together with an increase in sub-letting, various challenges are created, and the existing situation result in social ills. It is thus clear that there is an urgent need to upgrade the socio-economic environment by providing an alternative to those without land or houses.

The proposed Ennerdale development would include approximately 3 000 housing units which will include social housing (60% RDP and 40% mixed-use type of housing) together with some business development. The community facilities that are furthermore considered include one or two schools.

The development would thus focus on providing housing for the poor, as well as the entry level markets. It would assist in addressing the housing backlog in Region G area by providing affordable housing thereby having a significant positive social impact in the area.

The positive impact could be enhanced if residents currently residing in the informal settlements are absorbed in the proposed development. The 1 800 RDP houses represents almost 25% of the 7 300 informal structures in Ward 121 but only 8% of the 24 000 informal structures including the surrounding Wards 5,6 and 7. Beneficiaries of the RDP housing would have to adhere to the formal regulated process to become a beneficiary and it is thus likely that some residents of the existing informal settlements would benefit. It is however highly likely that the government structures will only recognise residents of existing informal settlements and not residents of settlements as a result of unauthorised land invading. The land invasions are thus anticipated to continue.

A worst case scenario can be developed whereby significant densification takes place through the introduction of more residents to the area through the Ennerdale development and as a result of increased unauthorised informal settlements. Such a reversal would again pose a significant threat to the integrity of the Ennerdale area.

It should also be noted that the beneficiaries of the RDP houses would still be required to pay for all municipal rates which may include water and electricity or other service charges. Many beneficiaries, however, may not be in a financial position to be able to afford these rates and service charges. They may then again use their houses to generate income by renting them out to people from outside the area. If such a situation develops it would be a setback to the development.

The success of the provision of housing would therefore depend on the successful implementation of the project (without any social conflict) and the perception that a transparent and fair process was followed.

Table 20: Access to Improved Housing

Nature: Access to improved housing		
	Without mitigation	With mitigation
Extent	Regional (3)	Regional (3)
Duration	Long Term (1)	Long Term (1)
Magnitude	Moderate (6)	Moderate (6)
Probability	Probable (3)	Highly Probable (4)
Significance	Medium (33) +	Medium (40) +
Status (positive or negative)	Positive	Positive
Reversibility	N/A	N/A
Irreplaceable loss of resources?	N/A	N/A
Can impacts be enhanced?	Yes	Yes
Enhancement:		
<ul style="list-style-type: none"> • More information with regards to the cost of the transaction and the time it takes to access mortgage, further administrative, policy and legislative processes is required for potential buyers of the Social Housing component. • Residents of informal settlements within the area should be allowed to apply for housing at the proposed Ennerdale development to limit the inflow of additional outsiders • The legal process as required with regards to the development of the beneficiary lists for the RDP housing must be followed • Preference must be given to current residents within the Ennerdale area and/or those that work within the Ennerdale area or 'Deep South' • The beneficiary list must be publicised • Sub-letting must not be allowed 		
Cumulative impacts: Possible negative cumulative impacts if residents of existing informal settlements cannot be absorbed as part of the proposed development; On-going land grabbing		
Residual Risks:		
<ul style="list-style-type: none"> • Increased and concentrated resident population within the area • Risk of social conflict 		

5.2 IMPACT ON LOCAL PROPERTY VALUES

The proposed development could depress property prices in the local area in two ways:

Firstly, the project would add additional 3 000 low income units or doubling of the 6 000 formal houses in Ward 121, but only in the region of 13% of the estimated 22, 000 formal houses in the larger area i.e. including Wards 5, 6 and 7 (see Table 4 above). This impact is however expected to be low due to the high demand for low income housing in the local property market. In addition, 60% of the additional units will be RDP (fully subsidised units) which according to the Housing Amendment Act 4 of 2001 cannot be rented out the property (indefinitely) or sold within the first eight years of occupation¹¹.

Secondly, the development could impact negatively on the prices of some of the higher income properties in directly north of the proposed development. The extent to which the proximity of this scale of low-cost housing development could influence prices is however considered to be relatively

¹¹ It should be noted however that the renting and premature selling of RDP houses are widespread across South Africa and that the Housing Amendment Act does not stipulate any punitive measure

low based on the types of housing observed in the local area¹². The demand for GAP and RDP housing is furthermore expected to remain in the area even after the project has been completed.

Table 21: Impact on Local Property Values

Nature: Impact on Local property Values		
	Without mitigation	With mitigation
Extent	Local (2)	Local (2)
Duration	Long term (4)	Long term (4)
Magnitude	Low (4)	Low (4)
Probability	Probable (3)	Improbable (2)
Significance	Medium (30) -	Low (20) -
Status (positive or negative)	Negative	Negative
Reversibility	N/A	N/A
Irreplaceable loss of resources?	N/A	N/A
Can impacts be mitigated?	Yes	Yes
Mitigation:		
<ul style="list-style-type: none"> • Communicate with the potential affected properties along the border of the development with regard to design concept for the development • The design of the development should be sensitive towards potentially affected properties along the border of the property. For example the GAP houses instead of the RDP houses could be planned to be located closer to the fringes of the development 		
Cumulative impacts: None anticipated		
Residual Risks: None anticipated		

5.3 IMPACT ON ROADS AND TRANSPORT SERVICES

Once the development has been completed, additional traffic created by residents and visitors travelling to and from the residential area could impact on the existing and new residents' daily living and movement patterns. A large part of the residents would possibly also make use of public transport facilities. One could estimate that approximately 40% of the residents could probably own a vehicle whereas approximately 60% could make use of public transport. The increase in traffic volumes could increase the risk of accidents, create traffic congestion and lengthen travelling time.

Traffic patterns and volumes in the direct vicinity of the proposed Ennerdale development would require road upgrading. The planned access points and overall road upgrading should ensure that congestion and the risk of accidents are limited.

As a large part of the residents would continue to make use of public transport facilities, road designs should consider the construction of pedestrian walkways and bicycle lanes. The extension of the existing subsidised bus routes (including bus and taxi stop shelters) should also form part of the development plan for this area and/or should link with the existing services. This would have positive impacts in terms of the daily living and movement patterns of the residents of the proposed Ennerdale development.

¹² International literature suggests that low cost housing development does not impact materially on adjacent properties of higher market value (University of North Carolina (2017). Surprisingly little research has been conducted in South Africa in this regard. A study by Nelson Mandela Metropolitan University (2012) found that there is a perception by high income households that their property could devalue by 7% -10% when situated within 100m of a low cost housing development. There is however a lack of local studies to substantiate this claim.

Table 22: Impact on Roads and Transport Services

Nature: Impact on roads and transport services		
	Without mitigation	With mitigation
Extent	Regional (3)	Local (2)
Duration	Long term (4)	Long term (4)
Magnitude	Moderate (6)	Moderate (6)
Probability	Highly Probable (4)	Probable (3)
Significance	Medium (52) -	Medium (36) -
Status (positive or negative)	Negative	Negative
Reversibility	N/A	N/A
Irreplaceable loss of resources?	N/A	N/A
Can impacts be mitigated?	Yes, to some extent	Yes, to some extent
Mitigation:		
<ul style="list-style-type: none"> • Access roads and entrances to the site should be carefully planned to limit any intrusion impacts, noise and dust pollution, damage to the road surfaces, as well as to limit any risks of accidents. • Upgrading of local roads could be required to accommodate the increased traffic patterns. • Gauteng Department of Human Settlements to liaise with Gauteng Department of Transport to expand the subsidised bus service and taxi services to the site area in order to make public transport more accessible • Road designs should consider the construction of pedestrian walkways and bicycle lanes • Planned access points and overall road upgrading should ensure that congestion and the risk of accidents are limited 		
Cumulative impacts: Potential cumulative impact from the planned Rietfontein Residential Development		
Residual Risks: Impact on local roads unable to handle traffic volumes, impact on road surfaces and traffic congestion		

5.4 IMPACT ON SOCIAL INFRASTRUCTURE

An additional 3 000 households could form part of the proposed Ennerdale Development will result in a significant increase of current number of households in Ward 121. In the unlikely event that all the units in the development are occupied by people outside Ward 8, the maximum increase in households anticipated in the local area is in the region of 18%, from the current estimated 16 600 households to about 19 600 households (based on Stats SA 2011 and 2016). Despite this increase the population density of the area is still expected to remain below CoJ averages.

The proposed development is aimed to provide housing for lower income levels. One can thus argue that these individuals would also require access to nearby health, education, recreational facilities and business centres.

Education facilities: The proposed Ennerdale mixed land-use development, with the increased population figures would significantly increase the need for early learning facilities for infants, as well as primary schools for younger schoolchildren and secondary schools. All children of homeowners, however, might not be of school going age at the same time. It should further be noted that some of these children could already be accommodated at the existing schools in the area as some of the 'new' residents would most likely be from the local area. The exact number of school going children is thus difficult to determine, but it is still clear that there would be a large number of school going children that would have to be accommodated in the local area in the long term.

Based on national age-ratios it is expected that the development could add a maximum of 1 700 new primary school learners and some 1 400 secondary school learners to the local school system (own estimated based on Stats SA, 2011 and 2016). The additional primary scholars represent about 41% of the 4 260 public school primary learners currently in the area and the additional secondary scholars would increase the current 2 140 secondary pupils with around 67% (Table 7 above).

At the time of the study one or two schools were proposed. Failure to address the educational needs could seriously hamper the success of the development and the long-term socio-economic stability of the community. Should no additional schools be built, the increase in learner numbers, would result in existing school classes becoming even more overcrowded thereby negatively impacting on the learning experience and possibly on the learners' achievements. Additional infrastructure such as classrooms, furniture, recreational facilities and sanitation facilities would further be required to cater for the needs of the children. Long term spill-over effects could also be felt at schools throughout the larger area.

Health facilities: The increased population figures could intensify the need for additional adequate Primary Health Care (PHC) clinics. Some of the new residents will have medical cover and will therefore make use of the private facilities, but it is anticipated that the residents of the RDP section of the development will be dependent on public healthcare services. The Ennerdale Ext. 9 Clinic would be accessible to those who do not have access to or have funds for private health care. It generally focuses on women's reproductive health, the management of childhood illnesses, disease prevention through immunisations, adolescent and youth health, management of communicable diseases, cholera and diarrhoeal disease control, sexually transmitted diseases, oral healthcare and so forth.

The Ennerdale clinic is probably operating at capacity due to the inflow of outsiders to the area and could thus possibly not be able to accommodate the increased population once all have settled within the new residential development. A possible additional increase in people of old age and infants as part of the development could further add to the pressure on the basic health care facilities in the area.

As indicated in Table 9, there are a number of public facilities in the local area. These facilities are shared between Ward 121 and the larger areas of Lenasia, Lenasia South and Ennerdale. Considering the cumulative impacts of household growth related to the planned low cost housing development in Rietfontein Residential Development in the south, pressure is especially expected on the shared public health facilities in Lenasia South (the PHC, CHC and the district hospital). With the quality of services at the hospital already under question, the upgrading of facilities will be needed.

Social and retail facilities: There are some retail centres within the local area. The increase in the local population as a result of the proposed project would stimulate economic growth with regards to the retail facilities within the area, taking the average spending capital of the average resident into consideration. To ensure the success of the proposed mixed-use development, the retail facilities proposed should be integrated with the existing facilities within the area. Not only will the layout and location of the business section be important, but it should also cater for the needs of the

residents, and consider the spending capital, without being in competition with e.g. existing retail activity within the Ennerdale shopping complex.

Municipal infrastructure:

As mentioned above, there is a serious lack in the provision of infrastructure and services to the households in the larger Ennerdale area and therefore has led to various protests by community members. Some of these protests even turned violent with additional damage to existing infrastructure. The significant negative impact (additional pressure) on the infrastructure development and maintenance as a result of the increased population needs, remains a critical issue to be addressed and successfully dealt with. Hence, infrastructure development should not be isolated from existing services. This thus calls for a successful integration of the additional services into the existing service delivery system of the CoJ Municipality, especially with regards to the water and sanitation infrastructure and services. It is imperative for the Provincial Government together with the CoJ Municipality to ensure access to adequate housing, by providing the associated services that would support the sustainability of the development.

Managing waste generated by such a development is also a source of concern. Should existing landfill sites not be able to cater for the development’s waste requirements, additional landfills should be established. This is unfortunately not an easy and quick process due to social and environmental concerns usually raised in opposition to the establishment of new sites. Recycling of waste by the community is another option that could be investigated to minimise the volumes of waste generated.

Should sufficient water and sanitation facilities and infrastructure not be installed and/or maintained it could result in environmental pollution and subsequent health risks to the entire community. The responsibility of maintenance, however, would lie with the CoJ.

Table 23: Impact on Social Infrastructure

Nature: Impact on social infrastructure		
	Without mitigation	With mitigation
Extent	Regional (3)	Regional (3)
Duration	Long term (4)	Long term (4)
Magnitude	High (8)	Moderate (6)
Probability	Highly Probable (4)	Probable (3)
Significance	Medium (60) -	Medium (39) -
Status (positive or negative)	Negative	Negative
Reversibility	N/A	N/A
Irreplaceable loss of resources?	N/A	N/A
Can impacts be mitigated?	To some extent	To some extent
Enhancement/Mitigation:		
<ul style="list-style-type: none"> • Focus on assimilating residents currently located in the local ward rather than outsiders in the proposed development to relieve the pressure on social facilities by newcomers • The proposed development could include a recreational area for the residents, including a play area for small children. Additional recreational facilities for young adults should also be considered. • Possible commercial facilities need to be planned with consideration of the potential impact on existing retail activities in the area well as the needs of the larger Ennerdale community. A feasibility study needs to underpin any decision related to business activities considered as part of the development • The integration of a primary and possibly a secondary school as part of the development would be critical. Local primary schools currently face more constraints than secondary schools. However the potential increase in secondary pupils will also be considerable if all the residents in the development are new to the area 		

- The existing PHC clinic in Ennerdale Ext. 9 would have to be upgraded, personnel resources would have to be increased and operating hours might have to be extended
- Shared medical facilities with the proposed Rietfontein residential development (if approved) will also need to be upgraded. This include the Lenasia PHC, CHC and the District Hospital of Lenasia South
- Consider renewable technologies (e.g. eco-toilets, solar energy and rainwater harvesting) in the design of the development to not only reduce pressure on the already challenged existing municipal network in the local area
- Water and sanitation infrastructure would have to be upgraded and expanded to cater for the proposed development. Funding agreements between the provincial government and the CoJ must be finalised and put in place to allow CoJ to implement the necessary services
- Waste recycling should be integrated into the development design and activities

Cumulative impacts: Continuous increase in resident population as informal settlements expand. Potential cumulative impact from the planned Rietfontein Residential Development

Residual Risks: Environmental pollution and health risks to the community if infrastructure needs are not met or in cases where infrastructure is not maintained

5.5 IMPACT ON COMMUNITY SAFETY

The densification as part of the proposed Ennerdale development and continuous inflow of people to the area would have an impact on the criminal activities in the area. With the existing densely populated areas surrounding the site and the extension of the informal settlements, densification of the area over time, however, would be inevitable. The proposed Ennerdale mixed land use development would assist in formalising and managing the densification process and change in the focus of the community.

The completion of the proposed development would suddenly lead to a significant increase in the local population count. Crime levels in the area could thus increase just based on this increase. As indicated previously, the crime levels in the area are relatively high. The existing situation and the population increase could thus warrant the extension of the local police service. It is uncertain whether this would be achievable, but failure to attend to possible criminal activities and the enforcement of strict security measures, as well as lack of appointment of additional police personnel could thus have negative impacts on the quality of life of all the residents involved.

The City interprets one of its mandates of creating a safer city to include investment in public safety through community development, urban design and management, the protection of vulnerable groups, infrastructure upgrades, improvements to by-law compliance and enforcement, and responding to emergency and disaster situations. The proposed Ennerdale development could thus assist in this regard by ensuring that safety and security features form part of the development e.g. access control, security guards patrolling the area, and the placement of security cameras and lighting at strategic places.

Table 24: Impact on Community Safety

Nature: Impact on community safety		
	Without mitigation	With mitigation
Extent	Local (2)	Local (2)
Duration	Long term (4)	Long term (4)
Magnitude	Moderate (6)	Moderate (6)
Probability	Definite (5)	Highly Probable (4)
Significance	High (60) -	Medium (48) -
Status (positive or negative)	Negative	Negative
Reversibility	N/A	N/A
Irreplaceable loss of resources?	N/A	N/A
Can impacts be mitigated?	Yes to some extent	Yes to some extent
Mitigation:		

<ul style="list-style-type: none"> • The development should implement safety and security features as part of the development e.g. access control, security guards patrolling the area, and the placement of security cameras at strategic places. • Lighting as security measure at night should be implemented as part of the development • Sub-letting as part of this development should not be allowed to ensure that the quality of life of the residents in the area remain high. • The local policing services should respond effectively to any criminal activities, but should further focus on street crimes, assaults, and robberies
Cumulative impacts: Potential cumulative impact from the planned Rietfontein Residential Development
Residual Risks: Increased crime risk

5.6 IMPACT ON URBAN SPATIAL OBJECTIVES

As discussed in Section 3.18 above, Region G is earmarked for social development programmes. However to improve transport efficiency in the City, it is also a spatial development priority in the CoJ to bring economic opportunities closer to communities with a lack of opportunities or to bring housing opportunities to job centres. While there are a number of people working in the local area, economic opportunities in the CoJ are mainly concentrated in the CBD and northern areas (Roodepoort, Randburg, Sandton). It is probable that a large portion of the formally employed in Ward 121 work in these more remote areas. With commercial, transport and other social facilities planned as part of the project the project could however improve local access to social and economic facilities.

Table 25: Impact on Urban Spatial Objectives

Nature: Impact on Urban Transport		
	Without mitigation	With mitigation
Extent	Regional (4)	Regional (4)
Duration	Long Term (4)	Long Term (4)
Magnitude	Low (4)	Medium (6)
Probability	Probable (3)	Probable (3)
Significance	Medium (36)+	Medium (42) +
Status (positive or negative)	Positive	Positive
Reversibility	Yes	Yes
Irreplaceable loss of resources?	No	No
Can impacts be mitigated?	Yes, to some extent	Yes, to some extent
Mitigation		
<ul style="list-style-type: none"> • Preference must be given to current residents within the Ennerdale area and/or those that work within the Ennerdale area or 'Deep South' • Gauteng Department of Human Settlements to liaise with Gauteng Department of Transport to expand the subsidised bus service and taxi services to the site area in order to make public transport more accessible • The proposed development could include a recreational area for the residents, including a play area for small children. Additional recreational facilities for young adults should also be considered. • Possible commercial facilities need to be planned with consideration of the potential impact on existing retail activities in the area. A feasibility study needs to underpin any decision related to business activities considered as part of the development • The integration of a primary and possibly a secondary school as part of the development would be critical. Local primary schools currently face more constraints than secondary schools. However the potential increase in secondary pupils will also be considerable if all the residents in the development are new to the area 		
Cumulative impacts: None anticipated		
Residual Risks: Not applicable		

5.7 IMPACT ON SOCIAL COHESION AND SENSE OF PLACE

The social impact associated with the impact on the sense of place relates to the change in the landscape character and visual impact of the proposed development.

In evaluating impacts relating to 'sense of place' and 'aesthetic quality', it has to be considered that it is not the objects or places that matter, but the meaning they have for the person interacting with his/her environment. How people perceive their world and the distinctions they draw are influenced not only by mind-set, preferences, attributed emotions and history, but is also subject to cultural influences and collective meaning.

The proposed development will have a permanent visual impact on the currently 'undisturbed' site on which it would be located. The development, however, should also be viewed against the backdrop of the area. The area surrounding the site is invaded by other visual elements such as existing infrastructure (power lines, electrical infrastructure, roads), traffic movement, littering on site as well as informal settlements. Although the dwellings would be clearly visible it is anticipated that it would, over time, blend in with the rest of the environment, gradually changing the sense of place perception.

The most marked impact would be for the residents directly opposite of the development. Such a high-density development with all the related infrastructure would disturb their viewpoints and change the character of their surrounding area significantly. The proposed development's physical features could make it a pleasant feature by attending to the building design, integrated lighting, appropriate signage, and landscaping.

There would be a change in the dynamics of the community due to the introduction of the proposed Ennerdale development. It is anticipated that the majority of the prospective property buyers or lessees would be from various urban areas in Region G and/or Ennerdale, although of different cultures, speaking various languages with some difference in income levels. Due to the relevant cohesive social fabric of residents in the Ennerdale area, the proposed development is expected to introduce and enhance social differences. Experience has shown that there is already conflict between the existing Ennerdale residents and the informal settlers or land-grabbers. The community's social interaction is thus anticipated to be difficult.

Due to the history in the area, possible conflict between South Africans and foreigners, as well as between existing Ennerdale residents and outsiders (irrespective of origin) could occur. It is therefore critical to ensure that the process of identifying beneficiaries of the proposed development would be perceived as a fair and transparent process. Locals should further be employed where possible as there would be intense competition for jobs, commodities and housing. If failing to do so, the proposed development could spark conflict or even violence between the different groupings.

Table 26: Impact on Social Cohesion and Sense of Place

Nature: Impact on social cohesion and sense of place		
	Without mitigation	With mitigation
Extent	Local (2)	Local (2)
Duration	Permanent (5)	Permanent (5)
Magnitude	High (8)	Moderate (6)
Probability	Definite (5)	Definite (5)
Significance	High (75)	High (65)
Status (positive or negative)	Negative	Negative

Reversibility	No	No
Irreplaceable loss of resources?	Yes	Yes
Can impacts be mitigated?	Yes, to some extent	Yes, to some extent
<ul style="list-style-type: none"> • The impact on sense of place can be mitigated by attending to the building design and layout • Should the development continue, building designs should take the character of the area into account and should not detract from the existing sense of place • Designing of walls, roofs and buildings should be done in such a manner to blend in with the natural environment. • Lighting issues should receive the attention it deserves to avoid any light pollution at night but still ensure that safety requirements are met. • Consultation with the local community on the design of the building as part of CoJ building legislation for rezoning would be recommended • The process of identifying beneficiaries of the proposed development must be a fair and transparent process • Unrealistic expectations in terms of beneficiaries and housing provision must not be created 		
<p>Cumulative impacts: Existing Land grabbing practices that could spill over to the development Existing social conflict between resident population and those perceived to be outsiders</p>		
<p>Residual Risks: Risk to community safety and failure of the development in securing social cohesion</p>		

6. SOCIO-ECONOMIC MANAGEMENT PLAN

The following measures are proposed to mitigate potential negative economic impacts of the development and enhance benefits of potential positive economic impacts. These measures should be included in the Environmental Management Programme:

OBJECTIVE 1: Enhance the Positive Economic Impacts during the Construction Phase

Project component/s	Construction	
Potential Impact	Positive impact on targeted groups in terms of direct and supply-linked; efficient, transparent and fair management of the project to create value for public money	
Activity/risk source	Limited local participation in labour and supply to the construction project/ public perceptions of project mismanagement and waste of public money	
Enhancement Target/Objective	Improve local employment opportunities for targeted groups; efficient, transparent and management of the project	
Mitigation: Action/control	Responsibility	Timeframe
In the light of challenges faced by low income housing projects in South Africa it is imperative that a transparent and fair process is followed in the procurement and management of contractors. Project management should be based on the requirements of National Treasury's SIPDM	Gauteng Government as project implementer	Pre-Construction & Construction Phase
The main project manager to introduce the contractor to the local community, informing the community of the contents of the contract management plan.	Project implementer and main contractor	Pre-Construction & Construction Phase
Adhere to Gauteng Government procurement requirements. If no particular procurement policy applies, a certain percentage could be set aside to vulnerable groups, e.g. females, youth and disabled workers. The Gauteng Department of Roads for example require that 40% of construction jobs should be set aside for females, 60% to youth and 2% to disabled workers. It is also required that the contractor should provide the necessary skills training to people directly employed by the project.	Project implementer and main contractor	Pre-Construction & Construction Phase
Preference should be given to local labour and suppliers during the construction period. A supplier development programme is recommended for local suppliers	Project implementer and main contractor (liaise with CoJ Economic Development)	Pre-Construction & Construction Phase
Communicate job and contractor opportunities and recruitment processes through the local media and local civic organisations	Project implementer and main contractor	Pre-Construction & Construction Phase
Develop and implement a contractor management plan and include specifications for: <ul style="list-style-type: none"> • Use of local labour and suppliers • Up-skilling of unskilled local labour • Sub-contracting to SMMEs (% of contract value) • % of contract value to be allocated to black owned and Female owned companies 	Project implementer and main contractor	Pre-Construction & Construction Phase
As part of the infrastructure maintenance plan required for public/government it is recommended that preference is given to use willing unskilled, and semi-skilled people residing in the residential development	Project implementer	Post- construction phase
Performance Indicator	<ul style="list-style-type: none"> • Meet provincial employment and procurement targets • Sign-off on project by Treasury in terms of adherence to SIPDM phases • Meet annual targets related to the asset maintenance plan 	
Monitoring	Gauteng government. Communicated to local community forum by main contractor	

OBJECTIVE 2: Reduce the Potential Negative Impacts on Traffic and Road Infrastructure

Project component/s	Construction and Operations		
Potential Impact	Negative impact on local traffic and road infrastructure		
Activity/risk source	Damage to roads, decrease in road safety		
Enhancement Target/Objective	Maintain road infrastructure and mitigate potential increase of traffic on local roads		
Mitigation: Action/control	Responsibility	Timeframe	
Establish a forum between the local Residents Association and the main contractor and meet every second month basis to discuss socio-economic issues and project progress	Project implementer and main contractor	Construction	
Access roads and entrances to the site should be carefully planned to limit any intrusion impacts, noise and dust pollution, as well as to limit any risks of accidents.	Project implementer and main contractor	Construction and Operations	
Upgrading of local roads could be required to accommodate the increased traffic patterns	Project implementer and main contractor	Construction and Operations	
Construction vehicles should adhere to the speed levels.	Main contractor	Construction	
Construction vehicles and those transporting materials and goods should be inspected to ensure that these are in good working order and not overloaded.	Project implementer and main contractor	Construction	
Source material and goods locally as far as possible to limit transportation of these over long distances	Project implementer and main contractor	Construction	
Implement traffic calming measures in the vicinity of the intersection of Samuel Road and Van Rooyens Crescent	Project implementer to coordinate between Gauteng Departments of Human Settlements and Transport	Construction	
Construction vehicles should preferably not make use of Samuel Road in peak hours when children travel to and from school (e.g. avoid the area between 6:00 am until 8:00 am and again between 13:00 and 14:30 pm).	Project implementer to coordinate between Gauteng Departments of Human Settlements and Transport	Construction	
Expand the subsidised bus service and taxi services to the site area in order to make public transport more accessible	Project implementer to coordinate between Gauteng Departments of Human Settlements and Transport	Construction and Operations	
Road designs should consider the construction of pedestrian walkways and bicycle lanes	Project implementer to coordinate between Gauteng Departments of Human Settlements and Transport	Construction and Operations	
Planned access points and overall road upgrading should ensure that congestion and the risk of accidents are limited	Project implementer to coordinate between Gauteng Departments of Human Settlements and Transport	Pre-construction / Construction and Operations	
Performance Indicator	<ul style="list-style-type: none"> • Minimum community complaints related to traffic and road infrastructure • No speeding of construction related vehicles on local roads • No increase in road accidents • No increase in potholes in local area 		
Monitoring	<ul style="list-style-type: none"> • Contractor to meet every second month basis to discuss socio-economic issues and report project progress • During operations it would be ideal for the implementer to monitor on a quarterly basis one year after structure is completed 		

OBJECTIVE 3: Reduce Nuisance Impacts (Noise, Dust, Littering) Related to Construction Activities

Project component/s	Construction		
Potential Impact	Noise, dust and littering related to construction activities		
Activity/risk source	Increase in nuisance factors could lead to negative perceptions related to the project		
Enhancement Target/Objective	Reduce noise and dust during construction		
Mitigation: Action/control	Responsibility	Timeframe	
Establish a forum between the local Residents Association and the main contractor	Implementer and main contractor	Construction	
Construction workers should be confined to the construction area as far as possible and should be easily identified.	Implementer and main contractor	Construction	
Construction activities should keep to normal working hours e.g. 7 am until 5 pm.	Implementer and main contractor	Construction	
Noise should be kept to the minimum.	Implementer and main contractor	Construction	
The construction area should be fenced to avoid unauthorised entry by animals or children.	Implementer and main contractor	Construction	
Access roads and entrances to the site should be carefully planned to limit any intrusion impacts, noise and dust pollution, as well as to limit any risks of accidents.	Implementer and main contractor	Construction	
Construction vehicles should adhere to the speed levels.	Implementer and main contractor	Construction	
Construction vehicles and those transporting materials and goods should be inspected to ensure that these are in good working order and not overloaded.	Implementer and main contractor	Construction	
Local roads surrounding the site should be upgraded to ensure that heavy vehicles can deliver the required equipment and materials and to limit the negative intrusions and traffic congestions.	Implementer and main contractor	Construction	
Source material and goods locally as far as possible to limit transportation of these over long distances	Implementer and main contractor	Construction	
Dust suppression methods should be implemented on-site if and where required	Implementer and main contractor	Construction	
Performance Indicator	<ul style="list-style-type: none"> • Limited complaints from local community related to nuisance factors • Good air quality • Noise levels within limits 		
Monitoring	Contractor to meet on a regular basis (e.g. every two months) to discuss socio-economic issues and report project progress		

OBJECTIVE 4: Reduce Negative Impacts on Community Safety

Project component/s	Construction and Operations		
Potential Impact	Increased population profile creates safety risks for the local community		
Activity/risk source	Rising crime rates and social conflict		
Enhancement Target/Objective	Minimise impacts on local safety		
Mitigation: Action/control	Responsibility	Timeframe	
Before construction commences, representatives from the CoJ, the ward councillors and Residents Associations, as well as neighbouring communities should be informed of the details of the construction company, size of the workforce and construction schedules	Implementer and main contractor	Construction	
On-site construction workers should always be supervised.	Implementer and main contractor	Construction	
Construction activities should be kept to normal working hours e.g. from 7 am until 5 pm during weekdays.	Implementer and main contractor	Construction	
Property owners surrounding the construction areas should be informed of the construction schedules and activities.	Implementer and main contractor	Construction	
Security on-site should be active prior to the construction period.	Implementer and main contractor	Construction	
Workers conduct should be guided by a code of conduct to be developed by the contractors.	Implementer and main contractor	Construction	
The construction areas should be fenced to avoid unauthorised entry by animals or children or even illegal settlers.	Implementer and main contractor	Construction	
The development should implement safety and security features as part of the development e.g. access control, security guards patrolling the area, and the placement of security cameras at strategic places.	Implementer and main contractor	Operations	
Lighting as security measure at night should be implemented as part of the development	Implementer and main contractor	Operations	
Sub-letting as part of this development should not be allowed to ensure that the quality of life of the residents in the area remain high.	Implementer and main contractor	Operations	
The local policing services should respond effectively to any criminal activities, but should further focus on street crimes, assaults, and robberies	Implementer and main contractor	Operations	
As the construction progress, security measures should be in place to avoid the proposed development being invaded by unauthorised individuals or fall victim to the 'land grabs'	Implementer and CoJ	Construction / Operations	
Performance Indicator	<ul style="list-style-type: none"> No increase in criminal activities No speeding of vehicles on local roads No increase in road accidents Minimal number of complaints received with regards to criminal activities 		
Monitoring	<ul style="list-style-type: none"> Contractor to meet on a regular basis (e.g. every two months) to discuss socio-economic issues and report project progress During operations implementer ideally to monitor on a quarterly basis one year after structure is completed 		

OBJECTIVE 5: Reduce Potential Negative Impacts on Local Infrastructure

Project component/s	Construction and Operations	
Potential Impact	Increase in number of households could place pressure on social infrastructure (schools, health facilities, social facilities and municipal infrastructure that could jeopardise the ease of access for local community	
Activity/risk source	Over-use of facilities and deteriorations of infrastructure Lack of infrastructure	
Enhancement Target/Objective	Minimise negative impact on local infrastructure and maintenance thereof Ensure no environmental pollution by developing proper infrastructure and maintenance	
Mitigation: Action/control	Responsibility	Timeframe
Focus on assimilating residents currently located in the local ward rather than outsiders in the proposed development to relieve the pressure on social facilities by newcomers	Project implementer	Pre- construction / planning phase
Possible commercial facilities need to be planned with consideration of the potential impact on existing retail activities in the area. A feasibility study needs to underpin any decision related to business activities considered as part of the development	Project implementer	Pre- construction / planning phase
The proposed development could include a recreational area for the residents, including a play area for small children. Additional recreational facilities for young adults should also be considered.	Project implementer	Pre- construction / planning phase
The integration of one or more schools as part of the development would be critical	Project implementer	Pre- Operations / Construction / Operation
The existing PHC clinic in Ennerdale Ext. 9 would have to be upgraded, personnel resources would have to be increased and operating hours might have to be extended.	Project implementer & CoJ	Pre- Operations / Operation
Shared medical facilities with the proposed Rietfontein residential development (if approved) will also need to be upgraded. This include the Lenasia PHC, CHC and the District Hospital of Lenasia South	Project implementer & CoJ	Pre- Operations / Operation
Consider renewable technologies (e.g. eco-toilets, solar energy and rainwater harvesting) in the design of the development to not only reduce pressure on the already challenged existing municipal network in the local area	Project implementer	Pre- construction /planning phase
Water and sanitation infrastructure would have to be upgraded and expanded to cater for the proposed development. Funding agreements between the provincial government and the CoJ must be finalised and put in place to allow CoJ to implement the necessary services	Project implementer & CoJ	Pre- construction / planning phase / Operation
Waste recycling should be integrated into the development design and activities	Project implementer & CoJ	Planning phase / Operation
Performance Indicator	<ul style="list-style-type: none"> • % of local residents (Wards 121, 5, 6) located to the Ennerdale residential development • Design elements incorporated to address local infrastructure issues • Infrastructure and service needs are met • Maintenance of the local roads is undertaken • No negative impacts on the health services and infrastructure, water and electricity services and road infrastructure • No environmental pollution 	
Monitoring	During operations implementer ideally to monitor on a quarterly basis, one year after structure is completed	

OBJECTIVE 6: Reduce impact on Social Cohesion and Sense of Place

Project component/s	Operations	
Potential Impact	Intrusive visual impacts from the project could impact negatively on the local community and the proposed development would change the land-use thereby permanently impacting on the conservation value and recreational use of the property	
Activity/risk source	Eliminating conservation value of the property and recreational use of the property, decline in the community's sense of place	
Enhancement Target/Objective	Minimise negative visual impacts related to the project or alternative site location	
Mitigation: Action/control	Responsibility	Timeframe
The impact on sense of place can be mitigated by attending to the building design and layout	Project implementer	Pre- construction / planning phase
Consultation with the local community on the design of the building as part of CoJ building legislation for rezoning would be recommended	Project implementer / CoJ / Community representatives	Pre- construction / planning phase
Design the development in such a way as to blend in with the local environment and should be sensitive towards potentially affected properties along the border of the property. For example the GAP houses instead of the RDP houses could be planned to be located closer to the northern fringes of the development	Project implementer	Pre- construction / planning phase
Building designs should take the character of the area into account and should not detract from the existing sense of place	Project implementer	Pre- construction / planning phase
Designing of walls, roofs and buildings should be done in such a manner to blend in with the natural environment.	Project implementer	Pre- construction / planning phase
Lighting issues should receive the attention it deserves to avoid any light pollution at night but still ensure that safety requirements	Project implementer	Pre- construction / planning phase and Operations
The process of identifying beneficiaries of the proposed development must be a fair and transparent process	Project implementer	Pre- construction / planning phase and Operations
Unrealistic expectations in terms of beneficiaries and housing provision must not be created	Project implementer	Pre- construction / planning phase and Operations
Communicate with the potential affected properties along the border of the development with regard to design concept for the development	Project implementer	Pre- construction / planning phase
Performance Indicator	<ul style="list-style-type: none"> • Consultation with the local community on the design of the building as part of CoJ building legislation for rezoning • Limited visual impact on landscape character and sense of place • Number of complaints received from the local community in terms of visual impact 	
Monitoring	During operations implementer ideally to monitor on a quarterly basis one year after structure is completed	

OBJECTIVE 7: Enhance Spatial Planning Objectives

Project component/s	Pre-construction/design, Operations	
Potential Impact	Enhance spatial planning objectives of bringing people closer to economic opportunities and social facilities	
Activity/risk source	Residents traveling far distances to work, school or other social activities	
Enhancement Target /Objective	Improve the spatial efficiency of the local area: reducing the need to travel long distances	
Enhancement: Action/control	Responsibility	Timeframe
Preference must be given to current residents within the Ennerdale area and/or those that work within the Ennerdale area or 'Deep South'	Project implementer	Pre— construction/planning and operations
Expand the subsidised bus service and taxi services to the site area in order to make public transport more accessible	Project implementer to coordinate between Gauteng Departments of Human Settlements and Transport	Construction and Operations
The proposed development could include a recreational area for the residents, including a play area for small children. Additional recreational facilities for young adults should also be considered	Project implementer & Planners	Pre— construction/planning and operations
Possible commercial facilities need to be planned with consideration of the potential impact on existing retail activities in the area as well as the needs of the larger Ennerdale community. A feasibility study needs to underpin any decision related to business activities considered as part of the development	Project implementer & Planners	Pre— construction/planning and operations
The integration of one or more schools as part of the development would be critical	Project implementer, co-ordinate with Provincial Department of Education	Pre- Operations / Construction / Operation
Performance Indicator	<ul style="list-style-type: none"> • % of Ennerdale residents located to the Rietfontein residential development • % of residents located to the Ennerdale residential employed in close range (within 5km of site) • Availability and frequency of public transport • Proximity of recreational, educational, health and other social facilities to community 	
Monitoring	Monitoring on an annual basis the Gauteng Department of Human Settlements and CoJ	

7. SUMMARY AND CONCLUSION

The proposed Ennerdale mixed land-use development would assist in providing a range of different housing types for different economic needs within the same area. Table 27 below summarises the anticipated local socio-economic impacts of the development.

Table 27: Summary of Anticipated Socio-Economic Impacts

IMPACTS ANTICIPATED DURING THE CONSTRUCTION PHASE		
Impact Category	Significance without Mitigation	Significance with Mitigation
Positive economic impacts during construction	Medium (50) (+)	Medium (60) (+)
Negative impacts on roads and traffic	Medium (55) -	Medium (44)-
Increase in nuisance factors (noise, dust)	Medium (45)-	Medium (36)-
Negative Impacts on community safety	Medium (44)-	Medium (33)-
IMPACTS ANTICIPATED DURING THE OPERATIONAL PHASE		
Impact Category	Significance without Mitigation	Significance with Mitigation
Access to improved housing	Medium (33) +	Medium (40) +
Decline in local property values	Medium (30) -	Low (20) -
Negative impacts on roads and traffic	Medium (52) -	Medium (36) -
Negative impact on local social infrastructure	Medium (60)-	Medium (39)-
Negative impacts on community safety	High (60) -	Medium (48)-
Positive impact on urban spatial structure	Medium (36)+	Medium (42) +
Negative impact on social cohesion and sense of place	High (75) -	High (65) -

The proposed project would have the following anticipated positive social impacts:

- Positive impacts on job opportunities in this poverty stricken area, although the majority of these jobs would be limited and only of a temporary nature. Further enhancement of benefits would refer to the local procurement and use of local labour, especially during the construction phase. Maximising the use of local labour during the construction phase would also ensure direct local benefits from the proposed development, and this could prevent conflict between the local community members, outsiders and the developer and contractors as such. Such an approach would also limit some negative impacts associated with the influx of large construction teams;
- The development would focus on providing housing for the poor, as well as the entry level markets. It would assist in addressing the housing backlog in Region G area by providing affordable housing. The benefits that would accrue through the provision of housing infrastructure as such would be enhanced if the local community members would be the occupiers of the houses; and
- The development is in close proximity to existing high density townships and could serve as integration link between these nodes. It is not perceived to contribute to urban sprawl and inefficient types of land use. If the development provides appropriate social and commercial infrastructure it could enhance urban spatial objectives by bringing people closer to social amenities.

Although the direct positive impacts are linked to the provision of housing and possible employment opportunities, the impact thereof should be considered in view of the socio-economic profile of the

communities of the area. The economic benefits of the project could be maximised through proactive planning by the community, the developer, local leadership and the CoJ Municipality.

Negative impacts and recommendations to be noted refer to the following:

- Supporting municipal infrastructure development is critical for the success of the project. Funding and planning assistance from the provincial departments would be required;
- Community safety risks must be attended to prior to construction;
- Ensuring transparency and credibility during the process of identifying the beneficiaries of the RDP housing is critical. Failure to achieve acceptance that the process was credible and obtaining the “buy-in” of the local residents into the process and the validity of the list of beneficiaries could result in conflict and protests;
- The development is situated next to major routes in the area (e.g. R558) which links various urban nodes. Access from these roads should be carefully planned to avoid congestions and minimise risk of accidents;
- Efficient public transportation opportunities should be linked to the housing development to ease commuting. Pedestrian walkways must be integrated in the design;
- The need for additional education facilities must be addressed to ensure success of the project; and
- The property owners and community members should be kept informed of progress, decisions taken with regards to the development and construction schedules. The establishment of a community Management and Monitoring Committee consisting of key community representatives and representatives of the CoJ could assist in this regard.

Cumulative risks related to the project are limited and mainly relate to the combined pressure on social (mainly health facilities) of the planned Ennerdale and Rietfontein Residential Developments. In all probability, public medical facilities in Lenasia South might need to be upgraded to accommodate the potential increase in population resulting from these developments.

At this stage there is no evidence of direct attitude formation against the proposed development. However, given the experience in the area with previous protests against the inflow of settlers, the land grabs that are taking place, poor service provision, and lack of infrastructure, the sensitive issues should be noted and attended to. This is critical to avoid any possible mobilisation against the proposed project and possible violence between groupings.

There are a number of potential residual risks (after mitigation) related to the project. The most important include migrants drawn to the project-area in view of potential opportunities in the large and highly visible construction project that could remain behind in the local area, increasing the number of informal settlements in the local area. Another risk is that additional people in search of housing could migrate into the local area placing an increased burden on social services, in particular low-cost housing.

In conclusion, it is anticipated that the proposed development could add definite benefits in terms of dire housing needs in the local community without severely negatively compromising the day-to-day life of the communities in close proximity to the site. Based on the findings of the SEIA, it is therefore recommended that the proposed development be considered for authorisation.

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9. LIST OF STAKEHOLDER INTERVIEWS

Name	Organization	Date
1. Manager	Ennerdale Cashbuild	16 January 2020
2. Manager	Total Volta Lenasia	16 January 2020
3. Cllr Mosotho Tsoetsi	CoJ Ward 8	16 January 2020
4. Blayne Ward	Special Ops 99 (Pty) Ltd.	21 January 2020
5. Project manager	MDV Housing Developments	22 January 2020
6. Vusimuzi Mzobe	CoJ: Human Settlements	24 January 2020
7. Daphne Mohlala	CoJ: Human Settlements	24 January 2020
8. Ewarts Malope	CoJ: Human Settlements	27 January 2020
9. Lesego Makume	CoJ: Human Settlements	28 January 2020

10. CURRICULUM VITAE OF SPECIALISTS

CURRICULUM VITAE OF THE SOCIAL SPECIALIST: INGRID SNYMAN

Ms. Ingrid Snyman holds a BA Honours degree in Anthropology. She has 20 years' experience in the social field. Ms. Snyman has been involved in various Social Impact Assessments during her career as social scientist. These project themes consist of infrastructure development, waste management, road development, water and sanitation programmes, township and other residential type developments. She has also been involved in the design and management of numerous public participation programmes and communication strategies, particularly on complex development projects that require various levels and approaches.

:

Name:	Ingrid Helene Snyman	Name of firm:	Batho Earth
Profession:	Social Development Consultant		
Years of Experience:	20 years		

KEY QUALIFICATIONS

- Social Impact Assessment (SIA)
- Public Participation programmes
- Communication, development of community structures and community facilitation
- Community-based training and
- Workshop reports

EDUCATION

1992:	B A (Political Science) University of Pretoria
1995:	B A (Hons) Anthropology University of Pretoria
1996 - 1997:	Train the Trainers Centre for Development Administration - UNISA

EXPERIENCE RECORD

2000 to date **Independent Development Consultant: Batho Earth**

- SIA for the proposed Manganese Mine North West of Hotazel, Northern Cape (Mukulu Environmental Authorisation Project)
- Proposed Ngonye Falls Hydro-Electric Power Plant Project, Western Province, Zambia: Biodiversity Assessment: Stakeholder Engagement Plan and Social Assessment for the Ecosystem Services Review (ESR)
- SIA for the proposed Mixed Land Use Development situated on the Remainder of Allandale 10 IR, known as Rabie Ridge Ext 7, Midrand, Gauteng
- SIA for the proposed Mixed Land Use Township Establishment on the Remainder of Portion 406 of the Farm Pretoria Town and Townlands 351 JR, Salvokop, Tshwane CBD
- SIA for the proposed Crowthorne-Lulamisa power line, Midrand, Gauteng
- SIA as part of the Basic Assessment for the proposed development of Project One (1) of the Vosloorus Extension 9 High Density Housing Project, Ekurhuleni Metropolitan Municipality
- Public Participation for the Water Use Licence Application Process for the proposed Water Uses at the Clewer Siding, Clewer, near Emalahleni, Mpumalanga Province
- Public Participation for the proposed development of a Truck Stop, Buffelspoort, North West Province
- SIA for the proposed development of the new Tshwane Regional General Waste Disposal Facility (Multisand

Landfill), Pretoria, Gauteng Province

- SIA as part of the Basic Assessment for the proposed K97 Road northbound of the N4 at Bon Accord, Pretoria, Gauteng
- SIA for the proposed Mapochsgronde Residential Development, Roosenekal, Limpop Province
- SIA as part of the Basic Assessment for the extension of the Komati coal stockyard, Mpumalanga
- SIA as part of the Basic Assessment for the proposed Crowthorne Underground Cable, Gauteng
- SIA as part of the Basic Assessment for the proposed Diepsloot East Servitude and substation, Gauteng
- SIA as part of the Basic Assessment for the proposed construction of a 400 kV transmission line between the Ferrum substation (Kathu) and the Garona substation (Groblershoop), Northern Cape Province
- SIA as part of the Basic Assessment for the proposed construction of the Eskom Rhombus-Lethabong 88kv Powerline and Substation, North West Province
- Public Participation for Sable Platinum for the proposed prospecting application on the farm Doornpoort, Pretoria, Gauteng
- SIA for the proposed Aberdeen-Droerivier 400 kV Transmission Power Line, Eastern and Western Cape Province
- SIA for the proposed Houhoek Substation Upgrade and Bacchus-Palmiet Loop-In and Loop-Out, near Botrivier, Western Cape Province
- Public Participation for the prospecting application on the farms Frischgewaagd and Kleinfontein, Mpumalanga Province for PMG MINING
- Public Participation for the prospecting application on the farm Klipfontein, Gauteng for TGME
- SIA for the proposed Western Bushveld Joint Venture Project (Maseve Platinum Mine), North West Province
- SIA to determine the impact of the Tharisa Mine on the neighbouring properties and property owners, Buffelspoort area, near Marikana, North West Province
- SIA for the proposed Arnot-Gumeni 400 kV Transmission Power Line, Mpumalanga
- SIA for the proposed 400 kV Transmission Power Line for approximately 10km to the west of the existing Marathon Substation, Nelspruit area, Mpumalanga
- SIA for the proposed Christiana PV facility on the farm Hartebeestpan, North West Province
- SIA for the proposed Hertzogville PV facility on the farms Albert and Wigt, Free State Province
- SIA for the proposed Morgenzon PV facility on the farm Morgenzon, Northern Cape Province
- Public Participation Process for the proposed Western Bushveld Joint Venture Project, North West Province
- SIA for the proposed Aggeneis-Oranjemond Transmission Line project, Northern Cape Province
- SIA as part of the Basic Assessment Process for the Exxaro Photovoltaic Facility, Lephallale, Limpopo Province
- SIA for the Upington Solar Energy Facility, Northern Cape Province
- SIA for the Kleinbegin Solar Energy Facility, Northern Cape Province
- SIA for the proposed Ilanga solar thermal power plant facility on a site near Upington, Northern Cape Province
- SIA and public participation for the proposed Karoo Renewable Energy Facility, Northern Cape Province
- SIA for the Wag'nbiekiespan Solar Energy Facility, Northern Cape Province
- SIA for the proposed Kathu and Sishen Solar Energy Facilities, Northern Cape Province
- Public Participation and SIA for the proposed Thupela Waterberg Photovoltaic Plant, Limpopo Province
- SIA for the proposed Mitchells Plain-Firgrove-Stikland Transmission Line, Western Cape
- SIA for the proposed Ariadne-Venus Transmission Line, KwaZulu Natal
- Socio-Anthropological Study for the proposed Boysendal Mine, Steelpoort area, Mpumalanga
- SIA for the proposed Dominion Reefs Power Line project, North West Province
- SIA for the proposed Kannikwa Vlakte Wind Farm Project, Northern Cape
- SIA for the proposed extension of the Wemmershoek Wastewater Treatment Works (WWTW), decommissioning of the Franschhoek WWTW and construction of a transfer and outfall sewer between the two works, Franschhoek, Western Cape

- Public Participation process as part of the EIA for the proposed new Ferrochrome Smelter near Brits in the North West Province
- SIA for the proposed Lefaragathle, Mogono, Rasimone, Chaneng outfall sewer and Chaneng sewer treatment plant, Rustenburg (Phokeng), North West Province
- SIA for the proposed Vlakfontein Residential Development, Brakpan, Gauteng
- SIA for the proposed Dorstfontein Mine Western Expansion Project, Kriel, Mpumalanga
- SIA for the proposed upgrading of railway stations and railway line in Mamelodi, Gauteng
- SIA for the proposed Kyalami Strengthening Project, Kyalami, Gauteng
- SIA for the proposed APMG MINING Remote Aprons Project, O.R. Tambo International Airport, Gauteng
- SIA for the proposed Cullinan Estate Development, Cullinan, Gauteng
- SIA for the proposed Apollo Lepini 400 kV Transmission Line Project, Tembisa, Gauteng
- SIA for the proposed Grootboom Platinum Mine, Steelpoort, Limpopo Province
- SIA for the proposed Dorstfontein Mine Expansion Project, Kriel, Mpumalanga
- SIA for the proposed Postmasburg Sishen Rail Link, Postmasburg, Northern Cape
- Public participation assistance for the proposed Eskom Johannesburg East Strengthening Project, Kempton Park, Gauteng
- SIA for the proposed new Soweto Integration Project (Etna to Orlando Substation)
- Proposed Conroast Platinum Smelter, Rustenburg, North West Province: Public Participation assistance
- SIA for the proposed township development/eco-estate on the farm Grants Valley, Eastern Cape SIA for the proposed new 400 kV Transmission Line between Glockner Substation (near Rothdene) to the Etna Substation (near Ennerdale)
- Public participation assistance for the proposed construction of a brewery and associated industrial activities for Heineken Supply Co (Pty) Ltd, Kempton Park, Gauteng.
- SIA for the existing Buffelsfontein Mine, Stilfontein, North West Province
- SIA for the proposed Thaba Lesodi Golf and Game Estate, Mabatlane, Limpopo Province
- Mooi-Mngeni Transfer Scheme Phase 2: Spring Grove Dam and Appurtenant Works: Social research as part of SIA
- Proposed Township Development on the Farm Klipfontein 268-JR, Soshanguve Ext 9, Gauteng: SIA
- Public Participation assistance: Proposed Wesizwe Platinum Mine: Application for mining rights, North West Province
- Public Participation for various exemption studies for proposed residential developments in the Gauteng area (Raslouw A.H., Rayton, Rooihuiskraal)
- Social training for the Bekkersdal Farmer Support Programme
- Public Participation for the Gautrain variant alignments in the Centurion area as proposed by the Bombela Consortium
- Public Participation for the upgrading of the Menlyn Road Network
- Public Participation for the New Multi-Products Pipeline project for Petronet: Jameson Park-Langlaagte section
- Public Participation for exemption from an Environmental Impact Assessment for the proposed Township Development on Portion 49 of The Farm Rooikopjes 483 JR, Rayton
- Public Participation for exemption from an Environmental Impact Assessment for the proposed Residential Development on the remainder of a Portion of Portion 1 Of The Farm Brakfontein 399 JR
- Public Participation for the proposed new coal-fired power station in the Lephalale area, Limpopo Province
- Public Participation for the proposed Open Cycle Gas Turbine (OCGT) plant and associated transmission lines and substation at Atlantis, Western Cape Province
- Public Participation for the proposed residential and commercial development of the Isidleke region in the western portion of the AECl Modderfontein site
- Public Participation for the upgrading of Boundary Road, Kya Sands area

- Marketing for the Eskom Energy Efficient Design Competition
- Management assistance for the public participation process for the development of the Tshwane Integrated Environmental Policy
- SIA and public participation for the proposed 765 kV transmission power line between Hydra Substation (near de Aar) and the proposed Gamma Substation (near Victoria West), Northern Cape Province
- Public Participation as part of the Environmental Scoping Study for the proposed upgrading of the intersection at Road D374 and Road D540 in the Muldersdrift area
- Public Participation and SIA as part of the Environmental Scoping Study for the proposed upgrading of the Waterval Water Care Works
- Public Participation for the return-to-service of the Camden Power Station, Mpumalanga
- Public Participation for the development of an Environmental Management Framework for the western part of the Kungwini Local Municipality area
- Public Participation for the proposed section of the PWV 5 from road K71 to road R21, including interchanges, Gauteng Province
- Public Participation and SIA for the proposed Poseidon-Grassridge No. 3 400 kV Transmission line and the extension of the Grassridge Substation, Eastern Cape Province
- Public Participation and SIA for the proposed construction of power lines between the Grassridge Substation (near Port Elizabeth) and the Coega Industrial Development Zone, Eastern Cape Province
- Public Participation and SIA for the Matimba-Witkop No. 2 400 kV Transmission line in the Limpopo Province
- Public Involvement for the prospecting permit application of De Beers, Premier Mine to the Department of Minerals and Energy (DME)
- Public Participation for the proposed Toboggan Track with related facilities on Portion 155 of the farm De Rust 478 JQ (Kosmos region)
- SIA as part of the Environmental Scoping Study for the proposed Kruidfontein platinum mine in the North West Province

1995 to 2000: Afrosearch (Pty) Ltd.

- Public participation and SIA for the proposed Platinum Highway Project from the N1 to the Botswana Border
- Public participation process for the Pretoria East Mobility Study (Menlyn Node): First and Second Phase
- Public participation process and SIA for the proposed C-Cut project in Cullinan
- Public participation process for the proposed N4 Toll Road between Pretoria and the Mpumalanga Border
- Public Participation and Social Scoping for the development of a regional hazardous landfill site in the western portion of the Lekoa Vaal Metropolitan Area
- Public Participation for the identification of an acceptable end-use for the Garstkloof Landfill Site
- Public participation and Social Scoping for the proposed Soshanguve/Akasia Activity Spine
- Public Involvement and SIA for the development of a landfill site at Hatherley (Mamelodi)
- Facilitation of the public participation process to determine an acceptable closure and end-use of the Eersterust landfill site
- Public participation process for the proposed modal transfer facility in Pretoria North and the linking of Zambesi Drive and Rachel de Beer Street
- Public participation and establishment of the Akasia and Tswaing Planning Zone Forums as part of the Integrated Development Process
- Public participation process for the Ekangala Cost Recovery Pilot Project
- Public Participation for the identification of a landfill site in the South-western side of Centurion
- Public participation process for the extension and upgrading of the Vaalwater landfill site
- Public Participation process and SIA for the East Rand Water Care Company: DD5A sub-drainage regional outfall sewer and water care works

CURRICULUM VITAE OF THE ECONOMIC IMPACT ASSESSMENT PRACTITIONER: AN KRITZINGER

An Kritzinger (Masters Economics) has been working as consultant in the economic development field for the past seventeen years. Her work has concentrated on applied economic modelling in South Africa, Namibia, Botswana and Mozambique including macro-economic impact analysis, economic cost benefit analysis, economic impact assessments, social incidence studies and macroeconomic forecast modelling. She also has extensive experience in the socio-economic profiling and economic development plans for local authorities and districts in South Africa and has designed and implemented a training project for capacity training in sustainable local economic development monitoring for district municipalities throughout South Africa in collaboration with the Development Bank of Southern Africa.

Name:	Anna Sophia Kritzinger	Name of firm:	Southern Economic Development
Profession:	Economic Development Specialist		
Years of Experience:	18 years		

KEY QUALIFICATIONS

- Economic impact assessments
- Applied economics (macro-economic and social impact analysis; economic cost benefit analysis, economic incidence analysis, scenario planning)
- Skills development in development profiling and strategies
- Economic databases & economic reviews
- Local social and economic development strategies
- Industry and market analysis
- Analyses of higher education systems in Africa (analyses of demand and supply factors)

EDUCATION

1985:	B.Admin (Hons) (Economics) (University of Pretoria)
1992:	M.Admin (Economics) (University of Stellenbosch)

EXPERIENCE RECORD (1998- current)

Economic impact analyses:

- High level economic impact assessment for various projects (including tourism projects) related to the mine closure programme for Sishen Mine, Northern Cape (South Africa (2019)
- High level economic impact assessment including economic cost benefit assessment, direct and flow-on impacts for a number of tourism projects for the national tourism department South Africa (2018)
- Cost effectiveness assessment of a space technology applied for early fire detection in South Africa (BDO-UK, 2018)
- Socio-economic impact assessment of the Animal Health Technology Innovation Programme of the Technical Innovation Agency, South Africa (2017)
- Socio-economic impact assessment for the Cape Health Technology Park (South Africa (2016)
- Socio- economic impact assessment for the closure of Ezulwini gold mine, Gauteng (2016)
- Socio- economic impact assessment for Herculite Ferrochrome Complex, North West (2016)

- Socio-economic impact assessment of the Cape Health Technology Park, Western Cape (2016)
- Socio-economic impact assessment for route selection of power lines in Mpumalanga (2016)
- Study lead for revenue management study, entailing the identification of mitigation strategies related to project –related revenues (employment and public revenues) for a large-scale gas project for Anadarko petroleum in Mozambique (2012-2014)
- Socio-economic impact assessment for Jeanette mine, Free State (2015)
- Economic study for a waste disposal site in Tshwane, Gauteng (2014)
- Economic impact assessment as part of Social Impact Assessment (SIA) of a Glencore/Xtrata chrome mine in Rustenburg, Mpumalanga (2014)
- Economic impact assessment as part of Social Impact Assessment (SIA) for the extension of a mining right application for Boschmanspoort coal mine in Mpumalanga (2014)
- Economic impact assessment as part of Social Impact Assessment (SIA) for a casino/retail project in Delmas, Mpumalanga (2014)
- Economic study for a private regional landfill in the Ga-Rankuwa area of City of Tshwane (2014)
- Economic impact assessment as part of SIA for a CFB coal plant in Delmas area, Mpumalanga, South Africa (2013)
- Economic impact assessment as part of SIA of a coal mine in Chrissiesmeer, Mpumalanga, South Africa (2013)
- Economic impact assessment as part of SIA for an existing vanadium mine in the Brits area (2012)
- Economic impact assessment as part of SIA for selected wind farms and solar plants in the Northern Cape, Sivest (2012)
- Economic impact assessment as part of SIA for a diamond mine in Alexander Bay area, West Coast, South Africa (2012)
- Measured the impact of the global financial crisis on the mining industry of 8 SADC countries including South Africa (SADC countries; 2009)
- Conducted an analysis of the economic contribution of state owned enterprises to the Namibian economy (Namibia; 1999 and 2009)
- Conducted a socio economic impact analysis for the development of an Africa centre and sustainable housing development project in the Western Cape (South Africa; 2007)
- Developed economic criteria for the evaluation of projects for the Strategic Infrastructure Programme (SIP) for the Western Cape Province (2005)
- Conducted the economic evaluation of an infrastructure project in the Mosselbay area (South Africa; 2001);
- Economic impact assessment for horse-mackerel industry (Namibia 2003)

Local Economic Development- related work:

- Conducted the economic impact analyses for a SMME development finance institution (CEDA) in Botswana, (Deloitte Botswana, 2016)
- Managed and conducted a research project pertaining to Business Retention and Attraction Strategies to inform strategic inputs to improve programmes on behalf of Deloitte Namibia for the Local Economic Development Association (LEDA) of Namibia (Namibia, 2013)
- Designed and implemented a training project for capacity training in sustainable local economic development (including the “green economy”) monitoring for district municipalities throughout South Africa. The project was developed in collaboration with Inwent and the Development Bank of Southern Africa (South Africa; 2008 – 2011). The project has been developed further as one of the courses that forms part of the University of Johannesburg’s Centre of Local Economic Development degree programme;
- Evaluated local economic development projects in the Western and Eastern Cape. These studies involved the evaluation of existing economic development projects and the identification of LED projects that the NGO-client could potentially get involved in (South Africa, 2002);

- Managed a team in conducting a business survey and Local Economic Development action plan for the eastern parts of Cape Town, including township areas such as Mfuleni and parts of Macassar. The project included extensive consultation sessions with community organisations (South Africa; 2007);
- Compiled various socio economic development profiles for various South African local authorities including profiles for George municipality; Drakenstein municipality, the Overberg region and Oudtshoorn municipality that were used to inform the Local Development for the towns and district. The profiles and identification of relevant projects involved community facilitation work (South Africa;1998-2008);
- Developed a socio economic database for the Cape Metropolitan Area. The study was updated to an extensive economic analysis of the city and some indicators were extended to include all the different regions of the Western Cape (South Africa;1998, 2001);

Industry profiles and market analysis:

- Conducted research and compiled the synthesis report for geothermal potential in the African rift valley (2011)
- Conducted various research reports on global sectors e.g. the global oil and gas industry and ship building and repairs (Global, Africa, South Africa; 2003-2007)
- Managed the compilation of an “invest in Cape Town report” for Wesgro (2011)
- Managed a sector survey and profile for the Cape Town Boat building industry (South Africa, 2008);
- Compiled an industry profile for the City of Johannesburg. The study involved a survey of numerous companies and informed the city about the relative importance of the sector for the City of Johannesburg on the hand of various development criteria (South Africa; 2003).

Higher education analyses in Africa:

- Conducted a demand and supply review of the higher education system of Namibia including a gap analyses of current and forecasted labour demand and supply of higher education qualifications (Namibia; 2012 and 2014)
- Managed a situational analysis and done a market analysis as well as economic cost benefit analysis for Botswana Export Development Agency with Deloitte SA to investigate the feasibility of a tertiary education hub to diversify the Botswana economy (Botswana; 2009).

Economic cost benefit analysis:

- Conducted a high level economic cost benefit analyses for a regional landfill project in Ga-Rankuwa, City of Tshwane as extension for an economic impact assessment (South Africa, 2014)
- Conducted an economic cost benefit analyses for a coal mine near Chrissiesmeer, Mpumalanga as part of alternative land-use study for a mining application study (South Africa, 2013)
- Conducted an economic cost benefit analysis for an agricultural irrigation project in the Pandamatenga area (Botswana, 2010);
- Conducted an economic cost benefit analysis for Botswana Export Development Agency with Deloitte SA to investigate the feasibility of a tertiary education hub to diversify the Botswana economy (Botswana; 2009)

Other macro-economic modeling:

- Developed an economic forecast model for the City of Cape Town and the Western Cape economy (City of Cape Town; 2005 updated in 2011, extended to Western Cape in 2014);
- Conducted research to establish the economic contribution of agricultural research in South Africa to assist the motivation of increased public grants to the main agricultural research body (South Africa; 2011)
- Conducted a comparative economic incidence analysis between fuel levies and motor vehicle licence fees for the Western Cape (South Africa; 2007 updated in 2011)