THE PROPOSED LEFAKONG SMART CITY IN PHOKWANE ON PORTION 7, 9 OF THE FARM UITKYK 851KS, AND PARCEL 3 OF MOHLWAREKOMA TOWNSHIP, MAKHUDUTHAMAGA LOCAL MUNICIPALITY, LIMPOPO PROVINCE

DRAFT SCOPING REPORT

PUBLIC REVIEW

13 OCTOBER 2023 – 13 NOVEMBER 2023

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PROJECT DETAILS

Report Title	:	Scoping Report
Report Status	:	Draft Scoping Report
Review Period	:	13 October 2023 to 13 November 2023
Project Title	:	THE PROPOSED LEFAKONG SMART CITY IN PHOKWANE ON PORTION 7, 9 OF THE FARM UITKYK 851KS, AND PARCEL 3 OF MOHLWAREKOMA TOWNSHIP, MAKHUDUTHAMAGA LOCAL MUNICIPALITY, LIMPOPO PROVINCE.
Applicant	:	Lefakong Property Development (Pty) Ltd
Environmental Consultant	:	Envirolution Consulting (Pty) Ltd
LEDET Reference No.:	:	New Application

PREPARED BY:

Nomusah Mapheka

REVIEWED BY:

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(Pr.Sci.Nat. No: 400049/12)

DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTIONER (EAP)

I. DECLARATION

Envirolution Consulting Pty Ltd was contracted by Lefakong Property Development (Pty) Ltd as the independent environmental consultant to undertake the Scoping and Environmental Impact Assessment process for the proposed project. Envirolution Consulting (Pty) Ltd is not a subsidiary of, or affiliated to Lefakong Property Development (Pty) Ltd. Furthermore, Envirolution Consulting does not have any interests in secondary developments that may arise out of the authorisation of the proposed project.

II. APPLICANT DETAILS

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III. ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP)'s DETAILS

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EAP Registrations/ Associations	Registered with the South African Council for Natural Scientific Professions (No: 400049/12) and the Environmental Assessment Practitioners Association of South Africa (No: 2019/317)		

Details of the EAP's expertise to carry out Scoping and Environmental Impact Assessment procedures

The EAPs from Envirolution Consulting who are responsible for this project are (refer to **Appendix F** for CVs):

- Gesan Govender – The principle Environmental Assessment Practitioner (EAP) for this project is a registered Professional Natural Scientist and holds an Honours Degree in Botany. He has over 18 years of experience within the field of environmental management. His key focus is on strategic environmental assessment and advice; management and co-ordination of environmental projects, which includes integration of environmental studies and environmental processes into larger engineering-based projects and ensuring compliance to legislation and guidelines; compliance reporting; the identification of environmental management solutions and

mitigation/risk minimising measures; and strategy and guideline development. He is currently responsible for the project management of EIAs for several diverse projects across the country.

- Nomusah Mapheka – The principle author of this report, holds a BSc Honours in Geography degree from Walter Sisulu University. She has 8 years of experience consulting in the environmental field. Her key focus is on strategic environmental assessment and advice; management and co-ordination of environmental projects, which includes integration of environmental studies and environmental processes into larger engineering-based projects and ensuring compliance to legislation and guidelines; the identification of environmental management solutions and mitigation/risk minimising measures; and Water Use License processes. Nomusah is currently an Environmental Consultant at Envirolution Consulting (Pty) Ltd.

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1. Introduction

1.1 Background and Introduction

Lefakong Property Development (Pty) Ltd proposes the establishment of a mixed use residential development as well as associated infrastructure in Phokwane, Mohlwarekoma on Uitkyk on Portion 7, 9 of the Farm Uitkyk 851KS and Parcel 3 of Mohlwarekoma Township in Sekhukhune District Municipality, Limpopo Province, South Africa. The total study area proposed for development is approximately 43.4 hectares located within the boundary of Makhuduthamaga Local Municipality. The proposed land to be developed on is owned by the Phokwane Tribal Authority.

The developer proposes to establish a mixed use development which will incorporate the construction of a shopping mall, various filling stations with convenience shops, drive through restaurants, a taxi rank, a hardware and value mart centre, tyre fitment centre, a workshop, a private hospital with doctor and nurses' residence, private school, an office park, a substation and a community hall.

1.2 Proposed Development

In terms of the EIA Regulations published in terms of Section 24(5) of the National Environmental Management Act (NEMA, Act No. 107 of 1998), Lefakong Property Developments (Pty) Ltd requires authorisation from the Limpopo Economic Development, Environment and Tourism (LEDET) for the construction and operation of the proposed Lefakong Smart City.

In terms of the National Water Act No. 36 of 1998, a Water Use License is required for the development as per the following specific water uses:

- Section 21(c): Impeding or diverting the flow of water in a watercourse; and
- Section 21(i): Altering the bed, banks, course or characteristics of a watercourse.

This is a legislative process governed by Department of Water and Sanitation (DWS) for the authorisation of all water used defined in Section 21.

Lefakong Property Developments (Pty) Ltd has appointed Envirolution Consulting (Pty) Ltd, as an independent environmental consultant, to conduct the Scoping and Environmental Impact Assessment, including the public participation process for the proposed development.

1.3 Purpose of the Report

This document is intended to guide the EIA process and specialist studies by:

- Providing an overview of the legal requirements with regards to the proposed project, the proposed project description and anticipated environmental and social issues and impacts that will be further investigated in the EIA; and

- Setting out the scope of the EIA process and the Terms of Reference (ToR) for specialist studies and outlining the approach and methodologies to be used in the EIA process, e.g. the proposed impact rating methodology.

This report will be submitted to Limpopo Economic Development, Environment and Tourism (LEDET) for their acceptance.

1.4 Structure of Report

This report describes the proposed activity and its context, details the stakeholder engagement process, presents the results of the Scoping Phase and sets out the plan of study for the impacts.

Assessment Phase. The report has been prepared in accordance with Section 21 of the EIA Regulations, 2014 and consists of the following sections:

Section 1: Introduction

Provides an introduction and background to the proposed project and outlines the purpose of this document and the assumptions and limitation applicable to the study.

Section 2: Project Description

Describes the location and current status of the site and provides a brief summary of the surrounding land uses as well as background to and a motivation for the proposed project.

Section 3: Description of the Affected Environment

Briefly describes the biophysical and socio-economic characteristics of the affected environment that will be considered in the assessment of potential project impacts.

Section 4: Governance Framework and Environmental Process

Provides a brief summary and interpretation of the relevant legislation as well as pertinent strategic planning documents, and outlines the approach to the environmental process.

Section 5: Public Participation Process

Details the stakeholder engagement activities conducted and planned for the Scoping Phase.

Section 6: Potential Environmental and Social Impacts

Identifies the potential impacts associated with the proposed development that will require investigation during the Impact Assessment Phase.

Section 7: Plan of Study for the EIA

Presents the proposed approach to the Impact Assessment Phase, outlines the methodology that will be adopted in assessing the potential impacts during the Impact Assessment Phase, identifies the specialist studies that are required and proposes the preliminary ToR for these studies.

Section 8: Conclusions and Recommendations

Summarises the key findings of the Scoping Phase and outlines the way forward in the Impact Assessment Phase.

1.5 Content of Report

The EIA Regulations, 2014 (Government Notice (GN) 982 which came into effect on 8 December 2014, as amended by GN R326 of 2017, Appendix 2), prescribe the required content in a Scoping Report. These requirements and the sections of this Scoping Report in which they have been addressed, are summarized in **Table 1** and will guide the reader to the relevant pages of the report.

Table 1: Content of Scoping Report as per EIA Regulations, 2014

GN 982, App 2 Ref.:	Requirement	Page number reference within document
(2) (a)	Details of:	
(2) (a) (i)	The EAP who prepared the report	Page iii
(2) (a) (ii)	The expertise of the EAP, including a Curriculum Vitae	Page iii, iv;
(2) (b)	Location of the activity, including:	
(2) (b) (i)	21 - digit Surveyor General code of the property	11 - 13
(2) (b) (ii)	Physical address and farm name (where available)	13 - 15
(2) (b) (iii)	The coordinates of the boundary of the property (where (2) (b) (i) and (2) (b) (ii) are not available)	15
(2) (c)	A plan indicating the location of the proposed activities and associated infrastructure, or:	9 -16
(2) (c) (i)	For linear activities: a description and coordinates of the corridor in which the proposed activity is to be undertaken	-
(2) (c) (ii)	On land where the property has not been defined, the coordinates within which the activity is to be undertaken	-

(2) (d)	A description of the scope of the proposed activity, including	
(2) (d) (i)	All listed and specified activities triggered	47 - 49
(2) (d) (ii)	A description of activities to be undertaken, including associated infrastructure	10 - 11
(2) (e)	A description of the policy and legislative context	46 - 71
(2) (f)	Motivation for need and desirability for the proposed development	19 - 24
(2) (h)	A full description of the process followed to reach the proposed preferred activity, site and location within the site, including	
(2) (h) (i)	Details of all alternatives considered	25 - 26
(2) (h) (ii)	Details of public participation process undertaken, including copies of the supporting documents and inputs	TBC
(2) (h) (iii)	A summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them	Appendix D5
(2) (h) (iv)	The environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects	26 – 45
(2) (h) (v)	The impacts and risks identified, including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts can be reversed, may cause irreplaceable loss of resources, and can be avoided, managed or mitigated	To be provided in the EIA Report. Potential impacts are described on pages 76 - 85
(2) (h) (vi)	The methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks	To be provided in the EIA Report. Potential impacts are described on pages 76 - 85
(2) (h) (vii)	Positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected, focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects	To be provided in the EIA Report. Potential impacts are described on pages 76 - 85

(2) (h) (viii)	Possible mitigation measures that could be applied and level of residual risk	To be provided in the EIA Report. Potential impacts are described on pages 76 - 85
(2) (h) (ix)	Outcome of the site selection matrix	
(2) (h) (x)	If no alternative development locations for the activity were investigated, the motivation for not considering such	25
(2) (h) (xi)	A concluding statement indicating the preferred alternative development location within the approved site	25 - 26
(2) (i)	A plan of study for the EIA, including:	87 - 90
(2) (i)	A description of the alternatives to be considered and assessed including the option of not proceeding	25 - 26
(2) (i) (ii)	A description of the aspects to be assessed as part of the environmental impact assessment process	76 - 85
(2) (i) (iii)	Aspects to be assessed by specialists	76 - 85
(2) (i) (iv)	A description of the proposed method of assessing the environmental aspects, including a description of the proposed method of assessing the environmental aspects including aspects to be assessed by specialists.	87 - 93
(2) (i) (v)	A description of the proposed method of assessing duration and significance	76 - 85
(2) (i) (vi)	An indication of the stages at which the competent authority will be consulted	72 - 75
(2) (i) (vii)	Particulars of the public participation process that will be conducted during the environmental impact assessment process	72 - 75
(2) (i) (viii)	A description of the tasks that will be undertaken as part of the environmental impact assessment process	76 - 82
(2) (i) (x)	Identify suitable measures to avoid, reverse, mitigate or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored	To be provided in the EIA Report. Potential measures are described on pages 2 82 - 85

(2) (j)	Undertaking under oath or affirmation by the EAP in relation to:	
(2) (j) (i)	The correctness of the information provided in the report	Appendix F
(2) (j) (ii)	The inclusion of comments and inputs from stakeholders and interested and affected parties	Appendix D
(2) (j) (iii)	Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested or affected parties	Appendix D
(2) (k)	An undertaking under oath or affirmation by the EAP in relation to the level of agreement between the EAP and interested and affected parties on the plan of study for undertaking the environmental impact assessment	Appendix F
(2) (l)	Any specific information required by the competent authority	To be confirmed

1.6 Assumptions and Limitations

As is standard practice, this Scoping Report is based on a number of assumptions and is subject to certain limitations. These are as follows:

- It is assumed that information provided by Lefakong Property Development (Pty) Ltd and other consultants and specialists is accurate;
- Detailed assessment of the potential positive and negative environmental impacts of the proposed development will only be undertaken during the Impact Assessment Phase; and
- An application for a township establishment to the requirements of the Municipality is excluded from the Scope of Work.

Notwithstanding the above, Envirolution Consulting (Pty) Ltd is confident that these assumptions and limitations do not compromise the overall findings of this report.

2 Project Description

2.3 Background to the Project

Lefakong Property Development (Pty) Ltd proposes the establishment of a mixed use residential development as well as associated infrastructure in Mohlwarekoma on Portion 7, 9 of the farm Uitkyk 851KS and Parcel 3 of Mohlwarekoma Township in ward 5 within the Makhuduthamaga Local Municipality, Sekhukhune District Municipality, Limpopo, South Africa. The total study area proposed for development is 43.4 hectares located within the boundary of Makhuduthamaga Local Municipality which is located in the Sekhukhune District Municipality. The proposed land to be developed on is owned by the Phokwane Tribal Authority. Reference may be made to the locality map under **Figure 1** below.

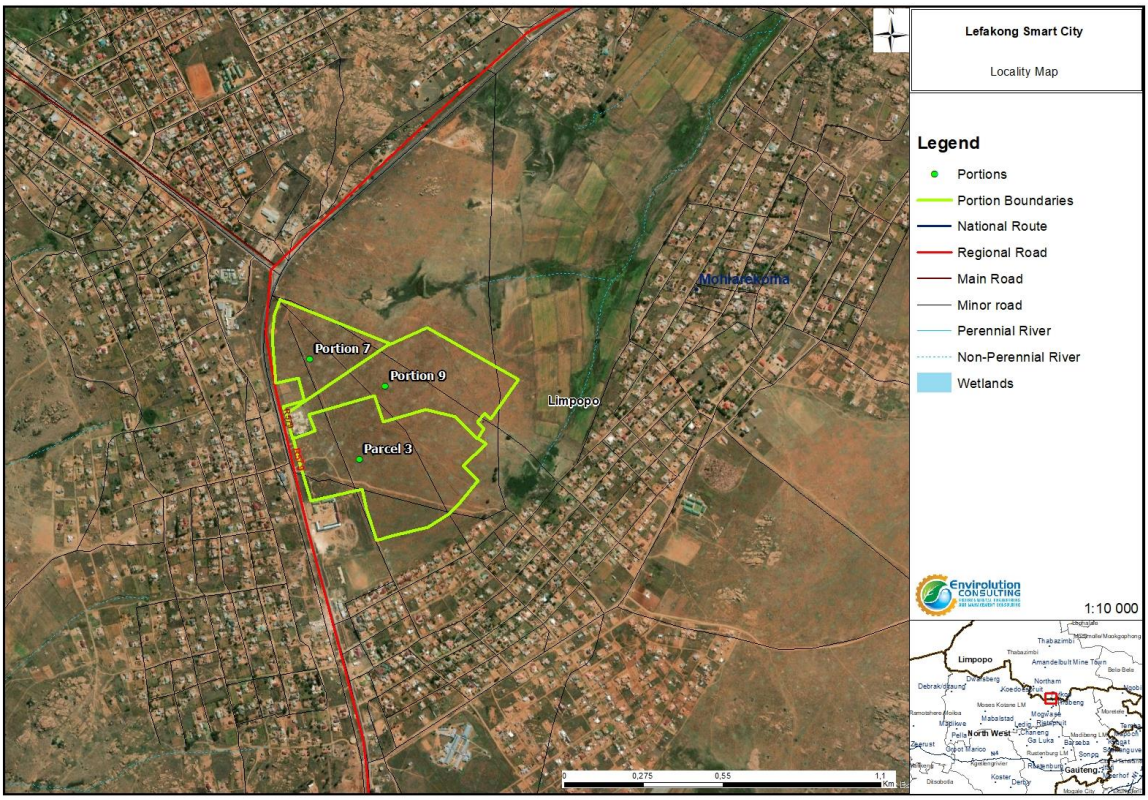

Figure 1: The location of Mohlwarekoma in relation to the proposed development area

The developer proposes to establish a mixed use development which will incorporate the construction of a shopping mall, a taxi rank, various filling stations with convenience shops, a taxi rank, drive through restaurants, a hardware and value mart centre, tyre fitment centre, a workshop, a private hospital with doctor and nurses' residence, private school, an office park, a substation and a community hall. These aspects are depicted in the preliminary layout attached as **Appendix C**. The development will also include supporting infrastructure to provide basic services such as internal access roads, and storm water infrastructure.

It is important to note that the Conceptual (preliminary) Layout is expected to be altered to align with the sensitivities found on site in order to further mitigate potential impacts.

2.4 Proposed Development

The total study area is approximately 43.4 ha. The leased property includes 7.6299 ha part of Portion 7 of the Farm Uitkyk 851 KS, 14.4943 ha part of Portion 9 of the Farm Uikyk 851 KS and 21.2377 ha part of Parcel 3 of the Mohlwarekoma Township. The developer, Lefakong Property Developments (Pty) Ltd proposes to establish a mixed-use development comprising;

- Parking areas;
- A retail shopping mall (in phases);
- Various filling stations with convenience shops;
- Drive through restaurants;
- A hardware centre;
- A taxi rank
- A value mart centre;
- A tyre fitness centre;
- A private hospital with doctor and nurses' residence;
- An office park;
- A community hall;
- Private school
- Construction of a substation
- Septic tank (wastewater management)
- Internal access roads
- Internal sewer and potable water reticulation

No development is expected to take place within the wetland, it's associated buffer zones and the flood line.

Other associated infrastructure

The following associated infrastructure will also be constructed to provide basic services to the development:

- Internal access roads of bitumen tarred surfaces and road reserves to serve the entire development will be constructed. As far as reasonably possible, the existing roads that provide access to the site will be utilized and upgraded where required;
- Storm water management systems will be implemented in accordance with the engineer's design to divert storm water around the site as required;

2.5 Description of the Project Area

2.5.1 Regional Setting

The proposed development is situated in Makhuduthamaga Local Municipality. Makhuduthamaga Municipality is one of the four local municipalities located within the Sekhukhune District Municipality of the Limpopo Province. Sekhukhune District Municipality is alongside Elias Motsoaledi Local Municipality, Fetakgomo-Tubatse Local Municipality, and Ephraim Mogale Local Municipality). Sekhukhune District Municipality is a Category C (A municipality that has municipal executive and legislative authority in an area that includes more than one municipality) and Makhuduthamaga Local Municipality is a Category B Municipality (a municipality that shares municipal executive and legislative authority in its area with a category C municipality within whose area it falls) established in terms of the Municipal Structures Act within the provincial context. Makhuduthamaga Municipality covers an area in extent of about 211 886 ha of land and constitutes the largest (16%) section of the Sekhukhune District Municipality. The Municipality is bordered to the north by Capricorn District Municipality through Lepelle Nkumpi Local Municipality, to the east by Fetakgomo Tubatse Local Municipality, to the south by Elias Motsoaledi Local Municipality, to the west by Ephraim Mogale Municipality. The central positioning of the Makhuduthamaga Municipality within the Sekhukhune District Municipality makes it a strategic area of choice for the location of regional offices and other organs of development in the region. Jane Furse, the head quarter of Makhuduthamaga Municipality is located 347 km North East of Johannesburg; 247km North East of Pretoria; 189 km South East of Polokwane; and 70 km South West of Burgersfort. Makhuduthamaga Local Municipality comprises of 31 wards. The project site neighbours the suburb of Phokwane but is situated in ward 5 within Mohlarekoma. Reference may be made to **Figure 2**, **Figure 3** and **Figure 4** below which depicts the location of the Makhuduthamaga Local Municipality within the Limpopo Province. Refer to **Figure 5** below for the Locality Map and **Appendix A** for the A1 Maps.

2.5.2 Project Locality

The project is located approximately 18 kilometres south-west of Jane Furse off the R579 within Makhuduthamaga Local Municipality in the Greater Sekhukhune District of Limpopo Province. Makhuduthamaga Local Municipality is a Category B4 municipality covers approximately 2,110km^2 which is approximately 16% of the Sekhukhune District Municipality area. The Mohlarekoma village, together with other villages such as Nebo, Phokwane, Phatametsane, Nkgodi, Tlane, Lefakong, Brooklyn, Makoshala, Maserumule Park forms a cluster of villages and is regarded as a development node for the municipality.

The property is located West of Phokwane in Mohlarekoma on Portions 7, 9 of the farm Uitkyk 851KS and Parcel 3 of Mohlwarekoma Township in Sekhukhune District Municipality, Limpopo, South Africa. Only the part of the property will be utilised for the proposed development as most of it is characterised by sensitive wetland environments. The proposed development site is in close proximity to the Phokwane precinct. Essentially the site is boarded by Phokwane to the West and South, Mohlarekoma to the East and South and Phatametsane to the

North. Reference may be made to **Figure 2**, **Figure 3** and **Figure 4** below where the proposed development area is indicated by the red dot on each of these figures.

Figure 2: National project locality in the Limpopo Province

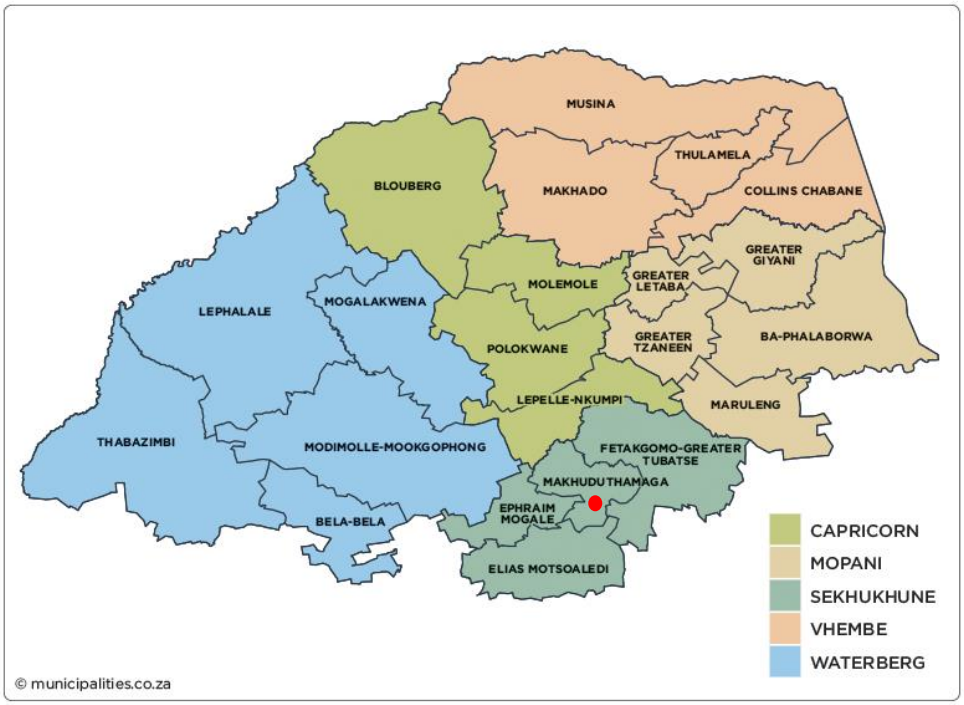

Figure 3: District project locality in the Sekhukhune District Municipality

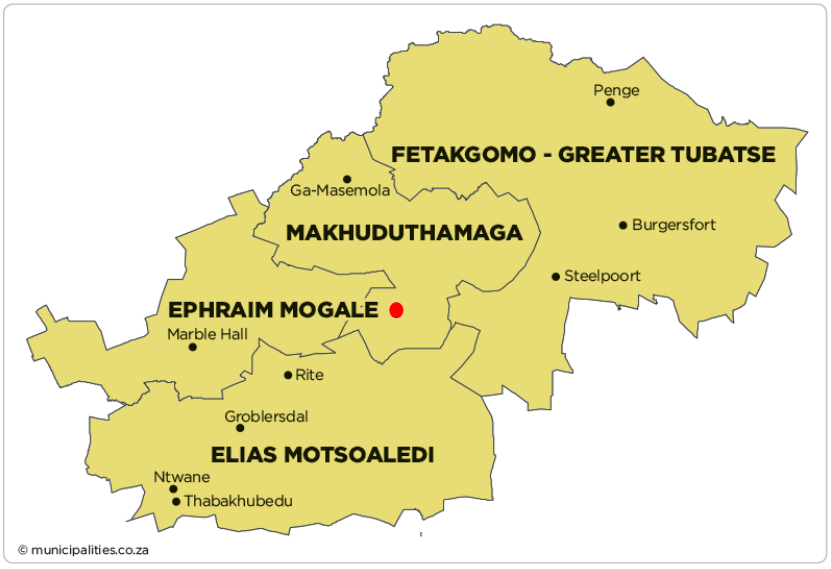

Figure 4: Project locality within Makhuduthamaga Local Municipality

Table 2: Property description/Physical address

Farm Name/ ERF Number:	Portions 7, 9 of the Farm Uitkyk 851KS and Parcel 3 of Mohlwarekoma Township in Sekhukhune District Municipality, Limpopo, South Africa
SD 21 Digit Code	T0KS00000000085100007 T0KS00000000085100009
Physical Address	West of the R579
Coordinates	24°52'55.11"S; 29°46'2.91"E
Current Land-use Zoning	Portion 9 is zoned as Agricultural Portion 7 is zoned Municipal area Parcel 3 of Mohlwarekoma Township is zoned as Residential.

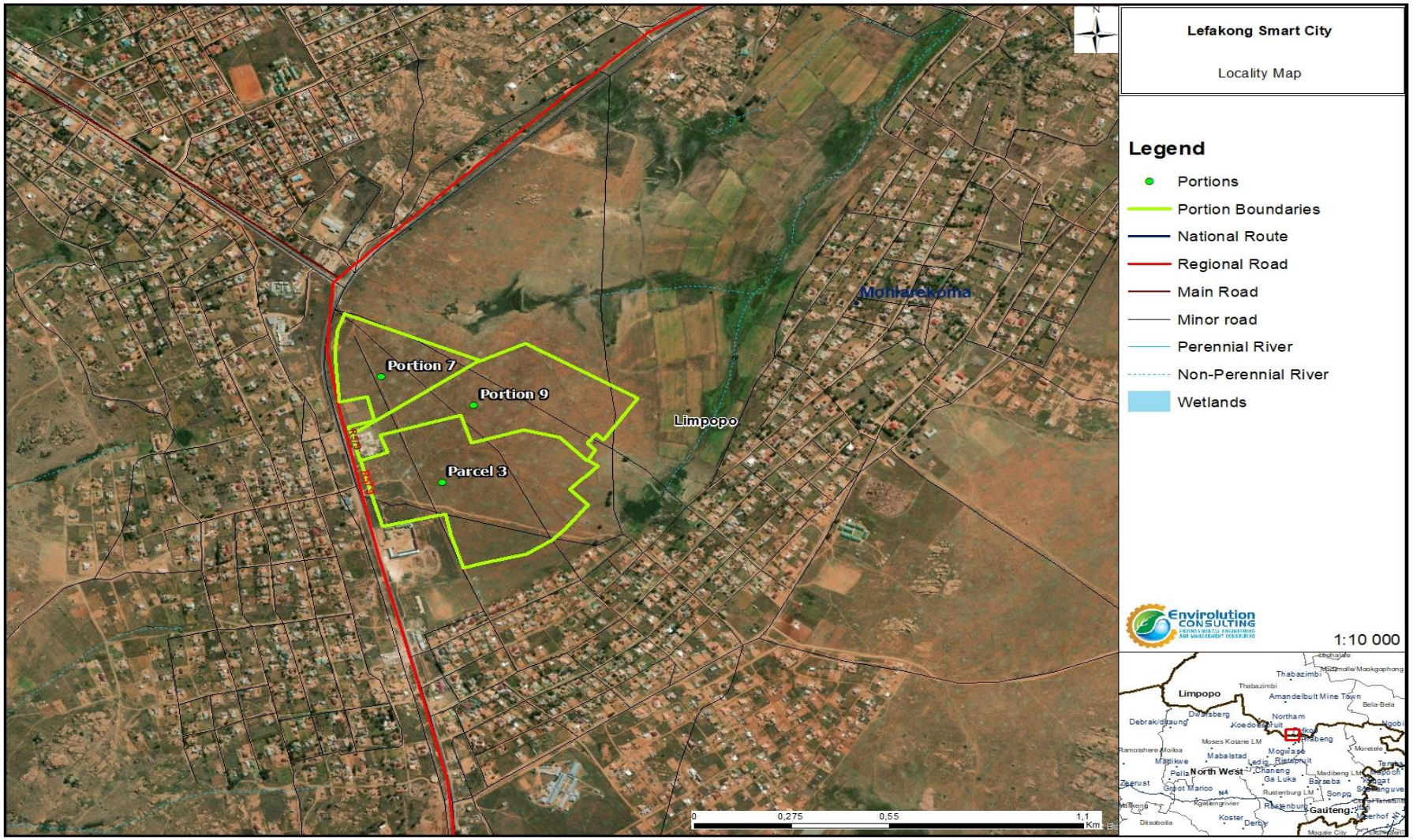

Figure 5: Locality Map

2.5.3 Land use

The Property

The part of the property to be utilised for the proposed township is at present vacant however it is partially occupied to the south west of the property. The property is currently being used as communal farm land for horticulture and the property is characteristic of sensitive wetland environments. According to **Figure 6**, the area circled in red within this figure, from the municipality IDP it is classified as being vacant. Refer to **Appendix B** for Photographic evidence of the site.

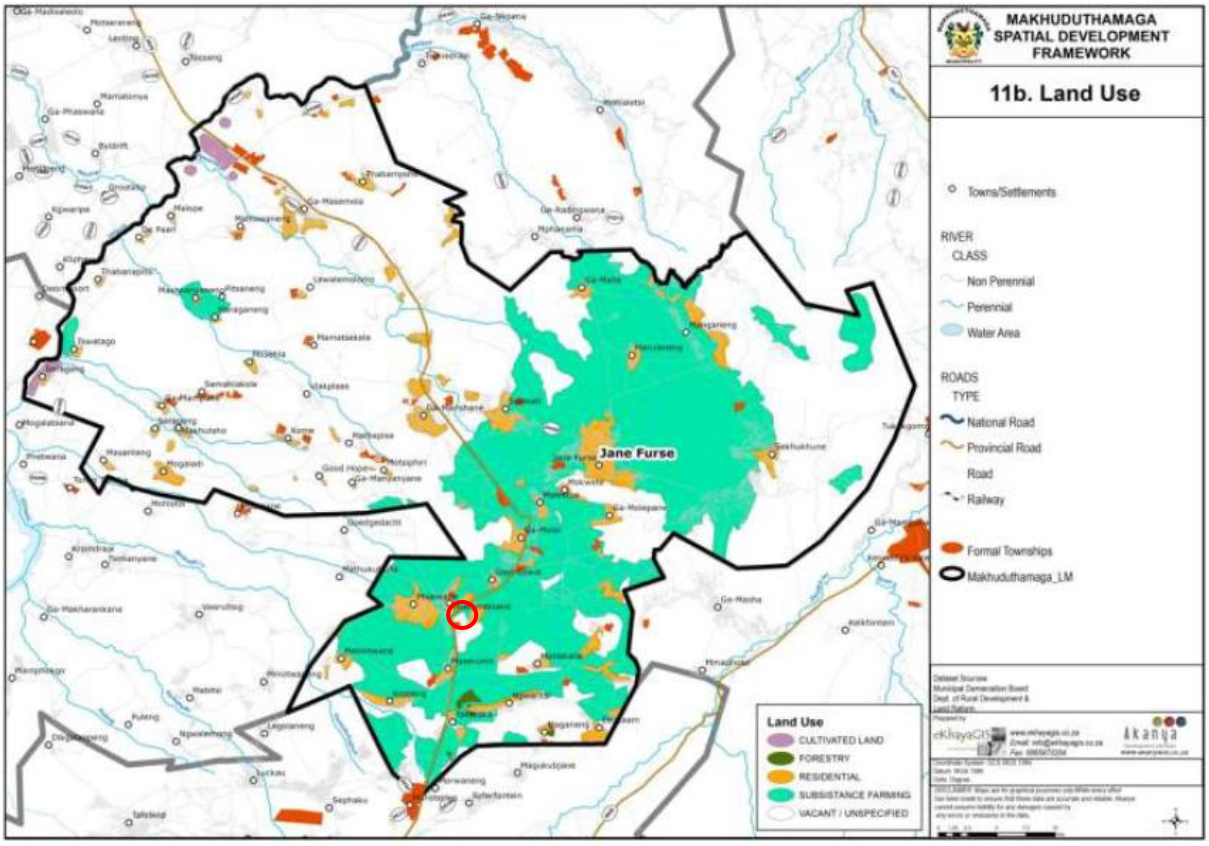

Figure 6: Makhuduthamaga Land Use Map

The Area

The area is predominantly residential in character, with low to medium residential densities that caters for low to middle-income earners. The housing typology in the area consists mainly of single residential dwellings on individual stands and represents a mono-functional residential environment that lacks variety. The immediate area is also well served by retail and community facilities located off the main road which is off the R579.

Phokwane precinct

The Phokwane Precinct plan also identifies almost similar spatial challenges mentioned in the Jane Furse precinct above. Challenges such as spatial backlog which include, underserviced infrastructure, informal houses, lack of water

provision and inaccessibility to basic services. It also has a high number of competing land claims. The Phokwane precinct plan proposes the development of mixed development along the R579 road, improvement of road and transport movements and infrastructure with more emphasis on the R579 road, provision of industrial and agricultural precincts.

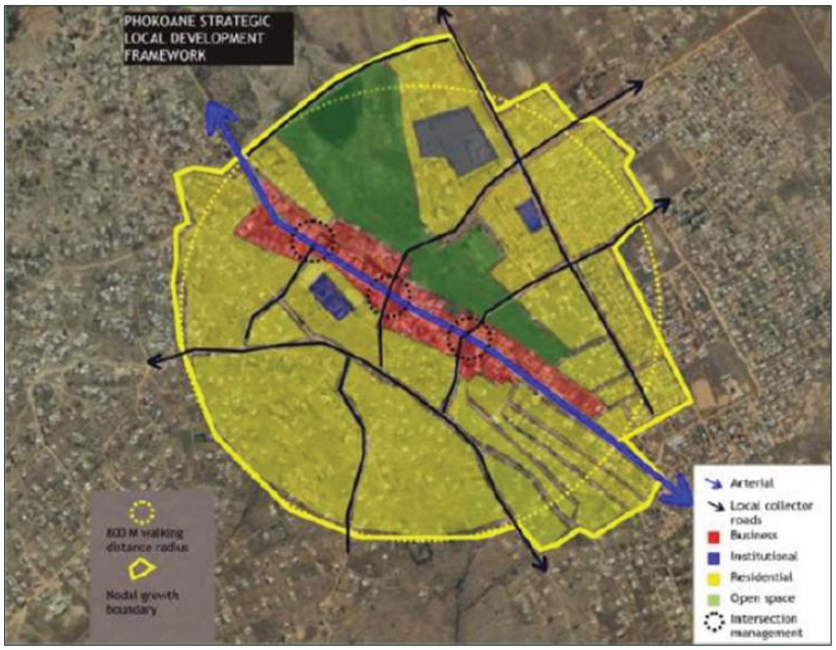

Figure 7: Strategist development framework of the Phokoane precinct

The Phokwane precinct can be characterised as a residential dormitory area consisting of large expanses of high, medium and low-income housing, which includes areas such as Mohlarekoma, Phokwane, Nkgodi and Phatametsane.

The precinct is favourably located in the economic activity and employment area of the Makhuduthamaga Municipality. It can be described as a compact region with a good balance between its residential population and integrated industrial and commercial capability linked closely, within 10km, to Glen Cowie and the Jane Farse. Urban development is located throughout the region on either side of main road and R579 that traverse the region. Reference may be made to **Figure 7** above.

Tribal Authority

Land use within Makhuduthamaga is characterized by a mixed use of subsistence farming and residential uses. The land issue is potentially a source of latent tension between the traditional (tribal council) and modern (legalized) land use management systems. There is also a number of competing land claims in the area, which have not been resolved by the Department of Rural Development and Land Reform as yet. Land restitution has the potential to alter the spatial pattern and to contribute significantly in agriculture development and job creation. Many people would obtain access to land that could result in improved living standards and quality of life.

The Makhuduthamaga villages are characterized by poor accessibility, low density and large distances between settlements. This makes it challenging for the municipality to provide the required infrastructure and basic services. Lack of coordination between the Municipality, traditional authorities and the provincial Department of Cooperative, Human Settlement and Traditional Affairs (COGHSTA) has resulted in unplanned residential development taking place in the area.

The proposed development site is owned by the Phokwane Tribal Authority, this authority will be included and consulted during the public participation process.

2.6 Project Motivation

The idea of the Lefakong Smart City development was born from the need of an all-inclusive socio-economic mixed-use development to the Lefakong, Phokwane area. The demographic study gave strong support for a mixed-use development deeming the proposed scheme to be feasible and suitable for the area.

The following development prospects were considered moderate to high for the following offerings;

- Retail shopping mall, drive through restaurants and a hardware centre
- Automotive dealerships & workshops
- Private Education
- Private Healthcare
- Residential social and entry level bonded stock
- A small office component

The mall will be at the centre of Phokwane village being the biggest catchment area and more than 20 villages. Lefakong Smart City development will bring the "new urbanism" idea of life to Phokwane. Giving life to a development that will change the face of Phokwane for the future. Development around townships is necessary to accommodate an ever-growing population. This development is imperative to Makhuduthamaga Local Municipality as it addresses the need of basic services, economic growth, job opportunities and in turn the reduction of poverty levels. This activity is in line with the Integrated Development Plan of Makhuduthamaga Local Municipality as the area and its vicinity is earmarked for future residential development.

Tribal Authority challenges

Some of the key challenges facing the municipality include, inter alia:

- Uncertainty about the status of land ownership especially with reference to state and land prohibits future development and investments.
- Unresolved and competing land claims in the area threaten to destabilize future development.
- Competing land uses (i.e. mining and agriculture, commercial, etc.) may cause spatial, social, environmental and economic constraints in future.
- Lack of environmental management

- Communal land use management
- Sprawled development
- Lack of adequate water to supply all settlements

The proposed smart city will aim at mitigating and reducing the impact of these challenges through formalised housing and land management practices which will remain in line with environmental bets practices. It will also attempt to limit the ongoing challenge of unplanned residential developments taking place.

2.6.1 Description of the Need and Desirability

The responsibility for housing is that of Human Settlements in the Department of Cooperative Governance, Human Settlements and Traditional Affairs (CoGHSTA). The municipality gets allocation of houses from CoGHSTA and is only required to identify and submit the names of beneficiaries. The Department is responsible for the implementation of the projects. It has a Draft Housing Sector Plan and will be adopted during the 2022/23 financial year. All the housing stock is located within a rural setting made up of traditional authority settlements. The character of the area is viewed as rural even where some form of settlement formalization processes has been implemented. Informal dwelling / shacks need some attention. Most houses in the municipality are situated on separate stands and this indicates potential for future formalization and upgrading. Enormous housing backlogs building up at urban areas due to influx of people to these areas resulting in large numbers of informal dwellings / shacks in backyards and on open land. Due to envisaged development proper housing plan needs to be developed. According to the Makhuduthamaga Municipality IDP 2022/2022, the pace at which RDP housing is moving coupled with incomplete and substandard quality constructed RDP houses makes it difficult to confidently forecast that housing target can be achieved in Makhuduthamaga by 2024.

The main growth point of Makhuduthamaga Local Municipality is Jane Furse which faces significant growth hurdles as it has no existing formal town planning strategies which has led to the growth of informal settlements around it limiting its development and growth direction. This is in light of the anticipated significant growth within its vicinity owing to increasing mining and other economic activities around the R579 corridor. Significant congestion is the order of the day especially around peak shopping periods with average shopping times estimated at 1.5hrs. There is also a severe limited access to health facilities with the community travelling to as far as Polokwane which is 128km away for basic health procedures.

The proposed smart city is set to serve the growing community and ease the congestion around the local main urban node by increasing available retail space and health services within the Makhuduthamaga Local Municipality area. The proposed project will bring convenience to customers by ensuring that key consumer goods and services are brought within their doorsteps to meet not only their day-to-day grocery requirements but will include key services for hardware requirements, motor vehicle, community needs, entertainment and health requirements. The smart city project will also provide an alternative private primary and high school among other amenities. Next to the community hall, the developer will develop a start of the art botanic garden with some water features for the community to hold

social gatherings, enjoy shopping and build memories with their beloved ones when at home.

Phokwane offers a huge concentration of business opportunities and outlets that are spread in a linear format on the D4050 route towards the intersection with the R579 on the south-eastern part of the municipality. The huge pull factor is the connection corridor in Phokwane which serves as a funnel of movement that channels commuters and pedestrians from all walks of life to either Jane Furse or surroundings to other areas such as Moratiwa and Stofberg on the southern tip of the municipality. Another pull factor for the Phokwane node is the existence of social services such as SAPS, clinic, agriculture extension services, library and circuit offices of the Department of Education. The bulk of retail services contain grocery stores, hardware stores and some clothing outlets. However, the concentration of retail activities in the area takes place in and unmanaged and uncoordinated manner. There is no proper land use management for the development in the corridor and there is a serious encroachment on the road reserve which may also lead to serious road safety challenges.

Some of the challenges the municipality faces are:

- Incomplete houses within the municipality
- Slow housing delivery which is caused by shortage of funding
- Lack of necessary infrastructural services such as water, sanitation, electricity and roads.
- No adequate land within MLM municipal area belonging to the municipality and some of the land that belongs to other spheres of government are subject to land claim
- Lacking of consumer education for housing matters
- Community dynamics delay project implementation

The proposed development/township will not only go a long way to alleviate this housing backlog but will also provide much needed variety in a housing typology market that is dominated by single residential dwellings on individual stands in a mono-functional residential environment. Given the limited allocation of housing allowed for by CoGHSTA and the dominance of informal housing the Lefakong Smart City will aim to assist the municipality in providing formal housing in the form of complexes to those who either homeless or currently reside in informal settlements. The proposed smart city will also create various job opportunities to the surrounding community given the various retail, fast food and automotive outlets which are being proposed. This ultimately alleviates the socio-economic issues of poverty, unemployment and crime within the general area. It will also provide the necessary medical and educational services which also allows the broader area to have access to appropriate healthcare and education

In addition, the Smart City aims to create a retail, business and residential area that takes place in a managed and coordinated manner where there exists proper land use management. As such, there would be limited to no issues of encroachment onto road reserves which would limit road safety challenges.

Economic and Financial Impacts

- The project will help relieve the strain that is currently being experienced in Jane Furse by creating another urban node to facilitate further development.

- The health facilities will draw additional skills into the area on top of servicing the local area.
- Creation of employment for both the skilled and unskilled local population.

Table 3: Need of the proposed project

NEED ('Timing'):
Question 1: Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved Spatial Development Framework (SDF) agreed to by the relevant environmental authority? (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP). **Answer: Yes** The Regional Spatial Development Framework: promotes mixed land use developments which includes the increase in local economic development referring to the provision of; housing and options for diverse household types, adequate sanitation, municipal health services, environmental management, electricity, roads and stormwater infrastructure, social development welfare and safety and security. An urban development guideline promotes: • "Provide a variety of erf sizes and housing types to cater for the diverse housing needs of the community. • Incorporate key environmental areas in the design of neighbourhoods for the benefit of all. • Integrate the design of open space and stormwater management". A mixed-used development guideline promotes "High-quality mixed-use infill development with residential, office, business, hospital, educational and entertainment uses should be provided".
Question 2: Should development, or if applicable, expansion of the town/area concerned in terms of this land use (associated with the activity being applied for) occurs here at this point in time? **Answer: Yes** The activity may result in further residential expansion of the area due to the smart city being a convenient hub for residents to access services easily. This may increase neighbouring property values which may attract more investors to the area. This in turn strengthens the economy of the municipality as a whole as a whole.
Question 3: Does the community/area need the activity and the associated land use concerned (is it a societal priority)? This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate) **Answer: Yes**

This development is imperative to the municipality as it addresses the need of basic services, housing, economic growth, job opportunities, healthcare and education which ultimately reduces poverty levels within the metropolitan.

The proposed development/township will not only go a long way to alleviate this housing backlog but will also provide much needed variety in a housing typology market that is dominated by single residential dwellings on individual stands in a mono-functional residential environment. Given the limited allocation of housing allowed for by CoGHSTA and the dominance of informal housing the Lefakong Smart City will aim to assist the municipality in providing formal housing in the form of complexes to those who either homeless or currently reside in informal settlements. The proposed smart city will also create various job opportunities to the surrounding community given the various retail, fast food and automotive outlets which are being proposed. This ultimately alleviates the socio-economic issues of poverty, unemployment and crime within the general area. It will also provide the necessary medical and educational services which also allows the broader area to have access to appropriate healthcare and education

In addition, the Smart City aims to create a retail, business and residential area that takes place in a managed and coordinated manner where there exists proper land use management. As such, there would be limited to no issues of encroachment onto road reserves which would limit road safety challenges. .

Question 4: Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development?

Answer: Unknown at this stage

This Scoping & EIR process will determine if additional infrastructure will be required for the development. The development will include the required infrastructure such as internal access roads, storm water. Internal access roads of bitumen tarred surfaces and road reserves to serve the entire development will be constructed. As far as reasonably possible, the existing roads that provide access to the site will be utilized. Storm water management systems will be implemented in accordance with the engineer's design to divert storm water around the site as required.

Question 5: Is this development provided for in the infrastructure planning of the municipality, and if not, what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)?

Answer: Yes

The municipality will be able to approve development applications based on the capacity of available services and as providing basic services within the area.

Question 6: Is this project part of a national programme to address an issue of national concern or importance?

Answer: Yes

The National Spatial Development Perspective was initiated with the aim of not only providing a strategic assessment of the spatial distribution and socio-economic characteristics of the South African population, but also gaining an understanding of the distribution of economic activity and potential across the South African landscape. In order to overcome the spatial distortions of apartheid, infrastructure investment and development spending should primarily support localities that are growth nodes in South Africa.

Table 4: Desirability of the proposed project

DESIRABILITY ('placing'):
Question 7: Is the development the best practicable environmental option for this land/site? **Answer: To be determined by EIR** The specialist studies to be conducted for the EIR phase of the project will give a clear indication of environmental options.
Question 8: Would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF as agreed to by the relevant authorities. **Answer: No**
Question 9: Would the approval of this application compromise the integrity of the existing environmental management priorities for the area (e.g. as defined in EMFs), and if so, can it be justified in terms of sustainability considerations? **Answer: No**
Question 10: Do location factors favour this land use (associated with the activity applied for) at this place? (this relates to the contextualisation of the proposed land use on this site within its broader context). **Answer: Yes** The said portion of land will tie in to the surrounding high density residential built-up areas; thus, enhancing the property values in the area and in turn, the local economy.
Question 11: How will the activity or the land use associated with the activity applied for, impact on sensitive natural and cultural areas (built and rural/natural environment)? **Answer: To be determined by EIR** The specialist studies to be conducted for the EIR phase of the project will give a clear indication of environmental impacts.

Question 12: How will the development impact on people's health and wellbeing (e.g. in terms of noise, odours, visual character and sense of place, etc.)? **Answer: To be determined by EIR** The specialist studies to be conducted during the EIR phase of the project will give a clear indication of environmental impacts.
Question 13: Will the proposed activity or the land use associated with the activity applied for, result in unacceptable opportunity costs? **Answer:** Social Economic issues to be determined by EIR.
Question 14: Will the proposed land use result in unacceptable cumulative impacts? **Answer: No** The project is not expected to have an unacceptable cumulative impact. The project will result in positive impacts in terms of housing infrastructure and economic growth. However, the EIR will determine the full extent of impacts and propose mitigation measures if required.

2.7 Project Alternatives

Appendix 2 Section 2 (h)(i) of EIA Regulations of 2014 requires that all S&EIR processes must identify and describe alternatives to the proposed activity that are feasible and reasonable. Different types or categories of alternatives can be identified, e.g. location alternatives, type of activity, design or layout alternatives, technology alternatives and operational alternatives. The 'No Go' alternative must also be considered. Not all categories of alternatives are applicable to all projects.

The following describes the potential alternatives identified as well as reasons why some were not assessed.

2.7.1 Site Alternatives

No site alternatives are proposed for this project as the proposed site is owned by the Phokwane Tribal Authority and is highly desirable for a mixed-use residential development in terms of the following characteristics:

- **Site Extent:** The proposed development inclusive of associated infrastructure can be appropriately located on the identified site, which covers a total area of approximately 43.4 ha.
- **Land availability and Site access:** The land is owned by the Phokwane Tribal Authority. The identified site is boarded by the R579 towards the west. Access to the site is facilitated via the R579. Access to the site is provided via tarred road. The site is therefore appropriately located for easy transport of components and equipment as well as labour movement to and from the site. Internal access road will have to be constructed for transport of equipment and labour movement within the proposed development area

- **Current Land Zoning**: Portion 9 is zoned as Agricultural. Portion 7 is zoned as Municipal area and Parcel 3 of Mohlwarekoma Township is zoned as Residential. The property is currently being used as communal farm land for horticulture.
- **Gradient:** the general topography of Sekhukhune District is that of strongly undulating plains which link into the Springbok Flats of the Waterberg District towards the west. The Klein Drakensberg Mountain range covers the entire north-eastern and eastern extents of the Municipality. This mountain range is a very strong structuring element in the Sekhukhune District as it limits east-west movement in the central and northern parts of the district – especially between areas like Burgersfort, Jane Furse, Groblersdal, and Marble Hall. The landscape is highly variable with sloping plains and a series of ridges slightly elevated over undulating plains. Wiry, sour grassland alternating with low, sour shrubland dominate rocky outcrops and steeper slopes. The elevation over the site varies from 1500m to 1600 from the west to the east. The slope of the proposed site is considered to be acceptable from a development perspective.

2.7.2 Layout Design Alternatives

The proposed mixed-use residential development is expected to have a development footprint of 43.4ha. Therefore, the development and its associated infrastructure (i.e. internal roads, storm water, and electricity etc.) can conveniently be positioned within the broader site to avoid areas of sensitivity. Therefore, the extent of the site allows for the identification of layout design and site-specific alternatives.

The Scoping Phase aims to identify potentially environmentally sensitive areas which should be avoided by the proposed development as far as possible. These areas will need to be considered in greater detail during the EIA Phase through site-specific specialist studies. The information from these studies will be used to inform layout alternatives for the proposed development site and inform recommendations regarding a preferred alternative. Specific design alternatives will include inter alia the positioning of industrial activities e.g. sewage septic tank and substation etc. away from the watercourse etc. The aim of this planning process is to avoid environmentally sensitive areas as far as possible and inform the final design of the facility.

2.7.3 The No-Go Alternative

The No-Go alternative will be considered in the EIA in accordance with the requirements of the EIA Regulations, 2014. The No-Go alternative is the option of not implementing the proposed project. This option is evaluated as the “no-go alternative” in this Draft Scoping Report and will be assessed further within the EIA phase.

3 Description of the Affected Environment

The following chapter presents an overview of the biophysical and socio-economic environment in which the proposed project is located to:

- Understand the general sensitivity of and pressures on the affected environment;
- Inform the identification of potential issues and impacts associated with the proposed project, which will be assessed during the Impact Assessment Phase;
- Identify gaps in available information to inform specialist study requirements; and
- Start conceptualising practical mitigation measures.

More detailed baseline information will be presented in the EIA Report, based on additional information provided by specialists that will inform the Impact Assessment.

3.3 Biophysical Characteristics of the Study Area and Surrounds

3.3.1 Topography

Makhuduthamaga Municipality is generally characterised by a mixture of slope and mountainous areas with patches of plain and flat topography. The topography of the municipality is defined by a series of ridges and river valleys. The most prominent ridge is in the eastern part of the area. Villages are mostly located in valley and in the foothills of ridges. The more even topography of the western part of the area resulted in a higher settlement density. Various rock out crops and the mountain chains of Leolo Mountains provide the municipality with a unique topography that has both advantages and disadvantages landscape interrupted by the Makhuduthamaga Mountains and Makgabeng Plateau with scattered hills and rock outcrops. Makhuduthamaga Municipality consists of undulating topography, generally flattest in the south, north and west. Slopes are generally gentle, less than 5% in most cases, but steeper terrain occurs in the hilly areas, up to >25% in places on the eastern part of the municipality towards the border of Fetakgomo Tubatse Local Municipality. The rugged terrain of some parts of the municipality acts as a physical barrier and hence renders accessibility to villages located towards the north-western parts of the Municipality. Reference may be made to **Figure 8** to **Figure 10** below for the slope and topography of the project site where the proposed site is circled in red. The elevation over the site varies from 1500m to 1600 from the west to the east.

Study area

The landscape is highly variable with sloping plains and a series of ridges slightly elevated over undulating plains. Wiry, sour grassland alternating with low, sour shrubland dominate rocky outcrops and steeper slopes. Grasses on plains most commonly belong to the genera Themeda, Eragrostis, Heteropogon and Elionurus. Herbs are also a common feature (Asteraceae). Rocky hills and ridges support sparse savannoid woodlands as well as a rich suite of shrubs. Reference may be made to **Figure 8** below.

Figure 8: Topography of Makhuduthamaga Municipality

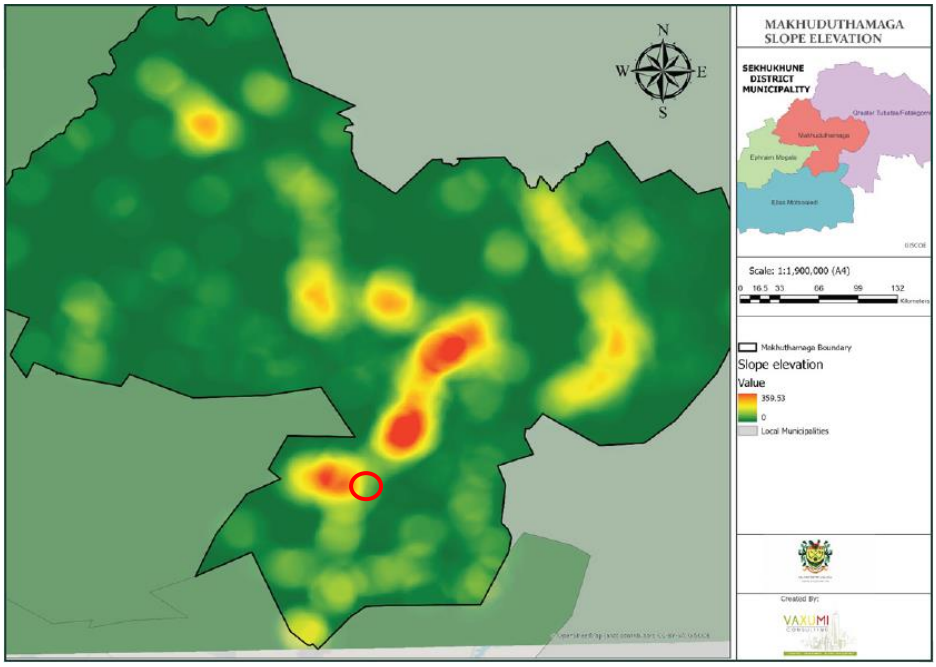

Figure 9: Slope elevation of the Makhuduthamaga Municipality

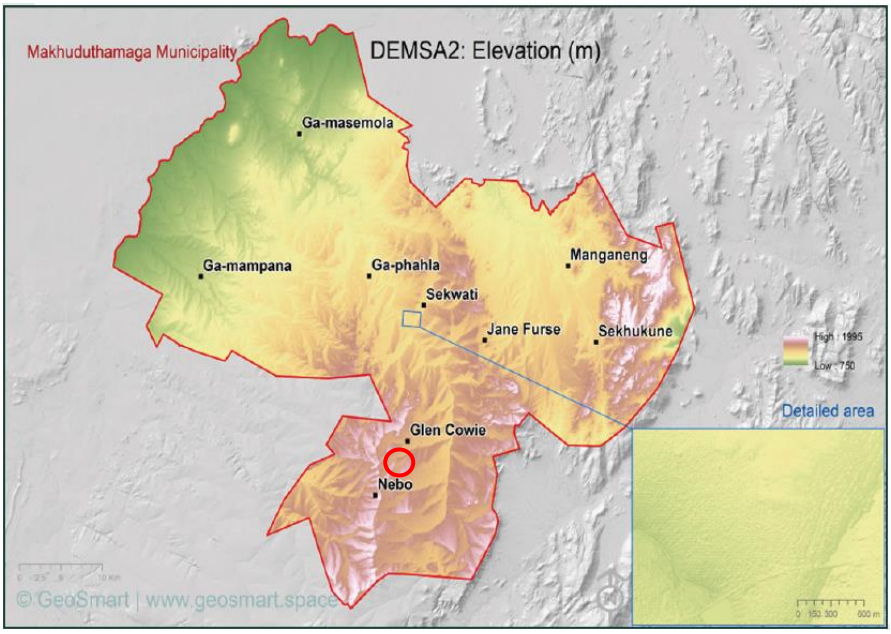

Figure 10: Slope gradient of the Makhuduthamaga Municipality

3.3.2 Geology and Soil

The soil types include dolomite, limestone, iron formation, shale and quartzite. Various water sources transverse the municipal area. They flow during rainy seasons and dry out when it does not rain. The geology of the study area according to the municipality IDP is described as having felsic intermediate rocks, reference may be made to **Figure 11** where the proposed site is circled in red. On further investigation it was found that the proposed study area consists of quartzite ridges of the Witwatersrand Supergroup, the Pretoria Group as well as the Selons River Formation of the Rooiberg Group. The soil classification available for the study site indicates the presence of Ba63 soil. The geology of the surroundings support soils of various quality, especially shallow Glenrosa and Mispah forms on rocky ridges. Mainly land types Ba, Bb and Ib.

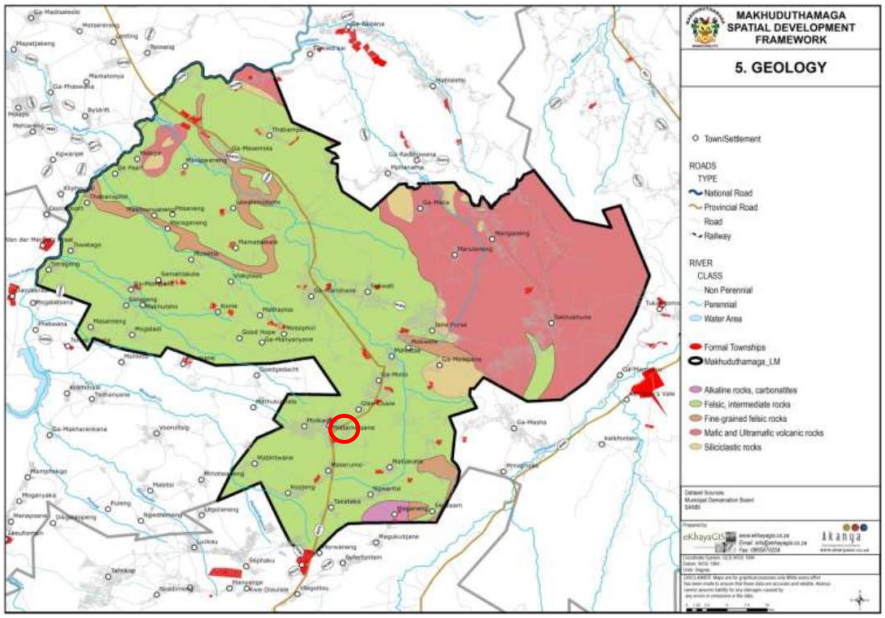

Figure 11: Geology of the study area

3.3.3 Climate

Makhuduthamaga municipal area is characterized by a hot climate, with the average temperature shows moderate fluctuation with average summer temperatures of 23C, as well as a maximum of 28C and a minimum of 18C.It is located in the summer rainfall zone (September to March) and has a mean annual rainfall 500-800mm. Thunderstorms with the associated low soil penetration and high level of erosion are common in the area. January is warmest with an average temperature of 26.6 °C at noon. July is coldest with an average temperature of 2.1 °C at night.

3.3.4 Air Quality

Air pollution in the area emanates from the use of fire wood for energy purpose, burning of refuses and dust from gravel roads. The extent of the air quality impacts will be assessed further in the EIA

3.3.5 Noise

Activities associated with the proposed site and its surroundings pertain to residential units. There are no industrial facilities associated with the area which could elevate the ambient noise levels. Ambient noise levels are therefore expected to be low excluding the construction phase. Construction activities will add to an elevated noise level in the area. The construction of the facilities will be temporary. The extent of the noise impacts will be assessed further in the EIA.

3.3.6 Hydrology

The site is situated within Quaternary Catchment B51H. Quaternary Catchment B51H falls within the second Water Management Area (WMA), the Olifants WMA. The watercourse forms the headwaters of a tributary of the Ngwaritsi River. This river flows into the Olifants River approximately 43km northwest of the site. Major rivers within this quaternary catchment include; Elands, Wilge, Steelpoort, Olifants, Letaba. Reference may be made to **Figure 12** below.

The valley bottom wetland on the site forms the headwaters of a tributary of the Ngwaritsi River. This river flows into the Olifants River approximately 43km northwest of the site. The wetland currently forms a series of food gardens between residential settlements. A deep erosion gully, approximately 3m deep, has drained the saturated soils and no hydrophyllic plants remain here. However, hydromorphic soils remain evident. Despite being largely drained, this wetland is not considered to be completely destroyed since rehabilitation in the form of stabilising erosion and raising the water table through back flooding will reinstate functional wetland conditions. The delineated wetland, together with its calculated buffer zone are shown in **Figure 13**. A calculated buffer zone of 55m from the outer edge of the wetland should be considered as a no-development zone. Development within the DWS regulated area (500m from the edge of the wetland) should be authorised by the DWS. The delineated wetland and its associated buffer zones are shown in the figure below. Refer to **Figure 12**: Regional Hydrology Map. The riparian map indicates the proposed location in relation to the 55m and 500m buffers. Refer to **Figure 13**: Wetland/ Riparian Map.

Figure 12: Regional Hydrology Map

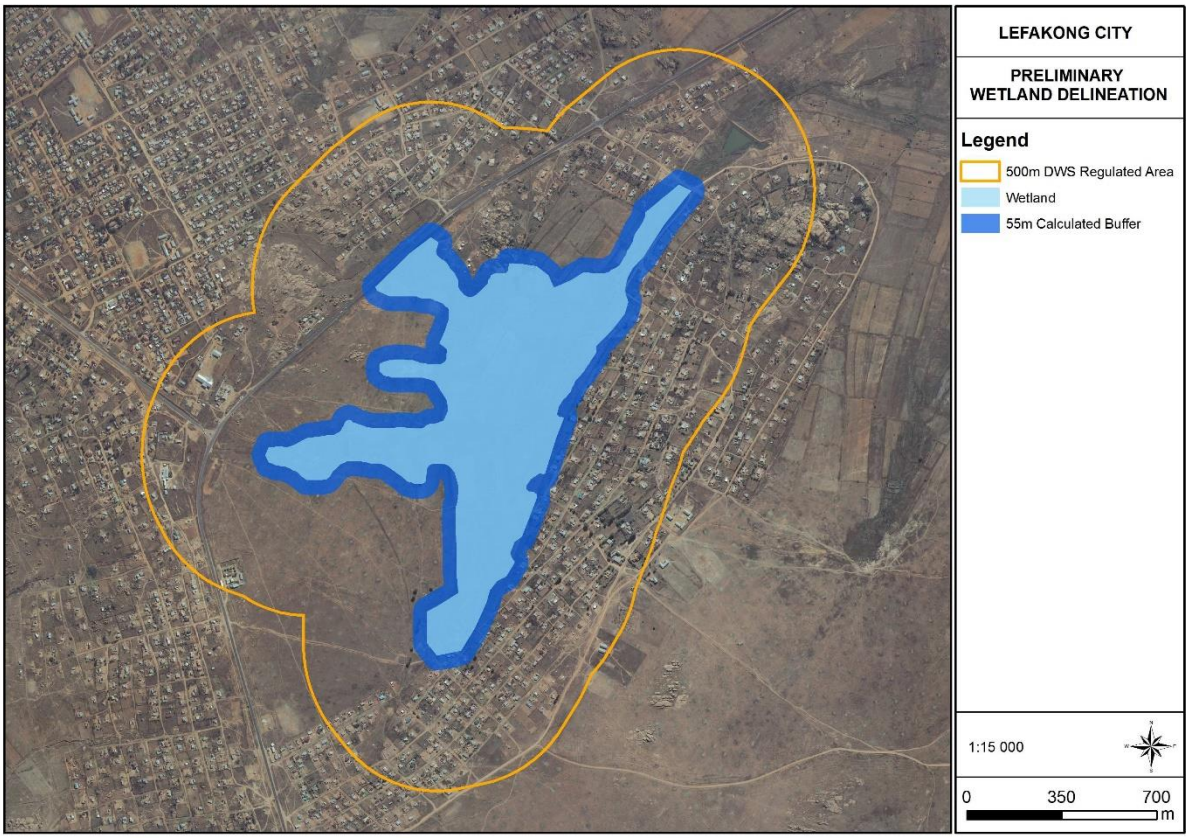

Figure 13: Wetland/ Riparian Map

3.3.7 Regional Vegetation

Sekhukhune's vegetation is mostly tropical bush and savannah. More specifically, the dominant vegetation type (which has also been classified as sensitive) is Sourish Mixed Bushveld which contains the false grassveld types. There a number of nature reserves, conservation areas and private nature reserves are found throughout the District. These include the Schuinsdraai Nature Reserve at Flag Boshielo Dam, the Potlake Nature Reserve to the north, the Kwaggavoetpad Nature Reserve centrally located in Elias Motsoaledi, the Moutse and Loskop Dam Nature Reserves to the south, and Blyderivierspoort Nature Reserve at the north-eastern end of the District. There are also several small clusters of Private Nature Reserves along the Olifants River in the eastern parts of Ephraim Mogale, a cluster in the south-western extents of Elias Motsoaledi (forming part of a larger cluster located in the Nkangala District (Loskop Dam to Rust de Winter), around the new De Hoop Dam along the Steelpoort/ Tubatse River in the east and another cluster around Burgersfort/ Tubatse.

Figure 14 depicts the extent of Critical Biodiversity Areas (CBA's) located in the SDM. It shows that almost the entire eastern escarpment is classified as CBA1 as well as the areas around the Schuinsdraai, Kwaggavoetpad and Loskop Dam Nature Reserves in the southern parts of the District. The northern and north-eastern extents of the District (in the vicinity of the R37 and Steelpoort), are characterised by a relatively high occurrence of Red Data plant species and Key Vegetation Communities. Problematically, these are the same areas that feature a high occurrence of human settlements and mining activity. It is also important to note the CBA2 corridors which link the CBA1 areas to one another which are aimed at facilitating migration of fauna and flora along the Critical Biodiversity Network.

Figure 15 illustrates the critical Biodiversity Areas on the proposed development site which is classified as an Ecological Support Area 1. The broad vegetation units on the site is Gm 11 – Rand Highveld Grassland, with a conservation status listed as vulnerable. The area earmarked for development is in a largely rural setting with residential settlements occurring on both sides of the R579. Subsistence farming is evident along the watercourse where cultivated land parcels are tended by local residents. A deep erosion gully extends from the R579 to the northeast. Downstream of the site farm dams were built in the watercourse. Further investigations will be undertaken for the EIA Phase to determine if the vegetation on site has any potential to support plant species of conservation concern.

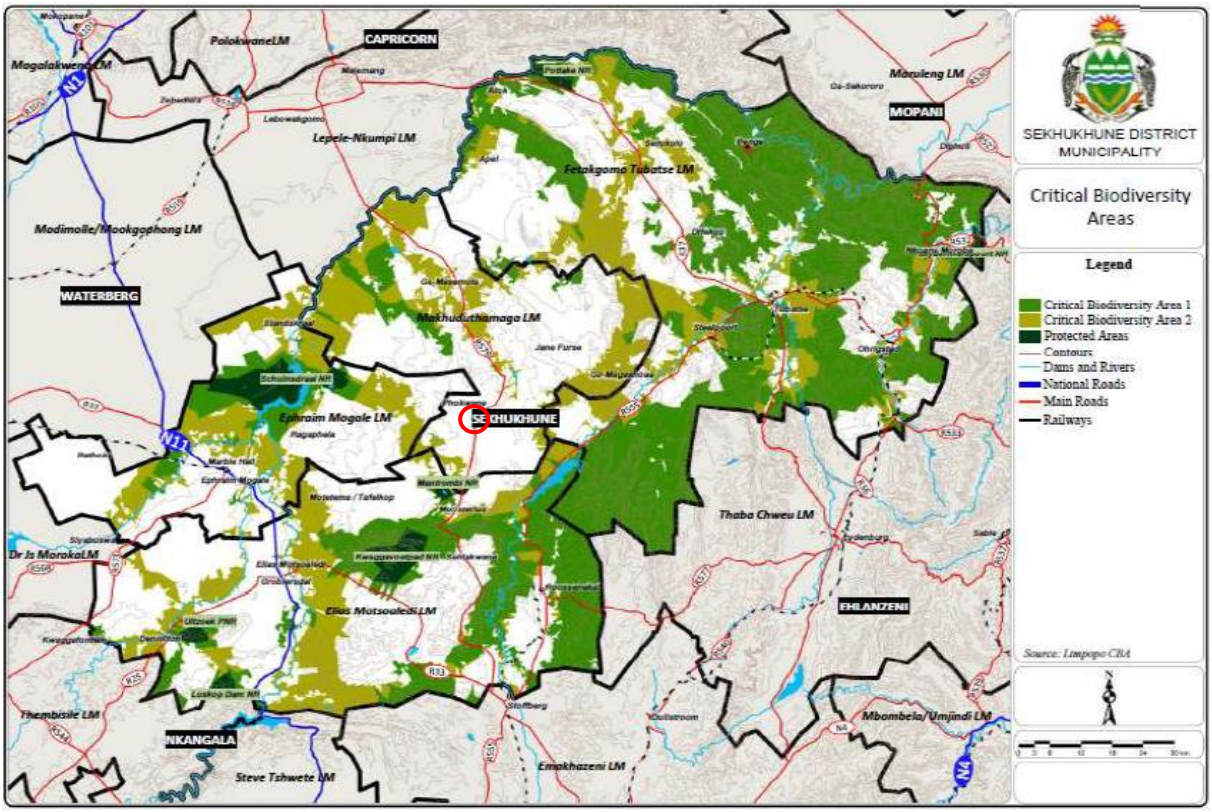

Figure 14: CBA regions within the Sekhukhune District Municipality

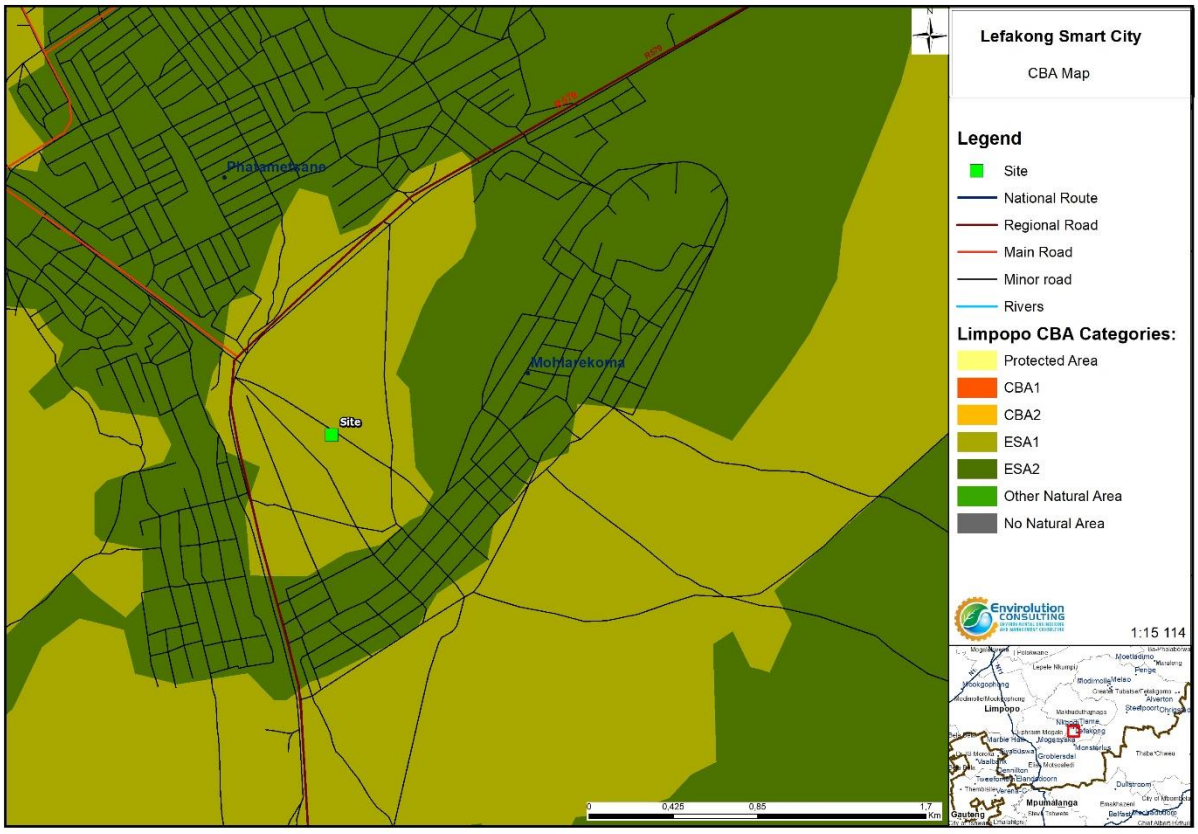

Figure 15: CBA Map within the proposed study area

3.4 Human Environment

3.4.1 Visual and Aesthetic Features

The proposed project is considered a large-scale development and will completely transform the site from its current state to a mixed-use residential development. The existing wetland will not be developed on hence protected by the 55m wetland buffer zone. Parts of the grassland surrounding the wetland environment, which contributes to the current site character, will be removed and replaced by buildings, roads and open spaces. A very dramatic change will occur on the site during both the construction and operational phases. The development will lead to a change in land use and a loss of open space/ vacant land. These visual changes will affect the existing visual qualities of the site and the study area.

The project will introduce new elements to the study area that are uncharacteristic and in contrast with the existing landscape character. The surrounding area is built-up which implies the proposed development will fit into the environment. The extent of the Visual and Aesthetic impacts will be assessed further in the EIA.

3.4.2 Heritage Features

Makhuduthamaga Municipality has a rich heritage and cultural history which, if adequately marketed, can go a long way in unlocking the local economic potential of the area and create much needed jobs and sustainable livelihoods.

Manche Masemola Gravesite

The site is located at Phaahla village and it is a place of significance which attracts lots of Chris-tian tourists especially of the Anglican religion as the person whose name the site is named after is a Christian martyr who died for her belief against those of society and her family.

Kgoshi Mampuru II Heritage Site

The site is at Mamone and is named after Kgoshi Mampuru II who fought gallantly against Apartheid oppressive laws and was executed at Pretoria prison that was later renamed Kgoshi Mampuru II prison. This is a place of significance that, if adequately branded and marketed nationally and internationally, can bring influx of tourists in the area and result in massive eco-nomic boom for the municipality.

Tisane Cultural village

The cultural village is located at Tisane and can be accessed via the R579 route. It preserves the cultural history of the Pedi people and if adequately branded and marketed it can trigger the local economy through the influx of tourists to the site.

The significance and impact of cultural heritage sites and the beautiful scenery and landscape of the municipality should not be seen in isolation from the rest of related facilities in the Sekhukhune District Municipality.

As per a site screening of heritage aspects on site, heritage and cultural aspects of significance were identified on site. A Heritage Consultant will be appointed to conduct a cultural heritage assessment to determine if the proposed development of the mixed-use facility would have an impact on any sites, features or objects of cultural heritage significance for the EIA Phase.

3.4.3 Traffic Impact

Property is situated west of the R579. Potential traffic impact may occur during the construction and operation phase of the development. Thus, a Traffic specialist was appointed to undertake a traffic impact assessment for the EIA phase. The extent of the traffic impacts will be assessed further in the EIA.

3.4.4 Socio-Economic Features

Makhuduthamaga Local Municipality

According to IHS Market Regional eXplorer (2018) the municipality is home to some 294,000 people. The population growth for Makhuduthamaga grows at an average of 0.94% per annum, while the district one grows at an average of 1.36% per annum. According to Statistics SA, the population of Makhuduthamaga Municipality grew from 274 358 to 284 435 through the census 2011 and community survey held in 2016 respectively. According to Stats SA, the number of households is 64 769 households (Community Survey, 2016). After Fetakgomo Tubatse Local Municipality, Makhuduthamaga Municipality has the second largest population in the Sekhukhune District Municipality.

Makhuduthamaga Municipality's population constitutes 24% of the Sekhukhune District Municipality population (source: Sekhukhune District Municipality IDP 2016-2021). Makhuduthamaga Municipality has an average population growth of 0.78% (Stats SA, Community Survey 2016). The average household size has increased from 4.1 in 2011 to 4.4 in 2016.

Reference may be made to **Table 5** and **Table 6** below for the population profile of the municipality. The biggest population group is between 15 and 64 at 57.6%, while there is a general reduction in the under 15 and over 65 year's categories. This may be attributed to low birth rates in the study area as well as out migration of the population of a child rearing age.

Table 5: Population profile of Makhuduthamaga Municipality (source Stats SA, Community pro-file 2016)

Census year	2016	2011
Population	284 435	274 880
Population under 15	35,8 %	38.1%
Population 15 to 64	57.6%	53.9%
Population over 65	6.6%	8.0%

Population Indicators

Table 6 below summarises the municipal profile of Makhuduthamaga Local Municipality.

Table 6: Population profile

Area of jurisdiction	211 886 ha
Total population	284 435
No of households	64 769
No of wards	31
No of traditional authorities	26
Nodes and key strategic areas	Jane Furse, Apel Cross, Phokwane, Schoonoord, Glen Cowie, Moratiwa Crossing

Education

The **Table 7** below reflect education levels for persons over the age of20 years for the Makhuduthamaga Municipality. Table 6 shows an improvement in the percentage of educational levels from the 2011 census. This may be attributed to an increase in the number of educational facilities in the area, as well as the availability of financial assistance for post matric studies.

Table 7: Level of Education for Makhuduthamaga Municipality (Source: Stats SA)

Level of education (aged 20+)	2016	2011
No schooling	15.2%	23.3%
Matric	23.0%	20.5%
Higher education	7.2%	5.5%

Employment

Makhuduthamaga Municipality has one of the highest unemployment figures in the country, as well as in the Sekhukhune District. According to the Municipal Demarcation Board and Statistics SA, the official unemployment rate for Makhuduthamaga Municipality is 62.7% which is higher than the Sekhukhune District Municipality's rate of 43.7% and the national rate which is at 32.1%. Out of the total unemployment rate of 62.7%, youth unemployment rate is

74%. This high unemployment rate does not border well with the municipality's ambition of growing the economy and has the resultant effect of fuelling instability in the region if such is not adequately addressed through interventions such as training and development, especially for the youthful population.

In terms of employment by sector for the Makhuduthamaga Municipality, the biggest employer community and social sector where the bulk of the labour force is employed in the civil service as municipal employees, educators, health practitioners and related. The percentage of the community and social sector is 45.4% followed by wholesale and retail trade at 14.9% as reflected in **Figure 16** and **Figure 17** below. The minimal contribution of manufacturing, mining and the financial sector at less than 5% is a clear indication of the state of development for the area which has not yet have an off take required to industrialise the area.

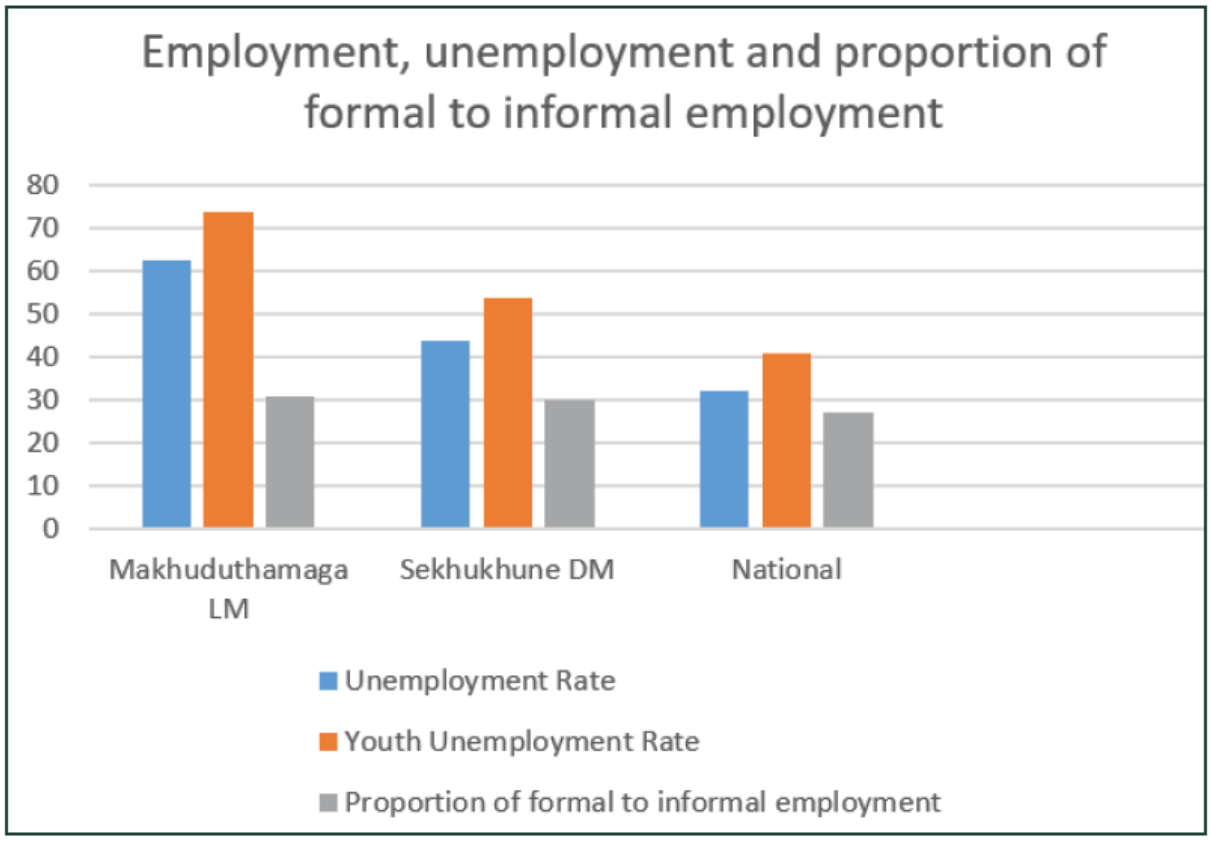

Figure 16: Unemployment rate in Makhuduthamaga Municipality

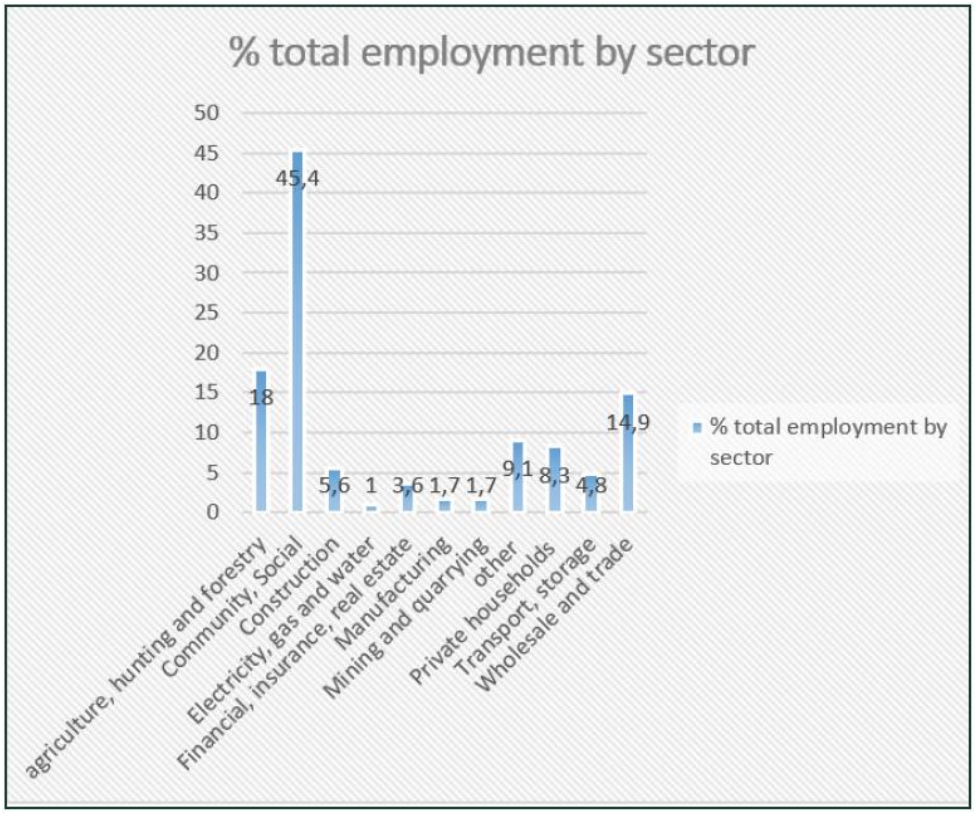

Figure 17: Percentage employment by sector Makhuduthamaga Municipality

Economy

Makhuduthamaga Municipality does not have a strong economic base in the sense that its economy does not mirror that of the country and the Limpopo Province where mining, commercial agriculture and tourism provide some of the key drivers of the economy. The municipality's agricultural practice is highly subsistence and the mining sector is not developed.

Evidence on the ground and information from literature revisited reflect that the following are drivers for the Municipality's economy

- Retail and SMME Development;
- Tourism (still in its infancy).

The next sub-section provides a detail report on the status quo of sectoral activities:

- Mining

  Makhuduthamaga Municipality does not have an active mining operation within its area of jurisdiction as **Figure 18** below indicates. However, the same figure indicates that 11, 5% of municipal land has the potential for mining development as either prospecting or mining licences have been issued out by the Department of Mineral Resources and Energy. This will entail that the municipality should proactively plan for availing land for development to supplement the new mining area. Furthermore, the municipality,

together with the District Municipality, should proactively plan for infrastructure support in the form of augmented infrastructure engineering services to such area.

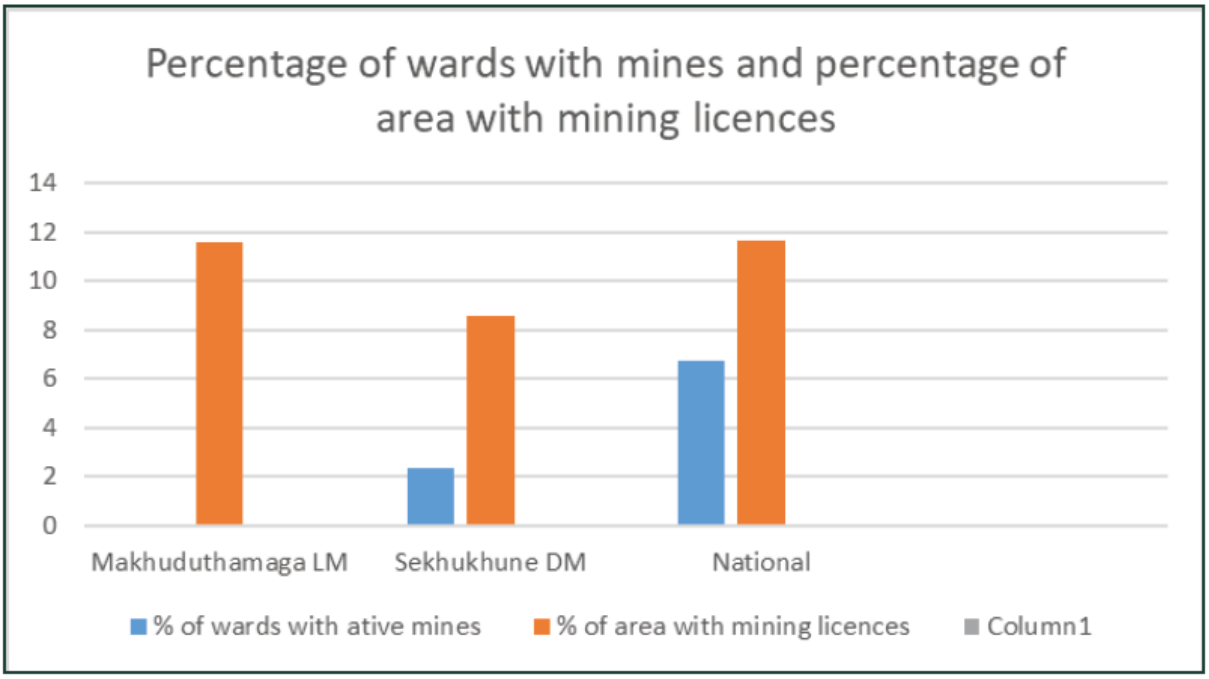

Figure 18: Active mines and mining licences

Retail and SMME Development

Concentration of retail development in the municipality is also not proportional to population numbers as well as the strategic location of settlements. While there is the presence of small businesses in every locality providing convenient goods and supplies to such local settlements, medium to major impact retail development follows identified nodal points and population concentration points in need of high-volume customer base. The primary node of Jane Furse enjoys a larger share of medium to high impact retail development anchored by the presence of national retailers.

Phokwane Retail and SMME Development Sector

Phokwane offers a huge concentration of business opportunities and outlets that are spread in a linear format on the D4050 route towards the intersection with the R579 on the south-eastern part of the municipality. The huge pull factor is the connection corridor in Phokwane which serves as a funnel of movement that channels commuters and pedestrians from all walks of life to either Jane Furse or surroundings to other areas such as Moratiwa and Stofberg on the southern tip of the municipality. Another pull factor for the Phokwane node is the existence of social services such as SAPS, clinic, agriculture extension services, library and circuit offices of the Department of Education. The bulk of retail services contain grocery stores, hardware stores and some clothing outlets.

However, the concentration of retail activities in the area takes place in and unmanaged and uncoordinated manner. There is no proper land use management for the development in the corridor and there is a serious encroachment on the road reserve which may also lead to serious road safety challenges.

- R579 corridor retail and SMME development

Over and above the concentration of retail and SMME activities in the five areas identified above, here is also the proliferation of businesses and SMME footprint along the R579 spine from Apel Cross up to Moratiwa on the edge of the municipal boundary to Elias Motsoaledi Local Municipality. The concentration is also bolstered by modern filling stations with associated convenient and mini retail stores, especially between Jane Furse and Moratiwa nodes.

- Manufacturing

According to the Makhuduthamaga Municipality IDP, very little manufacturing activities take place in the study area. This is supported by evidence on the ground. Where manufacturing takes place, it is in the form of backyard and rudimentary manufacturing practices such as brick making, fence making, and related building and construction materials manufacturing. Such manufacturing practices, if given the necessary support, can go a long way in contributing to job creation for local residents thereby contributing to the economic development of the MLM.

However, opportunities for manufacturing exist for the other economic pillars listed supra. Lack of agro-processing facilities in the agricultural sector creates a business opportunity for the establishment of such facilities, same goes for manufacturing of input resources for the existing and potential mines in the neighbouring municipality of Fetakgomo-Tubatse. Examples of manufactured inputs for the mines may include protective clothing, stationary, ventilation pipes etc. A detailed study on the manufacturing sector strategy may be needed in future. Furthermore, manufacturing opportunities will be created by the designation of Makhuduthamaga town of Jane Furse as the administrative hub of the Sekhukhune District Municipality.

Sekhukhune District Municipality

Sekhukhune District Municipality (SDM) is a mainly rural district with approximately 740 villages. It covers approximately 1,358 million hectares of land and has a total of 1 169 762 people in 290 526 households. This district has a median age of 22, which is a 90 percent of the figure in South Africa which is 25. This means that programmes that are geared towards youth population should be maximised to ensure that challenges affecting this age group are addressed. These programmes include job creation projects, specialised education, safety related measures to combat crime etc. The dominant home language in Sekhukhune District is Sepedi with 83%, followed by IsiNdebele

with 4.4%. The SDM Sepedi speaking inhabitants contribute 1.5 times the total percentage of Bapedi people in Limpopo which is 54.71%. With these different languages and cultures, there should be deliberate efforts to promote diversified cultural activities that will enhance tourism attraction within the district.

The population of Sekhukhune District Municipality has been growing at an average of 1, 1% per annum from 1996 to 2016. According to Statistics South Africa (STATSSA) 2016 Survey, the population of the district is now standing at 1, 169 762 persons. This compares to population growth numbers in 2011 at 1 076 840; 2001 at 967 185 as well as 1996 which stood at 914 492. On the whole, the population growth numbers in the district have been growing moderately and this can be ascribed to a number of factors as will be indicated when comparing data from the local municipalities in the district.

Since 1996, sex ratios have not changed much. In 2011, there are 497 428 males compared to 579 191 females. The imbalance can be attributed to large numbers of males who migrate to other provinces to look for work opportunities. As a result of the rural nature of the district of Sekhukhune, there are still persons who work in other provinces such as Gauteng and only come back home monthly or bi-monthly to see their families. This scenario also tells a picture that there might high presence of female headed households in the district. The implication for the district is that there is a need to develop programmes that target women in particular to create self-employment and educational opportunities where possible. Reference may be made to **Table 8** below for the population by gender

Table 8: Population by Gender - Sekhukhune and the rest of Limpopo Province, 2018

	Male	Female	Total
Sekhukhune	568,000	629,000	1,200,000
Mopani	532,000	623,000	1,150,000
Vhembe	649,000	753,000	1,400,000
Capricorn	652,000	717,000	1,370,000
Waterberg	395,000	361,000	757,000
Limpopo	2,800,000	3,080,000	5,880,000

Sekhukhune District Municipality's male/female split in population was 90.3 males per 100 females in 2018. The Sekhukhune District Municipality has significantly more females (52.56%) than males, when compared to a typical stable population. This is most probably an area with high male out migration to look for work elsewhere. In total there were 629 000 (52.56%) females and 568 000 (47.44%) males. This is different from the Limpopo Province as a whole where the female population counted 3.08 million which constitutes 52.43% of the total population of 5.88 million.

The rural nature of the district, with less job opportunities requires that males migrate to the big cities in search for work. While the district experiences new mining developments, they are concentrated in one local municipality (Fetakgomo Tubatse), and other parts of the district still suffer poverty. The programmes with high economic impact should be planned and implemented in order to reduce the scourge of unemployment and poverty.

99% of the population in Sekhukhune District Municipality is made up of Africans. The remainder 1% comprises Whites, Indians and Coloureds. It is not a surprising trend because a large part of Sekhukhune District Municipality comprises villages under tribal authorities. The 1% of the Whites, Indians and Coloureds are confined to the main towns in the district and mining areas.

The dominant home language in SDM is Sepedi with 83% followed by IsiNdebele in 4.4%. According to statistics (Census 2011), the areas that are predominantly Pedi speaking are Makhuduthamaga and Fetakgomo Tubatse. In Comparing English and Afrikaans speakers, there are few English speakers in 0.22% while the Afrikaans speakers in 0.83%. Most Afrikaans speakers are in our former white only towns of Groblersdal, Marble Hall, and Burgersfort.

Employment

Table 9 below shows that there has been a rise in unemployment between 2008 and 2018. In2018, there were total number of 93 900 people unemployed in Sekhukhune, which is an increase of 6 360 from 87 600 in 2008. The total number of unemployed people within Sekhukhune constitutes 28.17% of the total number of unemployed people in Limpopo Province. Sekhukhune District Municipality experienced an average annual increase of 0.70% in the number of unemployed people, which is worse than that of the Limpopo Province which had an average annual decrease in unemployment of -1.20%.

Table 9: Unemployment - Sekhukhune, Limpopo and National Total, 2008-2018

	Sekhukhune	Limpopo	National Total	Sekhukhune as % of province	Sekhukhune as % of national
2008	87,600	376,000	4,350,000	*23.3%*	*2.0%*
2009	82,300	339,000	4,370,000	*24.3%*	*1.9%*
2010	75,000	296,000	4,490,000	*25.3%*	*1.7%*
2011	68,900	261,000	4,570,000	*26.4%*	*1.5%*
2012	66,500	251,000	4,690,000	*26.5%*	*1.4%*
2013	66,600	249,000	4,850,000	*26.8%*	*1.4%*
2014	69,800	258,000	5,060,000	*27.0%*	*1.4%*
2015	77,700	285,000	5,290,000	*27.2%*	*1.5%*
2016	88,900	321,000	5,630,000	*27.7%*	*1.6%*
2017	94,500	340,000	5,940,000	*27.8%*	*1.6%*
2018	93,900	333,000	6,010,000	*28.2%*	*1.6%*
Average Annual growth					
2008-2018	***0.70%***	***-1.20%***	***3.30%***		

Source: IHS Markit Regional eXplorer version 1750

In Limpopo Province, there has been a rapid improvement in the household income distribution profile during the past years, mainly as a result of social grants. Households living in poverty, with annual incomes ranging from 0 to R19.600 per year, shrank as a proportion of total households from 86% in 2001 to 56.5% in 2011. This group is unable to afford any contribution towards the cost of municipal services. The corresponding proportion of

households in this income group for Limpopo Province in 2011 was 55.6%, which is only slightly better than the situation in Sekhukhune District.

The intermediate group, with incomes ranging from R19.601 per year to R153.800 per year, used to comprise 13% of all households in 2011, but has increased to 38%. This group can afford to make meaningful contributions to the cost of municipal services. The high-income group, who can afford to pay the full cost of municipal services, has increased from less than 1% of all households in 2011, to 5.5% in 2011.

The income distribution profile is unlikely to keep improving at the same pace as the last ten years, because the social grant programme is already fully taken up. Further improvements will depend on new job creation (GSA 2014).

Average household incomes from 2001-2011 have more than doubled across the district. In the district municipality, household income has shifted from R15 520 to R45 977 in 2011. The provincial average in R56 841 and therefore the district average household income is slightly below the provincial average.

Economy

Economic growth is one of the main indicators of a progressing and developing district. The main sectors of Sekhukhune District that contribute to the growth of economy in the district are Agriculture, Mining and Community Services. Mining is the biggest contributor in the economy of the district.

The Sekhukhune economy is a curious mixture of overwhelmingly negative features (such as the highest unemployment rate in Limpopo) and positive opportunities (like the enormous mining potential within the area). Plotting an economic development path therefore requires a careful assessment of the current economic reality in the district. Integrating sustainable development into the current municipal plans to ensure the triple bottom line (people, planet, profit) is accomplished and the green economy policy is aligned to.

The Gross Domestic Product (GDP), an important indicator of economic performance, is used to compare economies and economic states. Gross Domestic Product by Region (GDP-R) represents the value of all goods and services produced within a region, over a period of one year, plus taxes and minus subsidies. With a GDP of R 41 billion in 2017 (up from R 16.5 billion in 2007), the Sekhukhune District Municipality contributed 12.22% to the Limpopo Province GDP of R 336 billion in 2017 increasing in the share of the Limpopo from 11.75% in 2007. The Sekhukhune District Municipality contributes 0.88% to the GDP of South Africa which had a total GDP of R 4.65 trillion in 2017 (as measured in nominal or current prices). Its contribution to the national economy stayed similar in importance from 2007 when it contributed 0.78% to South Africa, but it is lower than the peak of 0.94% in 2011. In terms of Local Municipality contributions, the greatest contributor is the Fetakgomo Tubatse Local Municipality with a share of 48.58% or R 21.2 billion, increasing from R 10.3 billion in 2008. This is due to the mining sector

which is concentrated in the Municipal area. The economy with the lowest contribution is the Ephraim Mogale Local Municipality with R 4.51 billion growing from R 2.01 billion in 2008.

The mining sector is expected to grow fastest at an average of 5.25% annually from R 11.8 billion in Sekhukhune District Municipality to R 15.2 billion in 2022. The mining sector is estimated to be the largest sector within the Sekhukhune District Municipality in 2022, with a total share of 49.8% of the total Gross Value Added (as measured in current prices), growing at an average annual rate of 5.2%. The sector that is estimated to grow the slowest is the community services sector with an average annual growth rate of 0.75%. The slow growth rate is due to the impact of government reducing the cost of employment and not employing at a larger scale. Among the potential interventions to correct this anomaly, government may consider amendments to employment policies to enhance labour absorption through active labour market policies and interventions.

Education

By comparing the population pyramid in **Figure 19** below of the Sekhukhune District Municipality with the national age structure, the most significant differences are:

- There is a significantly larger share of young working age people - aged 20 to 34 (28.6%) in Sekhukhune, compared to the national picture (27.5%).
- Fertility in Sekhukhune is significantly higher compared to South Africa as a whole. This aspect can be attributed to high poverty and low education levels which in turn give rise to high childbearing within the district. More education on the general health issues should be provided to communities.

The share of children between the ages of 0 to 14 years is significantly larger (35.4%) in Sekhukhune compared to South Africa (29.0%). Demand for expenditure on schooling as percentage of total budget within Sekhukhune District Municipality will therefore be higher than that of South Africa. This requires that the district in collaboration with other stakeholders be able to provide support mechanisms towards basic education as per the norms and standards of education. This includes adequate schools to avoid overcrowding and to also provide transport in areas that fall outside the acceptable norm of 5km radius to public schools. Proper school facilities and improved equipment's to enhance sound and effective learning should also be provided e.g. Computers and Tablets. The learners should have access to minimum sets of textbooks and should also have access to learner ratio 1:40 and 1:35 in Primary and secondary schools respectively.

The district does not have higher education institutions except for the former educational colleges that are mainly used for Further Education and Training (FET's). With a population of over a million people, the district must consider working with education authorities to explore possibility of establishing an arm/satellite of University of Technology or University in the district.

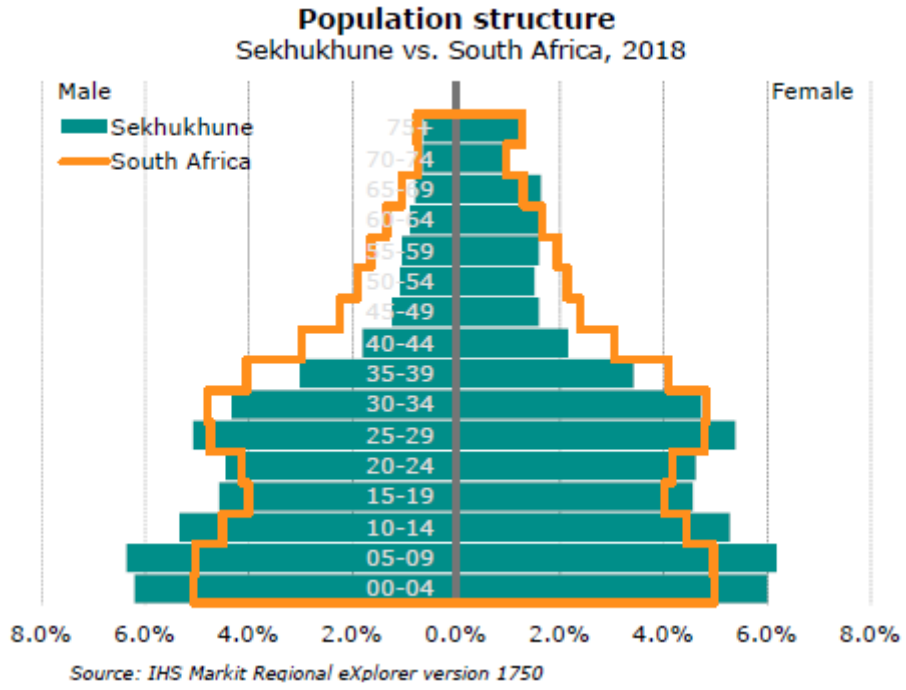

Figure 19: Population Pyramid - Sekhukhune District Municipality vs. South Africa, 2018

4 Governance Framework and Environmental Process

4.3 South African Legislation

Appendix 2 of the 2014 Environmental Impact Assessment Regulations states that one of the purposes of the scoping report is to identify the relevant policies and legislation relevant to the activity. The scoping report must include a description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process. It has been determined that a Scoping and Environmental Impact Assessment Report (S&EIR) process must be completed in respect of activities listed in a notice issued by the Minister in terms of section 24D of the National Environmental Management Act (NEMA). The scope and content of this draft scoping report has been guided by the following additional legislation and guidelines.

A synopsis of Envirolution' understanding of the relevant Acts and Regulations that are applicable to this study is provided below. Note that other legislative requirements may also pertain to the project. As such, the summary provided below is not intended to be definitive or exhaustive, and serves only to highlight key environmental legislation and obligations.

4.3.1 The Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996)

The Constitution of the Republic of South Africa, 1996 has major implications for environmental management. The main effects are the protection of environmental and property rights, the drastic change brought about by the sections dealing with administrative law such as access to information, just administrative action and broadening of the *locus standi* of litigants. These aspects provide general and overarching support and are of major significance in the effective implementation of the environmental management principles and structures of the Environment Conservation Act and NEMA. Section 24 in the Bill of Rights of the Constitution specifically states:

"Everyone has the right –

- *To an environment that is not harmful to their health or well-being; and*
- *To have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that -*
    - *Prevent pollution and ecological degradation;*
    - *Promote conservation; and*
    - *Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development."*

Legal requirements for this project:

Section 24 of the Constitution therefore places a duty on all spheres of government to take reasonable steps, including making laws, preventing pollution, promoting conservation and ensuring sustainable development.

4.3.2 National Environmental Management Act (Act No. 107 of 1998)

The proposed project is subject to the requirements of the Environmental Impact Assessment Regulations (2014 EIA Regulations) in terms of the National Environmental Management Act (NEMA, Act 107 of 1998, as amended). NEMA is national legislation that provides for the authorization of certain controlled activities known as "listed activities". In terms of Section 24(1) of NEMA, the potential impact on the environment associated with these listed activities must be considered, investigated, assessed, and reported on to the competent authority (the decision-maker) charged by NEMA with granting of the relevant environmental authorization.

NEMA requires, inter alia, that development must be socially, environmentally, and economically sustainable. Disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimized and remedied. A risk-averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions. EIA Regulations have been promulgated in terms of Chapter 5. Activities which may not commence without an environmental authorization are identified within these Regulations. In terms of S24(1) of NEMA, the potential impact on the environment associated with these listed activities must be considered, investigated, assessed and reported on to the competent authority charged by NEMA with granting of the relevant environmental authorization.

Legal requirements for this project:

In terms of sections 24(2) and 24D of the National Environmental Management Act (Act No. 107 of 1998), as read with the Environmental Impact Assessment (EIA) Regulations of GN R982, as amended by GN R326, Alley Roads requires an Environmental Authorization to be issued for the project for the following listed activities.

Table 10: Listed Activities

The number and date of the relevant notice: **e.g. Listing Notice 1 of GNR 327 (7 April 2017)**	**Description of each listed activity as per project description**
Activity 14 Listing Notice 1 of GNR 327 (7 April 2017). The development and related operation of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres..	Various filling stations are proposed onsite. The combined capacity of the filling stations is 500 000 litres per month / 500 cubic metres and a private hospital is proposed onsite.

Activity 15 Listing Notice 2 of GN 325 (7 April 2017) The clearance of an area of 20 hectares or more of indigenous vegetation.	The proposed total development footprint is approximately 43.4 hectares and the clearance of an area of 20 hectares or more of indigenous vegetation will occur prior to initiating construction. The proposed development is approximately 43.4 ha.

The Limpopo Economic Development, Environment and Tourism (LEDET) will be the relevant decision-making authority as the applicant is neither a parastatal nor an Organ of State. The EIA authorisation need to be granted by LEDET for approval and setting of conditions prior to commencement of any construction activities.

4.3.3 National Environmental Management Act (Act No. 107 of 1998)

Section 28 of NEMA creates a general duty of care on every person, and "person" is very widely defined, to take reasonable measures to prevent significant pollution or degradation of the environment from occurring, continuing or recurring, or, in so far as such harm to the environment is authorized by law or cannot reasonably be avoided or stopped, to minimize and rectify such pollution or degradation of the environment.

Legal requirements for this project:

While no permitting requirements arise from this section of the Act, this will be applicable during construction in order to ensure minimization of impacts on the environment.

4.3.4 The National Water Act, 1998 (Act No. 36 of 1998)

Water usage in South Africa is controlled by the National Water Act (NWA). The executive authority is the Department of Water and Sanitation (DWS). The NWA recognizes that water is a scarce and unevenly distributed national resource in South Africa. Its provisions are aimed at achieving sustainable and equitable use of water to the benefit of all users and to ensure protection of the aquatic ecosystems associated with South Africa's water resources. The provisions of the Act are aimed at discouraging pollution and wastage of water resources. In terms of the Act, a land user, occupier or owner of land where an activity that causes or has the potential to cause pollution of a water resource has a duty to take measures to prevent pollution from occurring. If these measures are not taken, the responsible authority may do whatever is necessary to prevent the pollution or remedy its effects, and to recover all reasonable costs from the responsible party. Section 21 of the NWA specifies a number of waters uses. These water uses require authorization in terms of Section 22 (1) of the Act, unless they are listed in Schedule 1 of the NWA, are an existing lawful use, fall under a General Authorization issued in terms of Section 39 or if the responsible authority waives the need for a license.

Legal requirements for this project:

Section 21: As the application includes works within 500m of the wetland area, in terms of the National Water Act No. 36 of 1998, a Water Use License is required for the development as per the following specific water uses:

- Section 21(c): Impeding or diverting the flow of water in a watercourse; and
- Section 21(i): Altering the bed, banks, course or characteristics of a watercourse.

This is a legislative process governed by Department of Water and Sanitation (DWS) for the authorisation of all water used defined in Section 21.

Section 19: Of specific importance to this application is Section 19 of the NWA, which states that an owner of land, a person in control of land or a person who occupies or uses the land which thereby causes, has caused or is likely to cause pollution of a water resource must take all reasonable measures to prevent any such pollution from occurring, continuing or recurring and must therefore comply with any prescribed waste standard or management practices.

Legal requirements for this project:

In terms of Section 19, the project proponent must ensure that reasonable measures are taken throughout the life cycle of this project to prevent and remedy the effects of pollution to water resources from occurring, continuing or recurring.

4.3.5 National Environmental Management: Biodiversity Act 2004 (Act No. 10 of 2004)

The National Environmental Management: Biodiversity Act (NEMBA) (Act No. 10 of 2004); NEMBA Chapter 4 and 5 are important to this project, in terms of the following Regulations:

- National List of Ecosystems that are threatened and in need of protection (published under Government Notice 1002 in Government Gazette 34809 of 9 December 2012);
- Publication of Lists of Critically Endangered, Endangered, Vulnerable and Protected Species (published under Government Notice R151 in Government Gazette 29657 of 23 February 2007);
- Threatened or Protected Species Regulations (published under Government Notice R152 in Government Gazette 29657 of 23 February 2007);
- Alien and Invasive Species Regulations (published under Government Notice R598 in Government Gazette 37885 of 1 August 2014);
- Publication of National List of Invasive Species (published under Government Notice R507 in Government Gazette 36683 of 19 July 2013).

Legal requirements for this project:

This Environmental Impact Assessment will assist the developer to take cognisance of the regulations of NEMBA when approaching this project for the construction of the Lefakong Smart City.

4.3.6 National Environment Management Protected Areas Act, 2003 (Act No. 57 of 2003)

Wetlands and other critical Biodiversity areas are regulated under the NEMBA. Activities that fall within the parameters of these areas require specialist assessment to determine the impacts and the residual effects of mitigation measures.

Legal requirements for this project:

Specialists have been appointed to determine any critical biodiversity areas and provided recommendations on the project and mitigation measures to be included in the requirements of the EMPr.

4.3.7 National Heritage Resources Act (Act No. 25 of 1999)

South Africa's unique and non-renewable archaeological and paleontological heritage sites are 'generally' protected in terms of the National Heritage Resources Act (Act No. 25 of 1999, Section 35) and may not be disturbed at all without a permit from the relevant heritage resources authority. The National Heritage Resources Act provides guidelines for Cultural Resources Management and prospective developments:

"38 (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as:
(a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
(b) the construction of a bridge or similar structure exceeding 50m in length;
(c) any development or other activity which will change the character of a site:
(i) exceeding 5 000 m^2 in extent; or (ii) involving three or more existing erven or subdivisions thereof; or (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority; (d) the re-zoning of a site exceeding 10 000 m^2 in extent; or
(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development."

And:

"38 (3) The responsible heritage resources authority must specify the information to be provided in a report required in terms of subsection (2)(a): Provided that the following must be included:
(a) The identification and mapping of all heritage resources in the area affected;
(b) an assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 6(2) or prescribed under section 7;
(c) an assessment of the impact of the development on such heritage resources;
(d) an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development;
(e) the results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources;
(f) if heritage resources will be adversely affected by the proposed development, the consideration of alternatives; and
(g) plans for mitigation of any adverse effects during and after the completion of the proposed development."

Legal requirements for this project:

In accordance to Section 38, a Heritage Impact Assessment will be undertaken for the following associated developments: (a) the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300 m in length; (b) the construction of a bridge or similar structure exceeding 50m in length; (c) any development or other activity which will change the character of a site (i) exceeding 5000m² in extent…)

4.3.8 National Forests Act (Act No. 84 of 1998)

Protected trees: According to this act, the Minister may declare a tree, group of trees, woodland or a species of trees as protected. The prohibitions provide that 'no person may cut, damage, disturb, destroy or remove any protected tree, or collect, remove, transport, export, purchase, sell, donate or in any other manner acquire or dispose of any protected tree, except under a license granted by the Minister'.

Forests: Prohibits the destruction of indigenous trees in any natural forest without a license.

Legal requirements for this project:

If a protected tree is identified on site, this act will apply. Should the tree/s require removal, a permit will be required.

4.3.9 The National Environmental Management Waste Act 2008 (Act No. 59 of 2008)

The National Environmental Management Waste Act (NEMWA) reforms the law regulating waste management in order to protect health and the environment providing reasonable measures for the prevention of pollution and

ecological degradation and for securing ecologically sustainable development; to provide for institutional arrangements and planning matters; to provide for national norms and standards for regulating the management of waste by all spheres of government; to provide for specific waste management measures; to provide for licensing and control of waste management activities; to provide for the remediation of contaminated land; to provide for the national waste information system; to provide for compliance and enforcement; and to provide for matters connected therewith.

Legal requirements for this project:

In terms of GNR 921, no waste license is required for the project. No waste license activities are applicable to this project. The developer will however be required to store and manage waste in accordance with the requirements of this Act and associated Standards during the construction stage.

4.3.10 Hazardous Substances Act (Act No. 15 of 1973)

This Act regulates the control of substances that may cause injury, or ill health, or death due to their toxic, corrosive, irritant, strongly sensitizing, or inflammable nature or the generation of pressure thereby in certain instances and for the control of certain electronic products. To provide for the rating of such substances or products in relation to the degree of danger; to provide for the prohibition and control of the importation, manufacture, sale, use, operation, modification, disposal or dumping of such substances and products.

- Group I and II: Any substance or mixture of a substance that might by reason of its toxic, corrosive etc., nature or because it generates pressure through decomposition, heat or other means, cause extreme risk of injury etc., can be declared to be Group I or Group II hazardous substance;
- Group IV: any electronic product;
- Group V: any radioactive material. The use, conveyance, or storage of any hazardous substance (such as distillate fuel) is prohibited without an appropriate license being in force.

Legal requirements for this project:

It is necessary to identify and list all the Group I, II, III, and IV hazardous substances that may be on the site and in what operational context they are used, stored or handled.

4.3.11 The Occupational Health and Safety Act 1993 (Act No. 85 of 1993)

The Occupational Health and Safety Act make provision in regulation Section 8 for the general duties of employers to their employees. Section 9 of the Regulations makes provision for general duties of employers and self-employed persons to persons other than their employees.

Legal requirements for this project:

While no permitting or licensing requirements arise from this legislation, this Act will find application during the construction phase of the project. Health and safety precautions measures must be put in place for the construction crew and the public.

4.3.12 The National Environmental Management: Air Quality Act 2004 (Act No. 39 of 2004)

National Environmental Management: Air Quality Act (NEM: AQA) which provides for the control of dust, noise and offensive odours.

- S18, S19 and S20 of the Act allow certain areas to be declared and managed as "priority areas".
- Declaration of controlled emitters (Part 3 of Act) and controlled fuels (Part 4 of Act) with relevant emission standards.
- The Act provides that an air quality officer may require any person to submit an atmospheric impact report if there is reasonable suspicion that the person has failed to comply with the Act.

Legal requirements for this project:

While no permitting or licensing requirements arise from this legislation, this Act will find application during the construction phase of the project. Dust control regulations promulgated in November 2013 may require the implementation of a dust management plan during the construction phase of the project for dust management.

4.3.13 Environment Conservation Act (Act No. 73 of 1989)

National Noise Control Regulations (GN R154 dated 10 January 1992).

Legal requirements for this project:

There is no requirement for a noise permit in terms of the legislation. However, the act finds applicability in ensuring construction noise is below the legislated 85 decibels.

4.3.14 Conservation of Agricultural Resources Act (Act No. 43 of 1983)

Prohibition of the spreading of weeds (S5). Classification of categories of weeds and invader plants and restrictions in terms of where these species may occur – Regulation 15 of GN R1048 and Regulation 598 GN 37885 of NEMBA (Act No. 10 of 2004).

Legal requirements for this project:

This Act will find application throughout the life cycle of the project. In this regard, soil erosion prevention and soil conservation strategies must be developed and implemented. In addition, a weed control and management plan must be implemented.

4.3.15 Promotion of Access to Information Act, 2000 (Act No. 2 of 2000)

Legislation that allows the public access to information about activities that influence their well-being and to make contributions to decision making.

Legal requirements for this project:

No permitting is required the act finds applicability during the public participation process phase of the scoping and environmental impact assessment.

4.3.16 National Development Plan 2030

The National Development Plan (NDP) offers a long-term perspective for development in the country. The NDP aims to eliminate poverty and reduce inequality by 2030. According to the plan, South Africa can realise these goals by drawing on the energies of its people, growing an inclusive economy, building capabilities, enhancing the capacity of the state, and promoting leadership and partnerships throughout society.

- The planning is that the NDP and its proposals are to be implemented in the right order over the next 17 years. Three phases have been identified.
- Government has already started a process to align the long-term plans of departments with the NDP and to identify areas where policy change is required to ensure consistency and coherence.
- The NDP is a plan for the whole country. Government will engage with all sectors to understand how they are contributing to implementation, and particularly to identify any obstacles to them fulfilling their role effectively.
- The Plan will shape budget allocation over the next 17 years.
- The Plan identifies the task of improving the quality of public services as critical to achieving transformation. This will require provinces to focus on identifying and overcoming the obstacles to achieving improved outcomes, including the need to strengthen the ability of local government to fulfil its developmental role.

Legal requirements for this project:

Provisions of housing infrastructure and job opportunities (such as the Lefakong Smart City) are in support of the NDP.

4.3.17 Municipal Systems Act, 2000 (Act No. 32 of 2000)

Legislation requires each municipality to develop a plan for the development of its area of jurisdiction. Such a plan, in terms of the law, should be holistic and integrated in its approach and content. According to the Municipal Systems Act, No 32 of 2000, the IDP is the principal strategic planning instrument which guides and informs all planning, budgeting, investment, development, management and implementation processes in the municipality. In

terms of Chapter 5 of Municipal System Act, 2000 (Act 32 of 2000), a municipal council is expected to annually review their IDP in accordance with an assessment of its performance measures and to the extent that changing circumstances so demands, the municipality may also amend its IDP in accordance with a prescribed process.

Legal requirements for this project:

The SDF would enable the applicant to submit a township establishment application to the requirements of the Municipality.

4.3.18 Sekhukhune District Municipality (SDM) Integrated Environmental Management Plan (DIEMP)

The district has developed an Integrated Environmental Management Plan (DIEMP) that needs to be approved by Council

The aim of the DIEMP is to provide a plan that identifies and illustrates the general environmental characteristics of the municipality. In so doing, the Sekhukhune District Municipality determines environmental opportunities and constraints for the development of the municipality. It is recommended in the DIEMP that the information provided should be taken into account and incorporated into overall development plans for the district.

Critical issues identified

The critical issues within the DIEMP are the identification of constraint zones and geographical areas. The development constraint zones within the DIEMP refer to the environmental suitability of land parcels for various types of land uses or activities. The types of development constraint zones identified in the DIEMP include:

- low to no-constraint zone;
- agricultural constraint zone;
- geotechnical constraint zone;
- hydrological constraint zone; and
- ecological constraint zone.

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

One of the main aims of SPLUMA is to create a uniform, recognisable and comprehensive system of spatial planning and land use management throughout South Africa. In this regard, SPLUMA sets out development principles in Section 7, which applies to spatial planning, land use, development decisions and evaluation of impacts:

1. Spatial Justice

Redress of imbalances, inclusion of previously excluded areas, redress in access to land by previously disadvantaged persons, security of tenure, upgrading of informal areas, decision making is not to be based on protection of land values (transformation imperative).

2. Spatial Sustainability

Land development within fiscal, institutional and administrative means, protection of prime agricultural land, consistent with environmental management laws, stimulating land markets, limiting of urban sprawl (creating sustainable urban design).

3. Efficiency

Using existing resources, minimising negative financial, social, economic and environmental impacts, streamlining and processing within time frames (saving time and resources).

4. Spatial Resilience

Flexibility in plans, policies and systems to ensure sustainable livelihoods in communities most vulnerable to economic and environmental shocks (preparing for adverse circumstances).

5. Good Administration

Integration across spheres of government, input from all sectors in developing SDFs, clarity, transparency, empowerment of the public (sound administrative principles).

It is stated in Section 17 of SPLUMA that municipal Spatial Development Frameworks (SDFs) do not confer any rights. Of significance is, however, that land development decisions contrary to municipal SDFs are now forbidden and unlawful, unless a deviation is warranted by site-specific circumstances (Section 22). Since the status of municipal SDFs is enhanced, it is important that the by-laws and land use schemes of municipalities are fully aligned with their SDF. Section 2(2) of SPLUMA also clearly states that except as provided for in SPLUMA, no legislation not repealed by SPLUMA may prescribe an alternative or parallel mechanism, measure, institution or system on spatial planning, land use, land use management and land development in a manner inconsistent with the provisions of SPLUMA. One should remember that the application for township development is lodged in terms of the Ordinance, which is legislation not repealed in terms of SPLUMA and therefore, subject to the provisions of SPLUMA. One should also be aware that the converse of Section 22 applies, in that the Council is bound by their policy considerations and can only deviate from that, based on compelling reasons or circumstances.

According to Ekurhuleni Metropolitan Municipality (EMM), SPLUMA is clear that a spatial framework cannot, and should not, be comprehensive and control all aspects of land-use, activity and built form. Furthermore, according to EMM, spatial frameworks should focus on providing a framework for public action that is generative of private reaction. Therefore, in accordance with SPLUMA:

- The RSDFs aim to be not prescriptive at a site-specific level, but rather provide a framework for interpreting the vision, planning principles and structuring elements of the regions.
- The RSDFs are strategic guides for the spatial development of an area. They provide a framework for the formulation of more detailed and area specific plans.

Legal requirements for this project:

The proposed development impacts specifically on the following development principles in terms of Section 7 of SPLUMA:

- Spatial Sustainability: The higher density of the proposed development protects prime agricultural land by limiting urban sprawl and creating sustainable urban design.
- Efficiencies: By developing an existing residential area at a higher density through using existing resources especially bulk services and thereby minimising negative financial, social, economic and environmental impacts.

4.3.20 Makhuduthamaga Municipality Spatial Development Framework (MMSDF) and other Strategies

Makhuduthamaga Municipality has embarked on a process to review its Spatial Development Framework in compliance with legislative dictates enshrined in the Municipal Systems Act and the Spatial Planning and Land Use Management Act. Its last MSDF was adopted in 2015 and a revision was required to update it to remain relevant and address the spatial challenges facing the municipality. Reference may be made to Figure 20 for the spatial development framework map with the proposed project area circled in red.

Makhuduthamaga Local Municipality, like many rural municipalities in the Republic of South Africa, is characterised by a fragmented spatial settlement structure that is portrayed by poor accessibility, small, low-density settlements separated by large distances apartheid policies which impacted on the spatial environment over many decades has resulted in the creation of unviable and unsustainable settlements.

Clearly, this current spatial structure has not only resulted in the uneven and costly duplication of essential community facilities and basic infrastructure services, but also in the total lack of such facilities and infrastructure throughout a larger section of the Municipality.

The introduction of Spatial Development Frameworks as part of integrated development planning process that culminates in Integrated Development Plans since 2000 is a tool aimed at addressing historically distorted, unviable and unsustainable spatial patterns and challenges caused by apartheid planning.

The revised Makhuduthamaga Local Municipality SDF will comply with the Guidelines for Preparation of Spatial Development Frameworks of a municipality which should at least achieve the following objectives:

a) to give effect to the development principles and applicable norms and standards set out in as contained in Chapter 2 of the SPLUMA;
b) include a written and spatial representation of a five-year spatial development plan for the spatial form of the municipality;
c) include a longer-term spatial development vision statement for the municipal area which indicates a desired spatial growth and development pattern for the next 10 to 20 years;
d) identify current and future significant structuring and restructuring elements of the spatial form of the municipality, including development corridors, activity spines and economic nodes where public and private investment will be prioritised and facilitated;
e) include population growth estimates for the next five years;
f) include estimates of the demand for housing units across different socio-economic categories and the planned location and density of future housing developments;
g) include estimates of economic activity and employment trends and locations in the municipal area for the next five years;
h) identify, quantify and provide location requirements of Engineering infrastructure and services provision for existing and future development needs for the next five years;
i) identify the designated areas where a national or provincial inclusionary housing policy may be applicable;
j) include a strategic assessment of the environmental pressures and opportunities within the municipal area, including the spatial location of environmental sensitivities, high potential agricultural land and coastal access strips, where applicable;
k) identify the designation of areas in the municipality where incremental upgrading approaches to development and regulation will be applicable;
l) identify the designation of areas in which
    i. more detailed local plans must be developed; and
    ii. shortened land use Development Procedures may be applicable and land use schemes may be so amended;
m) provide the spatial expression of the coordination, alignment and integration of Sectoral Policies of all municipal departments;
n) Determine a Capital Expenditure Framework for the Municipality's development programmes, depicted spatially.

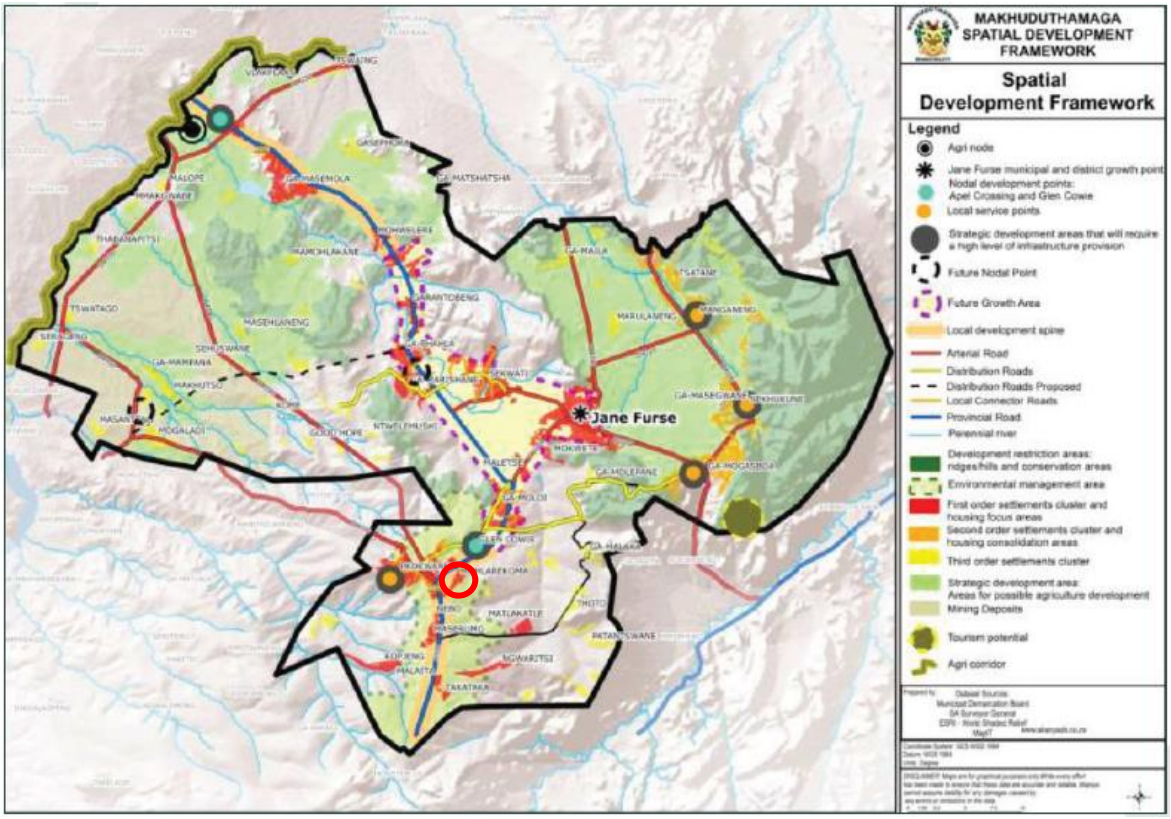

Figure 20: Spatial Development Framework for Makhuduthamaga

4.3.21 Regional Spatial Development Framework (RSDF)

A RSDF is a framework that seeks to guide overall spatial distribution of current and desirable land uses within a municipality to give effect to the vision, goals and objectives of the Municipal Integrated Development Plan (IDP). The RSDF aims to promote sustainable functional and integrated human settlements, maximise resource efficiency, and enhance regional identity and unique character of a place.

In this case it refers to the Spatial Development Framework (SDF) for Sekhukhune District Municipality as contemplated in section 12 of the Spatial Planning and Land Use Management Act (Act 16 of 2013). The General principles endorsed by the Spatial Planning and Land Use Management act is that Spatial Planning, Land Use Management and Land Development must promote and enhance the following five main development principles: Spatial Justice, Spatial Sustainability; Spatial Efficiency; Spatial Resilience and Administration. The SDF will facilitate implementation of the IDP and all government intentions to fight poverty and facilitate balanced urban and rural development throughout the District area. More specifically, it aims towards achieving the following objectives:

- Providing a spatial representation of the land development policies, strategies and objectives of the municipality in the context of local, district, provincial and national directives.
- The SDF will update all relevant socio-economic information and associated trend analysis for the municipal area to 2016 as base year (based on 2016 Community Survey Results as conducted by Central Statistical Services);

- Coordinating and integrating the spatial expression of the sectoral plans of the local and/ or provincial sector departments,
- Addressing inefficient, impoverished and scattered land use patterns where the poor is generally located far away from places of socioeconomic opportunities;
- Indicate the desired and intended pattern of land use development in the urban and rural parts in the district municipality, including the delineation of areas in which development in general or development of a particular type would not be appropriate;
- Managing the conflicting demand between agriculture/ mining, urban expansion and biodiversity conservation areas (tourism focus areas);
- Providing mechanisms for the establishment of a functional relationship between urban and rural areas – both spatially and economically;
- Identifying priority investment areas in urban and rural parts of the municipality;
- Focusing on defining the economic footprint of the district and formulating strategies on how this can be enhanced in a sustainable manner;
- Coordination and alignment of the district SDF with the municipal and provincial SDFs and any other regional plans applicable;
- Spatial targeting will serve to channel public and private investment into priority areas and align the capital investment programmes of the district municipality and different government departments into these areas in pursuit of the five SPLUMA principles;
- And link all of the above to the District Budget via the Sekhukhune Integrated Development Plan (IDP).

The development spatial concept vision for Sekhukhune District Municipality with the proposed project area circled in red. Some of its main principles are:

- Consolidating government investment (spatial targeting) around a number of prioritised urban and rural nodes.
- Linking into the commercial opportunities offered by the tourism meander bordering the District to the north, east and south.
- Intensifying commercial agriculture in the southern extents of the district and focusing on agrarian transformation in the central parts.
- Promoting agrarian downstream beneficiation at the Groblersdal Agri Hub and at a number of local markets and processing areas at rural nodes.
- Maximising the economic benefits to be derived from the Dilokong platinum Belt and consolidate mining beneficiation industries around Burgersfort nodal point.
- Enhance inter- and intra-district transport linkages.

Spatial Development Objectives

- The following are the development objectives from the directives identified in national and provincial policies and sector plans and the local and regional spatial challenges and opportunities identified to be achieved as part of the Spatial Development Framework for the Sekhukhune District Municipality:
- To actively protect, manage and rehabilitate the natural environmental resources in the district in order to ensure a sustainable equilibrium between the competing mining, tourism and agricultural industries.
- To establish a functional system of economic and service delivery nodes in the urban and rural parts of the District.
- To optimise connectivity and access by way of a comprehensive district movement network linking all urban and rural nodes to one another, and to significant destinations in the broader region.
- To ensure equitable access to social facilities and promotion of Local Economic Development by way of targeted investment based on a spatial logic (MPCC) at all the priority nodes within the District.
- To consolidate human settlement projects in sustainable Priority Housing Development Areas at the identified urban and rural nodes.
- To direct engineering infrastructure investment aimed at social and economic development towards the priority nodes and provide at least basic services to communities experiencing excessive service backlogs (in line with Constitutional obligation).
- To utilise the natural environmental and cultural historic features in the District as anchors from which to promote ecotourism and conservation.
- To further enhance agricultural development and food production by establishing the Agri Park concept in the District.
- To facilitate up-scaling of subsistence farming to commercial farming in all the identified Rural Intervention Areas within the Sekhukhune Agri Park.
- To optimally utilise the mining potential in the District with due consideration to the continuous rehabilitation of mining land.
- To promote industrial/commercial development in the District with specific emphasis on Agri-processing at the Agri Hub (Groblersdal), and minerals beneficiation in the Special Economic Zone: SEZ (Tubatse).
- To promote formal and informal business development at all activity nodes in the district and to continuously provide opportunities for upscaling.

The RSDFs aim is not to be prescriptive at a site-specific level, but rather provide a framework for interpreting the vision, planning principles and structuring elements of the regions. The RSDFs are strategic guides for the spatial development of an area. They provide a framework for the formulation of more detailed and area specific plans.

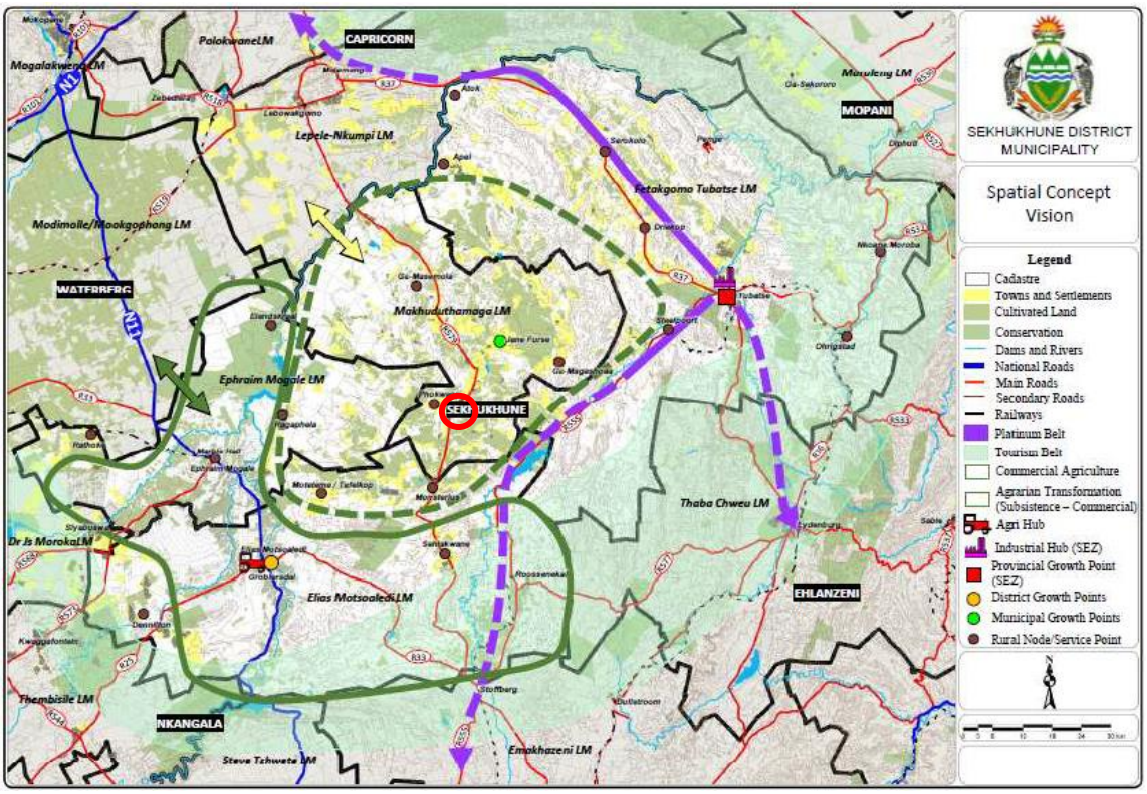

Figure 21: Spatial Concept Vision

4.3.22 Limpopo Conservation Plan version 2

The purpose of the LCPv2 is to develop the spatial component of a bioregional plan (i.e. map of Critical Biodiversity Areas and associated land-use guidelines).

Bioregional plans are one of a range of tools provided for in the Biodiversity Act that can be used to facilitate biodiversity conservation in priority areas outside the protected area network. The purpose of a bioregional plan is to inform land-use planning, environmental assessment and authorisations, and natural resource management, by a range of sectors whose policies and decisions impact on biodiversity.

This is done by providing a map of biodiversity priority areas or Critical Biodiversity Areas (CBA) together with accompanying land-use planning and decision-making guidelines. The conservation plan applies a target driven systematic spatial biodiversity planning methodology to develop this map and it is based on the best available biodiversity and context data, and an explicit set of biodiversity conservation targets. The resultant map represents the minimum area necessary to maintain biodiversity pattern and ecological processes in the landscape, i.e. ecologically functional landscapes.

Bioregional plans are intended to feed into a range of multi-sectoral planning and assessment processes such as Environmental Management Frameworks (EMFs), Spatial Development Frameworks (SDFs), Strategic Environmental Assessments (SEAs), Environmental Impact Assessments (EIAs), Biosphere Reserves, and to

support and streamline environmental decision-making. A bioregional plan is not in itself a multi-sectoral planning or assessment tool, but rather is the biodiversity sector's input into other planning and assessment processes.

This conservation plan is consistent with NEMA principles and the Biodiversity Act. It is designed to support integrated development planning and sustainable development by identifying an efficient set of Critical Biodiversity Areas that are required to meet national and provincial biodiversity objectives, in a configuration that is least conflicting with other land uses and activities. Where alternatives are available, the Critical Biodiversity Areas are designed to avoid conflict with existing IDPs, EMFs and SDFs in the region by favouring the selection of sites that are least conflicting with other land-uses.

Limitations of the conservation plan

Incomplete biodiversity datasets and generally coarse mapping of biodiversity features impose limitations on this plan, which although they do not restrict the application of the plan, need to be recognized and appropriately accommodated when it is used:

i. The conservation plan does not replace the need for site assessments, particularly for Environmental Impact Assessments. Although it is based on a systematic conservation plan using best available data, this does not remove the need for on-site verification of the identified Critical Biodiversity Areas. Further, due to incomplete knowledge of the distribution of biodiversity features, it is likely that additional or alternative areas will need to be identified in the future as we gain a better understanding of rare, threatened, cryptic and understudied species.;
ii. This conservation plan is designed to be used at a scale of approximately 1:50 000. Although it can be used at a finer scale, this requires specialist interpretation of the specific biodiversity features identified in the systematic biodiversity plan;
iii. Ongoing changes in land-use, especially loss of natural habitat, as well as changes in the distribution of biodiversity (e.g. in response to climate change), will impact on the identified network of Critical Biodiversity Areas. It is likely that in future additional areas would need to be designated as Critical Biodiversity Areas in order to meet biodiversity targets in future iterations of the plan.

Reference may be made to site specific CBA map, **Figure 15**, and the district municipality's map, **Figure 14**, which depict the proposed development area to be within Ecological Support Area 1.

4.3.23 Sekhukhune District Bioregional Plan (SDBP) 2017

In 2017, The Limpopo Department of Economic Development, Environment and Tourism (LEDET) initiated the development of the Sekhukhune District Bioregional Plan (SDBP). It is through the SDBP that spatial biodiversity priorities are effectively incorporated into land-use and development planning, thereby bringing synergy between environmental sustainability and eco-nomic development in the area.

With regard to biodiversity, a number of pockets areas are considered to be of significant value. The following four biodiversity management areas were identified in the Limpopo Conservation Plan, the proposed development area is circled in red:

- Protected Areas (nature reserves etc) which are categorized into Ecological Support Areas One (ESA 1 and Ecological Support Areas Two (ESA 2);
- Critical Biodiversity Areas (CBA) 1 areas which can be considered to be "irreplaceable";
- Critical Biodiversity Areas (CBA) 2 areas where conservation is "optional" but highly desirable.

The current Systematic Biodiversity Plan for the province is the Limpopo Conversation Plan version 2, the purpose of which is to inform land-use planning and development on a provincial scale and to aid in natural resource management. Reference may be made to section **4.1.22** which elaborates on the Limpopo Conversation Plan version 2 and **Figure 14**, **Figure 15** and Error! Reference source not found. to Error! Reference source not found. wh ich maps the critical biodiversity areas for the MLM, the conservation plan for the SDM and the relationship between Limpopo Conservation Plan and SDFs of local municipality. The proposed development area is circled in red within all of these maps.

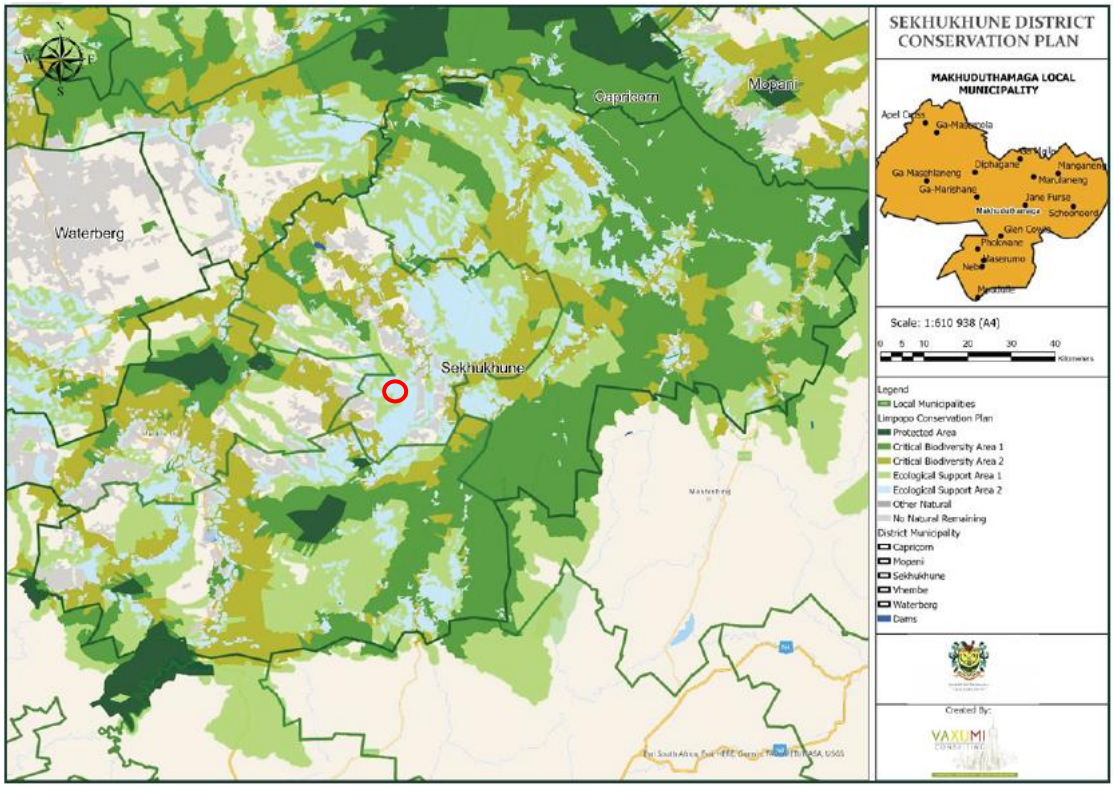

Figure 22: Conservation Plan Sekhukhune District

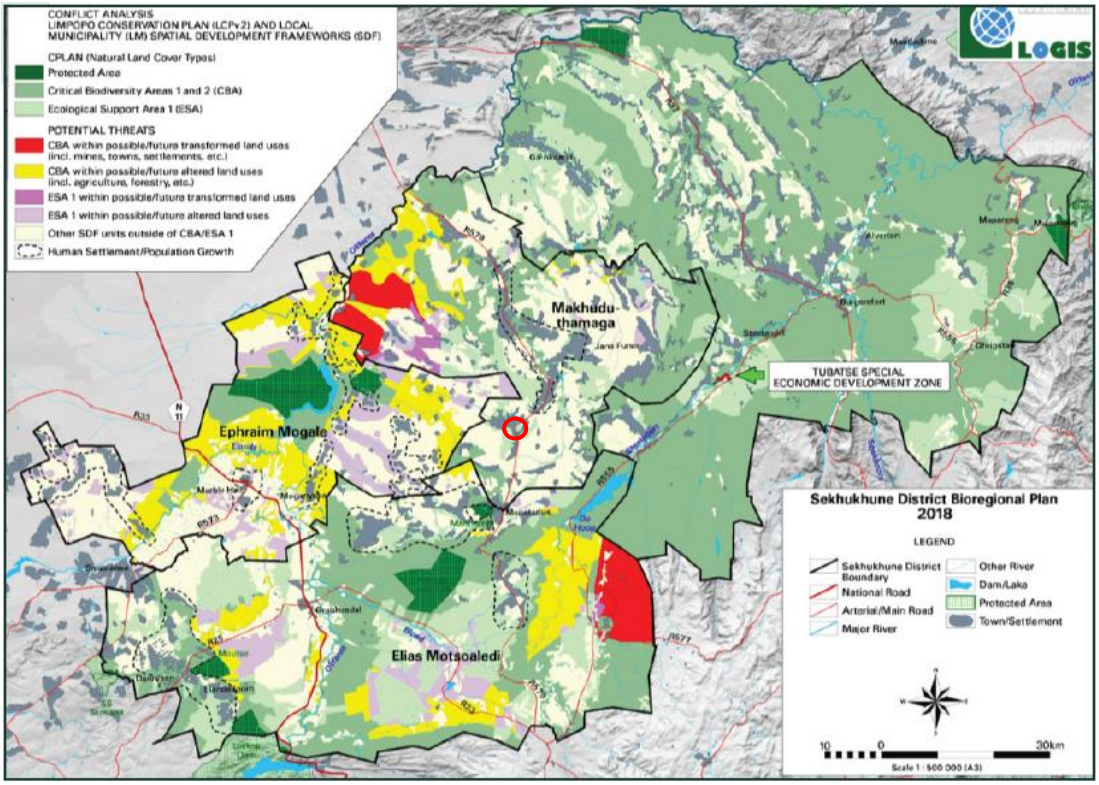

Figure 23: Limpopo Conservation Plan

Critical issues identified

The proposed development only falls within Ecological Support Area 1. Critical biodiversity areas within the bioregion are the portfolio of sites required to meet the region's biodiversity targets, and need to be maintained in the appropriate condition for their category. The Makhuduthamaga Local Municipality CBA Plan identified the following categories and reference may be made to Error! Reference source not found. below where the proposed d evelopment area is circled in red:

- Critical Biodiversity Area One;
- Critical Biodiversity Area Two;
- Ecological Support Area One;
- Ecological Support Area Two;
- Other natural areas; and
- No natural areas.

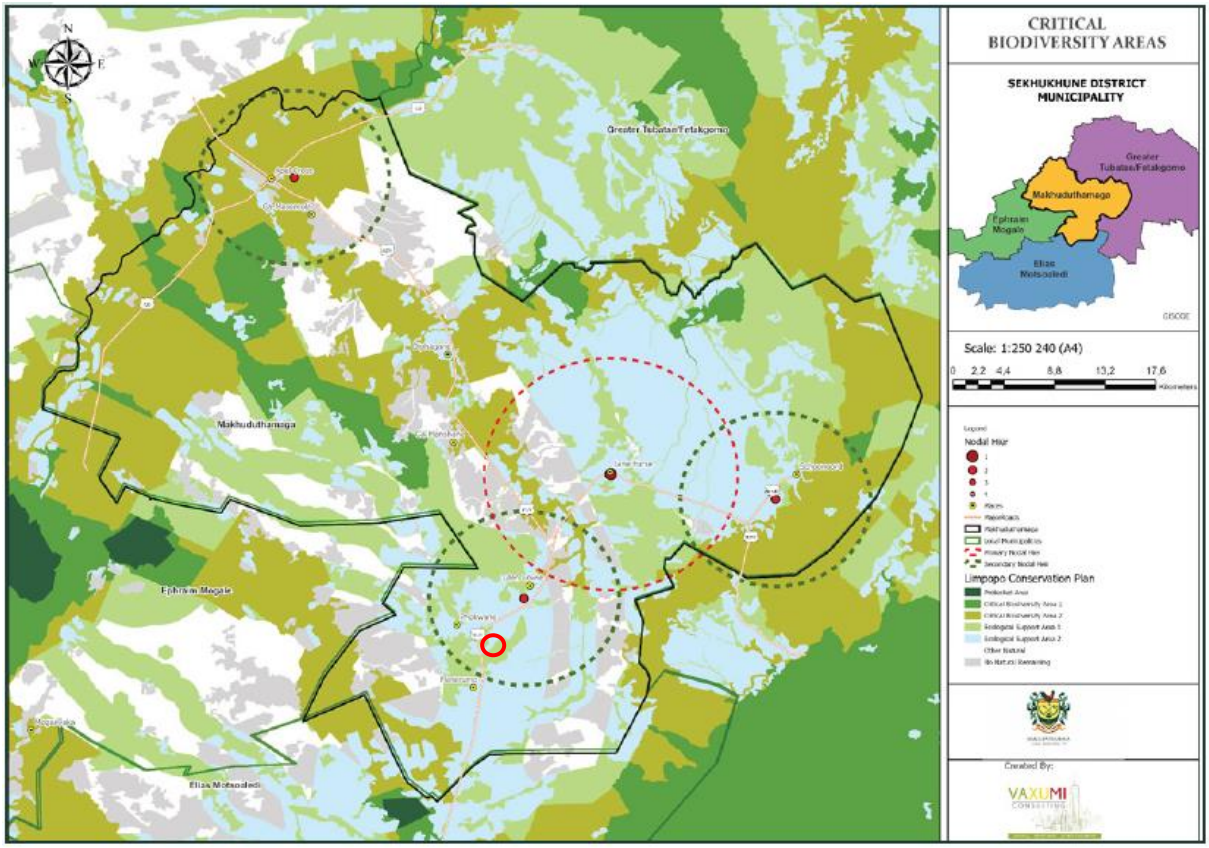

Figure 24: Critical biodiversity areas

4.3.24 Additional notable legislation

Other applicable legislation includes:

- National Road Traffic Act (Act No. 93 of 1996).
- Subdivision of Agricultural Land Act (Act No. 70 of 1970).

4.4 Environmental Impact Assessment Process

4.4.1 Principles

The general approach to this study is guided by the principles contained in Section 2 of NEMA and those of Integrated Environmental Management (IEM). NEMA lists a number of principles that apply to the actions of organs of state and also serves as reference for the interpretation of environmental legislation and administration of environmental processes. The principles most relevant to environmental assessment processes and projects for which authorisation is required are summarised below.

Principles Relevant to the EIA Process:

- Adopt a risk-averse and cautions approach.
- Anticipate and prevent or minimise negative impacts.

- Pursue integrated environmental management.
- Involve stakeholders in the process.
- Consider the social, economic and environmental impacts of activities.
- Place people and their needs at the forefront of concern and serve their needs equitably.
- Ensure development is sustainable, minimise disturbance of ecosystems and landscapes, pollution and waste, and achieves responsible use of non-renewable resources and exploitation of renewable resources.
- Assume responsibility for project impacts throughout its life cycle.
- Polluter bears remediation cost.

This S&EIR process complies with these principles through its adherence of the EIA Regulations, 2014 and associated guidelines, which set out clear requirements for inter alia, impact assessment and stakeholder involvement (see below) and through the assessment of impacts and identification of mitigations measure during the impact assessment phase.

In accordance with the IEM Information Series (DEAT, 2004), an open transparent approach which encourages accountable decision-making has been adopted.

The underpinning principles of IEM require:

- Informed decision making.
- Accountability for information on which decisions are made.
- A broad interpretation of the term “environment”.
- An open participatory approach in the planning of proposals.
- Consultation with Interested and Affected Parties.
- Due to consideration of alternatives.
- An attempt to mitigate negative impacts and enhance positive impacts of proposals.
- An attempt to ensure that social costs of development proposals are outweighed by the social benefits.
- Democratic regard for individual rights and obligations.
- Compliance with these principles during all stages of the planning, implementation and decommissioning of proposals.
- The opportunity for the public and specialist input in the decision-making process.

4.5 Submission of Applications

Various environmental authorisations, permits or licences may be required before the proposed Lefakong Smart City development can commence with construction and operation. Certain application forms must be submitted at the outset of the S&EIR process (e.g. in terms of the EIA Regulations, 2014) including a license in terms of the National Water Act (Act No. 36 of 1998) (NWA).

Application	Authority	Status
EA	LEDET	The application is being submitted to LEDET in compliance with EIA Regulations, 2014.
WUL	DWS	The application is being uploaded onto the DWS E-WULAAS portal as per Section 21 water uses of the National Water Act.

4.5.1 Scoping and EIA Process and Phasing

The Scoping and EIA Process consists of three phases, namely the Pre-application Phase, Scoping Phase (current phase) and an Impact Assessment Phase. This is depicted in Error! Reference source not found. below.

Figure 25: Overview of the Overview of EIA Process

The objectives of the Pre-application Phase are to:

- Identify stakeholders, including neighbouring landowners, residents and authorities.
- Compile a draft Scoping Report describing the affected environment and present an analysis of the potential environmental issues and benefits arising from the proposed project that require further investigation in the Impact Assessment Phase.
- Develop ToR for specialist studies to be undertaken in the Impact Assessment Phase.

The Objectives of the Scoping Phase are to:

- Inform stakeholders of the proposed activity, feasible alternatives and the S&EIR process.
- Provide stakeholders with the opportunity to participate effectively in the process and identify any issues and concerns associated with the proposed activity, review specialist study ToR and the Plan of Study.
- Submit a Scoping Report to the relevant authorities (in this case LEDET and DWS).

The Objectives of the Impact Assessment Phase are to:

- Inform and obtain contributions from stakeholders, including relevant authorities, the public and local communities and address their relevant issues and concerns.
- Build capacity amongst stakeholders during the S&EIR process so that they may actively and meaningfully participate.
- Document and contextualise the biophysical baseline conditions of the study area and the socio-economic conditions of affected communities.
- Assess in detail the potential environmental and social-economic impacts of the project.
- Identity environmental and social mitigation measures to avoid and/or address the impacts assessed.
- Develop and/or amend environmental and social management plans based on the mitigation measures developed in the EIA Report and EMPr.

5 Public Participation Process

Public participation is the involvement of all parties who potentially have an interest in a development or project, or may be affected by it. The principal objective of public participation in an Environmental Impact Assessment (EIA) process, in particular this Scoping Phase, is to inform and enrich decision-making.

In order to canvass the issues and concerns of the broader public and to ensure that all IAPs are afforded the opportunity to comment on the proposed development, the proposed project was announced as follows:

5.3 Stakeholder Engagement Activities

The activities undertaken and proposed during the Pre-Application and Scoping Phases of the assessment are outlined in Table 10 below.

Table 11: Activities planned during the Scoping Phase

Task	Objectives
Advertise commencement of EIA process and release notification letters	To notify IAPs and Organs of State of the commencement of the EIA process and to provide information on the background of the proposed project.
Release Scoping Report for public review and commenting period	To provide a description of the proposed project and the affected environment, potential environmental issues and the proposed approach to the Impact Assessment Phase.
Advertise notification and invitation to comment on draft Scoping Report	To notify IAPs and Organs of State of the project and the availability of the draft Scoping Report for review and comments.
Focus Group Meeting	To introduce the project and present the findings of the Scoping Report to the ward councillor.
Public Meeting	All I&APs and stakeholders will be invited. Councillor to confirm if public meeting is required.
Compile Issues and Responses Summary and finalise Scoping Report	To record all issues and concerns raised and collate these comments in the final report which provides LEDET with information to decide whether to accept the Scoping Report.

The key activities (that will be) undertaken in the stakeholder engagement process during the Scoping Phase are described further below.

5.4 Process followed to date

The following process was undertaken to facilitate the public participation for the proposed project:

5.4.1 Identification of Key Stakeholders

As required by the EIA Regulations of 2014, relevant local, provincial and national authorities, conservation bodies, local forums and representatives and surrounding land owners and occupants have been notified of the EIA and the release of the Scoping Report for comment.

Relevant authorities (Organs of State) have been automatically registered as IAPs. In accordance with the EIA Regulations of 2014, all other persons must request in writing to be placed on the register, submit written comments or attend meetings in order to be registered as stakeholders and included in future communication regarding the project; the advertisement and notifications advised that IAPs register as such. All respondents were then placed on the project database. This database was supplemented by IAPs that contacted our Public Participation consultant/ project manager to be included on the database. The database will be used throughout the process to inform the stakeholders of the project and is attached as **Appendix D6**. The stakeholder database will be updated throughout the process.

5.4.2 Site notices

Site notices were erected on site and at visible and accessible locations close to the site, to inform surrounding communities and immediately adjacent landowners of the proposed development. Photographic evidence of the site notices is included in **Appendix D1.**

5.4.3 Direct notification of identified I&APs

Identified I&APs, including key stakeholders representing the following sectors, were directly informed of the proposed development by e-mail. For the purposes of this the following authorities were consulted:

- Provincial Authorities
- Local Authorities
- Service providers
- Ward Councillor

Please refer to **Appendix D2** for the Notification Letters and proof of email notifications that was distributed to the I&APs identified as well as a list of identified and contacted I&APs, including directly adjacent landowners.

5.4.4 Hand-deliveries/ knock and drops

Hand-deliveries were made to adjacent landowners within close proximity to the proposed development to notify and inform them of the proposed project. Refer to **Appendix D2 (i)** for proof of the Knock and Drop register.

5.4.5 Newspaper advertisements

An advertisement, notifying the public of the Scoping & EIA process and requesting I&APs to register with, and/ or submit their comments to Envirolution Consulting (Pty) Ltd was placed in the Sekhukhune Dispatch on **13th October 2023**. A copy of the advertisement is attached as **Appendix D3**.

5.4.6 Concerns raised by I&APs

The relevant local authorities and other stakeholders were informed of the proposed project via notification letters distributed. Registration sheets were attached to the notification letters for the local stakeholders to register as Interested and Affected Party's (I&AP's) and to lodge their comments. Comments received and responses provided are in the Comments and Response Report attached as **Appendix D5**. Refer to **Appendix D4** for correspondences to and from I&APs.

5.4.7 Availability of Draft Scoping Report for public review

Stakeholders are provided 30 days to review and comment on the draft Scoping Report **from 13 October 2023 to 13 November 2023.** Registered I&APs and stakeholders will be notified by email post of the availability of the Scoping Report for public review and comment. Proof thereof will be attached to the Final Scoping Report.

A hard copy of the full report will be available for review at the **Phokwane Library – Phatametsane Limpopo.** Proof thereof will be attached to the Final Scoping Report.

5.4.8 Focus Group Meeting

A Focus Group Meeting will be held with the Councillor of the respective ward during the Draft Scoping Report review period to introduce the project and present the findings of the Scoping Report. Any issues/ concerns raised by the councillor will be taken into consideration. The councillor will advise if a public meeting will be required to address further issues related to the proposed project. Proof thereof will be attached to the Final Scoping Report.

5.4.9 Public Meeting

All I&APs and stakeholders will be invited to a Public Meeting whereby the findings of the Scoping Phase will be presented for discussion. This is to follow the Focus Group Meeting, during the Draft Scoping Report review period to provide I&APs and stakeholders with the opportunity to discuss any concerns related to the proposed project. Proof thereof, if any, will be attached to the Final Scoping Report.

5.4.10 Submission of Final Scoping Report

Following initial review of the Scoping Report, issues raised by authorities and the public will be summarised and responded to and included in the Comments and Response Report which will be attached to the Final Scoping Report. The Scoping Report will be updated (if and where necessary), taking stakeholder input into account. The Final Scoping Report will then be submitted to LEDET. The Impact Assessment Phase will commence thereafter.

6 Potential Environmental and Social Impacts

An important element of scoping is to evaluate the issues that were raised during the public participation phase and technical processes and ensure that those identified as key issues are included within the scope of the EIA process. In addition, scoping allows for the identification of the anticipated impacts, particularly those that will require detailed specialist investigations. These results of the public participation phase and issues identified will form the basis for the ToR for specialist studies and a full assessment of the impacts for the Environmental Impact Phase.

This section of the report aims to predict the potential impacts likely to occur from the undertaking of the proposed activities. This allows for the mitigation of the impacts and their associated costs and timeframes being included in the project planning.

6.3 Key Environmental Issues and Impacts

The potential impacts of the project are mostly linked to the sensitivity of the biophysical environment, the sensitivity of the social environment (e.g. communities), the extent or footprint and nature of the project, expected emissions and discharges and stakeholders' perceptions.

The EIA Regulations of 2014 (Appendix 2) prescribes the required content of a Scoping Report (Refer to Section 1.4 above) including the identification of risks and impacts (potential nature, significance, consequence, extent, duration and probability) of the project, and the degree to which impacts can be reversed, may cause irreplaceable loss of resources and can be avoided, managed or mitigated (Appendix 2 (h) (v) and (vii)).

Based on the above considerations and the professional experience of the EAP, the following *key* environmental issues – in effect, a preliminary suite of potential negative impacts and potential benefits of the project in its proposed setting – related to the **construction and operation** of the Proposed Lefakong Smart City have been identified. The following environmental issues relating to the proposed Lefakong Smart City have been identified as being important and were investigated in the Scoping Phase. These issues will be further investigated for the EIA Phase of the project.

a) Air quality

The development may generate emissions through air pollutants such as:

- Dust nuisance that significantly affect air quality. Dust mitigation measures will be required to prevent dust levels from exceeding South African Air Quality Guidelines.
- The transportation of materials such as sand, cement and the movement of vehicles and machinery especially during the autumn months could contribute to high levels of dust pollution due to high wind speeds.
- The unlawful burning of wastes accumulating on the site during the construction phase can add to the

air pollution in the area and should be regulated.

The overarching objective of pollution and waste management during the construction phase of the project should be based on the principle of reduction and where possible be avoided. Pollution related to impacts during this phase will be temporary in nature and these impacts are considered to be of low significance if mitigation measures are implemented effectively.

b) Noise

Construction activities could lead to a significant increase in the levels of noise pollution. Typical construction noise can be expected, but will be temporary in nature. Adjacent residents located within close proximity to the proposed works will also be exposed to these impacts and should therefore be warned of the dangers associated with the construction activity. Noise related to impacts during this phase will be temporary in nature and these impacts are considered to be of low significance if mitigation measures are implemented effectively.

c) Heritage

The overall heritage impact is likely to be of low significance as features or objects of cultural heritage significance have not been identified on the site during site screening. The potential impacts will be required to be assessed further in the EIA phase.

d) Fauna

Two threatened or protected (TOP) species which cannot be excluded from site due to corresponding distribution and habitat (not taking into account the anthropogenic activity on site which may dissuade species from utilising the site) include the Honey Badger and Lesser Kestrel. Both species are highly mobile and will move away from site when activity commences.

Only the Sekhukhune Flat Lizard is restricted to the greater area but is widespread and common within its range. None of the other endemic species recorded in the area or identified as likely on site are highly restricted endemics and the area does not contribute to the conservation of restricted endemic fauna, nor is it an area of faunal endemism.

e) Vegetation

The only desktop features of relevance to the site were the potential for TOP ecosystem to be present on site (to be determined by the flora specialist and outside the scope) and the Ecological Support Areas (ESAs). The on-site ESAs are largely associated with the non-perennial streams and drainage lines on site and can be considered as ecological corridors and buffers to riverine areas. Their value to terrestrial fauna is limited as the habitat is disturbed and the site is very isolated with limited connectivity to the north. As the site is significantly disturbed

by previous anthropogenic activities, further investigations must be undertaken for the EIA Phase to determine if the vegetation on site has any potential to support plant species of conservation concern.

f) Soil

The soil types include dolomite, limestone, iron formation, shale and quartzite. Various water sources transverse the municipal area. They flow during rainy seasons and dry out when it does not rain. Soils exposed in the gullies reflected bleached (gleyed) unstructured sandy soil with clear oxidation within 50cm of the soil surface. hydromorphic soils remain evident. The soil classification available for the study site indicates the presence of Ba63 soil. The geology of the surroundings support soils of various quality, especially shallow Glenrosa and Mispah forms on rocky ridges. Mainly land types Ba, Bb and Ib.

Agriculture

Crop/Vegetable Farming

Makhuduthamaga Municipality is an area with limited commercial agricultural development compared to the rest of other municipalities in the Sekhukhune District Municipality. Except for the Apel Cross commercial agricultural node en route to Lepelle Nkumpi, the rest of the municipality practices subsistence farming on land generally allocated by traditional authorities. Most of the crops cultivated are maize, millet, sorghum and hey. Subsistence crop and goat farming are also practiced reinforcing the fact that the municipality also forms part of the Limpopo beef cluster.

This area experiences rainfall during the warmer months of October to March and the mean annual rainfall is 536mm. The fields have an average elevation of 1333 m above mean sea level. The temperatures can drop to 7 °C in winter but can be as high as 35 °C in summer ac-cording to the records from the automatic weather stations of the Agricultural Research Council.

The reason no serious commercial crop and vegetable farming is practised in the municipality is due to uncertainty on the ownership and security of tenure on land as investors may not want to invest millions on infrastructure on land that is not adequately secured.

Another challenge is the erratic rainfall patters as reflected above.

The Error! Reference source not found. below reflects the predominance of subsistence farming in the m unicipality as compared to commercial farming in neighbouring municipalities within the Sekhukhune District Municipality.

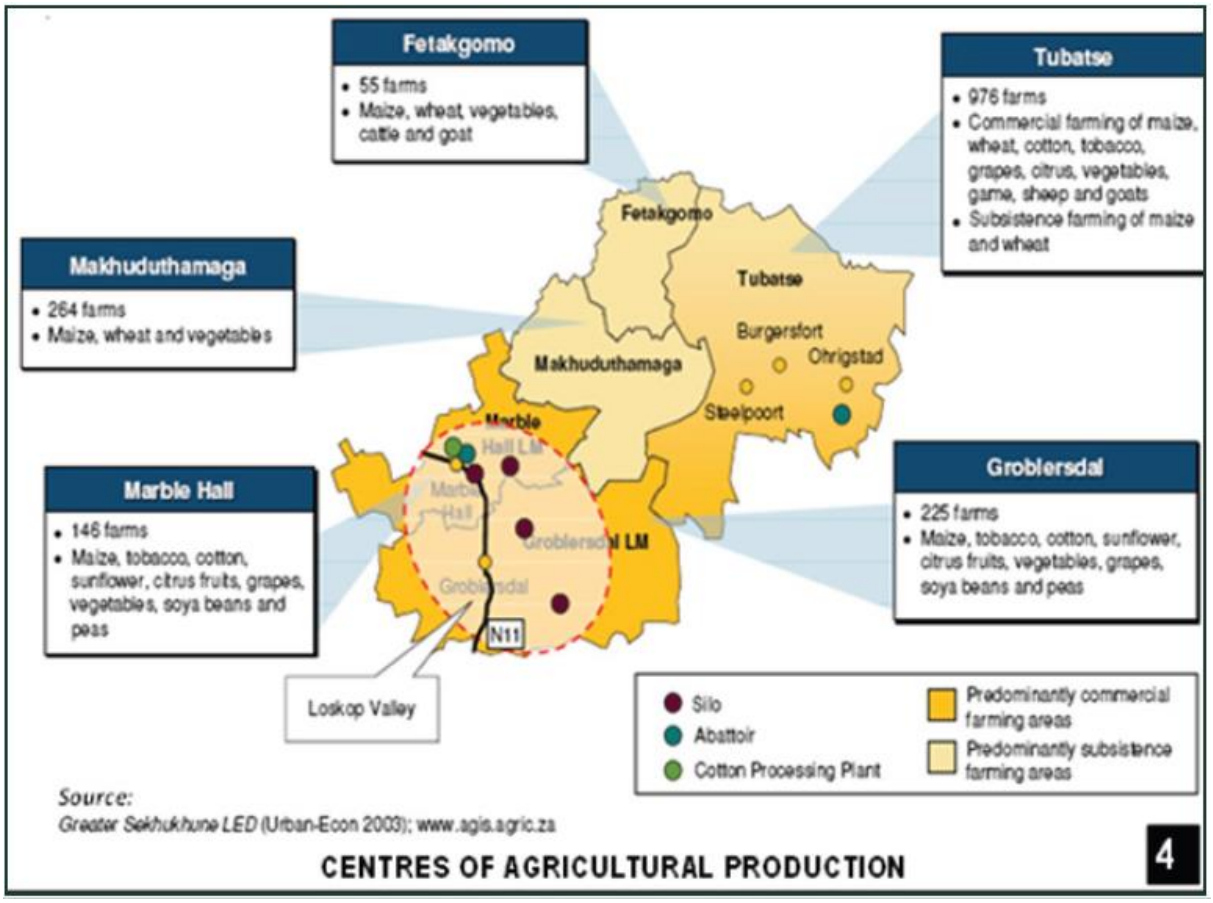

Figure 26: Centres of agricultural production

Livestock and Game Farming

Makhuduthamaga Municipality has comparative and competitive advantages about the pro-duction of red meat in the form of beef and goat's production. There is no significant game farming in the area. Figure 27 below confirms that Makhuduthamaga Municipality is one of the major producers of red meat with a rating of medium to large production in the sector in the Limpopo Province. Some challenges encountered in the sector relate to poor skills, group approaches to the sector which resulted in cooperatives running down established operations.

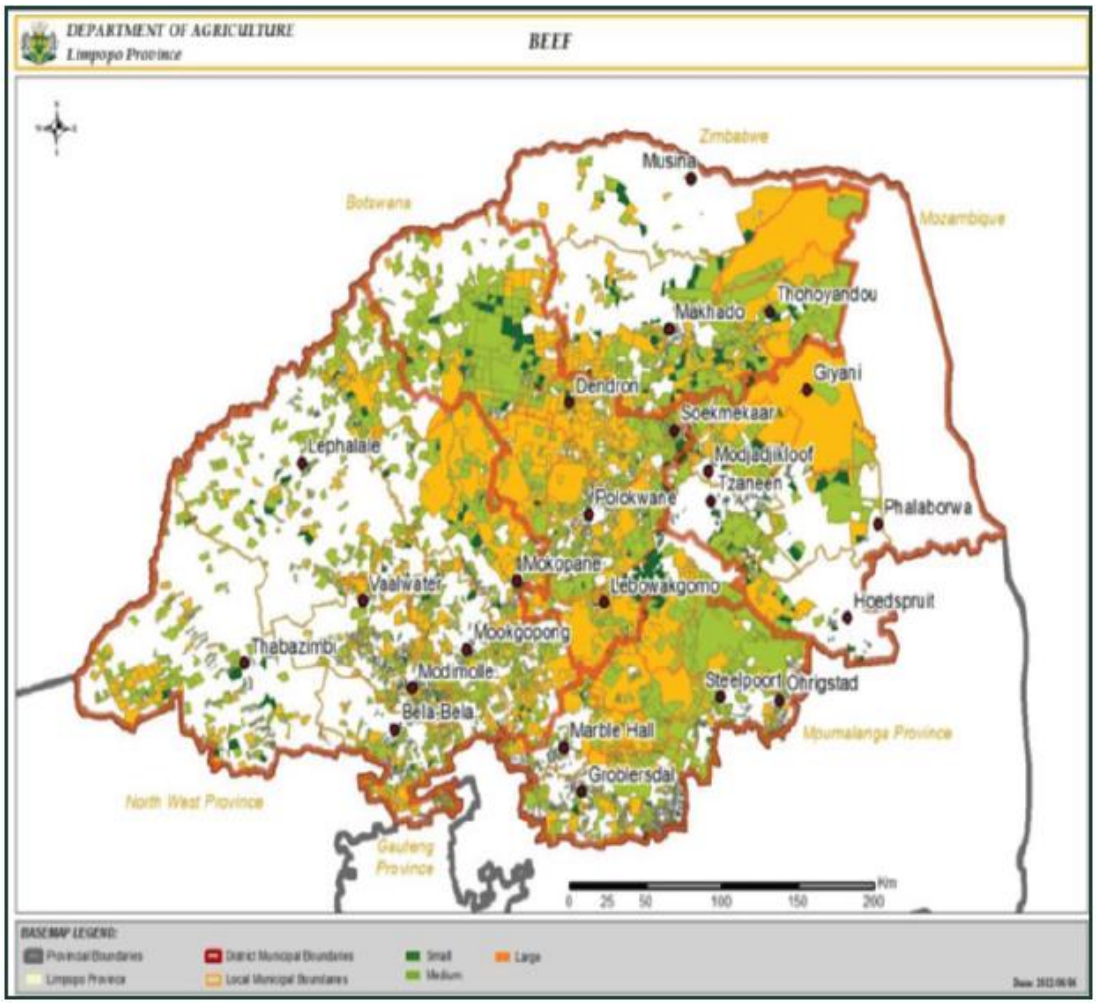

Figure 27: Location of Beef production in the Limpopo Province

g) Social Impact

The mixed-use residential development may have adverse socio impacts (e.g. on influx of people to the area, crime and safety, sense of place, daily living and movement patterns). The potential impacts will be required to be assessed further in the EIA phase.

h) Socio-economic

The mixed-use residential development may have both negative and positive adverse socio-economic impacts. The proposed project will have a positive impact on the municipality and the greater communities as the proposed project entails the development of a residential township for social housing aimed at the rental market to accompany the direct access to existing bulk services and infrastructure connections and to accommodate residents classed as middle-income thus promoting spatial justice. It will contribute much needed housing as well as economic development and job opportunities. Adjacent property values may increase. The potential impacts will be assessed further in the EIA.

i) Traffic

The site is situated within a high density residential built-up area with a medium amount of traffic movement. The proposed development will increase the traffic volumes significantly. In addition, R579 lies to the north west of the site. The potential impacts will be assessed further in the EIA phase.

j) Wetland

According to the Sensitivity Map below, the proposed development site is next to the wetland area. The proposed development site is situated within Quaternary Catchment B51H. Quaternary Catchment B51H falls within the second Water Management Area (WMA), the Olifants WMA. The watercourse forms the headwaters of a tributary of the Ngwaritsi River. This river flows into the Olifants River approximately 43km northwest of the site. Major rivers within this quaternary catchment include; Elands, Wilge, Steelpoort, Olifants, Letaba. Reference may be made to Figure 12 above. However, the overall impacts will be assessed further in the EIA phase.

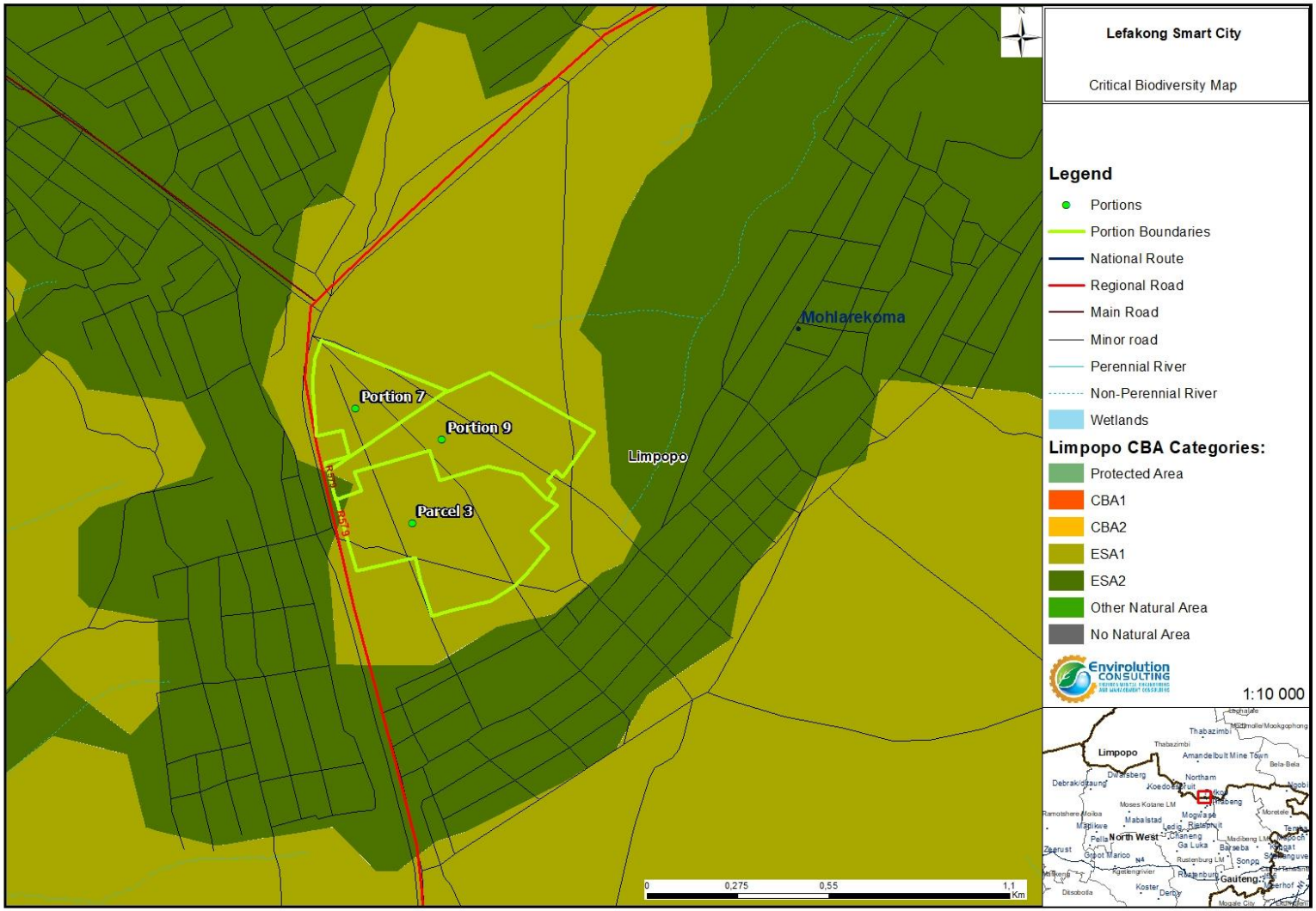

Figure 28: Sensitivity Map

k) Visual

The proposed site is currently vacant land and the surrounding areas are mostly high density residential built-up areas. The proposed development is likely to suit the surrounding environment. The construction and operation of the Lefakong Smart City may affect the current visual character and sense of place of the surrounding areas through on-site activities and change in the character of the area due to the construction of the development. The proposed project may add or remove certain features to or from the existing study area which will cause a visual change. The potential impacts will be assessed further in the EIA phase.

l) Pollution Impacts

Associated construction activities could lead to a significant increase in the levels of waste generation and littering. In addition, liquid and solid waste, including sewage, will be produced on site during both construction and operation phases. The potential also exists that liquid substance e.g. used oil, solvents, etc. be disposed in natural drainage lines. This could have a significant negative impact on the surrounding environment and adjacent landowners.

The overarching objective of pollution and waste management during the construction phase of the project should be based on the principle of reduction and where possible be avoided. Pollution related to impacts during the construction phase will be temporary in nature and are considered to be of low significance if mitigation measures are implemented effectively.

6.4 Potential Mitigation Measures

The EIA Regulations, 2014 (GN 982, Appendix 2) prescribes the required content in a Scoping Report, as outlined in Section 1.4 above, including the identification of possible mitigation measures (Appendix 2 (h)(viii) and (i)(x)) that could be applied to avoid or mitigate negative impacts and optimise positive impacts.

Most of the impacts linked to the construction and operation of the Lefakong Smart City can be readily mitigated. More mitigation measures will be identified at the EIA phase; key relevant measures are listed in Tables 11 and 12 below.

Table 12: Key construction impacts and related mitigation measures identified at this scoping phase

Construction Phase	Key essential management/ mitigation measure
Air Pollution	• Implement dust suppression measures to reduce dust from roads and exposed construction areas. No burning of waste should be allowed on site.
Noise	• Construction activities must abide by the national noise laws and the municipal noise by-laws with regard to the abatement of noise caused by

	mechanical equipment. • Maintain diesel powered earthmoving and waste handling equipment in good operating condition.
General Pollution	• Implement an appropriate stormwater management system to contain all dirty stormwater on site while ensuring that all clean or uncontaminated stormwater is diverted or released. • Good environmental management practices must be followed to prevent potential contamination of soil and water resources. • Implement appropriate waste management practices to prevent windblown dispersion of solid waste. • No waste may be dumped in neighbouring surrounding vicinities. • The mixing of concrete should only be done at specifically selected sites on mortar boards or similar structures to contain run-off into drainage lines, streams and natural vegetation.
Social	• Ensure strict access control to the site. • All employees to be clearly identifiable. • Proper supervision of employees at all times. • Construction activities must remain within construction footprint. • No unauthorized people to be allowed on site.
Socio-Economic	• Target and give preference to local labour and resources. • It is recommended that local employment policy is adopted to maximize the opportunities made available to the local labour force. • Training and skills development programmes should be provided to all employees. • The recruitment selection process should seek to promote gender equality and the employment of women wherever possible.
Traffic	• It must be ensured that a backlog of traffic does not develop on site during peak hours, through the erection of signage to warn motorists of construction, closed road lanes, traffic delays etc. and consideration for use of alternatives routes. • Prior to construction, informative hazard Warning Signage must be erected to inform public of the inherent dangers. • Ensure that a backlog of traffic does not occur at road networks due to construction activities.

	• During day time, designate responsibility to some construction crew to guide traffic (traffic controllers) during construction to motorist that will be affected during construction. • Provide detour routes to motorists where necessary.
Ecology (wetland, fauna, vegetation and soil)	• No development should occur within the wetland buffer zone. • If any mammal species are encountered or exposed during the construction phase, they should be removed and relocated to natural areas in the vicinity. • Material storage areas will not be allowed in close proximity to ecologically sensitive areas. • No discharge of pollutants such as cement, concrete, lime, chemicals, fuels or oils will be allowed into any water resource. • Limit the removal of naturally occurring vegetation to only that which is absolutely necessary. • Topsoil should be stockpiled separately from the subsoil.
Heritage	• Barricade any heritage materials found on site as a no-go area. • Destruction of heritage resources e.g. graves etc. is not allowed. • Should any archaeological artefacts be exposed during excavation, work on the area where the artefacts were found, shall cease immediately and the ECO shall be notified as soon as possible.
Visual	• Put effort into the design of the entrances to the development. A well-defined and neat entrance immediately makes an impression and also provides the development with an identity. • Plan the road reserve in order to accommodate street trees, lamp poles and telecommunication and electrical services without overcrowding the road reserve. • Progressively landscape and vegetate the site with indigenous species. • Avoid harsh, steep engineered slopes as much as possible. • Implement an effective dust suppression programme, such as regular wetting and/or the use of non-polluting chemicals that will retain moisture in haulage roads. • Install effective catching mechanisms or other management measures to prevent wind-blown litter from leaving the immediate confines of the working (disposal) area. • Develop a Visual Impact Management Plan to facilitate the

	implementation of mitigation measures. The plan should include a Landscape Development Plan. Obtrusive lighting is not identified as a visual impact and is very difficult to predict and requires the service of a lighting engineer in order to quantify potential obtrusive lighting impacts. The mitigation proposed here is preventative measures that should form part of the design phase of the development. • Confine light output within property boundaries through using specifically designed luminaires such as full cut-off luminaires to minimise upward spread of light near to and above the horizontal. • Tilt spotlight luminaires to direct the light to the intended spot, instead of allowing it to light areas outside its purpose. • Mount outdoor spot lights on the appropriate pole height. Higher mounting heights allow lower main beam angles which can reduce glare. • Utilise control systems to reduce light levels during inactive periods or at predetermined times while maintaining sufficient lighting for safety and security. • Where vertical surfaces are illuminated, such as advertising signs or buildings façades, it is recommended that luminaires should light downwards. If up-lighting is the only alternative, the use of shields, baffles or louvers should be installed to reduce light spillage over or under the structure.

Table 13: Key construction impacts and related mitigation measures identified at this scoping phase

Operation Phase	Key essential management / mitigation measure
Visual	• Progressively landscape and vegetate the site with indigenous species. Establish a well thought through urban design concept which allows for a harmonious diversity in built form and façade finishes. Make a conscious effort to steer away from the typical duplication of built form, especially in the planning of the single stand-alone houses and multi storey buildings.
Surface Water Runoff and Stormwater Management	• Ensure that stormwater management systems are fully implemented.

Socio-Economic	• Target and give preference to local labour and resources. • It is recommended that local employment policy is adopted to maximize the opportunities made available to the local labour force.
Social Impact	• Population Change – Site is situated in a high-density area. An increase in the population size and density would result in an increase of impacts.
Traffic impact	• Ensure that appropriate traffic control measures are implemented during the planning of new roads.

7 Plan of Study for the EIA

The proposed Plan of Study for the Impact Assessment Phase of the EIA is presented below.

7.3 Description of the Proposed EIA Process

The Impact Assessment Phase can be divided into the following key steps:

- Consultation with relevant authorities;
- Specialist studies;
- Compilation of an EIA Report and an EMPr;
- Stakeholder engagement; and
- Submission of the Final EIA Report and EMPr to the competent authorities, in this case LEDET.

These are outlined in more detail below.

7.3.1 Consultation with the Relevant Authorities

Consultation will be conducted with LEDET and other relevant authorities to clarify their requirements for the Impact Assessment Phase of the proposed development, other permit and license applications for the project and to ensure that comments from the key authorities can be received in time to allow for them to be addressed in the EIA. The authorities (and other organs of state) that will be consulted include:

- Limpopo Economic Development, Environment and Tourism (LEDET).
- Department of Water and Sanitation (DWS).

7.3.2 Specialist Studies

Studies that have been commissioned during the Scoping Phase are outlined in **Table 14** below, thus no new studies will be undertaken during the EIAR Phase unless required by LEDET. These specialist studies will be documented and recommendations formulated by the specialists for the proposed development.

Table 14: Specialist studies under compilation

Name of Specialist	Title of specialist report/ s
Limosella Consulting	Wetland/Riparian Delineation and Functional Assessment
	General Wetland Rehabilitation and Monitoring Plan
	Risk Assessment
Barbara Kasl	Terrestrial Fauna Impact Assessment and Management Plan
Dimela Eco Consulting	Vegetation Assessment
J A van Schalkwyk	Heritage Impact Assessment
Heidi Fourie	Palaeontological Assessment

The full impact of construction activities will be described in the EIAR after the integration of all available specialist

study findings has occurred. Assumptions made and the specialists will explicitly state any uncertainties and gaps in knowledge. An indication will be provided by the specialists of the methodology used in determining the significance of potential environmental impacts. Envirolution Consulting will ensure that the methodology is consistent across all specialist studies in order to facilitate informed integrated decision making. Refer to Section 7.2 below.

7.3.3 Compilation of the Environmental Impact Assessment Report

The compilation of the EIA Report and EMPr will include the following tasks:

- Assimilation of the specialist studies/ input into the EIA Report and EMPr.
- Identification and assessment of environmental impacts based on the results of the specialist studies/ input and professional judgment of the EIA team. This will entail an assessment of the duration, extent, probability and intensity of the impacts to determine their significance.
- Identification of mitigation measures and recommendations for the management of the proposed project to avoid and minimize environmental impacts and maximize benefits.
- Collation of the above information into an EIA Report and EMPr for the construction and operation phases of the project.

7.3.4 Stakeholder Engagement

The stakeholder engagement process initiated during the Scoping Phase (Refer to Section 3 above) will continue in the Impact Assessment Phase of the EIA. The key activities planned during the Impact Assessment Phase are outlined in **Table 15** below.

Table 15: Stakeholder engagement activities planned during the Impact Assessment Phase

Task	Objectives	Dates
Update stakeholder database	To register additional stakeholders identified throughout the S&EIR process.	Throughout S&EIR process
Compile and release EIA Report for public comment period	To assess the impacts of the project and formulate mitigation measures and management plans.	Impact Assessment Phase
Public comment period	To provide stakeholders with the opportunity to review and comment on the results of the Impact Assessment Phase.	Impact Assessment Phase
Finalise EIA Report	To present the findings of the EIA process and incorporate stakeholder comment in the final report, which provides LEDET with information for decision-making.	Impact Assessment Phase

7.3.5 Submission of the Final EIA Report and EMPr to LEDET

All comments received will be incorporated into the Comments and Response Report that will be attached to the Final EIA Report. The Final EIA Report (including the EMPr) will then be submitted to LEDET to inform their decision regarding environmental authorization of the proposed development.

7.4 Specialist Studies Terms of Reference

7.4.1 Wetland Assessment

The proposed ToR for the study is as follows:

- Delineate the wetland and riparian areas;
- Classify the watercourse according to the system proposed in the national wetlands inventory if relevant;
- Undertake functional and integrity assessment of wetland areas within the area assessed as specified in General Notice 267 of 24 March 2017;
- Provide a brief opinion as to the sensitivity of the terrestrial areas on site;
- Undertake an impact assessment as specified in the NEMA 2014 Regulations;
- Undertake a risk matrix and assessment as specified in General Notice 509 in published in the Government Gazette 40713 of 24 March 2017;
- Recommend suitable buffer zones, both generic and scientific as specified in General Notice 267 of 24 March 2017, following Macfarlane *et al* 2015;
- Discuss appropriate mitigation and management procedures relevant to the conserving wetland areas on the site; and
- Compile a wetland rehabilitation plan.

7.4.2 Fauna Assessment

Detailed investigation into the status of fauna species, including general species diversity; habitat suitability for species; potential presence of TOP species will be provided by the faunal specialist. The scope of work will also include:

- Identify faunal species of significance;
- Impacts that might result from the proposed development;
- Identify potential impacts on the identified faunal species;
- Provide mitigation measures for the impacts identified; and
- Recommend other ecological studies based on the findings of the faunal study.

7.4.3 Vegetation Assessment

Detailed investigation into the status of the vegetation, including general floristic diversity; general status of

vegetation; status of primary vegetation; habitat suitability for Red Data flora species; potential presence of Red Data flora species will be provided by the vegetation specialist. The scope of work will also include:

- Impacts that might result from the proposed development;
- Identify potential existence and impacts on the floral species;
- Provide mitigation measures for the impacts identified; and
- Recommend other ecological studies based on the findings of the vegetation study.

7.4.4 Heritage Impact Assessment

The heritage impact study will include:

- Desktop study;
- Site visit;
- Analysis of potential impacts;
- Development of recommended management actions; and
- Report compilation.

7.4.5 Palaeontological Assessment

The heritage impact study will include:

- Desktop study;
- Analysis of potential impacts;
- Development of recommended management actions; and
- Report compilation.

7.5 Impact Evaluation Methodology

The **significance** of an impact is defined as a combination of the **consequence** of the impact occurring and the **probability** that the impact will occur.

Criteria used to determine the consequence of the impact – Direct, indirect and cumulative impacts of the issues identified through the scoping study, as well as all other issues identified in the EIA phase must be assessed in terms of the following criteria:

The following methodology and criteria were used in assessing impacts related to the proposed development.

- The **Nature**, a description of what causes the effect, what will be affected, and how it will be affected.
- The **Extent**, wherein it is indicated whether:
  - 1 is limited to the immediate area or site of development
  - 2 is the local area

- 3 is regional
- 4 is national
- 5 is international

- The **Duration**, wherein it is indicated whether:

  - The lifetime of the impact will be of a very short duration (0–1 years) – assigned a score of 1;
  - The lifetime of the impact will be of a short duration (2-5 years) - assigned a score of 2;
  - Medium-term (5–15 years) – assigned a score of 3;
  - Long term (> 15 years) - assigned a score of 4; or;
  - Permanent - assigned a score of 5.

- The **Magnitude**, quantified on a scale from 0-10, where a score is assigned:

  - 0 is small and will have no effect on the environment;
  - 2 is minor and will not result in an impact on processes;
  - 4 is low and will cause a slight impact on processes;
  - 6 is moderate and will result in processes continuing but in a modified way;
  - 8 is high (processes are altered to the extent that they temporarily cease); and
  - 10 is very high and results in complete destruction of patterns and permanent cessation of processes.

- The **Probability** of occurrence, which describes the likelihood of the impact actually occurring. Probability is estimated on a scale, and a score assigned:

  - Assigned a score of 1–5, where 1 is very improbable (probably will not happen);
  - Assigned a score of 2 is improbable (some possibility, but low likelihood);
  - Assigned a score of 3 is probable (distinct possibility);
  - Assigned a score of 4 is highly probable (most likely); and
  - Assigned a score of 5 is definite (impact will occur regardless of any prevention measures).

- The **Significance**, which is determined through a synthesis of the characteristics described above (refer formula below) and can be assessed as low, medium or high.

  - The status, which is 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 determined by combining the criteria in the following formula:

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

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

P = Probability

The significance weightings for each potential impact are as follows:

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

Practicable mitigation and enhancement measures are recommended and impacts are rated in the prescribed way both without and with the assumed effective implementation of mitigation and enhancement measures. Mitigation and enhancement measures are either:

- **Essential**: measures that must be implemented and are non-negotiable; and
- **Best Practice:** recommended to comply with best practice, with adoption dependent on the proponent's risk profile and commitment to adhere to best practice, and which must be shown to have been considered and sound reasons provided by the proponent if not implemented.

7.6 Cumulative Impacts

Anthropogenic activities can result in numerous and complex effects on the natural and social environment. While many of these are direct and immediate, the environmental effects of individual activities (or projects) can combine and interact with other activities in time and space to cause incremental or aggregate effects. Effects from disparate activities may accumulate or interact to cause **additional** effects that may not be apparent when assessing the individual activities one at a time. Cumulative effects can also be defined as the total impact that a series of developments, either present, past or future, will have on the environment within a specific region over a particular period of time.

The International Finance Corporation (IFC) states that environmental assessment should include consideration of *"… cumulative impacts of existing projects, the proposed project and anticipated future projects."* For the purposes of this report, cumulative impacts are defined as 'direct and indirect impacts that act together with current or future potential impacts of other activities or proposed activities in the area/region that affect the same resources and/or receptors.

Cumulative impacts can be distinguished as follows:

- **Cumulative Impacts of Existing Activities:** It is reasonably straightforward to identify significant past and present projects and activities that may interact with the project to produce cumulative impacts, and in many respects, these are taken into account in the descriptions of the biophysical and socio-

economic baseline.

- **Potential Cumulative Impacts of Future Activities:** Relevant future projects that will be included in the assessment are defined as those that are 'reasonably foreseeable', i.e. those that have a high probability of implementation in the foreseeable future; speculation is not sufficient reason for inclusion. Such projects may include those for which EAs have already been granted, that are currently subject to EA applications or that have been identified in an IDP of the relevant local municipality.

To define the level of cumulative impact, it is critical to look beyond the geographical boundaries and environmental impacts of a single development on the environment and consider the area of influence of the specific project as well as other developments currently in or proposed in the area and their understood impacts and area of influence. It may be that impacts experienced as a result of a single development are not considered to be significant, but when considered as part of a cumulative impact assessment, these require mitigation.

The assessment methodology proposed in this section of the report seeks to provide a practical means of assessing cumulative impacts as part of the EIA and minimizes deviations from the methodology proposed for the project specific impact assessment. Key considerations for the application of this methodology are:

- The cumulative impact assessment will need to be undertaken with consideration given to developments that may have contributed to cumulative effects in the past, may be contributing or are anticipated to contribute in the foreseeable future. This needs to be relevant to the timeframe within which impacts are to be experienced as a result of the project itself (i.e. all phases for which the project specific impact assessment is being undertaken – this will need to include post closure activities and monitoring). Given that the baseline environment will already be impacted on by the historical and current contributors to the cumulative impact, it is only necessary when undertaking the cumulative impact assessment to place an emphasis on an identified future cumulative baseline environment.
- Cumulative impacts may not be applicable to all specialist disciplines. Specialists will advise and justify where they believe the project related impacts will be confined to the project area and not subject to or contributing to impacts in the broader area of influence as a whole. For example, if the project area is confined to a water catchment which is not anticipated to be impacted on by other developments (past, present or foreseeable future) then a cumulative impact assessment need not be considered for this environmental aspect.
- A cumulative impact assessment will need to be undertaken for a specific area of influence which will be determined by the impact itself and the baseline environment in which it is proposed e.g. if project specific biodiversity impacts are similar in nature to those experienced 40 km away, but the two areas are linked in terms of biodiversity functioning and/or the cumulative impact will be a significant depletion of a particular species, then the area under consideration for the biodiversity cumulative impact assessment must address the entire area between the two sites. This will vary across specialist

disciplines and therefore a single area of influence for the cumulative impact assessment cannot be set and will be advised by the specialist concerned.

- The baseline environment for the cumulative impact assessment differs from that of the project specific baseline e.g. the air quality baseline for the project will differ from the air quality baseline that is considered for a cumulative impact assessment where a number of mines are likely to be developed within a region in the future and all contributing to a cumulative ambient air quality. While a difference in defining the cumulative baseline is noted, the impact assessment methodology to be employed will remain unchanged.
- The cumulative impact assessment can only be undertaken where information is readily available to do so and as such will only be an initial assessment of the likely cumulative impact in terms of knowledge available at the time of the assessment. As it is critical to understand the information sources and limitations that exist, each specialist will be required to provide an outline on what their information sources are for the assessment and where limitations exist.

For the most part, cumulative effects or aspects thereof are too uncertain to be quantifiable, due to mainly lack of data availability and accuracy. This is particularly true of cumulative effects arising from potential or future projects, the design or details of which may not be finalised or available and the direct and indirect impacts of which have not yet been assessed. Given the limited detail available regarding such future developments, the analysis will be of a more generic nature and focus on key issues and sensitivities for the project and how these might be influenced by cumulative impacts with other activities. The proposed approach for the cumulative impact assessment will be as follows:

- From the EAP's knowledge of the project area and anticipated impacts associated with the project, the likely geographical extent that needs to be considered for the cumulative impact assessment for the particular discipline will be identified. This may be refined as additional information becomes available through the life of the study and/or through a better understanding of linked impacts between various disciplines.
- Sources of cumulative change will be identified – what is important to note, is that this can be done historically and with consideration of the present state (which will be done as part of the project specific baseline data collection, unless a larger area of influence needs to be considered) and then further information with regard to proposed developments in the area will be considered. The future developments that will need to be incorporated into each study are:
    - Those for which EAs have already been granted;
    - Those that are currently subject to environmental authorization applications and for which there is currently information available; and
    - Those forming part of Provincial or National initiatives.
- Where further developments are identified, but are not yet at the stage of planning as detailed above,

these will be noted as excluded from the current cumulative impact assessment.

- The cumulative baseline environment will be defined.
    - In most cases only qualitative assessments of cumulative impacts will be presented, i.e. they will not be formally rated.

8 Conclusions and Recommendations

8.3 Conclusions

In order to apply for an environmental authorization for the construction and operation of the Lefakong Smart City, a Scoping Study is being undertaken in terms of the EIA Regulations, 2014, promulgated in terms of NEMA. The objectives of the study are to:

- Identify stakeholders and inform them of the proposed activity and the S&EIR process;
- Provide stakeholders with the opportunity to participate effectively in the process and identify any issues and concerns associated with the proposed activity;
- Identify areas of likely impact and environmental issues that will require further investigation during the Impact Assessment Phase; and
- Develop ToR for specialist studies to be undertaken.

The conclusions of the Scoping Study are as follows:

This report details the findings of a Scoping Study undertaken as part of the EIA process for the "on-site" activities for the proposed development. The Scoping Study included a technical investigation and a public participation component to identify key issues associated with the project. The alternatives that were identified during the scoping phase will be evaluated during the EIA phase. The identified environmental issues will need further assessment in the environmental impact assessment.

The following key environmental issues associated with the construction and operations of the Lefakong Smart City have been identified:

- **Air quality –** the development may generate emissions such as air pollutants (health related), odours from inappropriate waste handling and dust (nuisance) that significantly affect air quality;
- **Noise –** the construction and operation of the development may increase noise levels in surrounding areas due to waste delivery trucks and on-site activities and machinery;
- **Social-economic –** the construction of the development may have adverse socio-economic impacts (e.g. on surrounding property values), influx of people to the area, potential crime and impact on safety or benefits (e.g. continued employment at the facility and regional economic growth);

- **Traffic –** The proposed land development borders R579 to the North West. The development may have significant impact on the existing road network, traffic flows and other road users.
- **Visual –** The proposed project is considered a large-scale development and will completely transform the site from its current state to a mixed-use residential development. Very few of the existing features will remain and the grassland, which contributes to the current site character, will be removed and replaced by buildings, roads and open spaces.
- **Vegetation –** The proposed development site falls within the Eastern Temperate Freshwater Wetland vegetation type with small areas located on Carletonville Dolomite grassland vegetation type. The surrounding vegetation was also modified, with small portions of secondary grassland present north, east and south-east of the site.
- **Fauna –** Due to the fact that animals are mobile, they may only be transient through the site and may not reside on site. As a result of the historical transformation and disturbances that have occurred on the site including the anthropogenic elements, natural habitats on the site are limited. It is thus expected that the areas are more likely to be utilised by generalist species or species traversing the area.
- **Wetland** – The proposed development site is situated within Quaternary Catchment B51H. Quaternary Catchment B51H falls within the second Water Management Area (WMA), the Olifants WMA. The watercourse forms the headwaters of a tributary of the Ngwaritsi River. This river flows into the Olifants River approximately 43km northwest of the site. Major rivers within this quaternary catchment include; Elands, Wilge, Steelpoort, Olifants, Letaba.
- **Heritage** – As per a site screening of heritage aspects on site, no heritage and cultural aspects of significance was identified on site.

8.2 Recommendations

- As the activity proposed for development requires an environmental authorization, Envirolution Consulting will conduct a streamlined EIA process compliant with the EIA Regulations, 2014 (as amended) for the construction and operation of the Lefakong Smart City on Portions 7, 9 of the Farm Uitkyk 851KS and Parcel 3 of Mohlwarekoma Township Limpopo Province. In order to assess further the potential impacts that are likely to occur on site, the following specialist studies will be required for the Impact Assessment Phase:

  - Wetland
  - Fauna
  - Vegetation
  - Heritage
  - Palaeontology

Specialists will focus on both the construction and operational impacts that may emanate from the proposed development for the EIA process.

8.3 Way Forward

Copies of the Draft Scoping Report are available for review at the 13 October 2023. Upon request, hard copies of the Draft Scoping Report can be delivered to the stakeholders.

Stakeholders will be invited to attend a **Public Meeting** once the **Focus Group Meeting** is held with the ward councillor where the information presented in the Scoping Report will be discussed and additional concerns and issues can be raised with the environmental consultants and the project team. Stakeholders will be notified of this public meeting that is anticipated to be held during the Draft Scoping Report review period.

The public is invited to review this Draft Scoping Report and send written comments to: **Nomusah Mapheka** of Envirolution Consulting by any of the following means:

By **Fax:** 0861 62 62 22

Email Address: nomusah@envirolution.c.o.za

By Post

Envirolution Consulting (Pty) Ltd

PO Box 1898

Sunning hill, 2157

By Hand:

Vista Place Suite 2

No 52 Cnr Vorster Avenue & Glen Avenue

Glenanda

Johannesburg

Stakeholders will be provided with a 30-day comment period. For comments to be included in the Final Scoping Report, they must reach the above contact person no later than **[INSERT DATE HERE].**

Issues and concerns identified in the Scoping Phase will assist in focussing the EIA and will be used to refine the ToR for specialist investigations during the Impact Assessment Phase of the EIA process. Stakeholders are therefore urged to submit written comments. Once stakeholders have commented on the information presented in the Scoping Report, it will be finalised and submitted to LEDET.

Appendices

The following appendices are attached to this report:

Appendix A: Maps

- A1: Locality Map
- A2: CBA Map

Appendix B: Site Photographs

Appendix C: Conceptual Layout

Appendix D: Public Participation

- D1: Proof of Site Notices
- D2: IAP Notification
- D3: Advertisement
- D4: IAP Correspondence
- D5: Comments and Response Report
- D6: IAP Database

Appendix E: Specialist Reports

Appendix F: EAP Declaration and Affirmation

Appendix G: Additional Information